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

**Report to the Legislature** 





December 23, 2009

### **EXECUTIVE SUMMARY**

South Dakota Codified Law (SDCL) 49-34A-101 through 106 established South Dakota's Renewable, Recycled and Conserved Energy Objective (RRCEO) in 2008.<sup>1</sup> As part of the RRCEO, utilities are required to report annually to the SD Public Utilities Commission (commission) on their progress towards meeting the RRCEO of 10 percent by 2015. In addition, SDCL 49-34A-105 requires the commission to compile those reports and submit them to the Legislature. This report satisfies that requirement and expands on that purpose by reporting the difficulties discovered since this requirement was codified.

Renewables portfolio standards (RPSs) and their voluntary counterparts, renewable energy objectives (REOs), have been around for more than 25 years. Their main purpose is to spur the development of renewable generation. At the time of this report, 29 states have an RPS while 6 (including South Dakota) have voluntary objectives. South Dakota's objective to obtain 10 percent renewables by 2015 includes a cost-effectiveness test and a reporting requirement. Currently, Congress is considering a number of energy bills that would institute a federal standard, all of which would go beyond our objective.

The industry standard for tracking renewable generation is renewable energy credits (RECs). These are used in both compliance<sup>2</sup> and voluntary markets. In order for an entity to take credit for renewable generation, it must either purchase or generate a REC, and then "retire" it, so as not to allow it to be transferred again. From utility reports, attached in Appendix A, we can see all utilities have some ownership interest in renewable energy. However, almost no utilities retired RECs for South Dakota's RRCEO while most did retire RECs for requirements in other states. This is not surprising and reflects the question of whether retiring RECs for our RRCEO is cost effective when they could be selling the RECs to bring down rates. The results from tracking the first year of conserved energy was encouraging, with most utilities making great progress on energy efficiency. Overall the utility reports highlighted the advances utilities are making in developing renewable, recycled and conserved energy resources.

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

<sup>&</sup>lt;sup>2</sup> Compliance markets must meet the terms of jurisdictional renewables requirements imposed by state legislatures, specifically RPSs

# Background

### PURPOSE OF THIS REPORT

South Dakota Codified Law (SDCL) 49-34A-101 through 106 established South Dakota's Renewable, Recycled and Conserved Energy Objective (RRCEO) in 2008.<sup>3</sup> As part of the RRCEO, utilities are required to report annually to the SD Public Utilities Commission (commission) on their progress towards 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 satisfies that requirement and expands on that purpose by reporting the difficulties discovered since this requirement was codified.

### **ELECTRIC UTILITIES IN SOUTH DAKOTA**

When we discuss electric utilities in South Dakota, there are many aspects to cover. Structurally, electric utilities can be broken down into three main parts: generation, transmission and distribution. A single utility that covers all three of these is known as a "vertically integrated" utility. However, some utilities provide only one or two of these services. For instance, the City of Pierre provides electric distribution services through the municipality. It receives generation and transmission from the Western Area Power Administration (WAPA) and Missouri River Energy Services (MRES). Because not all utilities are vertically integrated, the relationships among the providers of generation, transmission and distribution services can become very complex.

In addition to structural complexities, electric utilities also differ in how they are managed and regulated. Some utilities are owned by private investors and have rates regulated by the commission, while others are publicly-owned or cooperative in nature and do not fall under the purview of the commission. Whether a utility is regulated by the commission or its own members provides another level of differentiation for utilities.

To complicate things even more, some utilities are members of regional transmission organizations (RTOs), which schedule power flows from generator to load for their members. In South Dakota, three investor-owned utilities (IOUs) are members of the Midwest Independent System Operator (MISO), this region's closest RTO. As members of MISO, these utilities have a stake in any policy changes throughout the 15-state region covered by MISO. As state and federal policies are created to regulate the natural monopolies of electric utilities, the differences in structure, regulation and RTO membership must be taken into account.

### **GENERATION SOURCES**

Determining the exact mix of generation sources serving South Dakota loads is not technically possible. The best we can do is make an educated guess. However, many studies in the past have not gone about this in the correct manner. The most accurate source of information for both generation sources and retail sales is the Energy Information Administration (EIA), the

<sup>&</sup>lt;sup>3</sup> Conserved Energy was added during the 2009 Legislative Session

statistical arm of the U.S. Department of Energy. Because the EIA provides specific generation data by state, one might assume that South Dakotans use the mix of energy that is generated here. This is not true. In fact, much of the energy from our hydroelectric dams is exported to other states, while some utilities rely on imports from other states. For instance, in 2007, South Dakotans consumed 10.6 million MWh of electricity while generating only 6.1 million MWh. Of the 6.1 million MWh, 2.9 million MWh were hydro and about 1.9 million MWh of that was exported, leaving us with an estimated net generation of about 4.2 million MWh – 6.4 million MWh short of what we consumed. Of the 6.4 million MWh imported into the state, the majority most likely came from coal, nuclear and natural gas plants in North Dakota, Wyoming, Minnesota and Iowa. So even though the mix of energy *generated* in South Dakota was made up of 48 percent hydro, 43 percent coal, 6 percent natural gas, and 3 percent other, the energy *used* in South Dakota was quite a bit different.<sup>4</sup> According to a recent survey the PUC conducted of all utilities serving South Dakota, electricity used in 2008 consisted of 18 percent hydro, 70 percent coal, 2 percent natural gas, 6 percent nuclear and 4 percent from other sources.

### RENEWABLE, RECYCLED, AND CONSERVED ENERGY OBJECTIVE

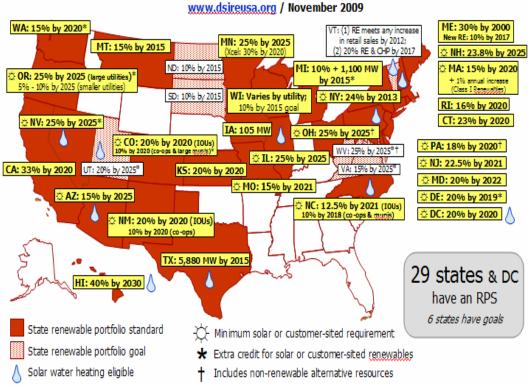
The first renewables portfolio standard (RPS)<sup>5</sup> in the U.S. was established in Iowa in 1983. It required<sup>6</sup> Iowa's utilities to have 105 MW of renewables in place by 1999. In 1997, New England states that had been restructured began establishing renewable standards of their own. Massachusetts was the first with a requirement of 4 percent renewables by 2009. Massachusetts was quickly followed by Connecticut, Maine, New Jersey and Texas. In 1998, Wisconsin was the first state that had not gone through restructuring to establish an RPS. Within a few years, more than half of the states had created their own standards, with some large municipalities doing the same.

During the last couple of years, many of these states have raised their standards, almost as if in competition with others. For example, in 2002, California enacted a standard of 20 percent by 2017. In 2003, Minnesota enacted a standard of 10 percent by 2015. In 2006, California bumped its standard up to 20 percent by 2010. A year later, Minnesota bumped its standard to 25 percent by 2025. Just recently, California Governor Arnold Schwarzenegger set a longer-term state goal by executive order of 33 percent by 2020. Not all states have renewable requirements; some have set goals, or objectives. Before South Dakota's objective was established, North Dakota and Virginia had set voluntary goals. Vermont and Utah passed similar legislation at the same time South Dakota did in 2008.

<sup>&</sup>lt;sup>4</sup> "Other" consists of nuclear, renewables, and fuel combustion turbines

<sup>&</sup>lt;sup>5</sup> Renewable portfolio standards are also called renewable energy standards (RES) when required and renewable energy objectives (REO) when voluntary.

<sup>&</sup>lt;sup>6</sup> The requirement carried no penalties for noncompliance.



### Renewable Portfolio Standards

South Dakota's RRCEO creates a voluntary goal for all utilities to generate 10 percent of retail sales from renewable, recycled or conserved sources by 2015. Renewable and recycled resources are defined in SDCL 49-34A-94 through 96 and include wind, solar, hydroelectric<sup>7</sup>, biomass, geothermal, waste heat recovery, and hydrogen generated from one of the fore-mentioned sources. The commission was given the authority to write rules for tracking renewable, recycled and conserved energy. These rules will be discussed to a further extent later in this report. One caveat placed on the RRCEO is cost effectiveness. SDCL 49-34A-104 requires utilities to ensure that "new renewable, recycled, and conserved energy is reasonable and cost effective considering other electricity alternatives." The commission believes this requirement was a wise addition to the RRCEO.

In addition to state requirements, Congress is currently considering a number of different energy bills, most of which would implement a national renewables standard. Of these proposals, all are similar in that they operate separately from established requirements at the state level. Beyond that, it is difficult to predict what a national standard would entail. The details of such a federal standard are important because it could supersede our current objective, essentially making it useless. For instance, if there is a federal requirement for every utility to get 10 percent of their energy from renewables by 2015, our goal would be preempted.

<sup>&</sup>lt;sup>7</sup> SDCL 49-34A-103 allows hydroelectric generation with an in-service date of July 1, 2008 or thereafter. However, old hydroelectric generation is deducted from the baseline of total retails sales, so as not to penalize the utility.

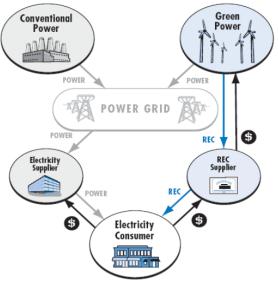
### **RENEWABLE ENERGY CREDITS**

Renewable Energy Credits, or RECs, are the industry standard for tracking all sorts of renewable generation. RECs go by many other names, including the following:

- Renewable Energy Certificates (RECs),
- Tradable Renewable Energy Credits (TRECs),
- Tradable Renewable Energy Certificates (TRECs),
- Tradable Renewable Credit Certificates (TRCCs),
- Tradable Renewable Certificates (TRCs) and
- Green Tags.

Because it is impossible to track where electrons go once they get on the grid, RECs were created to track the environmental benefits associated with those "green" electrons. Basically, an entity can buy down the cost of renewable generation by purchasing the environmental attributes associated with them. As a result though, there are strict rules against the actual user of the energy to take credit for its "green" source. In most cases, one REC is created for each megawatt-hour (MWh) of electricity generated from renewable resources.

The true definition of a REC depends on who cares and who is tracking it. For instance, California regulators are very interested in



US EPA Green Power Partnership, 2009

ensuring utility compliance with their renewable standard. They have created a tracking system with a very robust verification procedure for tracking each REC, thereby guaranteeing a utility's compliance, or noncompliance, with the state's requirement. Because REC markets are so new, many states are still in the process of deciding how to track RECs for their purposes. On the other hand, a company like PepsiCo, which buys enough RECs to match the electricity it uses to manufacture Sun Chips, is typically less concerned about the verification or details of its RECs and more concerned about marketing its purchase. Rather than buying its RECs from a compliance market like California's, PepsiCo goes through a voluntary market, which has less stringent standards than a compliance market, and therefore costs less.

Neither compliance nor voluntary customers can take credit for a REC's environmental attributes until it has been retired. Once a REC is retired, a record is kept of its existence, and it cannot be sold again. And unlike Michael Jordan or Bret Favre, RECs are not allowed to come out of retirement.

One interesting aspect of RECs is that they track energy produced, not capacity. When we talk about wind farms, we typically speak in terms of capacity, so this may seem counter-intuitive. However, there is a good reason for using energy produced. It is the product of capacity and

time spent generating. For instance, a 100 MW wind farm in South Dakota would likely put out around 50 percent more energy than a 100 MW wind farm in Illinois over the same time period. This is just one thing to keep in mind as media often report wind development in terms of megawatts (MW), and those in the industry report in terms of megawatt-hours (MWh) or RECs.

### **Findings**

### UTILITY REPORTS

Each retail provider has been accounted for in reports received by the commission this summer. These reports are attached in order of receipt in Appendix A. Prior to this year's reporting, we sent the reporting entity for each retail provider a short spreadsheet, found in Appendix B, requesting certain data. A summarized spreadsheet of those results can be found in Appendix C. From these reports we can glean a fair amount of information.

First, all utilities have some ownership interest in renewable energy. Although four of the 10 utilities reported not owning any renewable generation capacity in 2008, all have since made progress in that direction. Black Hills Power has a power purchase agreement (PPA) with a wind farm in Wyoming; NorthWestern Energy recently finished developing a 25 MW wind farm near Ree Heights; East River Electric Co-op chose not to report the generation owned by its supplier, Basin Electric; and Heartland Consumers Power District has a PPA to take power from the Wessington Springs I project. Regardless of RECs being retired or reported, all South Dakota utilities are using at least some renewable generation to provide power to their customers.

One noteworthy finding in the reported data is that almost no utilities retired RECs for South Dakota's RRCEO. MidAmerican Energy retired 1,825 RECs making up less than 1 percent of its retail sales, and Otter Tail Power retired 209 RECs for their green power purchasing program. The small amount of credits retired is not surprising and reflects the fact that retiring RECs for our RRCEO is not cost effective when they can sell those credits to bring down their cost of service in the state. In contrast, most utilities did retire some credits for their renewables mandates in other states.

With the addition of conserved energy this year, the results were encouraging. Although only four of the 10 utilities reported actual savings, a deeper look into the data shows that South Dakota utilities are making great strides in this area. Of the six investor-owned utilities, two – Otter Tail Power Company and Xcel Energy – reported savings in 2008. However, the other four are moving in the right direction. Black Hills Power puts about \$350,000 annually into its energy efficiency programs, but has not been tracking impacts, so no savings were reported. MidAmerican had a portfolio of energy efficiency programs approved by this commission earlier this summer and began offering the programs this fall. Montana-Dakota Utilities has been offering energy efficiency programs to its gas customers since 2006 and the commission recently approved expanding those programs, including some electric programs, beginning in 2010. NorthWestern Energy recently filed its own portfolio of energy efficiency programs, and is awaiting approval from the commission. Although Basin and East River Electric Power Cooperatives did not report any savings, they have been funding energy efficiency programs for decades, typically spending over \$1.5 million annually. The American Council for an Energy Efficient-Economy (ACEEE) recently ranked South Dakota 36<sup>th</sup> for our energy efficiency efforts – up from 47<sup>th</sup> last year, and landing our state in the "most improved" category.<sup>8</sup> The main reason for the jump was because of increased utility spending on energy efficiency. We at the commission are very excited to see South Dakota utilities making energy efficiency such a priority resource.

# **REC Reporting**

Reporting renewable generation can be the most contentious part of a state's renewable standard. Most states use the industry standard of RECs, requiring utilities to report only RECs retired through approved tracking systems. For our purposes, we need to see homogenous, comparable data. We need to have an equitable system for counting energy efficiency. And finally, we need reporting metrics that are clear to those unfamiliar with REC jargon.

In the first reporting period of the RRCEO, the data we received from the utilities was not consistent. This was made apparent in the report we submitted electronically to each member of the legislature in January 2009.<sup>9</sup> Some utilities provided very specific information regarding the source and amount of renewables, including whether RECs had been retired or not. Others did not include any specific data. Utilities were not expected to file homogenous data, however, as the commission had yet to draft reporting rules. For this second round of reporting, we distributed a spreadsheet and asked each utility to at least provide some specific data points.<sup>10</sup> Having experienced two rounds of reporting, we have acquired experience to begin the rulemaking process.

In South Dakota, the definition of renewables is very straightforward, but the definition of energy efficiency is not. Most energy efficiency programs fall into two main categories: energy-saving and capacity-saving. Neither is easy to measure. Energy-saving programs attempt to reduce the gross amount of electricity used at all times. For instance, rebates on efficient commercial lighting would fall under this category. A consumer takes the utility's incentive and invests in lights that use half as much energy every day. This is measurable, but determining whether the consumer would have made the switch without the utility incentive can be difficult. Capacity-saving programs focus on reducing loads when the utility is nearing its capacity limit. For example, the city of Vermillion cycles residential air conditioners on and off periodically during times of peak use – typically the hottest days of the year. Even though capacity-saving programs do not save a lot of energy, they do save a lot of money. The energy utilities don't have to produce at those peak times would have come from very expensive peaking plants, such as fuel oil or natural gas combustion turbines. This advantage should be somehow considered when tracking efficiency for the RRCEO.

RECs do not make a very clear reporting metric. For instance, if all the utilities simply reported RECs retired, the information would not be very useful to anyone. It needs to be compared to something. Currently, for the PUC's purposes, reported RECs are divided by total sales to get a renewable percentage. This is a great metric, but not good enough. The measure we see used

<sup>&</sup>lt;sup>8</sup> See 2009 State Energy Efficiency Scorecard (http://www.aceee.org/pubs/e097.htm)

<sup>&</sup>lt;sup>9</sup> See Appendix D

<sup>&</sup>lt;sup>10</sup> See Appendix B

the most is that of capacity. The comparison between a 50 MW wind farm and a 500 MW coal plant is easier to comprehend. Reporting both RECs retired and capacity will give us much better insight into the progress utilities are making toward their renewable goals.

As utilities work towards the goal of 10 percent renewables by 2015, we need to find a better way to report their progress to the public. Reporting should be homogenous, easy to understand, and fairly weigh energy efficiency efforts. These issues can all be resolved with the commission's drafting of tracking rules. That process and an initial proposal are discussed in the next section.

# **Commission Rules**

We have identified a few problems with the way the RRCEO is working at this time. We believe these problems can be resolved by the commission's adoption of rules, as was intended by the legislation, to clarify how RECs are tracked. The PUC staff has formally requested the Commission open a rulemaking docket to address those issues.

Staff's rulemaking proposal focuses more on the reporting of quality information than compliance with the state's objective. Above all, it will be crucial to know what the utilities are doing to develop renewable generation sources and what barriers are preventing them from doing more. With this in mind, the PUC staff's starting point for the rulemaking process is a reporting requirement that includes the following information:

- Renewable generation capacity owned, by location
- Renewable generation capacity contracted for in PPAs, by location
- Total capacity owned, by location
- Total capacity contracted for in PPAs, by location
- RECs retired for South Dakota's RRCEO, by location
- RECs retired for other states, by state, by location
- A discussion of the utility's REC management viewpoint
- Retail sales in South Dakota
- Total retail sales across entire company footprint
- Amount of capital spent on energy efficiency programs
- Measured energy savings as a result of energy efficiency programs, if measurable
- Measured capacity savings as a result of energy efficiency programs, if measurable
- A general overview of the utility's attempts to incorporate renewable generation into the generation mix, including achievements and barriers to success.

Most utilities voluntarily provided all of this information for the 2009 report. However, the commission's rulemaking process is collaborative and open in nature, so all interested parties may have input in the development of the final reporting rules.

