

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

Before the Public Utilities Commission of South Dakota

Docket No. NG12-_____

Direct 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. What are your responsibilities as the Director of Regulatory Affairs?**

8 A. My responsibilities include the preparation of rate design and
9 miscellaneous tariff revision filings to ensure that the applicable revenue
10 requirements are properly recovered from various customer classes via
11 applicable rate forms. I also administer utility tariffs and rules and regula-
12 tions effective in each of the jurisdictions in which Montana-Dakota
13 provides utility service.

14 **Q. Would you please outline your educational and professional
15 background?**

16 A. I graduated from Moorhead State University, Moorhead, Minnesota
17 in 1982 with a Bachelor of Science degree in Accounting. I began my

1 career with Montana-Dakota in 1983 in the Regulatory Affairs Department,
2 holding several positions within the Department including Rate
3 Administration Supervisor, Pricing and Tariff Manager and Regulatory
4 Affairs Manager before attaining my current position in 2012.

5 **Q. Have you testified in other proceedings before regulatory bodies?**

6 A. Yes. I have previously presented testimony before this
7 Commission, the Public Service Commissions of Montana, North Dakota
8 and Wyoming, and the Public Utilities Commission of Minnesota.

9 **Q. What is the purpose of your testimony in this proceeding?**

10 A. The purpose of my testimony is to present the results of the
11 embedded class cost of service study, address the proposed recovery of
12 the revenue requirement identified by Ms. Mulkern in her direct testimony
13 on each of the Company's gas rates, including how the distribution of the
14 revenue requirement was made among the various classes of customers
15 served, and rate changes associated with the consolidation of the Black
16 Hills and East River rate areas described by Mr. Goodin. In addition, my
17 testimony will discuss the extent to which Montana-Dakota is proposing
18 changes in rate design and/or tariff conditions.

19 **Q. What statements and exhibits are you sponsoring in this
20 proceeding?**

21 A. I am sponsoring Statement N, Statement O and Exhibit Nos. ____
22 (TAA-1) and Exhibit No. ____ (TAA-2). I also sponsor the proposed rate
23 schedules appended to the Application in this proceeding.

1 Q. **What rate schedules are affected by the consolidation of the Black**
2 **Hills and East River rate areas?**

3 A. The consolidation of the two rate areas results in the elimination of
4 Residential Rate 66 and Firm General Service Rate 76 applicable to the
5 East River areas. The customers currently served under Residential Rate
6 66 will be moved to Residential Rate 60 and the customers served under
7 Firm General Service Rate 76 will be moved to Firm General Service Rate
8 70. In addition, the recently authorized Transportation Service Rate 86
9 schedule is proposed to be eliminated with any customers taking service
10 under Rate 86 moved to the otherwise applicable Rate 81 or Rate 82.
11 Finally, with the consolidation of the purchased gas cost adjustment
12 mechanisms applicable under Rates 88 and 89, the East River Purchased
13 Gas Cost Adjustment Rate 89 is proposed to be eliminated.

14 Q. **What is the total revenue effect of the proposed gas rate changes?**

15 A. The final proposed rates will produce additional revenues of
16 \$1,548,355 or 3.3% annually based on pro forma 2012 throughput.
17 Exhibit No. __ (TAA-1) represents summaries by rate classification of the
18 proposed revenue increase. The exhibit shows the rate number and a
19 description along with the revenues calculated under the present and
20 proposed rates. The amount and percentage increase is also shown for
21 the proposed revenue increase.

