# South Dakota's Renewable, Recycled and Conserved Energy Objective

**Report for Calendar Year 2015** 



Submitted to the Legislature December 30, 2016

#### **Background**

South Dakota Codified Law (SDCL) 49-34A-101 through 106 established South Dakota's Renewable, Recycled and Conserved Energy Objective (RRCEO) in 2008. As part of the RRCEO, utilities are required to report annually to the South Dakota Public Utilities Commission (Commission) about their progress toward meeting the RRCEO of 10 percent by 2015. SDCL 49-34A-105 specifically requires the Commission to compile those reports and submit that data to the Legislature. This report is intended to satisfy that requirement.

The report released in 2009<sup>2</sup> included a detailed discussion of electric utilities in South Dakota, generation sources, renewable portfolio standards and objectives, renewable energy credits (RECs), REC tracking systems, the RRCEO statutes, and commission rules. Those seeking a deeper background on this topic can review that report on the PUC website at http://puc.sd.gov/energy/reo/reo.aspx.

#### **Findings**

As shown in Table 1, below, the majority of utilities met the RRCEO of 10 percent in 2015. The table only reflects renewable energy associated with RECs retired to comply with South Dakota's RRCEO and does not reflect the total amount of renewable energy on the retail electricity provider's systems. It should be noted that some of the retail electricity providers chose not to retire RECs for compliance with the voluntary objective in order to capture the value of the RECs for their ratepayers through other uses (e.g. selling RECs through the market). The flexibility granted to a retail electricity provider to decide whether or not to retire RECs was established through the construction of the RRCEO statute, which makes meeting the RRCEO voluntary. Annual reports that are required to be filed by each retail electricity provider, pursuant to SDCL 49-34A-105, are attached in Appendix A for review.

2015 Renewable, Recycled, and Conserved Energy Objective							
	SD Retail Sales <sup>1</sup> (MWh)	Renewable Energy <sup>2</sup> (MWh)	Conserved Energy (MWh)		RRCE <sup>3</sup> (%)		
MidAmerican Energy Co.	216,617	73,309	598		34.12		
Rushmore Electric Cooperative Inc.	937,743	198,122	0		21.13		
Missouri River Energy Services	639,532	63,954	7,505		11.17		
Otter Tail Power Co.	422,840	42,285	4,239		11.00		
Xcel Energy	2,007,761	200,777	0		10.00		
Heartland Consumers Power District	202,970	20,297	0		10.00		
East River Electric Power Coop. and Members	2,594,034	259,412	0		10.00		
NorthWestern Energy	1,544,846	0	3,241		0.21		
Black Hills Energy	1,676,032	0	3,140		0.19		
Montana-Dakota Utilities Co.	147,119	0	0		0.00		
Grand Electric Cooperative, Inc.	147,533	0	0		0.00		
Rosebud Electric Cooperative, Inc.	24,218	0	0		0.00		

<sup>1) 2015</sup> SD baseline retail sales after deducting hydro generation with an in-service date prior to July 1, 2008 (SDCL 49-34A-103)

<sup>1</sup> Conserved Energy was added during the 2009 Legislative Session

<sup>2)</sup> Only accounts for renewable energy that the utility retired Renewable Energy Certificates for compliance with SD's RRCEO

<sup>3)</sup> Renewable, Recycled, and Conserved Energy as a percent of 2015 SD baseline retail sales

 $<sup>^2\</sup> http://puc.sd.gov/commission/Energy/REO/2009-12-232008RRCEOReport1stRevision.pdf$ 

Although most retail electricity providers have already integrated enough renewables to meet the 10 percent objective and identified they don't face any barriers to meeting the objective, other retail electricity providers identified the following barriers to procuring additional renewable generation:

- Transmission Existing renewable generation projects are reducing available capacity on transmission systems for new projects.
- Physical location of retail provider's system Quality of renewable resources depends upon the geographic location of the retail provider's system.
- Intermittency Renewable generation is only available when the renewable resource (sun/wind) is available. Increasing renewable generation typically requires the addition of flexible back-up generating resources to offset the intermittency of renewables, which results in integration cost barriers for renewables.
- Siting Environmental studies for both wind farms and transmission are time-consuming and expensive.
- Cost Continuously low natural gas prices make it difficult for new renewable projects
  to compete economically. Further, the extension of the Production Tax Credit for wind
  helped with wind project economics; however, even with federal tax incentives many
  renewable projects are unable to be competitive with other resources.
- Policy Uncertainty At this time it is unknown what the impacts of EPA's Clean Power Plan will have on renewable generation.
- Awareness Utility customers are often unaware of available energy efficiency options.

### Appendix A

**Utility Reports (in alphabetical order)** 

Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us **by July 1, 2016**. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

1	1,707,555	MWH of electricity delivered to retail customers (retail sales) in 2015
2	31,523	MWH of electricity obtained from a hydroelectric facility in 2015 with an in-service date before July 1, 2008 (old hydro)
3	84,139	MWH of electricity obtained from qualifying renewable or recycled facilities
4	3,140	MWH of qualifying conserved energy

Please provide a brief narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any challenges or barriers encountered in meeting the objective.

Black Hills Power has purchase power agreements for old hydro and wind energy. The Happy Jack and Silver Sage purchase power agreements provide Black Hills Power with 35 MW of wind power. In 2015, Black Hills Power had the ability to serve approximately 4.25% of the total retail sales with renewable resources, but the Company chose not to retire any RECs. Black Hills Power will continue to pursue prudent renewable energy generation and purchase opportunities that will achieve environmental improvements at the lowest reasonable cost to customers. Some of Black Hills Power's challenges are due to the physical location of our system and quality of renewable opportunities. In addition, if renewable energy generation is not connected to our transmission system, the price to deliver energy becomes difficult to overcome. The final barrier to renewable energy generation at a reasonable cost to customers is the ability to dispatch the energy. If renewable energy is not firm, the cost of firming this energy becomes a significant barrier.

Black Hills Power's Energy Efficiency Solutions Program (EESP) offers customers an opportunity to reduce electric consumption and an alternative to the construction of infrastructure. In Docket EL14-038, the EESP was extended through August 2017 in an effort to cost effectively meet this objective.

If the	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	O Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	O Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	N/A
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	N/A
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	Black Hills Power, Inc. did not retire any REC's during 2015.
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:  N/A
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	3,140 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
	Black Hills Power files an annual EESP report which outlines the programs, demand and energy savings, and the cost to customers. In Docket EL14-038, the energy efficiency impact evaluations were provided in Attachment 4 for each program. The energy efficiency impact evaluation for calendar year 2015 will be included in the 2016 EESP annual report due October 15, 2016.
	The Total Resource Cost Test ("TRC") was the primary method of assessing the cost-effectiveness of energy efficient measures and programs. The TRC test is a widely-accepted methodology that has been used across the United States for over twenty-five years. TRC measures the net costs and benefits of an
14	0 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).
	Residential customers are offered an optional demand service rate in combination with installation of a demand controller that limits their on peak energy uses. The impact is included in the cost of service through bases rates and all customers benefit from lower electric costs by shifting usage to non-peak times.