# **Appendix A** Utility Reports (in order of receipt)



Chris Kilpatrick Director of Rates- Electric Regulation Chris.Kilpatrick@blackhillscorp.com

625 Ninth Street• P.O. Box 1400 Rapid City, South Dakota 57709-1400 P: 605.721.2748 F: 605.721.2568

June 11, 2009

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

Re: Black Hills Power, Inc. - South Dakota Renewable Energy Objective Report

Dear Ms Van Gerpen:

Pursuant to SDCL 49-34A-105, Annual Reports Concerning Renewable and Recycled Energy Objective, following is a status of Black Hills Power's renewable energy program.

Black Hills Power does not currently own any renewable generation, however, Black Hills Power has a purchase power agreement for old hydro and a purchase power agreement for wind energy.

In 2008, renewable resources accounted for 1.7% of retail energy sales for Black Hills Power. Black Hills Power anticipates renewable resources will serve approximately 3.6% of 2009 retail energy sales. 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 and a fair return to shareholders.

Feel free to contact me if there are any questions related to this report.

Sincerely,

Allar.

Chris Kilpatrick

Please provide a value in each of the boxes below with an "X" in it.

Company: Black Hills Power

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)	2,330,870	
SD (MWh)	1,466,488	
Generation Capacity Owned		
Total - All States (MW)	434	
SD (MW)	175	
Renewable Generation Capacity Owned		
Total - All States (MW)		Black Hills Power (BHP) currently does not own any renewable generation, however, it has
Wind	-	purchase power agreements for Old Hydro and wind energy. In September 2008, the wind project
Solar	·	became operational and Black Hills Power began purchasing energy. Based on a projection
New Hydro	-	of a full year of operation from the wind project and the current output from the Old Hydro, we
Old Hydro	-	anticipate these renewable resources will serve approximately 3.6% of the total retail
Hydrogen	-	sales for Black Hills Power in 2009.
Biomass	-	
Geothermal	-	
Recycled	-	
Total - All States (MW)	-	
SD (MM)		
SD (MW)	1	
Wind	1 -	
Solar New Hydro	<sup>*</sup>	
New Hydro Old Hydro		
Hydrogen Biomass	1	
Geothermal	.	
Recycled		
Total SD (MW)		
· · · · · · · · · · · · · · · · · · ·	1	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind	_	
Solar	_	
Now Hydro		
Old Hydro		
Hydrogen	_	
Biomass	_	
Geothermal	-	
Recycled	1 -	
Total - All States (MWh)	-	
Generated in SD (MWh)		
Wind	-	
Solar		
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled		
Total SD (MWh)	-	
Description Frances Condition Detrined for Other Destan		
Renewable Energy Credits Retired for Other States	1	
Total - Generated In All States (MWh)		
Wind	-	
Solar New Hydro	1	
New Hydro Old Hydro		
Hydrogen		
Biomass		
Geothermal	-	
Recycled		
Total - All States (MWh)		
	1	
Generated in SD (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	- -	
Recycled	-	
Total SD (MWh)	-	
Conserved Energy & Capacity	1	
Conserved Energy (MWh)		
Total - All Statos		BHP does not currently track Conserved Energy, but is in the process of
SD SD	1	establishing a tracking method for all states including SD.
Conserved Capacity (MW)		DUD data and support to back Operational Press, but is in the
Total - Ali States		BHP does not currently track Conserved Energy, but is in the process of
SD		establishing a tracking method for all states including SD.

### BASIN ELECTRIC POWER COOPERATIVE

1717 EAST INTERSTATE AVENUE BISMARCK, NORTH DAKOTA 58503-0564 PHONE 701-223-0441 FAX: 701/224-5336



June 18, 2009

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

Re: Basin Electric Power Cooperative – South Dakota Renewable Energy Objective Report

Dear Ms. Van Gerpen:

Enclosed please find Basin Electric Power Cooperative's Renewable Energy Objective Report per SDCL 49-34A-105 and Senate Bill 57. The format for this report is an Excel spreadsheet provided by the PUD Staff. This report is filed on behalf of the following members within South Dakota:

- Grand Electric
- Rosebud Electric
- Rushmore Electric and their distribution members (Black Hills Electric Cooperative, Butte Electric Cooperative, Cam Wal Electric Cooperative, Cherry Todd Electric Cooperative, Lacreek Electric Association, Moreau Grand Electric Cooperative, West Central Electric Cooperative and West River Electric Association).

Should you have any questions regarding this report, please feel free to contact me at (701) 355-5413 or cjacobson@bepc.com.

Sincerely,

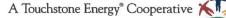
Caser J. Jawlson

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

cc by e-mail:

Ed Anderson, South Dakota Rural Electric Association Jerry Reisenauer, Grand Electric Bart Birkeland, Rosebud Electric Vic Simmons, Rushmore Electric Daniel Hutt, Black Hills Electric Kenneth Wetz, Butte Electric Jeff Bonn, Cam Wal Electric Timothy Grablander, Cherry-Todd Electric Wayne Sterkel, Lacreek Electric Melissa Maher, Moreau-Grand Electric Steven Reed, West Central Electric James Pahl, West River Electric

> Equal Employment Opportunity Employer



alendar Year 2008 RREO Report	Value	Comments		
letail Sales	Faite			
Total - All States (MWh)	14.071.282	Member Sales		
SD (MWh)		Member Sales		
	-,,			
eneration Capacity Owned				
Total - All States (MW)	2,828			
SD (MW)	169			
enewable Generation Capacity Owned	Mark State	Summer Nameplate Capacity		
Total - All States (MW)				
Wind	136.0	5.2 MW owned, 130.8 MW long-term purchased power agreement		
Solar	-			
New Hydro				
Old Hydro	-			
Hydrogen	-			
Biomass	-			
Geothermal	-			
Recycled		0 MW owned, 33 MW long-term purchased power agreement		
Total - All States (MW)	169.0			
SD (MW)				
Wind	42.6	2.6 MW owned, 40 MW long-term purchased power agreement		
Solar	-			
New Hydro	-			
Old Hydro	-			
Hydrogen	-			
Biomass	-			
Geothermal	-			
Recycled	16.5	0 MW owned, 16.5 MW long-term purchased power agreement		
Total SD (MW)	59.1			
Renewable Energy Credits Retired for SD				
Total - Generated In All States (MWh)				
Wind				
Solar				
New Hydro				
Old Hydro	-			
Hydrogen	-			
Biomass	-			
Geothermal	-			
Recycled	-			
Total - All States (MWh)	-			
Generated in SD (MWh)				
Wind	-			
Solar	-			
New Hydro				
Old Hydro	-			
Hydrogen	-			
Biomass				
Geothermal	-			
Recycled Total SD (MWh)	-			

Calendar Year 2008 RREO Report	Value	Comments		
Renewable Energy Credits Retired for Other States				
Total - Generated In All States (MWh)				
Wind	28,205	Minnesota and North Dakota		
Solar	-			
New Hydro	-			
Old Hydro	-			
Hydrogen				
Biomass	-			
Geothermal				
Recycled		North Dakota and Dakota Gasification Company		
Total - All States (MWh)	58,813			
Generated In SD (MWh)				
Wind	-			
Solar	-			
New Hydro	-			
Old Hydro	-			
Hydrogen				
Biomass	-			
Geothermal				
Recycled	23,960	Waste Heat Recovery Projects		
Total SD (MWh)	23,960			
Conserved Energy & Capacity				
Conserved Energy (MWh)				
Total - All States	-			
SD	-			
Conserved Capacity (MW)				
Total - All States	-			
SD	-	the second se		

Technology Wind Solar Hydro New Hydro Old Hydro	<b>Definition*</b> Wind that uses wind as the source of energy to produce electricity Solar that uses the sun as the source of energy to produce electricity Hydroelectric that uses water as the source of energy to produce electricity Facilities with an inservice date of July 1, 2008 or after Facilities with an inservice date before July 1, 2008
Hydrogen Biomass	Hydrogen that is generated from one of the sources listed in this section Biomass that uses agricultural crops and agricultural wastes and residues, wood and wood wastes and residues, animal and other degradable organic wastes, municipal solid waste, or landfill gas as the fuel to produce electricity
Geothermal	Geothermal that uses energy contained in heat that continuously flows outward from the earth as the source of energy to produce electricity
Recycled	Recycled energy systems that produce electricity from currently unused waste heat resulting from combustion or other processes and which do not use an additional combustion process. The term does not include any system whose primary purpose is the generation of electricity

\*Per SDCL 49-41B-94 and SDCL 49-41B-103



P.O. BOX 248 203 WEST CENTER STREET MADISON, SOUTH DAKOTA 57042-0248 PHONE: 605-256-6536 FAX: 605-256-2990 www.hcpd.com

June 22, 2009

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

**RE: HCPD Renewable Energy Objective Progress Report** 

Dear Ms. Van Gerpen:

Heartland Consumers Power District (HCPD) submits this Renewable Energy Objective (REO) Progress Report on behalf of its South Dakota Customers, nineteen municipal utilities, one cooperative utility, and one State agency, pursuant to SDCL 49-34A-101 and SDCL 49-34A-105. This report is filed on behalf of the following HCPD Customers in South Dakota: Arlington, Aurora, Bryant, Colman, Estelline, Groton, Hecla, Howard, Langford, Madison, McLaughlin, Miller, Northern Electric, Parker, Plankinton, Sioux Falls, State of South Dakota, Tyndall, Volga, Wessington Springs, and White. This report outlines a twelve month period from January 1, 2008 through December 31, 2008.

If you have any questions regarding this report, please contact me at 605-256-6536 or njones@hcpd.com.

Respectfully submitted,

NateYones Market Operations Manager Heartland Consumers Power District

Copy via e-mail:

Amiel Redfish, Arlington Municipal Utilities Andy Studer, Aurora Municipal Utilities Garry Ladwig, Bryant Municipal Utilities Brent Nelson, Colman Municipal Utilities Dan DeWitt, Estelline Municipal Utilities Terry Herron, Groton Municipal Utilities Dennis Shelton, Hecla Municipal Utilities Alan Adler, Howard Municipal Utilities

# RECEIVED

JUN 2 4 2009 SOUTH DAKOTA PUBLIC UTILITIES COMMISSION Blair Healy, Langford Municipal Utilities Dennis Poppen, Madison Municipal Utilities Lornie Hach, McLaughlin Municipal Utilities Bill Lewellen, Miller Municipal Utilities Jim Moore, Northern Electric Cooperative Rob Buller, Parker Municipal Utilities Vern Hill, Plankinton Municipal Utilities Mike Burkard, Sioux Falls Municipal Utilities Michele Farris, State of South Dakota Larry Chester, Tyndall Municipal Utilities Steve Meyer, Volga Municipal Utilities Roger Larson, Wessington Springs Municipal Utilities Dan DeYoung, White Municipal Utilities Tom Marvin, SD Municipal Electric Association



### Heartland Consumers Power District South Dakota Renewable Energy Progress Report

### June 22, 2009

Pursuant to South Dakota Codified Law, Chapter 49-34A-101 outlines a state renewable and recycled energy objective (REO) that ten percent of all electricity sold at retail within the stat by the year 2015 be obtained from renewable energy and recycled energy sources. The objective shall be measured by qualifying megawatt hours delivered at retail or by certificates representing credits purchased and retired to offset non-qualifying retail sales. This objective is voluntary, and there is no penalty or sanction for a retail provider of electricity that fails to meet this objective. The objective applies to each retail provider of electricity in the state, regardless of the ownership status of the electricity retailer. Any municipal or cooperative utility that receives wholesale electricity through a municipal power agency or generation and transmission cooperative may aggregate its renewable and recycled energy objective resources to meet this objective.

South Dakota Codified Law, the amended Chapter 49-34A-105 establishes a requirement that annual reports concerning the REO commence on July 1, 2009 and that each retail provider shall annually report to the Public Utilities Commission on the provider's energy sales during the twelve month period ending on the preceding December thirty-first. This report shall include information regarding qualifying electricity delivered and renewable energy and recycled energy certificates purchased and retired as a percentage of annual retail sales, the amount of conserved energy as a percentage of annual retail sales, and a brief narrative report that describes steps taken to meet the state renewable and recycled energy objective over time and identifies any challenges or barriers encountered in meeting the objective.

Given the power supply relationship between HCPD and its Customers, HCPD has assumed the responsibility for the REO and the associated reporting requirements on behalf of its South Dakota Customer communities. The following South Dakota entities, nineteen municipal utilities, one cooperative utility, and one State agency, are Customers of HCPD:

- Arlington
- Aurora
- Bryant
- Colman
- Estelline
- Groton
- Hecla
- Howard
- Langford
- Madison
- McLaughlin

- Miller
- Northern Electric
- Parker
- Plankinton
- Sioux Falls
- State of South Dakota
- Tyndall
- Volga
- Wessington Springs
- White

HCPD acquires its renewable energy through a power purchase agreement (PPA) with Babcock & Brown, LLC. The PPA entitles HCPD to purchase the entire 51 MW of nameplate wind capacity and own all of the environmental attributes associated with such generation from the Wessington Wind I Project. (10 MW of the project are committed to another wholesale power supplier.) As was outlined in a preceding report for the period of October 1, 2007 through September 30, 2008 dated January 21, 2009 and titled HCPD Renewable Energy Objective Progress Report, HCPD plans to meet both the Minnesota Renewable Energy Standard (RES) and the South Dakota Renewable Energy Objective (REO) through its participation in the Wessington Wind I project. The January 21, 2009 report has been attached for reference.

The attached spreadsheet report outlines HCPD's 2008 retail sales, generation capacity owned, renewable generation capacity owned, renewable energy credits (RECs) retired, and conserved energy and capacity. For the period from January 1, 2008 – December 31, 2008, HCPD's South Dakota retail load served was 203,560 MWh. HCPD's SD Customers conserved 93 MWh of energy equaling 0.05% of HCPD's SD 2008 retail sales. The Wessington Wind I commercial operation date was February 25, 2009, however, it produced a total of 10,505 vintage 2008 RECs. To comply with the MN RES, HCPD retired 4,956 vintage 2008 RECs corresponding to 1% of HCPD's 2008 MN retail load served (495,517 MWh). To date, HCPD has not retired any RECs corresponding to its 2008 SD retail load.

HCPD doesn't anticipate encountering any obstacles to meet South Dakota's REO with the execution of the Wessington Wind PPA.

In conclusion, HCPD currently has an adequate amount of renewable resource available and a plan to utilize the resource to meet the South Dakota REO of 10% by 2015 as part of its overall renewable energy goals for Customers in Minnesota, Iowa, and South Dakota.

Respectfully submitted this 22<sup>nd</sup> day of June, 2009.

HEARTLAND CONSUMERS POWER DISTRICT

Nate Jones Market Operations Manager Heartland Consumers Power District 203 W Center St Madison, SD 57042 (605) 256-6536 njones@hcpd.com Please provide a value in each of the boxes below with an "X" in it.

Company: Heartland Consumers Power District on behalf of its South Dakota Customers.

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)	703,882	
		Arlington, Aurora, Bryant, Colman, Estelline, Groton, Hecla, Howard, Langford, Madison, McLaughlin, Miller, Northern Electric, Parker, Plankinton, Sioux Falls, State of South Dakota, Tyndall, Volga,
SD (MWh)	203,560	Wessington Springs, White.
Generation Capacity Owned		Learnin Diver Castler and Manufacture Orgins
Total - All States (MW)	55	Laramie River Station and Wessington Springs Diesel Generating Units 1 and 2.
SD (MW)	4	Wessington Springs Diesel Generating Units 1 and 2
Renewable Generation Capacity Owned Total - All States (MW)		
	]	HCPD has contracted via a PPA with Babcock &
		Brown for the entire output from the Wessington
Wind	-	Wind I project: 51 MW project with 34 turbines.
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total - All States (MW)	-	
SD (MW)		
		HCPD has contracted via a PPA with Babcock &
		Brown for the entire output from the Wessington
Wind	-	Wind I project: 51 MW project with 34 turbines.
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total SD (MW)	-	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	j -	
Biomass	-	
Geothermal	-	
Recycled	-	
Total - All States (MWh)	I -	

	1	1
Generated in SD (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total SD (MWh)	-	
Renewable Energy Credits Retired for		
Other States		
Total - Generated In All States (MWh)		
		REC's several dis Coult Delete from the
		REC's generated in South Dakota from the
		Wessington Wind I project and retired for HCPD's
· · · · ·		Minnesota Customers as required for the Minnesota
Wind	4,956	RES (1% of 2008 load).
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total - All States (MWh)	4,956	
Generated In SD (MWh)		
		REC's generated in South Dakota from the
		Wessington Wind I project and retired for HCPD's
		Minnesota Customers as required for the Minnesota
Wind	4 956	RES (1% of 2008 load).
Solar	.,000	
New Hydro		
Old Hydro	-	
	-	
Hydrogen Biomass	-	
	-	
Geothermal	-	
Recycled		
Total SD (MWh)	4,956	
Conserved Energy & Capacity		
Conserved Energy (MWh)		
		Conservation for Madelia, Truman, Lake Crystal,
Total - All States	107	Marshall, Grove City not included.
SD.	00	Doesn't include those listed above as well as Akron,
SD Companyed Compatibul (ANAI)	93	IA and Tyler, MN.
Conserved Capacity (MW)		
		Conservation for Madelia, Truman, Lake Crystal,
Total - All States	101	
		Doesn't include those listed above as well as Akron,
SD	88	IA and Tyler, MN.



P.O. BOX 248 203 WEST CENTER STREET MADISON, SOUTH DAKOTA 57042-0248 PHONE: 605-256-6536 FAX: 605-256-2990 www.hcpd.com

January 21, 2009

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

**RE: HCPD Renewable Energy Objective Progress Report** 

Dear Ms. Van Gerpen:

Heartland Consumers Power District (HCPD) submits this Renewable Energy Objective (REO) Progress Report on behalf of its South Dakota Customers, nineteen municipal utilities, one cooperative utility, and one State agency, pursuant to SDCL 49-34A-101 and SDCL 49-34A-105. This report is filed on behalf of the following HCPD Customers in South Dakota: Arlington, Aurora, Bryant, Colman, Estelline, Groton, Hecla, Howard, Langford, Madison, McLaughlin, Miller, Northern Electric, Parker, Plankinton, Sioux Falls, State of South Dakota, Tyndall, Volga, Wessington Springs, and White. This report outlines a twelve month period from October 1, 2007 through September 30, 2008.

If you have any questions regarding this report, please contact me at 605-256-6536 or njones@hcpd.com.

