

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

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IN THE MATTER OF THE APPLICATION OF )  
MONTANA-DAKOTA UTILITIES CO., a ) REGULATORY DIVISION  
Division of MDU Resources Group, Inc., for )  
Authority to Establish Increased Rates for Electric ) DOCKET NO. D2015.6.51  
Service in the State of Montana )

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**MONTANA LARGE CUSTOMER GROUP'S RESPONSES  
TO THE MONTANA PUBLIC SERVICE COMMISSION'S  
DATA REQUESTS PSC-108 THRU PSC-114**

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Montana Large Customer Group ("LCG") provides the attached response to the Montana Public Service Commission's Data Requests PSC-108 thru PSC-114.

Respectfully submitted this 21st day of December, 2015.

**MONTANA LARGE CUSTOMER GROUP**

*s/ Nikolas S. Stoffel*

Thorvald Nelson, # 8666

Nikolas Stoffel, #13485

Holland & Hart LLP

6380 South Fiddlers Green Circle, Suite 500

Greenwood Village, Colorado 80111

Telephone: (303) 290-1600

Facsimile: (303) 290-1606

Email: [tnelson@hollandhart.com](mailto:tnelson@hollandhart.com)

[nsstoffel@hollandhart.com](mailto:nsstoffel@hollandhart.com)

## DATA REQUESTS

**PSC-108:** RE: Cost of Service Study

Witness: Baron

- a. Regarding class cost of service, please confirm that the LCG's primary recommendation is to use the cost of service study provided in Exhibit SJB-9, which includes the 12 CP methodology, and the LCG's secondary recommendation – which LCG would also support – is to use the cost of service study provided in Exhibit SJB-8, which includes a modified AED methodology.
- b. On page 8, lines 14-15 of your direct testimony, you state “while the AED methodology can be a reasonable approach and I have supported its application in other cases, I have concerns about the Company’s filed study in this case.” Please provide an electronic copy or link to the most recent testimony or documents in which you supported the use of the AED methodology.
- c. Please explain what factors specific to this case caused you to primarily recommend a 12 CP methodology to allocate demand related production and transmission costs.
- d. In your testimony, you appear to argue that the AED methodology which MDU has proposed over-allocates costs to Rate 35 in part because it allocates excess demand to customers based on non-coincident peak demand, which may not occur at the time of system peak, and thus would not cause the utility to incur additional costs to add generation and transmission capacity. Would an AED methodology that uses coincident peak demand rather than non-coincident peak demand alleviate some of the LCG's concerns with respect to the AED methodology MDU has proposed? Please explain. Please reference the following article for further discussion on such a methodology: Coyle, Eugene P. “Average and Excess Demand Once Again.” *Public Utilities Fortnightly* 24 June 1982: 51-52.
- e. If not provided in response to PSC-074, provide an electronic version of the modified embedded cost of service study that supports Exhibit\_\_(SJB-8) and Exhibit\_\_(SJB-9). (e.g., similar to Statement L).

### **Response to PSC-108:**

- a. No. While Mr. Baron believes that the Adjusted AED study that he presented in Exhibit SJB-8 is an improvement to the Company’s filed AED study, it continues to have the flaws discussed in Mr. Baron’s testimony with regard to Rate 35. However, if the AED methodology is used, it should be adjusted consistent with SJB-8.
- b. See Direct Testimony of Stephen Baron in Arizona Public Service Company Docket No. E-01345A-11-0224, December 2011.

- c. The factors are discussed in Mr. Baron's testimony at pages 13 -15. These are primarily: 1) the 12 CP methodology reflects peak responsibility and thus cost causation, and 2) MDU uses a 12 CP jurisdictional cost allocation method to determine the cost responsibility of all Montana customers.
- d. The use of a summer coincident peak or a summer/winter coincident peak AED methodology would be an improvement over the Company's filed AED study. Notwithstanding this, Mr. Baron continues to believe that a 12 CP cost of service study represents a more reasonable cost allocation study in this case, for the reasons discussed in his testimony. Mr. Baron does not have a copy of the referenced 1982 PUF article.
- e. These electronic spreadsheets were previously provided.