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
Black Hills Power, Inc. d/b/a Black Hills Energy	90.05%	0.00%	0.00%	4.93%	4.76%	0.00%	0.00%	0.00%	0.00%	0.26%	0.00%	100.00%

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June 28, 2016

Ms. Patricia Van Gerpen, Executive Director South Dakota Public Utilities Commission 500 East Capitol Pierre, SD 57504-5070

RE: East River Electric Power Cooperative - South Dakota Renewable Energy Objective

Report

Dear Ms. Van Gerpen:

Enclosed please find East River Electric Power Cooperative's Renewable Energy Objective Report per SDCL 49-34A-105. This report is filed on behalf of the following members within South Dakota:

Bon Homme-Yankton Electric Association, Inc.
Central Electric Cooperative, Inc.
Charles Mix Electric Association, Inc.
City of Elk Point
Clay Union Electric Corporation
Codington-Clark Electric Cooperative, Inc.
Dakota Energy Cooperative, Inc.
Douglas Electric Cooperative, Inc.
FEM Electric Association, Inc.
H-D Electric Cooperative, Inc.

Kingsbury Electric Cooperative, Inc.
Lake Region Electric Association, Inc.
Northern Electric Cooperative, Inc.
Oahe Electric Cooperative, Inc.
Sioux Valley Energy
Southeastern Electric Cooperative, Inc.
Traverse Electric Cooperative, Inc.
Union County Electric Cooperative, Inc.
Whetstone Valley Electric Cooperative, Inc.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Robert K. Sahr General Counsel

Robert K. Ad

RKS/sl

Enc.

## East River Electric Power Cooperative South Dakota Renewable, Recycled, and Conserved Energy Objective Report July 1, 2016

In accordance with SDCL 49-34A-105, East River Electric Power Cooperative, Inc. ("East River") files this Renewable, Recycled, and Conserved Energy Objective Report (RRCEO) on behalf of its nineteen South Dakota members:

East River South Dakota Members	Location
Bon Homme-Yankton Electric Association, Inc.	Tabor, South Dakota
Central Electric Cooperative, Inc.	Mitchell, South Dakota
Charles Mix Electric Association, Inc.	Lake Andes, South Dakota
City of Elk Point	Elk Point, South Dakota
Clay Union Electric Corporation	Vermillion, South Dakota
Codington-Clark Electric Cooperative, Inc.	Watertown, South Dakota
Dakota Energy Cooperative, Inc.	Huron, South Dakota
Douglas Electric Cooperative, Inc.	Armour, South Dakota
FEM Electric Association, Inc.	Ipswich, South Dakota
H-D Electric Cooperative, Inc.	Clear Lake, South Dakota
Kingsbury Electric Cooperative, Inc.	DeSmet, South Dakota
Lake Region Electric Association, Inc.	Webster, South Dakota
Northern Electric Cooperative, Inc.	Bath, South Dakota
Oahe Electric Cooperative, Inc.	Blunt, South Dakota
Sioux Valley Energy	Colman, South Dakota
Southeastern Electric Cooperative, Inc.	Marion, South Dakota
Traverse Electric Cooperative, Inc.	Wheaton, Minnesota
Union County Electric Cooperative, Inc.	Elk Point, South Dakota
Whetstone Valley Electric Cooperative, Inc.	Milbank, South Dakota

These East River members have elected to aggregate their RRCEO resources and have East River report on their behalf.

#### I. EAST RIVER'S RENEWABLE ENERGY PORTFOLIO

As member owners of Basin Electric, East River and its members possess a sizeable, diverse, and growing renewable energy portfolio. This portfolio includes large wind projects, waste heat recovery units, and over fifty small locally-owned wind and solar projects. These projects include:

- Large Scale Wind Energy Generation: 1,088 MW (End of Year 2016)
- Recycled Energy Generation: 44 MW (current)
- Locally-Owned Small Wind Generation: 701 kW (current)
- Locally-Owned Small Solar Generation: 1,427 kW

#### Missouri River Hydroelectric Resources

East River members, Central Electric Cooperative and Sioux Valley Energy, each completed development of cooperative-owned solar generation projects during 2015. Sioux Valley Energy's 24 kW project came on-line on May 1, 2015, and is located at their Brandon Service Center. Central Electric's 8.2 kW project came on-line July 1, 2015, and is located at their headquarters west of Mitchell, South Dakota. Each project has become part of the local energy supply mix and provides a variety of educational, research, and solar production analysis opportunities.

During the past several years, Basin Electric has significantly increased the amount of new renewable energy generation and has recently executed long-term purchased power contracts for an additional 450 MW of wind resources expected to be in operation by the end of 2017. Basin Electric should report these resources on its spreadsheet as they are either under contract or owned by Basin on behalf of its members including East River, Rushmore Electric, and the South Dakota distribution cooperatives. East River has reported its member sales and the green tag retirement on the attached spreadsheet.

#### II. CONSERVED ENERGY

East River and its members are very proud of their long track records in promoting smart energy choices, energy efficiency, and conservation. This has been achieved through substantial investment in marketing programs, public education, and one of the most successful load management programs in this country. In fact, during 2015, utilization of East River's load management system avoided a total of approximately 753,000 kW of wholesale power supply capacity requirements.

East River thanks the Commission for its leadership in adopting sensible administrative rules to implement the 2009 amendments to the South Dakota RRCEO. We believe the rules recognize two key principles supported by East River and its members: 1) the vital role load management plays in conserving energy and 2) the on-going benefits of certain historical investments. We look forward to working with the Commission staff on the reporting and accounting requirements as we develop the appropriate systems to track and verify our entire portfolio of energy efficiency and demand response measures.

#### III. REO OBSTACLES ENCOUNTERED

East River identifies four major barriers to renewable energy expansion in South Dakota:

- 1. Environmental Compliance
- 2. Transmission
- 3. Renewable Energy Costs
- 4. EPA's Clean Power Plan

As to the first point, while an important part of any major project, environmental reviews are taking more time and becoming more costly. If reviews unnecessarily stretch projects past important deadlines or become so expensive as to affect the financial viability of projects, this could have a chilling effect on renewable resource development in this state and region.

Secondly, as more projects tap existing transmission opportunities, there becomes an increasing need for new transmission solutions to enable future projects. And it has been noted that the Integrated System, owned and operated by Basin Electric and Western Area Power Administration, is reaching a point where it is becoming more difficult to integrate increased intermittent resources.

Thirdly, the cost dynamics of renewable energy, even with the assistance of federal tax incentives, still leave many potential renewable projects unable to competitively price their projects. We urge the Commission to support federal tax incentives, such as the Production Tax Credit and 1603 Grant Program, that help spur renewable energy development at prices affordable to consumers.

Finally, the Environmental Protection Agency's (EPA) Clean Power Plan may provide incentives for developers and utilities to locate future wind farms outside of South Dakota.

Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us **by July 1, 2016**. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

1	3,219,096	MWH of electricity delivered to retail customers (retail sales) in 2015
2	625,062	MWH of electricity obtained from a hydroelectric facility in 2015 with an in-service date before July 1, 2008 (old hydro)
3	324,650	MWH of electricity obtained from qualifying renewable or recycled facilities
4	0	MWH of qualifying conserved energy

Please provide a brief narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any challenges or barriers encountered in meeting the objective.

See attached report.	

6	310,624 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	259,412 Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	Midwest Renewable Energy Tracking System - M-RETS
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	SD RRCEO: As this is a public report, for security reasons we will provide only the facilities' respective M-RETS IDs: M258, M442, M443, M444, M445, M514, M517, M551.
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	Minnesota RES: 51,106 RECs 'PrairieWinds - Energy In Motion' green power program - MN: 106 RECs
	Francevillus - Ellergy III Motion green power program - Mix. 100 KECS
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
	As these are public reports, for security reasons we will provide only the facilities' respective M-RETS IDs: M258.
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	0 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
	East River is currently exploring a measurement and verification system.
14	MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).
	East River is currently exploring a measurement and verification system.