**Respectfully submitted,** 

Nate Jones Market Operations Manager Heartland Consumers Power District

Copy via fax:

Amiel Redfish, Arlington Municipal Utilities Andy Studer, Aurora Municipal Utilities Garry Ladwig, Bryant Municipal Utilities Brent Nelson, Colman Municipal Utilities Dan DeWitt, Estelline Municipal Utilities Terry Herron, Groton Municipal Utilities Dennis Shelton, Hecla Municipal Utilities Alan Adler, Howard Municipal Utilities Blair Healy, Langford Municipal Utilities Dennis Poppen, Madison Municipal Utilities Lornie Hach, McLaughlin Municipal Utilities Bill Lewellen, Miller Municipal Utilities Jim Moore, Northern Electric Cooperative Rob Buller, Parker Municipal Utilities Vern Hill, Plankinton Municipal Utilities Mike Burkard, Sioux Falls Municipal Utilities Michele Farris, State of South Dakota Larry Chester, Tyndall Municipal Utilities Steve Meyer, Volga Municipal Utilities Roger Larson, Wessington Springs Municipal Utilities Dan DeYoung, White Municipal Utilities

### Copy via e-mail:

Tom Marvin; SD Municipal Electric Association



### Heartland Consumers Power District South Dakota Renewable Energy Progress Report

### January 21, 2008

Pursuant to South Dakota Codified Law, Chapter 49-34A-101 outlines a state renewable and recycled energy objective (REO) that ten percent of all electricity sold at retail within the stat by the year 2015 be obtained from renewable energy and recycled energy sources. The objective shall be measured by qualifying megawatt hours delivered at retail or by certificates representing credits purchased and retired to offset non-qualifying retail sales. This objective is voluntary, and there is no penalty or sanction for a retail provider of electricity that fails to meet this objective. The objective applies to each retail provider of electricity in the state, regardless of the ownership status of the electricity retailer. Any municipal or cooperative utility that receives wholesale electricity through a municipal power agency or generation and transmission cooperative may aggregate its renewable and recycled energy objective resources to meet this objective.

South Dakota Codified Law, Chapter 49-34A-105 establishes a requirement that annual reports concerning the REO commence on December 1, 2008 and that each retail provider shall annually report to the Public Utilities Commission on the provider's energy sales during the twelve month period ending on the preceding September thirtieth. This report shall include information regarding qualifying electricity delivered and renewable energy and recycled energy certificates purchased and retired as a percentage of annual retail sales and a brief narrative report that describes steps taken to meet the state renewable and recycled energy objective over time and identifies any challenges or barriers encountered in meeting the objective.

Given the power supply relationship between HCPD and its Customers, HCPD has assumed the responsibility for the REO and the associated reporting requirements on behalf of its South Dakota Customer communities. The following South Dakota entities, nineteen municipal utilities, one cooperative utility, and one State agency, are Customers of HCPD:

- Arlington
- Aurora
- Bryant
- Colman
- Estelline
- Groton
- Hecla
- Howard
- Langford
- Madison
- McLaughlin

- Miller
- Northern Electric
- Parker
- Plankinton
- Sioux Falls
- State of South Dakota
- Tyndall
- Volga
- Wessington Springs
- White

In order to meet the South Dakota REO, HCPD will integrate the South Dakota objective into its current Renewable Energy Standard (RES) report and plan as filed with the Minnesota Public Utilities Commission. According to Minn. Stat. §216B.1691, each electric utility shall generate or procure sufficient electricity generated by an eligible energy technology to provide its retail customers in Minnesota, or the retail customers of a distribution utility to which the electric utility provides wholesale electric service, so that at least the following standard percentages of the electric utility's total retail electric sales to retail customers in Minnesota are generated by eligible energy technologies by the end of the year indicated: 2012-12%, 2016-17%, 2020-20%, 2025-25%.

At the present time, HCPD acquires renewable energy resources through a single power purchase agreement (PPA) with Babcock & Brown, LLC. The PPA entitles HCPD to purchase the entire 51 MW of nameplate wind capacity and own all of the environmental attributes associated with such generation from the Wessington Springs Wind Project. (10 MW of the project are committed to another wholesale power supplier.) HCPD intends to meet its REO/RES goals by utilizing the contracted wind generation and associated renewable attributes.

For the period from October 1, 2007 – September 30, 2008, HCPD's South Dakota retail load served was 197,866 MWh. Given HCPD's current customer base and projected retail load served in South Dakota, Minnesota, and Iowa, Tables 1 identifies the projections of HCPD relating to compliance with the South Dakota REO goal.

HCPD doesn't anticipate encountering any obstacles to meet South Dakota's REO with the execution of the Wessington Springs Wind PPA.

In conclusion, HCPD currently has an adequate amount of renewable resource available and a plan to utilize the resource to meet the South Dakota Renewable Energy Objective of 10% by 2015 as part of its overall renewable energy goals for Customers in Minnesota, Iowa, and South Dakota.

Respectfully submitted this 21<sup>st</sup> day of January, 2009.

HEARTLAND CONSUMERS POWER DISTRICT

Nate Joyes Market Operations Manager Heartland Consumers Power District 203 W Center St Madison, SD 57042 (605) 256-6536 njones@hcpd.com

				Minimum Obligation by Jurisdiction						Sup	wable bly by ction [3]	
	Renewable Resource (GWh)	Retall Served		Renev Energy : (GW	Supply		ntage of Load	Unobligated Renewable Energy (GWh)	Unobilg Renewa Energy to Load	ible Allocated		itage of
Year	Wessington Springs Wind [2]	MN	SD and iA	MN	SD and IA	MN	SD and IA		MN	SD and IA	MN	SD and IA
2012	162	702	449	84	0	12.0%	0.0%	77	47	30	18.7%	6.7%
2016	162	490	469	83	47	17.0%	10.0%	31	16	15	20.3%	13.3%
2020	162	274	<b>49</b> 3	55	49	20.0%	10.0%	58	21	37	27.5%	17.5%
2025	162	269	526	67	53	25.0%	10.0%	42	14	28	30.3%	15.3%

### Table 1: Heartland Consumers Power District Renewable Resource Utilization [1]

[1] Heartland plans for current and proposed renewable resources.
[2] 51 MW project with expected inservice date 12/15/2008. 10 MW of project committed to other wholesale supplier. 41 MW to be used as Heartland network resource.

[3] Includes both Minimum Obligation and Unobligated Renewable Energy Allocated to Load

.

## South Dakota Renewable and Recycled Energy Objective

### 2008 Annual Report MidAmerican Energy Company

MidAmerican Energy Company (MidAmerican) files the following report in compliance with SDCL 49-34A-105 covering the twelve-month period ending on December 31, 2008. The attached spreadsheet provides the following information:

- Retail Sales (MWh) Total & SD-based
- Generation Capacity Owned (MW) Total & SD-based by technology
- Renewable Generation Capacity Owned (MW) Total & SD-based by technology
- Renewable Generation with RECs retired for SD (MWh) Total & SD-based by technology
- Renewable Generation with RECs retired for other states/purposes (MWh) Total & SD-based by technology
- Conserved Energy (MWh) and Capacity (MW)

### **Brief Narrative Report Describing Steps Taken and Challenges or Barriers:**

MidAmerican currently is the nation's leader in owned wind generation by a rateregulated utility and continues to take steps to increase the amount of renewable energy generation capacity in its generation portfolio. At the end of 2008, MidAmerican's generating capacity included approximately 20 percent renewable generation. Production Tax Credits and the sale of renewable energy credits both help to promote the further development of renewable projects.

Additionally, MidAmerican began offering many of its successful energy efficiency programs to South Dakota customers on May 1, 2009. MidAmerican is offering a variety of energy efficiency programs aimed at helping residential, commercial and industrial customers reduce energy use and save money in the process. The South Dakota programs are projected to save more than 1.7 million kilowatt-hours of electricity by 2011.

### Please provide a value in each of the boxes below with an "X" in it.

Company: MidAmerican Energy Company

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales	20,028,050	
Total - All States (MWh)	20,928,958	
SD (MWh)	200,793	
Generation Capacity Owned		
Total - All States (MW)	6.915	12/31/08 nameplate rating per FERC Form 1
SD (MW)		Allocated 0.86%
	00	
Renewable Generation Capacity Owned		
Total - All States (MW)		
Wind	1,284	
Solar	-	
New Hydro	-	
Old Hydro	4	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total - All States (MW)	1,288	
SD (MW)		
Wind	11	
Solar	-	
New Hydro	-	
Old Hydro Hydrogen		
Biomass		
Geothermal		
Recycled	-	
Total SD (MW)	11	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind	1,393	
Solar	-	
New Hydro	-	
Old Hydro	143	
Hydrogen	-	
Biomass	289	
Geothermal	-	
Recycled	1,825	
Total - All States (MWh)	1,025	
Generated in SD (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total SD (MWh)	-	
Renewable Energy Credits Retired for Other States		
Total - Generated In All States (MWh)	441.040	Total retired for all states including South Dakota
Wind Solar	441,949	Total Total Total States Including South Dakota
Solar New Hydro		
Old Hydro	16.663	Total retired for all states including South Dakota
Hydrogen	-	
Biomass	94.675	Total retired for all states including South Dakota
Geothermal	-	
Recycled	-	
	553,287	Total retired for all states including South Dakota
Recycled Total - All States (MWh)		Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh)		Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind		Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar	553,287	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro	553,287 - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro	553,287	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen	553,287 - - - - - - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass	553,287 - - - - - - - - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass Geothermal	553,287 - - - - - - - - - - - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass Geothermal Recycled	553,287 - - - - - - - - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass Geothermal	553,287 - - - - - - - - - - - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass Geothermal Recycled Total SD (MWh)	553,287 - - - - - - - - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass Geothermal Recycled Total SD (MWh) Conserved Energy & Capacity	553,287 - - - - - - - - - -	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass Geothermal Recycled Total SD (MWh) Conserved Energy (MWh)	553,287	
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Old Hydro Old Hydro Old Hydro Old Generation Biomass Geothermal Recycled Total SD (MWh) Conserved Energy & Capacity Conserved Energy (MWh) Total - All States	553,287	Total retired for all states including South Dakota
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Hydrogen Biomass Geothermal Recycled Total SD (MWh) Conserved Energy & Capacity Conserved Energy (MWh) Total - All States SD	553,287	
Recycled Total - All States (MWh) Generated In SD (MWh) Wind Solar New Hydro Old Hydro Old Hydro Hydrogen Biomass Geothermal Recycled Total SD (MWh) Conserved Energy & Capacity Conserved Energy (MWh) Total - All States	553,287	



3724 West Avera Drive PO Box 88920 Sioux Falls, SD 57109-8920 Telephone: 605.338.4042 Fax: 605.978.9360 *www.mrenergy.com* 

June 30, 2009

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

RE: MRES Renewable Energy Objective Progress Report

Dear Ms. Van Gerpen:

Missouri River Energy Services (MRES) submits this Renewable Energy Objective (REO) Progress Report on behalf of its twelve South Dakota municipal utility members, pursuant to SDCL 49-34A-101 and 49-34A-105. This initial report covers the twelve month period from October 1, 2007, through September 30, 2008. This report is filed on behalf of the following MRES members in South Dakota: Beresford, Big Stone City, Brookings, Burke, Faith, Flandreau, Fort Pierre, Pickstown, Pierre, Vermillion, Watertown and Winner.

If you have any questions regarding this report, please contact me at 605-338-4042 or mrgsimon@mrenergy.com.

Sincerely, MA

Mrg Simon, Attorney at Law Director, Legal

Copy:

Jay Nordquist, Beresford Municipal Utilities Aaron Marxen, Big Stone City Municipal Utilities Steve Meyer, Brookings Municipal Utilities Jerry Jones, Burke Municipal Utilities Debbie Brown, Faith Municipal Utilities Don Johnston, Flandreau Municipal Utilities Brad Lawrence, Fort Pierre Municipal Utilities James W. Sellers, City of Pickstown Leon Schochenmaier, Pierre Municipal Utilities John Prescott, City of Vermillion Steve Lehner, Watertown Municipal Utilities Tom Marvin, SD Municipal Electric Association

### Missouri River Energy Services South Dakota Renewable Energy Progress Report

June 30, 2009

Missouri Basin Municipal Power Agency d/b/a Missouri River Energy Services (MRES) is a body politic and corporate and a public agency organized under the laws of the State of Iowa and existing under the intergovernmental cooperation statutes of the States of Iowa, Minnesota, North Dakota and South Dakota. MRES is a multi-state, member-based joint-action agency, headquartered in Sioux Falls, South Dakota. Its members receive a fixed allocation of hydroelectric power and energy from the Western Area Power Administration (WAPA), and purchase their supplemental power from MRES, a not-for-profit agency, to meet their needs over and above their WAPA allocations. As part of that responsibility, MRES provides its members with a balanced power supply portfolio, including renewable generation. MRES has included wind energy in its power supply program since 2002, which has been used primarily to meet Minnesota's Renewable Energy Objective (REO).

The 2008 South Dakota Legislature passed a voluntary REO which provides that "...ten percent of all electricity sold at retail within the state by the year 2015 be obtained from renewable energy and recycled energy sources," and allows municipal utilities to aggregate their REO through their municipal power agency. SDCL 49-34A-101. The objective is measured by qualifying megawatt hours delivered at retail<sup>1</sup> or by certificates representing credits purchased and retired to offset non-qualifying retail sales. Additionally, in 2009, the legislature amended SDCL 49-34A-101 to include recycled or conserved energy as a renewable resource for REO compliance. (Senate Bill 57)

The REO also requires that reports be filed with the Public Utilities Commission (Commission) that detail energy sales during the previous twelve-month period, and efforts to meet the REO goal through 2015. SDCL 49-34A-105. As with the REO itself, municipal utilities are permitted to aggregate their reporting requirements through their municipal power agency. SDCL 49-34A-105 was also amended by the legislature in 2009, requiring that the reporting occur annually on July 1, 2009, for information regarding the previous calendar year. (Senate Bill 57)

Given the power supply relationship between MRES and its members, MRES has assumed responsibility for the REO and the associated reporting requirements on behalf of all of its South Dakota member communities. The following twelve South Dakota municipal utilities are members of MRES:

<sup>&</sup>lt;sup>1</sup> Calculation of the amount of electricity sold excludes from the baseline of retail sales that portion of MRES SD member sales supplied by WAPA pursuant to each member's hydropower allocation. SDCL 49-34A-103. Calculations used in this report are based on the total MRES energy sales at the town gate, pursuant to the supplemental power supply obligations of the Power Supply Agreement (S-1) contract between MRES and its members.

- Beresford
- Big Stone City
- Brookings
- Burke
- Faith
- Flandreau

- Fort Pierre
- Pickstown
- Pierre
- Vermillion
- Watertown
- Winner

In order to meet the South Dakota REO, MRES will integrate the South Dakota objective into its resource planning in conjunction with similar requirements in Minnesota and North Dakota.<sup>2</sup> MRES allocates its renewable energy generation and renewable energy credits (RECs) based on MRES S-1 energy sales on a pro rata basis by state, beginning in calendar year 2009.<sup>3</sup> Going forward from January 1, 2009, MRES renewable resources (generation and credits) are allocated based on S-1 energy sales by state.<sup>4</sup>

### MRES Renewable Energy Resources

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. Currently, MRES contracts for the output of the following wind generating resources:<sup>5</sup>

- Worthington (MN) Wind Project, 3.7 MW
- Marshall (MN) Wind Farm, 18.7 MW
- Odin (MN) Wind Farm, 20.0 MW
- Rugby (ND) Wind Farm, LLC 40 MW (Commercial Operation 2010)

<sup>3</sup> The MRES Board of Directors approved this allocation strategy at their November 13, 2008, meeting. This decision allowed MRES to complete the 2008 calendar year REO reporting for Minnesota in a manner consistent with previous reports filed in Minnesota. As a consequence, the initial reports filed in North Dakota and South Dakota will indicate zero (0) qualifying renewable sales during 2008, and will identify the projected plans to meet the REO goals of North Dakota and South Dakota going forward. MRES does not charge its members a separate rate for including renewable energy as part of its balanced power supply portfolio.

<sup>4</sup> Additional information detailing MRES retail sales and generation resources is provided in the spreadsheet attached hereto as Exhibit A, MRES SD REO PROGRESS REPORT JUNE 30 2009, Calendar Year 2008.

<sup>5</sup> MRES also purchases the output of two 750 kW turbines owned by member Moorhead Public Service (MPS) and located in Moorhead, Minnesota. The output of the MPS turbines is sold back to MPS, and MPS uses that renewable energy to supply its Capture the Wind<sup>®</sup> green pricing program required by Minn. Stat. Ann. §216B.169 (West 2007). This transaction results in a net zero purchase to MRES, and thus, MPS generation is not used by MRES for REO compliance purposes.

<sup>&</sup>lt;sup>2</sup> Minnesota's REO goal is 1% by 2005, and 7% by 2010. Minn Stat. 216B.1691, Subd. 2. Beginning in 2012, Minnesota's voluntary REO becomes a mandated Renewable Energy Standard (RES) of 12%, which increases to 17% in 2016, 20% in 2020, and ultimately 25% by 2025. Minn Stat. 216B.1691, Subd. 2a. North Dakota's REO is nearly identical to that of South Dakota, in that it imposes a voluntary goal of 10% by 2015. NDCC 49-02-28. Iowa does not presently have a renewable energy objective or mandate.

MRES purchases the full output of these units, and owns all of the environmental attributes associated with such generation. These resources total 82.4 MW of nameplate capacity, most of which is dedicated to meeting the various state REOs.<sup>6</sup> 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 REO benchmark for each year.

The following Table 1 identifies the projections of MRES relating to compliance with the South Dakota REO goal. Specifically, the table identifies the benchmarks that MRES will use in its efforts to progressively ramp up its renewable resources in the state to meet the statutory goal of 10% by 2015 for its South Dakota municipal utility members.

Year <sub>1</sub>	MRES SD S-1 Sales₂	SD REO annual benchmark	MRES SD REO	
	(MWh)	(%)	(MWh)	
2008	617,543	0	0	
2009	631,787	1	6,318	
2010	667,246	2	13,345	
2011	688,472	3	20,654	
2012	704,093	4	28,164	
2013	722,541	6	43,352	
2014	739,764	8	59,181	
2015	757,410	10	75,741	

Table 1: Projected MRES SD REO Goals

Note 1 12 month period ending December 31

Note 2 Town gate sales

MRES continues to evaluate opportunities for additional renewable resources to ensure continuing compliance with the REO goals of Minnesota, North Dakota, and South Dakota, and the future requirements of the Minnesota RES. 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. MRES is currently considering

<sup>&</sup>lt;sup>6</sup> The Minnesota green pricing statute requires distribution utilities to offer customers the option to purchase renewable and high-efficiency energy at the utility's cost of acquiring the resources. Minn. Stat. §216B.169 (West 2007). MRES Minnesota members are provided the renewable energy needed to meet this obligation through the MRES RiverWinds<sup>SM</sup> program, which is also available to MRES members in other states. The renewable energy generation that MRES supplies through its RiverWinds program is excluded from the generation available to meet other renewable energy program requirements such as the REO. The green pricing statute has been repealed effective on January 1, 2010. <u>Id</u>. The 2009 Minnesota Legislature reversed the repeal and reinstated the Green Pricing program, but only on a voluntary basis. Minnesota utilities are not required to offer such a program after January 1, 2010.

additional wind generation projects that are geographically dispersed throughout MRES member states.