22 Q. **Would you please explain Exhibit No. ____ (TAA-2)?**

23 A. Yes. Exhibit No. ____ (TAA-2) depicts bill comparisons based on

1 typical monthly consumption levels for an annual period for Residential
2 and Firm General Service customers. As shown on Exhibit No.____(TAA-
3 2), pages 1-3, the proposed rate structure will result in an average
4 increase, based on the proposed rates, of approximately \$3.00 per month
5 or 6% for the typical Residential customer in the Black Hills area using 75
6 dk on an annual basis. A Small Firm General Service customer in the
7 Black Hills area (Rate 70 with a meter rated less than 500 cubic feet per
8 hour) would see an increase of approximately \$3.40 per month or 5% and
9 a Large General Service customer in the Black Hills area (Rate 70 with a
10 meter rated 500 cubic feet per hour or more) would see an increase of
11 approximately \$21.05 per month or 3.5%.

12 As shown on Exhibit No.____(TAA-2), pages 4-6, the proposed rate
13 structure will result in an average decrease, based on the proposed rates,
14 of approximately \$1.10 per month or 3% for the typical Residential
15 customer in the East River area using 61 dk on an annual basis. A Small
16 Firm General Service customer in the East River area (Rate 76 with a
17 meter rated less than 500 cubic feet per hour) would see a decrease of
18 approximately \$8.66 per month or 10% and a Large General Service
19 customer in the East River area (Rate 76 with a meter rated 500 cubic feet
20 per hour or more) would see a decrease of approximately \$120.33 per
21 month or 16%.

22 The increase to the Black Hills customers caused by the
23 consolidation of the two rate areas discussed above is approximately

1 \$0.015 per dk for the residential class and \$0.11 per dk for the firm
2 general service class. The minimal change in distribution cost recovery as
3 compared to the total cost of gas provided support for consolidating the
4 rate areas at this time. The rate consolidation recognizes the cost to
5 serve the two areas is similar and provides for consistent tariffs and
6 purchased gas costs for the Company's total South Dakota service
7 territory resulting in rate administration efficiency for the Company and the
8 Commission and promoting customer understandability of applicable
9 rates.

10 **Embedded Class Cost of Service Study**

11 **Q. Would you please explain the embedded class cost of service study**
12 **contained in Statement N?**

13 A. Yes. Statement N, pages 1 through 4 provide a report entitled
14 "Cost of Service by Component." This report shows the total dollars and
15 unit cost required under each rate if the proposed rate of return of 8.101%
16 was produced by the demand, energy and customer components of each
17 rate schedule.

18 A summary of the results by the major rate classifications,
19 Residential, Small Firm General, Large Firm General, Air Force, Small
20 Interruptible Sales and Transportation, and Large Interruptible Sales and
21 Transportation is provided in Statement N, Schedule N-1, pages 5-6.
22 Statement N, Schedule N-2, pages 1 through 40 is a report of the rate
23 base, income statement and pro forma adjustments as allocated to each
24 rate schedule. The allocation factor applied to the total South Dakota gas
25 amount is shown on each line item and allocation factors used to allocate

1 the total South Dakota gas amount to each class and cost component as
2 referenced are provided in Statement N, Schedule N-3.

3 The embedded class cost of service study is based on the results
4 for South Dakota gas operations recorded for the 12 months ended June
5 30, 2012 as adjusted to reflect pro forma adjustments as sponsored by
6 Ms. Mulkern.

7 **Q. What were the results of the embedded cost of service study?**

8 A. The overall South Dakota gas rate of return based on the actual
9 results for the 12 months ending June 30, 2012 adjusted for known and
10 measurable changes is 5.536%. The returns by customer class are as
11 shown below:

12 Residential Service	4.150%
13 Small Firm General Service	5.167%
Large Firm General Service	10.411%
Air Force	-9.481%
Small Interruptible Sales & Transportation	12.456%
Large Interruptible Sales & Transportation	0.306%

14 **Q. How did you determine what costs should be assigned to each class
15 of customers?**

16 A. The starting point was classifying the functionalized costs by FERC
17 account for all rate base and income statement items as demand, energy
18 or customer related based on the component of service being provided.
19 Demand-related costs are costs that vary with the demand imposed by the
20 customer, energy-related costs are costs that vary with the natural gas
21 commodity the customer uses, and customer-related costs are fixed costs
22 driven by the number of customers served.

