
**BASIN ELECTRIC
POWER COOPERATIVE**

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June 28, 2010

Mr. Gary Hanson, Chairman
SD Public Utilities Commission
Capitol Building, 1st Floor
500 East Capitol Avenue
Pierre, SD 57501

Dear Mr. Hanson:

Pursuant to the requirements of the South Dakota Energy Conversion and Transmission Facilities Siting Act, Basin Electric Power Cooperative hereby notifies you of the electronic submittal of its South Dakota Ten-Year Plan.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Harper'.

Ronald R. Harper
CEO & General Manager

vlw

Exhibit A

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**BASIN ELECTRIC
POWER COOPERATIVE**

SOUTH DAKOTA TEN-YEAR PLAN

2010

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Spirit Mound Station

1. Located six miles north of Vermillion, SD, was declared available for commercial operation in June, 1978.
2. The station is composed of two combustion turbines, fired with number 2 fuel oil obtained from Midwest markets. The nameplate capacity of each unit is 60 MW; the units currently have a net rating of 60 MW each.
3. Spirit Mound Station was constructed primarily as a peaking unit to be used as reserves during outages of other Basin Electric or Mid-Continent Area Power Pool (MAPP) resources. Therefore, operation of the station is limited. Net generating production in 2008 was 3,040 MW hours (MWh) and 304 MWh in 2009.
4. Spirit Mound Station does not require water for production of electricity.
5. Spirit Mound Station consumed 283,100 gallons of fuel oil during 2008, and 35,290 gallons during 2009.
6. A projected service removal date for Spirit Mound Station has not been determined.

PrairieWinds Chamberlain Project

1. Located at Chamberlain, SD was declared available for commercial operation in January, 2002.
2. The project is composed of two wind turbines – 1.3 MW each.
3. The Chamberlain project was constructed as part of Basin Electric's overall power supply to serve its members.
4. The Chamberlain project does not require water for production of electricity.
5. This is a wind power project and therefore no fuel is consumed.
6. A projected service removal date for the Chamberlain wind turbines has not been determined.

Groton Generation Station (Unit 1 & 2)

1. Located near Groton, SD, Unit 1 was declared available for commercial operation in July, 2006 and Unit 2 was declared available for commercial operation in July, 2008.
2. The station is composed of two 100 MW winter rated gas fired combustion turbines.

3. The Groton Generation Station produced 89,151 MWh in 2008 and 50,159 MWh in 2009.
4. The Groton Generation Station does not require water for production of electricity.
5. The fuel source is natural gas. The Groton Generation Station consumed 837,415 Dkt in 2008 and 474,260 Dkt in 2009.
6. A projected service removal date for the Groton Generation Station has not been determined.

20:10:21:05 PROPOSED ENERGY CONVERSION FACILITIES

Basin Electric is currently proceeding with the construction of a 300 MW combined-cycle power plant named "Deer Creek Station" which is located near White, SD and is scheduled to be in-service the spring of 2012. Basin Electric is also proceeding with the construction of PrairieWinds SD 1 near Crow Lake, SD; it will consist of 101 turbines, 151.5 MW, and is scheduled to be in-service the winter of 2010/2011. Additionally, Basin Electric is evaluating the development of new generating resources (coal, gas, and wind) to meet Basin Electric's forecasted load growth.

20:10:21:06 EXISTING TRANSMISSION FACILITIES

<u>Location</u>	<u>Type</u>	<u>Conductor</u>	<u>Voltage</u>
Leland Olds-Groton-Watertown, SD	Steel Tower	2183.5 MCM	345 kV
Leland Olds-Ft. Thompson, SD	Steel Tower	2183.5 MCM	345 kV
Antelope Valley-Broadland	Steel Tower	2-2306 MCM	345/500 kV*
Philip-Philip Tap, SD	Wood Pole	954 MCM	230 kV
Broadland-Huron, SD	Steel Tower	2306 MCM	230 kV
Groton, SD Substation			345/115 kV
Spearfish-Yellow Creek, SD	Wood/Steel Pole	1272 MCM	230 kV
Yellow Creek, SD-Osage, WY	Wood/Steel Pole	1272 MCM	230 kV

New Underwood-
Rapid City DC Tie

Wood/Steel Pole 1272 MCM

230 kV

Retirement dates on these facilities are indeterminate.

*The Antelope Valley-Broadland transmission line is constructed for 500 kV operation but is currently being operated at 345 kV. Operation at 500 kV is planned if an Antelope Valley Station Unit 3 is constructed.

20:10:21:07 PROPOSED TRANSMISSION FACILITIES

Results of the Deer Creek Station study and other studies supporting the analysis of future generation resources and area load growth (refer to section 20:10:21:05) will identify transmission improvements necessary to support the interconnection of new resources and network loads. Preliminary network load serving studies indicate transmission upgrades in western SD may be required to serve proposed network load growth. A 230 kV line from Big Bend Substation to Witten Substation may be required by 2014.

20:10:21:08 COORDINATION OF PLANS

Basin Electric provides capacity and energy above WAPA's allocations to those preference customer cooperatives who have executed electric service contracts with Basin Electric. In order to provide service Basin Electric must augment WAPA's existing transmission system. Existing transmission facilities listed in section 20:10:21:06 are coordinated facilities which tie into WAPA's existing transmission system. The Miles City, MT, to New Underwood, SD, line constructed by WAPA is also a coordinated transmission line which provides service to Basin Electric, Montana-Dakota Utilities Co. and WAPA customers. The Groton 345/115 kV substation constructed by Basin Electric provides Northwestern Energy and Heartland Consumers Power District with additional capacity in the Aberdeen-Groton area. The Rapid City Asynchronous Tie and associated transmission facilities are coordinated with Black Hills Power, Inc. and the Western Area Power Administration.