In addition, MRES is also implementing the Bright Energy Solutions<sup>SM</sup> program which offers commercial, industrial and residential energy efficiency programs to MRES member communities. The Bright Energy Solutions programs are being implemented in South Dakota with initial results described below. MRES will incorporate recycled or conserved energy into its compliance and compliance reporting of its 2009 benchmark.

Utility	Savings (MWh)	Savings (MW)		
Beresford Municipal Utilities	147	.036		
Vermillion Light and Power	414	.118		
Watertown Municipal Utilities	543	.137		
SD Totals	1,104	.291		

# Table 2: Projected MRES SD Recycled/Conserved Energy Savings

MRES will also evaluate other renewable and recycled energy generation opportunities as they arise.

### Obstacles to meeting the REO

While MRES has expanded its renewable portfolio, and continues to pursue opportunities for additional resources, known obstacles to development continue to exist and new challenges often arise. MRES has experienced several challenges in obtaining additional renewable energy generation to serve its member municipal utilities. In the efforts of MRES to meet Minnesota's renewable good faith effort over the past several years, the following major obstacles to additional development of renewable resources have been identified:

a) Economic barriers. As not-for-profit entities, MRES and its members are very sensitive to rising power supply costs and the impact on our consumer-owners. It is our mission to provide our members with reliable, cost-effective long-term energy and energy services in a fiscally responsible and environmentally sensitive manner. The price to build or acquire renewable resources (or renewable energy credits) has the potential to substantially increase power supply costs at a time when the electric industry is facing major challenges to contain rising costs, build infrastructure and address climate change. MRES has evaluated countless renewable energy projects over the past eight years, involving a wide variety of fuels and technologies, and has found very few that could meet the goal of adding renewable energy to our resource portfolio without impact to existing rates. MRES has chosen projects that meet the goals of MRES while also minimizing cost impacts. The possible addition of feed in tariffs or renewable energy carve-outs (requiring a certain percentage of an REO to come from a particular renewable resource like solar) also have the potential of raising costs and consumer rates.

- b) Lack of transmission. The region lacks adequate transmission to facilitate the addition of new generation, particularly intermittent wind generation. The cost to construct such facilities in relation to the typical size of renewable energy projects makes construction of needed facilities on a project-by-project basis cost prohibitive. Furthermore, regulatory barriers in other states create significant uncertainty and delay for expansion of the high voltage transmission system. Finally, the fact that an additional, pancaked transmission cost is imposed to deliver wind generated outside of the Midwest Independent Transmission System Operator (MISO) market footprint across the seam and into the MISO market creates a major economic barrier to development of the excellent wind resources located in North Dakota and South Dakota.
- c) Lack of incentives. Public Power entities face difficult financial challenges in owning renewable resources. The fact that the federal Production Tax Credit (PTC), Investment Tax Credit (ITC), and accelerated depreciation are not available to Public Power entities provides other utilities and developers advantages that are not available to MRES. In addition, as it has developed, the federal Clean Renewable Energy Bonds (CREBs) program is managed such that it favors only the smallest projects. As a result, CREBs are not feasible for a wholesale utility-scale project. Finally, the lack of state incentives makes projects like the Western Minnesota Worthington Wind Project no longer viable.
- d) Demand for wind turbines. The demand for wind turbines continues to increase in the United States and world-wide due to renewable portfolio standards. The manufacturing supply chain cannot keep up with the demand for the product, causing prices to rise substantially over the last five years. Wind projects built in 2002 for approximately \$1,000/kW are rapidly approaching \$2,000/kW. Smaller developers have been squeezed out of the marketplace due to the demand for larger projects.
- e) Miscellaneous. Throughout its efforts to develop wind projects over the past several years, MRES has found it difficult to find sufficiently knowledgeable and experienced developers for wind projects who understand the complexities of generation projects. Equally challenging is the persistent difficulty encountered in obtaining the wind turbines, components, equipment, and spare parts necessary to not only construct but to properly operate and maintain a wind project. Also, the aging of the electric industry workforce and resulting decreasing availability of qualified employees is a growing issue in all areas of the electric industry.

### Efforts to Overcome Obstacles

MRES is employing alternatives to overcome some of the obstacles described above. For example, to mitigate some of the economic barriers, MRES has executed power purchase agreements with developers for wind generation as one way to overcome the financial disincentive created by the unavailability of the federal PTC to Public Power entities. To address the transmission limitations, MRES continues its analysis to determine the best location in the region to construct additional wind resources, coordinating both transmission needs and wind resources in relation to MRES member needs. The Marshall Wind Farm is a perfect example of how such analysis was successful in identifying a viable solution. MRES was able to help the Marshall Wind Farm project become a reality by utilizing the transmission service for an existing combustion turbine, and working together with a member community and local developers to make this 18.7 MW project a success.

In terms of transmission barriers, MRES works on multiple fronts to address the need for additional transmission capacity and to eliminate artificial economic barriers. MRES actively advocates for transmission policies that will address the existing barriers, both with those who operate the transmission systems (e.g. MISO, WAPA, etc.), and before state and federal policymakers (e.g. Federal Energy Regulatory Commission, state legislatures, Congress, state utility commissions, Midwest Governor's Association, etc.). MRES is also actively involved in development projects to expand the transmission infrastructure in the region, including the Big Stone Transmission Project and the CapX 2020 Twin Cities to Fargo and Twin Cities to Brookings County projects. The expansion of the backbone transmission system is essential to utility efforts to expand renewable energy generation.

### Conclusion

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

Respectfully submitted this 30th day of June, 2009.

MISSOURI RIVER ENERGY SERVICES

Masemon

Mrg Simon, Director Legal Missouri River Energy Services 3724 West Avera Drive PO Box 88920 Sioux Falls, SD 57109-8920 (605) 338-4042 mrgsimon@mrenergy.com

#### EXHIBIT A, MRES SD REO PROGRESS REPORT JUNE 30 2009, Calendar Year 2008

Please provide a value in each of the boxes below with an "X" in it.

Company: Missourd River Energy Services on behalf of MRES members in South Dakota Beresford, Big Stone City, Brookings, Burke, Faith, Flandreau, Fort Pierre, Pickstown, Pierre, Vermillion, Watertown and Winner

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh) SD (MWh)	2,106,400 617,543	
Generation Capacity Owned		Laramie River Station (281), Exira Iowa Peaking (138.9), Watertown Power Plant (49.2), Wind (includes Worthington MN–owned by
		WMMPA/MRES; Odin MN-PPA, and Marshall MN-PPA) (42.4), Municipal member generation (114). This does not include WAPA
Total - All States (MW)		Power.
SD (MW)	55.2	Watertown Power Plant and municipal member generation
Renewable Generation Capacity Owned		
Total - All States (MW)		
Wind Solar		Wind (includes Worthington MN-owned by WMMPA/MRES; Odin MNPPA, and Marshall MNPPA)
New Hydro		
		Per request of the SD PUC, MRES is reporting here the approximate MW received by our MRES members. MRES/WMMPA does
Old Hydro	220	not own the hydro-electric allocation rights. Also, per statute, WAPA power is not considered part of the baseline calculations for determining REO compliance.
Hydrogen	339 X	
Biomass	X	
Geothermal	X	
Recycled	1.595	
Total - All States (MW)	382.995	
SD (MW) Wind	0	
vvina Solar	0	
New Hydro	0	
-	_	Per request of the SD PUC, MRES is reporting here the approximate MW received by our MRES members. MRES/WMMPA does
Old Hydro	100	not own the hydro-electric allocation rights. Also, per statute, WAPA power is not considered part of the baseline calculations for determining REO compliance.
Old Hydro Hydrogen	00	
Biomass	0	
Geothermal	0	
Recycled	0.291	
Total SD (MW)	100.291	
Renewable Energy Credits Retired for SD Total - Generated In All States (MWh)		
Wind	89,942	
Solar	0	
New Hydro	0	
Old Hydro Hydrogen	0	
Biomass	o o	
Geothermal	0	
Recycled	0 89942	
Total - All States (MWh)	05542	
Generated in SD (MWh)		
Wind	0	
Solar New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass Geothermal	0	
Recycled	0	
Total SD (MWh)	0	
Renewable Energy Credits Retired for Other		
States		
Total - Generated In All States (MWh)		
Wind Solar	13,193 X	
Solar New Hydro	X	
Old Hydro	X	
Hydrogen		
Biomass Geothermal		
Recycled	x x	
Total - Ali States (MWh)	13193	
Generated In SD (MWh)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled Total SD (MWh)	0	
	1	
Conserved Energy & Capacity		
Conserved Energy & Capacity Conserved Energy (MWh)	6.238 MWh	
Conserved Energy & Capacity Conserved Energy (MWh) Total - All States SD	6,238 MWh 1,104 MWh	
Conserved Energy & Capacity Conserved Energy (MWh) Total - All States		



3724 West Avera Drive PO Box 88920 Sioux Falls, SD 57109-8920 Telephone: 605.338.4042 Fax: 605.978.9360 www.mrenergy.com

December 23, 2009

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

RE: Correction to MRES Renewable Energy Objective Progress Report, Exhibit A

Dear Ms. Van Gerpen:

It has recently come to my attention that an error was made in the completion of Exhibit A to the Renewable Energy Objective (REO) Progress Report that Missouri River Energy Services (MRES) filed on June 30, 2009. The amount reported for "Renewable Energy Credits Retired for SD, Total – Generated in All States (MWh), Wind" on line 41 of the spreadsheet should have been "0." The "Corrected Exhibit A, MRES SD REO Progress Report June 30 2009, Calendar Year 2008," is enclosed for filing. The changes made to the spreadsheet have been highlighted in yellow for convenience of the reader. I apologize for the confusion caused by this error. The amounts reported in the narrative of the original filing were correct and remain unchanged.

I have had the opportunity to discuss this correction with Mr. Brian Rounds of the Commission staff, as well as the Report to the Legislature on "South Dakota's Renewable, Recycled and Conserved Energy Objective," issued on December 18, 2009. MRES appreciates this opportunity to correct this exhibit to enable the Commission to provide the most accurate information for its Report.

If you have any questions, please contact me at 605-338-4042 or mrgsimon@mrenergy.com.

Sincerely, . Masimon

Mrg Simon, Attorney at Law Director, Legal

Copy: Jay Nordquist, Beresford Municipal Utilities Aaron Marxen, Big Stone City Municipal Utilities Steve Meyer, Brookings Municipal Utilities Jerry Jones, Burke Municipal Utilities Debbie Brown, Faith Municipal Utilities Don Johnston, Flandreau Municipal Utilities Brad Lawrence, Fort Pierre Municipal Utilities James W. Sellers, City of Pickstown Leon Schochenmaier, Pierre Municipal Utilities John Prescott, City of Vermillion Steve Lehner, Watertown Municipal Utilities Department Jack Day, Jr., Winner Municipal Utilities Tom Marvin, SD Municipal Electric Association

#### CORRECTED EXHIBIT A, MRES SD REO PROGRESS REPORT JUNE 30 2009, Calendar Year 2008

Please provide a value in each of the boxes below with an "X" in it.

Company: Missouri River Energy Services on behalf of MRES members in South Dakota Beresford, Big Stone City, Brookings, Burke, Faith, Flandreau, Fort Pierre, Pickstown, Pierre, Vermillion, Watertown and Winner

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales Total - All States (MWh)	2,106,400	
SD (MWh)	617,543	
SB (MIVII)	017,040	
Generation Capacity Owned		
		Laramie River Station (281), Exira Iowa Peaking (138.9), Watertown Power Plant (49.2), Wind (includes Worthington MNowned by
Tatal All Classes (MIA)	COF F	WMMPA/MRES; Odin MNPPA, and Marshall MNPPA) (42.4), Municipal member generation (114). This does not include WAPA Power.
Total - All States (MW) SD (MW)		Power. Watertown Power Plant and municipal member generation
5D (WVV)	00.2	Hatchown over Han and Henoper Henoper Scholadon
Renewable Generation Capacity Owned		
Total - All States (MW)		
Wind	42.4	Wind (includes Worthington MN-owned by WMMPA/MRES; Odin MNPPA, and Marshall MNPPA)
Solar	X	
New Hydro	^	Per request of the SD PUC, MRES is reporting here the approximate MW received by our MRES members. MRES/WMMPA does
		not own the hydro-electric allocation rights. Also, per statute, WAPA power is not considered part of the baseline calculations for
Old Hydro	339	determining REO compliance.
Hydrogen	X	
Biomass	X	
Geothermal	X	
Recycled	1.595	
Total - All States (MW)	382.995	
SD (MW)		
Wind	0	
Solar	0	
New Hydro	0	Descentions of the CD DLIC, MDEC is considing here the neutrolimete MW reactived by sur MDEC members, MDEC 412 1112 11
		Per request of the SD PUC, MRES is reporting here the approximate MW received by our MRES members. MRES/WMMPA does not own the hydro-electric allocation rights. Also, per statute, WAPA power is not considered part of the baseline calculations for
Old Hydro	100	determining REO compliance.
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0.291	
Total SD (MW)	100.291	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen Biomass	0	
Geothermal	0	
Recycled	0	
Total - All States (MWh)	0	
an is the same denoted		
Generated in SD (MWh)	0	
Wind Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total SD (MWh)	0	
Renewable Energy Credits Retired for Other		
States		
Total - Generated In All States (MWh)	40 400	Minsperete REQ and Group Driving in all states
Wind	13,193	Minnesota REO and Green Pricing in all states
Solar New Hydro	x	
Old Hydro	X	
Hydrogen	X	
Biomass	X	
Geothermal	X	
Recycled	X 42402	
Total - All States (MWh)	13193	
Generated In SD (MWh)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen Biomass	0	
Biomass Geothermal	0	
Recycled	o	
Total SD (MWh)	0	
Conserved Energy & Capacity		
Conserved Energy (MWh)	6 000 14144	
Total - All States SD	6,238 MWh 1,104 MWh	
SD Conserved Capacity (MW)	1,104 1/10/01	
Total - All States	1.595 MW	
	.291 MW	



July 1, 2009

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. Whetstone Valley Electric Cooperative, 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.

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

Sincerely,

Robur K. Anh\_\_\_

Robert K. Sahr General Counsel

RKS/sl

Enc.

# East River Electric Power Cooperative South Dakota Renewable Energy Objective Report July 1, 2009

In accordance with SDCL 49-34A-105, East River Electric Power Cooperative, Inc. ("East River") files this Renewable Energy Objective Report 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 REO resources and have East River report on their behalf.

# I. OVERVIEW

East River filed its first South Dakota Renewable Energy Objective Report on behalf of its members on December 1, 2008, ("First REO Report") and will reference that document where applicable. This document will provide updated information on our renewable energy portfolio and obstacles encountered, and, in accordance with changes made during the 2009 South Dakota Legislative Session, furnish information on our conserved energy efforts. We also have attached the completed spreadsheet as requested by Commission staff.

# II. 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; small locally-

owned wind projects; waste heat recovery units; solar power generation; and methane digesters with several more renewable energy projects, large and small, in the works.

These projects were detailed in East River's First REO Report and include:

- Wind Energy Generation: 136 MW
- Recycled Energy Generation: 22 MW (now 33 MW)
- Methane Digesters: 475 kW
- Solar Generation: 2 kW
- Missouri River Hydroelectric Resources

Two additional recycled energy units have been brought on line since the First REO Report bringing the total to 33 MW.

Under the parameters of the new reporting form sent by PUC staff for the July 1, 2009, report, 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.

As to near-term future plans, Basin Electric expects to add two more 5.5 MW recycle energy units and an additional 270 MW of wind in North Dakota and South Dakota. In 2008, Central Electric and Sanborn Central School District partnered on South Dakota's first Wind for Schools project at Forestburg, South Dakota. In 2009-10, East River members plan to expand the Wind for Schools program to other schools within their service areas. We thank the Commission for their leadership and support of the Wind for Schools program.

Taken together, these projects put into action the aggressive renewable energy goals voluntarily set by Basin Electric members including East River in 2005. Regardless of whether or not a state renewable energy objective or standard exists, Basin Electric and its members agreed to achieve 10% renewables by 2010. We are well on our way to this goal.

# III. REO OBSTACLES ENCOUNTERED

East River's First REO Report noted five major barriers to renewable energy expansion that remain in place:

- 1. Environmental Compliance
- 2. Wind Energy Costs
- 3. Procurement of Wind Turbines
- 4. Transmission
- 5. State Renewable Energy Policies

We thank the Commission for its thoughtful comments on the pending federal Programmatic Environmental Impact Statement being considered by Western Area Power Administration and U.S. Fish and Wildlife Service.

Since our first report, East River and its members have identified two additional obstacles that we will number issues six and seven:

# 6. Efforts to Increase the Five-Year Development Standard.

During the 2009 South Dakota Legislative Session, an attempt was made to change the state law requiring wind energy developers to show good faith with landowners by developing wind resources within five years. Proposals included raising the five-year standard to ten or fifteen years. While defeated largely by the efforts of the rural electric cooperatives and pro-landowner state legislators, we expect this issue to resurface in 2010.

SDCL 43-13-17 has afforded South Dakota landowners important protections for more than a decade. The five-year standard does not obstruct the typical development window of three to four years. Basin Electric and Heartland Consumers Power District both have indicated that the five-year period has had no detrimental effect on current or planned wind energy projects. If a developer has a legitimate project and is nearing the end of the five-year period, the developer in question always has the option to negotiate a new contract.

Finally, the public policies behind the original law - namely, ensuring fair treatment of landowners, requiring developers to make good faith efforts to develop wind energy resources, and protecting the landowner who may have made a bad decision - remain valid today.

# 7. Business Practices of Wind Energy Developers.

What appears to be a growing small number of wind energy developers are engaging in business practices that could hamper landowner-wind developer relationships. These possibly include:

- Using easement-option combinations to skirt the five-year development standard;
- Questionable compensation schemes and encumbrances on the real property; and
- Blocking generation, transmission, and distribution upgrades.

Public information efforts by the Commission, Governor's Office, State Legislators, agricultural-based groups, utilities, and the newly formed South Dakota Wind Energy Association are critical to landowner education. Legislative action may be necessary as well. These could include bills to restrict certain practices and to promote greater transparency in landowner-wind developer dealings.

