

REPORT TO THE MINNESOTA LEGISLATURE

PROGRESS ON COMPLIANCE BY ELECTRIC UTILITIES WITH THE MINNESOTA RENEWABLE ENERGY OBJECTIVE AND THE RENEWABLE ENERGY STANDARD



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JANUARY 14, 2013

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The Minnesota Department of Commerce, Division of Energy Resources (Commerce or the Department) offers the following report on the progress of Minnesota’s electric utilities’ compliance with the Minnesota Renewable Energy Objective (REO) and the Renewable Energy Standard (RES) contained in Minn. Stat. §216B.1691.

INTRODUCTION

Commerce provides this report in compliance with Minn. Stat. §216B.1691, subd. 3(b) which requires a biannual report to the Legislature on “the progress of utilities in the state, including the progress of each individual electric utility, in increasing the amount of renewable energy provided to retail customers,” along with the compilation of the following information from each utility:

- The status of the utility’s renewable energy mix relative to the objective and standards;
- Efforts taken to meet the objective and standards;
- Any obstacles encountered or anticipated in meeting the objective or standards; and
- Potential solutions to the obstacles.

This RES Report is divided into the following sections:

- Legislative History
- RES Reporting Requirements
- 2011 RES Compliance
- Ability to Comply with 2012 RES Requirements
- Obstacles and Potential Solutions for Meeting Future RES Requirements
- Summary and Conclusions

I. LEGISLATIVE HISTORY

A. *ADOPTION OF A RENEWABLE ENERGY OBJECTIVE*

The Minnesota Renewable Energy Objective (REO) contained in Minnesota Stat. §216B.1691 (REO Statute) was first enacted by the Minnesota Legislature in 2001. As originally enacted the Statute required electric utilities to “make a good faith effort” to obtain ten percent of their Minnesota retail energy sales from eligible energy sources by 2015, and to obtain 0.5 percent of their renewable energy from biomass technologies. Under the REO Statute, Xcel Energy was required to meet a ten percent renewable energy standard.

In 2003, the Legislature amended the REO Statute to require the Minnesota Public Utilities Commission (Commission) to supervise and facilitate utilities’ good faith efforts to meet their REO obligations. Specifically, the REO Statute was amended to require the Commission to issue an initial Order and subsequent Orders as necessary to:

- Detail criteria and standards for measuring a utility’s efforts to meet the REO, and for determining whether a utility has met the good faith requirement;
- Detail criteria and standards that protect against undesirable impacts on the reliability of the utility’s system, undesirable economic impacts to a utility’s ratepayers, and that consider technical feasibility;

- Provide a weighted scale that determines how energy generated by different technologies counts toward a utility's objective and that grants multiple credits for technologies and fuels the Commission finds in the public interest to encourage; and
- Consider the establishment of a program for tradeable renewable energy credits.

The Commission subsequently solicited comments from interested parties, and issued a series of Orders setting forth the criteria for measuring an electric utility's good faith efforts in meeting the REO Statute.¹

B. ADOPTION OF A RENEWABLE ENERGY STANDARD

During the 2007 Legislative session, Minn. Stat. §216B.1691 was amended to:

- 1) Establish a Renewable Energy Standard (RES) with specified mandated renewable energy goals beginning in 2010;
- 2) Amend the definition of an eligible energy technology;
- 3) Require the Commission to establish a trading system for renewable credits; and
- 4) Establish criteria under which the Commission may waive or extend the deadline for meeting the RES targets.

1. *The Renewable Energy Standard*

Consistent with the earlier REO, the RES Statute requires that a utility generate or procure at least one percent of its retail electric sales from an eligible energy technology beginning in 2005 increasing to seven percent by 2010. However, unlike the REO, the RES mandates that electric utilities procure this level of energy. Beginning in 2010 for Xcel, and 2012 for all other utilities, the RES Statute added Minn. Stat. §216B.1691, subd. 2(a) and (b) to require:

- (a) Except as provided in paragraph (b), 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 service, so that at least the following standard percentages of the electric utility's total retail electric sales to retail customers in Minnesota is generated by eligible energy technologies by the end of the year indicated:

¹ *In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility's Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. §216B.1691*, Docket No. E999/CI-03-869, Initial Order Detailing Criteria and Standards for Determining Compliance with Minn. Stat. §216B.1691 and Requiring Customer Notification by Certain Cooperative, Municipal, and Investor-Owned Distribution Utilities. (June 1, 2004).

