

**BEFORE THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION**

***In the Matter of Montana-Dakota Utilities Co.,
A Division of MDU Resources Group, Inc.***

2016 Electric Rate Increase

Application

Case No. PU-16-666

**DIRECT TESTIMONY
OF
SARA CARDWELL**

**ON BEHALF OF THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION
ADVOCACY STAFF**

February 24, 2017

1 **Q: Provide your name and qualifications.**

2 A: My name is Sara Cardwell. I am a Public Utility Analyst with the North Dakota
3 Public Service Commission (Commission). I have more than 35 years of
4 utility regulatory experience. In addition to working for the Commission, I
5 have worked for PacifiCorp, Portland General Electric Company, Xcel Energy
6 and Montana-Dakota Utilities Co.

7 I received a Bachelor of Science Degree in Business Administration from the
8 University of Wisconsin-Stout and received my Masters in Business
9 Administration from the University of Portland. I have testified before this
10 Commission as well as the Public Service Commission of Montana, the
11 California and Idaho Public Utilities Commissions, the Oregon Public Utility
12 Commission and the Washington Utilities and Transportation Commission.

13 **Q: What is the purpose of your testimony in this proceeding?**

14 A: The Commission appointed me to Advocacy Staff (Staff) in this proceeding.
15 As such, I will present recommendations on a variety of issues in regards to
16 changes the Commission should consider in order to improve the Company's
17 ratemaking process. The resolution of these issues will improve the
18 ratemaking process, streamline filings and result in improved understandings
19 between the Staff and the Company. Some of these issues have been
20 discussed with the Company previously, but need Commission action in order
21 to implement changes.

22 **Q: Please provide a brief summary of the issues you will address.**

23 A: I will address the following issues:
24 1. Off-Peak Demand Charges;
25 2. Interest rates on deposits;
26 3. Billing demand based on 15 minute rolling intervals;
27 4. Meter Data Management Systems;
28 5. Employee/Retiree discounts;
29 6. Contract Rates;

- 1 7. The time and manner of filings section in rider tariffs; and
2 8. The Company's Fuel and Purchased Power Adjustment Rate 58
3 pricing and filings.
4

5 **Q: What are the issues with off-peak demand charges?**

6 A: In this case, the Company is proposing to add a \$2.00 per Kw Off-Peak
7 Demand charge to Schedule 31 for when the customer's demands during the
8 off-peak period exceed the customer's on-peak demand. While there are
9 reasons for having an off-peak demand charge in excess of the on-peak
10 charge, there are also reasons why this is not a good idea. In general,
11 utilities should encourage customers to peak during off-peak periods.
12 Instituting such a charge can discourage customers from moving certain
13 business operations to the off-peak period. However, on the flip side, if we
14 were seeing customers installing demand control devices and/or on-site
15 generation that was lowering demands in the on-peak period but not in the
16 off-peak period, this charge would have some merit. To date, demand control
17 devices and on-site generation to lower on-peak demands do not seem to be
18 in use in North Dakota.

19
20 There has not been a clear purpose explained for this proposed change. In
21 Data Request Response 1.35, the Company stated: "Charging for the
22 increment above the on-peak recognizes that capacity related costs also exist
23 in the off peak and the charge provides cost recovery for those costs at a cost
24 much less than the on-peak charge. The customer moving a higher
25 percentage of demand to the off-peak will pay less than if the customer were
26 to maintain that load in the on-peak hours."

27

28 In asking further about this charge, the Company stated in their response to
29 4.4:

1 “The off-peak demand charge is a recognition of the distribution
2 demand costs that were previously recovered through the energy
3 charge.”

4
5 In response to 7.1 the Company stated that “The off-peak demand charge of
6 \$2.00 represents a contribution toward the demand costs identified for the
7 class that are not recovered through the on-peak demand charge.”

