

MONTANA-DAKOTA UTILITIES CO.
A Division of MDU Resources Group, Inc.

Before the Public Service Commission of North Dakota

Case No. PU-16-666

Rebuttal Testimony
of
Tamie A. Aberle

1 **Q. Would you please state your name and business address?**

2 A. Yes. My name is Tamie A. Aberle, and my business address is 400
3 North Fourth Street, Bismarck, North Dakota 58501.

4 **Q. What is your position with Montana-Dakota Utilities Co.?**

5 A. I am the Director of Regulatory Affairs for Montana-Dakota Utilities
6 Co. (Montana-Dakota), a Division of MDU Resources Group, Inc.

7 **Q. Are you the same Tamie A. Aberle who filed direct testimony in this**
8 **proceeding?**

9 A. Yes, I am.

10 **Q. What is the purpose of your rebuttal testimony?**

11 A. The purpose of this rebuttal testimony is to address
12 recommendations made by Mr. Jacob Thomas testifying on behalf of the
13 North Dakota Public Service Commission Advocacy Staff (Advocacy Staff)
14 regarding proposed revenue allocation to classes and rate design
15 proposals and Ms. Nancy Brockway, testifying on behalf of AARP
16 regarding rate design proposals in this case. I will also address
17 recommendations made by Ms. Sara Cardwell with Advocacy Staff

1 regarding time of day rate schedules, the determination of billable
2 demand, a meter data management system and customers served under
3 contract agreements.

4 **Q. Would you please address Mr. Thomas' proposed revenue allocation**
5 **to classes?**

6 A. Yes. Mr. Thomas provides a proposed allocation of the base
7 revenue increase of \$513,316, as identified by Staff Advocacy witness
8 Richard Polich, starting at page 9 of his testimony. As shown in Table 1
9 below which provides a comparison of Mr. Thomas' allocation of the base
10 revenue increase to the allocation proposed by the Company, the
11 differences between the two methods primarily lies between the
12 Residential and Large General Service class with the Advocacy Staff
13 proposal resulting in the Residential customers taking on 6.6 percent more
14 of the total increase and the Large General Service class responsibility 6.5
15 percent less than the revenue allocation proposed by the Company, with
16 the remaining classes less than 1 percent different between the two
17 methodologies. The Company's proposal is better suited for the revenue
18 increase proposed by the Company under the objective of balancing the
19 fair return standard with the recognition of customer impacts.

Table 1
Allocation of Base Revenue Increase

Customer Class	Advocacy Staff 1/		Montana-Dakota 2/		Difference
	Rev Inc \$ (000's)	Rev Inc % of Total	Rev Inc \$ (000's)	Rev Inc % of Total	
Residential Service	316	61.4%	7,728	54.8%	(6.6)%
Small General Service	45	8.7%	1,341	9.5%	0.8 %
Large General Service	136	26.4%	4,643	32.9%	6.5 %
Lighting	3	0.6%	108	0.8%	0.2 %
Municipal Pumping	15	2.9%	289	2.0%	(0.9)%
Total North Dakota Electric	\$515	100.0%	\$14,109	100.0%	

1/ Thomas Direct Table JMT-3, Page 10.

2/ Aberle Direct Exhibit No. ___(TAA-1) Page 1.

1

2 **Q. Would you please address Mr. Thomas' proposal to eliminate the**
3 **declining block rate form for the Residential Rate 10 customers in**
4 **the winter period?**

5 **A.** I do not agree with the proposal to significantly alter the rate forms
6 for Residential Rates 10 and 13 and Small General Rate 20 customers as
7 recommended by Mr. Thomas. First, I disagree that the current rate form
8 applicable during the winter period was designed to recover customer
9 related costs not recovered through the Basic Service Charge. If that
10 were the case, a declining block rate would have been appropriate in the
11 summer period as well. The seasonal rate has been designed to reflect
12 that the peaking requirements for the Company are associated with the

