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## Home-grown energy project becomes national model By Andy Clark

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Some recent Vermont solar energy project proposals have generated controversy, but one notable local project has received widespread acclaim, several awards and become a national model for similar solar development efforts.

Boardman Hill Solar Farm is on Boardman Hill Farm, owned and operated by Greg Cox in West Rutland. On April 28, 11 Governor's Environmental Excellence Awards proposed by the Department of Environmental Conservation were presented to a range of recipients from around the state, including the West Rutland Boardman Hill project.

Principals for the project include project organizers Roland Marx and Marcy Tanger, of Mount Holly, and Greg Cox, organic farmer, owner of Boardman Hill Farm, and landowner of the solar farm at 1030 Boardman Hill Road. Along the way, they were assisted by Professor Kevin B. Jones, PhD, of Vermont Law School.

Cox said about Jones' involvement, "We were a little ahead of you on developing this model." Jones agreed.

The project was recognized for implementing "an innovative 150kWh community solar project that is wholly member-owned, financed and managed," according to an April 29 statement about the awards released by the Department of Environmental Conservation. Late last year, the project was awarded the Vermont Energy and Climate Action Network Best Energy Project of 2015. The project consists of 640 panels producing a total of 150 kilowatts of power per hour, according to project documentation. A kWh is a unit of energy equivalent to one kilowatt of power sustained for one hour.

It is one of the largest net-metering photovoltaic projects in Vermont. Net metering allows people unable to install solar panels on their own properties to use solar power and offset their consumption of electricity. Most of the investors in this solar farm are off-site but derive full economic benefits.

Project organizer Roland Marx called the project "Vermont grown and Vermont green." He said in regard to that designation, "It arose because of the local efforts of interested parties who wanted to enjoy reduced energy costs that were environmentally responsible and were willing to make the necessary investments. It's green because the renewable energy credits from the project were not sold, but are held and will be retired by the investors. And all at the lowest cost possible."

As for the award, Marx said, "It's a wonderful recognition of an innovative model."

As a result of the success of the project, Marx said, a number of other towns in Vermont are in some stage of replication of the West Rutland project. "Vermont Law School, Johanna Miller at the Vermont Natural Resources Council and Vermont Energy and Climate Action Network have made our project a model for other similar development projects in Vermont. Randolph, Waitsfield and Bennington are all in process. I've also talked to interested energy committees in Cavendish, Hinesburg, Middlebury and Bradford."

Jones cited a similar list that he is assisting, including White River Community Solar in Royalton.

Recently, the project model jumped to the national scene. "Environmental Protection Agency invited me to be part of a webinar in March. Since then, I've gotten phone calls from all over the country," Marx said.

Principals were intensively involved for nine months, from the time investors were organized until land was secured and commitments were secured. "Roland and I were a team. I handled the people involved, through personal contacts and emails. But he handled the technical end of things," Marcy Tanger said.

"Everyone had to be a customer of Green Mountain Power Corp. in order to make this work," she said. "Our 30 investors, who each enjoy discounts in their electric bills, include residents of Mount Holly, Wallingford, Rutland, Proctor and Burlington."

The key, according to Marx, is independence. "Each investor individually contracted for the purchase of one or several panels in the array. The entire project was completed for a total investment of \$512,000. We arranged for a local entity to handle administrative and financial matters for the owner-investors, a nonprofit limited liability corporation. In that sense, we're all dissociated from Aegis Renewable Energy, our contractor-installer," he said.

Greg Cox became involved when Marx and Tanger couldn't find a receptive landowner in Mount Holly to host a solar array. "I've known Greg for years. We're similar in many ways. It was hard to find willing landowners in Mount Holly. We looked intensively in August and September. But Greg was environmentally active in West Rutland and already looking to host an array."

Cox agreed. He was looking for partners for a solar venture at the same time Marx and Tanger were looking for a host to a solar array. They found each other through Aegis Renewable Energy, the contracting energy firm for the project.

"I wanted to reduce my energy costs. Farming is an energy hog, whether it's the costs of operating compressors, fans or refrigeration. I really wanted to lower my carbon

generating profile. So forming a group for solar began to make financial sense," he said.

Cox took it upon himself to make sure his neighbors were comfortable with his solar project plans. "Before we signed onto the project, we went to every neighbor and informed them of what we were planning. And we invited them to become investors in the project. As it turned out, they didn't choose to participate. But they were all comfortable with what we planned," he said.

"I didn't have the cash on hand. But I was able to finance participation with a credit union because I own some of the panels, which were put up as collateral and are transferable," Cox said.

Other investors came into the project largely due to Tanger's personal contacts. "I talked to a number of people who were with me on a bus to New York City for a climate-related protest march. Some of them became project investors," she said.

In October, the Internal Revenue Service gave a private letter ruling that Marx as an investor-owner could enjoy a one-time 30 percent tax credit, even though the solar array was at a different location than Marx's home. "It's not a precedent for other PV off-site owners. But it's a step forward from tax credits solely for roof top arrays," Marx said.

Whether the credit will exist beyond December is not clear, however. But if it does, the IRS ruling in Marx's case seems promising for similarly planned projects nationwide.

The result for participating investors? Tanger said, "I've not paid a cent for my electricity for over a year. But I certainly paid upfront for the investment."

"I've substantially lowered the carbon footprint for my operations, at the lowest possible cost," Cox said.

Since 1993, Governor's Environmental Excellence awards have been given to recognize efforts and actions of Vermonters to conserve and protect natural resources, prevent pollution, and promote environmental sustainability. So far, more than 200 awards have been presented.

For more detail about this and similar projects, see a case study on the project published by VECAN available on the web, "Boardman Hill Solar Farm Case Study." For more details about group net-metering projects and tax law, contact Clean Energy States Alliance, Vermont Energy and Climate Action Network, Vermont Natural Resources Council, Aegis Renewable Energy or Kevin B. Jones at Vermont Law School at <a href="mailto:kbjones@vermontlaw.edu">kbjones@vermontlaw.edu</a>.

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