



Seeking sunshine: WV communities band together to go solar

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The idea of "going solar" may seem like a daunting task to some, but West Virginians across the state are forming solar co-ops with their neighbors to make the switch together.

With the help of WV Sun, a nonprofit organization focused on solar project development and policy advocacy, communities are teaming up to make the switch throughout the state.

WV Sun first helped kickstart solar co-ops in Monroe and Fayette counties in the fall of 2014. The group has also hosted co-op meetings in Morgantown and Wheeling this month, with a Charleston program scheduled for May 19.

WV Sun is an affiliate of the Washington, D.C.-based Community Power Network, which unites grassroots, local, state and national organizations working toward renewable energy projects and policies.

"We facilitate the process but it's really a community-driven process," said Emily Stiever, Community Power Network chief of staff. "It's really based on what folks want."

What is a co-op?

Essentially, Stiever said, a solar co-op is "a group of neighbors who go through the solar process together."

When people sign up for the co-ops, Stiever explained, participants have their roofs inspected to see if they are a good fit for solar power, though they have no obligation to commit at that point. The co-op then works to pick an installer through a competitive bidding process, and those who are eligible for solar power decide if they want to sign a contract for the installation.

"Not everyone in a co-op will decide to go solar," Stiever said. "(But) even if they don't go solar, they've learned and they understand it."

Each person who decides to go solar through a co-op owns his or her own individual solar PV system, and those who decide to participate can take advantage of a group discount — anywhere from 15-25 percent from the installer.

And this discount comes in addition to a 30 percent federal tax credit from the installation costs as well as net-metering. The tax credit is set to expire in 2016. Net-metering credits solar energy system owners for the electricity they add to the grid.

Some business owners also have the ability to take advantage of a grant to cover as much as 25 percent of their installation costs through the U.S. Department of Agriculture's Rural Energy for America Program.

But Stiever says there is "no one size fits all" cost estimate for installing solar PV systems.

"The cost of the system will vary a lot depending on how big of a roof you have, how much electricity you use and what your budget is," Stiever said.

Jamie Doyle, vice president of Cleveland, Ohio-based AAT Solar, which installed solar PV systems for Fayette County Solar Co-op participants, agreed that the price is based on a variety of factors. However, he said the national average is anywhere from \$3 per watt to \$4.50 per watt, but the company offered a base price of \$2.75 to \$2.85 per watt to co-op participants as part of a group purchasing deal.

Doyle said AAT installed systems are between 3 kilowatts (kW) and 10 kW, with a total price range from about \$8,500 to about \$27,000 before tax credits and grants.

"We had saved them about \$23,000 from the national average," Doyle said.

Factoring in the federal 30 percent tax credit would drop the cost range to about \$5,900 to \$18,900.

Considerable interest

While Stiever said the organization originally wasn't sure whether solar co-ops would attract participants in West Virginia, she said a lack of interested residents has not been an obstacle.

"We didn't know if they would work or if there would be interest (in West Virginia), but people are really excited to go solar and to have an opportunity to actually do something and put solar on their own roof and generate their own energy," Stiever said.

WV Sun received quite a bit of interest in its early co-op efforts, with 98 residents signing up for the Monroe County Solar Co-op, and 34 participants in Fayette County.

Of those who signed up for the co-ops, Stiever said seven people from each co-op signed contracts to install solar systems.

The organization also has hosted co-op meetings in Morgantown and Wheeling this month, with 45 Morgantown residents and 34 Wheeling-area residents signing up to participate, Stiever said.

"The main barrier is just getting the word out to let folks know about this," she said. "Not a lot of people know details of solar."

Monroe County resident Joe Chasnoff, who helped launch and organize his community's co-op, said he was initially part of the population who didn't fully understand the specifics behind solar, but decided to take the plunge with the help of the Community Power Network.

"We were looking for alternative forms of economic development in the county," he said. "We thought, 'How could we develop the economy and bring jobs to the county and help people economically?'"

And with the capital costs of going solar dropping dramatically in recent years, he said individual solar systems were the answer. By placing notices in the local newspaper, the group attracted an impressive turnout to the Monroe County Solar Co-op meetings.

"We found very quickly there was a lot of interest in a cross-section of population," Chasnoff said.

The co-op members chose Sustainable Energy Systems LLC, which is based in Frederick, Maryland, against two other companies through the competitive bidding process. Chasnoff personally took advantage of the USDA business grant by having a 4.32-kW solar PV system on his woodworking business, From the Woods. His system was installed in February and became active at the end of March.

"Basically what I've done, by making this investment, I pay in advance for my electric bill for the next 25 years at an incredibly low rate," he said. "I'm avoiding any future increases in the electricity cost that might happen over that period of time. It's a fantastic investment."

Chasnoff said he sees it paying for itself in less than 10 years.

"It's almost silly it's so easy. It's just so painless. It's profitable," he said. "What's the hang up, folks? Let's make the change."

Gaining resilience

The organization also plans to host a Charleston Solar Co-op meeting May 19, which is being sponsored by the West Virginia State University Community and Economic Development Extension Service.

"Our mission is to serve the community with the best information that's useful to building owners and nonprofits and others trying to do business and serve the community," said Sarah Halstead, a Community and Economic Development specialist with WVSU.

But she said the group isn't alone, having received support from local organizations all over the area.

"The beauty is that it's not all on one organization, it truly is a community effort," she said. "It doesn't cost anything to learn and benefit from pooling together."

Several participants have been interested in going solar to have a method of backup power.

Although solar systems are generally designed to shut off when the electric grid loses power as a method of protecting utility linemen who work on transmission lines, utility poles and other infrastructure during power outages, many solar customers are taking advantage of technology available to reserve a small amount of power during emergencies.

Fayette County Solar Co-op participants received inverters developed by SMA, a German photovoltaic system equipment supplier, that offer a secure power supply function to allow people enough electricity to power a refrigerator, air conditioner or electronic devices.

If the grid goes out, explained AAT Solar President Myles Murray, there's a secure circuit so there's one receptacle in the house that people can use during an outage.

"If you flip the switch on the outlet, it sends a signal to the inverter that says even though the grid is down it wants to get power down to that one circuit," Murray said.

According to Halstead, this feature has garnered a lot of support from those who are working toward a common goal of "resilience."

"It's not just about sustainability, it's about withstanding derechos and underground (electric transformer) explosions and things like that," she said. "Resilience is the new sustainability."

"We will always champion the smartest and most current and affordable strategies to strengthen our place for the people who live and will live here."

Renewable rehabilitation

Although co-op participants in Monroe and Fayette counties chose out-of-state installers to manage their co-op projects, organizers hope the rising demand for solar power will attract the industry to the Mountain State.

"There's a small but growing solar industry," Stiever said. "Our hope is that more people go solar and we're able to create more jobs and more solar installers in the state to meet that growing demand."

And according to Halstead, now is the perfect time for such an initiative, as West Virginians begin to overhaul the state's inarguably aging infrastructure.

"The Charleston Solar Co-op is being organized to raise awareness of options, especially as many of building owners and homeowners across West Virginia are in the critical repair mode," Halstead said. "This is the perfect time to consider renewable energy as part of the rehabilitation process."

"A project like this, it educates everyone and increases their knowledge of options, and in the end makes the city and the community a stronger, more viable place that's also attractive to other innovators and the locals that live there," she added. "In essence, it makes our place better," she added "and this is about placemaking, ultimately."