**PSC-109:** RE: LCG Alternative 12 Coincident Peak Allocator  
Witness: Baron

- a. Has the 12 CP methodology that is used for interstate cost allocation purposes which you mention on page 13, lines 14-15 been approved by the Montana Commission?
- b. Have any of MDU's other state regulators specifically approved the 12 CP methodology to allocate jurisdictional production and transmission demand related costs based on MDU's use 12 CP for interstate cost allocation ? If so, provide the relevant order(s)/decision(s) from those regulators.
- c. Does MDU's use of the 12 CP methodology for interstate cost allocation preclude the Montana Commission from using a different methodology to allocate jurisdictional production and transmission demand costs? Please explain.

**Response to PSC-109:**

- a. Mr. Baron does not know the answer to this question.
- b. Mr. Baron does not know the answer to this question. However, Mr. Baron is aware that the 12 CP methodology is used by utilities and accepted by regulatory commissions in other jurisdictions for rate class cost allocation. Among these are: Appalachian Power Company in West Virginia, Kentucky Power Company in Kentucky, Kingsport Power Company in Tennessee, Georgia Power Company in Georgia, and Entergy Gulf States, Louisiana in Louisiana.
- c. No. While the basis for MDU's Montana jurisdiction's production and integrated transmission costs is the Montana jurisdiction's 12 CP share of total MDU costs, it is Mr. Baron's assumption that the Montana Commission could allocate Montana jurisdictional costs to Montana rate classes using a different methodology.

**PSC-110:** RE: Wind Energy/Demand Classification  
Witness: Baron

- a. Regarding your testimony on page 19, has the method you propose for classifying wind costs been approved by any other public utility commission? If so, identify which commissions have adopted the approach and provide the most recent order that does so.
- b. Is it likely that during the life of the wind facilities the average annual price of MDU's MISO energy purchases will deviate, year to year, from the \$29.70/MWh test year value?
- c. If the answer to part b. is yes, why is it reasonable to use a one-year average of MISO market prices rather than, for example, a forecast of MISO market prices over the expected life of the wind facilities?
- d. Under your wind cost classification method, and assuming MDU does not acquire additional wind facilities. Would the classification of wind costs near the end of the existing facilities' book lives approach 100 percent energy-related due to the effect of depreciation? If not, please explain.
- e. Regarding your testimony on page 8, explain why you generally believe wind facility costs should be allocated in their entirety using a demand allocation factor.

**Response to PSC-110:**

- a. The Kentucky Public Service Commission approved a Settlement in a wind project case that employs this methodology (KPSC Case No. 2014-00396). See attached Order at page 56.
- b. Yes.
- c. The base rates established in this MDU case are based on a test year construct. Mr. Baron's proposed wind project allocation methodology is appropriate for this current MDU case because it reflects the value of wind energy during the test year used to set base rates in this case. In a future MDU base rate case, the wind energy valuation percentage should be recalculated to reflect the current market energy price and the current cost of the total wind projects at issue in such case.
- d. Yes. At that point, the total revenue requirement of the wind projects would approximately equal the energy value provided in such future test year.
- e. Wind project investment costs are fixed generation resource costs, as is the case with other MDU generation resources. As such, it is appropriate, in Mr. Baron's opinion, to classify these fixed costs as demand related. Once the investment has been made in a wind project, the cost is fixed and does not vary with customer energy usage.

