

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

Before the Public Service Commission of North Dakota

Case No. PU-17-295

Rebuttal Testimony
of
Jordan R. Hatzenbuhler

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

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

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

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

8 **Q. Are you the same Jordan R. Hatzenbuhler who filed direct testimony
9 in this proceeding?**

10 A. Yes I am.

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

12 A. The purpose of this rebuttal testimony is to address
13 recommendations made by Mr. Scott J. Rubin, testifying on behalf of the
14 AARP regarding the Company's embedded class cost of service study,
15 class revenue allocation and rate design. I will also address the testimony
16 filed by Mr. Karl R. Pavlovic on behalf of the North Dakota Public Service

1 Commission Advocacy Staff, as well as the testimony filed by Mr. Michael
2 P. Gorman on behalf of the Federal Executive Agencies. Additionally, on
3 December 22, 2017, the 2017 Tax Cuts and Jobs Act (Tax Act) was signed
4 into law. A major provision of the Tax Act was a change in the Federal tax
5 rate from 35 percent to 21 percent. I am sponsoring Exhibit
6 No.____(JRH-3), a revised version of Statement M, Exhibit No.____(JRH-
7 4), a revised version of Statement N and Exhibit No.____(JRH-5), a
8 revised residential customer bill comparison. Each are updated to reflect
9 the updated revenue requirement, as impacted by the Tax Act, sponsored
10 in Mr. Jacobson's rebuttal testimony.

11 **Q. Would you please summarize the issues raised by Mr. Rubin**
12 **regarding the Company's class cost of service study (CCOSS) that**
13 **you will address?**

14 A. Yes. Mr. Rubin's primary issue with the Company's CCOSS lies in
15 the allocation of distribution mains. He asserts that distribution mains
16 should be allocated 100% as demand-related and that the Company's
17 minimum system study is faulty for various reasons and should be
18 ignored.

19 **Q. Do you agree with Mr. Rubin's position that distribution mains**
20 **should be allocated as 100% demand-related?**

21 A. No, I do not. Allocating distribution mains as 100% demand-related
22 ignores the fact that there are two primary cost factors that influence the
23 level of distribution main facilities installed by a gas utility in its gas

1 distribution system. First, the total installed footage of distribution mains is
2 largely a function of the need to expand the distribution system over time
3 to connect new customers to the system. Second, the size or diameter of
4 the distribution main is a function of the peak demand placed on the
5 system by the utility's customers. It is appropriate to recognize that both
6 factors influence the investment in distribution mains and therefore
7 appropriate to allocate such investment based on both the number of
8 customers served and the utility's design day demand.

9 It is illogical to argue that distribution mains only exist because a
10 demand for gas exists, in the same way it is illogical to make the argument
11 the mains only exist because customers are there to connect to the
12 system. The investment is caused by both the presence of the customers
13 and the associated demand on the system those customers bring. To
14 appropriately classify the investment in distribution mains, a method, such
15 as the widely utilized and accepted minimum system method, is necessary
16 to determine what portion of costs are driven by each of the two cost
17 causing factors.

18 **Q. Mr. Rubin claims the use of the current cost of pipe in the Company's**
19 **minimum system analysis is in error. Do you agree?**

20 A. No, I do not. Due to the age of the distribution system and the fact
21 that the Company has upgraded and transitioned through numerous
22 accounting and GIS software over the course of many decades in
23 business, the data necessary to produce reliable book cost data by pipe

1 type and diameter is not available. It's for this reason the Company uses
2 current pipe costs in its minimum-system analysis.

3 **Q. Mr. Rubin points out on page 13 of his testimony that by using the**
4 **current pipe costs the minimum-system analysis yields a total cost**
5 **for mains that far exceeds the gross plant balance for the mains**
6 **account utilized in the case. Could you please explain why this does**
7 **not indicate an obvious error as he calls it, and is irrelevant?**

8 A. Mr. Rubin is correct when he states that the Company's analysis is
9 based on the current cost of installing gas mains, not the actual cost of our
10 system. However, this is largely irrelevant if the relationship between the
11 cost of small pipe compared to the cost of large pipe remains relatively
12 stable over time. For example, if 2-inch pipe in 1950 was \$1 per foot to
13 install and 12-inch pipe was \$10 per foot to install and today it's \$10 and
14 \$100, respectively, it makes no difference if the analysis uses historic cost
15 or current cost. Over the many decades the Company's mains have been
16 installed, the relationship between the cost to install small pipe versus
17 large pipe may not have been exactly the same, but I am confident that it
18 has been generally stable enough to support the reasonableness of using
19 current costs in the minimum-system analysis considering the lack of
20 sufficient data to generate reliable book cost amounts.