20:10:21:09 SINGLE REGIONAL PLAN

The Spearfish-Yellow Creek and Yellow Creek-Osage 230 kV lines are part of a regional plan with Black Hills Power, Inc. to provide transmission service and electric power to consumers of Basin Electric's member cooperatives and Black Hills Power, Inc. in the Spearfish-Deadwood-Rapid City-Hot Springs area of South Dakota. Also, in joint effort with Black Hills Power, Inc., the Rapid City Asynchronous Tie is part of a single regional plan.

20:10:21:10**SUBMISSION OF REGIONAL PLAN**

Future joint transmission studies between Basin Electric and Black Hills Power, Inc., which show the potential need for transmission to support the northeast area of Wyoming and the Black Hills area of South Dakota, will be submitted to the commission.

20:10:21:11**UTILITY RELATIONSHIPS****Coordinated Planning**

Basin Electric Power Cooperative, Powder River Energy Corporation, and Black Hills Power, Incorporated filed with the FERC a joint open access transmission system tariff (OATT) titled the Common Use System Tariff effective October 15, 2003. The Administration Agreement for the Common Use System Tariff provides for the establishment of a Coordinating Committee to jointly oversee the planning, coordination and construction of facilities in the service area of the tariff. The previous transmission agreement, between the parties titled Agreement for Transmission Service and the Common Use of Transmission Systems, dated January 1, 1986, also provided for this type of coordinated planning. Examples of this coordinated planning include the Spearfish to Yellow Creek 230 kV line, the Yellow Creek to Osage 230 kV line, and the Rapid City Asynchronous Tie.

Member cooperatives of Basin Electric have a common service area with MDU in the western half of North Dakota and a portion of South Dakota. In order to avoid the duplication of transmission facilities, an agreement was entered into on January 1, 1972, which provides for joint construction and use of transmission facilities. This agreement provides for studies to be performed every two years to determine what additional transmission will be required to meet area load growth. The agreement calls for the sharing of facilities on the basis of each utility's respective projected loads. The following facilities represent a partial listing of coordinated planning with MDU.

- a) Leland Olds-Mallard 230 kV Line
- b) Logan (ND)-Tioga (ND) 230 kV Line
- c) Miles City (MT)-Baker (MT)-Bowman (ND)-Hettinger (ND)-Bison (SD)-New Underwood (SD) 230 kV Line
- d) Wishek (ND) Junction 230/115 kV Substation
- e) Northwest Mandan (ND)-New Salem (ND) 115 kV Line
- f) Medora (ND) 230/41.6 kV Substation
- g) Dawson (ND) 230/41.6 kV Substation (Herbert Weber)
- h) Dickinson 230/115/41.6 kV Substation
- i) Antelope Valley-Charlie Creek (ND) 345 kV Line
- j) Logan (ND)-Kenmare (ND) 115 kV Line
- k) Dickinson (ND)-Hettinger (ND) 115 kV Line
- l) Whitlock (SD) 230/41.6 kV Substation
- m) Glenham (SD) 230/115/41.6 kV Substation Addition

The Miles City-Hettinger-New Underwood, SD, 230 kV line is another example of coordinated planning. This line was jointly planned and constructed with WAPA, MDU and Basin Electric. Basin Electric and MDU each have 25% capacity rights and WAPA owns and has capacity rights to 50% of the line.

Mid-Continent Area Power Pool (MAPP)

The Midwest Reliability Organization (MRO) operates as a Regional Reliability Council to further the reliability and other benefits of interconnected operations among a large number of entities engaged in the electric utility business in the Mid-Continent Area Power Pool (MAPP) region. Basin Electric participates on various committees which review the transmission adequacy and plans of area utilities as a function of the Mid-Continent Area Power Pool.

The Transmission Planning Subcommittee (TPSC), which coordinates MAPP's ten-year plan and MAPP's Attachment K to the FERC 890 rule, has formed four sub-regional working groups whose primary purpose is to perform coordinated transmission planning. The sub-regional planning groups are:

Missouri Basin
Northern MAPP
Iowa Transmission Working Group

The Missouri Basin Sub-Regional Planning Group includes utilities in the North and South Dakota area. The Northern MAPP Sub-Regional Planning Group includes utilities in northeastern North Dakota and western Minnesota. In compliance with NERC planning standards, the working groups are required to develop a coordinated ten-year plan for MAPP every two years for their specific regions. These ten-year plans evaluate the adequacy of existing interconnected systems to support load growth and provide an indication of the ability of the system to meet regional reliability criteria.

Basin Electric also participates on the Design Review Subcommittee which ensures that long term reliability of the MAPP system is not adversely affected by changes to generation and transmission facilities. Many other MAPP committees, in which Basin Electric is involved, also review the transmission, generation, and operations of the MAPP interconnected system.

Mid-West Electric Consumers Association

Basin Electric Power Cooperative is a member of the Mid-West Electric Consumers Association (Mid-West). Mid-West, which was founded in 1958, is a regional coalition of consumer-owned electric utilities that purchase power from the federal multi-purpose projects in the Missouri River Basin. Mid-West's Water & Power Marketing Committee meets throughout the year to discuss and review planned additions of Mid-West member utilities.

Integrated System Transmission Tariff

Basin Electric Power Cooperative, WAPA and Heartland Consumers Power District have combined their transmission facilities to create the Integrated System (IS) transmission tariff. This tariff was created to facilitate the use of the transmission facilities of Basin Electric Power Cooperative, WAPA and Heartland Consumers Power District by other utilities required under FERC Order 888.

20:10:21:12 EFFORTS TO MINIMIZE ADVERSE EFFECTS

The primary obligation of Basin Electric is to provide an adequate wholesale supply of dependable, low-cost electric power to its member systems, consistent with the public interest. In conjunction with this, Basin Electric endeavors to maximize the socio-economic benefits associated with electrical generation and transmission projects and to minimize negative impacts associated with these projects. This is particularly true with respect to protecting the agricultural lifestyle and productivity of this region.