If the Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
East River Electric Power Cooperative	49.77%	19.42%	2.22%	11.24%	6.12%	0.00%	0.00%	0.00%	1.28%	9.96%		100.00%
% of Non-Hydro SD Sales , sourced from SD RRCEO-eligible facilities, in MWH	:			291,563			0	0	33,087	1		324,650

Other: For any generation listed under "Other", please provide the generation source and percentage associated with each.

For the renewable generation listed above, please provide:						
	RECs retired for SD RRCEO compliance in 2015	259,412				
	RECs held or "banked"	0				
	RECs sold or transferred to other parties	0				

Non-Hydro SD Sales In MWH: 2,594,034

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1	173,352	MWH of electricity delivered to retail customers (retail sales) in 2015
2	25,819	MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
3	0	MWH of electricity obtained from qualifying renewable or recycled facilities
4	0	MWH of qualifying conserved energy
5		narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any encountered in meeting the objective.
	As a member of Basin	Electric Power Cooperative, our renewables are met through the generation mix generated by Basin Electric.

If the	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	O Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	O Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	Midwest Renewable Energy Tracking System (MRETS)
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	Nexteraenergysbaldwin Wind Project, North Dakota
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	n/a
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
	n/a
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	n/a MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
14	MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Recovered Energy Gen.	Total Check
Grand Electric Cooperative, Inc.	69.10%	0.70%	1.70%	8.70%	4.70%					14.10%	1.00%	100.00%

Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us by July 1, 2016. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

1	202,970	MWH of electricity delivered to retail customers (retail sales) in 2015
2	0	MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
3	137,282	MWH of electricity obtained from qualifying renewable or recycled facilities
4	0	MWH of qualifying conserved energy
5		f narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any sencountered in meeting the objective.
	NextEra Energy Resou associated with such supplier, and in 2015, one of HCPD's Minner	iewable energy through a power purchase agreement (PPA) with Wessington Springs Wind Energy Center, LLC, a subsidiary of urces. The PPA entitles HCPD to purchase the entire 51 MW of nameplate wind capacity and own all of the environmental attributes generation from the Wessington Springs Wind Energy Center. (10 MW's of the project are committed to another wholesale power, 7 MW's of the project from January through June and 9 MW's of the project from July through December were committed solely to sota Customers.) HCPD will be able to meet both the Minnesota Renewable Energy Standard (RES) and the South Dakota Renewable (2) through its participation in the Wessington Springs Wind Energy Center project.

If the	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	99,448 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	20,297 Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015 79,151
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	Heartland did retire RECs for 2015 South Dakota load. 20,297 of the RECs were retired specifically to comply with the South Dakota renewable energy objective. Heartland also retired 582 RECs, representing the Heartland supplied load at South Dakota State University, University of South Dakota, and Northern State University per an agreement with the State of South Dakota. This contract was revised beginning April 1, 2015 at which point the obligation to retire RECs equal to total load terminated. For South Dakota load in 2015, Heartland retired RECs representing 10% of its South Dakota load served. These RECs were retired in M-RETS.
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	The M-RETS facility name was Wessington Wind I - Wessington Springs Energy Facility (M496): Location - Jerald County, South Dakota
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	Heartland reitred 77,534 RECs for its MN load served.
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:  The M-RETS facility name was Wessington Wind I - Wessington Springs Energy Facility (M496): Location - Jerald County, South Dakota
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
14	MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
	22.33%	61.66%	0.00%	4.88%	0.00%	0.00%	0.00%	0.00%	0.00%	11.13%	0.00%	100.00%
	22.33/0	01.00%	0.0070	4.0070	0.00%	0.00%	0.0070	0.0070	0.0070	11.13/0	0.0070	100.0070

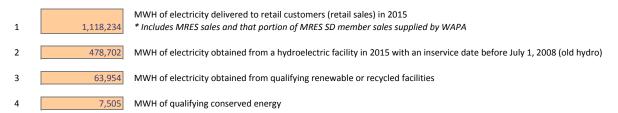
Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us by July 1, 2016. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

1	216,635	MWH of electricity delivered to retail customers (retail sales) in 2015
2	-18.3	MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
3	73,309	MWH of electricity obtained from qualifying renewable or recycled facilities
4	598.1	MWH of qualifying conserved energy
5	· ·	f narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any sencountered in meeting the objective.
	efficiency programs a programs incented cu and barriers in delive	began offering energy efficiency programs to South Dakota customers on May 1, 2009. MidAmerican offers a variety of energy limed at helping residential, commercial, and industrial customers reduce energy use and save money. In 2015, the South Dakota ustomers to make energy efficiency investments that are expected to save approximately 895.1 MWh per year. Significant challenges ring energy efficiency programs include customer and trade ally awareness, and providing appropriate incentives needed to set to make energy efficient choices.

If the	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	141,685 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	73,309 Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	South Dakota RECs were retired under the Midwest Renewable Energy Tracking System.
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	Name, Location (County) Victory Wind Farm, Crawford and Carroll County, Iowa
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	IA Renewable Portfolio Standard: 141,685
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
	Name, Location (County) Storm Lake Power Partners I, Buena Vista County, Iowa Davenport Water Pollution Control Plant, Scott County, Iowa DSM Waste Management, Polk County, Iowa
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	598.1 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
	MidAmerican has not completed an energy efficiency impact evaluation specific to South Dakota. Total kWh savings by measure, along with spending by measure for 2015 was provided in Exhibits A and B of MidAmerican's 2014 South Dakota energy efficiency annual report. Savings for each measure are calculated in accordance with the formulas provided in revised Appendix A of MidAmerican's 2013-2017 South Dakota energy efficiency plan filing.
14	0 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).
	Total kWh savings for demand response programs are estimated through demand response models developed from previous load research data for residential curtailment programs in lowa. These models use known number of participants and high temperatures for the day to estimate total MWh savings for the program based on the number of participating customers. Approximate spending on demand response programs is \$16,000 per year.

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
MidAmerican Energy Company	48.39%	0.00%	12.11%	29.95%	0.62%	0.00%	0.00%	0.00%	0.00%	8.93%	0.00%	100.00%

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5 Please provide a brief narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any challenges or barriers encountered in meeting the objective.

MRES has developed a plan to meet the South Dakota Renewable, Recycled and Conserved Energy Objective (RRCEO) goal of 10% by 2015 as part of its overall renewable energy goals for members in Minnesota, North Dakota, and South Dakota. The SD RRCEO has been integrated into the MRES resource planning process, and MRES is committed to pursuing renewable energy as part of its balanced portfolio to supply its member communities with reliable and cost-effective power supply.

MRES acquires renewable energy resources through its exclusive power supply arrangement with Western Minnesota Municipal Power Agency (Western Minnesota), and through power purchase agreements with independent developers. At the present time, all MRES renewable resources are based on wind generation. MRES has included wind energy in its power supply program since 2002. Currently, MRES contracts for the output of the following wind generating resources:

- Worthington (MN) Wind Project, 3.7 MW
- Marshall (MN) Wind Project, 18.7 MW
- Odin (MN) Wind Project, 20.0 MW
- Rugby (ND) Wind Project, 40.0 MW
- Hancock (IA) Wind Project, 3.3 MW

MRES purchases the output of the units in each of these wind projects, and owns all of the environmental attributes associated with such generation. These resources total 85.7 MW of nameplate capacity, most of which is dedicated to meeting the Renewable Energy Objective (REO) goals of North Dakota and South Dakota, and the requirements of the Minnesota Renewable Energy Standard. MRES intends to meet its REO goals by utilizing the contracted wind generation, associated renewable attributes, and conserved/recycled energy to meet the MRES SD RRCEO benchmark for each year. MRES allocates its renewable energy generation and renewable energy credits (RECs) based on S-1 energy sales by state.

