

**BASIN ELECTRIC
POWER COOPERATIVE**

1717 EAST INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58503-0564
PHONE: 701-223-0441
FAX: 701-557-5336



June 29, 2010

RECEIVED

Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

JUL 02 2010

PUBLIC SERVICE COMMISSION

Re: Basin Electric Power Cooperative – North Dakota Renewable Energy and Recycled Objective Report

Dear Mr. Nitschke:

Enclosed is the 2009 North Dakota Renewable Energy and Recycled Objective Report per N.D. Century Code Chapter 49-02-34.

This report is filed on behalf of the following members within North Dakota:

- Capital Electric Cooperative
- Central Power Electric Cooperative, a wholesale electrical generation and transmission cooperative who supplies power to the following members: Dakota Valley Electric, McLean Electric Cooperative, North Central Electric Cooperative, Northern Plains Electric Cooperative, Verendrye Electric Cooperative, and Capital Electric Cooperative
- KEM Electric Cooperative
- Mor-Gran-Sou Electric Cooperative
- Roughrider Electric Cooperative
- Upper Missouri G&T Electric Cooperative a wholesale electrical generation and transmission cooperative who supplies power to the following North Dakota members: Burke-Divide Electric Cooperative, McKenzie Electric Cooperative, Mountrail-Williams Electric Cooperative, and Slope Electric Cooperative

While the 2008 report that was filed presented a proposed plan to phase in the 10% renewable goal, this report has modified that to reflect no specific objectives for the years prior to 2015. This is in harmony with N.D.C.C. Section 49-02-28, and as we understand, consistent with the method of reporting by the other utilities in North Dakota.

Should you have any questions regarding this report, please feel free to contact me at (701) 557-5413 or cjacobson@becpc.com.

Sincerely,

Casey J. Jacobson
Attorney, Office of General Counsel
Basin Electric Power Cooperative

cjj/ds
enclosures

1 **PU-10-385** Filed: 7/2/2010 Pages: 6
2009 Annual Report

Page 2
Darrell Nitschke
June 29, 2010

cc by e-mail:

Lars Nygren, Capital Electric Cooperative
Tom Meland, Central Power Electric Cooperative
John Knox, KEM Electric Cooperative
Donald Franklund & Clayton Hoffman, Co-Managers, Mor-Gran-Sou Electric Power
Cooperative and Roughrider Electric Cooperative
Tom Barnett, Upper Missouri G&T Electric Cooperative
Wayne Backman
Dave Raatz
Ron Rebenitsch
Zane Zuther
Jeremy Woeste
Mike Eggl

Basin Electric Power Cooperative
North Dakota Renewable Energy Objective Report
June 28, 2010

I. Introduction

N.D. Cent. Code Chapter 49-02-34 (2009) provides that, "Commencing on June 30, 2009, retail providers shall report annually on the provider's previous calendar year's energy sales. This report must include information regarding qualifying electricity delivered and renewable energy and recycled energy certificates purchased and retired as a percentage of annual retail sales and a brief narrative report that describes steps taken to meet the objective over time and identifies any challenges or barriers encountered meeting the objective. The last annual report must be made on June 30, 2016. Retail providers shall report to the public service commission, which shall make data and narrative reports publicly available and accessible electronically on the Internet. Distribution cooperatives may aggregate their reporting through generation and transmission (G&T) cooperatives."

Basin Electric Power Cooperative (Basin Electric) provides power to the following entities and their members in North Dakota:

- Capital Electric Cooperative
- Central Power Electric Cooperative a wholesale electrical generation and transmission cooperative who supplies power to the following members: (Dakota Valley Electric Cooperative, McLean Electric Cooperative, North Central Electric Cooperative, Northern Plains Electric Cooperative, Verendrye Electric Cooperative, and Capital Electric Cooperative)
- KEM Electric Cooperative
- Mor-Gran-Sou Electric Cooperative
- Roughrider Electric Cooperative
- Upper Missouri G&T Electric Cooperative a wholesale electrical generation and transmission cooperative who supplies power to the following North Dakota members: (Burke-Divide Electric Cooperative, McKenzie Electric Cooperative, Mountrail-Williams Electric Cooperative, and Slope Electric Cooperative)

In addition, Basin Electric sells power at the retail level to a subsidiary of Basin Electric, Dakota Gasification Company.

Capital Electric Cooperative, KEM Electric Cooperative, Mor-Gran-Sou Electric Cooperative, Roughrider Electric Cooperative, Central Power Electric Cooperative, Upper Missouri G&T Electric Cooperative and all of their distribution members elected to aggregate their REO resources and have Basin Electric report on their behalf.

