

PUBLIC SERVICE COMMISSION OF WISCONSIN

Memorandum

November 3, 2009

FOR COMMISSION AGENDA

TO: The Commission

FROM: Robert Norcross, Administrator
Deborah Erwin, Renewable Energy Specialist
Gas and Energy Division

RE: Electric Provider Renewable Portfolio Standard Compliance 5-GF-184
for CY2008

Suggested Minute: The Commission (accepted/did not accept) the reports of Wisconsin Electric Providers and aggregators as to their compliance with the requirements of Wis. Stat. § 196.378(2)(a)2. The Commission directed the Gas and Energy Division to inform each Electric Provider of its compliance with the statute.

2008 Renewable Portfolio Standard Compliance Report

Wisconsin Statute § 196.378, commonly known as the Renewable Portfolio Standard (RPS), requires Wisconsin retail electric providers to report to the Commission on an annual basis their renewable energy sales and requires that the Commission inform each electric provider whether it is in compliance with Wis. Stat. § 196.378(2)(a)2, the renewable energy percentage requirements. For calendar year 2008, each electric provider was required to meet a baseline percentage equal to the average of the electric provider's renewable energy percentage for the years 2001 through 2003.

Attachment 1, 2008 Renewable Portfolio Standard Compliance By Electric Provider, summarizes data reported to the Midwest Renewable Energy Tracking System (M-RETS) and directly to the Commission for calendar year 2008. Data is reported for all Wisconsin electric utilities and electric cooperatives except for members and wholesale customers of WPPI Energy

and Dairyland Power Cooperative. Those data are aggregated and reported under the aggregator's name.

For each electric provider, the attached spreadsheet shows 2008 retail sales, baseline renewable percentage requirement (based on 2001-2003 average for that electric provider), 2008 renewable energy requirement in MWh, 2008 electricity sold at retail that was produced by a renewable resource, the difference between actual 2008 renewable energy and 2008 requirements, and the electric provider's 2008 renewable percentage. Column 4 shows the RPS requirement for 2008 (Column 3 times Column 10) and Column 5 shows actual 2008 electricity sold at retail that was produced by a renewable resource. Column 6 is the difference between required and actual renewable retail sales. If the number is negative the electric provider's renewable energy production and purchases for 2008 were less than the RPS requirement for 2008 and the electric provider used banked or purchased Renewable Resource Credits (RRCs) to make up the difference. A positive number shows the net number of additional RRCs created in 2008. Column 9 is the actual percentage of retail sales from renewable resources in 2008 (Column 5 divided by Column 3). Columns 10 to 12 show each electric provider's 2005 Wis. Act 141 requirements. In 2008 Wisconsin electric providers sold a total of 3,435,988 MWh of electricity created from a renewable resource to retail customers, which is 4.87 percent of 2005 through 2007 average retail sales for the state, an increase of just under one percent over 2007.

2008 RPS Status of Large Utilities

Wisconsin Electric Power Company

Wisconsin Electric Power Company (WEPCO) exceeded its 2.27 percent RPS requirement by 77,730 MWh, providing 2.57 percent renewable energy in 2008. In 2008, WEPCO completed construction of the 145 MW Blue Sky Green Field wind project which

WEPCO anticipates will produce over 300,000 renewable MWh per year. To meet its increased requirement of 4.27 percent in 2010, WEPCO has filed a CPCN application for the Glacier Hills Wind Park. WEPCO is also considering entering into a short-term Power Purchase Agreement to meet the increase in 2010 and prepare for its 2015 requirement of 8.27 percent renewable energy.

Madison Gas and Electric Company

Madison Gas and Electric Company (MGE) exceeded its RPS requirement of 1.73 percent by over 209,000 MWh, providing 8.07 percent renewable energy in 2008. This is a very large increase over 2007, as MGE was just short of its baseline RPS requirement in 2007. MGE's renewable energy production comes from solar, wind, landfill gas and co-firing of solid biomass at its Blount power plant. MGE added 126.2 MW of additional wind capacity in 2008 from the Top of Iowa II and III wind projects, the Forward Energy wind project, and the Endeavor II Wind Energy Center in Iowa, causing MGE to go from a deficit of renewable energy in 2007 to a large surplus for 2008. MGE had enough renewable energy in 2008 to meet its 2015 percentage requirement of 7.73 percent.