21 **Q. Mr. Rubin claims the use of the smallest sized pipe installed on the**
22 **Company's system is required for use in a minimum-system**
23 **analysis. Do you agree?**

1 A. No, I do not. Beginning on line 10 of page 13 of his testimony, Mr.
2 Rubin cites the NARUC Gas Distribution Rate Design Manual by quoting
3 the following: “Under the minimum size main theory, all distribution mains
4 are priced out at the historic unit cost of the smallest main installed in the
5 system, and assigned as customer costs. The remaining book cost of
6 distribution mains is assigned to demand.”. He refers to the contents of
7 this statement as both “requirements for a minimum-system analysis” and
8 as “the industry-standard approach” for such an analysis as though there
9 is a standardized set of rules for completing a minimum system analysis.

10 There is no such standardized practice to follow. In fact, in the
11 discussion regarding minimum-system methodologies, the NARUC
12 Electric Manual on Page 95 states: “The analyst must determine the
13 minimum size for each piece of equipment: “Should the minimum size be
14 based upon the minimum size equipment currently installed, historically
15 installed, or the minimum size necessary to meet safety requirements?””.

16 Clearly there is discretion involved when determining the
17 assumptions made in a minimum-system analysis and no set standard
18 exists.

19 **Q. Mr. Rubin claims 0.75-inch mains should be used in the minimum-**
20 **system study because the Company has some pipe of this size**
21 **installed on its system. Why do you not recommend the 0.75-inch**
22 **minimum-system study?**

1 A. The minimum system for a distribution utility company is intended
2 to represent the smallest hypothetical system a gas utility would construct
3 to connect its customers. It is a theoretical construct and does not exist;
4 however, there should be some attempt to mimic the operational realities
5 of the Company's system. The Company's distribution engineering group
6 indicates 2-inch mains are what would be used in this hypothetical system,
7 a primary factor for this assertion being that the Company does not, and
8 has not for some time, installed anything smaller on the system. 0.75-inch
9 pipe is simply not representative of the Company's mains in North Dakota
10 as it accounts for approximately 0.6% of the mains on the Company's
11 system as it exists today and is no longer installed.

12 **Q. Mr. Rubin claims on page 14 of his testimony that 2-inch mains**
13 **would be sufficient to serve nearly the entire demand of the**
14 **residential class. Does he provide any relevant support?**

15 A. No, he does not. He cites a recent analysis he completed for a
16 different gas distribution utility which is unsubstantiated, completely
17 irrelevant to this case, and should be ignored outright.

18 **Q. Mr. Rubin prepared an alternate minimum-system study using 0.75-**
19 **inch mains and the associated historic cost of that pipe for a**
20 **different company. Would it be relevant or appropriate to use the**
21 **results of this alternate study?**

22 A. No. I have already addressed why it is inappropriate to use 0.75-
23 inch mains as the minimum sized pipe in the analysis. To do so and use a

1 different Company's historic cost for the pipe in the analysis produces
2 irrelevant results for the case at hand. As such, Mr. Rubin's alternate
3 minimum system study has no value and should be ignored.

4 **Q. Despite his disagreements regarding the CCROSS, Mr. Rubin supports**
5 **the Company's proposed revenue allocation regardless of which**
6 **CCROSS methodology is deemed appropriate, do you agree with this**
7 **recommendation?**

8 A. Yes. I agree the Company's proposed revenue allocation is
9 reasonable and should be adopted and adjusted proportionately for any
10 changes made to the revenue requirement.

11 **Q. In the Company's last rate case, a straight fixed variable rate design**
12 **was adopted for the residential rate class, thus eliminating the need**
13 **for a variable distribution delivery charge. Could you describe the**
14 **primary benefits of the design that led to its adoption?**

15 A. Yes. There are several significant benefits from implementing the
16 Company's straight fixed variable residential rate design, including:

17 1. The design mitigates the impact of significantly colder-than-
18 normal weather on customers' bills, without the need for an
19 additional rate stabilization mechanism, like the one in place
20 prior to the current rate design was implemented, while also
21 mitigating the impact warmer than normal weather has on the
22 Company's ability to recover fixed costs.