In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility's Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. §216B.1691, Docket No. E999/CI-03-869; *In the Matter of a Commission Investigation into a Multi-State Tracking and Trading System for Renewable Energy Credits*, Docket No. E999/CI-04-1616, Second Order Implementing Minn. Stat. §216B.1691, Opening Docket to Investigate Multi-State Program for Tracking and Trading Renewable Credits and Requesting Periodic Updates from Stakeholder Group; (October 19, 2004).

In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility's Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. §216B.1691, Docket No. E999/CI-03-869, Order After Reconsideration (August 13, 2004).

- 1) 2012 12 percent
- 2) 2016 17 percent
- 3) 2020 20 percent
- 4) 2025 25 percent

(b) An electric utility that owned a nuclear generating facility as of January 1, 2007, must meet the requirements of this paragraph rather than paragraph (a). An electric utility subject to this paragraph must 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 percentages of the electric utility's total retail electric sales to retail customers in Minnesota is generated by eligible energy technologies by the end of the year indicated:

- 1) 2010 15 percent
- 2) 2012 18 percent
- 3) 2016 25 percent
- 4) 2020 30 percent

Of the 30 percent in 2020, at least 25 percent must be generated by wind energy conversion systems and the remaining five percent by other eligible energy technologies.

In its March 19, 2010 Order, the Commission clarified that the percentages of total retail sales that utilities must generate or procure from renewable energy apply for every year forward until the next year percentage identified by the statute. Consequently, for 2011 Xcel's RES requirement remained at 15 percent, and all other utilities remained at 7 percent.

In 2010, the RES Statute definition of total retail electric sales was amended to exclude "the sale of hydroelectricity supplied by a federal power marketing administration or other federal agency, regardless of whether the sales are directly to a distribution utility or are made to a generation and transmission utility and pooled for further allocation to a distribution utility." The amendment results in the exclusion of power provided by the Western Area Power Administration from total retail sales.

2. *Changes to the Definition of an Eligible Energy Technology*

Minn. Stat. §216B.1691, subd. 1 defines an eligible energy technology as one that:

Generates electricity from the following renewable energy sources: (1) solar; (2) wind; (3) hydroelectric with a capacity of less than 100 megawatts; (4) hydrogen provided that after January 1, 2010, the hydrogen must be generated from the resources listed in this clause; or (5) biomass, which includes, without limitation, landfill gas; an anaerobic digester system; the predominantly organic components of wastewater effluent, sludge, or related by-products from publicly owned treatment works, but not including incineration of wastewater sludge to produce electricity; and an energy recovery facility used to capture the heat value of mixed municipal solid waste or refuse-derived fuel from mixed municipal solid waste as a primary fuel.

The definition of an eligible energy technology cited above reflects a number of changes made by the Legislature since eligible technologies were originally defined under the REO Statute. Specifically, the capacity of hydroelectric facilities eligible for RES compliance was increased from 60 to 100 megawatts, and the definition of biomass was clarified to include landfill gas, and anaerobic digester systems. Finally, the restriction was lifted on Xcel's ability to count biomass and wind generation from its Prairie Island Legislative mandates.² The 2007 amendments to the RES Statute render generation from these mandates eligible to count toward RES compliance.

3. *The Use of Renewable Energy Certificates to Meet RES Requirements*

The 2003 amendment to Minn. Stat. §216B.1691, subd. 4, provided that the Commission "may establish a program for tradable credits for electricity generated by eligible energy technology." The 2007 amendment to Minn. Stat. §216B.1691, subd. 4 required the Commission to establish a program for tradable Renewable Energy Credits (RECs) by January 1, 2008, and to require all electric utilities to participate in a Commission-approved REC tracking system once such a system was in operation.

In an October 2007 Order, the Commission approved the use of the Midwest Renewable Energy Tracking system (M-RETS) as the REC tracking system under Minn. Stat. §216B.1691, subd. 4(d), and required Minnesota utilities to participate.³ In addition, the Commission directed utilities to make a substantial and good faith effort to create a system account and sub-accounts for its organization, and to register its generation units/facilities in the M-RETS system by March 1, 2008.

In its December 18, 2007 *Order Establishing Initial Protocols for Trading Renewable Energy Credits*, the Commission adopted a four-year shelf life for RECs.⁴ A four year shelf life means the REC is eligible for use meeting the RES requirements in the year of generation and for four years following the year of generation.