1 Next the plant, expense and revenue items that were identified as
2 directly related to a specific class of customers were directly assigned to
3 the appropriate class. Finally, the remaining costs were allocated using
4 the various allocation factors shown in Statement N, Schedule N-3, on the
5 basis of cost responsibility.

6 **Q. Would you please provide an overview of the allocation process**
7 **including the rationale underlying the choice of allocation factors?**

8 A. Yes. I will start with the plant in service items on the rate base
9 schedule starting on Schedule N-2, Page 1. The plant allocation serves
10 as the basis for allocating many of the other rate base items. The
11 investment in production plant represents the Company's investment in
12 the Billings Landfill facility and was allocated based on pro forma dk sales
13 (Factor 3) on the basis the gas produced is utilized by the sales
14 customers.

15 Turning now to the distribution plant investment; each distribution
16 plant account is analyzed and allocated based on the cause for the
17 investment. Distribution mains, services and meters represent
18 approximately 95% of the total distribution investment and therefore the
19 allocation of these three accounts drives the allocation of the remaining
20 distribution investment. The investment in distribution mains has been
21 assigned as a demand component and allocated to each rate class based
22 on the system peak demand attributed to each class. The investment in
23 services, service regulators and meters is related solely to a customer

1 connection and therefore classified as customer related. Services were
2 allocated to the rate classes based on Factor 17, Weighted Customer
3 Services, representing services weighted by customer class derived by
4 comparing the installed cost per services for each rate class to the cost to
5 serve Residential customers. Service regulators and meters were
6 allocated to the rate classes based on Factor 10, representing meters
7 weighted by customer class, derived by comparing the installed cost per
8 meter for each rate class to the cost necessary to serve Residential
9 customers. The weights were then applied to the number of customers in
10 each rate class. The allocation of the remainder of the rate base items is
11 self explanatory with the allocation factor noted for each line item.

12 **Q. Would you please continue with an explanation of the income**
13 **statement items in the class cost of service study?**

14 A. Yes. The allocation of the income statement items starts on
15 Schedule N-2, Page 3 with the allocation of revenues. As shown, sales
16 and transportation service revenues are directly assigned based on the
17 revenues produced by each rate class. The other revenues are allocated
18 based on the source of the revenue item. Each item is shown along with
19 the allocation factor applied. Operation and maintenance expenses
20 consisting of the cost of purchased gas, production, distribution, customer
21 accounts, customer service and information, sales and administrative and
22 general expenses are shown starting at Schedule N-2, Page 4. The cost
23 of purchased gas is directly assigned to each class based on the gas

1 costs included in pro forma revenues. The cost of purchased gas is
2 recovered through the purchased gas cost adjustment and is not
3 recovered through the rates that will be established in this rate case.
4 Production expenses are classified as energy related and allocated based
5 on Dk sales (Factor 3) to each class. The remaining operation and
6 maintenance expenses are allocated based on cost causation and
7 typically follow the plant investment previously described in the rate base
8 section. The remainder of the income statement reflects the allocation of
9 depreciation expense, taxes other than income and income taxes as
10 denoted by each line item. Finally, the pro forma adjustments set forth in
11 the Overall Cost of Service section, Rule 20:10:13:96, Schedule M, pages
12 3 through 4 are allocated beginning at Schedule N-2, Page 7. Again the
13 allocations primarily follow the corresponding plant or expense item
14 previously allocated. The allocation of costs to each rate schedule is
15 presented in the same format as described above.

16 **Q. For what purpose has the embedded class cost of service study**
17 **been used?**

18 A. The study results have been used for the purpose of analyzing the
19 various components comprising the total rate applicable to each customer
20 class.