- 1 2. The proposed charge reduces fluctuations in Montana-Dakota's
2 earnings, both up and down, as the result of weather
3 fluctuations and customers' conservation efforts.
- 4 3. Customers' bills will be more stable as approximately 40 percent
5 of the total bill will be fixed each month and not dependent on
6 changes in weather.
- 7 4. Customers continue to have incentive to conserve as the Cost
8 of Gas, representing approximately 60 percent of a typical
9 customer's bill, will continue to be billed on a volumetric basis.
- 10 5. Provides a better match of revenues to the investment made to
11 serve each residential customer with a typical service line,
12 meter and regulator at the same average cost. Under a
13 volumetric distribution rate structure, customers using less than
14 average use are being subsidized by customers using more
15 than average use. The use of natural gas is not proven to be
16 dependent on a customer's income. If fixed costs are not
17 recovered from fixed charges, high use customers subsidize low
18 use customers regardless of the reason a customer uses less
19 natural gas than average.
- 20 6. The fixed rate addresses the inequities caused by customers
21 using natural gas as a backup energy source during peak
22 periods.

1 **Q. Has the Company's distribution system or the makeup of the**
2 **Residential rate class changed since the last rate case in a way that**
3 **would make the current rate design improper?**

4 A. No, they have not.

5 **Q. Mr. Rubin claims it is unfair and inefficient to collect the Residential**
6 **classes' share of the revenue requirement solely through the fixed**
7 **basic service charge. Do you agree?**

8 A. No, I do not. Mr. Rubin points to the diversity of consumption within
9 the rate class and the fact a portion of the costs being recovered are
10 demand-related as evidence that low-usage customers are ultimately
11 paying more than their cost of service. An overriding and meaningful point
12 is ignored when taking this view, however, and that is the fact that the
13 costs being recovered are fixed in nature. They do not vary with usage or
14 an individual customer's peak demand on the system. It is for this simple
15 reason that these costs are recovered through a fixed charge under the
16 currently implemented straight fixed variable rate design.

17 **Q. Does a low-usage customer cost less to serve than a high-usage**
18 **customer?**

19 A. No. The equipment in place to serve residential customers at the
20 low, average and high ends of the usage range is essentially the same.
21 Mr. Rubin pointed out the only real exception – that being the very small
22 subset of residential customers that have a larger meter set than the
23 typical residential-sized meter of 250 cubic feet per hour (cfh). As seen on

1 Workpaper M18, only 1.1% of the meter sets serving residential customers
2 are of a size greater than 250 cfh. The incremental cost being shouldered
3 by the remaining 99% of customers is insignificant and certainly is not an
4 issue worthy of driving an overhaul of the rate design for the Residential
5 rate class.

6 **Q. Does the Company's current rate design for the Residential rate**
7 **class provide customers an incentive to conserve?**

8 A. Yes, it does. As mentioned earlier, a majority of the customer's bill
9 is still volumetric which sends a clear price signal to customers that using
10 less gas will result in a lower bill.

11 **Q. Would you please summarize your thoughts on the rate design for**
12 **the Residential rate class?**

13 A. The Company's existing rate design for the Residential rate class is
14 simple for customers to understand, naturally mitigates the impacts of
15 abnormal weather, maintains the ability of the customer to save through
16 conservation and recovers fixed costs appropriately via a fixed charge. To
17 introduce a volumetric charge for any increase resulting from this case
18 would be to take a step backwards in the evolution of the rate design for
19 the Residential rate class.

20 **Q. Turning now to Mr. Pavlovic's testimony on behalf of the Advocacy**
21 **Staff, do you agree with Mr. Pavlovic's recommendation to allocate**
22 **100 percent of mains costs as demand?**

23 A. No, I do not, for the reasons discussed earlier in this testimony.

1 **Q. Does Mr. Pavlovic take issue with the manner the Company applied**
2 **the minimum system approach in this case?**

3 A. No, he does not.

4 **Q. Did Mr. Gorman, on behalf of the Federal Executive Agencies,**
5 **provide testimony regarding the Company's embedded class cost of**
6 **service study and proposed revenue allocation?**

7 A. Yes, he did. Mr. Gorman indicated the Company's embedded class
8 cost of service study "reasonably and accurately measures its cost of
9 providing local gas transmission and distribution service to its various
10 retail rate classes". He further specifically addresses and concludes that
11 the Company's approach to allocating the costs of distribution mains is
12 reasonable.

