

Here Comes the Sun

Tennessee's fledgling solar industry spread its wings so far that TVA flinched

by Rikki Hall

TWO WEEKS AGO, deluged by applications, TVA announced it was suspending new enrollments in Generation Partners, the program that allows homeowners and businesses to sell renewable power to the utility. Within days, leaders of the solar industry arranged a meeting with the federal utility, got them to open the program back up for projects under 200 kilowatts and began what Southern Alliance for Clean Energy executive director Steve Smith called "a very good dialogue" regarding larger projects.

"What we saw at this meeting was the solar industry exercising a little political clout," Smith says. That the solar industry has political clout at all is a noteworthy development. After last week's meeting, Smith and representatives from three solar companies took stock of employment in the industry, and it dawned on them that solar power has likely surpassed coal mining in jobs for Tennesseans. Sharp Electronics employs 500 at its manufacturing facility in Memphis, and thousands more manufacturing jobs are on the way. Installers who employed two or three people a year ago now have a dozen on the payroll, and competitors are springing up with all the work they can handle.

Robbie Thomas started Energy Efficiency Tennessee in February 2009. Anyone who watched President Obama's first State of the Union address knew solar incentives were going to crank up. They were ramping up already under President Bush, and Obama needed to stimulate the economy to weather a

Anyone could see it coming; Thomas was ready. A retired Navy vet with command experience, Thomas had successfully revived a friend's struggling business and decided to go into business for himself.

He now employs 10, from grant writers to technicians, and supports local contractors and crews. His company does residential and commercial solar installations, plumbing and electricity, funding and labor. When he realized new federal incentives combined with GP pricing made a one-megawatt solar array profitable, he bought a former mobile home lot on 11E near Strawberry Plains. Most of the six acres will be lined with solar panels, ready to feed current to the grid in July.

TVA would pay him about \$3 million over 10 years for power under GP pricing, but he is among the four new applicants proposing an array larger than 200 kilowatts, so he has yet to work out a contract. The largest existing GP array is 144 kilowatts; the largest allowed by the program is one megawatt, and Thomas is the only applicant proposing that much generation and the only one whose primary purpose is generating electricity. "There won't be another pure generation facility," Thomas says. "That's the way it should be, this is just a fluke that happened."

In February, TVA proposed new guidelines for Generation Partners and asked distributors to adopt them by July 31. Some already have, but KUB has not. Under the original rules, applicants had to have their system installed and certified before applying, but the new rules allow preliminary approval to make

Thomas expects to be grandfathered in because both TVA and KUB were aware of his plans prior to February, which Steve Noe of KUB confirms. Noe says KUB agreed that if Thomas could have his array operational prior to the deadline, they would wait to sign the new agreement. In the first seven years of Generation Partners, the program attracted 201 partners and 1.5 megawatts of capacity, barely a speck against the 33,000 megawatts in TVA's system. Last year, partners fed over 500,000 kilowatt-hours to the grid. TVA pays 12 cents over retail plus a small adjustment. Generously round that up to a quarter per kWh, and TVA paid GP participants \$125,000 last year.

When June brought what TVA spokesman Mike Bradley calls "a huge flurry of project proposals," TVA saw its budget for power purchases potentially increase by an order of magnitude. As a pilot program, the GP budget is capped at \$50 million over its lifetime. Thomas alone would not put them near the cap, but the question for TVA was how many projects like his might be out there? TVA suspended enrollment on June 16. On June 23 they said all projects under 200 kilowatts could proceed, and promised a quick resolution on the remaining applications. The force behind the flood of applications was \$9 million in federal solar installation grants allocated under the 2009 Recovery Act. Jeff Cannon of Green Spaces, a Chattanooga non-profit that helps building owners fund clean energy projects, says there was a year delay in the federal stimulus funds reaching Tennessee. Projects built around Recovery funding had to wait as the state formed the Tennessee Solar Institute, a collaboration among UT, ORNL and the Department of Economic and Community Development. It started up this spring, and on June 1 it began to make those installation grants available. Ryan Gooch, the state's director of energy policy, says TSI will administer state

Cannon says clients have traditionally seen more savings from upgrading a building than installing a solar array, but the federal money changes the equation. The opportunity lasts only until December 31, when the grants revert

back to tax credits. "Tax credits do almost nothing for small business owners, especially in a down economy," Cannon says.

Several solar projects are under way that do not rely on the full brew of incentives currently in play. A five-megawatt production array in West Tennessee

does not require GP pricing. Wampler's Sausage in Lenoir City built a 30-kilowatt array before stimulus money was available, and they plan to expand tenfold. Steve Johnson of Lightwave Solar says, "Wampler's broke the ice. Dozens,

scores of businesses will be making this investment."

Smith of the Southern Alliance for Clean Energy says, "We are rapidly approaching the day when solar can compete on equal footing."

TVA says it is eager to increase solar capacity, despite the brief suspension thereof. "We are extremely pleased that we have this much interest," Curtis says. Solar leaders feel confident an agreement will emerge from discussions with TVA that benefits both production arrays and customers generating power to offset their own demand.

Gooch says the Pew Center ranks Tennessee's solar industry among the top three in the nation, and officials in government and industry say the Volunteer State is positioned at the forefront of the clean-energy economy. Robbie Thomas sounds appropriately sheepish calling the sales office of the old mobile home lot "an education center." "We will bring in vo-tech students, and the array is viewable from the highway, so people will see what we are doing," he says. But it is what he taught TVA that matters most: Solar generation has finally become profitable.