

Community Supported Energy Offers a Third Way

By Greg Pahl, Vermont Biofuels Association, Co-Founder

Although we have the necessary resources and technology to meet most of our energy needs in the future with renewable energy, until fairly recently one key strategy has, for the most part, been overlooked in North America. This strategy involves the cooperative or collaborative installation and ownership of renewable energy projects at the local, community level.

CSE projects are somewhat similar to Community Supported Agriculture (CSA). The main difference, however, is that instead of investing in potatoes, carrots, or cucumbers, with CSE, local residents invest in energy projects that provide greater energy security and a wide variety of other benefits.

When applied to wind power for example, this strategy falls in between the large-scale commercial wind farm and the small-scale residential wind turbine, and has been described as "The Third Way." This middle strategy, also referred to as Community Supported Wind, relies on somewhat smaller scale projects that are developed, sited and owned by members of the local community rather than out-of-state corporate entities.

Community Supported Wind could fill a huge gap in the present wind power sector. And this approach is not limited to wind power, but can be applied to virtually any type of local renewable energy project such as solar thermal or photovoltaic panels, biogas digesters, a variety of biofuels production facilities, geothermal or geoelectric projects, and small-scale hydro.

When applied to a wide variety of renewable energy technologies, this strategy is sometimes known as Community Supported Energy (CSE). CSE projects are somewhat similar to Community Supported Agriculture (CSA). The main difference, however, is that instead of investing in potatoes, carrots, or cucumbers, with CSE, local residents invest in energy projects that provide greater energy security and a wide variety of other benefits.

Many Advantages

A cooperative or community owned energy project offers many advantages. It stimulates the local economy by creating new jobs and new business opportunities for the community while simultaneously expanding the tax base and generating new income for local residents. A locally owned energy project also generates support from the community by getting people directly involved.

Another advantage of community energy projects is that they can be owned cooperatively or collectively through a variety of legal mechanisms. Ownership strategies can include limited liability corporations (LLCs), cooperatives, school districts, municipal utilities or other municipal entities, or combinations of these models. Sometimes a partnership with an existing utility can be mutually beneficial.

An excellent example of this approach is the prominent, commercial-scale wind turbine located on Toronto's (Ontario) harbor front that is 50 percent owned by WindShare, a 427-member cooperative of local residents, while the other half is owned by Toronto Hydro Energy Services. While the appropriate model will differ from project to project and from state to state (or province), depending on a wide range of variables, what these strategies all have in common is some form of community ownership and group benefit.

The main point is to identify the project as belonging to the community, which may avoid (or at least minimize) the usual conflicts between local residents and developers, whose large-scale, commercial proposals are often viewed as primarily benefiting absentee owners. Local ownership is the key ingredient that transforms what would otherwise be just another corporate energy project into an engine for greater energy security that directly benefits its owners -- the members of the community.

Community Supported Energy projects offer yet another advantage; they retain a greater amount of income in the local area and increase the economic benefits substantially over projects owned by out-of-area developers, according to a study conducted by the National Renewable Energy Laboratory (NREL) for the Government Accountability Office. NREL compared the effect of large corporate wind farms owned out of area with similar projects owned locally.

The study found local ownership yielded an average of \$4 million in local income annually, over three times more than the \$1.3 million produced with out-of-area control, while job creation was more than twice as large in the local model.*

A European Model

With benefits like these, why aren't there more CSE projects? For one thing it's a relatively new concept in North America, although it's a well-established strategy in many European nations.

In Denmark and Germany -- world leaders in wind energy development -- many commercial-scale wind turbines are installed as single units or in small clusters distributed across the countryside, or sometimes in or near urban areas. And many of these turbines are either owned by the farmers on whose land the turbine stands, or by groups of local residents.

This idea has spread to many other EU nations as well and is beginning to catch on in Canada and the United States, especially in states like Minnesota and Iowa, where dozens of community owned wind farms are sprouting up.

One of the best examples is MinWind, located near Luverne, Minnesota. The original project, which began in 2000, consisted of four 950-kilowatt turbines owned by 66 local farmers. The project was so successful that seven additional turbines were added in 2004. The second group of turbines is owned by approximately 200 local investors.

One of the main reasons for this success has been Minnesota's progressive promotion and support of locally owned wind projects and other renewable energy initiatives.

The main barrier to wide-scale implementation of Community Supported Energy in most other states, however, is a regulatory environment and process that does virtually nothing to encourage these types of projects. For the most part, CSE isn't even on the radar screen of most regulators, and the typical high cost of the approval process (often \$100,000 to \$500,000 or more) halts most community based initiatives before they even get started.

What's more, federal energy production tax credits (PTC) for wind farms, for example, favor large-scale corporate projects that are well beyond the means of local communities. This situation needs to change, and it needs to change soon, because all viable forms of renewable energy, regardless of their size, need to be supported and encouraged if we are going to meet the substantial energy challenges of the next few decades.

One of the best regulatory models in North America at the present time is the new Standard Offer Contracts in Ontario. Announced early in 2006, the new Standard Offer Contracts (Advanced Renewable Tariffs) are an historic step towards a sustainable energy future. Standard Offer Contracts allow homeowners, landowners, farmers, co-operatives, schools, municipalities and others to install renewable energy projects up to 10 megawatts in size and to sell the power to the grid for a fixed price for 20 years.

The Ontario Standard Offer Contracts provide a powerful model that other provinces and states should consider when developing their own renewable energy laws and regulations.

Security and Opportunity

Community-based energy strategies generally place the renewable energy facility as close as possible to where it is needed. In the case of electricity generation, this reduces the need for additional, ugly and expensive high-tension power lines, while simultaneously improving the stability of the electricity network. One or two good sized wind turbines, for example, could provide much of the power needed for a school, business or manufacturing facility.

A cluster of medium-to-large-sized turbines could power a whole neighborhood or small community. Add a significant number of rooftop solar panels, small-scale hydroelectric or geoelectric plants, ground-source heat pumps, and a local cooperative bio-fuels facility or two for biodiesel, ethanol, wood chips or pellets, and you begin to assemble a picture of greater energy security that provides for a significant proportion of your community's energy needs while generating income, all from local resources.

The people employed to operate and maintain these facilities keeps them working (and spending) in their local communities, and eliminates the need for them to commute somewhere else to get to their jobs. The result is energy creation and conservation at the same time. And if the renewable energy facilities power other job-creating activities, such as local manufacture of essential products, you end up boosting the local economy while creating even more jobs. It's a win-win-win proposition.

The energy challenges we face are enormous, consequently the response needs to be sized to match. Community Supported Energy offers the potential of making substantial progress on a large scale while directly engaging (and benefiting) a major segment of the population. CSE is an idea whose time has definitely arrived, and I am convinced that if this strategy were to be adopted across the nation that it could provide a huge boost to local economies everywhere while offering greater energy security and price stability.

The opportunities for locally based renewables are enormous. Almost every city and town in the country has the potential for one or more CSE project. Perhaps you can get one started in your community.

**Renewable Energy; Wind Power's Contribution to Electric Power Generation and Impact on Farms and Rural Communities, General Accounting Office, September, 2004, 82, 83, www.gao.gov/new.items/d04756.pdf*

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