

**PUBLIC SERVICE COMMISSION
STATE OF MONTANA**

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October 21, 2015

Ms. Tamie A. Aberle
Director of Regulatory Affairs
Montana-Dakota Utilities Co.
400 North Fourth Street
Bismarck, North Dakota 58501

RE: Data Request in Docket D2015.6.51

Dear Ms. Aberle,

Enclosed please find data requests of the Montana Public Service Commission, numbered PSC-059 through PSC-070, to Montana-Dakota Utilities Co. in the docket referenced above. If you have any questions, please contact me at (406) 444-6185.

Sincerely,

Mike Dalton
Rate Analyst
Montana Public Service Commission

Enclosure

cc: Service List

Service Date: October 21, 2015

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

IN THE MATTER OF the Application of) REGULATORY DIVISION
Montana-Dakota Utilities Co. for the Authority)
to Establish Increased Rates for Electric Service) DOCKET NO. D2015.6.51
in the State of Montana)

DATA REQUESTS PSC-059 THROUGH PSC-070 OF THE
MONTANA PUBLIC SERVICE COMMISSION TO
MONTANA-DAKOTA UTILITIES CO.

PSC-059

Regarding: ‘Minimum and Normal System Design’ Method – Supporting Workpaper L-9
Witness: Cardwell

- a. Provide an itemized breakdown for the calculation of ‘minimum system’ costs and ‘normal system’ costs for Poles (Acct. 364), Overhead Conductors (Acct. 365), and URD Conductor (Acct. 367), on Supporting Workpaper L-9.
- b. Does the cost of the ‘minimum system’ represent the marginal cost to rebuild the system with the minimum investment necessary to connect a customer using present day costs and modern equipment? Or is the cost of the ‘minimum system’ based on historical embedded costs? Please explain.
- c. Does the cost of the ‘normal system’ represent the marginal cost to rebuild MDU’s distribution system using present day costs and modern equipment? Or is the cost of the ‘normal system’ based on historical embedded costs?
- d. Explain why MDU chose to aggregate accounts for Poles (364), Overhead Conductors (365), and URD Conductors (367) in its ECOS and use a weighted average to determine the customer component of those accounts, instead of including each account as a separate line item in the ECOS and determining the customer component of each account separately, considering MDU already determined the customer component share of each account.

PSC-060

Regarding: Zero Intercept Analysis – Allocation of Transformer Costs
Witness: Cardwell

- a. Has the Montana Public Service Commission approved the zero intercept method to allocate MDU's transformer costs in the past? If so, please provide the appropriate order number.
- b. Have any regulatory bodies approved the zero intercept method to allocate transformer costs among customer classes in any of the jurisdictions in which MDU operates? If so, please provide the jurisdiction and order number.
- c. Supporting Workpaper L-10 indicates that a 15 kVA transformer is less expensive than a 10 kVA transformer. Explain why MDU would ever install a 10 kVA transformer if it would be less expensive to install a 15 kVA transformer.

PSC-061

Regarding: Service Lines – Supporting Workpaper L-22
Witness: Cardwell

- a. Please provide a detailed explanation of what is meant by the statement at the top of Workpaper L-22, "weighting for electric service lines is based on a ~80% model representation of the actual service lines."
- b. For each rate number listed on Workpaper L-22, what percentage of service lines are based on actual service lines included in the Company's GIS, and what percentage of service lines are based on estimates, or are missing from the worksheet?
- c. Confirm that the 'Sum of COST OF EACH SERVICE' column in L-22 represents the historical cost incurred to install the service lines for each rate number included on the worksheet. If not, please explain. If the answer is yes, have these costs been adjusted to 2014 dollars?

PSC-062

Regarding: Marginal Energy Costs
Witness: Cardwell

- a. Please explain why the Excel sheet titled 'MCC-096 SJC-6 Energy Plexos Model' that MDU provided in response to MCC-096 shows no revenue from energy sales into the MISO market over the time period 2014-2024, except for year 2016.
- b. Please explain why resources identified in the 2015 IRP as part of MDU's "optimal" plan going forward were not included in the PLEXOS model.

- c. What are the reasons for and the reasons against including planned resources in the PLEXOS model?
- d. Would including planned resources in the PLEXOS model increase or decrease the marginal energy cost?
- e. MDU includes planned resources which have not yet come online into the EGEAS model when it is determining its optimal resource expansion plan. Is there a fundamental difference between the objective MDU is trying to achieve through EGEAS modeling compared to the objective being achieved through PLEXOS modeling, which would justify including planned resources in one exercise but not the other? Please explain.