At this time, MRES does not envision any obstacles to meeting the RRCEO goals established through 2016. MRES continues to evaluate opportunities for additional renewable resources to ensure continuing compliance with the various state REOs and the Minnesota RES. In 2016 and beyond, MRES will evaluate its renewable energy portfolio and the energy market to determine cost-effective purchases or the acquisition of such resources. MRES seeks out projects that meet its needs as well as the needs of its members as part of our continuing commitment to expand the role of renewable energy used to serve our member communities.

If the Company	v is claiming	renewable MWH in	(3)	above or retiring	g RFCs in other	iurisdictions.	please	provide the following	ng ner	ARSD 20:1	0:38:07:

- 6 223,994 Total amount of RECs retired for CY2015 compliance across all jurisdictions
- 7 63,954 Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
- 8 For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:

MRES established an M-RETS retirement subaccount to demonstrate compliance with the RRCEO requirements of SDCL 49-34A-101. In order to comply with those requirements, MRES transferred 63,954 RECs to its 2015 South Dakota REO subaccount (2015 SD REO).

9 For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:

Rugby Wind Project near Rugby, N.D., in Pierce County

10 Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:

160,040: Minnesota RES (152,776), ND RREO (6,477), and Green Pricing in all states (787)

11 For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:

Marshall Wind Project near Marshall, Minn., in Lyon County
Odin Wind Project near Odin, Minn., in Watonwan and Cottonwood Counties
Rugby Wind Project near Rugby, N.D., in Pierce County
Worthington Wind Project near Worthington, Minn., in Nobles County

#### If the Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:

- 12 7,121 MWH of conserved energy achieved through energy efficiency
- 13 A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).

Energy impacts of the MRES energy efficiency measures are primarily determined by the Minnesota Technical Resource Manual (MN TRM). For prescriptive measures that are not in the MN TRM, MRES has retained Franklin Energy Services of Port Washington, WI, to research and calculate deemed savings for use in our program. Savings estimates for custom measures are typically submitted by the customer's engineer or vendor and then reviewed and approved by an MRES staff engineer and/or the engineering team at Franklin Energy. Projects that have potential savings of 1 million kWhs or more, and select smaller projects, are pre and post-metered, in addition to the engineering review. Post inspections are completed on minimum of 10 percent of commercial and industrial projects and on 100 percent of custom projects, with the exception of small custom lighting projects. Spending on energy efficiency measures in South Dakota in 2015 totaled \$1,224,347, which included \$722,365 in incentives and \$501,982 in administrative expenses.

- 14 384 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
- 15 A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).

MRES collects data on the demand response efforts of our South Dakota members through a Verification Payment Program whereby members are encouraged to use direct load control on central air conditioners and electric water heaters to remove load during peak times. MRES members report the number of devices controlled and annually test a statistical sampling of the devices to ensure they are working properly. MRES pays an incentive of \$5.00 per kW per year of controlled load. The deemed kW savings, based on the MN TRM, are 1 kW per central air conditioner and .35 kW per electric water heater. In 2015, three SD members controlled 3,879 air conditioners and 1,393 water heaters for total controlled KW of 4,367 kW. To determine MWHs of conserved energy, MRES estimates that members control air conditioners an average of 80 hours per year and control water heaters an average of 150 hours per year for total savings of 383 MWHs in 2015. The number of hours controlled fluctuates greatly from year to year. At this time, all load control is done using one-way communication to the load control device, so exact savings cannot be measured. In 2015, MRES paid \$21,833 in incentives to our members to verify and report on the operation of their load control systems. We did not track administrative costs for this activity and we don't have access to the costs incurred by MRES members to operate the system.

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
Missouri River Energy Services	26.54%	42.10%	6.31%	5.82%	0.47%	0.00%	0.00%	0.00%	0.00%	18.75%		100.0%
inissean five Energy services	2015 170	1211070	0.5170	510270	0.1770	0.0070	0.0070	0.0070	0.0070	1017570		100.070

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1	147,119	MWH of electricity delivered to retail customers (retail sales) in 2015
2	0	MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
3	9,456	MWH of electricity obtained from qualifying renewable or recycled facilities
1	0	MWH of qualifying conserved energy

5 Please provide a brief narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any challenges or barriers encountered in meeting the objective.

Following is a description of the generating resources that supplied the REC's produced in 2015.

- In February 2008, Montana-Dakota commenced commercial operation of Diamond Willow, a 19.5 Megawatt facility located in Fallon County, Montana. An additional 10.5 Megawatt Diamond Willow expansion project commenced commercial operation on June 28, 2010. In calendar year 2015, the Diamond Willow facilities produced 89,103 RECs. This wind resource is registered on the Midwest Renewable Energy Tracking System (M-RETS) with a designated identifier of "M-152". The M-RETS Administrator issues one electronic Certificate for each MWh of energy generated by Diamond Willow and a unique serial number is assigned to each Certificate.
- In July 2009, Montana-Dakota began commercial operation of a 7.5 Megawatt waste heat recovery generating station on the Northern Border Pipeline near Glen Ullin, North Dakota. In calendar year 2015, the Glen Ullin facility produced 38,247 RECs. This resource is registered on the M-RETS system with a designated identifier of "M-535".
- On June 6, 2010, Montana-Dakota began commercial operation of Cedar Hills, a 19.5 MW wind facility located in Bowman County, North Dakota. In calendar year 2015, the Cedar Hills facility produced 57,120 RECs. This wind resource is registered on the M-RETS system with a designated identifier of "M-584".
- In December 2015, Montana-Dakota began commercial operation of Thunder Spirit, a 107.5 MW wind facility located near Hettinger, North Dakota. The facility produced zero RECs in calendar year 2015 but will ultimately bring the Company's renewable resources to 20 percent of retail sales thereby allowing the Company to meet the South Dakota Objective for a number of years.

If the (	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	120,687 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	O Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	N/A
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	N/A
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	120,687 RECs were retired in 2015 to meet the state of Montana's renewable energy standard. Of these RECs, 8,143 were 2014 certificates.
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
	Cedar Hills - Rhame, ND Diamond Willow - Baker, MT
If the 0	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	0 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
	N/A
14	0 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).
	N/A

Utility Name Co.	oal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
Montana Dakota Utilities Co.	50.40%			6.85%	25.21%				1.10%	16.44%		100.00%

For any generation listed under "Other", please provide the generation source and percentage associated with each.
Fo

For the renewable generation listed above, please provide:								
	RECs retired for SD RRCEO compliance in 2015	0						
	RECs held or "banked"	1,781						
	RECs sold or transferred to other parties	7,675						

Facilities Producing 2015 RECs	RECs Produced	RECs Retired	RECs Sold	Remaining RECs
Diamond Willow	89,103	69,367	-	19,736
Cedar Hills	57,120	51,320	-	5,800
Glen Ullin	38,247		38,247	-
Total	184,470	120,687	38,247	25,536
% Allocated to SD	9,456	5,714*	1,961	1,781

 $<sup>{\</sup>rm *Retired}\ to\ meet\ the\ Montana\ Renewable\ Standard.\ Transfer\ payment\ credited\ to\ South\ Dakota$ 

Utility Name Co.	oal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
Montana Dakota Utilities Co.	50.40%			6.85%	25.21%				1.10%	16.44%		100.00%