8
9 Seeing that the Company has provided three different reasons for proposing
10 this charge that don’t match up, Staff is concerned that the Company
11 proposed this change without really thinking the issue through. In looking at
12 the customer data, there only appears to be one customer that has
13 substantial off-peak demands in excess of on-peak demands. The Company
14 should find out why this particular customer is using more off-peak rather than
15 implementing a charge to provide a disincentive to the entire customer class.
16 Furthermore, if the on-peak demand charges are not cost based, then
17 instituting a demand charge for the off peak demand that should really be
18 assigned to on-peak period is not the correct price signal.

19
20 The Company has 6,684 secondary voltage level customers on Rate
21 Schedule 30 and 68 secondary voltage level customers on Rate Schedule 31
22 yet it is not proposing this charge for Schedule 30. One would think that with
23 the larger number of customers, there would be more of a need for an off-
24 peak demand charge on Rate Schedule 30. Additionally, this proposal will
25 recover less than one percent of the revenue assigned to Rate Schedule 31,
26 meaning there is little benefit to this charge.

27
28 The Company is also planning on lowering its Basic Customer Charge to this
29 customer group. In summary, Staff recommends the Company’s proposal to
30 institute an off-peak demand charge should be rejected. A better approach to

1 solving what might be the Company's real issue would be to keep the
2 customer charge at its current level and consider further increases to the on-
3 peak demand charge.

4

5 **Q: Please explain Staff's concern with the interest rate on deposits.**

6 A: Utilities in North Dakota are allowed to collect a deposit from customers when
7 there is a concern that the customer may be a credit risk. The utilities are
8 required to calculate interest on this deposit amount so that if the customer
9 proves themselves not to be a credit risk after 12 months the deposit plus
10 interest is returned to customers. The interest rate on the deposits is updated
11 annually based on the Bank of North Dakota's interest rate on a six-month
12 Certificate of Deposit. Montana-Dakota has a "Fly Sheet" as part of their tariff
13 that indicates this interest rate. However, customers normally do not look at
14 tariffs and generally don't even know what they are.

15

16 Staff asked the Company how a customer is informed as to the interest rate.
17 The Company responded:

18

19 "When discussing the need for a deposit with the customer, the
20 customer service representative informs them that the deposit will be
21 held on their account for 12 months, and after 12 months of good
22 payment history, the deposit will be returned to the customer, plus any
23 interest earned. The rate of interest is provided upon request."

24

25 The customer should not have to request information on the interest rate.
26 The customer service representative should be instructed to provide this
27 information in all cases. Furthermore, to ensure that customers are
28 adequately informed, the Company website should provide information as to
29 what is involved to become a customer including when a deposit is required
30 and what the interest rate is on that deposit.

1

2 **Q: Why do you recommend that the Company move to using rolling**
3 **demands for billing customers?**

4 A: In this day and age, with all the computer, metering, meter reading and billing
5 system advances, the use of rolling demands for the billing of customers is a
6 convenient and fair way to ensure that customers are being billed correctly. It
7 is interesting that a Company that believes off-peak demand billing is
8 necessary would state it doesn't believe there are customers on the system
9 that are peak splitters so rolling demand intervals are unnecessary. In reality,
10 peak splitters are a bigger issue for utilities than off-peak system users.

11

12 It is important to understand how a rolling demand interval works. Currently
13 Montana Dakota bills customers based on the highest averaged 15-minute
14 demand interval that occurs during the billing month. The 15 minute periods
15 being used start on the hour, then the next fifteen minute period starting at 15
16 minutes after the hour, then 30 minutes after the hour begins, etc. A rolling
17 demand still covers a 15-minute period but that 15 minute period reading
18 occurs every 5 minutes. Thus, the customer is billed on the highest 15-
19 minute demand occurring over any 15-minute period. This means that a
20 customer that might currently be starting up machinery say at 10:13 am and
21 shutting it down at 10:17 am in order that the start-up and shut down occurs
22 over two read cycles can no longer split its loads over two periods. With
23 rolling demands, this customer will see a more accurate bill that reflects the
24 customer's actual costs to the system. Xcel Energy and Otter Tail Power bill
25 on rolling demand intervals and many other utilities do as well.