Finally, in its December 3, 2008 *Third Order Detailing Criteria and Standards for Determining Compliance under Minn. Stat. §216B.1691 and Setting Procedures for Retiring Renewable Energy Credits*, the Commission directed utilities to begin retiring RECs equivalent to one percent of their Minnesota annual retail sales for the 2008 and 2009 compliance year by May 1st of the following year. Upon retirement, RECs are transferred into a specific Minnesota RES retirement account and, once retired, are not available to meet other state or program requirements, thus addressing the statutory prohibition against double counting the RECs and promoting the environmental benefits of renewable energy. The Commission further directed the utilities to submit a compliance filing demonstrating their compliance with the RES by June 1st.

² As part of earlier Legislative authorization for additional storage for spent nuclear fuel at Xcel's Prairie Island nuclear facility, Xcel was required to obtain 825 MW of wind energy (Minn. Stat. §216B.2423) and 125 MW of biomass energy (Minn. Stat. §216B.2424).

³ *In the Matter of a Commission Investigation into a Multi-State Tracking and Trading System for Renewable Energy Credits*, Docket No. E999/CI-04-1616, Order Approving Midwest Renewable Energy Tracking System (M-RETS) Under Minn. Stat. §216B.1691, Subd. 4(d), and Requiring Utilities to Participate in M-RETS (October 9, 2007).

⁴ *In the Matter of a Commission Investigation into a Multi-State Tracking and Trading System for Renewable Energy Credits*, Docket No. E999/CI-04-1616, Order Establishing Initial Protocols for Trading Renewable Energy Credits (December 18, 2007).

4. *Criteria for Waiving or Extending the RES Requirements*

The RES Statute was amended to include criteria under which the Commission may find it in the public interest to modify or delay implementation of the RES requirements. Among the factors the Commission must consider are:

- 1) The impact on customer's utility costs, including the economic and competitive pressure on the utility's customers;
- 2) The effects on electric system reliability;
- 3) Technical advances and concerns;
- 4) Rejection or delays in obtaining site and route permits;
- 5) Delays, cancellations or nondelivery of necessary equipment for construction of a facility;
- 6) Transmission constraints; and
- 7) Other statutory obligations imposed on the Commission or utility. [Minn. Stat. §216B.1691, subd. 2b]

Upon a petition by a utility, the Commission may modify or delay an RES standard under numbers (1) to (3) "only if it finds implementation would cause significant rate impact, requires significant measures to address reliability, or raises significant technical issues." For the remaining items, Minn. Stat. §216B.1691, subd. 2b allows modification or delay in the implementation of a standard only if the Commission "finds that the circumstances described in those clauses were due to circumstances beyond an electric utility's control and make compliance not feasible." To date, no utility has requested a modification or delay in the implementation of the RES requirements.

II. RES REPORTING REQUIREMENTS

A. ENTITIES SUBJECT TO THE RES REQUIREMENTS

Minn. Stat. §216B.1691, subd. 1(b) defines an electric utility as "a public utility providing electric service, a generation and transmission cooperative electric association, a municipal power agency, or a power district."

Based on the statutory definition of an electric utility, the Commission has determined that the following entities are subject to the RES Statute:

- Basin Electric Power Cooperative
- Central Minnesota Municipal Power Agency (CMMPA)
- Dairyland Power Cooperative
- East River Electric Cooperative
- Great River Energy (GRE)
- Heartland Consumer Power District
- Interstate Power and Light
- L&O Power Cooperative
- Minnkota Power Cooperative
- Minnesota Municipal Power Agency (MMPA)
- Minnesota Power
- Missouri River Energy Services
- Northwestern Wisconsin Electric Company

- Ottertail Power Company
- Southern Minnesota Municipal Power Agency (SMMPA)
- Xcel Energy

The definition of an electric utility contained in Minn. Stat. §216B.1691, subd. 1(b) was amended in 2007 to include a power district. Consequently, Heartland Consumer Power District is now subject to the RES requirements. In its November 12, 2008 Order in Docket No. E999/CI-03-869, the Commission found that East River Electric Power Cooperative and L&O Power Cooperative were required to file separate RES reporting.⁵ Prior to this Order, L&O and East River’s RES compliance reporting was aggregated with the reporting from Basin Electric. Finally, given its limited presence in Minnesota, the Commission granted Northwestern Wisconsin Electric Company the discretion to report its renewable energy compliance information as provided to the Wisconsin Public Service Commission.

