

LOCALLY-OWNED WIND POWER: QUAIN'T IT AIN'T TURBINES GIVE FARMS A SECOND WIND

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The financial crisis is a blessing in disguise for community wind power, an underserved sector of the burgeoning U.S. wind industry. And turbines are giving old farms a second wind. Kent Madison, a third-generation farmer in eastern Oregon, used to cuss when the wind blew hard and kicked up dust and kept him from spraying his crops. But now, with 18 windmills on his farm, he sees dollars, not dust, every time the wind blows. Those windmills are each bringing in \$6,000 to \$8,000 in rent yearly. In a dozen years or so, Madison, who farms wheat, alfalfa and vegetables on 17,000 acres, will own three windmills virtually outright, plus the revenues from the electricity they produce, plus he'll still be getting rent for the other 15.

"It's a pretty good little retirement," he said. "The ground that the turbines took out of production was a total of six acres. It's literally thousands of dollars I couldn't make on low-value rangeland or dry land farming. Now, the wind blows and I go, 'Look at that!'"

Madison and two of his neighbors, also wheat farmers, joined last year with three outside investor groups, including tractor-maker John Deere and Oregon Wind, to build a 36-turbine wind farm on their land. The Echo Wind Warm, as it is called, is reportedly the only one in Oregon in which the local landowners will eventually own some of the wind turbines, a more profitable venture for them than simply leasing their land to a developer. The windmills have been supplying electricity to Pacific Power, serving Pendleton, Ore., since October.

All of the partners benefited from a new federal program, a treasury cash grant for renewable energy provided under the American Recovery and Investment Act of 2009. The grant paid 30 percent of their construction costs, or about \$49 million. "It was the factor that tipped the economics in favor of the project," Madison said. In this way, researchers say, the U.S. financial crisis has proved to be a blessing in disguise for community wind, an underserved corner of the burgeoning wind industry in this country. Of about 80 wind farms that had received cash grants from the stimulus fund as of June 30, roughly 17 were community wind projects, according to Mark Bolinger, a wind economics researcher at the Lawrence Berkeley National Laboratory in Berkeley, Calif.

In a report this year for the U.S. Department of Energy, Bolinger noted that federal tax credits for wind power, which the government has offered off and on over several decades, have been a barrier for many local investors: They simply don't have enough tax liability to take advantage of them. Cash grants, on the other hand, have "fundamentally reshaped the federal policy landscape for wind power in general, and for community wind projects in particular," he said. The downside is that in order to qualify for a grant, a wind farm must begin construction this year, at the latest, and must be up and running by the end of 2012.

A bill introduced by Congressman Earl Blumenauer, an Oregon Democrat, would extend grant eligibility to any project under construction by the end of 2012. "The cash grant program really

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does a lot to boost community wind,” Bolinger said. “But it’s a question of whether these projects can get their act together in time. The sector would certainly benefit if the grants were extended or made permanent. ... Community wind may help farmers hang on to their farms and preserve that way of life.”

Community wind is one of the earliest development models for modern wind power, dating back to the early 1980s, when they were first widely used by farmers in Northern Europe. Today, community wind may include local farmers, businesses, investors, schools, universities and Native American tribes that have a direct financial stake in a project, as distinct from a land lease. The projects tend to be smaller than commercial wind farms that are built and run by “absentee” owners. By one definition, they may include municipal utilities and rural electric cooperatives. No matter how community wind is defined, Bolinger said, it is challenging to develop and finance. “They’re smaller projects and are not as readily able to partner with investors who can inject tax equity, so that they can use the tax benefits,” he said. “In many cases, the cash grant provides more value to the project.”

A 2009 study by the National Renewable Energy Lab, a division of the U.S. Department of Energy in Golden, Colo., shows that community wind projects support more local jobs than commercial projects — three times as many during construction and nearly twice as many long term. Also, the research shows, they funnel more money into local communities and create public goodwill toward wind power. “In local communities, there’s been little to no opposition to wind projects,” said Eric Lantz, a wind policy analyst at the Renewable Energy Laboratory and a co-author of the study. “There’s more pride taken when you’re able to participate with an ownership stake.”

But for all their advantages — local construction and contracting jobs, dividends for local shareholders, loans from local banks, reinvestment of profits in local communities — these projects account for only 2 percent of the wind power capacity in the United States, or 4 percent, if projects owned by public utilities are included. (Wind power of all varieties contributes 2 percent of all the electricity used in the U.S.) Community wind may sound quaint, but as of 2000, it made up roughly 80 percent of all wind power capacity Germany, Denmark, Sweden and the United Kingdom combined. Community wind in Europe is driven by feed-in tariffs, which require utilities to purchase wind power at premium prices for extended terms. These subsidies are generally not available in the U.S.

Minnesota is the No. 1 state for community wind, largely because the state began promoting it in the mid-1990s with cash subsidies. Minnesota utilities today are required to consider offering long-term contracts with favorable terms to community wind projects. Lantz said the new federal grants help level the playing field for community wind. “It’s still an open question whether they’ll be able to capitalize on these policies,” he said. “That long-term piece is critical if we want to see robust growth.” On the Echo Wind Farm, Madison owns a 1 percent interest in three windmills, also called wind turbines, and John Deere owns 99 percent. In 12 or 13 years, after John Deere reaches a stipulated rate of return on its investment, the ownership will flip and Madison will own a 95 percent interest in three windmills. Two other farmers leasing their land have a similar agreement with John Deere for the ownership of three turbines.

Madison still can’t believe he’s getting paid for something he used to hate. Now he uses the windmills as giant weathervanes. If they’re turning, he knows he can forget about spraying his crops. “I’m looking at the turbines right now up on the ridgeline,” he said, “and they’re turning. It’s a good day.”