CASE STUDY: AllSun Tracker — A Dual-Axis Tracker for Homes

Electrical Products & Solutions™

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The Purchasing Guide for Electrical Contractors

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FEATURE: MITSUBISHI ELECTRIC

BEFORE YOU PURCHASE A UPS SYSTEM: FIVE QUESTIONS YOU MUST ASK YOUR VENDORS

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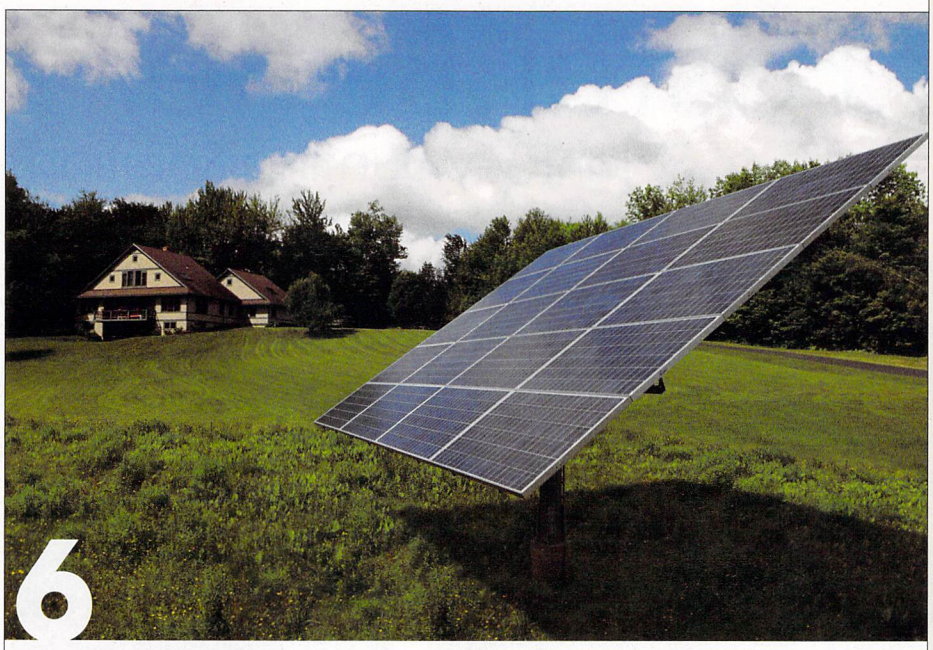

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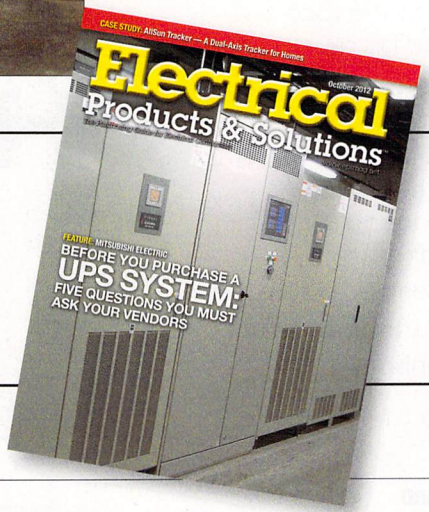
Mitsubishi Electric UPS System
Photo courtesy of Mitsubishi Electric