**PSC-111:** RE: AED Method  
Witness: Baron

- a. On page 9 you testify that a problem with MDU's AED method is that it compares a three-year peak demand to a one-year average demand and there is no justification for such a mismatched calculation. Could this problem be solved by using a three-year average of average demand? Why or why not.
- b. In its response to data request PSC-024, MDU explains that it used a three-year average of July coincident peak in order to normalize the peak data. Is it unreasonable to attempt to normalize peak data when applying an AED method? If so, why?
- c. Provide the same information shown in Figure 1, on page 11, for the years 2009 through 2013.

**Response to PSC-111:**

- a. Mr. Baron does not believe that it is reasonable to use an inconsistent allocator based on a three year average for one portion of the allocator, together with individual rate class loads and energy for a single 12 month period for another portion of the allocator. Even if a three year average demand is used in connection with the three-year average system peak, the rate class cost allocations would be determined by a combination of three-year data (for the system) and one year data for each rate class. This would continue to be an inconsistent methodology.
- b. Yes. See response to Part (a) above. The individual rate class allocation factors are still be based on a combination of three year data and one year data, producing an inconsistent set of allocation factors.
- c. Mr. Baron has not performed the request analysis and does not have the information to do so.

**PSC-112:** RE: Rate Impact Mitigation Proposal  
Witness: Baron

- a. Does LCG support the rate impact mitigation principles outlined on page 26, starting at line 10, for whatever total revenue requirement the Commission ultimately approves? If not, please explain.

**Response to PSC-112:**

- a. Yes. However, to the extent that the Commission approves a small increase, the “CAP” proposed by Mr. Baron of 1.5 times the average retail increase could be adjusted upward by the Commission if the Commission determined that a more rapid movement towards full cost of service rates is appropriate and would not result in “rate shock” to any customer class. Mr. Baron is not recommending such an adjustment to his proposed mitigation measure, but acknowledges that such an adjustment may be appropriate, depending on the overall level of the approved increase and the impacts on individual rate classes.

**PSC-113:** RE: Rate 99 - Transmission Cost Recovery Rider (TCRR)  
Witness: Baron

- a. In your direct testimony you advocate to allocate transmission costs that would be included in the TCRR on the basis of a demand allocator (AED, 12 CP, or 4 CP), as well as have those costs recovered on a \$/kW basis from demand-metered customers and on a \$/kWh basis for non-demand metered classes. If costs imposed through the TCRR were allocated using a demand allocator as you have recommended, do you agree that the costs imposed on LCG would be the same, no matter what rate element is used to recover them? If not, please explain.
- b. Please explain why LCG prefers to have costs imposed through the proposed TCRR on a \$/kW basis for demand metered customers.

**Response to PSC-113:**

- a. For LCG load on Rate 35, Mr. Baron agrees that, for any given level of costs imposed on Rate 35, the impact would be the same “no matter what rate element is used to recover them.” However, LCG also has load taking service on Rate 30. For Rate 30, there is a difference to individual customers from the rate element (kW demand or kWh energy) used to recover the allocated cost. Mr. Baron continues to support a cost-based rate design for all demand metered rate classes.
- b. A \$/kW rate recovery methodology is consistent with cost causation and is also consistent with the methodology used to allocate transmission related costs to the Montana jurisdiction and to rate classes in the class cost of service study. As such, it is appropriate and reasonable to recover these costs from customers on a \$/kW basis, for demand metered rate classes.

**PSC-114:** RE: Proposed Rate 98 - Environmental Cost Recovery Rider (ECRR)  
Witness: Baron

- a. Would you agree that the total number of MWh a fossil fuel plant produces over the course of a year is more closely correlated with the environmental impact that plant has than the total peak capacity a plant provides over that same year? For example, if one coal plant generates 100 MW of electricity during every hour of the year, would it have a greater environmental impact than a coal plant which generated at 200 MW during only one hour of the year, assuming all else equal? If you disagree, please explain the basis for disagreement.
- b. In data request LCG-075, as part of the question LCG states: “Wouldn’t a demand charge be more appropriate given the nature of the costs that MDU proposed to recover through Rate 98?” Please further explain the basis for this notion.