21 **Distribution of the Revenue Requirement**

22 **Q. What methodology did you use to apportion the proposed rate**
23 **increase among the customer classes?**

1 **A.** In designing the proposed rates to reflect the additional revenue
2 requirements, I primarily used the embedded cost study as a guide. The
3 revenue increase necessary to bring each of the rate classes to the overall
4 rate of return ranges from an increase of approximately 18.4 percent for
5 the Large Interruptible class to a decrease of 5.6% for the Small
6 Interruptible class. As shown on Schedule O-1, page 2, in allocating the
7 revenue increase to each class I used an iterative process to mitigate the
8 impact associated with the increase required to reach the overall return by
9 rate class. I started by holding the Firm General Service class and the
10 Small Interruptible class at current total class revenue responsibilities
11 recognizing that the Firm General Service class is just above the overall
12 rate of return and the Small Interruptible class is producing above the
13 overall rate of return. The next step was to move the Large Interruptible
14 Class, including the Air Force class, closer to the overall return by
15 increasing the total class revenue responsibility by 9.8%. The above
16 steps resulted in an increase of 5.2% allocated to the Residential class.
17 This is less than the required amount to bring the Residential class to the
18 overall requested return but represents approximately 90% of the required
19 increase for both the Residential and Large Interruptible classes based on
20 the embedded cost study, representing a significant movement toward
21 cost based rates.

22 **Q. Why are you proposing to move the current Air Force to the Large**
23 **Interruptible customer class?**

1 A. The Ellsworth Air Force Base (Ellsworth), is the only customer
2 served under the currently effective Air Force Rate 64 schedule and the
3 customer represented in the embedded class study as the Air Force class.
4 Ellsworth is now tied into Montana-Dakota's distribution system and
5 therefore no longer a transmission level customer served directly from the
6 interstate pipeline. This change in operations makes the service to
7 Ellsworth similar to any other large interruptible service customer served
8 within the distribution system. While Ellsworth remains an interruptible
9 sales service customer, the costs to serve Ellsworth are similar to the
10 costs to serve other large interruptible customers. In addition, Ellsworth is
11 privatizing housing at the base in phases with the first phase consisting of
12 828 homes now served by a property management group and served
13 under Montana-Dakota's Firm General Service Rate 70. Given the
14 operational changes, the Company is proposing to eliminate the separate
15 Air Force rate schedule 64 and Purchased Gas Cost Adjustment class and
16 provide service under the Large Interruptible Rate 85 schedule. The
17 effective rate change specific to the Air Force load previously served
18 under Rate 64 is approximately 6.3% on an annual basis under this
19 proposal.

20 **Q. What is the percentage of the proposed final increase by class of**
21 **customer?**

22 **A.** The proposed final increase to each of the classes is shown in the
23 table below:

Class

Residential	5.2%
Firm General	0.0%
Small Interruptible	0.0%
Large Interruptible (including Air Force)	9.8%
Overall	3.3%

2 **Q. What were the objectives underlying the allocation of the increase**
3 **and the rates proposed to recover the revenue requirement?**

4 **A.** The embedded cost of service study and proposed revenue
5 allocation embody several of the recognized objectives by their
6 effectiveness in yielding the total revenue requirement under the fair-
7 return standard, fairness of the specific rates in the apportionment of the
8 total costs of service among the different consumers, and efficiency of the
9 rate classes. The rate forms proposed also recognize a balanced and
10 gradual move toward meeting the objectives noted above in order to be
11 cognizant of the objective of rate stability. In order to capture that
12 balance, the proposed rates reflect a move toward cost based rates but
13 not the full step necessary to price each service to reflect the specific
14 embedded cost components.