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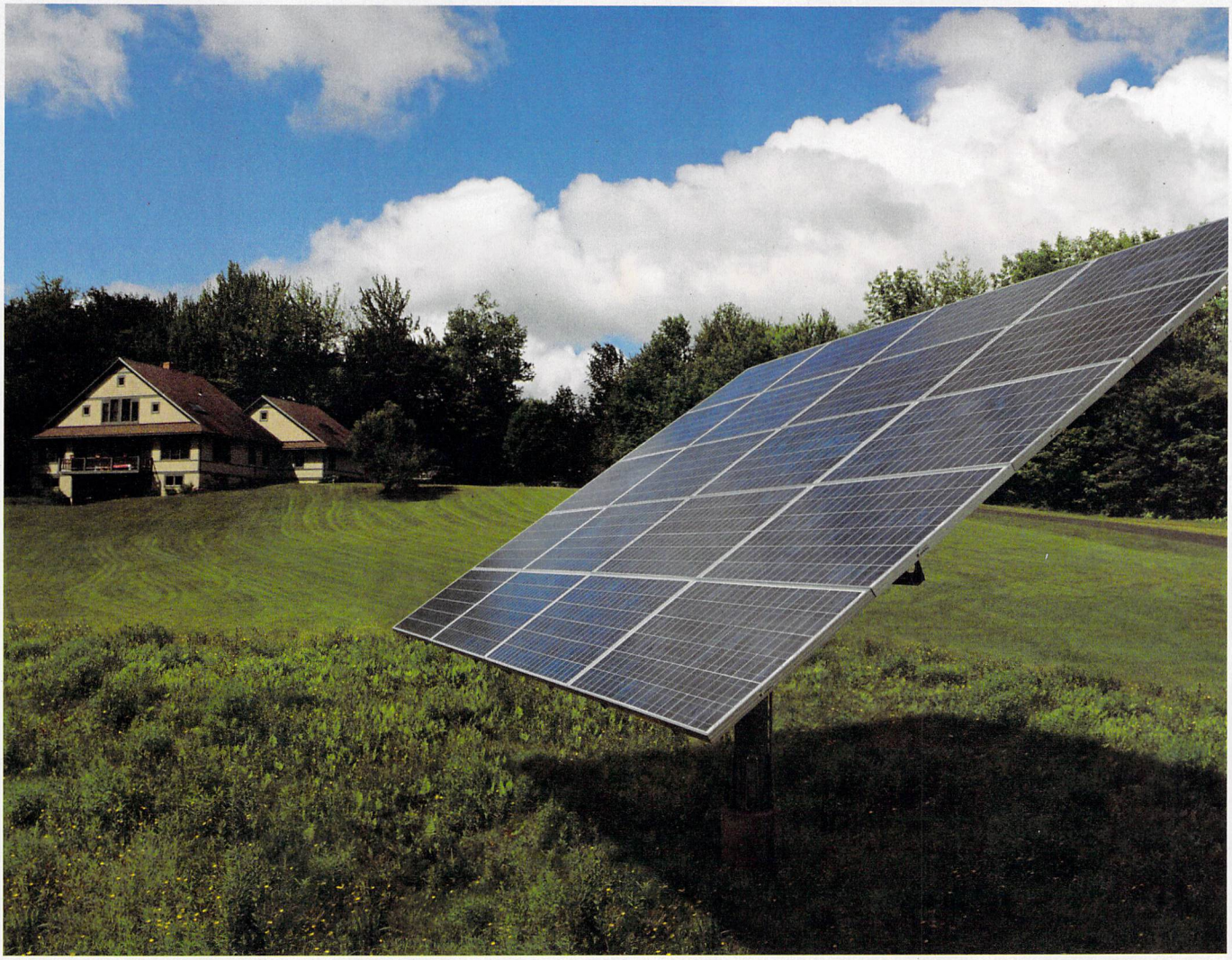
A Dual-Axis Tracker for Homes

By Rich Nicol of SolarTech



SOLAR ELECTRIC INSTALLATIONS come in a few different forms, and as a PV installer for several years, I used mainly roof mounts and fixed pole mounts. My business was doing well, and my customers were satisfied with our work. Interest in a tracking system would come up occasionally, but living in the Northeast with a rough climate most of the year, I didn't trust the reliability of the tracker systems that were available in the past.

But one day I was asked for a quote from a customer on a PV system to meet the electricity needs of their home. I and another local installer had come up with the same number. To our surprise, we were out-priced by the dual axis AllSun Tracker. For the power production, ease of installation, and functionality, there was no way we could compete.

What was this tracker? How was it such a good deal for both installer and customer? I wanted to know more and this was as easy as a visit to the manufacturer of these tracker systems, AllEarth Renewables.

It turned out they were interested in new dealers and I was interested in their product. But I needed to play with the numbers first: cost per watt to install vs. a standard pole mount; design time; installation time; power production. In sum, I wanted to know the Continued on page 8

cost per first year kW hrs because this tracker was going to cost a bit more but produce more power than a fixed mount. Would installing this product work for my business? Would it benefit our customers?

The numbers proved it: yes, we would all benefit. My experience installing several tracker systems verifies that the cost of a tracker is nearly the same as a fixed pole mount. There's no design time because the AllEarth engineers figured out the system completely. The installation time is definitely less than fixed pole mounts because the whole system ships as a complete package directly to the job site. Very soon the customer is producing power from the sun. Lastly, electricity generated from the tracker is 35-40% more than a roof mount or a fixed pole mount because the array follows the sun throughout the day.

Furthermore, the reliability of this tracking system exceeded my expectations. Unlike other trackers, the AllSun models have been designed to be "intelligent" systems with GPS and wireless technology that responds to any harsh weather. In high winds, they lay flat rather than stand up like a big sail. In heavy snowfall, they Continued on page 12