For any generation listed under "Other", please provide the generation source and percentage associated with each.
Fo

For the renewable generation listed above, please provide:								
	RECs retired for SD RRCEO compliance in 2015	0						
	RECs held or "banked"	1,781						
	RECs sold or transferred to other parties	7,675						

Facilities Producing 2015 RECs	RECs Produced	RECs Retired	RECs Sold	Remaining RECs
Diamond Willow	89,103	69,367	-	19,736
Cedar Hills	57,120	51,320	-	5,800
Glen Ullin	38,247		38,247	-
Total	184,470	120,687	38,247	25,536
% Allocated to SD	9,456	5,714*	1,961	1,781

 $<sup>{\</sup>rm *Retired}\ to\ meet\ the\ Montana\ Renewable\ Standard.\ Transfer\ payment\ credited\ to\ South\ Dakota$ 

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1	1,544,846	MWH of electricity delivered to retail customers (retail sales) in 2015
2		MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
3	222,272	MWH of electricity obtained from qualifying renewable or recycled facilities
4	51,557	MWH of qualifying conserved energy
5		f narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any encountered in meeting the objective.
		ole to meet and exceed South Dakota's RRCEO through a combination of Purchase Power Agreements for wind power and through on of the Beethoven wind project near Avon, SD
	·	

If the	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	900,886 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	900,886 in Montana
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
	Flint Creek Hydroelectric, LLC - Granite County; Gordon Butte Wind, LLC - Meagher County; Judith Gap Energy Center - Wheatland County; Lower South Fork, LLC - Carbon County; Turnbull Hydro, LLC - Teton County; Musselshell Wind Project, LLC - Wheatland County; Musselshell Wind Project II - Wheatland County; Spion Kop Wind, LLC - Judith Basin County, Fairfield Wind - Teton County, Two Dot Wind Farm, LLC - Wheatland County
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	51,557 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
	The SD Public Utilities Commission (SDPUC) gave its final approval to a Demand Side Management (DSM) program for our South Dakota customers on June 10, 2014 and the DSM programs rolled out October 1, 2014. NorthWestern used information gathered from an impact and process evaluation of NorthWestern Energy's Montana DSM portfolio performed by SBW Consulting Inc. in 2012. The evaluation covered the operation of 24 energy efficiency and renewable programs during the period July 1, 2006 through December 31, 2011. This evaluation also provided NorthWestern with updated unit energy savings (UES) values for many of the measures included in NorthWestern's energy efficiency programs. NorthWestern used these updated UES values for the 2015 Calendar Year reports for Montana and South Dakota as well as UES values that came from the 2014 Montana Natural Gas Resource Assessment completed by Nexant, Inc. in June 2014 as they were the most up-to-date. The total amount spent in the 2015 Calendar Year period for South Dakota was \$813,511 with a total of 3,241 MWH of conserved energy. The total amount spent in the 2015 Calendar Year period for Montana was \$9,173,643 with a total of 48,316 MWH of conserved energy.
14	0 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).
	There were no demand response activities in SD or MT for the 2015 Calendar Year.

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
	53.00%	0.00%	0.00%	11.00%	1.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%	100.00%

215 South Cascade Street
PO Box 496
Fergus Falls, Minnesota 56538-0496
218 739-8200
www.otpco.com (web site)



June 13, 2016

Ms. Patricia Van Gerpen Executive Director South Dakota Public Utilities Commission Capitol Building, 1st floor 500 East Capitol Avenue Pierre, SD 57501-5070

Re: In the Matter of Otter Tail Power Company's Renewable, Recycled, and Conserved Energy Objective Compliance Report to the South Dakota Public Utilities Commission

Dear Ms. Van Gerpen:

Enclosed you will find the report of Otter Tail Power Company, to the South Dakota Public Utilities Commission on the Company's efforts and status on compliance with the South Dakota Renewable, Recycled, and Conserved Energy Objective contained in Statutes §49-34A-94 through §49-34A-96 and §49-34A-101 through §49-34A-106. This report is required annually commencing on July 1, 2009 and continuing through July 1, 2017.

If you have any questions regarding this filing, please contact me at 218-739-8883 or <a href="mailto:cwestergard@otpco.com">cwestergard@otpco.com</a>.

Sincerely,

/s/ CAROL WESTERGARD
Carol Westergard
Contract & Due Diligence Administrator

nlo Enclosures By electronic filing



Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us by July 1, 2016. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

1	427,485	MWH of electricity delivered to retail customers (retail sales) in 2015
2	4,645	MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
3	78,696	MWH of electricity obtained from qualifying renewable or recycled facilities
4	4,239	MWH of qualifying conserved energy
5	·	f narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any encountered in meeting the objective.
		cost-effective wind energy to it's system. Otter Tail has enough renewable resources to comply with the renewable objectives and effect in the three states that Otter Tail operates in. Otter Tail does not anticipate any barriers in meeting the renewable objective.

If the	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	505,238 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	42,285 Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	Tracking sytem is M-RETS. The Retirement account used within M-Rets is: SD 2015 REO/RES OTP
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	Ashtabula Wind Center, ND; Luverne Wind Farm - OTP, ND
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	MN - 286,005; ND - 176,948; SD - 42,285
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
	UM-Morris, MN; FPL Energy North Dakota Wind II LLC, ND; Langdon Wind Farm, ND; Langdon Wind LLC, ND; Ashtabula Wind Center, ND; Luverne Wind Farm - OTP, ND; Ashtabula Wind III, LLC, ND:
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	4,239 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
	Otter Tail Power Company has filed all 2015 energy efficiency efforts, including budgets and energy savings results, in our annual Status Report. The Status Report was filed with the South Dakota PUC on April 29, 2016, docket no. EL16-019. At its meeting on November 5, 2013, the South Dakota Public Utilities Commission approved Otter Tail's Energy Efficiency Plan, which included proposed evaluation methodologies for 2014-2015 programs.
14	0 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).
	N/A

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
Otter Tail Power Company	36.75%	1.13%		17.92%	0.13%	0.00%				44.07%		100.00%

Other: For any generation listed under "Other", please provide the generation source and percentage associated with each.

## Renewable, Recycled, and Conserved Energy Objective Annual Report for 2015

Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us **by July 1, 2016**. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

1	83,674	MWH of electricity delivered to retail customers (retail sales) in 2015
2	59,456	MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
3	2,946	MWH of electricity obtained from qualifying renewable or recycled facilities
4	0	MWH of qualifying conserved energy

Please provide a brief narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any challenges or barriers encountered in meeting the objective.

Rosebud Electric Cooperative receives 3.27% (2946 MWH) of energy from renewable generation.

If the (	Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:
6	O Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	O Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	0
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
If the (	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	0 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
14	0 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).

Utility Name Coa	oal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
Rosebud Electric Cooperative	23.36%	66.42%	0.57%	2.95%	1.58%	0.00%	0.00%	0.00%	0.34%	4.78%		100.00%

Other: For any generation listed under "Other", please provide the generation source and percentage associated with each.

## Renewable, Recycled, and Conserved Energy Objective Annual Report for 2015

Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us **by July 1, 2016**. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

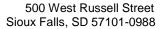
1	1,104,166 MWH of electricity delivered to retail customers (retail sales) in 2015
2	MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)  Note: incl. WAPA and Basin hydro - member allocations are included.
3	134,859 MWH of electricity obtained from qualifying renewable or recycled facilities
4	0 MWH of qualifying conserved energy
5	Please provide a brief narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any challenges or barriers encountered in meeting the objective.
	Rushmore Electric Power Cooperative (REPC) facilitates a small renewable energy program to member cooperatives and their members. Currently, 5 REPC members and 67 Co-op members participate in the small renewable program.
	REPC has implemented demand response system.
	A portion of REPC's marketing budget is allocated to energy conservation promotion.

