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June 29, 2012

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 218-739-8693 or kkaseman@otpc.com.

Sincerely,

/s/ KERRY KASEMAN
Kerry Kaseman
Resource Planner

pmm
Enclosures
By electronic filing

**Renewable, Recycled, and Conserved Energy
Objective Compliance Report
to the
South Dakota Public Utilities Commission**



**Report RP12-04
Resource Planning Department
June 2012**

By: Kerry Kaseman

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 kkaseman@otpc.com.

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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 fourth 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 2015.¹

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.

¹ 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 requirements² 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,³ 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.

² 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.

³ 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.⁴ Renewable and recycled energy includes electricity generated from solar, wind, biomass,⁵ geothermal, hydrogen,⁶ hydroelectric (must be from a facility with an in-service 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.⁷ 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, 2008.⁸ Renewable and recycled energy include electricity generated from solar, wind, biomass,⁹ geothermal, hydrogen,¹⁰ hydroelectric (statutes 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 will be measured by methods established by rules promulgated by the commission pursuant to chapter 1-26.

⁴ North Dakota Century Code §49-02-30.

⁵ Including agricultural crops and wastes and residues, wood and wood wastes and residues, animal wastes, and landfill gas.

⁶ Provided that the hydrogen is generated from a source listed in this section of North Dakota Century Code §49-02-25.

⁷ South Dakota Codified Laws §49-34A-101.

⁸ South Dakota Codified Laws §49-34A-103.

⁹ Includes agricultural crops and wastes and residues, wood and wood wastes and residues, animal and other degradable organic wastes, and landfill gas.

¹⁰ Provided that the hydrogen is generated from a source listed in this section of South Dakota Codified Laws §49-34A-94.

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. For 2011, the amount of energy from unregistered renewable energy resources was about 706 MWh.

Otter Tail has developed an account structure within M-RETS to help segregate Renewable Energy Certificates (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 unless the RECs are sold.

The Otter Tail M-RETS accounts include a retirement account by state jurisdiction by year. Thus it is 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. While Otter Tail began recording energy from renewable energy resources within M-RETS in the last half of 2007, when the M-RETS system first became operational, the Company began full use of the M-RETS system for reporting verification beginning with the first full calendar year commencing January 1, 2008.

Through 2011, Otter Tail did not purchase any RECs. All energy used for compliance was energy generated by Otter Tail or energy purchased by Otter Tail under power purchase agreements that include renewable energy attributes.

During 2011, Otter Tail sold 530,415 RECs. These RECs had a 2009, 2010, and 2011 vintage, and were created by wind facilities located in the state of North Dakota and owned by Otter Tail or obtained by Otter Tail through wind energy purchased power agreements that include renewable energy attributes.

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. Resources are listed in Appendix A if they are resources planned in Otter Tail's Integrated Resource Plan or are customer-owned. Customer-owned facilities are included in Appendix A if an interconnection agreement has been signed or there is agreement on key terms of a purchase power agreement.

SOUTH DAKOTA RENEWABLE AND RECYCLED ENERGY

The following data is for the January 1, 2011 – December 31, 2011 time period. The data assumes that energy from renewable energy resources is allocated across the Otter Tail system based on retail sales kWh. The exception to this allocation methodology is that *TailWinds* 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 Generated During The Period January 1, 2011 – December 31, 2011			
Resource	Total kWh	SD Percentage¹¹	SD kWh
FPLE ND Wind II	64,417,849	9.66%	6,223,446
Customer A	4,020,159	9.60%	385,950
FPLE Langdon	77,501,047	9.68%	7,502,572
OTP Langdon	160,883,237	9.68%	15,574,798
Ashtabula Wind	164,048,580	9.67%	15,864,472
Luverne Wind	178,031,333	9.68%	17,230,879
South Dakota <i>TailWinds</i>	188,115	100.0%	188,115
OTP Owned Hydro	24,948,784	9.73%	2,427,337
WAPA Hydro	29,870,428	9.72%	2,903,665 ¹²

¹¹ Energy is allocated to jurisdictions based on monthly jurisdictional retail sales.

¹² The WAPA hydroelectric energy is an allocation to five Native American tribes.

