

Wind power industry surges, and expects steady growth

2015 was the third-biggest year for expansion in the United States

By David Shaffer (<http://www.startribune.com/david-shaffer/10645931/>) Star Tribune |

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The nation's wind-power industry is anticipating strong sailing ahead — even in Minnesota where it's been in a lull.

The American Wind Energy Association, the industry's Washington-based trade group, on Wednesday reported that 2015 was its third-best year because of major expansions especially in Texas, Oklahoma, Kansas and Iowa. In a major shift, Iowa leapt ahead of California as the No. 2 wind-power state.

Industry officials are projecting continued expansion — wind now supplies 4.5 percent of U.S. electricity — thanks to the recent five-year extension of federal tax credits, declining equipment costs and steady demand from utilities shifting away from carbon-intensive coal burning under the federal Clean Power Plan.

“We are very optimistic right now about the wind energy industry, and renewables in general,” said Shanelle Montana, a Minneapolis-based project developer for EDF Renewable Energy, a unit of the French power company that has developed 10 wind farms in Minnesota and has more in the pipeline.

The wind industry's upbeat outlook comes at a time when the coal, crude oil and natural gas sectors are hurting because of low prices, oversupply and other factors, triggering layoffs, losses and bankruptcies.

Minnesota is a pioneer in wind energy. The state gets 15 percent of its power from wind, ranks seventh among states for total capacity and is home to Xcel Energy, the nation's leading wind-power utility. Yet only two wind farms have been finished in the state since 2012, including the 200-megawatt Pleasant Valley wind farm near Austin, Minn. Xcel took ownership of the project in December.

The lull in Minnesota is about to end, and industry officials project broad expansion across the country for several years.

“We expect the strong activity to continue to gain momentum,” Hannah Hunt, a senior research analyst for the trade association, said on a conference call with reporters.

Industry officials said a major driver is the federal tax credit for wind energy, which Congress extended for five years in the December budget deal. The credit, which can be taken up front over time, is for 30 percent of a project's costs, although the subsidy declines for projects launched later in the five-year period.

Doug Fredrickson, vice president of operations for Avon, Minn.-based Blattner Energy, a leading wind farm contractor, said the five-year tax credit extension will be instrumental in making wind a competitive energy source. In the past, Congress has authorized the credit benefit for shorter periods, and at times let it expire, grinding the industry nearly to a halt.

“The industry at the end of this will be very strong, and we will sustain on our own,” he said in an interview.

Blattner recently expanded its Avon offices, added employees and expects to hire more, he said. Its 2,100 employees include Minnesota-based workers who manage projects and trades people from around the country who work on widely scattered construction projects, he added. The company built 18 wind farms in 2015, he said.

The industry trade group said three large wind farms are under construction in Minnesota. The largest is for Xcel — the Odell Wind Farm near Windom, Minn., which is expected to begin operations by the middle of this year. Two other large wind farms are underway for a municipal power agency and an undisclosed power purchaser, the trade group said in its fourth-quarter industry report.



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Wind generators on a wind farm near Hartland, Minn. Minnesota is a pioneer in wind energy: The state...

Xcel has said it intends to accelerate wind energy expansion for its Minnesota region, adding another 800 megawatts, which is the equivalent of four large wind farms, by 2019. It's not certain they'll all be built in Minnesota. Two of the four most recent of Xcel's Upper Midwest projects were in North Dakota, which is now ranked 11th in wind capacity.

Texas is by far the national leader in wind power, with more than five times the wind energy output of Minnesota, the industry report said. On some days, wind has produced nearly half of the electricity on the Texas power grid, whose footprint is slightly smaller than the state itself, a grid official said on the industry conference call.

Minnesota also has been a pioneer in small, community-owned wind farms, but those projects have fallen out of favor as utilities have sought economies of scale.

"Community wind has struggled because the utilities would rather give out 200-megawatt power contracts," said Dan Juhl, CEO of Pipestone, Minn.-based Juhl Energy, which developed many of the state's 29 community wind projects.

Juhl is talking to three Minnesota communities and private financiers about a new concept — installing two wind turbines and one large solar array at the same site, sharing some electrical equipment to cut costs. Juhl eventually hopes to add battery storage.

This wind-solar hybrid, he said, would partly address the intermittent nature of wind and solar. Sunny days often are windless — and wind often blows the best at night.

"You have a higher capacity factor because you have solar contributing when the wind's not blowing," said Juhl, who is hoping to develop the first such hybrid project in 2017.