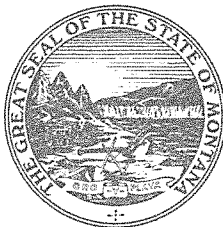


# Montana Public Service Commission



Brad Johnson - Chairman  
Travis Kavulla - Vice Chairman  
Roger Koopman - Commissioner  
Bob Lake - Commissioner  
Tony O'Donnell - Commissioner

October 11, 2017

Mr. Joe Schwartzberger  
NorthWestern Energy  
11 East Park  
Butte, MT 59701

RE: Data requests in Docket D2017.5.39

Dear Mr. Schwartzberger,

Enclosed please find Data Requests PSC-009 through PSC-028 of the Montana Public Service Commission to NorthWestern Energy in the above referenced Docket. Please begin the response to each new numbered data request on a new page. If the initial data request is objectionable or seeks confidential information, NorthWestern Energy must respond accordingly and proceed to object or file a motion for protective order no later than the deadline to respond. Please provide responses on or before October 25, 2017. If you have any questions, please contact me at (406) 444-6191.

Sincerely,

A handwritten signature in black ink, appearing to read "Neil Templeton". The signature is fluid and cursive, with a long horizontal stroke at the end.

Neil Templeton  
Analyst, Regulatory Division  
Montana Public Service Commission

Service Date: October 11, 2017

DEPARTMENT OF PUBLIC SERVICE REGULATION  
BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MONTANA

IN THE MATTER of the Montana Public Service ) REGULATORY DIVISION  
Commission's Review of Rates to Recover )  
NorthWestern Energy's Electricity Supply Costs ) DOCKET NO. D2017.5.39

**DATA REQUESTS PSC-009 THROUGH PSC-028 OF THE**  
**MONTANA PUBLIC SERVICE COMMISSION TO**  
**NORTHWESTERN ENERGY**

PSC-009

Regarding: Asymmetric Information, Decision Authority, and Risk  
Witness: Lail

- a. Given that NorthWestern is in control of the cost information used to project cost expectations, and decision authority regarding certain expenditures, please describe why or why not NorthWestern should bear an asymmetric portion of risk with respect to the recovery of expected electric supply costs.
- b. Do you believe that asymmetric dead or sharing band boundaries could force NorthWestern to adopt an asymmetric portion of risk in cost recovery?
- c. Do you believe that asymmetric sharing band share ratios could force NorthWestern to adopt an asymmetric portion of risk in cost recovery?
- d. Do you believe that an asymmetric earnings test, i.e. asymmetric bands around its authorized level of invested earnings, could force NorthWestern to adopt an asymmetric portion of risk in cost recovery?

PSC-010

Regarding: Data Response LCG-026 in D2016.9.68 Phase I  
Witness: Lail

These requests refer to slide 28 in NorthWestern's March 2017 presentation to Ratings Agencies, as provided in NorthWestern's updated response to data request LCG-026, filed May 5, 2017 in Phase I of its 2016 natural gas rate filing, D2016.9.68.

- a. Please provide the name of the individual who prepared this slide.

- b. How did NorthWestern come to learn about the power cost recovery mechanisms of Portland General, Avista, and Idaho Power?
- c. Please submit the results of all research in the last five years that NorthWestern has conducted regarding the power cost recovery mechanisms of these utilities, including electronic worksheet analysis.
- d. Please submit the results of all research in the last five years that NorthWestern has conducted regarding the PCAMs of PacifiCorp and Puget Sound Electric, including electronic worksheet analysis and supporting data.
- e. If NorthWestern has not engaged analysis as described in parts c and d, please explain its decision to forgo this investigation, given its potential interest to ratings agencies and consequent value to NorthWestern.

## PSC-011

Regarding: Investor Perception of Power Cost Adjustment Mechanisms

Witness: Lail

- a. Please provide any communication between any employee(s) of NorthWestern and any investor, investment analyst, or ratings agency which include any reference to a power cost recovery or adjustment mechanism, including the current tracker, proposed PCCAM, or any other mechanism used by NorthWestern or another utility.
- b. Please provide all presentations NorthWestern has made to its Board of Directors which include any reference to a power cost recovery or adjustment mechanism, including the current tracker, proposed PCCAM, or any other mechanism used by NorthWestern or another utility.