South Dakota Renewable and Recycled Energy Compliance January 1, 2011 – December 31, 2011	
South Dakota Retail Sales	418,045,511 kWh
Less Hydro Energy Adjustment	-5,331,002 kWh
Net SD Retail Sales for REO Compliance	412,714,509 kWh
South Dakota Renewable Energy	62,970,231 kWh
¹³ SD REO Compliance Percentage Potential	15.26%

The data shows that Otter Tail is well positioned to comply with the South Dakota statute. The level of compliance will increase as the 2011-2025 Otter Tail resource plan includes the potential addition of 50 MW of nameplate wind generation capacity. If the Federal Production Tax Credit is extended, Otter Tail plans to have the additional 50 MW operational by late 2013. Otter Tail will sell excess RECs and/or bank RECs for future use.

¹³ OTP may sell RECs to third parties. RECs sold to third parties would not be eligible for regulatory compliance.

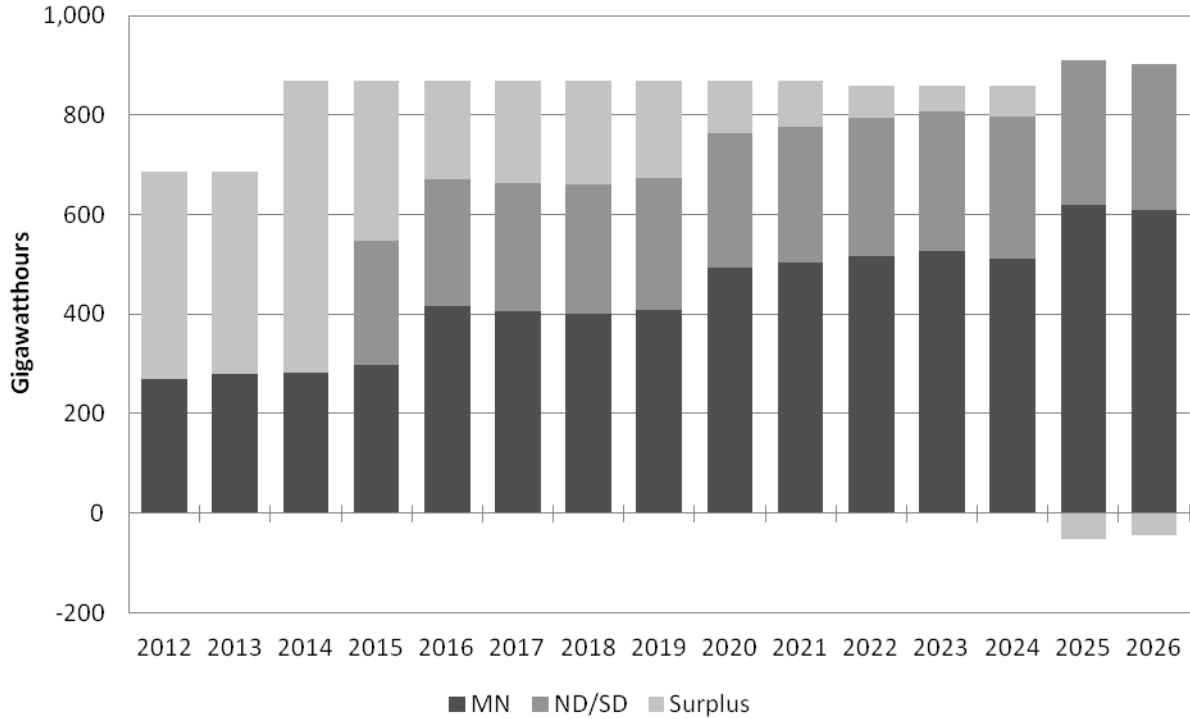
FORECAST OF FUTURE REO/RES COMPLIANCE

Combined with energy output from the 49.5 MW Luverne Wind Farm, the 48 MW the Company owns at the Ashtabula Wind Farm, energy output from the 60 MW the Company owns or purchases from the Langdon Wind Farm, and an additional 50 MW planned to be operational at the end of 2013, 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 energy from renewable energy resources compared to the REO/RES requirements going out to 2026. The graph assumes that all RECs are counted for compliance in the year they are generated and are not banked for future compliance use. The graph includes 50 MW planned to be operational at the end of 2013. 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 North Dakota and South Dakota requirements are very similar and are lumped together in the graph. As demonstrated in the graph, Otter Tail expects by 2014 to have sufficient energy from renewable energy resources available to comply with state REO/RES requirements until beyond 2024.

**Renewable Energy Available vs REO/RES
Requirements
Does Not Include Any Banking of Allowances
As of May 9, 2012**



BARRIERS TO REO/RES COMPLIANCE

At this time, Otter Tail Power Company does not see any substantial obstacles to meeting the South Dakota Renewable, Recycled, and Conserved Energy Objective. The Company has been and continues to be well ahead of current objectives and standards. Rate impacts or reliable integration of higher levels of intermittent resources could influence achievement of the objectives and standards.

