Northwestern Wisconsin Electric Company

Minnesota 2015 Renewable Energy Compliance

Minnesota PUC Docket 03-869 dated November 12th, 2008 allows Northwestern Wisconsin Electric to submit its Wisconsin renewable portfolio standard compliance data, as sent to the Wisconsin PSC, to satisfy its renewable compliance for its Minnesota obligation. That data is included as an attached .pdf file.

Northwestern Wisconsin Electric Company's 2015 Mwh sales to Minnesota retail customers (approximately 100) were 517 Mwh's.

NWE is required to provide 14.48% of sales as renewable. Attached is a summary of NWE's 2015 renewable energy sales, which represents 22% of its total 2015 Mwh sales.

We are a member of M-RETS and use the system for our REC and RRC inventory accounting. I have also attached .pdf document that was sent to the WI PSC for compliance.

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Northwestern Wisconsin Electric Company 2015 Renewable Portfolio Standard Filing Public Service Commission of Wisconsin Docket 5-GF-260

- 1. 3. See Spreadsheet
- 4. See Spreadsheet
- 5. Describe the electric provider's 2015 WI RPS compliance activities.
- a. Provide information regarding the M-RETS Certificates and RRCs used for 2015 WI RPS compliance, including the identity of the individual facilities associated with and the vintage of the M-RETS Certificates and RRCS. Please identify the name(s) of the M-RETS Subaccount(s) used by the electric provider for 2015 WI RPS compliance.

The M-RETS account holder is Northwestern Wisconsin Electric. The Retirement Sub account is Northwestern Wisconsin Electric #2419

2,080 REC's retired from Black Brook Hydro M-RETS ID M205 2015 generation

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Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	05/2015	05/2015	205- WI-05- 2015- 47121-1 to 154	False	154	154.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	09/2015	09/2015	205- WI-09- 2015- 47124-1 to 268	False	268	268.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	02/2015	02/2015	205- WI-02- 2015- 47118-1 to 96	False	96	96.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	11/2015	11/2015	205- WI-11- 2015- 47126-1 to 246	False	246	246.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	01/2015	01/2015	205- WI-01- 2015- 47117-1 to 138	False	138	138.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	04/2015	04/2015	205- WI-04- 2015- 47120-1 to 167	False	167	167.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	07/2015	07/2015	205- WI-07- 2015- 47123-1 to 131	False	131	131.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	03/2015	03/2015	205- WI-03- 2015- 47119-1 to 155	False	155	155.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit	Hydroelectric Water	Renewable	06/2015	06/2015	205- WI-06- 2015- 47122-1	False	161	161.000

					П		124					to 161			
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	10/2015	10/2015	205- WI-10- 2015- 47125-1 to 193	False	193	193.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	I Jam -	Hydroelectric Water	Renewable	08/2015	08/2015	205- WI-08- 2015- 47177-1 to 135	False	135	135.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M205	Black Brook Dam - Unit 124	Hydroelectric Water	Renewable	12/2015	12/2015	205- WI-12- 2015- 47181-1 to 236	False	236	236.000
														2,080	2,080.000

5,663 REC's retired from Clam River Dam Hydro M-RETS ID M202 2015 generation

5,663 RE	Ĵ S 1	retired from (Cla	am F	(1	ver	Dam F	tydro M-K	KETS ID	M20	2 2015	genera	atıor	l	
Northwestern WI RPS		State/Provincial Portfolio Standards		2015		M202	Clam River Dam - Unit 81	II. 1 1	Renewable			202-WI-	False		598.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	01/2015	01/2015	202-WI- 01-2015- 47104-1 to 429	False	429	429.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	04/2015	04/2015	202-WI- 04-2015- 47107-1 to 424	False	424	424.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	07/2015	07/2015	202-WI- 07-2015- 47110-1 to 379	False	379	379.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	10/2015	10/2015	202-WI- 10-2015- 47113-1 to 467	False	467	467.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	03/2015	03/2015	202-WI- 03-2015- 47106-1 to 448	False	448	448.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	06/2015	06/2015	202-WI- 06-2015- 47109-1 to 376	False	376	376.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	09/2015	09/2015	202-WI- 09-2015- 47112-1 to 528	False	528	528.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	08/2015	08/2015	202-WI- 08-2015- 47111-1 to 135	False	135	135.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	11/2015	11/2015	202-WI- 11-2015- 47114-1 to 699	False	699	699.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	02/2015	02/2015	202-WI- 02-2015- 47105-1 to 336	False	336	336.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	05/2015	05/2015	202-WI- 05-2015- 47108-1 to 451	False	451	451.000

Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M202	Clam River Dam - Unit 81	Hydroelectric Water	Renewable	08/2015	08/2015	202-WI- 08-2015- 47176-1 to 363	False	363	363.000
					ſ									5,633	5,633.000

3,773 REC's retired from Danbury Hydro M-RETS ID M206 2015 generation

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	Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	1		Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	12/2015	12/2015	206- WI- 12- 2015- 47182- 1 to 463	False	463	463.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards		2015	1		Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	01/2015	01/2015	206- WI- 01- 2015- 47127- 1 to 234	False	234	234.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	1	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	04/2015	04/2015	206- WI- 04- 2015- 47130- 1 to 247	False	247	247.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards		2015	1		Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	07/2015	07/2015	206- WI- 07- 2015- 47133- 1 to 199	False	199	199.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards		2015	1	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	10/2015	10/2015	206- WI- 10- 2015- 47136- 1 to 330	False	330	330.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards		2015	1		Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	03/2015	03/2015	206- WI- 03- 2015- 47129- 1 to 281	False	281	281.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards		2015	1	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	06/2015	06/2015	206- WI- 06- 2015- 47132- 1 to 232	False	232	232.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards		2015	1	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	09/2015	09/2015	206- WI- 09- 2015- 47135- 1 to 432	False	432	432.000
	Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	1	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	05/2015	05/2015	206- WI- 05- 2015- 47131- 1 to	False	297	297.000

										297			
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	2015	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	08/2015	08/2015	206- WI- 08- 2015- 47134- 1 to 269	False	269	269.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	2015	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	11/2015	11/2015	206- WI- 11- 2015- 47137- 1 to 593	False	593	593.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	2015	M206	Danbury Hydro Plant - Unit 125	Hydroelectric Water	Renewable	02/2015	02/2015	206- WI- 02- 2015- 47128- 1 to 196	False	196	196.000
												3,773	3,773.000

8,187 REC's retired from Lakeswind Wind M-RETS ID M876 2014 gen.

Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	09/2014	09/2014	876-MN- 09-2014- 37914- 9487 to 11050	False	1,564	1,564.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	10/2014	10/2014	876-MN- 10-2014- 38649- 9318 to 11620	False	2,303	2,303.000
Northwestern WI RPS		State/Provincial Portfolio Standards	WI	2015	M876	Lakeswind - I akeswind	Wind (WI Eligible)	Renewable	11/2014	11/2014	876-MN- 11-2014- 39222- 9811 to 12235	False	2,425	2,425.000
Northwestern WI RPS		State/Provincial Portfolio Standards	WI	2015	M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	12/2014	12/2014	876-MN- 12-2014- 39753- 7666 to 9560	False	1,895	1,895.000
													8,187	8,187.000

5,134~REC's retired from Lakeswind Wind M-RETS ID M876 2015 gen.

Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	M8	376		Wind (WI Eligible)	Renewable	01/2015	01/2015	876-MN- 01-2015- 40473- 9750 to 12159	False	2,410	2,410.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	M	376		Wind (WI Eligible)	Renewable	02/2015	02/2015	876-MN- 02-2015- 41082- 8332 to 10390	False	2,059	2,059.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015	M8	376		Wind (WI Eligible)	Renewable	03/2015	03/2015	876-MN- 03-2015- 41675- 9782 to 10439	False	658	658.000
Northwestern	2419	State/Provincial	WI	2015	M	376	Lakeswind	Wind	Renewable	01/2015	01/2015	876-MN-	False	1	1.000

WI RPS		Portfolio Standards					- Lakeswind	(WI Eligible)			01-2015- 40473- 16064 to 16064			
Northwestern WI RPS		State/Provincial Portfolio Standards	WI	2015		M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	05/2015	876-MN- 05-2015- 42828- 15708 to 15708	False	1	1.000
Northwestern WI RPS		State/Provincial Portfolio Standards	WI	2015		M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	09/2015	876-MN- 09-2015- 45788- 13220 to 13220	False	1	1.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	10/2015	876-MN- 10-2015- 46271- 17074 to 17074	False	1	1.000
Northwestern WI RPS	2419	State/Provincial Portfolio Standards	WI	2015		M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	11/2015	876-MN- 11-2015- 46974- 15141 to 15141	False	1	1.000
Northwestern WI RPS		State/Provincial Portfolio Standards	WI	2015		M876	Lakeswind - Lakeswind	Wind (WI Eligible)	Renewable	03/2015	876-MN- 03-2015- 41675- 16119 to 16120	False	2	2.000
					Ī								5,134	5,134.00

- b. Provide information regarding the number of M-RETS Certificates and RRC's used for 2015 compliance from facilities located in Wisconsin, and the number of Certificates and RRC's used from facilities located outside Wisconsin.
- 11,486 REC's from Wisconsin generation
- 13,321 REC's from Outside of Wisconsin.
- c. If any Certificates used for 2015 WI RPS compliance were created as the result of an M-RETS prior period adjustment, please identify these Certificates as well as the "begin" and "end" date of the actual generation associated with those Certificates.