## IV. CONSERVED ENERGY

Commission-led changes to the South Dakota REO during the 2009 South Dakota State Legislature added the opportunity to count conserved energy towards the Objective and put into place certain reporting requirements.

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. We hope that any administrative rules implementing the REO acknowledge the ongoing conservation achieved because of these past investments.

Here are just a few examples of our conserved energy efforts. One of the most recent and publicly visible programs has been the highly successful "Ed the Energy Expert" advertising campaign and the accompanying <u>stopenergyleaks.com</u> website. These efforts promote both renewable energy and wise energy usage through things like compact fluorescent light bulbs, Energy Star products, and affordable home improvements.

East River coordinates a joint marketing program on behalf of our 21 all-requirements member systems. In 2008, this program focused on the installation of Energy Star heat pump systems and energy efficient water heaters. All told East River members installed 845 Energy Star heat pump units and 2,028 energy efficient water heaters during the year.

East River members also made significant conserved energy efforts on individual bases. One such program was Sioux Valley Energy's Project  $E^2$  (Energy Efficiency). This program helps educate members, contractors, and employees about the importance of energy efficiency and conservation. Project  $E^2$  included the 2008 construction of an affordable, energy efficient home in Brandon, South Dakota, with "off-the-shelf" technologies (systems and products that can be purchased locally) and a public awareness campaign. The project is endorsed and supported by the Home Builders Association of the Sioux Empire and the Commission.

Finally, East River has operated a direct load control system since 1984. East River activates the load management system on a monthly basis with full control of all available member loads each month during the East River monthly system peak. Currently, approximately 20% of East River monthly peak load levels are controllable. During 2008, utilization of this system avoided a total of approximately 919,000 kW of wholesale power supply capacity requirements. We urge the Commission to recognize load management as a key component to conserved energy in its future REO administrative rules.

Company: East River Electric Power Cooperative, Inc.

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)		EREPC Sales to ALL Members
SD (MWh)	2,560,929	EREPC Sales to SD Members
Generation Capacity Owned Total - All States (MW)	0	
SD (MW)	0	
SD (IVIVV)	0	
Ponowable Constation Canacity Owned		
Renewable Generation Capacity Owned Total - All States (MW)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total - All States (MW)	0	
SD (MW)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total SD (MW)	0	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal	0	
	0	
Total - All States (MWh)	0	
Generated in SD (MWh)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total SD (MWh)	0	
Renewable Energy Credits Retired for Other States		
Total - Generated In All States (MWh)		
Wind	2,379	Source: FPL Energy Burleigh County (North Dakota) Wind LLC - Wilton Wind Project
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total - All States (MWh)	2,379	2008: MN 1% REO/RES = 2,343 RECs, MN PrairieWinds Marketing Program = 36 RECS
Generated In SD (MWh)	-	
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro		
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total SD (MWh)	0	
Conserved Energy & Capacity		
Conserved Energy & Capacity Conserved Energy (MWh)		
Total - All States	x	
	X	
SD		
SD Conserved Capacity (MW)	^	
SD Conserved Capacity (MW) Total - All States	x	

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



July 1, 2009

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 218-739-8417 or bhdraxten@otpco.com.

Sincerely,

/s/ BRIAN DRAXTEN Brian Draxten Manager, Resource Planning

wao Enclosures By electronic filing Renewable, Recycled, and Conserved Energy Objective Compliance Report to the South Dakota Public Utilities Commission

> Report RP09-3 Otter Tail Power Company Resource Planning Department July 1, 2009

### PREFACE

This document is 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.

Questions and comments regarding the information and data contained herein should be addressed to Kerry Kaseman at 218-739-8693 or <u>kkaseman@otpco.com</u>.

Preface
Table of Contents
Introduction4
Jurisdictional Requirements5
Minnesota5
North Dakota6
South Dakota6
Midwest Renewable Energy Tracking System
Renewable and Recycled Energy Resources10
South Dakota Renewable and Recycled Energy11
Forecast of Future REO/RES Compliance13
Barriers to REO/RES Compliance15
Interconnection Queue15
Transmission Delivery15
LMP Prices16
Developer Knowledge16
Economic and Financing Issues16
Summary18
Appendix A – Renewable and Recycled Energy Resources
Appendix B – Calendar Year 2008 RREO Report21

# **TABLE OF CONTENTS**

### **INTRODUCTION**

Pursuant to South Dakota Codified Laws §49-34A-105, Otter Tail Power Company (Otter Tail or Company), makes this information filing electronically to the South Dakota Public Utilities Commission. This filing is the Company's first annual report on efforts to meet the state renewable, recycled, and conserved energy objective that 10% of all electricity sold at retail be obtained from renewable, recycled, and conserved energy sources by 2015.<sup>1</sup>

As the following pages of this report demonstrate, Otter Tail is well on the way to implementing renewable resources as part of its diverse resource portfolio and expects to be in full compliance of any and all renewable energy objectives and standards within all three state jurisdictions in which Otter Tail serves.

<sup>&</sup>lt;sup>1</sup> South Dakota Codified Law §49-34A-101.

### JURISDICTIONAL REQUIREMENTS

Otter Tail serves retail load in Minnesota, North Dakota, and South Dakota. All three state jurisdictions have some sort of renewable energy objective (REO) or renewable energy standard (RES). Discussion of compliance efforts with any single jurisdiction also requires a discussion of the other two jurisdictions so that a complete understanding of the Company's compliance efforts can be obtained. The following sections describe the requirements in each of the state jurisdictions.

#### Minnesota

Otter Tail is required to make a good faith effort to comply with the state REO through 2011. Beginning with 2012 the requirement switches to an RES. The state requirements<sup>2</sup> increase in a step-wise fashion, consisting of:

- 2005 1% of retail sales
- 2010 7% of retail sales
- 2012 12% of retail sales
- 2016 17% of retail sales
- 2020 20% of retail sales
- 2025 25% of retail sales.

Eligible energy technologies for compliance include solar, wind, hydroelectric with a capacity of less than 100 MW, hydrogen,<sup>3</sup> or biomass. Biomass includes landfill gas, anaerobic digestion, and mixed municipal solid waste or refuse-derived-fuel from mixed municipal solid waste as a primary fuel. Electricity generated by the combustion of biomass through co-firing with other fuels counts up to the percentage amount of biomass fuel relative to total fuel, only if the generating facility was constructed in compliance with new source performance standards promulgated under the federal Clean Air Act or if the facility employs the maximum achievable or best available control technology for that type of facility.

<sup>&</sup>lt;sup>2</sup> These REO and RES requirements only apply to utilities without nuclear generating assets. Utilities with nuclear generating assets have a more aggressive standard as detailed in Minn. Stat. §216B.1691.

<sup>&</sup>lt;sup>3</sup> Provided that after January 1, 2010 the hydrogen must be generated from the other eligible energy technologies listed.

#### North Dakota

The state REO is 10% of retail sales by the year 2015, and includes both renewable energy and recycled energy. The calculation contains a provision to reduce the amount of retail sales by any hydroelectric energy that cannot be counted toward the REO.<sup>4</sup> Renewable electricity and recycled energy includes electricity generated from solar, wind, biomass,<sup>5</sup> geothermal, hydrogen,<sup>6</sup> hydroelectric (must be from a facility with an inservice date of no earlier than January 1, 2007 or from efficiency improvements to a facility existing as of August 1, 2007), and recycled energy systems producing electricity from currently unused waste heat resulting from combustion or other processes into electricity and which do not use an additional combustion process. Recycled energy does not include any system whose primary purpose is the generation of electricity.

#### South Dakota

The state REO is 10% of retail sales by the year 2015, and includes renewable, recycled, and conserved energy.<sup>7</sup> The calculation contains a provision to reduce the amount of retail sales by any hydroelectric energy from a facility with an in-service date prior to July 1, 2008.<sup>8</sup> Renewable and recycled energy include electricity generated from solar, wind, biomass,<sup>9</sup> geothermal, hydrogen,<sup>10</sup> hydroelectric (statutes seem to imply it must be from a facility with an in-service date of no earlier than July 1, 2008), and recycled energy systems producing electricity from currently unused waste heat resulting from combustion or other processes into electricity and which do not use an additional combustion process. Recycled energy does not include any system whose primary purpose is the generation of electricity. In the case of conserved energy, the objective

<sup>&</sup>lt;sup>4</sup> North Dakota Century Code §49-02-30.

<sup>&</sup>lt;sup>5</sup> Including agricultural crops and wastes and residues, wood and wood wastes and residues, animal wastes, and landfill gas.

<sup>&</sup>lt;sup>6</sup> Provided that the hydrogen is generated from a source listed in this section of North Dakota Century Code §49-02-25.

<sup>&</sup>lt;sup>7</sup> South Dakota Codified Laws §49-34A-101.

<sup>&</sup>lt;sup>8</sup> South Dakota Codified Laws §49-34A-103.

<sup>&</sup>lt;sup>9</sup> Includes agricultural crops and wastes and residues, wood and wood wastes and residues, animal and other degradable organic wastes, and landfill gas.

<sup>&</sup>lt;sup>10</sup> Provided that the hydrogen is generated from a source listed in this section of South Dakota Codified Laws §49-34A-94.

will be measured by methods established by rules promulgated by the commission pursuant to chapter 1-26.

#### MIDWEST RENEWABLE ENERGY TRACKING SYSTEM

Otter Tail has registered almost all renewable energy resources within the Midwest Renewable Energy Tracking System (M-RETS). There is a number of small customer owned units, generally less than 50 kW each, which the Company has not registered. The customers self-serve a portion of their own load with Otter Tail receiving the remaining surplus energy. Otter Tail pays the cost of, both initial and annual fees, to register a facility in M-RETS and the cost per renewable energy credit (REC) can become quite high on these small units. For 2008, the amount of unregistered renewable energy was about 301 MWh, only about 0.10% of the over 308,000 MWh of registered renewable energy.

Otter Tail has developed an account structure within M-RETS to help segregate RECs by type and usage. For customer-owned facilities that self-serve customer load, all of the generation is reported within M-RETS. Otter Tail then transfers RECs associated with the energy used to self-serve load into an account in the customer's name, for their use as they deem appropriate. The RECs associated with energy purchased by Otter Tail will remain in the Otter Tail account.

The Otter Tail M-RETS accounts include a retirement account by state jurisdiction by year. Thus it will be easy to verify the amount of RECs retired annually for compliance with each state's requirements. RECs associated with **TailWinds**, the Company's green pricing program, are retired into separate state jurisdiction accounts to ensure proper accounting for the green pricing tracker balance.

Retired RECs will be tracked on a calendar basis. The M-RETS system became operational in the last half of 2007. While Otter Tail began recording renewable energy within M-RETS late in 2007, the Company began full use of the M-RETS system for reporting verification beginning with the first full calendar year commencing January 1, 2008.

8

Otter Tail has not sold or purchased any RECs separate from the renewable energy. All energy currently being used for compliance is energy generated by Otter Tail or energy purchased by Otter Tail under power purchase agreements.

Otter Tail sold 3,696,000 KWh of wind generation, including the REC's, during 2008. This energy came from the Ashtabula wind farm that was in start-up phase prior to the availability of the generation outlet facilities. This energy was sold to Minnkota Power Cooperative through a lower voltage tie during October and November. The generation outlet facilities became available in December, at which point Otter Tail began taking energy from the wind farm.

### **RENEWABLE AND RECYCLED ENERGY RESOURCES**

The breakdown of existing and potential future renewable energy resources for Otter Tail, to the extent known, at the time of this report are shown in Appendix A. The data provided includes the name of the facility, kW rating, vintage, technology and energy source, whether owned or through a PPA, and state eligibility. For customer-owned facilities, the customer name is not provided in order to protect customer information. The information provided includes future resources which may or may not be constructed, but for which development work has commenced. There are additional renewable energy facilities which are under discussion, but these have not been included in the data since they are still in preliminary stages of feasibility studies.

## SOUTH DAKOTA RENEWABLE AND RECYCLED ENERGY

The following data is for the January 1, 2008 – December 31, 2008 time period. The data assumes that renewable energy is allocated across the Otter Tail system based on retail kWh sales. The exceptions to this allocation methodology are that Tail*Winds* energy is based on the amount of wind energy sold under the green pricing program in South Dakota. Pursuant to South Dakota Codified Law §49-34A-103, the hydroelectric energy shown in the table below does not count toward compliance, but can be subtracted from retail sales before calculating the percentage of compliance.

South Dakota Renewable and Recycled Energy MWh January 1, 2008 – December 31, 2008					
Resource	Total kWh	SD Percentage	SD kWh		
Borderline Wind	1,345,000	10.11%	135,980		
FPL Energy ND Wind II	60,610,000	10.11%	6,127,671		
Customer D1	1,142,000	10.11%	115,456		
FPLE Langdon	69,559,000	10.11%	7,032,415		
OTP Langdon	133,640,000	10.11%	13,511,004		
Ashtabula Wind	16,654,000	10.11%	1,683,719		
Big Stone Plant Biomass	868,000	10.11%	87,755		
South Dakota TailWinds	206,400	100.0%	206,400		
Customer A	38,700	10.11%	3,913		
Customer C	3,440	10.11%	348		
Customer E	224,360	10.11%	22,683		
customer F	14,177	10.11%	1,433		
Customer G	3,380	10.11%	342		
Customer H	12,851	10.11%	1,299		
Customer J	2,524	10.11%	255		
Customer K	274	10.11%	28		
Customer L	1,379	10.11%	139		
Customer T	350	10.11%	35		
OTP Owned Hydro	23,260,100	10.11%	2,351,596		
Manitoba Hydro	209,600,000	10.11%	21,190,560 <sup>11</sup>		
WAPA Hydro	29,972,800	10.11%	3,030,250 <sup>12</sup>		

<sup>&</sup>lt;sup>11</sup> This hydroelectric energy includes only energy under the firm 50 MW contract, which is specified as coming from hydro facilities. (262 days X 16 hours/day X 50 MW)

<sup>&</sup>lt;sup>12</sup> The WAPA hydroelectric energy is an allocation to five Native American tribes.

	Recycled Energy Compliance December 31, 2008
South Dakota Retail Sales	426,079,216 kWh
Less Hydro Energy Adjustment	-26,572,406 kWh
Net SD Retail Sales for REO Compliance	399,506,810 kWh
South Dakota Renewable Energy	28,930,875 kWh
SD REO Compliance Percentage	7.24%

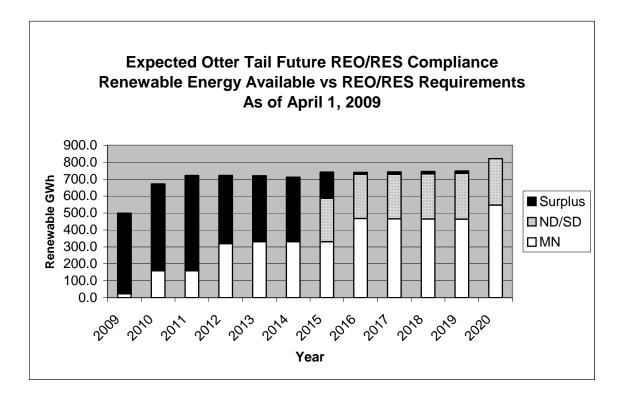
The data does show that Otter Tail is already more than 50% of the way toward compliance with the South Dakota statute. The level of compliance will increase in 2009 as the 48 MW Ashtabula Wind Farm experiences a full year of operation and again in 2010 as the 49.5 MW Luverne Wind Farm will reach commercial operation during the late part of 2009. It is likely that Otter Tail will exceed the South Dakota REO at some future time. At that time, the surplus RECs will likely be sold and/or banked for future use.

#### FORECAST OF FUTURE REO/RES COMPLIANCE

At the time of this report, Otter Tail is just beginning construction of the 49.5 MW Luverne Wind Farm. Combined with energy output from the 48 MW the Company owns at the Ashtabula Wind Farm completed in late 2008 and energy output from the 60 MW the Company owns or purchases from the Langdon Wind Farm, Otter Tail is well positioned to comply with the renewable energy objectives and standards in all three states.

The following graph shows the Company's expected available renewable energy compared to the REO/RES requirements going out to 2020. The graph assumes that all RECs are counted in the year they are generated and are not banked for future compliance use. The graph does not include new customer-owned facilities that may be developed. Otter Tail is seeing significant customer interest in owning wind generation. The Company is obligated to purchase any renewable energy offered from customers under the federal Public Utility Regulatory Policies Act of 1978 (PURPA).

The North Dakota and South Dakota requirements are very similar and are combined in the graph. As demonstrated in the graph, Otter Tail expects by 2010 to have sufficient renewable energy available to comply with state REO/RES requirements until beyond 2020.



### **BARRIERS TO REO/RES COMPLIANCE**

The most significant obstacles fall into four basic categories, including:

- Transmission
  - Interconnection queue
  - o Transmission delivery service
  - o LMP prices
- Developer knowledge
- Economic and financing issues

#### Interconnection Queue

The Midwest Independent Transmission System Operator (MISO) interconnection queue has been a major impediment to the development of any resources due to the significant backlog of requests. In late August 2008 the Federal Energy Regulatory Commission (FERC) approved revisions to the MISO interconnection queue process which Otter Tail believes will help to alleviate the backlog. It is expected that many projects that were simply attempting to reserve a spot in the queue will drop out, and future requests will more likely come from serious projects. Previously projects could submit a request and then remain in suspension for several years, tying up the queue. The ability to suspend a project in the queue is now limited to a much shorter term and only for force majeure reasons. All existing projects in the queue will need to transition to the new process, and MISO has issued a report detailing the status of each interconnection project and the required steps to complete the transition to the new process. The down side to the changes is that developers will have to be ready to make their application deposits and have other benchmarks in place in order to proceed in the new queue process.

<u>Transmission Delivery</u> – As a member of MISO, Otter Tail must have firm delivery transmission service for any project to count as a network resource. At the present time transmission service is severely hampered by transmission constraints and the ability to get delivery service is limited. Otter Tail has benefited from the fact that almost 100% of the Company's system is located to the west of the North Dakota Export Boundary, and

generation can generally be delivered to load without crossing that constraint. However, there are other wind projects being developed in the Otter Tail service territory for other utilities that are using up the available transmission service. Otter Tail is a part of the CAPX 2020 group proposing new major high voltage transmission. If approved and constructed, the CAPX 2020 transmission additions will not alone resolve transmission constraints. CAPX 2020 is studying the situation to determine what other new transmission resources are likely to be required.