Looking ahead, the most significant potential obstacles from our perspective fall into three basic categories, including:

- **Transmission**
 - **Interconnection queue** - The Midwest Independent Transmission System Operator (MISO) interconnection queue has been a major impediment to the development of any resource because interconnection queue process timelines don't match up well with project development timelines.
 - **Transmission Congestion** - As more and more wind generation is developed in the upper Midwest, the transmission system continues to become more and more congested. This congestion creates issues with both economic dispatch of wind generation and the siting of new wind farms.

- **Economic and financing issues** - The recent economic downturn is hampering the development of renewable resources because there is less capital available at a higher cost than before the downturn.

- **Retail Sales Uncertainty** - Planning for the REO-RES requirements requires forecasting retail sales since the requirements are based on a percentage of retail sales. There are many factors that go into forecasting retail sales and there is some uncertainty surrounding those factors. One such factor is energy efficiency and conservation. The 2011-2025 Otter Tail integrated resource plan selects significant levels of economic and achievable energy efficiency and conservation over the planning horizon. Energy efficiency, by reducing load, can reduce the amount of renewable energy credits that must be secured for compliance with REO-RES requirements in each of the Company's respective jurisdictions. If the conservation levels are not realized as

planned, the annual REO-RES requirements will be greater and consume more of the Company's banked renewable energy credits and/or annual generation. Therefore, the barriers to REO-RES compliance are tied to any barriers in achieving energy efficiency objectives.

Potential solutions under consideration by OTP to the obstacles described:

- Transmission - OTP is a part of the CAPX 2020 group proposing new major high voltage transmission. The CAPX 2020 transmission additions will not alone resolve transmission congestion. During the past year the MISO approved revisions to its tariff creating a transmission investment category called Multi-value Projects ("MVP"). One criteria to being designated as an MVP project is to help meet states renewable objectives and standards. Some MVP's have been approved in this region and should result in a greater build-out of renewable resources that could be used to meet renewable energy objectives and standards.
- FERC also approved a new interconnection process for MISO. This new process will allow projects that are ready to proceed to construction move forward.
- Economic and financing issues – OTP has taken steps to maintain or improve its external credit ratings, such as forming a holding company effective July 1, 2009, which may foster lower financing costs for the utility. Other items that the Company pursues are timely cost recovery on investments in order to match revenues with the capital investment.
- Retail Sales Uncertainty – OTP continually updates its load forecast which will allow it to adapt should load or conservation levels change materially from forecast.
- Early Adaptor - OTP has added large quantities of renewable energy resources over the past few years. OTP is well ahead of REO-RES compliance deadlines in all three jurisdictions it serves. With the expected addition of a 50 MW wind farm in 2013/2014, OTP expects to have sufficient renewable energy resources available to comply with state REO-RES requirements until beyond 2024.

SUMMARY

Otter Tail has stepped forward with its development of renewable energy resources for a variety of reasons and is completing new renewable energy resources ahead of REO/RES requirements. The 2006-2020 Otter Tail integrated resource plan called for 160 MW of new wind generation. Otter Tail has completed that amount of wind generation addition to the system. The 2011-2025 Otter Tail integrated resource plan calls for an additional 50 MW of new wind generation to be operational at the end of 2013. All of these wind additions have been part of an economic least cost mix of resources and have not been added for the sole purpose of complying with renewable energy objectives or standards.

Part of the reason why the capacity expansion modeling is showing wind additions as economic is because of the federal PTC and wind development incentives in North Dakota. The PTC reduces the cost of wind generation by about 33% and is currently set to expire after 2012. The wind development incentives in North Dakota also improve economics and have sunset provisions. OTP has a large portion of its energy needs met from market purchases and therefore adding low cost wind generation has allowed it to offset a portion of the market purchase costs.

With the current renewable resources and the 50 MW planned for 2013, additional resources for REO/RES compliance will likely not be needed until sometime after 2024. However, additional renewable resources may be added earlier if they are economic. There are many uncertainties going forward with all forecasts, including load growth, conservation efforts, and customer-owned renewable resources but Otter Tail remains well ahead of renewable requirements and therefore is positioned to be in compliance for many years to come.

