

# 10 Renewable Energy Objective

## MINNESOTA RENEWABLE ENERGY OBJECTIVE (REO)

Otter Tail operates its system as a single entity, due to its small customer load, across a service territory that is in three states. None of the Company's resources are dedicated to serving customers in just one state. Instead, all resources are used to serve all customers and costs are allocated to state jurisdictional service territories based on load. The Commission established Docket No. E999/CI-03-869 and conducted proceedings that created the rules and processes to measure a utility's good faith efforts to comply with the REO. In those proceedings, Otter Tail stressed to the Commission that it operates as a single system and needs to be able to operate and function as a single system for the benefit of all consumers. The Company therefore iterated its intent to make a good faith effort to comply with the MN REO across its entire service territory, and not just the MN portion. This can only be accomplished if the Company is given the flexibility to locate and use REO qualifying facilities in the most economical manner anywhere on its system. Otter Tail still has that as its commitment.

Table 10-A identifies the Company's plan for REO compliance, based on entire system data for the Preferred Resource Plan as included in Section 9. Because the REO becomes effective in 2005, Table 10-A includes data for that year.

It is important to recognize that Table 10-A does not include purchases from customer owned wind facilities other than those that currently exist. Otter Tail has had discussions with a number of customer entities that are considering whether to install wind turbines, but none of those potential units have been included since they are only in the discussion phase.

To support compliance with the REO, steps are being taken with the small power producer tariffs that the Company has on file with each of the regulatory agencies in the three states as well as the distributed generation tariff in MN. The Company has made, or will be making, updated filings on all of these tariffs that include the consideration of renewable energy credits associated with any renewable energy delivered to Otter Tail. The tariff updates specifically state that Otter Tail receives the renewable energy credits with renewable energy delivered to Otter Tail, and that the customer is paid a market value for those credits. The tariffs, including the value of the renewable energy credits, are updated annually.

## 10-2 Renewable Energy Objective

<b>Table 10-A Planned Renewable Energy Objective Compliance</b>					
<b>Year</b>	<b>Total Retail Sales - MWh<sup>a</sup></b>	<b>Total Non-Biomass Energy - MWh</b>	<b>Total Biomass Energy - MWh</b>	<b>REO Biomass Compliance %</b>	<b>Total REO Compliance %</b>
2005	3,874,406	105,908.7	32,600	0.84%	3.37%
2006	3,927,606	332,918.7	32,600	0.83%	9.31%
2007	3,983,234	332,918.7	32,600	0.82%	9.18%
2008	4,053,573	332,918.7	32,600	0.80%	9.02%
2009	4,099,398	332,918.7	32,600	0.79%	8.92%
2010	4,158,746	332,918.7	32,600	0.78%	8.79%
2011	4,219,588	332,918.7	32,600	0.77%	8.66%
2012	4,294,981	402,998.7	32,600	0.76%	10.14%
2013	4,343,970	402,998.7	32,600	0.75%	10.03%
2014	4,407,255	473,078.7	32,600	0.74%	11.47%
2015	4,472,061	473,078.7	32,600	0.73%	11.31%
2016	4,553,200	473,078.7	32,600	0.72%	11.11%
2017	4,606,385	473,078.7	32,600	0.71%	10.98%
2018	4,674,818	473,078.7	32,600	0.70%	10.82%
2019	4,736,331	473,078.7	32,600	0.69%	10.68%
2020	4,810,426	473,078.7	32,600	0.68%	10.51%

a. Forecast retail sales minus conservation included in the base case preferred plan.

Table 10-B identifies the specific resources from which the renewable energy is planned, the type of facility, and the MWh amounts by year. In accordance with the Commission's Order in Docket No. E-999/CI-03-869, 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, none of the resources listed in Table 10-B are expected to be supplying resources for the Company's green pricing tariff identified as the **TailWinds** program.