13 Regarding the Company's proposed revenue allocation, Mr.
14 Gorman agrees that while the class cost of service study does call for a
15 number of customer classes to receive a decrease in rates, it is
16 reasonable to simply hold those classes at current rates in order to
17 mitigate the impact to the Residential customer class, and thus supports
18 the Company's proposed revenue allocation.

19 **Q. Are you sponsoring a revised CCROSS and corresponding rate design**
20 **file resulting from a reduction in the revenue requirement due to the**
21 **Tax Act?**

1 A. Yes, I am sponsoring Exhibit No.____(JRH-3), a revised version of
2 Statement M, and Exhibit No.____(JRH-4), a revised version of Statement
3 N.

4 **Q. Were any changes in methodology made regarding the revised class
5 cost of service study presented in Exhibit No.____(JRH-3)?**

6 A. No. The class cost of service as filed was simply revised to reflect
7 the updated revenue requirement of \$3,575,388 as a result of the impacts
8 of the Tax Act as provided in Mr. Jacobson's Exhibit No.____(TRJ-5).

9 **Q. Regarding the revised rate design file presented in Exhibit
10 No.____(JRH-4), was the revenue allocation methodology for the
11 proposed rate increase changed as a result of the updated proposed
12 increase?**

13 A. No. The updated results of the class cost of service study were
14 simply entered and allowed to flow through under the same methodology
15 that was used in the initial filing.

16 However, if the final proposed revenue increase at the time of the
17 initial filing had been \$3,575,388, as it is now, it is likely that I would have
18 allocated a greater share of the increase to the Residential rate class as
19 there would have been less need to mitigate the impacts of the increase
20 on that class while attempting to move it closer to cost of service based
21 rates.

22 **Q. Would you please compare the rate design results as initially filed to
23 those updated for the revised revenue requirement?**

1 A. Yes. The table below shows the proposed final increase to each of
2 the customer classes as initially filed and as revised.

<i>Class</i>	<i>As Filed</i>	<i>Revised</i>
Residential	5.9%	3.6%
Firm General	5.5%	3.3%
Air Force Delivery	0.0%	0.0%
Small Interruptible	0.0%	0.0%
Large Interruptible	0.0%	0.0%
Overall	5.4%	3.3%

3

4 **Q. What impact does the updated revenue requirement have on the**
5 **increase for a typical residential customer?**

6 A. As seen on Exhibit No.____(JRH-5), the average monthly increase
7 for a residential customer is \$1.82 as compared to \$2.98 as initially filed.

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

9 A. Yes, it does.

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
 Embedded Class Cost of Service Study
 Cost of Service by Component
Projected 2018 - REVISED TO REFLECT UPDATED REVENUE REQUIREMENT
 (in thousands)

	Residential			Total Residential	
	Total North Dakota	Demand	Energy		Customer
Projected Rate Base	136,862	31,263	40	54,219	85,522
Operating Income for Proposed Return	10,324	2,360	3	4,089	6,452
Projected Operating Income	7,621	(2,624)	(167)	6,075	3,284
Increase in Operating Income	2,703	4,984	170	(1,986)	3,168
Related Taxes for Increase Federal Income	872	1,608	55	(641)	1,022
Total Increase in Revenue	3,575	6,592	225	(2,627)	4,190
Projected Revenue Before Increase	112,137	12,840	23,600	23,602	60,042
Total Cost of Service Required from Rates:	112,640	18,433	23,822	20,136	62,391
Less Projected Cost of Gas	70,913	11,841	23,598	0	35,439
Net Distribution Cost of Service	41,626	6,592	224	20,136	26,952
Return on Rate Base Before Increase	5.568%				3.840%
Projected Billing Units	112,516			96,792	
Bills	1,350,192			1,161,504	
Dk	23,351,305	8,826,214	8,826,214		
Unit Cost of Service					
Energy cost per Dk			\$0.03		
Demand cost per Dk		\$0.750			
Customer Cost Per Month				\$17.34	
Cust and Demand cost per month				\$23.01	