1 peak loads served in the summer months. Therefore, the seasonal rates
2 have been designed to collect a relatively greater portion of the overall
3 costs from those customers who tend to concentrate their usage during
4 the more costly summer peak period. The differential of \$0.03 per Kwh
5 between the summer and the over 750 Kwh block in the winter is less than
6 the Production and Transmission Demand costs identified in the class cost
7 of service study but remains an important means of addressing the electric
8 space heating loads on the system. The winter rate for usage over 750
9 Kwh per month as proposed is 5.602 cents per Kwh including fuel and
10 before the addition of the renewable and transmission riders. This rate
11 clearly provides an adequate contribution to costs while recognizing the
12 benefit of not contributing to the costs associated with the summer peak
13 requirements. Secondly, the rates proposed by Advocacy Staff will cause
14 a significant impact to the customers that utilize electric space heating
15 equipment. This impact is shown in Exhibit No. ____ (TAA-3), page 1. As
16 evidenced by public input provided by several customers during the Public
17 Input Sessions held by the Commission on January 23 and 25, 2017 the
18 North Dakota winter weather can have a severe impact on electric space
19 heating customers.

20 The red bars represent the monthly increase in a customer's bill
21 under the Advocacy's Staff's proposed flat energy charge for residential
22 winter use, and the impacts are staggering for those customers heating
23 with electricity. A line was added to reflect the usage of one of the

1 customers that provided comment at the Public Input Session with
2 concerns about their usage. Actual January 2017 use for this customer
3 was 5,970 Kwh. The increase in the customer's January bill would be
4 would be \$1.21 less than current rates under the Company's proposal but
5 an increase of \$85.78 under Mr. Thomas' proposal. Another customer
6 reached out to the Commission at the time of the Public Input Session
7 regarding a high bill in an apartment building designated as "affordable
8 housing". The monthly usage of 3,647 in this apartment unit for the month
9 of January is also provided on the graph above. In this instance, the
10 Company's proposed rates would result in an increase of \$2.76 versus
11 Advocacy Staff's proposal that would result in an increase of \$47.15 in
12 January for a total bill of \$327.31.

13 **Q. Please provide a perspective of the prevalence of electric space**
14 **heating in Montana-Dakota's North Dakota service territory.**

15 A. Montana-Dakota provides electric service to 72 communities where
16 natural gas service is currently not available. Residents in these 72
17 communities are heating with electricity, propane or fuel oil. Many utilize
18 electricity as a more more convenient and less volatile cost source. To
19 put the use of electricity for heating into perspective, a customer using 18
20 dk of natural gas for heating purposes in a cold January would need to
21 use 5,275 Kwh for the same heating requirements. At the \$4.015 cost
22 cost of natural gas effective in January 2017 the customer using 18 dk of
23 gas would have a total bill of \$99.61 with the customer using electricity

1 paying \$391.11 under Montana-Dakota's proposed rates and \$464.71
2 under the Advocacy Staff's proposed rates, representing an increase of
3 19% between the Company's and the Advocacy's Staff's proposed rate
4 form for Residential Service.

5 Beulah is one of the 72 communities where currently natural gas
6 service is not available. As shown in Exhibit No. __ (TAA-4), page 1, 59
7 percent of the customers would see an increase in January greater than
8 the increase in the Basic Service Charge proposed by the Company with
9 186 customers using 4,000 Kwh or more in the month of January. The
10 data presented in Figure 2 below was taken from January 2015 billing
11 data and would have been greater in January 2017 with the colder than
12 normal weather experienced that month.

13 In summary, Montana-Dakota requests the Commission reject the
14 Advocacy's Staff proposal and maintain the seasonal rate structures for
15 Rates 10, 13 and 20 previously authorized in order to recognize the cost
16 based differential supporting the rate form and to avoid further hardships
17 to those customers that do not have access to natural gas for meeting
18 their heating requirements.

19 **Q. Do you have any comments to offer in regard to Mr. Thomas'**
20 **recommendations regarding future load research studies?**

21 A. The Company agrees with Mr. Thomas' recommendations to utilize
22 a stratified random sampling technique for selecting samples and the use
23 of a ratio estimation technique to expand the sample data into class

1 demand estimates. The changes will further refine the load research
2 study and will be considered for the next study.

