



April 5, 2013

Ms. Kate Whitney  
Utility Division  
Montana Public Service Commission  
1701 Prospect Avenue  
PO Box 2022601  
Helena, Montana 59620-2601

**Re: Docket No. D2012.5.49 Electric Tracker  
PSC Set 5 Data Requests (PSC-034-PSC-091)  
Updated Response to PSC-034a, PSC-050b, PSC-050e, PSC-051b, PSC-051d  
and PSC-081b**

Dear Ms. Whitney:

Enclosed for filing is a copy of NorthWestern Energy's updated response to PSC Set 5 Data Requests listed above. These updated responses have been mailed to the service list in this docket. They will be hand delivered to the PSC and MCC. They also will be e-filed on the PSC website.

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

Sincerely,

A handwritten signature in black ink that reads "Nedra Chase".

Nedra Chase  
Administrative Assistant

Enclosures

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of NorthWestern Energy's updated response to PSC Set 5 Data Requests PSC-034a, PSC-050b, PSC-050e, PSC-051b, PSC-051d and PSC-081b in Docket D2012.5.49 Electric Tracker has been served by mailing a copy thereof by first class mail, postage prepaid to the service list in this Docket. They will be hand delivered to the PSC and MCC. They will also be e-filed on the PSC website.

Date: April 5, 2013

A handwritten signature in cursive script that reads "Nedra Chase". The signature is written in black ink and is positioned above a horizontal line.

Nedra Chase  
Administrative Assistant  
Regulatory Affairs

**A. Docket D2012.5.49  
Service List**

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**NorthWestern Energy**  
**Docket D2012.5.49**  
**Electric Tracker**

**Montana Public Service Commission (PSC)**  
**Set 5 (034-091)**

Data Requests received February 22, 2013

PSC-034

Regarding: DSM Impacts on Electricity Supply Costs  
 Witness: Fine, part a / Bennett, parts b, c & d

- a. Please provide estimates of annual total electricity supply portfolio costs with and without planned non-USB DSM acquisition over NWE's planning horizon. Please explain how the estimate is calculated and provide supporting work papers.
- b. Please provide estimates of annual residential electricity supply service rates with and without planned non-USB DSM acquisition over NWE's planning horizon, and with and without lost revenue.
- c. Please provide estimates of average residential electric bills with and without planned non-USB DSM acquisition over NWE's planning horizon.
- d. Please provide separate estimates of average residential electric bills for participants and non-participants with planned non-USB DSM acquisition over NWE's planning horizon, including lost revenue.

**RESPONSE:**

- a. The contribution of USB-funded energy savings to total DSM acquired has steadily declined since 2004-2005 (see table below). It is not known with any reasonable degree of certainty what the USB contribution to the DSM total will be in the future. Most of the DSM that is acquired now comes from non-USB funding (energy supply).

<b>DSM Reported Savings (aMW)*</b>					
	<b>USB</b>	<b>DSM</b>	<b>Total</b>		<b>USB % of Total</b>
2004-05	2.04	0.22	2.26		90.3%
2005-06	1.33	2.08	3.41		39.0%
2006-07	0.36	3.04	3.40		10.6%
2007-08	0.82	4.55	5.37		15.3%
2008-09	1.11	5.58	6.69		16.6%
2009-10	0.96	7.37	8.33		11.5%
2010-11	0.57	8.63	9.20		6.2%
2011-12	0.39	7.30	7.69		5.1%
<b>Totals</b>	<b>7.58</b>	<b>38.77</b>	<b>46.35</b>		<b>16.4%</b>

\* Values from Thomas Direct Testimony; D2012.5.49; Table 1; page WMT-4

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PSC-034 cont'd

NWE estimated annual total supply portfolio costs using the 2011 Electric Resource Procurement Plan. The cost with and without DSM is summarized in the following table. The estimated electric portfolio cost with all DSM included is \$10,184,995,900. The estimated electric portfolio cost without DSM is \$10,790,972,266. DSM reduces the 2011-2035 electric portfolio cost by an estimated \$605,976,366 over the planning period of the 2011 Resource Procurement Plan.

<b>2011 Resource Procurement Plan</b>			
<b>Impact of DSM on Base Portfolio 11 (no new resources)</b>			
<b>Item</b>	<b>Item Description</b>	<b>20-Year Total</b>	<b>Source</b>
a	Cost of Portfolio 11, Including DSM	\$10,184,995,900	2011 RPP Volume 2, Chapter 3, Page 18
b	DSM Acquisition Forecast (MWh)	11,253,043	2011 RPP Volume 2, Chapter 3, Page 9
c	NWE Avoided Cost	\$53.85	DOCKET NO. D2012.1.3, John Bushnell Testimony, Exhibit (JBB-02), page 1 of 9, 2012-2031 levelization
d = b x c	Value of DSM in 20-Year Base Portfolio	\$605,976,366	
e = a + d	Cost of Portfolio 11, Excluding DSM	\$10,790,972,266	
f = d / a	Portfolio Cost Increase Without DSM	5.9%	

- b. NorthWestern has not made these estimates. Any estimates would likely not be meaningful due to the number of assumptions and forecasts that would have to be incorporated to estimate the 20 years worth of detailed projections for rates based on 20 years of annual trackers. These assumptions at a minimum would include: multiple market price inputs, market price risks, estimates of replacement power purchase agreements, estimates of future rate allocations, estimates of future customer class allocations, estimated annual re-projection of loads, estimates of timing of DSM resets, estimates of authorized DSM expenditures for each annual tracker filing, estimated government rules and regulations, and estimated future changes to technology.
- c. See the response to part b, above.
- d. See the response to part b, above.