Northern States Power Company–Wisconsin

Northern States Power Company-Wisconsin (NSPW) reported that 9.25 percent of its retail sales came from renewable sources. Xcel North (formerly "NSP") reports its renewable energy sales on a system-wide basis; NSPW constitutes approximately 16 percent of the total electric and renewable energy sales in the entire Xcel North territory. Like in 2007, in 2008 NSPW had enough renewable energy to meet its 2010 RPS percentage requirement and is well on its way to meeting its 2015 requirement of 12.89 percent. NSPW reports that wind energy is

key to meeting the RPS, but NSPW also intends to upgrade its Dells hydropower plant in Eau Claire and increase its use of biomass at two of its combustion plants.

NSPW's renewable percentage in 2008 was lower than its percentage in 2007. This was due to the issue of so-called "silent RECs" over which NSPW is conducting negotiations pursuant to an order of the Minnesota Public Utilities Commission.¹ These contracts under negotiation are "silent" on the ownership of the renewable attributes, and the renewable energy from these contracts has been removed from NSPW's compliance allocation pending resolution of the issue.

Additionally, in preparing its compliance filing for 2008, NSPW discovered an error made in the original calculation of NSPW's baseline renewable percentage. There was also an error in the 2007 RRC Status Report to the Commission in the baseline reflected for NSPW. NSPW filed information and has requested that its baseline renewable percentage be revised from 6.85 percent to 6.89 percent.² NSPW exceeded its revised baseline requirement in prior years. 2008 was the first year that NSPW used the M-RETS system to demonstrate compliance, so there are no tracked M-RETS certificates for renewable energy produced or purchased by NSPW in the years before 2008. Because NSPW did not use M-RETS prior to 2008, certificates were not created or retired for prior years' compliance and it is not necessary for NSPW to retroactively retire certificates to prove compliance in previous years. NSPW has proposed to retire certain additional certificates in M-RETS to demonstrate compliance with the revised baseline for 2008.

¹ See Minnesota Public Utilities Commission docket 08-440.

² The 2007 RRC Status Report incorrectly indicated NSPW's baseline as 5.93%. NSPW's filings and compliance activities for 2007 were premised on a baseline of 6.85%.

NSPW Wholesale Customers

NSPW's municipal utility wholesale customers are also well on their way to meeting their 2010 requirements because they receive most, if not all, of their electricity from NSPW and benefit from the high proportion of NSPW's system mix coming from renewable resources. The NSPW municipal utility wholesale customers are Bangor, Barron, Bloomer, Cadott, Cornell, Medford, Rice Lake, Spooner, and Trempealeau. NSPW has also proposed revisions to the baseline requirements of each of its wholesale customers and has proposed to retire additional certificates in M-RETS to demonstrate compliance with these revised baselines for 2008.

Wisconsin Power and Light Company

Like in 2007, Wisconsin Power & Light Company's (WP&L) renewable energy sales for 2008 were less than the year's requirement, though this gap was smaller in 2008 than it was in 2007. WP&L's renewable energy sales in 2008 were 14,222 MWh less than the 349,459 MWh required by the RPS for 2008. WP&L used RRCs to meet a portion of its 2008 requirement. In order to meet future requirements, WP&L has constructed the 67.65 MW Cedar Ridge Wind Farm, is purchasing output from the Forward Wind Energy Center and plans to construct the Bent Tree Wind Farm for which WP&L received approval from the Commission in 2009. WP&L anticipates that this additional capacity along with the purchase of additional output from the Crystal Lake Wind Farm will be sufficient to meet its 2010 and 2015 requirements.

Wisconsin Public Service Corporation

Wisconsin Public Service Corporation (WPSC) exceeded its 2008 requirement of 3.74 percent, reporting that 5.39 percent of its retail sales came from renewable resources in 2008, an increase over the 4.75 percent reported in 2007. WPSC is purchasing 57.5 MW of the output from the Forward Energy wind project and is currently constructing the Crane Creek wind

project in Howard County, Iowa. WPSC also intends to acquire a 150 MW portion of the High Country wind project in Minnesota. WPSC will use banked RRCs to help meet its RPS requirement for 2010 and beyond.

Dairyland Power Cooperative

In 2008, the Dairyland Power Cooperative (DPC) system provided renewable energy in excess of the member cooperative and municipal utility customers' 2.44 percent requirement. In addition to the Wisconsin RPS, DPC is subject to the Minnesota Renewable Energy Standard, which has a relatively small requirement for DPC in 2008 and 2009, but increases measurably beginning in 2010. While it appears that in 2008 DPC had renewable energy greatly in excess of its 2008 Wisconsin requirements, compliance with the Minnesota standard will noticeably affect the amount of renewable energy available to DPC's Wisconsin members and customers in the future. DPC believes it is well positioned to meet the 2010 Wisconsin requirements with its banked RRCs, the addition of a 20 MW wind project in 2008, a power purchase agreement for approximately 40 MW of biomass generation starting in 2010 and other potential renewable power purchases.