26

27 **Q: Is this something that you recommend the Company do as a result of**
28 **this rate case?**

29 A: It takes time for a Company to make such a change. Staff's recommendation
30 is that the Company study moving to rolling demand intervals as part of

1 research into a meter data management system. Staff asserts the Company
2 should develop a concrete implementation timeline for moving to using rolling
3 demand intervals for billing either as part of a meter data management
4 system or separately before or as part of the Company's next rate case.
5

6 **Q: Please describe what a meter data management system is.**

7 A: When utilities first started implementing automated meter reading systems,
8 the goal was to have data available to help utilities, customers and regulators
9 better know the customers and how they use electricity. But, for many
10 utilities, including Montana-Dakota, all the daily read information just sits
11 unused while customers pay for a system that doesn't furnish any better data
12 than when meters were read monthly by meter readers. And, depending on
13 the rural versus urban nature of the utility, customers might see lower costs if
14 meter readers were still reading meters.
15

16 In summary, customers are currently paying for a system that does not
17 provide them, the Company or regulators with the informational benefits that
18 were claimed as the reason an automated reading system was necessary in
19 the first place. With the ability to access daily read data, the Company can
20 employ advanced billing and pricing concepts such as rolling demand
21 intervals or residential demand charges. The Company would also be able to
22 provide customers with better information as to when they use electricity and
23 how they might better control bills.
24

25 So, in addition to Staff's recommendation regarding billing demand based on
26 rolling demand intervals, Staff recommends the Company implement a meter
27 data management system prior to filing its next rate case so it can engage in
28 serious rate design discussions.
29

1 **Q: Please describe your concerns with the Company's employee**
2 **discounts.**

3 A: Section 10 of the Company's Rate Schedule 100 discusses discounts for
4 qualifying employees. In response to Data Request 4.9 the Company stated
5 that discounts are only provided to retirees that retired on or before December
6 31, 2009. In order to eliminate confusion, the Company should be required to
7 change the language of this section of their tariff to clearly state that the
8 discounts are only provided to this group of retirees.

9

10 **Q: Please identify the Company's contract rates.**

11 A: While the Company may have customers sign standard service agreements,
12 Staff's concern is not with standard service agreements. Our concerns are
13 with the Company's contracts for discounted pricing. There are three
14 customers on Rate 30 Contract Rates, three customers on Rate 38
15 Interruptible Service and one customer on what the Company calls Rate 39
16 Interruptible Large Power Service. (The Company does not actually have a
17 tariff schedule entitled Rate 39.) The Company also has a rate schedule
18 entitled Firm Service Economic Development Rate 34 under which a
19 customer receives discounts that gradually decrease over the five-year
20 contract period.

21

22 **Q: Please describe Staff's concern with Firm Service Economic**
23 **Development Rate 34.**

24 A: Staff's concern is that the Company has proposed removing the following
25 language from the tariff: "Contracts shall be filed with and approved by the
26 North Dakota Public Service Commission." The Company did not state any
27 reasons why it wants this provision removed in its direct testimony but did
28 respond to a discovery request. Staff asserts that these contracts should
29 continue to be reviewed.

30

1 **Q: Why does Staff assert contract review is necessary?**

2 A: As per the orders approving discount rate contracts in the past, the Company
3 reports the contract delta associated with its contracts every year in its annual
4 report. The table below shows the contract deltas since 2009:

2009	\$ 620,240.00
2010	\$ 505,930.00
2011	\$ 543,909.00
2012	\$ 606,617.00
2013	\$ 621,790.00
2014	\$ 1,060,777.61
2015	\$ 1,318,511.76
2016	\$ 2,287,255.51

5

6

7 As shown in the table above, the deltas took a dramatic leap in 2014 and
8 have continued to grow significantly in the last few years. Absent the special
9 contracts, the Company's request in this case might have been less. The
10 Company has a responsibility to consider all ratepayers. If the same
11 contracts remain in effect for a number of years without review, it is not a
12 given that the discounts remain reasonable.