#### LMP Prices

The Location Marginal Price (LMP) is beginning to be impacted by the magnitude of the wind development taking place. The lack of adequate transmission for delivery service is causing wind generation to be economically stranded at times of plentiful wind and less than peak loads. Otter Tail wind resources at times receive less than full MISO market price because of inadequate transmission to move the energy where it is needed. As a result, the LMP price at the wind farm declines and can become negative at times. Otter Tail has to pay MISO to keep the wind generation operating at those times. This situation is being exacerbated as the amount of wind generation on the system increases. Consequently, a portion of the generation value is jeopardized. The only cure is to increase transmission capability. The previously mentioned transmission project efforts will help to alleviate the situation, although even more transmission will be needed.

#### Developer Knowledge

The larger developers know what they are doing with wind development. Otter Tail has experienced difficulty with small developers, community-based wind developers, and customers who consider building wind generation. These entities generally do not have the background and have not spent the time to learn about wind generation prior to attempting a project.

#### Economic and Financing Issues

The recent economic downturn is hampering the development of renewable resources. Some major wind developers have already announced intentions to scale back their

16

development plans for the near-term future. While Otter Tail has not seen any specific project delays or cancellations in wind projects yet, such actions are expected by most wind industry publications. Small wind development may especially be impacted in their efforts to obtain project financing.

#### SUMMARY

Otter Tail has stepped forward with its development of renewable resources for a variety of reasons and is completing new renewable energy facilities ahead of REO/RES requirements. The most recent Company integrated resource plan called for 160 MW of new wind generation. With the Luverne project, Otter Tail will have completed that amount of wind generation addition to the system. Part of the reason for accelerated implementation is economics, as the cost of wind generation is escalating at a rate as fast or faster than any other generating technology. Also, the federal PTC is not likely to be available for the long term, so Otter Tail is taking advantage by moving forward early. The PTC reduces the cost of wind generation by about 33%.

The Company has also taken advantage of significant wind development incentives in North Dakota. Currently those incentives also have a sunset provision, so early implementation of wind generation has accessed those incentives.

With the current renewable resources in existence and under construction, additional resources for REO/RES compliance will likely not be needed until some time after 2020. This forecast does not include counting the many small customer owned units currently being installed. There are many uncertainties going forward with all forecasts, including load growth, conservation efforts, and customer-owned renewable resources.

Otter Tail expects its next integrated resource plan, which is expected to be completed during the second half of 2009, to provide updated information regarding the long-term view of REO/RES compliance.

Dated this 1st day of July, 2009.

#### OTTER TAIL POWER COMPANY

By: <u>/s/ KERRY KASEMAN</u> Kerry Kaseman, Sr. Credit Administrator

		<b>Existing Rene</b>	wable and	ing Renewable and Recycled Generating Facilities	ating Facilities		
Name	State	kW Rating	Vintage	Technology	<b>Power Source</b>	<b>Owned/PPA</b>	<b>State Eligibility</b>
Customer A	MN	225	1997	Wind	Wind	PPA	MN, ND, SD
Customer B	SD	06	2002	Wind	Wind	PPA	$TailWinds^{13}$
Hendricks	NW	006	2001	Wind	Wind	PPA	$TailWinds^{13}$
Borderline	NW	006	2003	Wind	Wind	PPA	MN, ND, SD
FPLE ND Wind II	ND	21,000	2003	Wind	Wind	PPA	MN, ND, SD
Customer C	ND	50	1985	Wind	Wind	PPA	MN, ND, SD
FPLE Langdon	ND	19,500	2007	Wind	Wind	PPA	MN, ND, SD
OTP Langdon	ΩN	40,500	2008	Wind	Wind	Owned	MN, ND, SD
Ashtabula Wind	ND	48,000	2008	Wind	Wind	Owned	MN, ND, SD
Customer D1	NW	1,650	2005	Wind	Wind	PPA	MN, ND, SD
Customer E	ND	660	2008	Wind	Wind	PPA	MN, ND, SD
Customer F	NW	39.5	2008	Wind	Wind	PPA	MN, ND, SD
Customer G	NW	39.5	2008	Wind	Wind	PPA	MN, ND, SD
Customer H	MN	39.5	2008	Wind	Wind	PPA	MN, ND, SD
Customer I	MN	35	2007	Wind	Wind	PPA	MN, ND, SD
Customer J	MN	1.8	2008	Wind	Wind	PPA	MN, ND, SD
Customer K	NW	1.8	2008	Wind	Wind	PPA	MN, ND, SD
Customer L	ND	20	2008	Wind	Wind	PPA	MN, ND, SD
Customer T	MN	3	2008	Photovoltaic	Sun	PPA	MN, ND, SD
<b>Big Stone Plant</b>	SD	245,784	1975	Steam	Biomass	Owned	ND, $SD^{14}$
Bemidji Hydro	MN	740	1907	Hydro	Water	Owned	MN
Taplin Gorge	MN	560	1925	Hydro	Water	Owned	MN
Hoot Lake	MN	1,000	1914	Hydro	Water	Owned	MN
Pisgah	MN	520	1918	Hydro	Water	Owned	MN
Wright	MN	400	1922	Hydro	Water	Owned	MN
Dayton Hollow	MN	980	1909	Hydro	Water	Owned	MN
WAPA Allocation	Several		Various	Hydro	Water	PPA	None
Manitoba Hydro	Manitoba	50,000	Various	Hydro	Water	PPA	None

Appendix A – Renewable and Recycled Energy Resources

<sup>&</sup>lt;sup>13</sup> At this time Tail*Winds* energy counts in ND and SD, but not MN. Tail*Winds* is the Company's green pricing tariff and the energy is counted only as customers purchase the energy, not as it is generated. <sup>14</sup> Only the biomass portion of the fuel is counted. For the January 1, 2008 – December 31, 2008 time period only about .04% of the fuel was biomass.

	Planned and Exp	and Expected F	uture Rene	wable and Recy	oected Future Renewable and Recycled Generating Facilities	acilities	
Name	State	kW Rating	Vintage	Technology	<b>Power Source</b>	<b>Owned/PPA</b>	<b>State Eligibility</b>
Luverne Wind	QN	49,500	2009	Wind	Wind	Owned	MN, ND, SD
Customer D2	NW	1,500	2009	Wind	Wind	Vdd	MN, ND, SD
Customer D3	NW	1,500	2009	Wind	Wind	Vdd	MN, ND, SD
Customer M	NW	20	2009	Wind	Wind	APA	MN, ND, SD
Customer N	NW	250	2009	Wind	Wind	APA	MN, ND, SD
Customer O	NW	1,500	2009	Wind	Wind	Vdd	MN, ND, SD
Customer P	NW	7,000-8,000	2010	Binary Cycle	Waste Heat	APA	ND, SD
Customer Q	NW	4,500	2010	Steam	MSW	APA	MN
Customer R	NW	25	2009	Wind	Wind	Vdd	MN, ND, SD
Customer S	MN	2.4	Unknown	Wind	Wind	PPA	MN, ND, SD

Appendix A – Renewable and Recycled Energy Resources

# Appendix B – Calendar Year 2008 RREO Report

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)	4,215,442	
SD (MWh)	426,079	
Generation Capacity Owned		
Total - All States (MW)	767.1	Based on nameplate of owned generation facilities and does not count any contracted capacity.
SD (MW)		Based on nameplate of owned generation facilities and does not count any contracted capacity.
Renewable Generation Capacity Owned Total - All States (MW)		
Wind	88.5	
Solar	00.5	
New Hydro	-	
Old Hydro	4.2	
Hydrogen	7.2	
Biomass	245.8	Represents Big Stone Plant, which can burn biomass, generally < 1% of annual generation.
Geothermal	-	
Recycled	-	
Total - All States (MW)	338.5	
SD (MW)		
Wind	-	
Solar New Livelan	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	- 245.8	
Biomass	243.0	
Geothermal	_	
Recycled Total SD (MW)	245.8	
	245.0	
Renewable Energy Credits Retired for SD		No Renewable Energy Credits were Retired for SD for 2008.
Total - Generated In All States (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled		
Total - All States (MWh)	-	
Generated in SD (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled Total SD (MWh)	-	
	-	
Renewable Energy Credits Retired for Other States Total - Generated In All States (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	21,794	
Hydrogen Biomass	-	
DIOITIdSS		
Castharmal		
Geothermal Recycled	-	

# Appendix B – Calendar Year 2008 RREO Report

Calendar Year 2008 RREO Report	Value	Comments
Generated In SD (MWh)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total SD (MWh)	-	
Conserved Energy & Capacity		
Conserved Energy (MWh)		
Total - All States	16,130	
SD	135	
Conserved Capacity (MW)		
Total - All States	3.5	
SD	0.1	

#### Rounds, Brian

From:	hkonynenbelt@otpco.com
Sent:	Monday, December 21, 2009 9:15 AM
To:	Rounds, Brian
Cc:	BHDraxten@otpco.com; KKaseman@otpco.com
Subject	: FW: 2008 SD Renewable, Recycled and Conserved Energy Objective Report

Good Morning, Mr. Rounds,

I submitted the draft RREO worksheet you requested last spring via email and after reviewing it in Otter Tail's Appendix B in this report, I see that I neglected to include Otter Tail's Green Pricing program retirements in the submittal. The report showed zero REC retirements for SD, however, Otter Tail actually retired 209 wind RECs for our Green Pricing program sales in SD. Please accept my sincere apology for this error and inconvenience. Attached is a revised copy of the spreadsheet provided to you last spring with the REC retirements corrected to include those for the Green Pricing programs in SD, ND, and MN.

Should you have any questions about this corrected information, please don't hesitate to contact me at 218-739-8371.

Thanks,

Heidi Konynenbelt, P.E. | Otter Tail Power Company Sr. Resource Planning Engineer (218) 739-8371 www.otpco.com

Our mission: "To produce and deliver electricity as reliably, economically, and environmentally responsibly as possible to the balanced benefit of customers, shareholders, and employees and to improve the quality of life in the areas in which we do business."

#### Please provide a value in each of the boxes below with an "X" in it.

Company: Otter Tail Power Company

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales	1015444 0	
Total - All States (MWh)	4215441.9 426079.2	
SD (MWh)	420079.2	
Generation Capacity Owned		
Total - All States (MW)	767 1	Based on nameplate of owned generation facilities and does not count any contracted capacity.
SD (MW)		Based on nameplate of owned generation facilities and does not count any contracted capacity.
	270.0	based on namepiate of owned generation racinities and does not count any contracted capacity.
Renewable Generation Capacity Owned		
Total - All States (MW)		
Wind	88.5	
Solar	0.0	
New Hydro	0.0	
Old Hydro	4.2	
Hydrogen	0.0	
Biomass	245.8	Represents Big Stone Plant, which can burn biomass, generally < 1% of annual generation.
Geothermal	0.0	
Recycled	0.0	
Total - All States (MW)	338.5	
SD (MW)		
Wind	0.0	
Solar	0.0	
New Hydro	0.0	
Old Hydro	0.0	
Hydrogen	0.0	
Biomass Geothermal	245.8	
	0.0	
Recycled Total SD (MW)	245.8	
	243.0	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind	209.0	
Solar	0.0	
New Hydro	0.0	
Old Hydro	0.0	
Hydrogen	0.0	
Biomass	0.0	
Geothermal	0.0	
Recycled	0.0	
Total - All States (MWh)	209.0	
Generated in SD (MWh)		
Wind	0.0	
Solar	0.0	
New Hydro	0.0	
Old Hydro	0.0	
Hydrogen	0.0	
Biomass	0.0	
Geothermal	0.0	
Recycled Total SD (MWh)	0.0	
Total SD (WWII)	0.0	
Renewable Energy Credits Retired for Other States		
Total - Generated In All States (MWh)		
Wind	2514.0	1834 MN Green Pricing, 680 ND Green Pricing
Solar	0.0	
New Hydro	0.0	
Old Hydro	21794.0	
Hydrogen	0.0	
Biomass	0.0	
Geothermal	0.0	
Recycled	0.0	
Total - All States (MWh)	24308.0	
Generated In SD (MWh)		
Wind	155.0	
Solar	0.0	
New Hydro	0.0	
Old Hydro	0.0	
Hydrogen	0.0	
Biomass	0.0	
Geothermal	0.0	
Recycled	0.0	
Total SD (MWh)	155.0	
Conserved Energy & Canacity		
Conserved Energy & Capacity Conserved Energy (MWh)		
Total - All States	16130.1	
SD	135.4	
Conserved Capacity (MW)	100.4	
	1	
Total - All States	3.5	



414 Nicollet Mall Minneapolis, Minnesota 55401-1993

June 30, 2009

--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: 2009 REPORT OF NORTHERN STATES POWER COMPANY ON MEETING THE RENEWABLE, RECYCLED AND CONSERVED ENERGY OBJECTIVE

Dear Ms. Van Gerpen:

In accordance with South Dakota Codified Laws 49-34A-105, Northern States Power Company, a Minnesota corporation ("Xcel Energy" or the "Company") hereby submits its 2009 report on meeting the state's renewable, recycled and conserved energy objective.

If there are questions regarding information contained in the report, please feel free to contact me at (605) 339-8350, Kari Chilcott-Clark at 303-571-6905 or Jim Alders at (612) 330-6732.

SINCERELY,

Acuila

JAMES C. WILCOX Manager, Government & Regulatory Affairs

ENCLOSURES

#### STATE OF SOUTH DAKOTA BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE 2009 REPORT OF NORTHERN STATES POWER COMPANY, A MINNESOTA CORPORATION ON PROGRESS TOWARDS MEETING THE RENEWABLE, RECYCLED AND CONSERVED ENERGY OBJECTIVE

COMPLIANCE REPORT

#### **OVERVIEW**

Pursuant to South Dakota Codified Laws ("SDCL") Chapter 49-34A, Northern States Power Company, a Minnesota corporation ("Xcel Energy", "NSP-M" or the "Company") respectfully submits this renewable energy objective ("REO") compliance report to the South Dakota Public Utilities Commission ("Commission"). We include as part of this report information regarding the management of renewable energy credits ("RECs") going forward and a proposal for assigning and valuing RECs when and if we find we are in an over or under compliance situation in our various jurisdictions.

Based on using the energy allocator applicable to South Dakota, we have determined that the share of system wide renewable resources allocable to South Dakota is 242,723 megawatt-hours. This represents the energy we provided to our customers in 2008 that was generated at facilities using renewable fuels and technology<sup>1</sup>. After restricting the renewable energy from

<sup>&</sup>lt;sup>1</sup> SDCL 49-34A-94. defines renewable electricity and recycled energy as electricity generated from facilities using one or more of the following sources:

<sup>(1)</sup> Wind that uses wind as the source of energy to produce electricity;

<sup>(2)</sup> Solar that uses the sun as the source of energy to produce electricity;

<sup>(3)</sup> Hydroelectric that uses water as the source of energy to produce electricity;

<sup>(4)</sup> Hydrogen that is generated from one of the sources listed in this section;

<sup>(5)</sup> Biomass that uses agricultural crops and agricultural wastes and residues, wood and wood

wastes and residues, animal and other degradable organic wastes, municipal solid waste, or landfill gas as the fuel to produce electricity;

<sup>(6)</sup> Geothermal that uses energy contained in heat that continuously flows outward from the earth as the source of energy to produce electricity; and

<sup>(7)</sup> Recycled energy systems that produce electricity from currently unused waste heat resulting

hydro resources to only those with an in-service date on or after July 1, 2008 and adjusting energy consumption as provided in Chapter 49-34A-103 our South Dakota REO renewable energy percentage is about 11%. Attachment A details this calculation. Please note that no RECs have been retired to date for South Dakota REO compliance.

Attachment B provides a compliance report that includes the following information as requested by the Commission: Retail Sales (MWh) - Total & SD-based Generation Capacity Owned (MW) - Total & SD-based by technology\* Renewable Generation Capacity Owned (MW) - Total & SD-based by technology\* Renewable Generation with RECs retired for SD (MWh) - Total & SD-based by technology\* Renewable Generation with RECs retired for other states/purposes (MWh) - Total & SD-based by technology\*

\*As defined in SDCL 49-34A-94

South Dakota's renewables statute establishes a goal or objective of providing 10% of the energy used from renewables by 2015. There are no intermediate milestones between now and 2015 in statute. Figure 1 following illustrates our estimate of RECs allocated to South Dakota compared to South Dakota's REO. We have portrayed the REO as requiring no REC retirements until 2015. If the Commission believes we should recognize intermediate milestones we can certainly adjust REC management accordingly.

from combustion or other processes and which do not use an additional combustion process. The term does not include any system whose primary purpose is the generation of electricity.

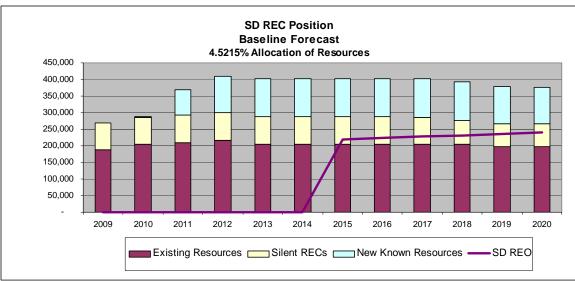


Figure 1. SD REC Position<sup>2</sup>

### Challenges or barriers

As requested in SDCL 49-34A-105, Xcel Energy offers its perspective on the challenges and barriers we presently see facing the development of renewable, recycled, and conserved energy in South Dakota:

- *Transmission Construction Lead Time.* The best wind resource areas in our service territory do not always have the transmission infrastructure necessarily to support wind generation. Xcel Energy transmission initiatives presently underway (e.g. "CAPX") will substantially improve transmission capabilities, and we continue to work with the Midwest ISO and other stakeholders on the development of additional future transmission projects.
- *Midwest ISO Interconnection Queue.* To date, the Midwest ISO queue process has proven to be very slow in providing interconnections to wind projects. The Company has led the way in proposing queue reforms that are aimed at making more timely interconnection service available. These queue reforms are currently being implemented, but it will take a year or more to see if these changes will produce the desired results.

 $<sup>^{2}</sup>$  Figure 1. - Note that this calculation also includes RECs from power purchase agreements signed prior to the establishment of renewable tracking. Thus the agreements are silent as to ownership of RECs. It is the Company's position that the RECs are an integral part of the purchase and can be used for our compliance purposes. The seller does not agree at this point and negotiations continue.

• *Wind Turbine Costs and Availability.* Throughout the world, demand for the most economic wind turbines has been at an all-time high recently. This has caused the price of turbines to increase more than other equipment. However, with the recent downturn in the global economy, demand has moderated and these price increases appear to be easing to some degree.

### Renewable Energy Credits

The Company plans and operates our generation and transmission facilities as an integrated system in the most cost effective way possible to the benefit of all customers across the five state jurisdictions we serve. The costs of this integrated system are spread across our entire customer base. As a result, South Dakota customers pay for 4.5215% of the cost of the integrated generation system including renewables based generation.