3 **Q. Turning now to Ms. Cardwell's testimony please address her**
4 **recommendation to reject the Company's proposal to institute an off-**
5 **peak demand charge for the General Service Rate 31 Time of Day**
6 **Rate Schedule?**

7 A. Ms. Cardwell suggests that a clear purpose has not been provided
8 for this change and provides excerpts from data responses in support of
9 this claim at pages 2 and 3 of her direct testimony. First, the Company's
10 reasons supporting the change could have been more succinctly provided
11 in one response and admittedly should have been addressed in direct
12 testimony. However, the reasons provided by the Company for the
13 implementation of the off-peak demand charge are cohesive, and in fact,
14 an additional reason provided in Response to Advocacy Staff Data
15 Request No. 4.4, as fully set below, was not included in Ms. Cardwell's
16 testimony and that was the need to address subsidization between the
17 customers taking service under the two rate schedules.

18
19 **Set 4 Question 4:**

20
21 **As a follow-up to the rate design question 35 in the first set of**
22 **data requests, please identify the cost components**
23 **incorporated into the on and off peak capacity costs and the**
24 **actual costs used to create the Schedule 31 rate. Also explain**
25 **if it is necessary to reflect these costs in an off peak capacity**
26 **charge for Schedule 31, why doesn't the Company have a**
27 **different on and off peak capacity payment on Schedule 96?**
28 **Additionally, you define on-peak in your tariff but not off-peak.**
29 **What is the Company's definition of off-peak?**

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Response:

The Rate 31 time of day rate schedule was designed based on a number of factors including the differential between Rate 31 and Rate 30 to address subsidization between the customers taking service under the two rate schedules. The off-peak demand charge is a recognition of the distribution demand costs that were previously recovered through the energy charge. This would not be applicable to the capacity payments made under Schedule 96.

The Company's definition of off-peak hours are all hours not defined as on-peak hours as denoted in the energy charge section.

15 As noted in my direct testimony on page 7, the Rate 31 rate schedule and
16 in Response No. 4.4, the off-peak hours reflect all hours not defined as
17 on-peak hours which means that all hours except for the hours of 12 p.m.
18 to 8 p.m. Monday through Friday local time are off peak hours. The
19 addition of the demand charge of \$2.00 per Kw for off-peak demand
20 exceeding the measured on-peak demand is part of the solution to
21 ensuring no undue subsidy exists between the standard tariff and the time
22 of day tariff. The charge is supported by the fact that capacity related
23 costs do exist in the off-peak and that distribution system demand costs
24 recovered through this demand charge will no longer be recovered
25 through the energy charge. The rate form proposed by the Company is
26 also employed by Xcel Energy in its Time of Day schedule applicable in
27 North Dakota.

28 **Q. What is the Company's position regarding the Advocacy Staff's**
29 **recommendation to measure billing demand based on a rolling**

1 **demand where the highest three consecutive demand measurements**
2 **in 5 minute increments are used to determine billing demand?**

3 A. Montana-Dakota currently uses a fixed fifteen minute period to
4 determine the maximum demand recorded for the month for billing
5 demand as described by Staff. This does not result in incorrect billing, as
6 alluded to by Ms. Cardwell in her testimony, as this methodology is
7 authorized by the Commission and has been employed for many years.

8 In response to Ms. Cardwell's recommendation, I will address the
9 change to a rolling demand. The meter stock currently deployed is
10 capable of providing the rolling 5 minute demand measurements with a
11 change in the meter programming. This would involve a visit to each
12 demand metered service point in order to install the programming
13 necessary to record the monthly billing demand based on the highest
14 demand in the three consecutive five minute periods. Montana-Dakota is
15 not opposed to this change in the event the Commission determines that
16 the expense necessary to reprogram meters will provide an ongoing
17 benefit. However, the Company does request that this change only be
18 made if each of the other jurisdictions in which it provides service agrees
19 to this change as the meter stock is currently used throughout the four
20 states Montana-Dakota provides electric service. This sharing of meter
21 stock would no longer be possible if the demand meters used in North
22 Dakota would need to be programmed differently than the other states and
23 cause meters to either stay within the state of North Dakota or be

1 reprogrammed if the meter were to be relocated to a jurisdiction other than
2 North Dakota resulting in increased operating expenses to accommodate
3 the measurement of rolling demand. Finally, the Company does not
4 agree that customers are avoiding demand costs by managing demand
5 around the set 15 minute increments. The majority of the loads served by
6 Montana-Dakota are for refrigeration, space conditioning and cooking in
7 schools, offices and hospital facilities and there is no evidence to suggest
8 such facilities are managing their use of equipment around the current
9 fixed 15 minute set points.