**Response to PSC-114:**

- a. Yes, on an operational basis. However, fixed environmental costs do not vary with the level of mWh production at a generator and therefore should be treated the same (from a cost allocation standpoint) as any other component of the generation plant. This means that fixed environmental costs should be allocated using a demand allocator. As an example, if a rate class uses additional mWh during an off-peak period, it would be inconsistent with cost causation to allocate additional fixed environmental costs to that rate class because the additional mWh energy usage during an off-peak period does not cause additional fixed environmental costs (flue gas scrubbers) at the power plant.
- b. MDU’s proposed ECCR allocates environmental costs using the Company’s demand allocator (AED, Factor No. 2). Consistent with this characterization of ECCR costs as demand related and allocated to rate classes based on rate class demand (Factor No. 2), it is consistent with cost causation to recover the costs allocated to rate classes from customers based on each customer’s kW demand, if such rate class is demand metered.

## CERTIFICATE OF SERVICE

I hereby certify that on this, the 21st day of December, 2015, the **MONTANA LARGE CUSTOMER GROUP'S RESPONSE TO THE MONTANA PUBLIC SERVICE COMMISSION'S DATA REQUESTS PSC-108 THRU PSC-114** was e-filed with the Commission and served via U.S. mail and e-mail, unless otherwise noted, to the following:

<p>Will Rosquist Sandy Scherer Montana PSC 1701 Prospect Avenue PO Box 202601 Helena, MT 59620-2601 <a href="mailto:sscherer@mt.gov">sscherer@mt.gov</a> <b>via UPS on 12/22/2015</b></p>	<p>Robert Nelson Monica Tranel Montana Consumer Counsel 111 N. Last Chance Gulch P.O. Box 201703 Helena, MT 59620 <a href="mailto:robnelson@mt.gov">robnelson@mt.gov</a> <a href="mailto:mtranel@mt.gov">mtranel@mt.gov</a></p>
<p>Tamie A. Aberle Director of Regulatory Affairs Montana-Dakota Utilities Co. 400 North Fourth Street Bismarck, ND 58501 <a href="mailto:tamie.aberle@mdu.com">tamie.aberle@mdu.com</a></p>	<p>Michael Green Crowley Fleck PLLP 900 N. Last Chance Gulch, Suite 200 Helena, MT 59601 <a href="mailto:mgreen@crowleyfleck.com">mgreen@crowleyfleck.com</a></p>
<p>Thorvald A. Nelson Holland &amp; Hart, LLP 6380 South Fiddler's Green Circle Suite 500 Greenwood Village, CO 80111 <a href="mailto:tnelson@hollandhart.com">tnelson@hollandhart.com</a></p>	<p>Nikolas S. Stoffel Holland &amp; Hart, LLP 6380 South Fiddler's Green Circle Suite 500 Greenwood Village, CO 80111 <a href="mailto:nsstoffel@hollandhart.com">nsstoffel@hollandhart.com</a></p>
<p>Charles Magraw 501 8th Ave Helena, MT 59601 <a href="mailto:c.magraw@bresnan.net">c.magraw@bresnan.net</a></p>	
	<p>For electronic service only: <a href="mailto:dwooley@kfwlaw.com">dwooley@kfwlaw.com</a> <a href="mailto:john@jwwa.com">john@jwwa.com</a> <a href="mailto:aclark154@yahoo.com">aclark154@yahoo.com</a> <a href="mailto:jpous@ducinc.net">jpous@ducinc.net</a> <a href="mailto:ppenn@hollandhart.com">ppenn@hollandhart.com</a> <a href="mailto:aclee@hollandhart.com">aclee@hollandhart.com</a> <a href="mailto:ssnow@mt.gov">ssnow@mt.gov</a> <a href="mailto:cgomez@crowleyfleck.com">cgomez@crowleyfleck.com</a></p>

*s/ Adele C. Lee* \_\_\_\_\_