The Cooperative remains committed to preserving and enhancing the ecological balance of this region for the benefit of future generations. It is the policy of Basin Electric that environmental impacts be monitored and steps taken to mitigate and alleviate adverse effects. Basin Electric has instituted a variety of programs designed to maximize the most efficient use of energy and to benefit the human, agricultural, and biological environments.

Projects proposed by Basin Electric adhere to the requirements of the Rural Utilities Service Environmental Policies and Procedures which describe the procedures for compliance with the provisions of the National Environmental Policy Act (NEPA). Through the NEPA process, Basin Electric encourages state, federal and public participation in proposed projects so that once potential impact issues are identified appropriate mitigation measures can be formulated with the assistance of the participants to minimize potential impacts. An Environmental Assessment is developed which includes a comprehensive discussion and evaluation of environmental issues and serves as a baseline document for subsequent environmental regulatory permits and a federal Environmental Impact Statement when required. The goal of this process is to select a facility location that best minimizes environmental, cultural and socio-economic impacts and engineering and construction costs.

Basin Electric adheres to the appropriate South Dakota statutes regulating industrial development projects such as electrical generating facilities and high voltage transmission lines and substations. In addition, it is Basin Electric's practice to inform affected state and federal agencies when prospective projects are identified to solicit their input early in the planning process.

Basin Electric utilizes a socio-economic impact management program to assist communities in addressing population growth associated with the construction of energy conversion facilities. Basin Electric follows an open-planning process to determine the specific negative and positive impacts that may develop in the area, and works closely with the local citizens and public officials on key issues. Once issues are

defined, strategies are recommended to alleviate the adverse conditions. Basin Electric further provides public officials with the technical assistance to secure financing for public services and facilities needed to alleviate negative impacts.

20:10:21:13 **EFFORTS RELATING TO LOAD MANAGEMENT**

Throughout the Basin Electric service area, local rural electric cooperatives maintain load management plans that vary from voluntary peak alert programs to very sophisticated central control systems.

Basin Electric staff offers some technical assistance and assists in efforts to coordinate energy management and/or load management programs to best benefit the entire Basin Electric service area.

Basin Electric staff emphasizes the wise use and management of available resources to provide the most economical supply of energy to the consumer, rather than only a conservation or peak shaving program.

20:10:21:14 **LIST OF REPORTS**

No reports at this time.

20:10:21:15 **CHANGES IN STATUS OF FACILITIES**

Groton Generation Station Unit 2 went commercial July 1, 2008.

20:10:21:16 **PROJECTED ELECTRIC DEMAND**

1. Exhibit 1 represents Basin Electric's historical and projected sales to its Class A members. This exhibit represents Basin Electric's supplemental power supply responsibility to the Class A members. As a supplemental power supplier, Basin Electric is responsible for providing the members' requirements in excess of the fixed amount of power they receive from the Western Area Power Administration.

An econometric based load forecast was completed in early 2009. The econometric forecasting system in the load forecast is a bottom up process that begins by developing econometric equations and forecasts for each distribution cooperative. The total system consists of approximately 350 forecasting equations and over 700 explanatory variables. Annual and monthly forecasts of energy and demand are conducted for a 15 year period. The distribution cooperative forecasts are combined up to obtain the generation and transmission cooperative forecasts (G&T's). The G&T's power requirements are then separated into various power supply responsibilities. The Basin Electric

components are combined to obtain the Basin Electric total power supply responsibility.

The modeling and forecasting is performed at Basin Electric. Throughout the modeling and forecasting process there is constant communication and review by member systems and the Rural Utilities Service (RUS) in Washington, D.C. The RUS is responsible to review and approve close to 1,000 distribution cooperative forecasts as well as large G&T systems forecasts such as Basin Electric. The RUS insures that state of the art methods and technologies are being used to produce short term and long term forecasts. Historical energy data is combined with external data obtained from government and private sector sources as well as membership to form econometric forecasting equations. External projections of explanatory economic and demographic variables used in the forecasting process are obtained from the Food and Agricultural Policy Research Institute at the University of Missouri-Columbia, MO, and Woods & Poole Economics, Inc., and the Department of Energy, Wn D.C.

2. Basin Electric's service area is electrically divided into western and eastern systems. These systems are separated by the east-west ties which are boundaries that separate two major electrical regions of the United States. This boundary essentially runs south from Fort Peck, Montana, approximately along the South Dakota-Wyoming, Nebraska-Wyoming, and Colorado-Kansas borders.

As a result of this, Basin Electric must construct additional generating capacity or purchase capacity and energy on both sides of the ties in order to serve its member load requirements.

The resources available to Basin Electric to serve its members east-side requirements are as follows:

- a) Leland Olds Station: Leland Olds Unit 1 was placed in-service on January 9, 1966 and is a base load thermal unit located near Stanton, ND, with a net capacity of 222 MW. Leland Olds Unit 2 was placed in service on December 15, 1975 with a net capacity of 447 MW.
- b) WAPA Peaking Capacity: In 1968, Basin Electric executed a long-term contract with the federal government for USBR (now WAPA) hydro peaking from the dams in the Missouri River Basin. This contract currently provides Basin Electric with 268.2 MW of winter peaking capacity.
- c) Spirit Mound Station: Basin Electric placed in service on June 30, 1978, two oil-fired combustion turbines. The combined winter rating of the two units is 120 MW (net) and the summer rating is 100 MW (net). The capacity is intended to be used primarily as reserves or replacement during initial outages of base load units or during peak load periods when existing base load units cannot meet the demand. The Spirit Mound Station is located near Vermillion, SD.