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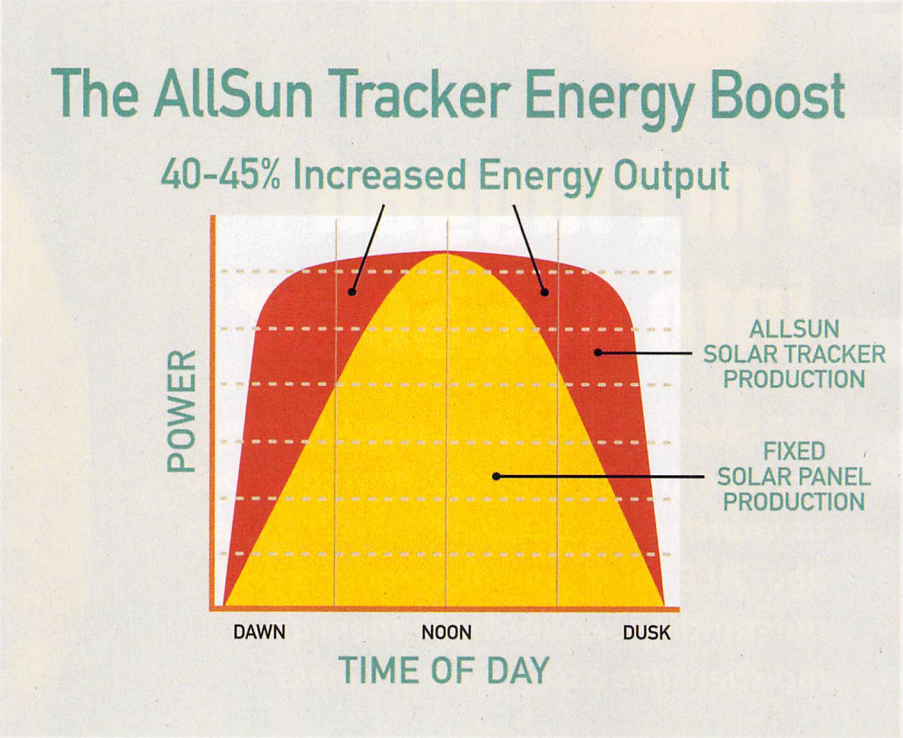
tip and dump the snow load. The trackers also come with a monitoring system through which their performance is displayed online for the life of the tracker. It is then monitored by the manufacturer, customer, and installer.

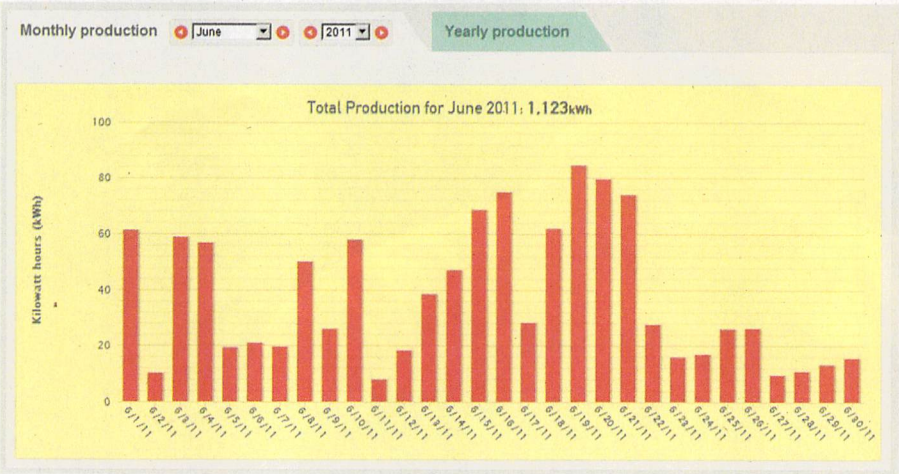
My business has grown by 25% as a direct result of adding these trackers to my design options. Customers want to reduce their reliance on traditional methods of power production, but they also want the best product they can have to produce the most power possible. When they learn about a cost-effective tracker, they go for it.

Easy Installations

For the installer, one of the best things about a complete tracker package is the time saved getting a job done. From project proposal to job completion, my planning and installation time is significantly reduced.

Installation time is shortened because the tracker install is predictable. Though there are two models, Continued on page 14





the installation process is the same. As a business owner, this is great. I have more time to devote to more systems during the construction season here in the Northeast, and so my business has grown.

My planning and design time is also reduced when I go with a tracker. There's less planning time because my proposals for customers are easy to write and explain. And there is no design time. When I plan a custom design, I have to source and purchase all of the individual parts and pieces, checking and rechecking my orders from multiple suppliers. With an AllSun Tracker, I call AllEarth, order the model I need, and the next day it ships to my business. Overall, I save about six hours of design and planning time per job. That's six hours I can add to sales and installation for another job.

Another benefit of installing this dual-axis tracker comes from the perspective of liability. As an industry, PV engineers devote considerable effort to ensuring a roof mount does the least amount of damage to a home. And in many cases, roof mounts really won't work for the customer because the roof is old and will need to be replaced soon or, even more common, is the fact that very few rooflines face south. With a tracker, there's no roof work. And no roof work means no scaffolding, no penetrations, no obstacles like dormers or skylights—being off the roof with a complete system to install makes a job easy and productive.

The trackers simplify and streamline solar: from design and installation right through to a working PV system with a good return on investment that customers can rely on for years to come. ❑