## PSC-012

Regarding: Potential Impact of Alternative Recovery Mechanisms

Witness: Lail

- a. Please submit the results of all research in the last five years that NorthWestern has conducted regarding the potential impact of alternative power cost recovery designs on cost recovery, risk exposure, cost of equity capital, and cost of debt capital.
- b. Please submit all electronic worksheet analysis and supporting data associated with research identified in part a.
- c. If NorthWestern has not engaged analysis as described in part a, please explain its decision to forgo this investigation, given the potential impact to NorthWestern in modification of the current cost recovery mechanism.

## PSC-013

Regarding: PSC-002, Cost Recovery Variability  
Witness: Lail

- a. At PSC-002a you respond that a deadband eliminates an opportunity for recovery of prudently incurred costs. Please explain why NorthWestern believes that a deadband eliminates an opportunity for the recovery of prudently incurred costs.
- b. Please confirm or deny with explanation that NorthWestern considers cost recovery variability associated with fixed rates established according to test year parameters to be characteristic of traditional regulatory policy.
- c. Please explain whether NorthWestern considers any level of cost recovery variability to be unacceptable in the case of tracked electric supply costs.
- d. If cost recovery variability is unacceptable in the case of tracked costs, please explain why the characteristics of tracked costs (e.g. volatility, lack of utility control) require that cost recovery variability be eliminated entirely.
- e. If some tracked cost recovery variability is acceptable to NorthWestern, please specify acceptable upper and lower bounds on variability, using net power cost magnitudes or basis point returns on investment as boundaries.

## PSC-014

Regarding: PSC-004, Cost Recovery Variability  
Witness: Lail

- a. At PSC-004b you respond that NorthWestern opposes partial or selective earnings tests. Please define partial or selective in this case.
- b. At PSC-004b you state that because of obligation to serve, a regulator must assure the utility a fair opportunity to earn a reasonable return on invested capital. Please explain how an earnings test – designed to preclude the deferral of under/over recovered costs if utility earnings reside within “reasonable” thresholds above and below its authorized return – denies the utility a fair opportunity to earn a reasonable return.

## PSC-015

Regarding: Tracker Cost Recognition and Identification  
Witness: Lail

At p. 7 you testify: “Fuel costs and purchased energy costs are usually recovered through tracker mechanisms due to their vulnerability to be influenced by factors beyond the control of a utility, their volatility, and the magnitude of these costs relative to utility earnings.”

Please describe any heuristic or quantitative methods you are aware of or are willing to propose that would enable the Commission to recognize and identify threshold levels of control, volatility, and cost magnitude in order to separate tracking costs from other costs.

## PSC-016

Regarding: Power Purchase Agreement Expense Variability

Witness: Lail

- a. Please confirm or deny with explanation that variability in fixed price, fixed quantity power purchase agreement (PPA) expense is negligible.
- b. Please confirm or deny with explanation that variability in fixed price, variable quantity PPA expense is a function of the variability in quantity delivered and associated replacement power costs.
- c. Does NorthWestern typically require guaranteed minimum delivery quantities in contracts with QFs and other variable output producers? If so, does this restrict total cost variability associated with these contracts?
- d. Please confirm or deny with explanation that variability in fixed quantity, indexed-price PPA expense is primarily due to variability in market prices.
- e. Does NorthWestern believe that its customers should assume all of the power cost risk associated with market price variation? Please explain.

## PSC-017

Regarding: Estimating Existing PPA Volatility

Witness: Lail

- a. For each fixed quantity, indexed-price contract NorthWestern has entered in the last 5 years, please estimate baseline contract expense using the fixed quantities and forward prices available at the time of contract; then compare annual baseline estimates to actual costs incurred.
- b. For each fixed price, variable quantity PPA NorthWestern has entered in the last 5 years, please estimate baseline contract expense using the fixed prices and quantities expected at the time of contract; then compare annual baseline estimates to actual costs incurred.
- c. For each fixed quantity, fixed-price contract NorthWestern has entered in the last 5 years, please provide the forward price curve NorthWestern at the time when NorthWestern entered the contract; multiply that curve by the contract's volume to derive an estimated cost; and then compare it to the cost actually incurred for each contract to date.

## PSC-018

Regarding: Comparability of QF-1 Rates

Witness: Lail

The PSC recently determined a marginal cost of energy estimate in its D2016.5.39 QF-1 proceeding. Please explain whether and why it would be appropriate/inappropriate for this rate to serve as a baseline for forward-looking energy supply costs.