## Renewable Energy Objective 10-3

**Table 10-B  
Existing and Planned Renewable Energy Objective Resources**

Resource	Estimated Annual Energy - MWh					
	2005	2006	2007	2008	2009	2010
Taplin Gorge, Hoot Lake, Wright, Pisgah, Dayton Hollow, and Bemidji Hydros	24,600	24,600	24,600	24,600	24,600	24,600
Borderline Wind, LLC	2,650	2,650	2,650	2,650	2,650	2,650
FPL Energy ND Wind II	68,678.4	68,678.4	68,678.4	68,678.4	68,678.4	68,678.4
UM-Morris Wind	1,800	1,800	1,800	1,800	1,800	1,800
Turtle Mt. Community College Wind	150	480	480	480	480	480
Lac Qui Parle Valley School Wind	27.667	27.667	27.667	27.667	27.667	27.667
Trautman Wind	2.667	2.667	2.667	2.667	2.667	2.667
Enbridge Wind	0	234,680	234,680	234,680	234,680	234,680
Potlatch Biomass	32,600	32,600	32,600	32,600	32,600	32,600
2012 – 20 MW Wind	0	0	0	0	0	0
2014 – 20 MW Wind	0	0	0	0	0	0
Total MWh	130,508.7	365,518.7	365,518.7	365,518.7	365,518.7	365,518.7

## 10-4 Renewable Energy Objective

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<b>Table 10-B Existing and Planned Renewable Energy Objective Resources</b>					
<b>Resource</b>	<b>Estimated Annual Energy - MWh</b>				
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Taplin Gorge, Hoot Lake, Wright, Pisgah, Dayton Hollow, and Bemidji Hydros	24,600	24,600	24,600	24,600	24,600
Borderline Wind, LLC	2,650	2,650	2,650	2,650	2,650
FPL Energy ND Wind II	68,678.4	68,678.4	68,678.4	68,678.4	68,678.4
UM-Morris Wind	1,800	1,800	1,800	1,800	1,800
Turtle Mt. Community College Wind	480	480	480	480	480
Lac Qui Parle Valley School Wind	27.667	27.667	27.667	27.667	27.667
Trautman Wind	2.667	2.667	2.667	2.667	2.667
Enbridge Wind	234,680	234,680	234,680	234,680	234,680
Potlatch Biomass	32,600	32,600	32,600	32,600	32,600
2012 – 20 MW Wind	0	70,080	70,080	70,080	70,080
2014 – 20 MW Wind	0	0	0	70,080	70,080
<b>Total MWh</b>	<b>365,518.7</b>	<b>435,598.7</b>	<b>435,598.7</b>	<b>505,678.7</b>	<b>505,678.7</b>

## Renewable Energy Objective 10-5

<b>Table 10-B</b>					
<b>Existing and Planned Renewable Energy Objective Resources</b>					
<b>Resource</b>	<b>Estimated Annual Energy - MWh</b>				
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Taplin Gorge, Hoot Lake, Wright, Pisgah, Dayton Hollow, and Bemidji Hydros	24,600	24,600	24,600	24,600	24,600
Borderline Wind, LLC	2,650	2,650	2,650	2,650	2,650
FPL Energy ND Wind II	68,678.4	68,678.4	68,678.4	68,678.4	68,678.4
UM-Morris Wind	1,800	1,800	1,800	1,800	1,800
Turtle Mt. Community College Wind	480	480	480	480	480
Lac Qui Parle Valley School Wind	27.667	27.667	27.667	27.667	27.667
Trautman Wind	2.667	2.667	2.667	2.667	2.667
Enbridge Wind	234,680	234,680	234,680	234,680	234,680
Potlatch Biomass	32,600	32,600	32,600	32,600	32,600
2012 – 20 MW Wind	70,080	70,080	70,080	70,080	70,080
2014 – 20 MW Wind	70,080	70,080	70,080	70,080	70,080
Total MWh	505,678.7	505,678.7	505,678.7	505,678.7	505,678.7

## 10-6 Renewable Energy Objective

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