10 **Q. Ms. Cardwell suggests starting at page 6 of her direct**
11 **testimony that a meter data management system is necessary to**
12 **utilize or reap benefits from the Company's automated meter reading**
13 **system. Do you agree?**

14 **A.** I do not. The Company's deployment of an automated meter
15 reading system has provided significant efficiencies from various aspects of the
16 utility operation as well as making data available that was not previously
17 available. The decision to convert to automated meter reading was supported by
18 anticipated labor savings and efficiencies and not because of the data that would
19 be available because of the network system installed. The labor savings and
20 efficiencies that have been realized include; more accurate meter reading; meter
21 reading is not interrupted due to weather conditions or unavailability of personnel
22 due to illness; labor and vehicle savings because an on-site visit is no longer
23 required to obtain meter reads when a tenant or home owner moves out of a

1 premise and again when a new tenant or home owner moves into the premise;
2 company personnel have access to hourly data that is used to resolve customer
3 questions and in many instances avoid a meter reread to address a change in
4 usage. In the event of an outage, the information available through the network
5 system provides timely outage information in order to quickly determine the
6 magnitude of the outage in order to restore service and also provides the
7 information used to populate the outage map and provides audit capabilities for
8 metering and distribution loading on the system. The load research study
9 provided in this case was also developed based on the interval data available
10 through the network system. The Company is currently developing a platform
11 for providing hourly account data to be available to customers through its on-line
12 account services. This service is expected to be available to customers in the
13 third quarter of 2017. In addition, an in-house analytics program is currently
14 under development. The Company continues to leverage the information
15 available through the meter network system and is ready to engage in serious
16 rate design discussions with Staff today and does not need to wait until such time
17 a meter data management system is in place, as suggested by Ms. Cardwell.

18 **Q. Would you please provide comments regarding the remaining issues**
19 **identified in Ms. Cardwell's testimony not already addressed by Mr.**
20 **Jacobson?**

21 A. Yes. The Company agrees to the following recommendations
22 made by Ms. Cardwell:

- 1 • Interest on deposits (Cardwell Direct page 4): The Company
2 is not aware of customer concerns regarding information
3 provided at the time a deposit is requested or upon return of
4 that deposit but agrees to provide deposit information on its
5 website and to customers including the applicable interest
6 rate.
- 7 • Employee discount tariff language (Cardwell Direct page 7):
8 The Company agrees to modify the definition of employee
9 discounts available as described in General Terms and
10 Conditions Rate 100 as part of the compliance filing in this
11 Case.
- 12 • Contract Rates (Cardwell Direct pages 7-9): The Company
13 will provide an update regarding each contract providing a
14 discounted rate by September 2017 as recommended on
15 page 13 of Ms. Cardwell's testimony.
- 16 • Rider tariff language (Cardwell Direct pages 9-10): The
17 Company agrees to remove the section in each of its rider
18 tariffs regarding "Time and Manner of Filing" and agrees to
19 submit updates to the riders at least 90 days prior to the
20 requested implementation date.

21 **Q. Turning now to Ms. Brockway's testimony filed on behalf of AARP**
22 **would you please address Ms. Brockway's recommendation that the**

1 **Basic Service Charge applicable to Residential customers be**
2 **reduced or at least not increased?**

3 A. Yes. I have reviewed Ms. Brockway's testimony and do not find
4 any persuasive evidence provided in this testimony that supports the
5 AARP position that the Basic Service Charge applicable to residential
6 customers under Rate 10 should not be increased. Ms. Brockway has not
7 provided an alternate Class Cost of Service Study that refutes the
8 customer related costs identified by the Company. Ms. Brockway
9 contends that an increase in the Basic Service Charge will have an
10 unacceptable adverse impact on low-use residential customers,
11 correlating low-use with low-income. Montana-Dakota does not have
12 income information available for its customers to definitively dispute the
13 notion that low-income customers predominately use less energy and
14 would be disproportionately harmed by the proposed increase in the Basic
15 Service Charge. The data provided by Ms. Brockway on page 7 of her
16 testimony is based on a 2009 Residential Energy Consumption Survey
17 published by the National Consumer Law Center that Ms. Brockway was
18 unable to provide in response to a data request. Therefore the study
19 results provided on Page 7 of Ms. Brockway's testimony are not
20 compelling without benefit of reviewing the entire study. Given the
21 disparity in weather between states grouped together, the results may not
22 be indicative of customers in Montana-Dakota's service territory where
23 weather is generally colder on average than the other states and space

1 heating requirements are significant in the Company's service area. As
2 explained in my direct testimony, those customers benefit from a higher
3 fixed charge.