## PSC-019

Regarding: Magnitude of Deviations from Projected Costs

Witness: Markovich

- a. For each year that the current electricity supply tracker has been in effect, please identify, by year, the total percentage deviation for the projected twelve months of electricity supply costs made in the annual projection typically filed in May (excluding costs associated with deferrals and true-ups), and the actual costs incurred for electricity supply costs (again excluding deferrals and true-ups, and also excluding any costs that the Commission disallowed).
- b. Identify, by each of the sub-categories described in Categories 1-3 in your testimony, the deviation described above for each of the past tracker years.

## PSC-020

Regarding: Recovery of QF Purchase Costs

Witness: Markovich

- a. In your response to DR PSC-007 you cite federal code to support your claim that NorthWestern is entitled to 100% recovery of QF costs. Please describe how NorthWestern (Montana Power) recovered QF purchase costs in the period before development of the current electricity cost tracker.
- b. During the period described above in (a), did Montana Power recover 100% of its prudently incurred QF costs?

## PSC-021

Regarding: 5-Year History of Costs

Witness: Markovich

- a. Please provide, or reference information already provided: all Category 1 actual costs (including the sub category costs 1-10 as shown below), Category 2 actual costs (including sub category costs a-i shown below), and Category 1 Power credits (including sub categories 1-5 shown below), monthly for the years 2012-2016 and for 2017 monthly year to date. For

Category 1 costs, On System Market Purchases, in addition to actual monthly costs, please also provide the volumes purchased and the associated rates.

Category One Costs

- 1) Off System Fixed Price Purchases – Mid-Columbia (“Mid-C”) hedge purchases;
- 2) Colstrip Unit 4 (“CU4”) Variable Costs – fuel costs incurred to operate the facility;
- 3) Dave Gates Generating Station (“DGGS”) Variable Costs – gross fuel costs required to operate DGGS;
- 4) Judith Gap Costs – purchased energy costs that NorthWestern pays for energy from this facility;
- 5) On System Market Purchases - energy purchases used to serve load;
- 6) NorthWestern Transmission Costs – wheeling costs on NorthWestern’s transmission system;
- 7) Wind Other Costs – forecasting expenses, tower leases, property taxes, Western Renewable Energy Generation Information Systems fees;
- 8) Basin Creek Variable Costs - fuel and variable operating and maintenance expenses;
- 9) Basin Creek Fixed Costs – the contracted capacity payment required to operate the facility and the associated property taxes; and
- 10) Operating Reserves – contingency reserves required to be in place under the American Electric Reliability Corporation Standard BAL-002-WECC-2 and WE’s Open Access Transmission Tariff.

Category One Power Credits

- 1) Revenue credits from the sale of Mid-C hedge purchases and from excess on-system supply;
- 2) Reductions in gross fuel costs from DGGS for transmission – level customers;
- 3) Revenue credits from the energy supplied by DGGS in order for it to operate at its desired level for regulation service;

- 4) Production Tax Credits (“PTCs”) from Spion Kop and the Hydros; and
- 5) Contract sales to Yellowstone National Park.

#### Category Two Power Costs

- 1) Purchases from these QF Tier II Resources:
    - a. Yellowstone Energy Limited Partnership (BGI);
    - b. Colstrip Energy Limited Partnership;
    - c. State of Montana, DNRC (Broadwater Dam);
    - d. Hydrodynamics, Inc. (South Dry Creek);
    - e. Ross Creek Hydro, LLC;
    - f. Allen R. Carter (Pine Creek);
    - g. Hydrodynamics, Inc. (Strawberry Creek);
    - h. James Walker Sievers (Cascade Creek); and
    - i. James Walker Sievers (Barney Creek)
  - 2) Purchases from QF-1 Resources – includes all contracts signed under NorthWestern’s QF-1 tariff, including projects that are either in commercial operation or will be operable at some point during the adjustment period.
  - 3) MPSC and MCC Taxes
- b. For the Category 2 Power Cost – Purchases from QF-1 Resources, please provide monthly volumes, rates, actual costs for each individual contract for the period 2012 – 2016 and 2017 year to date.
  - c. For the Category 2 Power Cost – Purchases from QF-1 Resources, please provide the estimated monthly cost for projects projected to be in service at some point during the adjustment period.
  - d. For Category 3 Transitional Recovery costs – Administrative Costs – please provide actual monthly costs for the period 2012 – 2016 and 2017 monthly year to date and for each sub category of Administrative costs a-f shown below.

