



Solarizing New Hampshire's Upper Valley and Beyond

By Scott Osgood

www.SolarUpNewHampshire.com

Over 300 homes in the Upper Valley have solar power due in large part to Vital Communities' "Solarize Upper Valley" program, which, to date, has produced 1.7 megawatts of solar electricity and reduced CO2 emissions by nearly 1,500 metric tons.

Vital Communities is a nonprofit organization serving 69 communities in the Upper Connecticut River Valley of New Hampshire and Vermont. The Solarize program teams up community volunteers with local solar installers to help local residents "go solar." Their programs address a number of municipal needs, including transportation, local agriculture, local economy, and energy issues.

The Solarize model originated in Oregon in 2007 and has since been adopted throughout the country with leadership from SmartPower, a national nonprofit. SmartPower's president, Brian F. Keane, is author of the book *Green is Good*, which casts the topic of alternative energy in a new and refreshing light.

Vital Communities has managed three rounds of Solarize campaigns in 24 towns, the first launching in March 2014. By the end of 2015, Vital Communities expects to see a total of over 450 new solar homes and over 2.5 megawatts of solar electricity in the Upper Valley as a result of the program.

Ten New Hampshire municipalities have been involved in Solarize Upper Valley campaigns, including Orford, Hanover, New London, and Plainfield. In the Town of Lyme, 18 percent of households signed up to receive a solar site evaluation through the program. This summer, Lebanon and Enfield are teaming up for a Solarize campaign and pushing for over 60 new solar homes. Vital Communities

gives credit to the John Merck Fund and Jane's Trust Foundation for funding that allows the Solarize program to operate in the Upper Valley communities at no cost.

A new Solarize program called "SolarUp New Hampshire" is also being launched this summer in the Southern New Hampshire Planning Commission region with support from both Vital Communities and SmartPower. This grant-funded program is modeled after the Upper Valley Solarize campaigns but will also empower small business, agricultural, non-profit, institutional, and governmental uses to go solar in addition to home owners. Seven towns have been selected in the region to participate, and the program will ramp up this summer and fall with an end date of December 2015.

So, what is the secret to success for these Solarize projects? It's in the professional management of the process and the marketing. Brian Keane was able to identify the factors that prevent homeowners from investing in solar power, and he developed a process to eliminate the hurdles. The key is making the process an open community-based effort. Keane realized that homeowners are more likely to get involved if they see their neighbors going solar. Similarly, homeowners feel more confident if they can use a contractor vetted by a trusted organization. This creates a cascading effect where there is strong community benefit when the unit price goes down for each home that signs up.

This community-based marketing gets the process started, and the goal is to get as much local saturation as possible. Volunteers place banners around town, post notices on the local listserv and town website, and encourage participation via word of mouth. What then follows is a well-advertised kickoff

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event at a community gathering area, where the process is spelled out to all attendees. An RFP (Request for Proposal) goes out, and potential contractors are presented with detailed proposal forms provided by Vital Communities. The proposals are then vetted by the local group and Vital Communities, and the contractor is chosen. The contractor gives a unit price and a tiered price structure, which shows the benefits as additional homes are signed up.

Because not all homes can go solar, one key to success is early identification of homes with solar potential. The contractor performs a site visit at no cost, takes measurements, and generates a report, which provides the homeowners with the solar potential of their homes. Some homes do not qualify; other homeowners simply need to take steps to qualify, such as trimming or cutting down trees, or choosing between roof-mounted or ground-mounted installation. An average installation is typically over \$20,000, so those who do qualify must decide how to pay for it. State and federal grants have been available with state grants of up to \$3,750 and federal grants of varying amounts to help and encourage homeowners to participate. The state grants are generated from the dedicated RGGI Fund, which is subject to annual review by the state legislature, and are not guaranteed on a long term basis. This of course results in a difficult business climate for customers and contractors to operate in. A very common way of financing the installation is through a home equity loan. The return on investment is clearly known to the homeowner before any commitment is necessary.

There have been other business models relative to solar installation costs, mostly on larger scale non-residential uses. One of these forms is a lease arrangement whereby the install-

er leases the space on the commercial land or building, and is paid for the electricity generated through landowners utility bills. After a number of years, the lease arrangement is paid off and the landowner then owns the array, continuing to generate electricity, but at no cost. Maintenance cost would still exist, so, although it's not free, it is still a great deal.

The legislature is considering C-PACE (Commercial Property Assessed Clean Energy), a new model for commercial installation purchases (see related article). This model allows the cost to be treated as a condition of the land, and is paid as part of the assessed value. The landowner pays the financing cost as part of the bi-annual property tax bill, and the finance obligation runs with the land, not the owner. The Community Development Finance Authority (CDFA) and the Jordan Institute play significant roles in the implementation of this process.

Other models and efforts have been successful in New Hampshire. For example, the Plymouth area was able to facilitate a number of installations through their PARIE (Plymouth Area Renewable Energy Initiative) concept. This model requires local volunteers to donate time and effort. The volunteer workers who participate receive time from other volunteers to do the work on their home solar project. This model is unique to the Plymouth area

and requires a very dedicated community volunteers to make it work.

Similar to the PAREI concept, the Hillsborough Area Renewable Energy Initiative (HAREI) is a new effort that was launched in the Manchester area. HAREI is a non-profit organization with volunteers who actively promote solar PV through education, solar open houses, demonstrations, and even installations. HAREI is also actively involved in the Solar Up NH initiative.

The options and benefits to homeowners vary with the methods used to procure the panels, and there are a number of other related issues to consider with solar power. New codes are being developed in a program managed by the Office of Energy and Planning (OEP) to help lower the "soft costs" associated with residential rooftop solar PV systems. This will focus on residential permitting and zoning and the utility interconnection process. The work will include a NH-specific model solar PV zoning and permitting document and a guide to the utility interconnection processes, and will provide educational resources including training for use by municipalities.

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