

# Community-Based Solar Business Takes Off

WEB EXCLUSIVE

**In Colorado's Roaring Fork Valley, the Clean Energy Collective could be leading the next solar revolution.**

**By Mike Koshmrl**

Published: Aug. 25, 2010



Paul Spencer, Clean Energy Collective. Photo courtesy of CEC.

Most investors in solar energy own their own home first, then research, shop around and financially plan for a residential photovoltaic (PV) purchase. A solar array is a reasonable purchase only if you're in a sound financial position and own a sunny roof or yard. It doesn't make sense if you rent your home or live in the shadow of a magnificent spruce. So it's not seen as something for everybody. But what if someone were to remove all the obstructions and open up the market?

Paul Spencer, the owner and founder of the **Clean Energy Collective** (CEC), is giving it a shot. “Eliminate [those factors] and you essentially go from a market of environmentalist homeowners, which might be a million people in America, to everybody that has a utility bill, which is 146 million,” he said. Spencer is looking to bring solar energy to the masses with a new community-based approach to commercial-scale solar farms. Based in Carbondale, Colo., the CEC claims to be the first community-based solar integrating company in the country.

Conceptually, a community-based “buy-in” model of solar farm is very simple. The CEC’s role as solar integrator is to negotiate the land lease terms (or buy land outright), select the technology, arrange for the installation and see the entire construction process through. Once the farm is up and producing, its panels are sold, individually or in sections, to ratepayers at **Holy Cross Energy**, the primary local utility. Each purchaser then owns his or her own investment, along with the rights to any energy it produces. Payback is accomplished with renewable energy credits directly subtracted from the purchaser’s electric bill. In concept, Spencer says, this is “virtual net metering,” which, for billing purposes, is just like having solar on a rooftop.

And what happens if a customer moves or falls upon hard times? As with any other piece of real estate, the customer can then sell the investment – at a markup, if the market warrants it – to any other Holy Cross ratepayer. The CEC takes care of all maintenance and insures the investment for 50 years. Customers are even granted visitation rights, and if they’re so inclined, can treat their solar panels to a sponge bath. It works just like having solar on your rooftop, except that it’s down the road in a field.

## **Project Attracts Variety of Clients**

The population of the Roaring Fork Valley, generally well-off, active and interested in renewable energy (Aspen’s just up the road) has paid attention to the CEC, which has been extensively covered by the local newspapers. “Right now people are coming to us,” Spencer said in a late-July visit to the inaugural CEC solar farm. “And the beauty of it is that the majority are exactly the segment of people we were hoping to hit.” Spencer said the CEC is attracting people who are more financially restricted than the typical solar consumer. The average solar array in the valley getting rebates through Holy Cross Energy is between 5 and 6 kilowatts (kW) in size, he said. But the CEC is selling blocks of panels averaging around 2.5 kW. And there are even customers opting for a single

230-watt panel at \$725, the minimum allowable purchase. “We’re clearly attracting a lot of people who don’t have 15 or 20 grand to put a system on their house,” Spencer said. “Which is great because that was part of our goal: to really open up the market.”

The other type of customer Spencer said he is attracting is people who just don’t want to deal with putting an installation on their house. “For example, I had an 82-year-old guy call two weeks ago who wanted to completely power his house with solar,” he said. “He’d been thinking about it a long time, but he said it just seemed too overwhelming.”

Gerry Kaplan fits that description. Kaplan had looked into adding solar panels when he built his house three years ago, but after doing a little research, he saw it just didn’t make sense. It looked too expensive, plus the layout of the house wasn’t quite right, he said. But after reading about the CEC this spring in the Vail Daily, Kaplan said he was quick to sign on. “I think it’s positively brilliant,” he said. “Maury [his wife] and I are actually buying 24 panels. We will actually own 24 panels. In my mind it’s a great investment. It will cut my [annual] electric bill down from \$2,000 to about \$1,000.”

Kaplan decided he could afford to offset about half his energy use, which the CEC determined he could do with a 5.52-kW system. At \$3.15 per watt, this cost him about \$17,400. A proposal he received shows that the CEC estimates a payback period of just under 13 years and nearly \$175,000 in lifetime savings. Both figures assume a 5 percent annual increase in energy costs, which is less than the national average, the CEC said. The proposal also estimated that a conventional residential 5.52-kW array would take 23.5 years to pay itself off.

## **Utility Endorsed Program**

Colorado Gov. Bill Ritter recently signed the solar gardens bill into law, allowing groups of 10 or more people to own a share in a solar array and reap the project’s incentives and electricity. But the new law actually has no bearing on the CEC because Holy Cross Energy is an exempted Touchstone Energy Cooperative utility. Holy Cross, which services most of the Roaring Fork Valley, supported the CEC’s vision at the urging of its members and board of directors, not because of a policy mandate. Chief Executive Del Worley explained that Holy Cross saw a CEC partnership as a no-brainer, in part because his company still has a ways to go to achieve its self-imposed renewable portfolio standard of 20 percent by 2015.

“For a good number of our customers I think it’s a win, win, win,” Worley said. “It’s a good deal. When you consider all the factors, the economics are really no different than net metering residential installations, which we’re required to do by law.” Spencer made the remote metering process seamless for Holy Cross, he says. A former software developer, he devised a program he’s dubbed RemoteMeter to credit all of his investors’ bills from a single production meter. Applications are also available to tap into RemoteMeter from a home computer or smart phone. In Worley’s view, there are other benefits to the partnership as well. Holy Cross can now draw solar power from a central plant it knows is going to be maintained. And it also lands the utility a sizable number of renewable energy credits (RECs).

If its rapid growth rate continues, the CEC could soon be satisfying a respectable percentage of Holy Cross Energy’s total demand, which tops out at 250 megawatts (MW) in the wintertime, mostly due to ski resort load in Aspen and Vail. There are currently two CEC solar farms under construction, totaling about 1 MW, and another three in the works that will bring the total up to 5 MW. By mid-August, CEC had secured reservations totaling over 100 kW. The first 80-kW community solar site just went live on Aug. 18.

## **National Model Possible?**

Spencer said that what the CEC is doing in the valley is important, but recognizes that, at this point, his business is still in the “proof of concept” stage. The big picture, in his mind: “How do you take 5 MW that you might do here and grow that to hundreds of megawatts nationally, and then gigawatts and terawatts? That’s really the vision.” There are really no other integrators in existence focusing on community-based solar, Spencer said. “We looked high and low because it’s easier to improve the wheel than to reinvent the wheel,” he said. “And we didn’t find anything.”

But the time for community solar appears to have come. A number of states, including Vermont, Massachusetts, Maine and now Colorado, have extended net-metering laws to community-based solar farms. In addition, utilities in both Utah and California have initiated their own community-based programs. And soon there figures to be a number of other community-based solar integrators, besides the CEC.

Spencer said that the CEC has bundled its financial model, tax model, legal model and software supporting model into one and is now licensing it out to other companies around the United States.

“They’re coming in from Colorado, but we’ve also probably had eight or 10 groups from other states approach us about wanting to take this model to California, wanting to take this model to Florida, to Massachusetts, to Utah, etc.,” he said. “That was part of my initial goal and vision, to create a vehicle that would allow large-scale ownership in renewable energy. To make it make sense and make it easy for everybody to be part of the solution. And then be able to roll that solution out to the masses.”

-----