4 **Q. Ms. Brockway again concludes that high customer charges have a**
5 **disproportionate adverse effect on low-use customers and that**
6 **elderly and low-income customer use less electricity than other**
7 **customers on page 6 of her testimony. Would you please address**
8 **this conclusion?**

9 A. Yes. As noted earlier, Montana-Dakota does not have
10 demographics available regarding age and income of its customers and
11 the EIA data based on a 2009 Study for a group of states including North
12 Dakota has not been demonstrated by Ms. Brockway to be representative
13 of Montana-Dakota's customer base. Also, the referenced 85.8 percent
14 increase should be put into context. This significant percentage increase
15 represents the \$9.00 increase in the Basic Service Charge for a customer
16 using no energy. Finally, as Ms. Brockway notes a customer with usage
17 in the lowest 25th percentiles of usage will have an effective energy rate
18 higher than a higher use customer. However, this measure is
19 meaningless to a customer. The total annual bill for a customer in the top
20 25th percentile of use will pay an annual bill of \$1,697.24 under the
21 Company's proposed rates (representing an increase of \$9.73 per month)
22 and a customer in the bottom 25th percentile of use will pay an annual bill
23 of \$738.71 (representing an increase of \$9.33 per month).

1 **Q. Please address Ms. Brockway's information provided regarding**
2 **recent Commission decisions.**

3 A. First, Ms. Brockway fails to recognize this Commission's past
4 decisions where natural gas distribution rates were approved to be
5 recovered on a full fixed charge basis (Xcel Energy Case No. PU-04-578
6 and Montana-Dakota Case No. PU-15-90), Secondly, Ms. Brockway's
7 reference to two recent cases where the fixed charge was not increased is
8 less than complete and in fact in the referenced Arizona case, a customer
9 charge of \$13.00 per month was authorized by the Arizona Corporation
10 Commission resulting in a \$3.00 increase in the monthly residential
11 customer charge. Other recent decisions not noted by Ms. Brockway
12 include 1) an increase from \$10.44 to \$19.00 per month authorized by the
13 Wisconsin Public Service Commission in Madison Gas & Electric rate
14 case (Docket 3270-UR-120) 2) NSP Wisconsin NSPW (Docket 4220-
15 UR-121) a \$6.00 increase in the Basic Service Charge from \$8.00 to
16 \$14.00 per month was authorized and 3) Wisconsin Public Service
17 Corporation (Docket 6690-UR-124) a \$21.00 per month Basic Service
18 Charge was authorized reflecting an increase of \$2.00 per month.

19 **Q. Do you have information regarding the fixed charge rate charged by**
20 **other electric utilities in the state?**

21 A. Yes. As shown below, many of the electric providers in North
22 Dakota are charging rates similar to or much higher than Montana-Dakota'
23 proposed charge. The other two investor owned utilities providing electric

1 service in North Dakota are lower but have not filed a rate case in recent
2 years. It is important to note that the charges established by the rural
3 electric cooperatives noted in Table 2 below are set by the member
4 owners/customers of the various cooperatives and presumably have been
5 determined to be reasonable by those customers.

