

Community Renewable Energy Is Just Around the Corner



by Ted Bernhard

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For decades, the conventional wisdom about developing energy projects in the U.S. has been that "big" always meant cheaper, and therefore better, projects. This produced what has become our modern centralized electric power system fueled primarily by coal, natural gas and nuclear power.

One thing is for sure: when done right, investment in community renewables can be highly profitable for investors. In the mid-to late 1990s, however, the electric power industry began to hear concerns, particularly from the environmental community, about the negative environmental consequences of a system based too heavily on these types of power. As a result, a second wave of thinking arose that called not just for producing the cheapest power at any cost, but also for finding ways to produce cleaner energy from renewable sources such as the wind, sun, biomass, water and geothermal heat -- and to do so on a scale large enough to become

a significant portion of utilities energy portfolios. Although the shift toward large-scale renewable energy has already begun to make a positive difference, today the U.S. finds itself on the verge of another new wave of thinking that incorporates the lessons of the past, but goes beyond merely addressing cost and environmental concerns and seeking maximum output. This new model, which is gradually and quietly rolling into communities across the country, is the distributed "community renewables" model, in which new power projects are smaller and tightly integrated with local communities and local resources in a way that the economics become more favorable and communities are able to participate directly in some of the benefits. There are three characteristics that distinguish distributed community renewables from the "cheaper at any cost" and the "mega-renewable deployment" mindsets.

1. Increased Community Participation. Unlike a project developed, financed and controlled exclusively by an external developer, community energy projects actively seek to involve local communities as much as realistically possible. This can be done by using fuel from local feedstocks or natural resources; hiring local contractors for construction, administration, management and maintenance roles; giving the local community members an opportunity to invest and share directly in the project's financial benefits (particularly on the back end); creating additional tax revenue for the local governments, and even, in some cases, selling the power produced to local individuals and businesses.
2. Smaller-Scale Projects. Project size is driven primarily by federal, state, and local tax incentives; the proximity and availability of natural resources; and the ability to transmit power to customers. Given these constraints, the optimal size for most of these projects is usually relatively small, between 5- and 6-megawatts (at least in the Pacific Northwest). With the existing transportation and distribution infrastructure and the lack of an economically viable long-term energy storage technology, most projects end up either selling their power to utilities under the Public Utility Regulatory Policies Act of 1978 at the avoided cost rates, or at retail rates under net metering. Some developers are also beginning to explore innovative ways to sell their projects' power to the local communities themselves or on the open market.
3. Additional Societal Benefits. Finally, community renewables projects create a wide range of social benefits that transcend the economics of a particular project. These include

decreased dependence on foreign natural gas and oil, a power infrastructure that is far less subject to large-scale disruption or terrorism because of its distributed and diverse nature, local control of generation facilities, creation of much needed high-quality jobs in rural areas, and a supplemental revenue stream for agricultural community members that allows them to maintain their rural lifestyle. Additionally, this approach has demonstrated an uncanny ability to bring together people from very different backgrounds -- Republicans and Democrats, urban and rural residents, businesses and environmentalists -- for a common cause. Utilities and large-scale commercial developers also are beginning to recognize the wisdom of this approach as complementary to their own efforts, because it often helps familiarize local communities with the benefits of renewable projects and ends up making it easier to get their larger projects sited in the future. Some even like the model so much that they are considering building some of these types of projects themselves as a way to replace aging facilities in difficult-to-reach rural areas. As exciting as all this sounds, the reality is that the distributed community renewables market is still in its nascent stage. To date, most of the projects that have been completed are community wind projects in the Midwest (particularly Minnesota) and small-scale biofuel facilities. Although the model appears to be taking root, spreading to more states and beginning to include other types of renewables, there is still considerable need for education, particularly for potential investors who are not from the energy industry. One thing is for sure: when done right, investment in community renewables can be highly profitable for investors. This is because they offer: -- Higher risk-adjusted return than virtually any other investment. Under the community renewables model, equity investors with the right tax profile are sought by community developers and are asked to write a check only when most of the risk is out of the project (i.e., the project actually starts producing and selling power). It is not uncommon for investors to receive after-tax returns of 12 to 15% for five to 10 years. -- Sustainable long-term business models. Smaller projects tend to be better able than mega-projects to match capital expenditures to local resources and feedstocks and demand. Smaller-scale projects often have the luxury of using only the highest-quality resources and bearing less risk, because the amount of power they sell is low relative to the total amount used in the surrounding area. -- Increased operational

efficiencies. As people who have experience in the renewables industry shift their attention toward smaller-scale projects, they are able to apply their knowledge to squeeze out savings from operations that keeps the variable, and in some cases even the capital, costs to a minimum. The community renewables projects breaking ground today are just the beginning. As the full value of carbon emissions savings become a tradable commodity, and as new storage and interconnection technologies become available, the distributed community renewables energy model has the opportunity to become an increasingly significant piece of broader efforts moving us toward clean energy and a healthier society. *Ted Bernhard is a corporate and securities lawyer with Stoel Rives LLP in Portland, Oregon, working with companies and developers involved with innovations in the clean energy marketplace. His firm is sponsoring, along with Nth Power and others, a conference called Investing for Clean Energy in the Pacific Northwest on October 4, 2006 in Seattle, which is designed to explore investor-related renewable energy issues with some of the nation's most active and successful clean energy investors.*