

Challenges may blow in, but . . . Basin Electric is finding ways to **PURSUE WIND**

By Tracie Bettenhausen



The headlines rolling off the presses at Basin Electric show much ado about wind. Wind development holds excitement in the Upper Great Plains; with the new development comes challenges. This is a look at news concerning Basin Electric's projects in wind.

Co-ops' message for Obama: Make wind possible

On Dec. 15, 2008, Basin Electric CEO and General Manager Ron Harper and 25 member managers sent a letter to U.S. senators in the member service territory asking them to address issues important to rural electric cooperatives. These are excerpts:

“Wind energy represents a vast potential resource. However, wind generation potential resides in rural areas, and these rural areas have traditionally been served by cooperatives. Current federal renewable policy does not recognize the fact that cooperatives provide much of rural America's electricity infrastructure, and unfortunately, cooperatives cannot fully participate in renewable energy development. . . .

“In short, the main federal incentive for spurring renewable development, the Production Tax Credit (PTC), is inadequate and inequitable. To develop renewable energy, an organization must already have a huge tax appetite. This means that newer, smaller organizations and non-profits have very limited ways of engaging in renewable energy

development. . . . The PTC must be extended for a reasonable timeframe and restructured if a broader constituency is going to engage in renewable energy development. Making the PTC tradable or refundable would enable cooperatives to fully participate in renewable energy development. In addition, the counterpart to the PTC for non-profits, the Clean Renewable Energy Bond (CREBs) program, should be revised to ensure a reasonable economy of scale and surety of process. . . .

“The first 100 days of any administration sets the tone for the next four years. It is essential for the country to address energy in a proactive fashion that coordinates energy policy, environmental issues and job creation that America needs.”

New turbines to sprout

PrairieWinds: North Dakota and South Dakota

Basin Electric is still on track to build the largest wind project owned by a single cooperative.

But first, the Rural Utilities Service (RUS) must complete an environmental assessment for the North Dakota PrairieWinds project sites. The North Dakota project will consist of 77 turbines, spinning out a generating capacity of

115.5 megawatts (MW). Each tower will stand 80 meters tall.

The turbines are General Electric 1.5sle. The initials "sle" stand for "Super Large Extreme": "Super Large" for a bigger rotor diameter (77 meters

versus 70 meters) compared to the original 1.5 MW turbine, and "Extreme" for the strength of the design. Under the National Environmental Policy Act, an environmental assessment of the proposed sites is required. The environmental assessment is expected to be finished in the spring. "The U.S. Fish and Wildlife Service is performing an endangered species consultation due to the presence of the whooping crane migration corridor. Once these studies are complete, we can begin construction on the North Dakota project," Manager of Alternative Technologies Ron Rebenitsch said.

The South Dakota project will be bigger; it will consist of 101 turbines, the same type as in North Dakota, spinning out a generating capacity of 151.5 MW. As a result, an environmental impact statement (EIS) is required. The EIS process is under way for the South Dakota project sites. The Western Area Power Administration is working with RUS on the EIS, a process that can take two years or more to complete. Several sites in central South Dakota are being considered.

Wilton Wind Energy Center

Basin Electric will once again join forces with FPL Energy to build another wind project in North Dakota. The Wilton Wind Energy Center, with 33 turbines that began operating in 2006, will double in size within the next two

years. FPL Energy will construct, own and operate the 50-MW expansion; Basin Electric will purchase the output and provide interconnection and generation.

Minot 2

Basin Electric will build three more turbines near Minot, ND, called Minot 2, thanks to a unique opportunity.

Rebenitsch says Minot 2 will consist of three wind turbines totaling 4.5 MW. The turbines will be located in the same area as the two turbines along Highway 83 south of Minot.