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
 Embedded Class Cost of Service Study
 Cost of Service by Component
Projected 2018 - REVISED TO REFLECT UPDATED REVENUE REQUIREMENT
 (in thousands)

	Large Interruptible			Total Large Interruptible	Minot Air Force Base Distribution			Total MAFB Distribution
	Demand	Energy	Customer		Demand	Energy	Customer	
Projected Rate Base	3,091	0	575	3,666	648	0	630	1,278
Operating Income for Proposed Return	233	0	43	276	49	0	48	97
Projected Operating Income	(331)	(11)	918	576	(209)	0	336	127
Increase in Operating Income	564	11	(875)	(300)	258	0	(288)	(30)
Related Taxes for Increase								
Federal Income	182	4	(282)	(96)	83	0	(93)	(10)
Total Increase in Revenue	746	15	(1,157)	(396)	341	0	(381)	(40)
Projected Revenue Before Increase	54	0	1,332	1,386	5	0	458	463
Total Cost of Service Required from Rates:	746	15	171	932	341	0	75	416
Less Projected Cost of Gas	0	0	0	0	0	0	0	0
Net Distribution Cost of Service	746	15	171	932	341	0	75	416
Return on Rate Base Before Increase	15.712%							
Projected Billing Units	6							
Bills	72							
Dk	4,321,943	4,321,943						
Unit Cost of Service								
Energy cost per Dk		\$0.00						
Demand cost per Dk								
Customer Cost Per Month	\$0.170		\$2,375.00					\$34,666.67
Cust and Demand cost per month								

Projected Billing Units: 6
 Bills: 72
 Dk: 4,321,943
 Unit Cost of Service: Energy cost per Dk \$0.00, Demand cost per Dk, Customer Cost Per Month \$0.170, Cust and Demand cost per month \$34,666.67

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
 Embedded Class Cost of Service Study
 Twelve Months Ended December 31, 2016
Projected 2018 - REVISED TO REFLECT UPDATED REVENUE REQUIREMENT
 (in thousands)

	Allocation Factor	Total North Dakota			Residential			Total Residential			Firm General-Meter < 500 cubic feet			Total Small Firm General	
		Total North Dakota			Residential			Total Residential			Firm General-Meter < 500 cubic feet			Total Small Firm General	
		North Dakota	Demand	Energy	Customer	Demand	Energy	Customer	Demand	Energy	Customer	Demand	Energy	Customer	Firm General
Rate Base-Projected															
Gas Plant in Service	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Production Plant	13	913	333	0	193	0	526	84	0	22	106	0	0	0	0
Land	13	498	182	0	105	0	287	46	0	12	58	0	0	0	0
Rights of Way	40	423	157	0	91	0	248	40	0	10	50	0	0	0	0
Structures & Improvements	Direct	81	0	0	0	0	0	0	0	0	0	0	0	0	0
Mains - \$103,231-Directly Assigned \$2,639	2	75,444	37,419	0	0	0	37,419	9,422	0	0	9,422	0	0	0	0
Demand Related 75%	8	25,148	0	0	21,634	0	21,634	0	0	2,425	2,425	0	0	0	0
Customer Related 25%	Direct	1,979	0	0	0	0	0	0	0	0	0	0	0	0	0
Directly Assigned Demand Related 75%	Direct	660	0	0	0	0	0	0	0	0	0	0	0	0	0
Directly Assigned Customer Related 25%															
Heskett Pipeline - \$22,181	2	16,636	8,251	0	0	0	8,251	2,078	0	0	2,078	0	0	0	2,078
Demand Related 75%	8	5,545	0	0	4,770	0	4,770	0	0	535	535	0	0	0	535
Customer Related 25%	40	1,754	651	0	377	0	1,028	164	0	42	206	0	0	0	206
Meas. & Reg. Equip. - General	Direct	208	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct	13	5,288	1,932	0	1,116	0	3,048	486	0	125	611	0	0	0	611
Meas. & Reg. Equip. - City Gate	Direct	72	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct	37	46,810	0	0	37,188	0	37,188	0	0	5,961	5,961	0	0	0	5,961
Services	Direct	405	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct	9	31,618	0	0	19,850	0	19,850	0	0	2,670	2,670	0	0	0	2,670
Meters	Direct	55	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct	9	4,479	0	0	2,812	0	2,812	0	0	378	378	0	0	0	378
Service Regulators	Direct	15	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct	40	376	139	0	81	0	220	35	0	9	44	0	0	0	44
Ind. Meas. & Reg. Station Equipment	Direct	593	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct	13	115	42	0	24	0	66	11	0	3	14	0	0	0	14
Property on Customer Premise	40	1,712	636	0	368	0	1,004	160	0	41	201	0	0	0	201
Catholic Protection & Other Equipment	Direct	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct															
Distribution Plant - includes Heskett		220,831	49,742	0	88,609	0	138,351	12,526	0	12,233	24,759	0	0	0	24,759
Distribution Plant Excluding Direct Assignments		216,759	49,742	0	88,609	0	138,351	12,526	0	12,233	24,759	0	0	0	24,759
General Plant	38	14,138	3,244	0	5,781	0	9,025	817	0	798	1,615	0	0	0	1,615
Direct	15	286	0	0	0	0	0	0	0	0	0	0	0	0	0
Intangible Plant - General	15	3,464	724	0	1,461	0	2,185	182	0	204	386	0	0	0	386
Direct	15	2,193	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Plant	15	13,249	2,767	0	5,592	0	8,359	697	0	780	1,477	0	0	0	1,477
Intangible Common (Excluding CC&B)	15	5,236	1,094	0	2,209	0	3,303	275	0	308	583	0	0	0	583
Intangible Common (CC&B)	4	9,061	0	0	7,796	0	7,796	0	0	874	874	0	0	0	874
Acquisition Adjustment	15	97	20	0	41	0	61	5	0	6	11	0	0	0	11
Total Gas Plant in Service including Heskett		288,555	57,591	0	111,489	0	169,080	14,502	0	15,203	29,705	0	0	0	29,705