B. DETERMINATION OF MINNESOTA RES ELIGIBLE GENERATION

Minn. Stat. §216B.1691, subd. 1 defines the types of renewable generation eligible for meeting the RES requirements, while Minn. Stat. §216B.1691, subd. 2(d) directs the Commission to “issue necessary orders detailing the criteria and standards by which it will measure an electric utility’s efforts to meet the renewable energy objectives of subdivision 2 to determine whether the utility is making the required good faith effort.”

The Commission set forth the criteria for determining compliance with the RES Statute after taking comments from affected parties in a number of Orders.⁶ Among the resources the Commission has determined ineligible for meeting the RES are resources used for green pricing, resources that do not meet the statutory definition of eligibility, and generation assigned to compliance for other regulatory purposes such as another state’s Renewable Portfolio Standard Requirements (RPS).

In addition to excluding ineligible generation from the reporting, a number of utilities have Power Purchase Agreements (PPAs) with renewable generators in which the ownership of the environmental attributes is unknown or silent. The M-RETS operating procedures define a renewable energy credit or REC as “representing all of the attributes from one MWh of electricity generation from a renewable generating unit registered with the M-RETS tracking system or a certificate imported from a compatible certificate tracking system and converted to an M-RETS Certificate.” The renewable attributes associated with one MWh include all environmental attributes, credits, benefits, emissions reductions, offsets, and allowances attributable to the renewable energy generation. The purpose of requiring registration of a “whole certificate,” that is one with all the environmental attributes, is to help ensure compliance with the statutory prohibition against double counting of the environmental benefits, and to ensure that ratepayers receive the benefits of the renewable energy for which they are paying through their rates.

Four companies reported having some PPAs for which the assignment of the RECs is not known: Great River Energy, Interstate Power & Light, Otter Tail Power Company, and Xcel Energy.

In a September 9, 2010 Order, the Minnesota Public Utilities Commission determined that Xcel owned the RECs for PPAs entered into pursuant to Minnesota’s wind and biomass statutory mandates, unless the generator could otherwise demonstrate that the PPA at issue is not silent as to REC ownership; and

⁵ *In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility’s Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. §216B.1691*, Docket No. E999/CI-03-869, Order Setting Filing Requirements and Clarifying Procedures, (November 12, 2008).

⁶ See footnote 1.

determined that for PPAs entered into pursuant to the Federal Public Utility Regulatory Policy Act (PURPA), the generators own the RECs.⁷ Xcel reports only one PPA amendment remains pending before the Commission to settle REC ownership issues.⁸

III. 2011 RES COMPLIANCE

On June 1, 2012, utilities subject to the Minnesota RES filed their compliance reports with the Minnesota Public Utilities Commission (Docket No. E999/PR-12-334). Table 1, below, summarizes utility compliance with the 2011 requirements. All of the utilities subject to the Minnesota RES have demonstrated compliance with the 2011 RES requirements.

Table 1: 2011 RES Compliance

Utility	2011 Minnesota Retail Sales (MWhs)	Total RECs Retired (of MN Retail Sales)
Basin Electric	568,250	39,777
Central MN Municipal Power Agency (CMMPA)	319,698	22,379
Dairyland Power Cooperative	787,874	55,154
East River Power Cooperative	334,034	23,403
Great River Energy	10,597,425	749,410
Heartland Power District	654,818	45,838
Interstate Power & Light	846,818	59,277
L & O Power Cooperative	241,073	16,876
Minnesota Municipal Power Agency (MMPA)	1,382,808	96,797
Minnesota Power	10,130,969	709,168
Minnkota Power Cooperative	1,542,022	107,942
Missouri River Energy Services (MRES)	1,226,901	85,884
Northwestern Wisconsin Power ⁹	450	
Otter Tail Power Company	2,085,902	146,013
Southern MN Municipal Power Agency	2,929,414	205,058
Xcel Energy	31,788,268	4,768,241
Total	65,436,274	7,131,218

⁷ *In the Matter of Xcel Energy's Petition for a Determination of Entitlement to Renewable Attributes of Energy Purchases Pursuant to Renewable Energy Requirements*, Docket No. E002/M-08-440, Order Determining Ownership of Renewable Energy Credits for Power Purchase Agreements Made Pursuant to State Wind and Biomass Statutes and the Federal Public Utility Regulatory Policy Act (September 9, 2010).

⁸ Xcel Compliance Filing in Docket E002/M-08-440 (December 12, 2012)

⁹ Per the Commission's November 12, 2008 Order in Docket No. E999/CI-03-869, Northwestern Wisconsin Electric is permitted to comply with the Minnesota reporting requirements by submitting its renewable energy compliance information as reported to the Wisconsin Public Service Commission. Northwestern Wisconsin submitted its Wisconsin RPS compliance report indicating it retired 24,084 RECs towards its compliance in Wisconsin.