- d) Neal IV: Basin Electric and Northwest Iowa Power Cooperative (NIPCO), one of Basin Electric's member cooperatives negotiated a new power supply contract which provides that NIPCO will sell to Basin Electric NIPCO's 31 MW of uncommitted capacity and associated energy from Unit No. 4 of the George Neal Generating Station (Neal IV). In return NIPCO entered into a wholesale power contract with Basin Electric whereby Basin Electric will sell and deliver to NIPCO all of NIPCO's capacity and energy requirements in excess of the power and energy available to NIPCO from the Western Area Power Administration.

Basin Electric and Corn Belt Power Cooperative (Corn Belt), one of Basin Electric's member cooperatives, negotiated a power supply contract which provides that Corn Belt will sell to Basin Electric Corn Belt's 73 MW of uncommitted capacity and associated energy from Unit No. 4 of the George Neal Generating Station (Neal IV). In return, Corn Belt entered into a wholesale power contract with Basin Electric whereby Basin Electric will sell and deliver to Corn Belt all of Corn Belt's capacity and energy requirements in excess of the power and energy available to Corn Belt from the Western Area Power Administration.

- e) Laramie River Station: Basin Electric, together with five other consumer-owned power supply entities, began construction in July 1976 on the Laramie River Station near Wheatland, in southeast Wyoming. The station's three units became fully operational in November 1982. As project manager and operating agent for the Missouri Basin Power Project (MBPP), Basin Electric was assigned overall responsibility for the design, construction and operation of the power plant and related transmission. Units 2 and 3 of the Laramie River Station are electrically connected to the western system; Unit 1 is electrically connected to the eastern system. The amount of power that Basin Electric receives from the east side unit is 50 MW (net).
- f) Antelope Valley Station: Basin Electric operates two 450 MW (net) thermal-generating units near Beulah, ND. Approximately 110+ MW of electric power for the Dakota Gasification Company Synfuels Plant facilities are supplied by the Antelope Valley Station. Unit 1 began commercial operation on July 1, 1984 and Unit 2 began partial commercial operation on June 1, 1986.
- g) Chamberlain Wind Project: Basin Electric, in partnership with East River Electric Power Cooperative, has constructed a wind energy project near Chamberlain, South Dakota. The 2.6 megawatt capacity project was placed into commercial service in January 2002. The energy is delivered to members as part of Basin Electric's overall power supply.
- h) Minot Wind Project: Basin Electric, in partnership with Central Power Electric Cooperative, has constructed a wind energy project 14 miles south of Minot, North Dakota. The 2.6 megawatt capacity wind project was placed into commercial service in February, 2002. Three additional

turbines were added in December, 2009 for a total output of 7.1 MW. The energy is delivered to members as part of Basin Electric's overall power supply.

- i) PrairieWinds 1: Basin Electric, in partnership with PrairieWinds ND 1 Inc., has constructed a wind energy project of 77 turbines near Minot, North Dakota. The 115.5 MW capacity wind project was placed into commercial service in December, 2009.
- j) Walter Scott 3 and 4: Basin Electric and Corn Belt Power Cooperative (Corn Belt), one of Basin Electric's member cooperatives, negotiated a power supply contract which provides that Corn Belt will sell to Basin Electric Corn Belt's 26 MW of uncommitted capacity and associated energy from Unit No. 3 and 42 MW of uncommitted capacity and associated energy from Unit No. 4 of the Walter Scott Energy Center. In return, Corn Belt entered into a wholesale power contract with Basin Electric whereby Basin Electric will sell and deliver to Corn Belt all of Corn Belt's capacity and energy requirements in excess of the power and energy available to Corn Belt from the Western Area Power Administration.
- k) Duane Arnold Energy Center: Basin Electric and Corn Belt Power Cooperative (Corn Belt), one of Basin Electric's member cooperatives, negotiated with a power supply contract which provides that Corn Belt will sell to Basin Electric Corn Belt's 62 MW of uncommitted capacity and associated energy from the Duane Arnold Energy Center. In return, Corn Belt entered into a wholesale power contract with Basin Electric whereby Basin Electric will sell and deliver to Corn Belt all of Corn Belt's capacity and energy requirements in excess of the power and energy available to Corn Belt from the Western Area Power Administration.
- l) Wisdom Unit 1: Basin Electric and Corn Belt Power Cooperative (Corn Belt), one of Basin Electric's member cooperatives, negotiated a power supply contract which provides that Corn Belt will sell to Basin Electric Corn Belt's 38 MW of uncommitted capacity and associated energy from the Earl F. Wisdom Unit 1. In return, Corn Belt entered into a wholesale power contract with Basin Electric whereby Basin Electric will sell and deliver to Corn Belt all of Corn Belt's capacity and energy requirements in excess of the power and energy available to Corn Belt from the Western Area Power Administration.
- m) Wisdom Unit 2: Basin Electric partnered with Corn Belt Power Cooperative to build the 80 MW natural gas peaking unit near Spencer, Iowa. Basin Electric owns one half of the unit which was placed in service in April 2004. Basin Electric purchases 87.5% of Corn Belt's owned half in response to Corn Belt entering into a Wholesale Power Contract.
- n) Groton Generation Station: Basin Electric commissioned Groton Unit 1 in 2006 and Unit 2 in 2008. These units provide peaking power. They each

have a winter rating of 100 MW.