6	198,122 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	198,122 Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	Basin Electric provides
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:  Basin Electric facilitates
	Dasin Electric facilitates
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:
11	To rices instead above in (10), please provide the name and location of each facility that produced the retired rices.
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	0 MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
14	0 MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
15	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).
	REPC Demand Response system controls: 5177 water heaters, 742 central airs, 259 storage heat systems, 273 irrigations systems, and 2 other systems controlled.

If the Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Waste Heat	Purchases	Other - Please Specify	Total Check
Rushmore Electric Power Cooperative	69.10%	0.70%	1.70%	8.70%	4.70%	0.00%	0.00%		1.00%	14.10%		100.00%

Other:





July 1, 2016

-Via Electronic Filing-

Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
Capitol Building, 1<sup>st</sup> Floor
500 East Capitol Avenue
Pierre, SD 57501

Re: 2015 REPORT OF NORTHERN STATES POWER COMPANY ON MEETING THE RENEWABLE, RECYCLED AND CONSERVED ENERGY OBJECTIVE

Dear Ms. Van Gerpen:

In accordance with SDCL 49-34A-105, Northern States Power Company, doing business as Xcel Energy, provides the attached report on meeting South Dakota's renewable, recycled and conserved energy objective for 2015.

Based on the jurisdictional energy allocator applicable to South Dakota, we have determined that the share of system-wide energy from renewable resources allocable to South Dakota was 371,628 MWh. This represents the energy we provided to our customers in 2015 that was generated by renewable generation facilities as defined by SDCL 49-34A-94, net of 2015 vintage REC sales.

As provided in Chapter 49-34A-103, we have deducted electricity obtained from hydro facilities with an in-service date before July 1, 2008 from retail sales. As a result, we calculate that approximately 18.5 percent of the energy provided to South Dakota customers in 2015 was from renewable energy resources. This percent reflects an increase from the 2014 level of 17.2 percent due to the continued addition of renewable resources, increased generation from all renewable resources except hydroelectric resources. In 2015, we retired 200,777 RECs in compliance with the South Dakota renewable energy objective (REO).

The attached reporting form includes the following information as requested by the Commission:

Retail Sales (MWh) - Total & SD-based

Total Renewable Generation Capacity Owned (MW) - All States & SD<sup>1</sup> Renewable Generation Capacity Owned (MW) - Total & SD-based by technology<sup>1</sup>

Renewable Generation with RECs Retired for SD (MWh) - Total & SD-based by technology<sup>1</sup>

Renewable Generation with RECs Retired for other states/purposes (MWh) - Total & SD-based by technology<sup>1</sup>

Conserved Energy (MWh) and Capacity (MW)

Renewable Energy Calculations

On a yearly basis the Company files our plans and results of energy efficiency and load management programs and savings achieved. Planned savings for 2015 were approved on December 17, 2014 in Docket No. EL14-040. However, the Company does not include conserved energy toward our compliance with the REO at this time.

Additionally, the Commission's Order in Docket No. EL09-029, dated February 12, 2010, directs the Company to report any sales of RECs in this report. Vintage 2015 RECs sold from transactions executed to date are shown in row 17 of Attachment A. For the reporting period, we have sold 5,652 SD RECs which accounts for approximately \$135,647 (gross revenue) allocated to the SD ratepayers. South Dakota customers have been credited \$122,082 as net revenue (which excludes 10 percent of expenses) through the monthly Fuel Clause Charge consistent with the Commission's February 12, 2010 Order in Docket No. EL09-029.<sup>3</sup>

Finally, the Company continues to seek to incorporate renewables and energy efficiency measures when and where those measures are cost effective. The Company expects to continue to be able to meet the renewable energy objective in South Dakota.

If there are questions regarding information contained in the report, please feel free to contact me at (605) 339-8350 or Jeff Haskins at 303-571-6454.

SINCERELY,
/s/
ERIC PAULI
COMMUNITY RELATIONS MANAGER
Enclosures

<sup>&</sup>lt;sup>1</sup> As Defined in SDCL 49-34A-94.

<sup>&</sup>lt;sup>2</sup> These figures were calculated using both the deemed and measured energy savings approaches outlined in the Commission's rules, ARSD. 20:10:38:04 and 20:10:38:05.

<sup>&</sup>lt;sup>3</sup> See our February 27, 2015 FCA report, Attachment 3, page 4.

### Renewable, Recycled, and Conserved Energy Objective Annual Report for 2015

Directions: Fill in each orange box, save your responses, and email the completed spreadsheet back to darren.kearney(at)state.sd.us **by July 1, 2016**. Your completed spreadsheet will fulfill the reporting requirements in SDCL 49-34A-105. If you wish to supplement the spreadsheet with an additional narrative report, please include that report in your submission. If you have any questions, please contact Darren Kearney at 605.773.3201 or darren.kearney(at)state.sd.us.

- 1 2,060,864 MWH of electricity delivered to retail customers (retail sales) in 2015
  2 -53,103 MWH of electricity obtained from a hydroelectric facility in 2015 with an inservice date before July 1, 2008 (old hydro)
  3 377,280 MWH of electricity obtained from qualifying renewable or recycled facilities
  4 0 MWH of qualifying conserved energy
- Please provide a brief narrative that describes steps taken to meet the state renewable, recycled, and conserved objective over time and identifies any challenges or barriers encountered in meeting the objective.

Although we believe that we own or have under contract sufficient renewable resources for RES compliance through at least 2023, as well as complying with the renewable energy requirements of other states in which we have service territory, we are paying close attention to a number of issues that may affect renewable energy development in our region. These issues include:

- Cost-effectiveness of wind energy. Natural gas prices and, correspondingly, market energy prices, have continued to stay low, and are projected to continue at a lower level for a number of years to come. With those lower long-term price expectations, wind energy may not be as cost-effective as its likely alternative, natural gas generation, if the Production Tax Credit (PTC) or Investment Tax Credit (ITC) expires.
- Wind integration and baseload cycling. As the percentage of wind energy on our system and in the Midcontinent Independent System Operator (MISO) region continues to increase, we remain concerned about the cost and possible effects on reliability of integrating wind with our other resources. The Company continues to monitor the MISO ancillary services market costs as wind penetration levels increase in proportion to the statutory requirements of the Minnesota Renewable Energy Standard.
- Transmission Construction Lead Time. The best wind resource areas within and adjacent to our service territory do not currently have the necessary transmission infrastructure to support the level of wind generation needed to meet RES compliance deadlines. CapX and other transmission initiatives will substantially improve transmission from those areas into our primary load center in the Twin Cities. Furthermore the transmission infrastructure between the Twin Cities and other parts of the MISO footprint appears inadequate to accommodate the ebb and flow of expected 2020 wind generation. It will be important to coordinate the planning of wind resources with the transmission necessary to integrate it into the electrical system. The Company is working with MISO and other stakeholders on these challenges.
- MISO Interconnection Queue. MISO has reformed its interconnection queue process over the past several years, which has resulted in substantially reducing the lag time between making an interconnection request and executing a signed interconnection agreement. These changes appear to have resolved the problem of having thousands of MW of projects ready for development, but waiting years for interconnection studies. However, there has also been a lull in wind project development due to uncertainty about extension of the Federal PTC, which has dampened interconnection request activity. The Company will continue to monitor the interconnection queue process, and its effect on the aforementioned lag time, as more is known about PTC extension.
- PTC/ITC Extension Uncertainty. Currently the PTC requires project construction completion by December 31, 2016. Without the benefit of the PTC/ITC provisions, project economics are challenging for new renewable generation projects to be cost-competitive with natural gas generation alternatives.

