

Green Energy



Through direct investments and annual payments under renewable power purchase agreements, Basin Electric has made a capital investment of more than \$1 billion in renewable resources.

By year-end 2013, Basin Electric will hold about 757 megawatts of green and renewable* generating capacity in its portfolio, including:

- 713 megawatts of wind generation
- 44 megawatts of recovered energy generation
- 690 kilowatts of flare gas generation

Basin Electric also has another large renewable resource in the form of 315 megawatts of hydropower (winter peaking power purchased from the Western Area Power Administration).

In February 2011, Basin Electric subsidiary PrairieWinds SD 1 commissioned the largest wind project in the nation operated by a cooperative, the 162-megawatt Crow Lake Wind Project, in central South Dakota.

The project consists of 108 GE 1.5-megawatt turbines: 100 are owned by PrairieWinds SD 1 Inc.; one turbine is owned by Mitchell Technical Institute (MTI), Mitchell, SD,

for training wind technology students; and seven are owned by a group of local community investors called the South Dakota Wind Partners. Basin Electric operates the project and purchases the output of the MTI and Wind Partners turbines.

Basin Electric subsidiary PrairieWinds ND 1 owns two projects in North Dakota: the 77 turbines of PrairieWinds 1, commissioned in 2009, and Minot Wind, which consists of two 1.3-megawatt turbines and three 1.5-megawatt turbines. Both projects are operated by Basin Electric and located south of Minot, ND.

Basin Electric owns and operates a small wind project at Chamberlain, SD. The site has two 1.3-megawatt turbines.

Basin Electric purchases power from several wind energy projects:

- NextEra Energy Wind Energy Centers:
 - Edgeley Wind Project (ND): 40 megawatts
 - Wilton Wind Project (ND): 49.5 megawatts
 - Wilton Wind 2 (ND): 49.5 megawatts
 - Baldwin Wind Project (ND): 100 megawatts
 - Hyde County Wind Project (SD): 40 megawatts
 - Day County Wind Project (SD): 99 megawatts

* The actual renewable energy attributes (aka green tags or RECs) of much of that generation was allocated to members or sold to others. No claims of environmental attributes may be claimed for any part of Basin Electric's power supply, unless those attributes are assigned to the power claimed as green or renewable.



- Corn Belt Power Cooperative wind resources in Iowa:
 - Iowa Lakes Electric Cooperative
 - Superior Wind Project: 10.5 megawatts
 - Lakota Wind Project: 10.5 megawatts
 - Hancock County: 7.3 megawatts
 - Crosswinds: 16.8 megawatts
- Wind projects owned by others in South Dakota and Minnesota.
- Contracts for long-term wind purchases totalling 376 megawatts starting in 2015.

Basin Electric purchases the output from more than 145 small wind, solar and biomass generators owned by members throughout the cooperative's service territory, totaling more than 1,900 kilowatts.

Several of Basin Electric's members have asked about incorporating solar as a resource option. The cooperative is considering how to best incorporate both small and large solar into its generation fleet. Basin Electric will work with the membership as it develops a solar resource strategy.

Basin Electric purchases the output from eight recovered energy generation sites along the Northern Border Pipeline: Culbertson, MT; Manning, St. Anthony, and Zeeland, ND; Wetonka, Clark and Estelline, SD; and Garvin, MN.

Each generates 5.5 megawatts of renewable energy from exhaust heat produced by the pipeline's compressor stations. The sites produce power with virtually no incremental emissions and are considered carbon-free generation. They are owned and operated by subsidiaries of Ormat Technologies of Reno, NV.

Basin Electric has joined with other electric cooperatives across the nation to form the National Renewables Cooperative Organization (NRCO). NRCO is an effort among cooperatives to help each other to diversify generating portfolios and to look at renewable generation as part of an overall strategy.

Two major issues face wind energy development: transmission constraints and wildlife protection. Establishing predictable and reasonable regulations regarding wildlife can help move wind energy projects forward more quickly and efficiently. Overly restrictive regulations or uncertainty in the interpretation of rules can delay or end wind energy development in this region altogether.

Visit Basin Electric's website for answers to frequently asked questions about building wind projects:
www.basinelectric.com/Electricity/Generation/Wind/Wind_Facts/index.html.