15 **Q. How are you proposing to collect the allocated final increase from**
16 **each of the rate classes?**

17 **A.** First, I am proposing increases to the Basic Service Charges for

1 each of the rate schedules. The Basic Service Charge under Residential
2 Rate 60 is proposed at \$0.30 per day which reflects an average monthly
3 charge of \$9.13, an increase of \$1.53 per month for South Dakota Black
4 Hills customers and an increase of \$4.56 per month for South Dakota East
5 River customers from the currently effective charge. The Basic Service
6 Charge applicable to Firm General Service customers with meters rated
7 less than 500 cubic feet per hour is proposed at \$0.42 per day and \$1.00
8 per day for customers requiring the larger meters capable of measuring
9 gas flows of 500 cubic feet per hour or greater. The resulting average
10 monthly charges will be \$12.78 and \$30.42 respectively representing an
11 increase of \$2.13 per month in the Basic Service Charge applicable to
12 South Dakota Black Hills customers using meters rated less than 500
13 cubic feet per hour and an increase to South Dakota Black Hills customers
14 of \$9.13 per month in the Basic Service Charge for customers requiring
15 meters rated at 500 cubic feet per hour or higher. South Dakota East
16 River customer using meters rated less than 500 cubic feet per hour
17 represents an increase of \$5.17 per month and South Dakota East River
18 customers using meters rated more than 500 cubic feet per hour
19 represents an increase of \$15.21 per month. The Basic Service Charges
20 applicable to Small Interruptible Sales Rate 71 is proposed to increase by
21 \$100.00 per month and Small Interruptible Transportation Service Rate 81
22 is proposed to increase by \$25.00 per month resulting in a Basic Service
23 Charge of \$150.00 for the sales service and transportation service. Large

1 Interruptible Sales Rate 85 and Large Interruptible Transportation Service
2 Rate 82 Basic Service Charges are proposed to increase to \$230.00 per
3 month representing an increase of \$55.00 per month for Large
4 Interruptible Sales Rate 85 and an increase of \$5.00 per month for Large
5 Interruptible Transportation Service.

6 After taking into account the revenue increase associated with the
7 changes in the Basic Service Charge, the remaining increase in revenues
8 is proposed to be collected through the applicable Distribution Delivery
9 Charge components.

10 The rate design calculations supporting the proposed rate levels
11 are included in Statement O, Schedule O-1 Pages 1-12.

12 **Q. Would you please explain the rationale for the increase in the**
13 **Residential Basic Service Charge?**

14 A. The proposed increase in the Basic Service Charge, to move this
15 component closer to cost, is necessary for several reasons. Moving fixed
16 cost recovery to the Basic Service Charge and away from the usage
17 charge will first minimize subsidies within the class and secondly minimize
18 the under-recovery of fixed costs when customers take measures to
19 conserve energy and more efficiently utilize natural gas. Today the
20 Company and its shareholders are harmed when conservation results in
21 lower use. This inequity may be addressed through tracking mechanisms
22 or more simply by adjusting the rate components to more closely match
23 costs. Residential customers in the Black Hills rate area have reduced

1 their average annual usage on a weather normalized basis from 83 dk at
2 the time of the last rate case in 2004 to 75 dk on an annual basis today as
3 a result of conservation efforts including improved appliance efficiency and
4 improved housing construction. Residential customers in the East River
5 area have also reduced their average annual consumption from 63 dk to
6 61 dk. An Energy Information Administration (EIA), Office of Oil and Gas
7 report in June 2010 entitled "Trends in U.S. Residential Natural Gas
8 Consumption" supports that this trend is expected to continue into the
9 future in a couple of key findings 1) A long-term trend in declining U.S.
10 household consumption is apparent, with year over year declines in
11 residential per-customer consumption in 16 out of the past 19 years 2)
12 according to EIA data, newer vintage homes or houses constructed
13 between 1990 and 2005 consumed 25 percent less natural gas for space
14 heating, than homes built prior to 1990 and 3) one-third of all furnaces
15 currently sold measure an AFUE of 90 percent or higher. This trend
16 causes a need to address the current rate structure where a significant
17 portion of fixed costs are recovered through the usage charge. A recent
18 survey by the American Gas Association (AGA) as of March 2012
19 indicates Commissions and utilities across the nation are addressing this
20 issue through Non-Volumetric Rate Designs, Decoupling, Flat Monthly
21 Fees or Rate Stabilization mechanisms.