"In discussions with General Electric, they told us that 17 wind turbines had become available. Shortly before that discussion, Basin Electric Class C member Iowa Lakes Cooperative had inquired about developing a project of their own. Basin Electric was able to arrange for Iowa Lakes to purchase 14 of those turbines, with Basin Electric purchasing the remaining three turbines under a separate contract. These three turbines allowed us to develop a new project where we were familiar with the wind resource and knew we could interconnect with Central Power (Electric Cooperative)," Rebenitsch said. Central Power is a Basin Electric Class A member.

Rebenitsch said the three new turbines will be located adjacent to the existing two turbines that were installed in 2002 because local capacity was available at the interconnection for that existing project. However, Minot 2 will be owned by Basin Electric subsidiary, PrairieWinds ND 1 Inc.

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Western's power comes from dams like the Garrison Dam in North Dakota.

Wind & water: A good partnership

The Western Area Power Administration uses water flow to make electricity. But when there's less water, there's less electricity.

"The severe and prolonged drought in the Missouri River Basin has presented many challenges for Western to honor contract commitments to the preference power customers," said Jody Sundsted, power marketing manager for Western's Upper Great Plains Region. "Our greatest challenge is to purchase replacement energy at the least cost to our customers and also minimize our exposure to short-term market risks."

Basin Electric and Western have agreed to a precedent-setting purchase of wind power between the two organizations – just one more way the two utilities are showing their commitment to renewable energy in the West.

The three-year contract provides for Western to purchase the output from an existing 50-MW wind project. The purchase of wind energy, capacity and renewable attributes from Basin Electric's existing wind generation will help Western offset the effects of prolonged drought in the Missouri River Basin, the area from which both organizations market and deliver power. The short term contract is effective from Jan. 1, 2010, until Dec. 31, 2012.

Renewable attributes refer to the intangible environmental benefits associated with the generation of one megawatt-hour of electric energy by a renewable resource.

"Basin Electric and Western have a long history of working together," said Wayne Backman, Basin Electric senior vice president of Generation. "Without a critical agreement almost 50 years ago with the Bureau of Reclamation, Western's predecessor, Basin Electric would not have been formed. That was the beginning of a relationship with Western that Basin Electric values very much. Since then, we've worked together on many projects and the contract to provide Western with wind energy from our existing resources continues that long-term good working relationship," Backman said.

Update on



The National Renewables Cooperative Organization (NRCO) held its first annual meeting in November 2008 in Indianapolis, IN. NRCO was formed to help develop renewable energy across the nation. Basin Electric CEO and General Manager Ron Harper serves as NRCO's board president.

NRCO has three main purposes. First, the cooperative facilitates the cost-effective, joint development of renewable resources nationwide for its cooperative owners. Second, NRCO helps its owners meet the requirements of renewable portfolio standards and renewable energy standards, whether those standards are mandatory or voluntary. Third, the co-op assists the National Rural Electric Cooperative Association with its legislative and regulatory renewable energy initiatives.

At NRCO's first annual meeting, directors:

- signed a service agreement to establish ACES Power Marketing as its Energy Management Company (EMC),
- established a Web site at www.renewable.coop,
- selected a chief executive officer for NRCO,
- formally established the governance structure of directors, and
- re-elected officers.

Under the EMC service agreement, the NRCO board selected Amadou Fall, ACES Power Marketing's current vice president of transmission, as its CEO. Fall has more than 18 years of experience in the energy business and holds degrees in electrical engineering and engineering management from New York Institute of Technology and Drexel University, respectively.

With the selection of ACES and Fall, NRCO will be headquartered in Carmel, IN. To qualify for NRCO membership, entities must be generation and transmission cooperatives, unaffiliated distribution cooperatives, or partial requirements cooperatives that have the legal right to participate in wholesale electric markets.

Members located in areas that may not have renewable resources can acquire renewable energy credits through renewable projects developed by NRCO – all of which will be new. For example, Harper said a third-party vendor can come to NRCO with an alternative energy project. The NRCO board will review it and, if approved on its merits, open it up to participation by co-op members. "It's also a great way to extend co-op participation into new alternative energy markets," he said.