13

14 The most recent order for a special contract Electric Service Agreement was
15 issued in 2007. The order in that case stated, "At the time of MDU's next
16 electric rate increase request or rate review proceeding, the Commission will
17 review MDU's overall revenue requirements and will specifically review the
18 revenue impact resulting from special contracts." While there was some level
19 of review in the 2010 case, the Company did not provide information in this
20 case that would allow for Staff review of these contracts in this case. The
21 contracts appear to have an initial term of 5 years and then are automatically
22 renewed until either party decides a change is needed. With the exception of
23 one contract, each of these special contracts currently in effect have been in
24 effect for longer than five years without modification.

25

1 When asked in Data Request 8.2, the Company stated the contracts are now
2 under review. The Company needs to provide justification to the Commission
3 as to why the existing special contracts are still appropriate. If Staff is not
4 involved in the approval of contracts going forward, the Company may
5 negotiate contracts that are not in the best interests of all ratepayers and
6 keep contracts in place for longer than may be appropriate. Because it
7 appears the Company has begun a review of these contracts, Staff
8 recommends that the Commission require the Company to file its justification
9 and terms for each of the special contracts currently in effect and explain why
10 the contracts and terms are still appropriate or file a revised contract. Staff
11 will review the Company's information and, or revised contracts and present
12 recommendations to the Commission regarding each contract.

13

14 **Q: Please describe Staff's concern with the Company's "Time and Manner**
15 **of the Filing" section on each of its rider schedules.**

16 A: The Commission regulates three investor owned utilities in this state that
17 provide electric service. Each of these utilities has riders in place. Each of
18 these utilities files a monthly fuel clause adjustment which is not at issue here.
19 Our concern relates to the annual rider updates. Two of the electric utilities,
20 Otter Tail and Xcel Energy, file their annual rider updates providing Staff with
21 a three to four months review period.

22

23 Montana-Dakota files its annual rider updates presuming the Staff can
24 complete its review in 30 to 60 days. The Company states in the Time and
25 Manner of the Filing section of its rider tariffs that the Commission is allowed
26 a 30 or 60 day review period, depending on the rate schedule. Staff
27 requested the Company remove this section from their rider tariffs as it is
28 difficult to accomplish a review in this short period of time. Note that the need
29 for more time isn't based on just Staff's need but, the entire review process
30 which includes issuing notice requirements and scheduling an informal or

1 formal hearing. The Company also needs to provide notice to customers in
2 their bills that it has made a filing which requires a month in order that the
3 notice be sent out in each of the monthly billing cycles.

4

5 Based on Staff's experience, it is difficult to process these cases in less than
6 90 days. In response to the Staff's data request on this issue, the Company
7 stated:

8 "the preference would be to not exceed 60 days for annual updates
9 to existing rate riders. The inclusion of 60 days provides for the
10 availability of the most recent costs and/or projections be included
11 in the proposed rates. The further the minimum number of days is
12 extended the less actual cost and known variables are included and
13 replaced with projections of those variables."

14

15 Note that all three utilities are allowed to include true-ups each year for
16 differences in actuals versus what was filed the previous year so the
17 Company's stated basis for such a short review period is not critical. Staff
18 has not noticed problems with the longer review period allowed by Xcel
19 Energy and Otter Tail Power. Staff requests the Company remove this
20 section from each of its rider tariffs and provide for a minimum 90-day review
21 period.