- o) Other Short Term Resources: Basin Electric has also entered into a number of short-term purchase agreements to meet contractual power supply obligations. Due to the relatively short-term duration of these arrangements no specifics are provided.
- p) Long Term Resource: Basin Electric entered into a long-term purchase agreement with NextEra Energy Resources to meet contractual power supply obligations. A 40 megawatt wind energy project is located just west of Edgeley, ND; two 49.5 MW wind energy projects are located near Wilton, ND; a 40 megawatt wind energy project is located near Highmore SD; and a 99 MW wind energy project is located near Groton, SD. Basin Electric also entered into a long-term purchase agreement with the City of Madison which provides 10MW of peaking power from a diesel unit at Madison, SD. Basin Electric has a purchase power agreement with Ormat Industries for eight 5.5 MW waste heat recovery units. Three sites are in SD; near Wetonka, Clark, and Estelline. Three sites are in North Dakota, one in Montana and one in Minnesota. Basin Electric also purchases the output from the following generating facilities from its member cooperative Corn Belt, 25 MW from the Webster City, IA combustion turbine; 11.2 MW from the diesel generators at Estherville, IA; 3.8 MW from the diesel generators at Pocahontas, IA; 10 MW from the combustion turbine located at Spencer, IA; and from the following wind generating projects, 7.3 MW of Hancock County, 16.8 MW of Crosswinds, 10.5 MW from Lakota and 10.5 MW from Superior, all located within Iowa. Basin Electric also has long term purchases from Minnesota Power for 100 MW and 30 MW from Municipal Energy Agency of Nebraska.
- q) Future Power Supply: For discussion of future power supply, please refer to Section 20:10:21:05 (Proposed Energy Conversion Facilities).

The resources available to Basin Electric to serve its members west-side requirements are as follows:

- a) Laramie River Station: The Laramie River Station capacity that Basin Electric will receive from the two west-side units is 669 MW (net).
- b) Miles City DC Tie: Basin Electric and WAPA have jointly constructed a 200 MW back-to-back, AC-DC-AC tie at Miles City, MT. This tie enables Basin Electric to serve Central Montana Electric Power Cooperative Inc., a Class A member with electrical loads located primarily west of the east-west ties, using capacity from east-side resources such as Antelope Valley Station.
- c) Rapid City DC Tie: Basin Electric and Black Hills Power, Inc. have jointly constructed a 200 MW asynchronous tie at Rapid City, SD. This tie enables Basin Electric to serve new coalbed methane load growth in northeastern Wyoming located west of the east-west ties, using capacity from east side resources such as Antelope Valley Station. The Basin Electric ownership

percentage is 65% and the Black Hills Power, Inc. ownership percentage is 35%.

- d) Wyoming Distributed Generation: The Wyoming Distributed Generation consists of 9 units located at 3 sites; Arvada, Hartzog and Barber Creek. These units are natural gas fired units with a total net output of 45 MW summer and 54 MW winter.
- e) Dry Fork Station: Basin Electric is developing a 390 MW (net) coal fired power plant located 10 miles north of Gillette, WY. This project is named "Dry Fork Station" and the projected in-service date is 2011. Basin Electric will own 92.9% of the station.

The projected load values contained in Exhibit 1 were obtained from the econometric based load forecast. These loads have been adjusted to an at-generator system coincident basis by allowing for reserves, on-peak losses, and system diversity as outlined in Exhibit 2.

20:10:21:17 **CHANGES IN ELECTRIC ENERGY DEMAND**

Exhibit 1 shows demand increases.

20:10:21:18 **MAP OF SERVICE AREA**

Exhibit 3 is a map of Basin Electric's service area.

EXHIBIT 1

Summer/Winter Loads

Basin Electric Member Loads by State

Note: Historical 1995-2009 and Forecasted 2010-2023

SUMMER Peak Demand (MW)