APPENDIX A – RENEWABLE AND RECYCLED ENERGY RESOURCES

Existing Renewable Energy Resources							
Name	State	kW Rating	Vintage	Technology	Power Source	Owned/PPA	State Eligibility
TailWinds	MN and SD	1,890	2001-2003	Wind	Wind	PPA	TailWinds ¹⁴
FPLE ND Wind II	ND	21,000	2003	Wind	Wind	PPA	MN, ND, SD
FPLE Langdon	ND	19,500	2007	Wind	Wind	PPA	MN, ND, SD
OTP Langdon	ND	40,500	2008	Wind	Wind	Owned	MN, ND, SD
Ashtabula Wind	ND	48,000	2008	Wind	Wind	Owned	MN, ND, SD
Luverne Wind	ND	49,500	2009	Wind	Wind	Owned	MN, ND, SD
Various Small Solar Producers	MN	7	2008-2012	Photovoltaic	Sun	PPA	MN, ND, SD
Various Small Wind Producers	MN	3,823	1997-2011	Wind	Wind	PPA	MN, ND, SD
Biogas Producer	MN	2,130	2010	Internal Combustion	Biogas	PPA	MN, ND, SD
Various Small Solar Producers	ND	2	2011	Photovoltaic	Sun	PPA	MN, ND, SD
Various Small Wind Producers	ND	1074	1985-2011	Wind	Wind	PPA	MN, ND, SD
Various Small Solar Producers	SD	40	2010-2011	Photovoltaic	Sun	PPA	MN, ND, SD

¹⁴ Wind energy purchased from EMS in SD and Hendricks and Borderline in MN. At this time TailWinds energy counts in ND and SD, but not MN. TailWinds is the Company’s green pricing tariff and the energy is counted only as customers purchase the energy, not as it is generated.

Existing Renewable Energy Resources (Continued)							
Various Small Wind Producers	SD	2.6	2009	Wind	Wind	PPA	MN, ND, SD
Bemidji Hydro	MN	200	1907	Hydro	Water	Owned	MN
Taplin Gorge	MN	500	1925	Hydro	Water	Owned	MN
Hoot Lake	MN	800	1914	Hydro	Water	Owned	MN
Pisgah	MN	700	1918	Hydro	Water	Owned	MN
Wright	MN	500	1922	Hydro	Water	Owned	MN
Dayton Hollow	MN	1,000	1909	Hydro	Water	Owned	MN
WAPA Hydro	Several	5,566	Various	Hydro	Water	PPA	None
Planned and Expected Future Renewable Energy Resources							
Name	State	kW Rating	Vintage	Technology	Power Source	Owned/PPA	State Eligibility
IRP Wind	Undetermined	50,000	Late 2013	Wind	Wind	Undetermined	MN, ND, SD

APPENDIX B - CALENDAR YEAR 2011 RREO REPORT

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

Company:
Otter Tail Power Company

Calendar Year 2011 RREO Report	Value	Comments
Retail Sales		
Total - All States (MWh)	4,303,158	
SD (MWh)	418,046	
Generation Capacity Owned		
Total - All States (MW)	959.0	Based on Net Dependable Capacity of owned generation facilities and contracted capacity.
SD (MW)	285.5	Based on Net Dependable Capacity of owned generation facilities and contracted capacity.
Renewable Generation Capacity Owned		
Total - All States (MW)		
Wind	178.5	40.5 MW is purchased through long-term purchased power agreements and 138 MW is owned, all located in ND
Solar	-	
New Hydro	-	
Old Hydro	2.7	Owned and located in MN
Hydrogen	-	
Biomass	2.1	Purchase 2.1 MW from a biogas producer located in MN
Geothermal	-	
Recycled	-	
Total - All States (MW)	183.3	
SD (MW)		
Wind	-	
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total SD (MW)	-	
Renewable Energy Credits Retired for SD		
Total - Generated In All States (MWh)		No Renewable Energy Credits were Retired for SD in 2011
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	146,013	REC's retired for MN REO/RES. From the following units-location of units: Ashtabula Wind Center-ND, Borderline Wind LLC-MN, FPL Energy ND Wind II LLC-ND, Langdon Wind Farm-ND.
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total - All States (MWh)	146,013	
Generated In SD (MWh)		
Wind	2,245	Unit-location of unit: Borderline Wind LLC-MN
Solar	-	
New Hydro	-	
Old Hydro	-	
Hydrogen	-	
Biomass	-	
Geothermal	-	
Recycled	-	
Total SD (MWh)	2,245	
Conserved Energy & Capacity		
Conserved Energy (MWh)		
Total - All States	30,869	
SD	2,912	
Conserved Capacity (MW)		
Total - All States	6.9	
SD	0.6	