A regional reporting system called the Midwest Renewable Energy Tracking System ("M-RETS") has been established to track RECs for compliance with state renewable energy requirements or objectives in the region. One REC is created with the production of one megawatt-hour of electricity at a generating facility that qualifies as renewable based generation. RECs are retired to demonstrate compliance with renewable energy standards and objectives. Some states allow RECs to be bought and sold so that they can be applied to compliance independently of the energy originally produced.

Because customers have paid for renewable energy we believe they should receive the value that may be obtained for any associated environmental attributes such as RECs under an appropriate regulatory scheme. We are developing a plan to manage RECs taking into consideration factors such as the need to comply with future federal requirements as well as the ability to convert RECs into revenue on behalf of our customers. We will share the proposals included in this report with all of our jurisdictions; provide a status report by the end of the third quarter; determine if a consensus on a unified approach can be obtained and make the necessary tariff changes to return value to customers by the end of this year. Because RECs have very limited value in the Upper Midwest at this time, we do not believe that there is any disadvantage to South Dakota customers from this brief delay.

The issues related to assignment of REC revenue are made more complex than traditional cost assignment among the jurisdictions that make up the integrated

NSP system as REC values are currently a function of legislation that is unique to each state. Nonetheless, our approach will assure that jurisdictions continue to maintain the benefits of an integrated system while at the same time recognizing some of the differences in law that, in this limited circumstance, make distribution of REC revenues more directly assigned than simply apportioned.

In the sections that follow we provide more background on renewable energy production and discuss some of the issues and complexities we are exploring as we develop our REC management plans. Specifically, we will address:

- how we expect differences in jurisdictional requirements to impact system-wide planning for resources;
- our approach for determining compliance with the Objective; and
- two alternative approaches for returning REC revenues to our customers and the filings that may be required to effectuate either approach.

We look forward to consulting with the Commission and providing updates as our effort unfolds.

### SYSTEM PLANNING AND REC ALLOCATION

### Integrated System

Xcel Energy Inc. provides electric service to customers in five states in the Upper Midwest, through two operating companies: Northern States Power Company, a Minnesota corporation (NSP-M), and Northern States Power Company, a Wisconsin corporation (NSP-W), often referred to as the NSP System or NSP. The NSP System is operated as an integrated generation and transmission system. This integrated system provides benefits to our retail customers in these five states (North Dakota, South Dakota, Minnesota, Wisconsin and Michigan) and our wholesale customers subject to Federal Energy Regulatory Commission ("FERC") jurisdiction because the integrated regional system is able to reduce the cost of services as economies of scale result from integrated dispatch of generating units and use of the transmission system. This integrated system also provides for increased reliability due to the diverse and dispersed set of resources on the system. Since the generation and transmission system operates as an integrated whole, to the benefit of all our customers, the capital and operating costs of all the generating and transmission components of the integrated system are borne on an integrated basis by all of our customers across the five jurisdictions NSP-M and NSP-W serve, first through cost allocation between NSP-M and NSP-W under the Interchange Agreement, and then allocation to jurisdiction (*e.g.*, North Dakota, Minnesota, South Dakota, wholesale requirements).

#### Renewable Based Generation

One component of our fleet of generating resources that serves all customers is renewable based generation. Renewables based generation generally relies on wind, water, solar radiation and biomass as fuel. In recent years, each of our states adopted policies<sup>3</sup> designed to advance the development of renewable energy generation. These policies vary among the states, including the amount of energy required, the types of renewables that qualify, and whether the policy is a mandate or an objective. Since our fleet of generation is operated as a single integrated system, NSP plans and acquires renewables to achieve the most cost-effective system in a manner that is consistent with the various requirements.

In 2008, approximately 5.4 million megawatt hours of the electric energy we provided to retail customers on the NSP System came from renewables: 3.3 million megawatt hours from wind turbines, 750,000 megawatt hours from hydro generation smaller than 60 MW in size, and 1.3 million megawatt hours from biomass resources including waste to energy facilities. By 2025, the sum of current state policies will require renewables supplying approximately 12 million megawatt hours, approximately 25 percent of the energy our customers will use.<sup>4</sup>

The allocation factors used to spread the cost of renewable based generation across our entire customer base in the five states we serve are established in regulatory proceedings. The factors result in approximately 75 percent of costs allocated to Minnesota customers, 5 percent to North Dakota customers, 5 percent to South Dakota customers, 15 percent to Wisconsin customers and less than 1 percent to Michigan customers. In this way, all of our customers pay a proportionate share of our system energy and capacity costs and share equally in the benefits of operating a large, integrated system.

<sup>&</sup>lt;sup>3</sup> These state policies spawned a variety of terms that cover mandates or goals and include renewable portfolio standard ("RPS"), renewable energy standard ("RES") or renewable energy objective ("REO").

<sup>&</sup>lt;sup>4</sup> All of the calculations in this paragraph include silent RECs.

### Renewable Energy Standards and Objectives

As noted previously, the NSP operating companies, provide retail electric service in five states, and offers a system mix of energy supply to several wholesale customers within those states. The renewable energy mandates and objectives of each jurisdiction served are listed below.

#### Minnesota

Minnesota's Renewable Energy Standard ("RES") (Minn. Stat. § 216B.1691) requires NSP-M to obtain 30% of the energy we supply to customers from renewable generation sources by 2020, with interim threshold requirements or milestones of 15% by 2010, 18% by 2012 and 25% by 2016.

#### Wisconsin

Wisconsin's Renewable Portfolio Standard ("RPS") (Wis. Stat. § 196.378) requires NSP-W to obtain 12.85% of the energy we supply to customers from renewable generation sources by 2015 and establishes an interim threshold or milestone of 8.85% of retail sales be supplied from renewable sources by 2010.

#### <u>North Dakota</u>

North Dakota's REO (ND Century Code 49-02-24 et seq.) calls for electric utilites to pursue the non-mandatory goal of serving 10% of retail sales from renewable generation sources by 2015.

### South Dakota

South Dakota's REO (SDCL § 49-34A-101 et seq.) calls for electric utilities to pursue the non-mandatory goal of serving 10% of retail sales from renewable generation sources by 2015, subject to a reasonableness and cost effectiveness evaluation.

### <u>Michigan</u>

Michigan's Clean, Renewable, and Efficient Energy Act ("CREEA") (2008 Mich. Public Acts. 295) requires NSP-W to obtain 10 percent of retail sales from renewable generation sources by 2015. Any new renewable generation to be used to satisfy this mandate must be located in the NSP-W operating company footprint.

#### Renewable Energy Compliance

All RECs subject to state renewable energy requirements<sup>5</sup> are registered in M-RETS and compliance is demonstrated by "retiring" a REC in M-RETS. For example, pursuant to rules established by the Minnesota Public Utilities Commission ("MPUC"), to comply with our 2008 RES requirement, we "retired" 327,810 RECs by placing them in a 2008 Minnesota RES retirement sub-account in M-RETS. There are approximately 2.8 million 2008 RECs registered in M-RETS that remain unused or active. Since we cannot register the PPAs that are silent on REC ownership, the number of RECs remaining does not include silent RECs.

Rules have also been set in the Minnesota, Wisconsin and Michigan jurisdictions that give RECs a "shelf life" or a set period of time the REC can be used for compliance. For example, a REC can be used to comply with Minnesota's RES or Wisconsin's RPS in the year it is generated or in any of four subsequent years. Thus, in Minnesota or Wisconsin, a REC generated in 2008 can be used to comply with the requirements in 2008, 2009, 2010, 2011, or 2012. Michigan rules provide for a 3-year shelf life meaning a REC created in 2008 must be retired for compliance by 2011.

Additionally, most states will allow RECs reported and tracked in M-RETS, or in one of the other regional REC tracking systems to be used to demonstrate compliance with renewable portfolio (energy) standards. Thus, a utility does not necessarily have to generate all of the needed renewable energy needed to comply with these requirements. RECs created and tracked in M-RETS, or other regional systems can be purchased and used to comply.

M-RETS and RECs do not substitute for renewable energy production. Instead, they operate as a mechanism that allows a utility to affectively manage the acquisition of renewables based generation. In a given window of time (four years in Minnesota and Wisconsin) RECs can be bought or sold or banked to smooth out the incremental, stair-step nature of generation additions.

#### **REC** Jurisdictional Allocations

NSP believes that until a REC is retired to demonstrate compliance or bought or sold in the market, it remains an indivisible part of the renewable energy it

<sup>&</sup>lt;sup>5</sup> Minnesota (October 9, 2007 order in Docket No. E-999/CI-04-1616), Wisconsin (March 26, 2007 contract between Commission and APX for M-RETS) and North Dakota (June 4, 2008 order in Case No. PU-07-318) have established registration in M-RETS requirements. Neither South Dakota or Michigan have established rules yet. Michigan is currently looking at which regional system it is going to require participation in.

represents. From an accounting perspective, since South Dakota customers pay approximately 5% of NSP System costs, their contribution accounts for about 5% of the cost of renewable energy on the system including whatever value may be associated with the RECs associated with that energy. If a REC is immediately "retired" to demonstrate compliance, there is no additional value. If a REC is bought or sold, its value is the price of the transaction.

In recognition of the principal that RECs remain with the associated energy until used, Xcel Energy has set up jurisdictional accounts in M-RETS and allocated RECs to each jurisdiction in proportion to jurisdictional cost allocations. These are not "retirement" accounts, but rather, holding accounts for unused, active RECs before they are applied to compliance or sold. We began recognizing these allocated, "jurisdictional", active RECs in annual compliance reports in all jurisdictions this year.

#### **RECS MANAGEMENT**

Figure 1 illustrated that there are considerable number of RECs in Xcel Energy's South Dakota account beyond those needed to meet South Dakota's REO policies and we anticipate that will remain the case as the result of our REC allocation approach. This REC position allows us to explore the opportunity to sell RECs in the market. Since the cost of the energy the RECs are associated with is paid for by South Dakota customers, we also believe it is appropriate to compensate these customers for the value of the RECs. We will also be looking for ways to maximize REC revenues from wholesale sales in some of our jurisdictions.

The first step in RECs management is to determine a value for RECs. If an adequate market exists we propose to establish the value of RECS by selling "jurisdictional" RECs into the market. Conceptually, we would also purchase market RECs to meet compliance in other jurisdictions if necessary. The associated revenue or value would be credited to South Dakota customers since they paid for the energy and associated renewable attributes.

We have not yet established a detailed plan for the management of RECs since the development of such a plan involves considerable complexity and is dependent on assumptions such as the potential of future renewable legislation in our jurisdictions and at the federal level, the amount of banking allowed, and the likely acquisition plan for renewable energy. Thus, we are: investigating whether the market for RECs in the Upper Midwest is adequately developed to rely on or whether the market will not occur until a federal standard is adopted; examining strategies for complying with potential federal renewable energy standards at various requirement levels; and assessing how a REC management strategy might interact with our renewables acquisition plans.

At the end of this review, we will propose a plan to optimize the benefits of RECs for customers. To do so we need to develop a plan that effectively manages each jurisdiction's REC portfolio and considers the timing of the magnitude, frequency and allocation of REC transactions. We currently believe that centralized trading of RECs, similar to centralized wholesale sales activity may be the most cost-effective means of monetizing REC value.

### Jurisdictional Transfers

We believe that, depending on the ultimate system resources selected, it may become necessary, for jurisdictions with lower renewable energy requirements to transfer system generated RECs to jurisdictions with higher requirements to minimize the overall costs of renewables to all customers on the integrated NSP System. We believe that the best way to accomplish this from a regulatory perspective is to develop a transfer pricing model that takes into account both the value of the resource to the system and the value of the REC. Because transfers are not anticipated for several years, we do not propose a mechanism today, but will report on when the need for potential transfers may be needed and propose a transfer pricing mechanism for approval in all of our states in advance of that time.

### Options for Crediting REC Revenues

There are two primary approaches to returning REC revenues to customers being considered. The first is to credit these revenues through the Fuel Clause Adjustment ("FCA"). The second would be to use revenues from the sale of RECs and apply the revenue as an offset to the plant in service costs of future renewable investments. This approach could be applied to all or a portion of REC sales.

### 1. FCA Treatment

Because RECs are a function of renewable energy produced (either through Company owned investments or more predominately through purchased energy costs) one appropriate method of returning credits to customers is through the FCA. The timing, amount and margin on the sale of RECs will be difficult to predict and our experience in non-Midwest markets to date indicates that prices are volatile and difficult to estimate. As such, a credit to the FCA that reflects both the nature of the value of the REC faces the same difficulties of estimation as other FCA costs. If the FCA credit is the approach elected, we believe that we will need to seek a waiver of the FCA rules and modify or FCA tariff. Attachment C provides an illustrative example of the FCA tariff language that may be needed.

In addition, Xcel Energy will need to establish accounting policies for a centrally managed pool of RECs to allocate the revenues to each jurisdiction from sales made during a year. We would anticipate truing up all revenues to each jurisdiction's share of "excess RECs", those above the level needed to comply with a standard or objective, rather than selling different jurisdiction's shares separately. Our experience is that significant REC sales can essentially eliminate a market for a time period, and determining which jurisdiction came first, could ultimately lead to jurisdictional inequities.

#### 2. Reduction of future rate base

Given the difficulties identified in managing a REC portfolio by jurisdiction, an alternative approach that we believe may offer significant long run value to our customers would be to "reinvest" RECs as a reduction in the cost of future renewable energy development rather than apply sales revenue as a customer credit at the time of REC sales. Such an approach to RECs management could alleviate complexity since we plan and develop our system as an integrated whole. It would require some proxy for any jurisdictional mismatches that may occur, but these, could for example be addressed by adding renewables in jurisdictions rather than through more complex cost allocations and revenue assignment issues. Or this approach could be used for a baseline level of REC transactions and amounts above this could be treated as a credit.

While both approaches have unique challenges in terms of best meeting the needs of all of our jurisdictions we believe it is appropriate to take the remainder of the year to work through these issues with all of our state regulators and determine if a consensus for future action can be reached. We plan to discuss these issues with staff in each of our jurisdictions in coming weeks and months and will provide at least one progress by the end of the third quarter.

#### SERVICE LIST

Please place the following person on the official service list for any further communications needed for this report:

SaGonna ThompsonJames R. AldersRecords AnalystDirector, Regulatory AdministrationXcel Energy Services Inc.Xcel Energy Services Inc.414 Nicollet Mall, 7th Floor414 Nicollet Mall, 7th FloorMinneapolis, MN 55401Minneapolis, MN 55401Email: SaGonna.Thompson@xcelenergy.comEmail: James.R.Alders@xcelenergy.com

Jim Wilcox Manager of Government & Regulatory Affairs Xcel Energy PO Box 988 Sioux Falls, SD 57101-0988 Email: james.c.wilcox@xcelenergy.com

#### CONCLUSION

Xcel Energy is pleased to provide this compliance report and information as to how to move forward to recognize the differing requirements in the various jurisdictions in which we serve and ensure equal treatment for all customers in all jurisdictions.

Dated: June 30, 2009

Northern States Power Company a Minnesota corporation

/s/ By:

> JAMES R. ALDERS DIRECTOR, REGULATORY ADMINISTRATION

# South Dakota Renewable Energy Objective 2008 Status Report

#### (Banked RECs)

<u>NSP Company</u> Renewables	<u>Renewable</u> MWH	<u>"Silent" REC</u> MWH <sup>1</sup>	<u>Total Renewable</u> MWH
1 Wind	2,436,520	880,638	3,317,158
20ther Hydro	651,649	96,712	748,361
3Biomass	291,680	572,463	864,143
4RDF	223,055	215,426	438,481
5 Total System	3,602,904	1,765,239	5,368,143

#### Allocation Factor: 2008 Net Energy Requirements

	 Reg. (MWh)				
6MN	33,646,181	74.2784%			
7SD	2,048,141	4.5215%			
8ND	2,396,029	5.2896%			
9NSPW 10 NSP System	<u>7,207,035</u> 45,297,385	15.9105%			

#### 2008 REO Reporting

11% of net energy requirements that is SD retail:	4.5215%	L7
12SD renewable energy allocation:	242,723	L5 x L11
13Remove Old Hydro (per SD REO):	(33,837)	L2 x L11
14 SD REO qualifying renewable energy:	208,885	
15SD retail sales:	1,942,545	FERC Form 1
16Remove SD Old Hydro allocation (per SD REO):	<u>(33,837)</u>	L2 x L11
17 SD REO retail sales:	1,908,708	
18 SD REO qualifying renewable energy percentage banked: <sup>2</sup>	<u>10.9%</u>	(L14/L17)
19 RECs retired for 2008 REO Compliance	0	

<sup>1</sup> "Silent" RECs are related to renewable energy purchases initiated prior to the renewable energy credits market. There is uncertainty regarding whether the credits can be claimed by the energy purchaser or whether they reside fully with the owner.

2 The SD REO does not require the retirement of RECs until 2015. Renewable Energy generated in years 2008 through 2014 is planned to be banked for future retirement and for the benefit of South Dakota customers. Please provide a value in each of the boxes below with an "X" in it.

Company: Northern States Power

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales	40 500 500	
Total - All States (MWh) SD (MWh)	42,563,508	
SD (MWII)	1,942,545	
Generation Capacity Owned\Purchased <sup>1</sup>		
Total - All States (MW)	11,667	
SD (MW)	445	
	-	
Renewable Generation Capacity Owned\Purchased		As of 12/31/2008; Includes capacity from PPAs silent on REC ownership
Total - All States (MW)		
Wind	1,214	Includes capacity for Windsource program
Solar	-	
New Hydro	- 281	
Old Hydro Hydrogen	201	
Biomass/RDF/Landfill Gas	304	Capacity from all steam turbines is presented for mixed fuel plants; only the renewable generation creates RECs
Geothermal	-	
Recycled	-	
Total - All States (MW)	1,799	
SD (MW)		
Wind	54	
Solar	0	
New Hydro Old Hydro	0	
Hydrogen	0	
Biomass\RDF\Landfill Gas	0	
Geothermal	0	
Recycled	0	
Total SD (MW)	54	
Deneuvable Engenne Credite Detire d for OD		
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh) Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass\RDF\Landfill Gas	0	
Geothermal	0	
Recycled	0	
Total - All States (MWh)	0	
Generated in SD (MWh)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass\RDF\Landfill Gas	0	
Geothermal	0	
Recycled Total SD (MWh)	0	
Renewable Energy Credits Retired for Other States <sup>3</sup>		
Total - Generated In All States (MWh)		
Wind	432,586	
Solar	-	
New Hydro	-	
Old Hydro	120,950	
Hydrogen	-	
Biomass\RDF\Landfill Gas	142,270	
Geothermal Recycled	-	
Total - All States (MWh)	695,806	
	,	
Generated In SD (MWh)		
Wind	15,401	
Solar	-	
New Hydro	-	
Old Hydro Hydrogen	-	
Hydrogen Biomass		
Geothermal		
Recycled	-	
Total SD (MWh)	15,401	
Conserved Energy & Capacity		
Conserved Energy (MWh)		
Total - All States	549,892	
SD Conserved Capacity (MW)	5	
Total - All States	0.365	

Footnotes:

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#### FUEL CLAUSE RIDER

Section No. 5

4th Revised Sheet No. 64

Cancelling 3rd Revised Sheet No. 64

There shall be added to or deducted from the net monthly bill \$0.00001 per kilowatt-hour for each \$0.00001 increase above or decrease below \$0.01092 in the fuel cost per kilowatt-hour sales.