	ND	%	SD	%	MN	%	IA	%	NE	%	MT	%	CO	%	WY	%	BEPC TOTAL
1995	223.9	22.3%	235.9	23.5%	38.9	3.9%	71.6	7.1%	186.2	18.5%	21.2	2.1%	77.9	7.8%	148.9	14.8%	1004.5
1996	222.1	22.6%	220.2	22.4%	38.4	3.9%	67.0	6.8%	170.2	17.3%	27.8	2.8%	78.2	7.9%	160.7	16.3%	984.7
1997	244.0	22.6%	239.0	22.2%	41.3	3.8%	77.6	7.2%	195.5	18.1%	26.8	2.5%	82.3	7.6%	171.6	15.9%	1078.1
1998	248.7	21.8%	273.0	24.0%	47.1	4.1%	83.2	7.3%	211.3	18.6%	28.1	2.5%	84.3	7.4%	162.8	14.3%	1138.4
1999	267.9	22.4%	288.5	24.2%	52.5	4.4%	102.2	8.6%	197.4	16.5%	28.3	2.4%	83.9	7.0%	173.8	14.6%	1194.5
2000	292.6	23.0%	301.7	23.7%	53.9	4.2%	98.7	7.8%	214.9	16.9%	28.9	2.3%	82.4	6.5%	199.9	15.7%	1273.0
2001	306.5	22.2%	342.5	24.8%	58.0	4.2%	116.0	8.4%	227.3	16.5%	30.3	2.2%	81.9	5.9%	217.9	15.8%	1380.4
2002	315.3	21.3%	351.9	23.8%	57.7	3.9%	127.1	8.6%	253.5	17.1%	43.9	3.0%	94.6	6.4%	235.5	15.9%	1479.6
2003	353.0	22.9%	345.5	22.4%	57.8	3.8%	121.4	7.9%	239.1	15.5%	55.9	3.6%	114.0	7.4%	253.9	16.5%	1540.6
2004	328.8	21.2%	353.9	22.8%	55.4	3.6%	119.0	7.7%	233.4	15.0%	61.8	4.0%	130.1	8.4%	271.3	17.5%	1553.6
2005	356.6	20.7%	400.1	23.2%	62.0	3.6%	131.1	7.6%	269.7	15.7%	74.2	4.3%	131.6	7.6%	296.4	17.2%	1721.6
2006	400.0	20.5%	440.4	22.6%	71.4	3.7%	187.9	9.7%	272.9	14.0%	82.0	4.2%	134.3	6.9%	358.0	18.4%	1946.9
2007	451.9	21.9%	460.8	22.3%	91.6	4.4%	186.1	9.0%	261.6	12.7%	86.4	4.2%	135.2	6.6%	388.9	18.9%	2062.5
2008	464.6	22.5%	420.7	20.4%	87.5	4.2%	177.0	8.6%	270.1	13.1%	73.8	3.6%	142.2	6.9%	426.4	20.7%	2062.3
2009	448.3	21.4%	437.5	20.9%	101.6	4.9%	201.0	9.6%	231.5	11.1%	64.8	3.1%	145.4	7.0%	400.1	19.1%	2090.1
2010	562.7	19.6%	597.0	20.8%	217.7	7.6%	524.6	18.3%	254.5	8.9%	95.5	3.3%	124.8	4.4%	491.7	17.1%	2868.5
2011	584.3	18.9%	625.9	20.2%	234.4	7.6%	538.7	17.4%	256.5	8.3%	110.3	3.6%	178.0	5.8%	564.8	18.3%	3092.8
2012	632.2	18.8%	724.0	21.5%	261.9	7.8%	551.5	16.4%	253.2	7.5%	149.0	4.4%	187.2	5.6%	604.8	18.0%	3363.9
2013	652.8	19.0%	737.8	21.4%	275.9	8.0%	558.1	16.2%	252.4	7.3%	153.6	4.5%	187.2	5.4%	622.4	18.1%	3440.2
2014	682.3	19.1%	823.3	23.0%	289.6	8.1%	533.3	14.9%	253.3	7.1%	180.6	5.1%	187.2	5.2%	622.5	17.4%	3572.1
2015	696.8	19.3%	838.1	23.2%	303.8	8.4%	537.1	14.9%	259.1	7.2%	183.9	5.1%	187.2	5.2%	610.7	16.9%	3616.7
2016	713.3	19.5%	853.6	23.3%	318.2	8.7%	543.6	14.9%	258.8	7.1%	187.4	5.1%	187.2	5.1%	597.1	16.3%	3659.2
2017	728.3	19.7%	868.8	23.5%	333.6	9.0%	549.9	14.9%	261.4	7.1%	190.2	5.1%	187.2	5.1%	576.9	15.6%	3696.4
2018	742.8	19.8%	884.7	23.6%	350.0	9.3%	557.0	14.8%	262.5	7.0%	192.4	5.1%	187.2	5.0%	574.7	15.3%	3751.2
2019	751.7	19.8%	901.3	23.7%	366.6	9.6%	563.2	14.8%	264.9	7.0%	193.3	5.1%	187.2	4.9%	572.2	15.1%	3800.4
2020	761.5	19.8%	918.7	23.9%	383.3	10.0%	568.2	14.8%	265.4	6.9%	194.6	5.1%	187.2	4.9%	566.2	14.7%	3845.1
2021	773.8	19.8%	937.3	24.0%	400.6	10.3%	575.3	14.7%	267.2	6.8%	196.5	5.0%	187.2	4.8%	566.3	14.5%	3904.2
2022	785.8	19.8%	955.2	24.1%	417.5	10.5%	581.6	14.7%	268.5	6.8%	197.9	5.0%	187.2	4.7%	569.8	14.4%	3963.5
2023	799.5	19.8%	973.9	24.2%	435.3	10.8%	587.0	14.6%	270.1	6.7%	199.5	4.9%	187.2	4.6%	578.2	14.3%	4030.7

SD Summer Demand Increases/Decreases

	MW Difference	Inc/Dec %
1995		
1996	-15.7	-6.7%
1997	18.8	8.5%
1998	34.0	14.2%
1999	15.5	5.7%
2000	13.2	4.6%
2001	40.8	13.5%
2002	9.4	2.7%
2003	-6.4	-1.8%
2004	8.4	2.4%
2005	46.2	13.1%
2006	40.3	10.1%
2007	20.4	4.6%
2008	-40.1	-8.7%
2009	16.8	4.0%
2010	159.5	36.5%
2011	28.9	4.8%
2012	98.1	15.7%
2013	13.8	1.9%
2014	85.5	11.6%
2015	14.8	1.8%
2016	15.5	1.8%
2017	15.2	1.8%
2018	15.9	1.8%
2019	16.6	1.9%
2020	17.4	1.9%
2021	18.6	2.0%
2022	17.9	1.9%
2023	18.7	2.0%

WINTER Peak Demand (MW)