WPPI Energy

Like DPC, WPPI Energy (WPPI) aggregates renewable generation and sales for its member utilities. In 2008, WPPI's renewable sales exceeded its total 2008 RPS requirement of 4.24 percent with 8.86 percent of WPPI retail sales coming from renewable resources, an increase over the 5.44 percent provided in 2007. WPPI has long-term Power Purchase Agreements for output from four wind farms that recently began commercial operation. WPPI anticipates that it will have the resources in place to provide 10 percent renewable energy in 2009.

Considerations for Future RPS Activity in Wisconsin

Most Wisconsin electric providers note that the majority of their RPS compliance is based on power from facilities owned by the electric providers or purchased from independent power producers. RRCs purchased from other electric providers currently play a lesser role in achieving RPS compliance. Many Wisconsin electric providers used their own banked RRCs created in previous years to meet their 2008 requirements, taking advantage of the banked RRCs before their eligibility for RPS compliance expires. Using banked RRCs allowed many of these electric providers to bank 2008 generation as RRCs for use in future years. With the upcoming increases in the RPS requirements in 2010 and 2015, many electric providers anticipate that RRCs, created when an electric provider exceeds its RPS requirement, will not be available for purchase from other electric providers.

While many electric providers are purchasing renewable electricity from their customers through tariffs, this customer-owned generation is usually not part of an electric provider's RPS compliance plan due to the small amount of customer-owned generation. A large number of electric providers indicated that energy efficiency and demand-side management have not been influential factors in their RPS compliance plans and have not been considered as a way to reduce the total amount of MWh needed to meet their RPS percentage requirements. Lower total energy sales than previously forecasted can reduce the number of MWh from renewable resources that are needed for RPS compliance.

Electric providers expressed concerns about the impact of inadequacies or mismatches between transmission needs and existing transmission infrastructure on RPS compliance. Electric providers also indicated that RPS compliance plans should be made in light of needs for

reliability. Many were uncertain about the effect that future additional renewable and greenhouse gas requirements may have on their current RPS compliance plans. Many electric providers seem confident that they would be able to meet at least the first portion of the Governor's Task Force on Global Warming recommended Enhanced RPS (moving the current 10 percent standard from 2015 to 2013) without significant changes to their current RPS compliance plans.

Commission Staff Recommendation

Commission staff recommends that the Commission accept the 2008 annual RPS report summary and direct Commission staff to inform Wisconsin electric providers and aggregators, pursuant to Wis. Stat. § 196.378(2)(c), that they are in compliance with Wis. Stat.

§ 196.378(2)(a)2. Commission staff also recommends that the Commission accept the revisions proposed to NSPW's renewable percentage baseline and the baselines of its wholesale customers and direct NSPW to work with Commission staff to retire certificates in M-RETS, to demonstrate compliance for 2008 with these revised baselines.

