



Vermont Community Energy Mobilization (VCEM) Project Mobilizing Community Volunteers to Reduce Costs

Vermont's energy efficiency utility, Efficiency Vermont (EVT), designed the Vermont Community Energy Mobilization (VCEM) Pilot Project to test whether local volunteers could cost-effectively increase home energy savings. The VCEM Pilot Project ran for five months in 2009 and included nine competitively-selected towns with active volunteer groups. The local volunteers made "home energy visits" that combined of "kitchen table discussions" about energy-saving opportunities with on-the-spot water- and energy-efficiency improvements. These ranged widely from installing CFLs and water-heater wraps to low-flow shower heads and programmable thermostats. Over 700 homes participated over the 5 months, and the levelized cost of energy savings over the life of the measures installed is 3.5 cents/kWh, not including thermal savings from reductions in heating fuel use. Efficiency Vermont had hoped this program would lead to more comprehensive home energy improvements. While 20% of the participants surveyed said they planned to have an energy assessment done, only 11 of the 576 single family homes (2%) got an energy assessment as of September 2009. EVT is looking at re-designing the program to encourage post-home visit actions such as comprehensive home energy improvements.

Background

Efficiency Vermont (EVT), the state of Vermont's energy efficiency utility, ran intensive Community Energy Initiatives in two towns from 2006 to 2008. While EVT met its aggressive goals for annual savings (5-7% savings achieved community wide) and participation (40-45% of all residential accounts participated), it found that staff time and other expenses were significantly higher than other energy efficiency opportunities. For example, the levelized cost of energy efficiency for the Community Energy Initiative pilots was approximately 18 cents/kWh saved. In comparison, the average cost for energy efficiency measures in Vermont has been around 3 cents/kWh and the approximate cost of comparable electricity supply is 14 cents/kWh. While the Community Energy Initiatives included one-time program development and startup costs, EVT management judged that even the direct staff time spent was simply too much to meet their mandate to find low-cost sources of energy savings. In response, they decided to look for ways to engage community members more actively to reduce their staffing costs for community-based programs.

Mobilizing Volunteers

EVT designed the Vermont Community Energy Mobilization (VCEM) Pilot Project to test whether community-based volunteers could cost-effectively increase home energy savings and raise awareness about energy efficiency. The VCEM Pilot Project ran for five months in 2009. EVT held a competitive solicitation for communities to participate and selected 9 towns with active groups of volunteer organizers. These local organizers recruited other volunteers, organized "home energy visits," coordinated the supply of energy saving products, and completed a home energy visit form with data from each home. EVT developed educational and



guidance materials, ran trainings for the volunteers, and followed up with people who asked to be contacted with more information.

Results

Ultimately over 240 volunteers went door-to-door to offer home energy visits, which consisted of “kitchen table discussions” about energy saving opportunities and on-the-spot improvements including compact fluorescent light bulbs, pipe insulation, insulated tank wraps, low-flow shower heads, faucet aerators, and programmable thermostats. Over 700 homes participated in 5 months, and the measures they installed will save 366,421 KWh and 1448 million BTUs in the first year. The total cost of the pilot was \$87,000, which included program design and start up costs. These costs also included giving the local organizing groups \$10/house for a community project of their choice. The levelized cost of energy savings over the life of the measures installed is 3.5 cents/KWh – close to the average 3.1 cents/KWh saved spent by EVT in 2008. This 3.5 cents/KWh saved does **not** include the thermal savings from reductions in heating fuel use.

Program evaluators concluded that EVT designed an effective means for reaching target populations, but the question is now how to modify this program to achieve a range of desired outcomes. Participants were satisfied with the program – 97% rated the home energy visits either favorably or very favorably – but these home visits did not necessarily lead to household investment in more comprehensive efficiency improvements. EVT did market research showing that “word-of-mouth” was the most common reason cited for Vermonters to pursue a comprehensive home energy upgrade – EVT had hoped this program would lead to many more comprehensive upgrades. While 20% of the participants surveyed said they planned to have an assessment done, only 11 of the 576 single family homes (2%) got an energy assessment as of Sept 2009. EVT is currently looking at ways to re-design the program to encourage post-home energy visit actions such as comprehensive upgrades. For example, in 2010 they are offering participants a \$150 off-the- assessment coupon that expires a few months after the home energy visit to push participants towards more substantial energy improvements.