6	6,726,502 Total amount of RECs retired for CY2015 compliance across all jurisdictions
7	200,777 Amount of RECs retired to meet South Dakota's renewable energy objective for CY2015
8	For RECs listed above in (7), please provide the tracking system(s) RECs were retired under:
	M-RETS
9	For RECs listed above in (7), please provide the name and location of each facility that produced the retired RECs:
	Please see attachment C
10	Amount of RECs that the provider retired to meet a renewable energy objective or renewable energy standard in each of the other states it provides electricity services:
	Please see attachment B
11	For RECs listed above in (10), please provide the name and location of each facility that produced the retired RECs:  Please see attachment C
If the	Company is claiming conserved MWH in (4) above, please provide the following per ARSD 20:10:38:03 through 06:
12	NA MWH of conserved energy achieved through energy efficiency
13	A general explanation of each energy efficiency impact evaluation or estimate, the rational for using each energy efficiency impact evaluation or estimate, and the amount of expenditures spent on energy efficiency measures for the calendar year (ARSD 20:10:38:03).
	NA .
14	NA MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))
14 15	NA MWH of conserved energy achieved through demand response ((12) and (14) should sum to (4))  A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or
	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or
	A general explanation of each demand response impact evaluation or estimate, the rationale for using each demand response impact evaluation or estimate, and the amount of expenditures spend on demand response measures for the calendar year (ARSD 20:10:38:06).

If the Company is claiming renewable MWH in (3) above or retiring RECs in other jurisdictions, please provide the following per ARSD 20:10:38:07:

Utility Name	Coal	Hydro	Nuclear	Wind	Natural Gas	Oil	Biomass	Solid Waste	Solar	Waste Heat	Purchases	Other - Please Specify	Total Check
Northern States Power Company	33.85%	7.36%	27.10%	13.74%	14.85%	0.08%	2.65%	0.22%	0.04%			0.13%	100.00%

Other:	Other comprises the generation produced from fossil fuel and other non-renewable fuel for multi fuel refuse derived generating facilities

For the renew	For the renewable generation listed above, please provide:										
	RECs retired for SD RRCEO compliance in 2015	200,777									
	RECs held or "banked"	1,535,551									
	RECs sold or transferred to other parties	5,652									

# Attachment A

# Generation Mix Percentage 2015 Status Report

System Total Generation (and Jurisdictional Allocator)	
State	<b>2015 State Allocators</b>
1 Minnesota	73.7241%
2 North Dakota	5.5042%
3 South Dakota	4.9504%
4 Wisconsin/Michigan	<u>15.8214</u> %
5 NSP System	100.0000%
System Renewable Generation	M-RETS
Source	<u>RECs</u>
6 Wind	6,115,383
7 Solar	16,659
8 Hydro (pre-7/1/2008)	1,072,717
9 Hydro (post 7/1/2008)	47,947
10 Biomass\Wood\Landfill Gas	1,182,649
11 Refuse-Derived Fuel (RDF)	258,626
12 NSP System	8,693,981
SD RREO Renewable Energy	
13 SD % of System Total Generation:	4.95035%
14 System RECs allocated to SD:	430,383
15 Remove Old Hydro (per SD RREO):	(53,103)
16 SD RREO qualifying renewable energy:	377,280
17 Vintage 2015 REC Sales <sup>1</sup> :	(5,652)
18 Net SD RREO qualifying renewable energy:	371,628
19 SD retail sales:	2,060,864
20 Remove SD Hydro allocation (per SD RREO):	(53,103)
21 SD REO adjusted retail sales:	2,007,761
22 SD REO renewable energy %:	<u>18.5</u> %
23 RECs retired for 2015 REO compliance	200,777.00

<sup>&</sup>lt;sup>1</sup> Vintage 2015 REC sales executed as of June 1, 2016

Attachment B is provided as part of the attached live Excel spreadsheet.

SDPUC notation:

See Attachment B on the SDPUC website at

http://puc.sd.gov/energy/reo/xcelenergy.aspx

FacilityName	County	State
Generation Mix Percentage	Meeker County	MN
Agassiz Beach - Agassiz Beach	Clay	MN
Apple River (Unit 1)(Units 3-4) - Apple River	St Croix County	WI
Bayfront (Unit 4) - Bayfront (Unit 4)	Ashland County	WI
Bayfront (Unit 5) - Bayfront (Unit 5)	Ashland County	WI
Bayfront (Unit 6) - Bayfront (Unit 6)	Ashland County	WI
Big Blue Wind Farm - Big Blue Wind Farm, LLC	Faribault	MN
Big Falls (Units 1-3) - Big Falls	Rusk County	WI
Carleton College - Carleton College	Rice County	MN
Cedar Falls (Units 1-3) - Cedar Falls	<b>Dunn County</b>	WI
Chanarambie Power Partners (1) - Chanarambie Power Partners (1)	Murray County	MN
Chanarambie Power Partners (2) - Chanarambie Power Partners (2)	Murray County	MN
Chippewa Falls (Unit 1) - Chippewa Falls (Unit 1)	Chippewa County	WI
Chippewa Falls (Unit 2) - Chippewa Falls (Unit 2)	Chippewa County	WI
Chippewa Falls (Unit 3) - Chippewa Falls (Unit 3)	Chippewa County	WI
Chippewa Falls (Unit 4) - Chippewa Falls (Unit 4)	Chippewa County	WI
Chippewa Falls (Unit 5) - Chippewa Falls (Unit 5)	Chippewa County	WI
Chippewa Falls (Unit 6) - Chippewa Falls (Unit 6)	Chippewa County	WI
Community Wind North - North Community Turbines	Lincoln	MN
Community Wind North - North Wind Turbines	Lincoln	MN
Cornell (Unit 1-4) - Cornell (Unit 1-4)	Chippewa County	WI
Cornell (Unit 2) - Cornell (Unit 2)	Chippewa County	WI
Cornell (Unit 3) - Cornell (Unit 3)	Chippewa County	WI
Cornell (Unit 4) - Cornell (Unit 4)	Chippewa County	WI
Cow Poo - Cow Poo	Jackson	WI
Danielson - Danielson Wind Farms	Meeker County	MN
Dells (Units 1-7) - Dells	Eau Claire County	WI
Diamond K Dairy, Inc Diamond K Dairy, Inc.	Winona	MN
East Ridge - East Ridge	Murray County	MN
Ewington Energy Systems - Ewington Energy Systems	Jackson County	MN
Fenton Power Partners I (1) - Fenton Power Partners I (1)	Murray County	MN
Fenton Power Partners I (2) - Fenton Power Partners I (2)	Murray County	MN
Fey Windfarm - Fey Windfarm	Pipestone County	MN
Fibrominn LLC - Fibrominn	Swift	MN
Fibrominn LLC - Fibrominn Multi	Swift	MN
FPL Energy Mower County - FPL Energy Mower County	Mower County	MN
FreEner-g-2009-01 - FreEner-g-2009-01	Agg Group Reference	MN
FreEner-g-2010-01 - FreEner-g-2010-01	Agg Group Reference	MN
French Island (Unit 1) - French Island (Unit 1)	La Crosse County	WI
French Island (Unit 2) - French Island (Unit 2)	La Crosse County	WI
GL Bio Gas I, LLC - GL Bio Gas I	La CROSSE	WI
GL Bio Gas II, LLC - GL Bio Gas II	La CROSSE	WI
Grand Meadow Wind Farm - Grand Meadow	Mower	MN