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
 Embedded Class Cost of Service Study
 Twelve Months Ended December 31, 2016
Projected 2018 - REVISED TO REFLECT UPDATED REVENUE REQUIREMENT
 (in thousands)

Allocation Factor	Total North Dakota	Firm General > 500 cubic feet			Total Large			Air Force Delivery			Small Interruptible			Total Small Interruptible
		Demand	Energy	Customer	Firm General	Demand	Energy	Customer	Demand	Energy	Customer	Demand	Energy	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	913	199	0	10	209	0	0	0	0	0	0	42	0	42
13	498	109	0	5	114	0	0	0	0	0	0	23	0	23
40	423	94	0	4	98	0	0	0	0	0	0	20	0	20
Direct	81	22	0	7	29	13	0	4	0	0	0	0	0	0
2	75,444	22,333	0	0	22,333	0	0	0	0	0	0	4,686	0	4,686
8	25,148	0	0	1,053	1,053	0	0	0	0	0	0	0	0	35
Direct	1,979	52	0	0	52	0	0	0	0	0	0	0	0	0
Direct	660	0	0	17	17	0	0	0	0	0	0	0	0	0
2	16,636	4,925	0	0	4,925	0	0	0	0	0	0	1,033	0	1,033
8	5,545	0	0	232	232	0	0	0	0	0	0	0	0	8
40	1,754	390	0	19	409	0	0	0	0	0	0	82	0	83
Direct	208	34	0	11	45	0	0	0	0	0	0	8	0	11
13	5,288	1,155	0	55	1,210	0	0	0	0	0	0	242	0	244
Direct	72	0	0	0	0	54	0	18	0	0	0	0	0	0
37	46,810	0	0	3,420	3,420	0	0	0	0	0	0	0	0	233
Direct	405	0	0	0	0	0	0	0	0	0	0	0	0	0
9	31,618	0	0	8,017	8,017	0	0	49	0	0	0	0	0	954
Direct	55	0	0	0	0	0	0	0	0	0	0	0	0	0
9	4,479	0	0	1,136	1,136	0	0	7	0	0	0	0	0	135
Direct	15	0	0	0	0	0	0	0	0	0	0	0	0	0
40	376	84	0	4	88	0	0	0	0	0	0	18	0	18
Direct	593	0	0	0	0	53	0	18	0	0	0	248	0	331
13	115	25	0	1	26	0	0	0	0	0	0	5	0	5
40	1,712	381	0	18	399	0	0	0	0	0	0	80	0	81
Direct	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	220,831	29,803	0	14,009	43,812	120	0	96	216	6,487	0	1,455	0	7,942
	216,759	29,695	0	13,974	43,669	0	0	56	56	6,231	0	1,369	0	7,600
38	14,138	1,937	0	911	2,848	0	0	4	4	406	0	89	0	495
Direct	286	0	0	0	0	0	0	0	0	0	0	0	0	0
15	3,464	434	0	240	674	2	0	2	4	95	0	25	0	120
Direct	2,193	0	0	0	0	0	0	0	0	0	0	0	0	0
15	13,249	1,659	0	919	2,578	8	0	6	14	364	0	97	0	461
15	5,236	656	0	363	1,019	3	0	3	6	144	0	38	0	182
4	9,061	0	0	379	379	0	0	0	0	0	0	12	0	12
15	97	12	0	7	19	0	0	0	0	3	0	1	0	4
	268,555	34,501	0	16,828	51,329	133	0	111	244	7,499	0	1,717	0	9,216