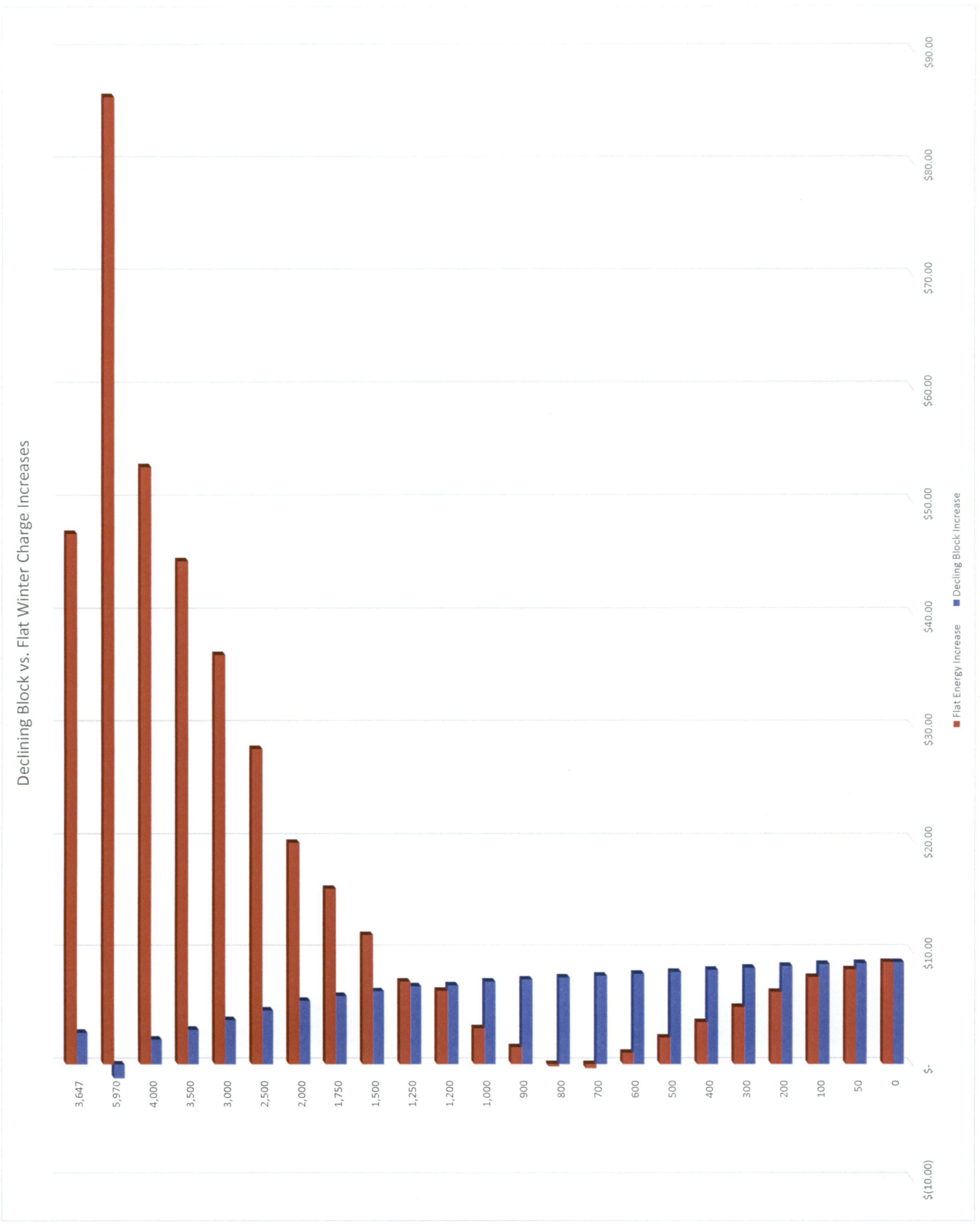
Table 2

Company	Charge per month (single phase)	Effective Date
Burke-Divide Electric Cooperative	\$28.00 per month	As of 2/14/17
Capital Electric Cooperative- Rural	\$25.00 per month	October 2016
Capital Electric Cooperative - Urban	\$19.50 per month	October 2016
McLean Electric Cooperative	\$38.00 per month	As of 2/14/17
NODAK Electric Cooperative - Rural	\$37.95 per month	4/1/2016
NODAK Electric Cooperative - Urban	\$13.80 per month	4/1/2016
Ottertail Power Company - ND	\$ 8.00 per month	12/1/2009
Roughrider Electric Cooperative	\$25.00 per month	As of 2/14/17
Xcel Energy (NSP) - North Dakota	\$14.50 per month	1/1/2015

6

7 **Q. Does this conclude your rebuttal testimony?**

8 **A. Yes, it does.**



Beulah Residential Customer Count by Usage - January 2015