#### Category Three Transitional Recovery Administrative Costs

- 1) Intercontinental Exchange;
- 2) Telvent DTN, LLC;
- 3) TFS Energy, LLC;
- 4) Tullett Preborn Americas Corp;
- 5) Open Access Technology, Int’l, Inc.; and
- 6) Other Related Services



- e. Please provide monthly actual DSM costs for the period 2012-2016 and for 2017 monthly year to date. In addition, please provide monthly actuals for the same period for each DSM program or project.

## PSC-022

Regarding: Exh. KJM-1

Witness: Markovich

- a. Regarding KJM-1, Page 4 of 5, for each month please provide the forecasted cost for each individual QF Tier 2 resource.
- b. Regarding KJM-1, Page 4 of 5, for each month please provide the forecasted cost for each individual QF-1 tariff contract, including those that are forecasted to come on line during the forecast period.
- c. Regarding KJM-1, Page 5 of 5, for each month please provide the forecasted cost for each individual element of the Administrative costs as described in the Markovich testimony, pages 12-13.
- d. Regarding KJM-1, Page 5 of 5, for each month please provide the forecasted cost for each individual DSM program and project as described in the Markovich testimony, page 13.

## PSC-023

Regarding: Administrative Costs, DSM Costs

Witness: Markovich

- a. Are 100% of the costs associated with the Administrative Costs entities shown below currently allocated to baseline electric supply costs?
  - 1) Intercontinental Exchange
  - 2) Telvent DTN, LLC
  - 3) TFS Energy, LLC
  - 4) Tullett Preborn Americas Corp.
  - 5) Open Access Technology, Int'l, Inc.
  - 6) Other Related Services
- b. If the answer to (a) is no please provide where the remaining percentage of those costs are allocated and how the allocation is derived.
- c. Are 100% of DSM costs allocated to baseline electric supply costs?

- d. If the answer to (c) is no please provide where the remaining percentage of the DSM costs are allocated and how the allocation is derived.

## PSC-024

Regarding: Market Purchase Offset

Witness: Markovich

Please provide a numerical example and additional explanation concerning how the offset as described on pages 10 & 11 of the Markovich testimony would work.

## PSC-025

Regarding: Model Specification and Parameter Estimates

Witness: Markovich

Please provide model specification and parameter estimates, including the specification of stochastic variables, for all estimated base power costs and credits, and all ancillary information such as Mid-C market prices.

## PSC-026

Regarding: Alternative Models for Baseload and Regulating Resources

Witness: Markovich

- a. If NorthWestern has considered alternative generation models for CU4, DGGS, Basin Creek, or the Hydros, please provide alternative specifications.
- b. Please describe any adjustments to baseload or regulating resource dispatch that NorthWestern has adopted in adapting to RBC protocol.
- c. Is NorthWestern confident that dispatch from its baseload and regulating resources has stabilized with respect to RBC protocol? Please estimate the date at which NorthWestern achieved dispatch stability or expects to achieve dispatch stability with respect to meeting RBC requirements.
- d. If resource dispatch under RBC is significantly different than dispatch prior to RBC, please describe how this change is accommodated in the base forecast.

## PSC-027

Regarding: Net Earnings

Witness: Schwartzenberger

- a. In the NorthWestern response to PSC-005b NorthWestern provided the net earnings associated with Total Electric, CU4, DGGS, Spion Kop, the Hydro assets, and “remaining” for the years 2014-2016. Is the “remaining” equivalent to T&D & Other as provided in the response to PSC-005a?

- b. Please provide the calculations for each of the net earnings presented in the response to PSC-005b referenced in part (a) above. That is, please provide the revenues, operating expenses, depreciation, and taxes used to calculate each net earnings number.
- c. Please provide the same information requested in part b.) above for the years 2009-2013 for Total Electric, T&D & Other, and each generating asset as presented in the response to PSC-005a.

## PSC-028

Regarding: Base PCC

Witness: Schwartzberger

- a. Testimony Page 4 – the testimony states that once established in the 2018 electric general rate filing, that the Base PCC and associated base rates will remain in effect and unchanged between electric general rate filings. Since it can be multiple years between general rate cases are there any circumstances where the Base PCC and rates would be revisited between general rate cases?
- b. Referring to (a) above, does the NorthWestern proposal preclude the Commission undertaking a review of the Base PCC and rates between general rate cases?
- c. Does NorthWestern intend to provide monthly reports to the Commission on the balance in the PCC deferred Account?
- d. At p. 7 you state that Category One costs include Spion Kop. However, Markovich exhibit KLM-1, Page 2 does not explicitly list any costs associated with Spion Kop. Please explain where Spion Kop costs are include in Category One costs and the amount of those costs included in KLM-1.