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PSC-034 cont'd

UPDATED RESPONSE (April 5, 2013):

- a. After filing the original response, NWE discovered that it inadvertently neglected to net the DSM program costs against the reduction to the electric portfolio cost resulting from the DSM savings. For this updated response, NWE also estimated annual total supply portfolio costs using the 2011 Electric Resource Procurement Plan ("Plan"). The Plan includes only DSM costs and related savings.

The estimated electric portfolio cost with all DSM Program costs and energy savings included is \$10,184,995,900 over the 20-year planning horizon. The estimated electric portfolio cost without DSM Program costs and without DSM energy savings is \$10,514,010,764 for a difference of \$329,014,864 over the planning period (i.e., \$10,514,010,764 - \$10,184,995,900 = \$329,014,864).

The estimated total cost to acquire the amount of DSM resource included in the Plan is \$276,961,502. DSM reduces the Plan's electric portfolio cost by an estimated \$605,976,366. This reduction is offset by the DSM Program expense, yielding a net portfolio cost reduction attributable to DSM of \$329,014,864 (i.e., \$605,976,366 - \$276,961,502 = \$329,014,864). The Plan portfolio cost without DSM is 3.2% greater than it is with DSM included. The cost with and without DSM is summarized in the following table:

2011 Resource Procurement Plan			
Impact of DSM on Base Portfolio 11 (no new resources)			
Item	Item Description	20-Year Total	Source
a	Cost of Portfolio 11, Including DSM Expense & DSM Energy Savings	\$10,184,995,900	2011 RPP Volume 2, Chapter 3, Page 18
b	DSM Expense	\$276,961,502	2011 RPP Volume 2, Chapter 3, Page 17
c	Cost of Portfolio 11, Excluding DSM Expense but Including DSM Energy Savings	\$9,908,034,398	a - b
d	DSM Acquisition Forecast (MWh)	11,253,043	2011 RPP Volume 2, Chapter 3, Page 9
e	NWE Avoided Cost	\$53.85	DOCKET NO. D2012.1.3, John Bushnell Testimony, Exhibit_(JBB-02), page 1 of 9, 2012-2031 levelization
f	Value of DSM Energy Savings	\$605,976,366	d x e
g	Cost of Portfolio 11, Excluding DSM Expense & DSM Energy Savings	\$10,514,010,764	c + f
h	Portfolio Cost Increase Without DSM (\$)	\$329,014,864	g - a
i	Portfolio Cost Increase Without DSM (%)	3.2%	h / a

**NorthWestern Energy**  
**Docket D2012.5.49**  
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**Montana Public Service Commission (PSC)**  
**Set 5 (034-091)**

Data Requests received February 22, 2013

PSC-050

Regarding: Independence of Program Evaluator  
Witness: Thomas

- a. Please identify and describe any mistakes, errors, or flawed assumptions made by SBW in the course of its work for NWE.
- b. Please provide any comments NWE made to SBW related to any draft of the Program Evaluation.
- c. Please identify any numbers, assumptions, or conclusions in the Program Evaluation that changed as a result of communications between NWE and SBW and provide the original number, assumption or conclusion.
- d. Please identify and describe any disagreements that arose between NWE and SBW during the course of SBW's work and describe how each disagreement was resolved.
- e. Please provide copies of all correspondence between representatives of NWE and SBW related to methodology, assumptions, inputs, wording or conclusions in the Program Evaluation.

RESPONSE:

- a. In an effort of this size, complexity, and magnitude there will be mistakes and errors. NWE conducted a thorough review of each portion of SBW's work, paying particular attention to understanding and duplicating SBW's numbers presented in the report and workbooks. For every instance where NWE could not duplicate SBW's numbers, NWE asked SBW to re-examine their calculation for correctness. SBW would correct the calculation if it was in error or instruct NWE on the error in NWE's calculation. A record of individual mistakes or errors, by SBW or NWE, was not tallied or recorded.

Examples include disagreement about which weather location (e.g., Kalispell vs. Helena) was most representative of NorthWestern's system average, calculation errors in spreadsheets resulting from incorrect formula expressions, incorrect or incomplete written program descriptions, missing tables, charts and figures in early drafts, tables not populated with data, incorrect labeling, or duplicate text (likely resulting from copy/paste operations when consolidating material from multiple authors).