Rate Base-Projected

Gas Plant in Service

Production Plant

Land

Rights of Way

Structures & Improvements

Direct

Mains - \$103,231-Directly Assigned \$2,639

Demand Related 75%

Customer Related 25%

Directly Assigned Demand Related 75%

Directly Assigned Customer Related 25%

Heskett Pipeline - \$22,181

Demand Related 75%

Customer Related 25%

Meas. & Reg. Equip. - General

Direct

Meas. & Reg. Equip. - City Gate

Direct

Services

Direct

Meters

Direct

Service Regulators

Direct

Ind. Meas. & Reg. Station Equipment

Direct

Property on Customer Premise

Catholic Protection & Other Equipment

Direct

Distribution Plant - includes Heskett

Distribution Plant Excluding Direct Assignments

General Plant

Direct

Intangible Plant - General

Direct

Common Plant

Intangible Common (Excluding CC&B)

Intangible Common (CC&B)

Acquisition Adjustment

Total Gas Plant in Service including Heskett

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	Allocation Factor	Total North Dakota		Large Interruptible		Total Large		Minot Air Force Base Distribution		Total Minot Air Force
		North Dakota	Total	Demand	Energy	Customer	Interruptible	Demand	Energy	
Rate Base-Projected										
Gas Plant in Service										
Production Plant										
Land	3	0	0	0	0	0	0	0	0	0
Rights of Way	13	913	26	0	0	0	0	0	0	0
Structures & Improvements	13	498	14	0	2	16	0	0	0	0
Direct	40	423	7	0	0	7	0	0	0	0
Mains - \$103,231-Directly Assigned \$2,639	Direct	81	26	0	9	35	0	0	0	0
Demand Related 75%	2	75,444	1,584	0	0	1,584	0	0	0	0
Customer Related 25%	8	25,148	0	0	1	1	0	0	0	0
Directly Assigned Demand Related 75%	Direct	1,979	1,360	0	0	1,360	567	0	0	567
Directly Assigned Customer Related 25%	Direct	660	0	0	454	454	0	0	189	189
Heskett Pipeline - \$22,181										
Demand Related 75%	2	16,636	349	0	0	349	0	0	0	0
Customer Related 25%	8	5,545	0	0	0	0	0	0	0	0
Meas. & Reg. Equip. - General	40	1,754	28	0	0	28	0	0	0	0
Direct	Direct	208	114	0	38	152	0	0	0	0
Meas. & Reg. Equip. - City Gate	13	5,288	152	0	23	175	0	0	0	0
Direct	Direct	72	0	0	0	0	0	0	0	0
Services	37	46,810	0	0	8	8	0	0	0	0
Direct	Direct	405	0	0	78	78	0	0	405	405
Meters	9	31,618	0	0	0	0	0	0	0	0
Direct	Direct	55	0	0	0	0	0	0	55	55
Service Regulators	9	4,479	0	0	11	11	0	0	0	0
Direct	Direct	15	0	0	0	0	0	0	15	15
Ind. Meas. & Reg. Station Equipment	40	376	6	0	0	6	0	0	0	0
Direct	Direct	593	143	0	48	191	0	0	0	0
Property on Customer Premise	13	115	3	0	1	4	0	0	0	0
Catholic Protection & Other Equipment	40	1,712	27	0	0	27	0	0	0	0
Direct	Direct	4	0	0	0	0	0	3	0	4
Distribution Plant - includes Heskett		220,831	3,839	0	677	4,516	570	0	665	1,235
Distribution Plant Excluding Direct Assignments		216,759	2,196	0	128	2,324	0	0	0	0
General Plant	38	14,138	143	0	8	151	0	0	0	0
Direct	Direct	286	0	0	0	0	214	0	72	286
Intangible Plant - General	15	3,464	61	0	12	73	10	0	12	22
Direct	Direct	2,193	1,645	0	548	2,193	0	0	44	82
Common Plant	15	13,249	233	0	45	278	38	0	18	33
Intangible Common (Excluding CC&B)	15	5,236	92	0	18	110	15	0	0	0
Intangible Common (CC&B)	4	9,061	0	0	0	0	0	0	0	0
Acquisition Adjustment	15	97	2	0	0	2	0	0	0	0
Total Gas Plant in Service including Heskett		268,555	6,015	0	1,308	7,323	847	0	811	1,658