	ND	%	SD	%	MN	%	IA	%	NE	%	MT	%	CO	%	WY	%	BEPC TOTAL
95/96	325.8	29.4%	309.0	27.9%	51.2	4.6%	88.9	8.0%	33.3	3.0%	31.6	2.9%	77.4	7.0%	189.9	17.2%	1107.0
96/97	334.5	29.3%	302.7	26.6%	47.9	4.2%	98.5	8.6%	35.7	3.1%	30.2	2.6%	79.8	7.0%	210.7	18.5%	1140.0
97/98	324.0	30.5%	263.3	24.8%	42.2	4.0%	77.5	7.3%	35.8	3.4%	29.3	2.8%	83.5	7.9%	207.9	19.6%	1063.4
98/99	331.3	29.2%	291.8	25.8%	47.8	4.2%	109.2	9.6%	37.0	3.3%	30.4	2.7%	84.3	7.4%	201.2	17.8%	1133.1
99/00	312.3	28.8%	269.3	24.8%	47.9	4.4%	102.3	9.4%	31.0	2.9%	28.0	2.6%	83.9	7.7%	209.0	19.3%	1083.8
00/01	342.1	27.4%	328.0	26.2%	57.4	4.6%	124.6	10.0%	42.5	3.4%	33.6	2.7%	83.2	6.7%	238.7	19.1%	1250.0
01/02	312.5	26.2%	300.4	25.2%	47.1	3.9%	108.4	9.1%	37.4	3.1%	34.9	2.9%	82.4	6.9%	270.3	22.6%	1193.4
02/03	376.7	27.7%	342.3	25.1%	54.0	4.0%	127.8	9.4%	35.7	2.6%	55.0	4.0%	103.1	7.6%	267.5	19.6%	1362.2
03/04	416.9	27.5%	393.8	25.9%	59.7	3.9%	134.2	8.8%	35.6	2.3%	62.4	4.1%	122.5	8.1%	293.2	19.3%	1518.4
04/05	437.9	27.4%	416.6	26.1%	62.7	3.9%	138.7	8.7%	43.5	2.7%	64.0	4.0%	121.2	7.6%	314.4	19.7%	1598.9
05/06	462.6	26.8%	414.7	24.0%	65.8	3.8%	186.6	10.8%	48.4	2.8%	72.2	4.2%	120.8	7.0%	353.4	20.5%	1724.6
06/07	494.6	25.4%	484.4	24.9%	111.0	5.7%	211.5	10.9%	50.0	2.6%	70.6	3.6%	121.8	6.3%	402.6	20.7%	1946.4
07/08	562.7	26.3%	524.3	24.5%	113.3	5.3%	231.7	10.8%	50.0	2.3%	80.7	3.8%	123.5	5.8%	454.0	21.2%	2140.2
08/09	622.7	25.7%	633.9	26.2%	133.3	5.5%	276.1	11.4%	56.5	2.3%	78.3	3.2%	137.8	5.7%	481.0	19.9%	2419.5
09/10	651.7	23.8%	612.7	22.4%	188.2	6.9%	501.1	18.3%	49.1	1.8%	91.9	3.4%	121.5	4.4%	517.8	18.9%	2734.0
10/11	677.5	23.4%	647.5	22.4%	202.2	7.0%	515.0	17.8%	49.6	1.7%	98.9	3.4%	121.5	4.2%	580.3	20.1%	2892.4
11/12	714.3	22.8%	666.1	21.3%	227.3	7.3%	527.2	16.9%	50.0	1.6%	125.9	4.0%	182.2	5.8%	635.2	20.3%	3128.2
12/13	756.8	22.6%	763.2	22.8%	238.7	7.1%	533.4	15.9%	50.2	1.5%	159.2	4.8%	182.2	5.4%	661.3	19.8%	3345.1
13/14	773.9	22.8%	781.1	23.0%	249.9	7.4%	514.0	15.2%	50.7	1.5%	164.8	4.9%	182.2	5.4%	672.7	19.8%	3389.3
14/15	806.5	22.8%	867.0	24.5%	261.4	7.4%	518.3	14.6%	51.8	1.5%	192.5	5.4%	182.2	5.1%	660.0	18.6%	3539.7
15/16	826.2	23.0%	883.1	24.6%	273.2	7.6%	524.4	14.6%	52.8	1.5%	196.6	5.5%	182.2	5.1%	646.3	18.0%	3584.8
16/17	843.9	23.3%	898.8	24.8%	285.8	7.9%	531.1	14.7%	53.5	1.5%	199.8	5.5%	182.2	5.0%	622.4	17.2%	3617.5
17/18	860.0	23.4%	915.0	24.9%	299.2	8.2%	537.6	14.7%	54.2	1.5%	202.1	5.5%	182.2	5.0%	619.0	16.9%	3669.4
18/19	870.0	23.4%	931.6	25.1%	313.1	8.4%	543.4	14.6%	55.0	1.5%	203.1	5.5%	182.2	4.9%	619.4	16.7%	3717.7
19/20	881.3	23.4%	948.8	25.2%	327.2	8.7%	548.9	14.6%	55.8	1.5%	204.3	5.4%	182.2	4.8%	610.0	16.2%	3758.6
20/21	895.8	23.5%	967.5	25.4%	341.9	9.0%	555.6	14.6%	56.4	1.5%	206.4	5.4%	182.2	4.8%	609.8	16.0%	3815.6
21/22	909.9	23.5%	985.2	25.4%	356.2	9.2%	562.5	14.5%	57.0	1.5%	207.9	5.4%	182.2	4.7%	617.0	15.9%	3877.8
22/23	925.8	23.5%	1003.8	25.5%	371.2	9.4%	568.5	14.4%	57.6	1.5%	209.6	5.3%	182.2	4.6%	620.4	15.7%	3939.2

SD Winter Demand Increases/Decreases

	MW Difference	Inc/Dec %
95/96		
96/97	-6.3	-2.0%
97/98	-39.4	-13.0%
98/99	28.5	10.8%
99/00	-22.5	-7.7%
00/01	58.7	21.8%
01/02	-27.6	-8.4%
02/03	41.9	13.9%
03/04	51.5	15.0%
04/05	22.8	5.8%
05/06	-1.9	-0.5%
06/07	69.7	16.8%
07/08	39.9	8.2%
08/09	109.6	20.9%
09/10	-21.2	-3.3%
10/11	34.8	5.7%
11/12	18.6	2.9%
12/13	97.1	14.6%
13/14	17.9	2.3%
14/15	85.9	11.0%
15/16	16.1	1.9%
16/17	15.7	1.8%
17/18	16.2	1.8%
18/19	16.6	1.8%
19/20	17.2	1.8%
20/21	18.7	2.0%
21/22	17.7	1.8%
22/23	18.6	1.9%

EXHIBIT 2

Eastern System Summer/Winter Load Resources

BASIN ELECTRIC EASTERN SYSTEM LOAD-RESOURCES

Summer Season

	<u>Members' Load Projections</u>	<u>Contracted Sales to Others</u>	<u>Losses, Diversity, and Reserves</u>	<u>Total Responsibility</u>
2010	2138	165	309	2612
2011	2291	187	351	2829
2012	2343	209	359	2911
2013	2521	216	387	3124
2014	2527	223	390	3140
2015	2569	230	396	3195
2016	2611	237	403	3251
2017	2653	246	410	3309
2018	2692	255	416	3363
2019	2726	263	422	3411