PSC-063

Regarding: Marginal Energy Costs
Witness: Cardwell

- a. Please confirm that demand response programs were built into the load forecast in the PLEXOS model, and that is why the output shows zero production for demand response programs.
- b. Please explain what the following generation resources are that are listed in the Excel sheet 'MCC-096 SJC-6 Energy Plexos Model,' provided in response to MCC-096: Lewis and Clark pk, Ft. Peck Capacity, Heskett 3 Firm, ND State Capitol, WEPCO Purchase, Williston Water Plant.

PSC-064

Regarding: Marginal Cost Study
Witness: Cardwell

In the Excel sheet titled "Marginal Cost Study Exhibit SJC1-SJC11," on the 'Peak Ranking' tab, what do the numbers in cells A1:A9 represent?

PSC-065

Regarding: Revenue Allocation and Rate Design
Witness: Aberle

In your direct testimony on page 3, lines 21-26, you state: "A review of the embedded and marginal cost of service studies sponsored by Mrs. Cardwell indicated that all of the rate classes are below the requested overall rate of return with the majority of the customers well below the requested overall return on rate base based on the embedded class study. Because of this and because of the magnitude of the overall increase I applied an equal percentage increase to all customer classes."

- a. Should the Commission ultimately approve a method of cost allocation within the embedded cost or marginal cost studies that changes the results of either cost allocation study, would MDU change its recommendation of an equal percentage increase to all customer classes, or change any recommendations it has made with respect to rate design?
- b. If the answer to part a is yes, to the best of your ability, please explain how the results of either cost study would need to change, or what cost responsibility or current return on rate base thresholds would need to be met for any particular customer class, in order for any of MDU's cost allocation or rate design recommendations to change.
- c. Should the Commission ultimately approve an overall increase to MDU's revenue requirement that is less than what MDU has proposed in its application, would MDU's recommendation of an equal percentage increase to the revenue requirement of all customer classes also change?
- d. If the answer to part c is yes, at what level of increase to the overall revenue requirement would MDU no longer recommend an equal percentage increase to all customer classes?

PSC-066

Regarding: Response to MCC-102

Witness: Cardwell

- a. Who prepared the per-mile cost estimate for a normal mile of OHD Three-Phase Line and normal mile of URD Three-Phase Line provided in MDU's response to MCC-102?
- b. Do the estimates provided in response to MCC-102 reflect an average of the per-mile cost of previously deployed distribution projects that MDU has completed? If not, please explain.

PSC-067

Regarding: Net Metering

Witness: Aberle

In response to PSC-006(a), you state "separately metering the generator would not address the issue associated with customers causing a demand on the system and not adequately paying for the costs associated with that demand." Please explain and show with supporting workpapers how MDU's proposal to install a demand meter and implement a demand charge allows net metering customers to adequately pay for the costs associated with the demand they impose on the system.

PSC-068

Regarding: Rate Design
Witness: Aberle

- a. Explain why MDU believes its proposed residential basic service charge “strikes a good balance between reflecting the true costs of serving each customer and recognizing customer impacts,” as stated on page 5, lines 17-20 of your direct testimony.
- b. What factors did MDU take into account when it considered the customer impacts of its proposed basic service charge as referenced in part a.
- c. Explain why MDU is proposing to increase the fixed basic service charge of the residential class by a greater percentage than the proposed increase to the overall revenue requirement.
- d. After MDU determined a fixed basic service charge for a customer class which “struck a good balance...” (as referenced in part a to this question), please explain in detail the method MDU used to allocate the remaining revenue requirement to be collected from the energy charge between on-peak time periods and off-peak time periods. Please cite or include any supporting workpapers with your answer.
- e. For each customer class that is subject to a demand charge in the proposed tariffs, please explain the method MDU used to calculate the proposed increase to the demand charge. Please cite any necessary workpapers for support.

PSC-069

Regarding: MDU Response to TASC-001
Witness: Aberle

Are there particular MDU tariffs or other public policies in place in Wyoming which could have caused the disproportionate growth in net metering customers in that state compared to the other states where MDU provides service? Please describe any factors which you believe could have contributed to the large number of net metering customers MDU serves in Wyoming compared to other states.

PSC-070

Regarding: Net Metering
Witness: Aberle

- a. In response to PSC-006(c), MDU seems to indicate it is proposing to utilize the currently installed automated meter reading system to track demand for net metering customers. Is MDU proposing to install a demand meter on net metering systems, utilize AMR technology to track the demand of net metering customers, or both?

- b. If not provided in part a, please explain exactly how MDU is proposing to track the energy usage and demand for net metering customers, including specifics about how it will utilize a demand meter or automated meter reading system.