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Attachment

2008 RPS COMPLIANCE BY ELECTRIC PROVIDER

November 3, 2009

1	2	3	4	5	6	7	8	9	10	11	12
Electric Provider or Aggregator*	2008 Retail Sales (MWh)	2005-2007 Average Retail Sales (MWh)	2008 RPS Requirement (MWh)	Actual 2008 Energy from Renewables (MWh)	2008 Renewable Energy Surplus or Deficit (-)	Actual 2008 Renewables as Portion of Requirement (%)	Over or Under in 2008	Actual 2008 Renewables as a percentage of Average Sales (%)	Baseline RPS Requirement (%)	2010 RPS Requirement (%)	2015 RPS Requirement (%)
Adams-Columbia Electric Coop	482,963.00	470,126.00	13,727.68	16,553.00	2,825.32	120.6%	+	3.52	2.92	4.92	8.92
Bangor Municipal Utility	28,969.00	31,322.16	2,073.53	2,651.00	577.47	127.8%	+	8.46	6.62	8.62	12.62
Barron Light & Water Utility	82,555.00	81,578.33	5,588.12	7,518.00	1,929.88	134.5%	+	9.22	6.85	8.85	12.85
Belmont Mun Water & Elect Util	19,138.00	14,889.33	410.95	646.00	235.05	157.2%	+	4.34	2.76	4.76	8.76
Benton Mun Elec & Water Util	5,345.00	5,437.33	155.51	184.00	28.49	118.3%	+	3.38	2.86	4.86	8.86
Black Earth Electric Utility	16,305.00	16,706.33	539.61	557.00	17.39	103.2%	+	3.33	3.23	5.23	9.23
Bloomer Electric Utility	49,834.00	49,699.00	3,215.53	4,410.00	1,194.47	137.1%	+	8.87	6.47	8.47	12.47
Cadott Light & Water Mun Util	13,601.00	13,820.67	928.75	1,248.00	319.25	134.4%	+	9.03	6.72	8.72	12.72
Central Wisconsin Elec Coop	94,023.00	92,640.36	2,723.63	3,308.00	584.37	121.5%	+	3.57	2.94	4.94	8.94
Centuria Municipal Electric Util	5,441.00	5,331.00	659.44	0	-659.44	0.0%	-	0.00	12.37	14.37	18.37
Clintonville Water & Electric Util	92,505.00	93,864.20	1,351.64	1,352.00	0.36	100.0%	=	1.44	1.44	3.44	7.44
Consolidated Water Power Co	1,394,573.00	1,405,792.00	231,533.94	213,534.00	-17,999.94	92.2%	-	15.19	16.47	18.47	22.47
Cornell Mun Water & Elec Util	12,748.00	12,802.67	851.38	1,176.00	324.62	138.1%	+	9.19	6.65	8.65	12.65
Dahlberg Light & Power Co	103,346.00	101,950.65	1,396.72	1,326.00	-70.72	94.9%	-	1.30	1.37	3.37	7.37
Dairyland Power Cooperative*	3,096,256.00	2,966,896.70	72,392.28	152,215.00	79,822.72	210.3%	+	5.13	2.44	4.44	8.44
East Central Energy	50,429.00	46,850.47	299.84	323.00	23.16	107.7%	+	0.69	0.64	2.64	6.64
Elkhorn Light & Water	113,298.00	114,145.38	3,915.19	3,791.00	-124.19	96.8%	-	3.32	3.43	5.43	9.43
Gresham Mun Light & Pwr Util	20,020.00	19,271.00	468.29	581.00	112.71	124.1%	+	3.01	2.43	4.43	8.43
Hazel Green Municipal Utility	7,942.00	7,870.33	225.88	278.00	52.12	123.1%	+	3.53	2.87	4.87	8.87
Kiel (City of) Utilities	83,532.00	80,810.49	2,480.88	2,826.00	345.12	113.9%	+	3.50	3.07	5.07	9.07

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Electric Provider or Aggregator*	2008 Retail Sales (MWh)	2005-2007 Average Retail Sales (MWh)	2008 RPS Requirement (MWh)	Actual 2008 Energy from Renewables (MWh)	2008 Renewable Energy Surplus or Deficit (-)	Actual 2008 Renewables as Portion of Requirement (%)	Over or Under in 2008	Actual 2008 Renewables as a percentage of Average Sales (%)	Baseline RPS Requirement (%)	2010 RPS Requirement (%)	2015 RPS Requirement (%)
Madison Gas & Electric Co	3,332,621.00	3,296,945.70	57,037.16	266,127.80	209,090.64	466.6%	+	8.07	1.73	3.73	7.73
Manitowoc Public Utilities	550,979.53	542,961.84	17,320.48	35,062.00	17,741.52	202.4%	+	6.46	3.19	5.19	9.19
Marshfield Elec & Water Dept	383,081.00	375,348.43	10,922.64	17,808.00	6,885.36	163.0%	+	4.74	2.91	4.91	8.91
Mazomanie Electric Utility	29,612.00	33,881.67	830.10	1005.00	174.90	121.1%	+	2.97	2.45	4.45	8.45
Medford Electric Utility	131,585.00	136,849.74	8,772.07	11,584.00	2,811.93	132.1%	+	8.46	6.41	8.41	12.41
North Central Power Co Inc	31,167.00	31,143.00	10,311.45	8,316.00	-1,995.45	80.6%	-	26.70	33.11	35.11	39.11
Northern States Power Co WI	6,226,442.00	6,089,524.00	419,568.20	563,281.00	143,712.80	134.3%	+	9.25	6.89	8.89	12.89
Northwestern WI Elec Co	168,651.00	172,456.67	21,522.59	24,317.00	2,794.41	113.0%	+	14.10	12.48	14.48	18.48
Oconto Electric Coop	106,471.26	105,203.51	4,955.09	5,338.00	382.91	107.7%	+	5.07	4.71	6.71	10.71
Pardeeville (Village of) Elec Util	22,128.00	22,418.67	547.02	569.00	21.98	104.0%	+	2.54	2.44	4.44	8.44
Pioneer Power & Light Co	17,565.00	17,241.67	467.25	604.00	136.75	129.3%	+	3.50	2.71	4.71	8.71
Princeton Mun Wtr & Elec Util	11418.00	11,687.67	258.30	411.00	152.70	159.1%	+	3.52	2.21	4.21	8.21
Rice Lake Mun Wtr & Elec Util	158,504.00	166,733.67	10,887.71	14,091.00	3,203.29	129.4%	+	8.45	6.53	8.53	12.53
Rock Energy Coop	146,219.00	88,263.23	2,586.11	4,915.00	2,328.89	190.1%	+	5.57	2.93	4.93	8.93
Sauk City Mun Wtr & Light Util	33,261.00	34,197.33	964.36	1152.00	187.64	119.5%	+	3.37	2.82	4.82	8.82
Shawano Municipal Utilities	273,867.00	271,121.91	3,633.03	3633.00	-0.03	100.0%	=	1.34	1.34	3.34	7.34
Sheboygan Falls Utilities	181,508.00	187,921.67	5,205.43	6,022.00	816.57	115.7%	+	3.20	2.77	4.77	8.77
Shullsburg Electric Utility	10,171.00	10,665.67	300.77	350.00	49.23	116.4%	+	3.28	2.82	4.82	8.82
Spooner Municipal Utilities	32,725.00	33,258.33	2,178.42	2,912.00	733.58	133.7%	+	8.76	6.55	8.55	12.55
Stratford Mun Wtr & Elec Utility	17,789.00	15,673.00	518.78	913	394.22	176.0%	+	5.83	3.31	5.31	9.31
Superior Wtr Light & Pwr Co	682,373.00	628,317.32	15,896.43	15,896.00	-0.43	100.0%	=	2.53	2.53	4.53	8.53
Trempealeau Mun Elc & Wtr Util	13,374.00	13,650.33	925.49	1,240.00	314.51	134.0%	+	9.08	6.78	8.78	12.78