None

d. Did the electric provider buy or sell any RRC's during the 2015 WI RPS compliance period? (April 16th, 2015 through April 15th, 2016). If so, provide; 1)the approximate date, 2)amount (MWh) bought or sold, type of entity and 3)price (\$/MWh) for each transaction.

NWE sold 5,605 REC's to an WI investor owned utility on 4/12/2016 for \$1.00/REC.

- e. Did the electric provider use any Certificates or RRC's for 2015 WI RPS compliance that the electric provider also used to satisfy obligations to retail customers under a voluntary green pricing rate. If yes, identify the quantity used (Mwh) both for 2015 compliance and voluntary green pricing sales.

 No.
- f. Provide an explanation if the electric provider retired fewer Certificates in M-RETS than the amount required for 2015 RPS compliance.

- 6. Describe implementation plans for meeting the RPS requirements in 2016 and beyond.
- a. How many Certificates or RRCs does the electric provider have "banked" that are eligible for possible future WI RPS compliance? 13,719

When will these Certificates or RRCs cease to be eligible for use in compliance with the WI RPS?

The year 2020

How many of the electric provider's banked WI RPS eligible Certificates or RRCs does the electric provider intend to use for WI RPS compliance in the future? 13,719

b. Provide an annual forecast (2015-2020) of actual renewable energy (MWh) that will be generated or procured by the electric provider or aggregator, sold at retail to Wisconsin customers, and intended for use with the Wisconsin RPS. If the electric provider is also reporting on behalf of its Wisconsin wholesale customers, please note this and include it in your forecast.

Using generation estimates from current Power Purchase Agreements, Northwestern Wisconsin Electric estimates that its annual MWh purchases of renewable energy will total approximately 34,000 MWh annually. 33,200 of this will be sold at retail to NWE customers. Approximately 800 MWh will be sold to Centuria Municipal Electric as part of a wholesale agreement.

- c. What action, if any, has the electric provider taken since filing for 2014 compliance to change its renewable energy percentage?
- Northwestern Wisconsin Electric has signed a Power Purchase Agreement to purchase renewable energy from a Minnesota wind project. This project commenced production in March of 2014.
- d. What action does the electric provider intend to take in the future to increase its renewable energy percentage by 6 percent over its baseline to the amount required in 2016 and beyond? How does the electric provider plan to address any need for additional renewable energy due to future load growth for years beyond 2016?

Northwestern Wisconsin Electric's RPS requirement will remain 2% above their baseline percentage at a level of 14.48% for 2014 and beyond. The PPA's NWE currently has in place, assuming renewal of those that expire, should address the RPS needs based on current retail sales. RPS needs based on future load growth or a generation deficit would be addressed by purchasing REC's or renewable energy via an additional PPA.

e. What role does purchasing or selling RRCs play in the electric provider's WI RPS compliance implementation plan? Are there any barriers to the purchase or sale of RRCs that the Commission or others should address?

NWE has purchased RRC's to address its RPS requirements in the past and will continue to do so as needed.

f. If the electric provider has already acquired, or soon will acquire, sufficient resources to meet and sustain its 2016 renewable requirements, does the electric provider have any plans to voluntarily increase its renewable resource portfolio beyond what is required by the WI RPS? If so, describe the general plans as well as any factors (such as pending Environmental Protection Agency regulations, potential greenhouse gas regulations, cost-competitiveness, and/or customer demand) driving the electric provider to acquire renewable resources beyond that which is required by the WI RPS.

Northwestern Wisconsin Electric is not currently planning to voluntarily increase its renewable energy portfolio.

g. What other state RPS or similar requirements is the electric provider subject to outside of Wisconsin? What effect do these requirements have on the electric provider's WI RPS compliance implementation plan?