22 **Q. Would you please briefly describe other changes made to the**
23 **Company's gas tariff?**

1 A. Yes, following is a description of other changes the Company is
2 proposing to make to its gas tariff:

- 3 • The volumes associated with the grain drying load to be served
4 under the interruptible service rates are difficult to predict with
5 any certainty given the various factors affecting the need for
6 natural gas at the grain drying facilities where, in addition to
7 weather factors, commodity prices and the demand for certain
8 commodities will also affect the operation of the grain dryers.
9 Therefore, the Company is proposing to implement a margin
10 sharing adjustment that will provide a credit to all other
11 customers through the PGA mechanism at 90% of actual
12 margins received on an annual basis. The credit would be
13 reviewed and updated annually at the time of the annual
14 surcharge change in October. A 90/10 sharing mechanism is
15 appropriate to provide the Company incentive to secure new
16 economic grain drying load while also providing a timely credit
17 to other customers.
- 18 • The Penalty Provision relating to an interruptible customer's
19 failure to curtail or interrupt volumes as may be required under
20 the interruptible sales and transportation service tariffs has been
21 increased from \$30.00 per dk to \$50.00 per dk for gas used in
22 excess of the volume of gas to which the customer was
23 requested to curtail or interrupt. Montana-Dakota proposes the

1 higher penalty to minimize the potential ramifications to the firm
2 customers should interruptible customers decide to continue to
3 use natural gas after receiving a curtailment or interruption
4 notification.

- 5 • A provision allowing the Company to install automatic shut-off or
6 curtailment equipment, at the customer's expense, to regulate
7 the amount of gas the customer may use at the time of a
8 curtailment or interruption has also been added to the
9 interruptible sales and transportation service tariffs as an
10 additional protection to firm customers if deemed necessary
- 11 • The Transportation Service Rates 81 and 82 schedule reflects a
12 proposed cash-out mechanism to be applied to the difference
13 between the amount of gas received by the Company on the
14 customer's behalf and the actual gas deliveries made to the
15 customer. The monthly imbalance will not be carried forward to
16 the next calendar month with the cash-out mechanism. Under
17 the current balancing provisions applicable under Rates 81 and
18 82 the imbalance is carried forward to the next month and
19 balancing charges are applied until the imbalance is corrected.
20 Under the Company's proposal, if the monthly imbalance is
21 caused by more gas delivered on the customer's behalf than the
22 actual volumes used, the Company will pay the customer an
23 Undertake Purchase Payment, which is equal to the lesser of

1 the Company's weighted average cost of gas (WACOG) or an
2 Index Price. If the monthly imbalance is due to more gas
3 actually used by the customer than volumes delivered on their
4 behalf, the customer shall pay Montana-Dakota an Overtake
5 Charge which is equal to the greater of the Company's WACOG
6 or an Index Price. The Index Price is as reported in the first
7 issue of the month of Delivery of Platts, Inside FERC's Gas
8 Market Report. In addition to the monthly imbalance cash-out
9 mechanism, the customer is responsible for any additional costs
10 incurred by Montana-Dakota from the interconnecting pipeline
11 due to a deviation between scheduled daily volumes and actual
12 daily volumes of gas. Montana-Dakota proposes to implement
13 this cash-out balancing mechanism in order to simplify the
14 monthly imbalance process for both the customer and the
15 Company as any imbalance is disposed of in the current month.
16 The proposed mechanism provides a clear price signal to the
17 customer and recognizes a purchase rate or overtakes charge
18 commensurate with the severity of the imbalance.

- 19 • The returned check charge applicable under General Provisions
20 Rate 100 is proposed to increase from \$20.00 to \$40.00.
- 21 • Minor changes which are self explanatory have been made to
22 the majority of the rate schedules. These changes are clearly
23 denoted on the tariff sheets reflecting the legislative format.

1 Q. Does this conclude your direct testimony?

2 A. Yes, it does.