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Washington Island Cooperative	9,489.00	9,082.83	304.27	360.00	55.73	118.3%	+	3.96	3.35	5.35	9.35
Westfield Milling & Elec Co	13,267.00	13,691.33	384.73	456.00	71.27	118.5%	+	3.33	2.81	4.81	8.81
Wisconsin Dells Mun Elec Util	61,187.00	61,835.67	1,787.05	2,074.00	286.95	116.1%	+	3.35	2.89	4.89	8.89
Wisconsin Electric Power Co	25,323,682.00	25,786,196.00	585,346.65	663,077.00	77,730.35	113.3%	+	2.57	2.27	4.27	8.27
Wisconsin Power & Light	10,529,410.00	10,654,225.00	349,458.58	335,236.00	-14,222.58	95.9%	-	3.15	3.28	5.28	9.28
WPPI Energy*	4,974,221.00	5,025,474.00	213,080.10	445,294.00	232,213.90	209.0%	+	8.86	4.24	6.24	10.24
Wisconsin Public Service Corp	10,603,817.00	10,766,654.00	402,672.86	580,396.00	177,723.14	144.1%	+	5.39	3.74	5.74	9.74
Wisconsin Rapids WW & Light	262,624.00	244,319.33	6,669.92	8,892.00	2,222.08	133.3%	+	3.64	2.73	4.73	8.73
Wonewoc Electric & Water Util	5,032.00	5,018.05	134.99	179.00	44.01	132.6%	+	3.57	2.69	4.69	8.69
TOTAL Renewable Energy	70,117,063.79	70,483,765.64	2,500,386.80	3,435,987.80	935,601.00	137.4%	6 under	4.87	3.55	5.55	9.55

COLUMN NOTES

* Aggregator

2. As reported to PSCW.
3. As reported to PSCW. Each year's RPS requirement % is applied to the average of the previous three years of retail sales.
4. Baseline percentage times average retail sales for previous 3 years (Col. 3 times Col. 10).
5. Energy sold in Wisconsin in 2008 which was produced by a renewable resource, as reported.
6. (Col.5 - Col. 4).
7. Portion of the 2008 requirement that could be achieved with energy from a renewable resource sold at retail in 2008 (Col.5/Col.4).
8. Over or Under 2008 Requirement, Based on 2008 Energy Sold from Renewables (based on Col. 6).
9. Energy sold in Wisconsin and produced by a renewable resource as a percentage of average retail sales for previous 3 years. (Col. 5 divided by Col.3).
10. Percentage required for years 2006-2009, equal to mean percentage renewables from years 2001-2003; per Wis. Stat. §196.378(2)(a)2 (2005).
11. Percentage required for years 2010-2014, equal to baseline % +2%; per Wis. Stat. §196.378(2)(a)2 (2005).
12. Percentage required for years 2015 and beyond; equal to baseline % +6%; per Wis. Stat. §196.378(2)(a)2 (2005).

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