

Largest *cooperative-owned* wind project *operational*

By Mary Klecker-Green

Matt Monson, Basin Electric wind technician, took this photo from atop a turbine on Dec. 4, 2009.

Basin Electric ended the year by making history. The nation's largest wind project owned solely by a cooperative, located near Minot, ND, went into operation in the remaining hours of 2009.

The last 10 turbines of the 77-turbine project went into operation at 8:25 p.m. on Dec. 30, meeting the cooperative's aggressive timeline to complete the project in 2009.

For the past five months, crews from contractors RMT and General Electric have been working day and night, seven days a week to complete this project.



Ron Rebenitsch

“They worked in snow, rain, wind and in the dark, but they got it done – and safely,” says Ron Rebenitsch, Basin Electric manager of alternative technologies. “The employees from RMT and GE have worked tirelessly on this project and demonstrated true commitment to completing this project in a timely manner.

“I'd also like to thank our team for its dedication to seeing this project to completion safely and efficiently. The weather certainly didn't make it easy some days,” Rebenitsch says.

“This project represents a significant contribution to Basin Electric's – and North Dakota's – energy picture,” says Wayne Backman, Basin Electric senior vice president of Generation.



Wayne Backman

“With the completion of the wind project in Minot and other projects currently in development, we will be on track to have renewable energy generation

with an installed capacity equal to 20 percent of current member load by the end of 2010.”

This greatly exceeds the resolution Basin Electric's membership passed in



PrairieWinds 1 is the nation's largest wind project owned solely by a cooperative. Its 77 turbines dot the landscape between Minot and Max, ND.

2005 requiring that 10 percent of their electricity demand be provided from renewable forms of energy. Through direct investments and annual payments under power purchase agreements from other renewable resources, these projects represent a capital investment of more than \$1 billion in renewable energy, with more than 600 megawatts of wind generation expected by the end of 2010. This is enough capacity to power the average annual energy needs of 175,000 homes, according to Backman. The Minot wind project alone represents a \$250-million investment, according to Rebenitsch.

Rebenitsch says many additional parties assisted in the development of the project.

“Verendrye Electric Cooperative (Velva, ND) provided a tremendous local force throughout the development of this project,” Rebenitsch says. “Bruce Carlson (Verendrye Electric general manager) has been one of the biggest supporters of this project.”

“This is a dream come true for me and for Verendrye Electric,” Carlson says. “This goes back to the late ’70s and early ’80s when Verendrye Electric partnered with the Department of Energy on a wind data collection project at the former radar base site south of Minot. We knew we had good data then, and it took Basin Electric and great support from Verendrye members/landowners to finally pull this together, and I’m extremely proud.”

State and federal agencies also played a key role in the project. “I’d like to thank the North Dakota Public Service Commission, along with other state and federal regulators, for their assistance and commitment to seeing this project through and their commitment to wind development in North Dakota,” Rebenitsch says.

The three turbines of the Minot Wind 2 project interconnect with a substation owned by Central Power Electric Cooperative, Minot, a Basin Electric member cooperative. The PrairieWinds 1 project interconnects with a new substation that was built to connect to a Western Area Power Administration (Western) 115-kV transmission line.

“This also highlights the value of the long-standing partnership with Western on the Integrated System. Interconnecting to Western’s line, which crosses the project site, avoided the

need for constructing about two miles of interconnection line and a 230-kilovolt interconnection substation,” Rebenitsch says. “Western’s engineering support was critical to the success of this project.” Western is a Federal Power Marketing Administration.

The Minot wind projects are expected to need about eight full-time operations and maintenance employees.

PrairieWinds SD 1, another Basin Electric subsidiary, continues planning and permitting for a 151.5-megawatt wind project in central South Dakota. “We’re currently in the environmental permitting process. We’re also working on engineering for the roads, substation and collector system, and micro-siting the turbines,” Rebenitsch says. He said construction of the 101 wind turbines is scheduled to begin in mid 2010 and have it online by early 2011.



The last turbine was topped out the night of Dec. 4, 2009.

Watch the video, titled “Final day of construction at PrairieWinds 1,” in the www.basinelectric.com video gallery, under the Project Progress topic.