22

23 **Q: Does the Staff have recommended changes for the Company's Fuel and**
24 **Purchased Power Adjustment Rate 58?**

25 A: The Staff has a number of recommended changes which are as follows:

- 26
- 27 • Rather than the monthly filing being based on a change from the Base
28 Fuel and Purchased Power costs approved in a general rate case, the
29 monthly filings should be based on the total applicable costs for the
30 month. This will make the filing consistent with the amount shown on
the customer's bill and reduce potential errors by eliminating the need

1 to calculate the billing rate as base costs plus or minus the monthly
2 change.

- 3 • Eliminate the monthly changes to the tariff. Montana-Dakota is the
4 only utility of the three North Dakota regulated electric utilities that files
5 a tariff as part of their monthly update. The other two utilities provide
6 tables on their websites where the monthly fuel cost are easy to find.
7 Montana-Dakota files a tariff and the only way a customer can find the
8 costs are to find the tariff, then add or subtract the amount on the tariff
9 from the amount on the applicable rate schedule. Having a convenient
10 table on the website versus a monthly tariff reduces regulatory impact,
11 improves customer understanding and will eliminate the need for the
12 Commission to return proof of receipt of the tariff change to the
13 Company.
- 14 • Exclude MISO Schedule 24 charges from the Fuel and Purchased
15 Power costs. Neither Xcel Energy nor Otter Tail include these costs in
16 their monthly fuel costs. This is a MISO administrative cost. MN
17 determined because it is an administrative cost, it should be included
18 as part of the utilities' base rates similar to other administrative costs.
19 Additionally, MN determined by excluding this cost from the fuel costs,
20 the utilities have a greater incentive to encourage MISO to keep its
21 administrative costs in check.

22
23 Montana-Dakota argues that the Schedule 24 costs change monthly,
24 they should be considered part of the fuel costs and they shouldn't
25 have to do what the other two utilities are doing. These arguments are
26 not persuasive. Administrative costs do not belong in the fuel cost
27 adjustment. By excluding these costs from the fuel costs, we can
28 provide an incentive for utilities to work with MISO to ensure their
29 administrative charges are reasonable and prudent. Staff would also

1 like to see more consistency across the utilities in the monthly fuel cost
2 adjustment filings.

- 3 • Another way to improve consistency is if all the utilities true-up their
4 fuel cause adjustments on a monthly basis. Currently Otter Tail and
5 Xcel Energy employ a monthly true-up. Montana-Dakota performs an
6 annual true-up. Staff does not see that a monthly true-up adversely
7 affects the costs to customers. In fact, it may actually help customers
8 as a large positive or negative balance does not occur with this
9 method. Therefore, Staff recommends that Montana-Dakota change to
10 a monthly true-up versus an annual true-up. As part of its compliance
11 filing to implement the final rates in this case, the Company should
12 provide information as to the best timing to change from an annual to a
13 monthly true-up.

14
15 **Q: Please summarize your recommendations.**

16 **A:** The Staff's recommendations are:

- 17 1. Montana-Dakota's proposal for an Off-peak Demand Charge and a
18 decrease to the Basic Service Charge on Schedule 31 should be
19 rejected;
- 20 2. The Company shall add information to its website in a clearly marked
21 fashion regarding when customers are required to pay deposits and
22 what the interest rate on deposits is;
- 23 3. The Company shall propose changing to billing demand based on 15-
24 minute rolling intervals in its next rate case;
- 25 4. The Company shall institute a Meter Data Management System before
26 its next rate case;
- 27 5. The Company shall modify Section 10 of Rate Schedule 100 to state
28 that the discount is only available to retirees that retired on or before
29 December 31, 2009;

- 1 6. The Company shall file its justification, or new contracts, for all of its
2 special contracts within the next six months for further Commission
3 review;
- 4 7. The Company shall eliminate the time and manner of filings section in
5 rider tariffs and file its annual rider updates to allow for a minimum 90-
6 day review period; and
- 7 8. The Company shall modify its Fuel and Purchased Power Adjustment
8 Rate 58 pricing and filings as stated above.

9

10 **Q: Does this conclude your testimony?**

11 **A: Yes, it does.**