FacilityName	County	State
Grant County Wind - Grant County Wind	Grant County	MN
Hatfield Hydroelectric Plant - Unit 198	Jackson County	WI
Hayward (Unit 1) - Hayward	Sawyer County	WI
Hibbing Public Utility - Laurentian	St. Louis	MN
Hilltop Power - Hilltop	Pipestone	MN
Holcombe (Unit 1) - Holcombe (Unit 1)	Chippewa County	WI
Holcombe (Unit 2) - Holcombe (Unit 2)	Chippewa County	WI
Holcombe (Unit 3) - Holcombe (Unit 3)	Chippewa County	WI
Jeffers Wind 20 - Jeffers Wind 20	Cottonwood County	MN
Jim Falls (Unit 1) - Jim Falls (Unit 1)	Chippewa County	WI
Jim Falls (Unit 3) - Jim Falls (Unit 3)	Chippewa County	WI
Jim Falls (Units 2) - Jim Falls (Units 2)	Chippewa County	WI
Kas Brothers Windfarm - Kas Brothers Windfarm	Pipestone	MN
Koda 1 - Koda Energy	Scott	MN
Ladysmith (Units 1-3) - Ladysmith	Rusk County	WI
Lake Benton Power Partners II (LBII) - LB II	Pipestone	MN
Lake Benton Power Partners, LLC - Lake Benton Power Partners (LBI)	Lincoln	MN
LCO Band of Lake Superior Chippewa Indians - Lac Courte Oreilles (LCO)	Sawyer	WI
MCC - Solar	Hennepin	MN
McNeilus Group - McNeilus Group	Dodge County	MN
Menomonie (Units 1-2) - Menomonie	Dunn County	WI
Merrick Solar - Merrick Solar	Ramsey	MN
Metro Wind - Metro Wind	Sherburne	MN
MinnDakota Wind (1) - MinnDakota Wind (1)	Lincoln County	MN
MinnDakota Wind (1b) - MinnDakota Wind (1b)	Lincoln County	MN
MinnDakota Wind (2) - MinnDakota Wind (2)	Brookings	SD
MNRDF_DNR - MNRDF_DNR	Agg Group Reference	MN
Moraine II - Moraine II	Pipestone/Murray	MN
Moraine Wind - Moraine Wind	Murray County	MN
NAE Shaokatan Power Partners - NAE Shaokatan Power Partners	Lincoln County	MN
Neshonoc - Neshonoc	LaCrosse	WI
Nobles Wind Farm - Nobles Wind Farm I	Nobles	MN
Nobles Wind Farm - Nobles Wind Farm II	Nobles	MN
Norgaard North - Norgaard North	Lincoln County	MN
Norgaard South - Norgaard South	Lincoln County	MN
North Shaokatan Wind - Group	Lincoln/Lake Benton	MN
Olsen Windfarm LLC - Olsen Windfarm	Pipestone	MN
Pine Bend - Pine Bend	Dakota	MN
Pipestone - Pipestone	Pipestone County	MN
Prairie Rose Wind - Prairie Rose Wind, LLC	Rock & Pipestone	MN
Red Wing (Unit 1) - Red Wing (Unit 1)	Goodhue County	MN
Red Wing (Unit 2) - Red Wing (Unit 2)	Goodhue County	MN
Ridgewind - Ridgewind	Murray	MN

FacilityName	County	State
Riverdale (Units 1-2) - Riverdale	St. Croix County	WI
Rock Ridge Power Partners - Rock Ridge Power Partners	Pipestone County	MN
Ruthton Ridge Wind - Group	Lincoln/Murray/Pipeston	MN
SAF Hydro, LLC - SAF Hydro	Hennepin County	MN
Saxon Falls (Units 1-2) - Saxon Falls	Iron County	MI
Shane's Wind Machine - Shane's Wind Machine	Pipestone County	MN
Slayton Solar - Slayton Solar LLC	Murray	MN
South Ridge Power Partners - South Ridge Power Partners	Pipestone County	MN
SRMN2010-J-01 - SRMN2010-J-01	Agg Group Reference	MN
SRMN2011-01 - SRMN2011-01	Agg Group Reference	MN
SRMN2011-02 - SRMN2011-02	Agg Group Reference	MN
SRMN2012-01 - SRMN2012-01	Agg Group Reference	MN
SRMN2012-02 - SRMN2012-02	Agg Group Reference	MN
SRMN2012-03 - SRMN2012-03	Agg Group Reference	MN
SRMN2012-04 - SRMN2012-04	Agg Group Reference	MN
St. Anthony (Units 1-5) - St. Anthony	Hennepin County	MN
St. Croix Falls (Unit 1-8) - St. Croix Falls (Unit 1-8)	Polk County	WI
St. John's Solar Farm - St. John's Solar Farm	Stearn	MN
St. Olaf College - St. Olaf College	Rice County	MN
St. Paul Cogeneration - St. Paul Cogeneration	Ramsey	MN
Superior Falls (Units 1-2) - Superior Falls	Iron County	MI
Tholen Transmission Inc. (North) - Tholen Transmission Inc. (North)	Pipestone County	MN
Tholen Transmission Inc. (South) - Tholen Transmission Inc. (South)	Pipestone County	MN
Thornapple (Units 1-2) - Thornapple	Rusk County	WI
Trego (Units 1-2) - Trego	Washburn County	WI
Uilk Wind Farm - Uilk Wind Farm	Pipestone County	MN
Valley View - Valley View Wind	Murray	MN
Velva Windfarm - Velva Windfarm	McHenry County	ND
West Ridge - West Ridge	Pipestone County	MN
White River (Units 1-2) - White River	Ashland County	WI
Wilmarth (Unit 1) - Wilmarth (Unit 1)	Blue Earth County	MN
Wilmarth (Unit 2) - Wilmarth (Unit 2)	Blue Earth County	MN
Wind Power Partners - Wind Power Partners	Lincoln	MN
Windvest Power Partners - Windvest Power Partners	Pipestone County	MN
Winona County Wind - Winona County Wind	Winona	MN
Wissota (Unit 1-3) - Wissota (Unit 1-3)	Chippewa County	WI
Wissota (Unit 4-6) - Wissota (Unit 4-6)	Chippewa County	WI
WM Renewable Energy - Burnsville - WM Renewable Energy - Burnsville	Burnsville/ Dakota	MN
Woodstock Municipal Wind - Woodstock Municipal Wind	Pipestone	MN
Zephyr Wind, LLC (CWS) - Zephyr Wind (2)	Nobles County	MN
Zephyr Wind, LLC (CWS) - Zephyr Wind (1)	Nobles County	MN

# Northern States Power Company - Minnesota Generation Mix Percentage

Total System Energy: 45,615,678

		2015	2015
Fleet Generation Mix		Reported Mix	SD Mix
Biomass	1,207,447	2.6%	2.647%
Coal	15,439,892	33.8%	33.848%
Gas	6,773,933	14.9%	14.850%
Hydro	3,355,597	7.4%	7.356%
Nuclear	12,360,155	27.1%	27.096%
Oil	34,555	0.1%	0.076%
Other	57,825	0.1%	0.127%
Solar	16,559	0.0%	0.036%
Waste	102,163	0.2%	0.224%
Wind	6,267,552	13.7%	13.740%
	45,615,678	100.00%	100.00%