

August 26, 2016

Mr. Will Rosquist
Administrator, Regulatory Division
Montana Public Service Commission
1701 Prospect Avenue
PO Box 2022601
Helena, Montana 59620-2601

Re: Docket No. D2016.5.39
QF-1 Avoided Cost Rate Filing
Vote Solar Set 1 Data Requests (001-012)
Updated response to VS-011 parts b & c

Dear Mr. Rosquist:

Enclosed for filing is a copy of NorthWestern Energy's updated response to Data Request VS-011 parts b & c to the Vote Solar Set 1 Data Requests in Docket No. D2016.5.39. It has been hand delivered to the Montana Public Service Commission and the Montana Consumer Counsel this date. It has also been e-filed on the PSC website and sent via First Class Mail to attached service list.

Should you have questions please contact Joe Schwartzenberger at (406) 497-3362.

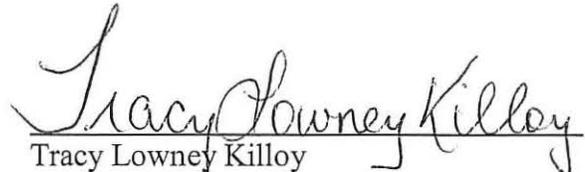
Sincerely,

Tracy Lowney Killoy
Administrative Assistant

CERTIFICATE OF SERVICE

I hereby certify that a copy of NorthWestern Energy's updated response to Data Request VS-011 parts b & c in the Vote Solar Set 1 Data Requests in Docket No. D2016.5.39, the QF-1 Avoided Cost Rate Filing, has been hand-delivered to the Montana Public Service Commission and one copy has been hand-delivered to the Montana Consumer Counsel this date. It has also been e-filed on the Commission website and sent via First Class Mail to attached service list.

Date: August 26, 2016


Tracy Lowney Killoy
Administrative Assistant
Regulatory Affairs

Docket Service List
Docket No. D2016.5.39

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North Western Energy
Docket No. D2016.5.39
Application for Approval of Avoided Cost Tariff Schedule QF-1

Vote Solar/Montana Environmental Information Center
Set 1 (001-012)

Data Requests received July 14, 2016

VS-011 Subject: NWE's Avoided Transmission and Distribution Costs

For use in calculating NWE's avoided transmission and distribution costs, please provide:

- a. The voltage level at which each of the still-active solar projects in NWE's current interconnection queue would interconnect. Please indicate whether this is a distribution or transmission voltage on the NWE system.

- b. For the most recent calendar year for which such data is available, please provide the following data:
 - i. The hourly loads (i.e. the 8,760 hourly loads over the year) for each distribution substation on the company's system. Generic (e.g. numbered) substation labels may be used if the company prefers, for security reasons or to preserve customer confidentiality. Please indicate for what percentage of such substations the company has such hourly data. If hourly load data is only available for those distribution substations with SCADA, please provide that data for the substations with SCADA.
 - ii. Alternatively, if hourly load data is not available for some distribution substations, please provide the magnitude of the annual peak load (in MW) at each such distribution substation that does not have hourly load data, and the time and date of such peak load, if available.
 - iii. The maximum kW capacity of each distribution substation.

- c. For the most recent calendar year for which such data is available, please provide the following data:
 - i. The hourly loads (i.e. the 8,760 hourly loads over the year) for each transmission substation on the company's system. Generic (e.g. numbered) substation labels may be used if the company prefers, for security reasons or to preserve customer confidentiality. Please indicate for what percentage of such substations the company has such hourly data. If hourly load data is only available for those transmission substations with SCADA, please provide that data for the substations with SCADA.
 - ii. Alternatively, if hourly load data is not available for some transmission substations, please provide the magnitude of the annual peak load (in MW) at each such transmission substation that does not have hourly load data, and the time and date of such peak load, if available.

NorthWestern Energy
Docket No. D2016.5.39
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Vote Solar/Montana Environmental Information Center
Set 1 (001-012)

Data Requests received July 14, 2016

VS-011 cont'd

- iii. The maximum kW capacity of each transmission substation.
- d. Please provide the company's current investment plan for its transmission and distribution facilities, preferably over the next five years, but for at least the next three years. This should include:
 - i. The annual transmission and distribution plant additions and retirements in each year, by FERC account if available.
 - ii. The forecasted annual peak demands, in MW, on the company's transmission and distribution systems.
- e. Please provide data, by FERC account, on the company's historical investments for its transmission and distribution facilities for the last ten years (2006-2015).

RESPONSE:

- a. See Attachment.
- b. The requested information is being extracted from multiple data sources, and will be provided shortly.
- c. The requested information is being extracted from multiple data sources, and will be provided shortly.
- d.
 - i. See Attachment.
 - ii. Below is the NorthWestern Transmission group's load forecast for NorthWestern's Balancing Authority Area.

Balancing Authority Area Load Forecast with DSM		
Peak MW		
Year	Summer	Winter
2016	1801	1729
2017	1821	1744
2018	1841	1759
2019	1861	1773
2020	1881	1778

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Vote Solar/Montana Environmental Information Center
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Below is the NorthWestern Supply group's load forecast for the distribution system. It was taken from the 2015 Electricity Supply Resource Procurement Plan.

	1 in 2 Peak Demand Forecast Excluding DSM (MW)				Peak Demand DSM Savings Forecast (MW)				1 in 2 Peak Demand Forecast Including DSM (MW)		
	Year	Winter	Summer		Year	Winter	Summer		Year	Winter	Summer
Forecast	2016	1224	1154	Forecast	2016	40	38	Forecast	2016	1184	1116
	2017	1244	1177		2017	50	48		2017	1195	1129
	2018	1264	1200		2018	60	58		2018	1205	1143
	2019	1285	1222		2019	69	66		2019	1216	1156
	2020	1305	1245		2020	79	76		2020	1226	1169

e. See Attachment.

UPDATED RESPONSE (August 26, 2016)

b. i. See the first tab labeled Load Research Data in the Distribution 2015 workbook in the Folder labeled VS-011b on the attached CD. The Load data is in 15 minutes intervals.

A summary of both the distribution and transmission substation data is shown in the table below:

	Transmission	Distribution
Load Research Data	32	244
PI Data	52	0
Peak Load Data	2	123
No Data	15	40
Total Data Points	101	407

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VS-011 cont'd

- ii. See the second tab labeled List in the Distribution 2015 workbook in the Folder labeled VS-011b on the attached CD. The data includes the month during which the annual peak load occurred. Neither the date nor the time are available.
 - iii. See the second tab labeled List in the Distribution 2015 workbook in the Folder labeled VS-011b on the attached CD.
- c.
 - i. See the first and second tabs labeled Load Research Data and PI Data in the Transmission 2015 workbook in the Folder labeled VS-011c on the attached CD. Also see the response to part b(i) above. The Load data is in 15 minute intervals.
 - ii. See the third tab labeled List in the Transmission 2015 workbook in the Folder labeled VS-011c on the attached CD. The data includes the month during which the annual peak load occurred. Neither the date nor the time are available.
 - iii. See the third tab labeled List in the Transmission 2015 workbook in the Folder labeled VS-011c on the attached CD.