Northwestern Wisconsin Electric is subject to the MN renewable energy requirement (serves approximately 100 customers in MN). This requirement does not affect our WI RPS plans.

h. How does regional transmission planning and local interconnection of renewable facilities affect the electric provider's renewable resource planning process? To what extent do transmission and interconnection costs and processes affect the electric provider's renewable resource portfolio?

All costs associated with securing a firm transmission path greatly contribute to the economics associated with any purchase from a renewable generating facility.

i. What other factors have influenced the electric provider's compliance implementation planning process?

None at this time.

Information for Questions 1-3 of the 2015 RPS Compliance Report to the PSCW

After filling out, upload this spreadsheet to the ERF system along with a separate documents for questions 4-6.

ONLY enter values in green cells; all other cells are locked. Blue cells will automatically calculate when green cells are filled out.

Questions 1, 2.a, and 2.b relate to retail sales in 2015. Question 3 relates to 2015 RPS compliance obligation.

Electric Provider or RPS Aggregator Name:

(continued) Table 2: Other States

Northwestern Wisconsin Electric Company 2015 Retail Sales of Electricity and Renewable Resource Information 2015 Total Retail Sales of Electricity from All Sources (MWh) Question Doublecheck: 167.068 ➤ Cells "B16" and "D16" should be the same 1. quantity when this form is complete. 2015 Total Retail Sales of Electricity 2015 Total Sales of Electricity from Renewable from Renewable Resources (MWh) Resources from All States (MWh) 2.a 36,904 36,904 2.b **Directions for Question 2.b:** Enter information in the green cells for the following two tables (the first table is generation from facilities in Wisconsin, the second table is for facilities outside Wisconsin). Please note, RPS stands for Renewable Portfolio Standard. GPP stands for Green Pricing Program, in which customers voluntarily pay a premium for electric generation from renewable resources. If the electric provider has a Green Pricing Program, break down generation intended for this under the second green column labeled "to be used for GPP". If the electric provider does not have a Green Pricing Program, only enter values in the first green column labeled "RPS-eligible". **Generator State of Origin** Table 1: Wisconsin 2015 Total Innin 2015 Municabe used for GPP RESTOR eligible Renewable Resource Type Hydroelectric 11,486 11,486 Wind Biomass - Landfill gas Biomass - Biogas Biomass - Refuse-derived fuel Biomass - Wood or wood waste Biomass - Other (describe)* Solar Photovoltaic Other (describe)* 11,486 11,486 Total *For any generation that falls into "other" categories above, please describe: Page 2 **Electric Provider or RPS Aggregator Name:** Northwestern Wisconsin Electric Company 2.b **Generator State of Origin**

Renewable Resource Type	20.5 Mult digitle	on the state of th	& X
Hydroelectric		-	
Wind	25,418	25,418	
Biomass - Landfill gas		-	
Biomass - Biogas		-	
Biomass - Refuse-derived fuel		-	
Biomass - Wood or wood waste		-	
Biomass - Other (describe)*		-	
Solar Photovoltaic		-	
Other (describe)*			
Other (describe)		-	
Total *For any generation that falls into "o	25,418 ther" categories above	- 25,418 ve, please describe:	1
Total	ther" categories abov	<u> </u>	

			DDC D-4	:	
		Historical Total W/ Batail Calca of		irement Info	
		Historical Total WI Retail Sales of			<u>s (wwn)</u>
3.	ightharpoonup	2012		168,469.000	
		2013		171,931.000	
		2014		173,544.000	
		3-Year Average		171,314.667	
		Enter Electric Provider's required Renewable Percentage for compliance			
		year 2014. Example: For 5.25% simply	1 / / / / / / /		
		enter 5.25, <u>not</u> .0525	14.48%		
		2015 Retirements needed (MWh):		24,806.36	
		2015 Retirements rounded to nearest MWh (this should be the same			
		amount of credits retired in MRETS		24.005	
		for 2015):		24,806	
		Were any of the credits retired for 201 electricity in which customers pay a pr	-		d for a Green Pricing Program? (sales of rgy). Enter "yes" or "no" below.
		No			
	_	If you entered "yes" for the question a Green Pricing Program were also retire		=	

Public Service Commission of Wisconsin Docket 5-GF-260 RPS Compliance 2015 CY - Question 4

NORTHWESTERN WISCONSIN ELECTRIC COMPANY

		2015	2015	2015
MRETS ID	NAME	MWH PROD	% TO RPS	MWH TO RPS
M202	CLAM RIVER DAM	5633	100	5633
M205	BLACK BROOK	2080	100	2080
M206	DANBURY	3773	100	3773
M876	LAKESWIND	25291	0	0