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PSC-050 cont'd

- b. NorthWestern has objected to this under the Work Product Doctrine. Please see the objection filed March 8.
- c. In NWE's effort to understand and master the ability to duplicate SBW's numbers presented in the report, some numbers changed as errors and mistakes were identified. A record of individual mistakes or errors was not recorded.
- d. Whenever NWE questioned a number, calculation, or presented information that conflicted with information in the report, SBW would consider the information and provide their professional judgment to resolve the issue. The final decision for the work product was SBW's as an independent program evaluator. An example may be the use of Kalispell historical weather data used by SBW to analyze weather dependent measure unit energy savings (UES) values (insulation is a measure example). NWE has historically used Helena historical weather data as an average for the electric and natural gas service area in Montana. SBW chose to use Kalispell historical weather data in their evaluation of weather dependent measures. NWE brought the discrepancy to SBW's attention. SBW considered the information and decided to proceed with the use of Kalispell data.
- e. NorthWestern has objected to this under the Work Product Doctrine. Please see the objection filed March 8.

UPDATED RESPONSE (April 5, 2013):

- b. Please see Attachments 1, 2, and 3 in the folder labeled "PSC-050b" on the attached CD.
- e. Please see the files in the folder labeled "PSC-050e" on the attached CD. They contain emails (including attachments) exchanged between NWE employees and staff members of SBW and Research Into Action, Inc. from January 1, 2012 through February 15, 2013. The NWE email custodians were Bill Thomas, Dave Bausch, Danie Williams, and Deb Young. The SBW employees with whom they corresponded were Michael Baker, Faith DeBolt, Marc Schuldt, John Roberts, Gina Hicks, Bing Tso, Mary Hamann, Bob Tingleff, and Lynn Qualmann, along with Marjorie McRae of Research Into Action.

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**Montana Public Service Commission (PSC)**  
**Set 5 (034-091)**

Data Requests received February 22, 2013

PSC-051

Regarding: Independence of Program Evaluator  
Witness: Baker

- a. Please identify and describe any changes that NWE requested to the methodology, assumptions, inputs, wording or conclusions in the Program Evaluation.
- b. Please provide copies of drafts of any portion of the Program Evaluation that SBW sent to NWE.
- c. Please identify and describe any disagreements that arose between NWE and SBW during the course of SBW's work, and how each disagreement was resolved.
- d. Please provide copies of all correspondence between representatives of NWE and SBW related to methodology, assumptions, inputs, wording or conclusions in the Program Evaluation.

RESPONSE:

- a. NWE did not request any changes to the overall evaluation methodology described in the evaluation plan. They did, however, provide many technical and editorial comments on our work after it was completed. In some cases, we considered them and decided to make changes to our methodology, assumptions, inputs, wording or conclusions. In other cases, we provided a response to the comment, but made no changes.
- b. NorthWestern has objected to this under the Work Product Doctrine. Please see the objection filed March 8.
- c. NWE provided many technical and editorial comments on our work. In some cases, we considered them and decided to make changes to our methodology, analysis or documentation. In other cases, we provided a response to the comment, but made no changes. This process is consistent with our standard practices in performing independent program impact evaluation for utilities. We believe that it is a required part of conducting high quality evaluation research.
- d. NorthWestern has objected to this under the Work Product Doctrine. Please see the objection filed March 8.

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PSC-051 cont'd

UPDATED RESPONSE (April 5, 2013):

- b. Please see the files in the folder labeled "PSC-051b" on the attached CD.
- d. Please see the files in the folder labeled "PSC-051d" on the attached CD. These email files and attachments are being provided in PST format and can be accessed through the Microsoft Outlook software program. Brief instructions explaining how to access these documents are included in the folder as well.

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PSC-081

Regarding: Wind Ramps  
Witness: Bennett

- a. Does NWE possess 15-minute data or 30-minute data relating to the production of energy from the wind energy assets it either owns or has contracts with?
- b. If so, provide that data for the period from June 2011 through the most recent date for which data are available, both for each wind project separately and for the aggregate fleet of projects. Please provide this information in electronic format (i.e., a Microsoft Excel file).
- c. Please identify the largest net ramp in energy resulting from wind generation since June 2011.

RESPONSE:

- a. Yes, for all except Musselshell and Musselshell Two, which began operating in December 2012. The capability to extract this data from these facilities is still under development.
- b. Please see the folder labeled "PSC-081" on the CD attached to PSC-043 for the public version of the 15-minute wind data. The file contains information for wind contracts and wind assets under the supply portfolio. Gordon Butte Wind, LLC has informed NorthWestern that it considers this wind data to be confidential and a trade secret. Gordon Butte has further informed NorthWestern that it intends to file a petition to intervene and a motion for a protective order in this docket. NorthWestern is not providing this data for Gordon Butte until the Commission issues a decision on the motion for a protective order nor has it included Gordon Butte production in the aggregate totals.
- c. NorthWestern evaluated the total of all wind meter data available from Load Research and applied the change of the total sum of all projects to be the net ramp. The largest positive change of 118 MW occurred on January 26, 2013 between 20:15 and 20:30 hours MST. The largest negative change of -113 MW occurred on July 13, 2011 between 17:15 and 17:30 hours MST.

UPDATED RESPONSE (April 5, 2013):

- b. See the Updated PSC-081b Attachment on the CD attached to PSC-050. It includes data for Gordon Butte Wind, LLC since its motion for protective order was denied.