

esidential trackers aren't for every customer, but they are far from a novelty, and having them among your menu of sellable system options could expand your pool of available jobs.

Like much of the solar industry, technology in this area has improved. The first such systems on the market to fill this niche were unreliable and perhaps cast doubt on the entire concept in the minds of some. But things change, and proven systems are now available. AllEarth Renewables is one such provider that is solely focused on residential and small commercial tracker projects and has shipped more than 3,800 systems since 2009.

"We got into this space because of questions about trackers, and we are proving there is a market and a way to design a high-quality, reliable system," says Andrew Savage, chief strategy officer of AllEarth Renewables. "It will always be a niche, but the solar market is huge, and we just want a niche that serves the type of markets that make sense for a tracker." So what are these markets of which he speaks?

CUSTOMER VALUE

The first customer for this is obvious — the roof of this home or business just doesn't work. There are awkward structural elements or not enough space for the desired energy output or maybe a solar install would void a roof warranty. You know the litany of reasons some roof sites just won't do. But all hope is not lost provided the customer has an appealing ground-mount options to choose from.

Local policies also factor into the tracker equation.

"Say you have a net metering cap of 100 kW. An installer wants to be able to offer customers as much production as possible under that cap," Savage says. "A tracker can do that, around 1.7 times or more in some regions and provide the most amount of energy under a certain policy regime."

Or maybe there are kWh performance-based incentives for PV systems in an area or favorable net metering rates on what is sold back. Trackers can add more value in these situations.

"Does a tracker help them make a sale? Sometimes we find that installers just want a tracker in their quiver of options to go to a customer with," Savage says. "For some sites, there might not other-

THE VALUE OF RESIDENTIAL SOLAR TRACKERS FOR INSTALLERS AND CUSTOMERS



wise be a viable proposal without a tracker option."

A tracker is generally 10 to 15 percent more expensive than a fixed system. But as one installer reported, a fixed system he installed is generating 1.4 kWh per year per watt, while the AllEarth trackers installed next to it hit 1.86 kWh per year.

"Customers are essentially paying 15 to 20 percent less for their energy by paying more up front, and then by getting a tax credit and any additional incentives. Spending a little more up front leads to a longer gain in the tail end of the investment," he says.

INSTALLER VALUE

Maybe the top benefit from installing a tracker product is job uniformity. Regardless of which AllEarth tracker product is chosen, the pole mount and tracker mechanics do not change. Install time is either equal to or quicker than most rooftop installs. Even the ground conditions don't play much of a factor because the pole-mounted tracker requires no site grading — screw it into the ground or insert into a precast base, and it's the same every time.

The entire system also can be shipped straight to the jobsite.

"Our installers don't deal with inventory or sourcing. It is a significant cost we can take out of the equation," Savage says.

The complete system shipping to the site also removes a lot of time and effort in terms of off-site chores, like designing each individual system or procuring products. What's the slope? What's the pitch? None of these questions factor into your day.

AllEarth Tracker specs

- S20 Standard tracker, fits 20 panels. Common for residential.
- S24 Standard tracker, fits 24 panels. More for commercial.
- L20 Newest tracker, fits 20 high-density panels. Used more for commercial.
- They all can ship as a full system (modules, inverter, etc.) or just the tracker components.
- AllEarth Trackers come with a 10-year warranty.

Maybe most importantly, because of all the bundling and uniformity, these trackers can often be installed at a competitive price.

"We can ship directly to the job site; we have free shipping; we can ship the next day they order it. So, they can get a deal in on time or don't have to carry inventory, and it's a really pretty simple almost Erector Set-like operation," Savage says. "Once they get good at it, they can do a tracker in a single day."

Mainly, does a customer have a little bit of land and is their roof not going to produce as much as they want or is it not viable?

"That happens a lot," Savage says. "So many customers are turned away because they don't have a viable or good roof." *#*

Chris Crowell is the managing editor of *Solar Builder*.