

MARKETS & POLICY

In Texas, MP2 Energy Sees the 'Shape' of Rooftop Solar as Value to Substitute for Net Metering



The SolarCity partner explains how residential PV in a state without NEM works to mitigate risk and fill out the generation mix.

by Jeff St. John
July 22, 2016

When SolarCity announced last year that it was moving into Texas, solar industry watchers scratched their heads. How, they asked, could a rooftop solar installer put together a money-making proposition for itself and its customers in a state without net metering?

The answer lies with its partner, MP2 Energy. The Texas-based energy company has joined SolarCity in its first rollout in Dallas last year (<http://www.solarcity.com/newsroom/press/solarcity-mp2-energy-offer-solar-texas-homeowners-less-utility-power-without-local>), and in last month's move into the Houston (<http://www.solarcity.com/newsroom/press/solarcity-expands-houston-area-launches-popular-solar-service-first-time>) market. Together, they've created a customer offering that closely matches net metering, by paying the retail rate for solar power in excess of what the customer consumes, and locking in rates for the power they do buy from the grid in 12- or 24-month terms.

It's an unusual offer in a state where, outside a few vertically integrated utilities like Austin Energy (<http://www.greentechmedia.com/articles/read/How-Austin-Energy-Aims-to-Reach-Solar-Plus-Storage-Integration-at-14-Cents>) or San Antonio's CPS Energy (<http://www.greentechmedia.com/articles/read/Will-the-Solar-Industry-Get-Behind-CPS-Energys-Alternative-to-Net-Metering>), solar incentives for customers are few and far between (<http://www.greentechmedia.com/articles/read/Solar-ITC-Extension-Could-Fan-the-Fires-of->

Net-Metering-Battles). Texas also has some very low electricity prices, driven by today's low natural-gas prices and competition amongst energy retailers in the state's fully deregulated electricity market.

That's limited rooftop solar growth in what otherwise could be a hot market, as the state's growth in utility-scale solar (<http://www.greentechmedia.com/articles/read/solar-will-replace-nearly-all-retiring-coal-in-texas>) and its low PV prices (<http://www.greentechmedia.com/articles/read/Texas-Solar-Shoppers-Seeing-Lowest-Prices-in-the-US>) attest. What makes the SolarCity-MP2 deal pencil out is MP2's ability to tap the benefits of distributed PV, as both an energy retailer and "qualified scheduling entity," or QSE, able to sell and buy energy in the energy markets run by state grid operator ERCOT, according to Maura Yates, the company's vice president of sustainability.

MP2 manages about 1.5 gigawatts of power, including large-scale solar and wind generation assets, as well as about 50 megawatts of natural-gas-fired peaker plants, she said. It also does demand response, and serves as a retail energy provider for commercial and industrial customers including Southern Methodist University and Rice University, oil and gas facilities, and manufacturing sites.

Until recently, however, "We haven't served the residential market, because we're not in a race to the bottom" in terms of competing against other retailers on low prices, she said. "We did say we were going to enter residential when it made strategic sense...and it's the partnership with SolarCity that makes it make sense."

Specifically, rooftop solar provides a valuable resource in the form of a predictable source of generation during the times when Texas energy companies need it most -- primarily on hot summer days, when the state's wholesale energy prices tend to spike the highest, and show the most volatility.

And, unlike the blocks of power that Texas energy companies must buy on the wholesale market to cover their commitments during those high-risk times, solar generation comes in nice bell-curve shapes that more closely match the energy consumption patterns of the customers that MP2 serves, she said.

It makes sense to trade energy in blocks, or set amounts of power deliverable over specific increments of time. But power consumption rises and falls in curves, not blocks. That forces electricity retailers to create "shapes" through quickly buying and liquidating market positions, using complicated mathematical equations to hedge risk throughout the process, she said.

"Shape is the most valuable thing that solar has, and it's more valuable in ERCOT than any other market we've worked in." Those markets include Illinois, Pennsylvania and Ohio, she said. "When you start trending where volatility comes, when risk comes in the market, it's highly correlated with when solar is in the market as well."

“The shape brings value in almost every level of the market,” she said. “On the retail side, you can extract more value, because I’m able to reduce some of my peak distribution charges.” That’s because rooftop solar is generated at the distribution grid level, and doesn’t need to be transported across the state’s transmission grid from far-off generators, which adds costs to the power delivered to end customers.

“But on the wholesale side, that shape brings a lot of value from a sheer optionality standpoint,” she said. In other words, “When I’m a retailer and looking at a bilateral deal with a generator, the fact that I can purchase shape, rather than going to the market and buying a block -- that’s a big deal.”

There are other Texas retail electricity providers with net-metering-like offers, she noted. But most limit how much net exported power they’ll pay for in a month, or force customers to forfeit any unused solar power at the end of each month. MP2 doesn’t cap for its program and allows customers to carry forward excess generation through the course of a year, like most net metering programs across the country.

That’s likely because they’re not in a position to use the relative certainty of rooftop solar production curves to manage risk in their portfolio as MP2 does, she said. “We don’t see ourselves as energy retailers -- we see ourselves as energy risk managers.”

Taking this approach to rooftop solar seems more fruitful to Yates than seeking out changes to state solar incentive policies, such as lobbying for adding capacity markets to the state’s energy-only market (<http://www.greentechmedia.com/articles/read/SunEdison-And-The-Texas-Solar-Non-Miracle>) regime, as she used to do in her previous job as government affairs director for the now-bankrupt SunEdison.

“Texas and ERCOT are probably better equipped to take on solar than any other market in the country,” she said. “And when you look at risk,” and matching solar generation profiles against it, “we think solar is better than anything we can get on the market.”



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