Winter Season

	<u>Members' Load Projections</u>	<u>Contracted Sales to Others</u>	<u>Losses, Diversity, and Reserves</u>	<u>Total Responsibility</u>
2010/11	2120	240	350	2710
2011/12	2248	221	364	2833
2012/13	2250	232	364	2846
2013/14	2438	243	397	3078
2014/15	2443	254	399	3096
2015/16	2489	265	407	3161
2016/17	2533	277	414	3224
2017/18	2573	291	421	3285
2018/19	2613	304	428	3345
2019/20	2646	317	434	3397

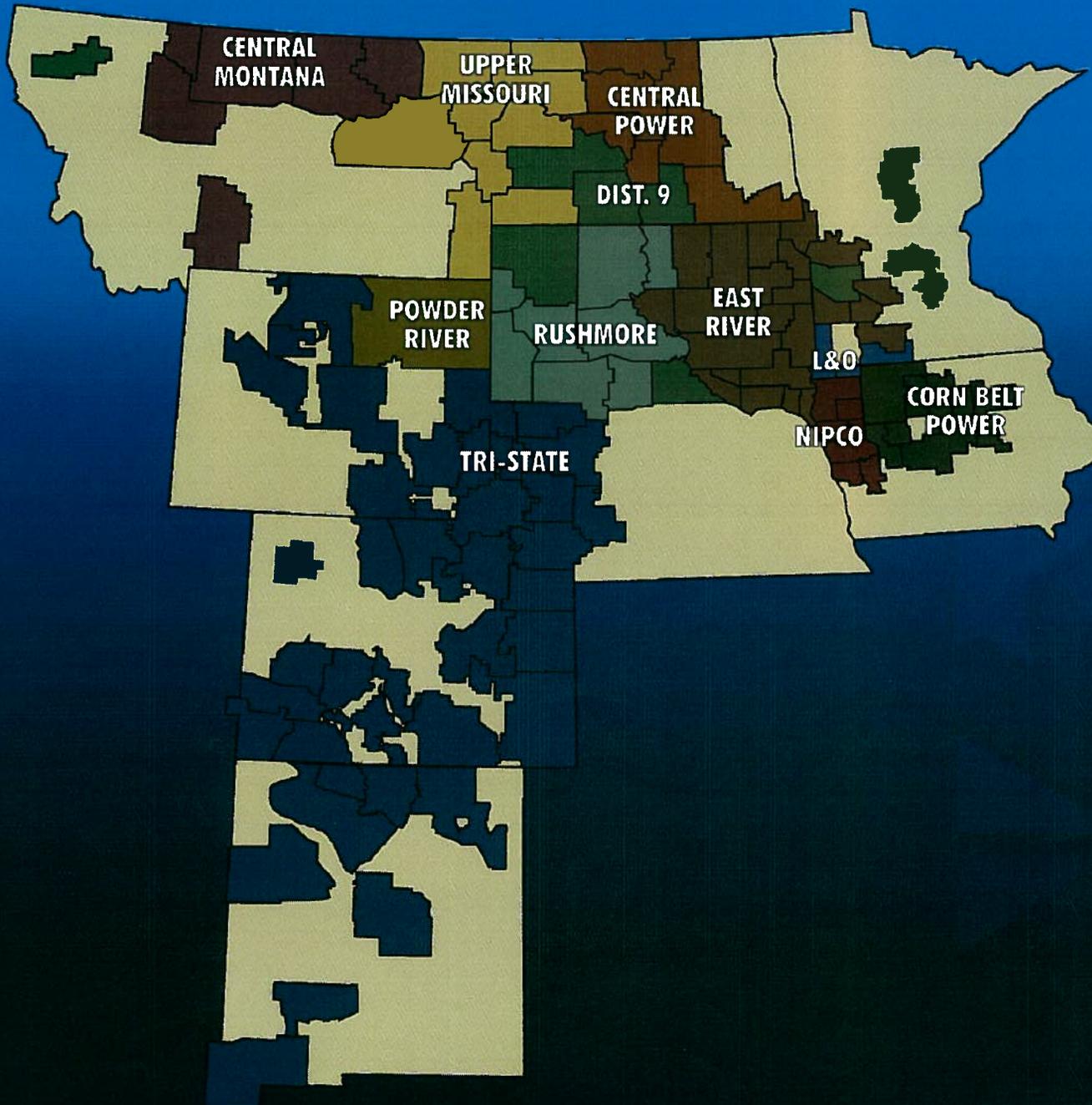
EASTERN SYSTEM LOAD-RESOURCES

Summer Season	LOS	LRS	AVS	NEAL 4	WS	Wisdom 1	DAEC	SMS	Groton	Wisdom 2	Wyoming		Webster			Wind	Waste Heat	Purchases	
											Distributed	Generation	Madison	City	Estherville				Pocahontas
2010	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	185.3
2011	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	135.3
2012	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	135.3
2013	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	135.3
2014	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	105.3
2015	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	105.3
2016	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	105.3
2017	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	105.3
2018	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	105.3
2019	669	50	900	104	68	38	60	101	179	73	45	10	20.8	11.2	3.8	10	451.5	44	105.3

Winter Season	LOS	LRS	AVS	NEAL 4	WS	Wisdom 1	DAEC	SMS	Groton	Wisdom 2	Wyoming		Webster			Wind	Waste Heat	Purchases	
											Distributed	Generation	Madison	City	Estherville				Pocahontas
2010/11	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	185.3
2011/12	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	135.3
2012/13	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	135.3
2013/14	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	135.3
2014/15	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	105.3
2015/16	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	105.3
2016/17	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	105.3
2017/18	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	105.3
2018/19	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	105.3
2019/20	669	50	900	104	68	38	62	120	201	75	54	10	25	11.2	3.8	10	451.5	44	105.3

EXHIBIT 3

Service Area Map



Updated as of 2-2010