IV. ABILITY TO COMPLY WITH 2012 RES REQUIREMENTS

The RES requirements increased in 2012 from 7 percent of Minnesota retail sales to 12 percent of Minnesota retail sales for all utilities except Xcel Energy. For Xcel Energy, the requirement increased from 15 to 18 percent of Minnesota retail sales in 2012. Utilities have until May 1 of the following year to retire RECs towards the previous calendar year's RES requirement, or until May 1, 2013 for the 2012 compliance year.¹⁰ Utilities have the ability to retire RECs towards RES compliance up to four years from the date of generation. Consequently, many of the utilities have banked unretired RECs in anticipation of meeting the higher 2012 requirements. In addition, utilities may purchase excess RECs from other utilities to meet their RES requirement, or reallocate RECs to Minnesota from their other state jurisdictions with lower RES requirements. To estimate the ability of the utilities to comply with the 2012 requirements, Commerce reviewed the number of unretired RECs for each of the utilities, along with their year-to-date 2012 Minnesota-eligible generation, and calculated the total available RECs as a percentage of 2011 Minnesota sales. The Department's estimates for 2012 do not reflect the utilities ability to reallocate unretired RECs currently assigned to other jurisdictions. Table 2 summarizes the results of the Department's review.

Table 2: Estimate of 2012 RES Compliance

Utility	2011 Minnesota Retail Sales (MWh)	Unretired RECs + 2012 YTD RECs (MWh)	REC Balance as % of 2011 Retail Sales
Basin Electric	568,250	101,604	17.9%
Central MN Municipal Power Agency (CMMPA)	319,698	106,468	33.3%
Dairyland Power Cooperative	787,874	208,074	26.4%
East River Power Cooperative	334,034	46,823	14.0%
Great River Energy	10,597,425	3,023,748	28.6%
Heartland Power District	654,818	275,562	42.1%
Interstate Power & Light	846,818	46,750	5.5%
L&O Power Cooperative	241,073	Incl. w/ Basin	Incl. w/ Basin
Minnesota Municipal Power Agency (MMPA)	1,382,808	486,097	35.2%
Minnesota Power	10,130,969	3,635,090	35.9%
Minnkota Power Cooperative	1,542,022	396,413	25.7%
Missouri River Energy Services (MRES)	1,226,901	409,109	33.3%
Northwest Wisconsin	450		
Otter Tail Power Company	2,085,902	537,801	25.8%
Southern MN Municipal Power Agency	2,929,414	1,312,830	44.8%
Xcel Energy	<u>31,788,268</u>	<u>9,287,797</u>	<u>29.2%</u>
Total	65,436,274	19,883,166	30.4%

*Both East River and L&O Power rely on Basin for their REC purchases. Basin's percentage is calculated as a percentage of the combined retail sales for Basin, East River and L&O.

¹⁰ *In the Matter of a Commission Investigation into a Multi-State Tracking and Trading System for Renewable Energy Credits*, Docket No. E999/CI-04-1616, Third Order Detailing Criteria and Standards for Determining Compliance Under Minn. Stat. §216B.1691 and Setting Procedures for Retiring Renewable Energy Credits (December 3, 2008).

V. OBSTACLES AND POTENTIAL SOLUTIONS FOR MEETING THE RES REQUIREMENTS

Commerce sought utility comment on obstacles the utilities have encountered or anticipate encountering to meeting the RES requirements. Transmission constraints and concerns over the renewal of the Production Tax Credit (PTC) continue to be the concerns most frequently cited by utilities. Utilities indicated that MISO's reforms to its interconnection queue process had helped alleviate some of the long lag times, but expressed concerns that these could reappear if the PTC is extended resulting in increased renewable development activities. The development of the CAPX2020 transmission lines over the next several years is anticipated to reduce transmission constraints. In addition to transmission and PTC concerns, the utilities indicated that the ongoing increase in natural gas resources, and lower natural gas prices, were reducing the relative cost-effectiveness of wind energy.

VI. SUMMARY AND CONCLUSION

While there are certainly obstacles utilities face in meeting their RES requirements, Commerce concludes that utilities appear to have complied with their 2011 obligations, and are on track to comply with 2012's goals. Commerce notes that the official determination as to whether utilities are complying with Minn. Stat. §216B.1691 is the responsibility of the Commission.