The fuel cost shall be the sum of the following for the most recent two month period plus unrecovered (or less over recovered) prior cumulative energy costs:

- 1. The fossil and nuclear fuel consumed in the Company's generating stations as recorded in Accounts 151 and 518.
- 2. The net energy cost of energy purchases as recorded in Account 555 exclusive of capacity or demand charges, when such energy is purchased on an economic dispatch basis. Account 555 includes hedging program gains, losses and transaction costs related to system supply, pursuant to Docket No. EL99-021.
- 3. The actual identifiable fossil and nuclear fuel costs associated with energy purchased for reasons other than identified in (2) above, less
- 4. The fuel related costs recovered through intersystem sales.
- 5. Net costs or revenues recorded in Accounts 456, 501 and 555 (and other appropriate accounts as determined by the Commission) linked to the Company's load serving obligation, associated with participation in wholesale electric energy and ancillary service markets operated by Regional Transmission Organizations, Independent System Operators or similar entities that have received Federal Energy Regulatory Commission approval to operate the energy markets.

#### 6. Any credits for the sale or transfer of Renewable Energy Credits allocated to the South Dakota jurisdiction.

The kilowatt-hour sales shall be all kilowatt-hours sold excluding intersystem sales for the same period.

A carrying charge or credit will be included in the determination of monthly fuel adjustment factors. Said charge or credit will be determined by applying one-twelfth of the overall rate of return granted by the South Dakota Public Utilities Commission in the most recent rate decision to the recorded balance of deferred fuel cost as of the end of the month immediately preceding the fuel adjustment factor determination.

Date Filed:		By: David M. Sparby	Effective Date:
	President and CEO of N	Northern States Power Company, a M	innesota corporation
Docket No.	EL09-		Order Date:



400 North Fourth Street Bismarck, ND 58501 (701) 222-7900

July 9, 2009

Ms. Patricia Van Gerpen Executive Director South Dakota Public Utilities Commission State Capitol Building 500 East Capitol Pierre, SD 57501

Re: 2009 Annual Renewable Energy Objective

Dear Ms. Van Gerpen:

Montana-Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc., hereby submits its 2009 report regarding South Dakota's renewable energy objective as required by SDCL 49-34A-105. Montana-Dakota also submits a completed Excel spreadsheet form supplied by Mr. Brian Rounds with the Commission Staff.

Sincerely,

mald R. Ball

Donald R. Ball Vice President – Regulatory Affairs

#### Montana-Dakota Utilities Co. Renewable Energy Objective Annual Report to the South Dakota Public Utilities Commission July 1, 2009 Update

#### Requirement

SDCL 49-34A-105. Annual reports concerning renewable and recycled energy objective. Beginning on July 1, 2009, each retail provider shall annually report to the Public Utilities Commission on the provider's energy sales during the twelve month period ending on the preceding December thirty-first. This report shall include information regarding qualifying electricity delivered and renewable energy and recycled energy certificates purchased and retired as a percentage of annual retail sales, the amount of conserved energy as a percentage of annual retail sales, and a brief narrative report that describes steps taken to meet the state renewable and recycled energy objective over time and identifies any challenges or barriers encountered in meeting the objective.

#### Report

Montana-Dakota's electric retail sales in the State of South Dakota for the twelve month period ending December 31, 2008 were 140,357 MWh. The South Dakota retail sales represented 5.9% of the Company's integrated system retail sales comprised of Montana-Dakota's jurisdictional sales in Montana, North Dakota and South Dakota.

Montana-Dakota completed the construction of a 19.5 MW wind farm near Baker, Montana (Diamond Willow) in February 2008 producing 56,045 MWh of renewable energy in calendar year 2008. Montana-Dakota's electric operations are within the boundaries of the Midwest Reliability Organization and the Diamond Willow wind resource was registered on the Midwest Renewable Energy Tracking System (M-RETS). The Diamond Willow resource has been designated with an identifier of "M-152" in the M-RETS system. 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. Montana-Dakota retired 34,718 of the renewable energy credits produced by Diamond Willow on February 24, 2009 to meet its obligations under Montana's Renewable Resource Standards. Montana-Dakota also received an allocation of 412 renewable energy credits based on its ownership interest in the Big Stone generating station for energy produced by biomass fuel in calendar year 2008.

Montana-Dakota is currently constructing a waste heat recovery unit on the Northern Border Pipeline near Glen Ullin, North Dakota with a nameplate

capacity of 7.5 MW with an expected completion date of July 2009. Plans are underway to complete construction of the Cedar Hills wind farm in 2010. Cedar Hills is a 19.5 MW wind farm located five miles west of Rhame, North Dakota. Plans are also underway for an additional 10.5 MW of wind at the Diamond Willow site near Baker, Montana in 2010.

Montana-Dakota continues to evaluate wind and other renewable resources available on the system in support of the South Dakota state renewable objective and will incorporate such resources as part of the resource mix when reasonable and economic to do so.

Company: Montana-Dakota Utilities Co.

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)	2,388,413	Montana-Dakota's Integrated System
SD (MWh)	140,357	
and the second		
Generation Capacity Owned		
Total - All States (MW)	517.7	
SD (MW)	103.7	
Renewable Generation Capacity Owned		
Total - All States (MW)		
Wind	19.5	
Solar		
New Hydro		
Old Hydro		
Hydrogen		
Biomass		
Geothermal		
Recycled		
Total - All States (MW)	19.5	
SD (MW)		
Wind		
Solar		
New Hydro		
Old Hydro		
Hydrogen Biomass		
Geothermal		
Recycled Total SD (MW)	0.0	
	0.0	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind		
Solar		
New Hydro		
Old Hydro		
Hydrogen		
Biomass		
Geothermal		
Recycled		
Total - All States (MWh)	0.0	
Generated in SD (MWh)		
Wind		
Solar		
New Hydro		
Old Hydro		
Hydrogen		
Biomass		
Geothermal		
Recycled		
Total SD (MWh)	0.0	

Company: Montana-Dakota Utilities Co.

Calendar Year 2008 RREO Report	Value	Comments
Renewable Energy Credits Retired for Other States	I the second second	
Total - Generated In All States (MWh)		~
Wind	34,718	r.
Solar		
New Hydro		
Old Hydro		
Hydrogen		
Biomass		
Geothermal		
Recycled		
Total - All States (MWh)	34,718	
Generated In SD (MWh)		
Wind		
Solar		
New Hydro		
Old Hydro		
Hydrogen		
Biomass		
Geothermal		
Recycled		
Total SD (MWh)	0	
Conserved Energy & Capacity		
Conserved Energy (MWh)		
Total - All States	1,707	
SD	0	Several programs are offered in South
		Dakota, but participation was less than
		measurable MWhs or MWs.
Conserved Capacity (MW)		
Total - All States	6.1	
SD	0.0	

Company: NorthWestern Energy

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)		Montana default supply sales plus South Dakota sales.
SD (MWh)	1,404,547	
Generation Capacity Owned		
Total - All States (MW)	Х	Montana did not own any generation in 2008.
SD (MW) Summer Rating	310.54	
SD (MW) Winter Rating	332.15	
Renewable Generation Capacity Owned Total - All States (MW)		Montana did not own any renewable generation in 2008.
Wind	Х	Montana did hot own any renewable generation in 2008.
Solar	X	
New Hydro	Х	
Old Hydro	Х	
Hydrogen	X	
Biomass Geothermal	X	
Recycled	X	
Total - All States (MW)	0	
SD (MW)	0	
Wind Solar	0	
New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal Recycled	0	
Total SD (MW)	0	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)	V	
Wind Solar	X	
New Hydro	X	
Old Hydro	Х	
Hydrogen	Х	
Biomass	X	
Geothermal Recycled	X	
Total - All States (MWh)	-	
Generated in SD (MWh)		
Wind	0	
Solar New Hydro	0	
Old Hydro	0	
Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total SD (MWh)	U	
Renewable Energy Credits Retired for Other States		
Total - Generated In All States (MWh)	296,696	Montana RECs retired - all based on Judith Gap wind production.
Wind	296,696	
Solar New Hudro	X	
New Hydro Old Hydro	X	
Hydrogen	X	
Biomass	Х	
Geothermal	X	
Recycled	296,696	
Total - All States (MWh)	290,090	
Generated In SD (MWh)		
Wind	0	
Solar	0	
New Hydro	0	
Old Hydro Hydrogen	0	
Biomass	0	
Geothermal	0	
Recycled	0	
Total SD (MWh)	0	
Conserved Energy & Capacity		
Conserved Energy & Capacity Conserved Energy (MWh)		
Total - All States	51,615	Montana DSM program results in 2008.
Total - All States	51,615 0	Montana DSM program results in 2008.
Total - All States		Montana DSM program results in 2008.

## **Appendix B** Form Distributed to Utilities

Please provide a value in each of the boxes below with an "X" in it.

Company: X

Calendar Year 2008 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)	Х	
SD (MWh)	Х	
	_	
Generation Capacity Owned	×	
Total - All States (MW) SD (MW)	X X	
SB (MW)	^	
Renewable Generation Capacity Owned		
Total - All States (MW)		
Wind	Х	
Solar	Х	
New Hydro	X X X X	
Old Hydro	X	
Hydrogen	X	
Biomass	X	
Geothermal Recycled	X	
Total - All States (MW)	0	
	-	
SD (MW)		
Wind	Х	
Solar		
New Hydro	X X X X	
Old Hydro	X	
Hydrogen	X	
Biomass Geothermal	X	
Recycled	X	
Total SD (MW)	0	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		
Wind	Х	
Solar	X	
New Hydro	X	
Old Hydro	X	
Hydrogen Biomass	X	
Geothermal	X X X X X X X	
Recycled	Х	
Total - All States (MWh)	0	
Generated in SD (MWh)		
Wind	Х	
Solar	X	
New Hydro	X	
Old Hydro Hydrogen	×	
Biomass	X	
Geothermal	X X X X X X X	
Recycled	Х	
Total SD (MWh)	0	
Renewable Energy Credits Retired for Other States		
Total - Generated In All States (MWh)	-	
Wind	X	
Solar New Hydro	X X X X	
New Hydro Old Hydro	X	
Hydrogen	x	
Biomass	X	
Geothermal	Х	
Recycled	Х	
Total - All States (MWh)	0	
Generated In SD (MWh)	-	
Wind	X	
Solar New Hydro	×	
Old Hydro	×	
Hydrogen	x	
Biomass	X	
Geothermal	X X X X X X X X X X	
Recycled	Х	
Total SD (MWh)	0	
Conserved Energy & Capacity		
Conserved Energy (MWh) Total - All States		
Total - All States SD	X	
Conserved Capacity (MW)	^	
Total - All States	х	
	X	

## **Appendix C** Summarized Utility Responses

	<u>له</u>	-	-	-		-					-
	Black Hills Power	MidAmerican Energy	Montana-Dakota Utilities	NorthWestern Energy	Otter Tail Power	Xcel Energy	Basin Electric Power Cooperative	East River Electric Power Cooperative	Missouri River Energy Services	Heartland Consumers Power Disc.	Total Total
Retail Sales	a di	Σŭ	25	ž ū	0	l× .	ต์ฉับ	யீடிப்	Σü	ĨŰŰ	~
Total - All States (MWh)	2,330,870	20,928,958	2,388,413	7,374,249	4,215,442	42,563,508	14,071,282	2,869,251	2,106,400	703,882	97,221,385
SD (MWh)	1,466,488	200,793	140,357	1,404,547	426,079	1,942,545	3,006,945	2,560,929	617,543	203,560	10,503,298
% Retail Sales in SD	62.92%	0.96%	5.88%	19.05%	10.11%	4.56%	21.37%	89.25%	29.32%	28.92%	10.80%
Generation Capacity Owned		0.045		040.54	707.4	44.007	0.000		005 5		
Total - All States (MW) SD (MW)	434	6,915 59	517.7 103.7	310.54 332.15	767.1 270.9	11,667 445	2,828 169	0	625.5 55.2	55	23,686 1,439
% Capacity in SD	40.32%	0.85%	20.03%	106.96%	35.31%	3.81%	5.98%	NA	8.82%	7.27%	6.08%
/· · · · · · · · · · · · · · · · · · ·											
Renewable Generation Capacity Owned											
Total - All States (MW)											
Wind		1,284	19.5		88.5	1,214	136		42.4		2,784
Solar New Hydro											
Old Hydro		4			4.2	281			339		628
Hydrogen						201			000		010
Biomass					245.8	304					550
Geothermal											
Recycled	-			-			33	-	1.595		35
Total - All States (MW)	0	1,288	19.5	0	338.5	1,799	169	0	382.995	0	3,997
SD (MW)											
Wind		11				54	42.6				108
Solar							0				
New Hydro											
Old Hydro									100		100
Hydrogen					245.8						
Biomass Geothermal					245.0						
Recycled							16.5		0.291		17
Total SD (MW)	0	11	0	0	245.8	54	59.1	0	100.291	0	470
RECs Retired for SD											
Total - Generated In All States (MWh)		4 000			000						4 000
Wind Solar		1,393			209						1,602
New Hydro											
Old Hydro		143									143
Hydrogen											
Biomass		289									289
Geothermal											
Recycled	0	1,825	0	0	209	0	0	0	0	0	2,034
Total - All States (MWh)	U	1,025	U	U	209	U	U	U	U	U	2,034
Generated in SD (MWh)											
Wind											
Solar											
New Hydro											
Old Hydro											
Hydrogen Biomass											
Geothermal											
Recycled											
Total SD (MWh)	0	0	0	0	0	0	0	0	0	0	0
RECs Retired for Other States Total - Generated In All States (MWh)											
Wind		441,949	34,718	296,696	2,514	432,586	28,205	2,379	13,193	4,956	1,257,196
Solar		,010	,,, , , , , J		_,0.1			_,0.0	,	.,500	,,
New Hydro											
Old Hydro		16,663			21,794	120,950					159,407
Hydrogen		04.075				140.070					000.075
Biomass Geothermal		94,675				142,270					236,945
Recycled							30,608				30,608
Total - All States (MWh)	0	553,287	34,718	296,696	24,308	695,806	58,813	2,379	13,193	4,956	1,684,156
Generated In SD (MWh)											
Wind					155	15,401				4,956	20,512
Solar New Hydro											
New Hydro Old Hydro											
Hydrogen											
Biomass											
Geothermal											
Recycled							23,960				23,960
Total SD (MWh)	0	0	0	0	155	15,401	23,960	0	0	4,956	44,472
Concerned Energy 8 Courseling											
Conserved Energy & Capacity Conserved Energy (MWh)											
Total - All States	NT	1,070,025	1,707	51,615	16,130	549,892	NT	NT	6,238	107	1,695,714
SD	NT	1,070,025	1,707	01,013	135	549,692	NT	NT	1,104	93	1,695,714
Conserved Capacity (MW)		Ū	Ū	Ū		Ū			.,		.,
		504		E 0		0.065	NT	NT	1 505	101	650
Total - All States	NT NT	534 0	6.1	5.9 0	3.5 0.1	0.365	NT	NT	1.595 0.291	88	652 89

## Appendix D

1-29-09 Report to the Legislature

### South Dakota Renewable and Recycled Energy Objective Annual Reports

The 2008 South Dakota Legislature established a voluntary state renewable and recycled energy objective for retail providers of electricity. The objective is that 10 percent of all electricity sold at retail within South Dakota by 2015 be obtained from renewable and recycled energy sources. The legislation required each provider to file an annual report with the South Dakota Public Utilities Commission regarding the provider's energy sales. See SDCL 49-34A-101 – 49-34A-106. <u>http://legis.state.sd.us/statutes/DisplayStatute.aspx?Statute=49-34A&Type=Statute</u>

Following are the responses from South Dakota's energy providers for the one-year period ending September 30, 2008.

ENERGY PROVIDER	TOTAL (MWh)	<b>RENEWABLE (MWh)</b>	PERCENTAGE
Basin Electric Power Cooperative <sup>1</sup>	242,893	Not specifically reported	Not specifically reported
Black Hills Power	Not reported	0	0%
East River Electric Power Cooperative <sup>2</sup>	1,825,135 <sup>3</sup>	83,956	4.6%
Heartland Consumers Power District <sup>4</sup>	197,866	0	0%
MidAmerican Energy Company	200,883	1,186 <sup>5</sup>	0.59%
Missouri River Energy Services <sup>6</sup>	606,558	0	0% <sup>7</sup>
Montana-Dakota Utilities Company	136,853	Not specifically reported	Not specifically reported
NorthWestern Energy	1,383,498	28,600	2.06%
Otter Tail Power Company	424,573.808	20,987.763	5.23% <sup>8</sup>
Xcel Energy	1,940,735	0	0% <sup>9</sup>

See complete company reports online at <u>www.puc.sd.gov/energy/reo.aspx</u>

<sup>&</sup>lt;sup>1</sup> Reporting for Ellsworth Air Force Base, Grand Electric Cooperative, Rosebud Electric Cooperative, and Rushmore Electric Power Cooperative G&T

<sup>&</sup>lt;sup>2</sup> Reporting for its 19 members located in South Dakota

<sup>&</sup>lt;sup>3</sup> Excludes hydro generation

<sup>&</sup>lt;sup>4</sup> Reporting for its 21members

<sup>&</sup>lt;sup>5</sup> MWhs were calculated by PUC staff based on the percentage reported. MidAmerican chose not to take credit for renewable generation associated with renewable energy certificates sold to other entities.

<sup>&</sup>lt;sup>6</sup> Reporting for its 12 municipal utility members in South Dakota

<sup>&</sup>lt;sup>7</sup> Although MRES owns renewable generation, it has chosen not to retire any renewable energy credits for South Dakota's voluntary standard at this time.

<sup>&</sup>lt;sup>8</sup> Excludes hydro generation

<sup>&</sup>lt;sup>9</sup> Although Xcel Energy owns renewable generation, it has chosen not to retire any renewable energy credits for South Dakota's voluntary standard at this time.