

Community Wind Energy

WHAT IS COMMUNITY WIND?

Essentially, community wind projects are owned by public entities or privately by local investors. Public entities can mean cities, counties, school districts, or municipalities. Local investors could mean a group of local landowners or citizens; tribal communities; local businesses; or other community institutions.

WHY COMMUNITY WIND?

Most wind power development is touted for its environmental benefits, its use of a domestic energy resource, and the economic development it brings to rural communities. Community wind projects offer all these advantages plus significantly more potential for local economic benefit. Locally owned projects keep most of the energy sales revenue in the community and nearly always make a concerted effort to maximize local economic development by using local suppliers, contractors, and financing whenever possible.

RECENT AND UPCOMING REPORTS

Several recent and soon to be published reports on community wind analyze the economic benefits and public policies related to community wind:

A Survey of State Support for Community Wind Power Development, by Mark Bollinger for Lawrence Berkeley National Laboratory and the Clean Energy States Alliance, published March 2004.

Guidebook for Communities to Evaluate Impacts of Wind Power Development, by ECONorthwest, sponsored by the State of Washington Office of Community, Trade, and Economic Development and the Energy Trust of Oregon among others. Scheduled for release in spring 2004.

Wisconsin Community Based Windpower Business Plan, by Cooperative Development Services for Wisconsin Focus on Energy, published in September 2003.

A report comparing the economic impacts of different community development models by Renewable Energy Policy Project for Wind Powering America.

LEARN MORE

Community wind energy is becoming an increasingly important element in the wind industry as a tool for building local support and in rural economies as we see farmers discussing things like interconnection and getting involved with regulatory proceedings and energy policy debates. More information on opportunities and challenges related to community wind will be presented at Windustry's national Community Wind Energy conference on June 23rd and 24th in Minneapolis. Visit: www.communitywindenergy.org

Kas Brothers Plant 25-year Crop

Richard and Roger Kas of Woodstock, Minnesota became the first farmers in the nation to own their own utility-scale wind turbines when they installed two 750 kW machines in 2001. In 2003, several other farmers in the area installed wind turbines of their



Richard Kas, Roger Kas, and Dan Juhl (middle) of DanMar & Associates, a pioneer in developing models for locally owned wind projects.

own, some using equity investors and all using Minnesota's production incentive of 1.5¢ per kilowatt-hour for projects under 2 MW.

Minwind: A "Cooperative" Model

In 2002, two groups of farmers in Luverne, Minnesota pioneered a new wind project model that allows local farmers to pool their resources to develop the economic potential of wind power for their community.



Minwind project leaders Mark Willers (left) and Tom Arends (right).

Minwind I and II now have two 950 kW turbines each and Minwind III-IX are planning construction in 2004. All together, the Minwind projects involve more than 200 people in the Luverne area and have generated enormous interest in other communities looking for a way to promote local ownership of wind projects.

USDA Funds Community Wind Projects

In 2002, for the first time ever, the federal farm bill included a renewable energy title. It established the U.S. Department of Agriculture's renewable energy program, which provided \$7.4 million in grants for 35 wind projects in 2003, nearly all of which could be considered community wind.



The first operational wind project funded by the USDA program is a 35 kW turbine in Pope County, Minnesota owned by a local farmer and his former farmhand.

Aggregation in Southwest Minnesota

In early 2003 the Minnesota Public Utilities Commission approved a new powerline to carry wind generated electricity from southwest Minnesota to the Twin Cities. Among the conditions for approval, was a provision to set aside 60 MW of capacity for aggregated locally owned wind projects. Two groups have organized, Community Wind South and Community Wind North, to take advantage of this unprecedented opportunity and are planning projects to coincide with the new transmission line's construction in 2007.



Some of the aggregated project leaders. From left to right: Lisa Daniels of Windustry, Lincoln County Commissioner Jim Nichols, George Crocker of the North American Water Office, and Dan Juhl of DanMar & Associates.

Breaking Trail for Native American Wind Power

The Rosebud Sioux Tribe of South Dakota installed the first Native American owned utility-scale wind turbine in early 2003.



Intertribal Council on Utility Policy President Patrick Spears (left) and Intertribal COUP Secretary Robert Gough (right).

Photo courtesy of Intertribal COUP

Northern Great Plains tribes, who own some of the windiest land anywhere, see this turbine as a first step toward much bigger and more ambitious wind projects.

Our Wind Co-op

Our Wind Co-op is a unique cooperative encouraging farmers, ranchers, and rural facilities to invest in small-scale wind turbines across the Pacific Northwest. Five small turbines are currently installed in Montana and Washington state with at least ten total planned



A 10 kW turbine in Glacier, Montana.
Photo Courtesy of Northwest SEED.

for the end of 2004.

Reading, Writing, and Wind Energy

Many schools, particularly in Iowa and Minnesota, are seeing wind power as a strong investment for generating a new revenue stream, saving money on energy bills, and creating a new learning tool for students. According to the Eldora, Iowa school district



Spirit Lake Community School District in Iowa is a pioneer for school wind projects with 250 kW and 750 kW machines.

superintendent Bill Grove, his district's 750 kW turbine will generate \$10,000 to \$20,000 per year in energy savings and revenue for the first ten years, and as much as ten times that amount after their loan is paid back in 2012.

Rural Electric Cooperatives

Among the groups benefiting from the USDA renewable energy program are rural electric cooperatives interested in developing wind power. Three RECs received USDA grants in 2003, including Federated Rural Electric Association in Jackson, Minnesota, Nobles Cooperative Electric of Worthington, Minnesota, and the Illinois Rural Electric Cooperative (IREC) of Pike County, Illinois.



The wind project team at Federated Rural Electric.

Municipal Utilities and Agencies

Municipal utility projects are one of the most common models of community wind energy. There are examples all over the country, from states like Iowa and Minnesota where community wind thrives, to the leading wind power states of California and Texas, to states where municipal projects represent the first utility-scale wind turbine installations, such as Massachusetts, Michigan, and Ohio.



The citizens of Hull, Massachusetts installed the first commercial-scale municipal wind turbine on the east coast in December 2001. Their 660 kW turbine has allowed the municipal light plant to discontinue billing for powering the town's streetlights and traffic signals, saving the Hull's 11,000 citizens more than \$50,000 per year. Hull is now considering installing a second, much larger turbine along side Hull Wind 1 on Windmill Point.