II. Sales

| 2009 Reporting Period: | BEPC MWh Sales |
|--|-----------------------|
| Total Basin Electric Member Sales: | 14,973,000 |
| Total Basin Electric North Dakota Member Sales: | |
| Capital Electric Cooperative, Inc. | 201,939 |
| Central Power Electric Cooperative | 1,484,055 |
| Dakota Gasification Company | 1,008,415 |
| KEM Electric Cooperative | 49,961 |
| Mor-Gran-Sou Electric Cooperative | 125,353 |
| Roughrider Electric Cooperative | 490,796 |
| Upper Missouri G&T Electric Cooperative | 1,184,146 |
| Total North Dakota Sales | 4,544,665 |

III. Steps Taken To Meet Objectives

In 2005, the Basin Electric membership set a goal to obtain renewable or environmentally benign resources equal to 10 percent of the megawatt capacity needed to meet its member demand by 2010. Basin Electric is on track to exceed that goal: the cooperative has committed to renewable generation with an installed capacity equal to about 763 MW by 2011, or more than 20 percent of forecasted member peak demand. Through direct investments and annual payments under renewable power purchase agreements, these projects represent a capital investment of more than \$1 billion in renewable resources. As of May 1, 2010, Basin Electric held nearly 496 megawatts of green and renewable energy capacity in its generating portfolio:

- 451.5 megawatts of wind generation
- 44 megawatts of recovered energy generation
- 375 kilowatts of biogas generation

Basin Electric also has another large renewable resource in the form of 279 megawatts of hydropower (winter peaking power purchased from the Western Area Power Administration).

On Dec. 30, 2009, Basin Electric subsidiary PrairieWinds ND 1 commissioned the final of 77 wind turbines for the PrairieWinds 1 project south of Minot, ND. It is the largest wind project in the nation owned solely by a cooperative. PrairieWinds ND 1 also owns and operates the smaller Minot Wind project, which consists of two 1.3-megawatt turbines and three 1.5-megawatt turbines. The subsidiary owns a total of 122.6 MW. 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 larger scale wind energy projects owned by others:

- NextEra Energy Resources' Wind Energy Centers located near:
 - Edgeley, ND: 40 megawatts
 - Wilton, ND: 99 megawatts
 - 49.5 megawatts sold to 3rd party from Jan 1, 2010 – Dec 31, 2012
 - Hyde County, SD: 40 megawatts

- Day County, SD: 99 megawatts
 - 99 megawatts sold to 3rd party from May 1, 2010 – Apr 30, 2013
- Purchased from Corn Belt Power Cooperative:
 - Superior Wind Project: 10.5 megawatts
 - Lakota Wind Project: 10.5 megawatts
 - Hancock County: 7.3 megawatts
 - Crosswinds: 16.8 megawatts
 - Environmental Attributes retained by owner
- Purchased under Basin Electric's Commercial Wind Rate:
 - Rosebud Sioux Tribe: 750 kilowatts
 - Environmental Attributes retained by owner
 - Pipestone School District: 750 kilowatts
 - Oaklane Hutterian Brethren: 160 kilowatts
 - Mdewakanton Sioux Community: 1.5 megawatts

In addition to purchasing the output of larger wind projects, Basin Electric also purchases the output from more than 100 small wind, solar and biomass generators owned by members throughout the cooperative's service territory, totaling more than 2,200 kilowatts.

Basin Electric purchases the energy from eight Recycled Energy Generation (REG) power plants "fueled" by hot exhaust off the Northern Border Pipeline compressor stations. These are Culbertson, MT; Manning, St. Anthony, and Zeeland, ND; Aberdeen, Clark and Estelline, SD; and Garvin, MN, for a total generating capacity of about 44 MW. The natural gas fired compressor stations keep the gas moving inside the pipeline. These compressors are normally 35,000-40,000 horsepower gas turbines that release roughly 900 degree exhaust gases during operation. By installing a heat exchanger in the exhaust stream and using that recovered heat in an organic Rankine cycle attached to a turbine generator set, approximately 5.5 MW of electricity is available at each site. The generation is environmentally benign, using virtually no additional fuel and producing virtually zero emissions and are considered carbon free generation. Basin Electric has signed a 25-year contract with the developer for the output of these eight sites.

Basin Electric purchases the output from Midwest Dairy Institutes 375 kilowatt methane digester located near Milbank, SD.

Basin Electric has more than 267 megawatts of wind energy projects in the works, including:

- PrairieWinds SD 1, a Basin Electric subsidiary, plans to build a 151.5-megawatt project near White Lake, South Dakota. It will be operational by early 2011.
- Basin Electric has agreed to purchase the output of a 10-megawatt community wind project in South Dakota adjacent to the PrairieWinds SD 1 project.
- Basin Electric and NextEra Energy Resources signed an agreement in early 2010 that will allow development of a 100-megawatt wind project near Baldwin, N.D. This will be the sixth agreement between Basin Electric and NextEra Energy with NextEra Energy building, owning and operating a large wind project and Basin Electric purchasing the electricity.

Further, 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 renewables as part of an overall strategy.

By the end of 2011, Basin Electric will have more than 700 megawatts of wind generation in its generation portfolio. This is enough capacity to power the average annual energy needs of more than 200,000 homes. Thru the above mentioned projects and activities, Basin Electric has become a national leader in renewable energy in the Upper Midwest.

In 2009, Basin Electric's generation from renewables equaled 4% of Basin Electric's member sales, not reflecting the sale of green tags to help in the economics of renewable generation. With 763 MW of renewable generation, Basin Electric anticipates having generation from renewables equal to 12.7% of Basin Electric's member sales in 2015.