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Allocation Factor	Total North Dakota	Residential			Firm General-Meter < 500 cubic feet			Total Small Firm General	
		Demand	Energy	Customer	Demand	Energy	Customer		
24	(19,641)	(4,730)	0	(7,207)	(11,937)	(1,191)	0	(942)	(2,133)
24	0	0	0	0	0	0	0	0	0
Direct	(16,015)	(5,452)	0	(1,973)	(7,425)	(547)	0	(200)	(747)
	(35,656)	(10,182)	0	(9,180)	(19,362)	(1,738)	0	(1,142)	(2,880)
Total Rate Base	136,862	31,263	40	54,219	85,522	8,700	26	7,154	15,880

Accumulated Deferred Income Tax
 Accumulated Investment Tax Credit
 Customer Advances For Construction
 Total Deductions
 Total Rate Base

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Allocation Factor	Total North Dakota	Firm General > 500 cubic feet				Total Large				Air Force Delivery				Small Interruptible		Total Small Interruptible
		Demand	Energy	Customer	Total Firm General	Demand	Energy	Customer	Total Firm General	Demand	Energy	Customer	Total Air Force Delivery	Demand	Energy	
24	(19,641)	(2,833)	0	(1,150)	(3,983)	(11)	0	(9)	(20)	(614)	0	(121)	(735)	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct	(16,015)	(2,686)	0	(885)	(3,571)	0	0	0	0	(2,085)	0	(691)	(2,776)	0	0	0
	(35,656)	(5,519)	0	(2,035)	(7,554)	(11)	0	(9)	(20)	(2,699)	0	(812)	(3,511)	0	0	0
Total Deductions	136,862	19,305	29	8,086	27,420	87	0	70	157	2,684	0	255	2,939	0	0	0
Total Rate Base																

Accumulated Deferred Income Tax
 Accumulated Investment Tax Credit
 Customer Advances For Construction
 Total Deductions
 Total Rate Base

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 (in thousands)

Allocation Factor	Total North Dakota		Large Interruptible			Total Large			Minot Air Force Base Distribution			Total Minot Air Force
	North Dakota	Demand	Demand	Energy	Customer	Interruptible	Demand	Energy	Customer	Energy	Customer	Air Force
24	(19,641)	(645)	0	0	(123)	(668)	(84)	0	0	0	(81)	(165)
24	0	0	0	0	0	0	0	0	0	0	0	0
Direct	(16,015)	(1,123)	0	0	(373)	(1,496)	0	0	0	0	0	0
	(35,656)	(1,668)	0	0	(496)	(2,164)	(84)	0	0	0	(81)	(165)
Total Rate Base	136,862	3,091	0	0	575	3,666	648	0	0	0	630	1,278

Accumulated Deferred Income Tax
 Accumulated Investment Tax Credit
 Customer Advances For Construction
 Total Deductions
 Total Rate Base

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	Allocation Factor	Total North Dakota			Residential			Total Residential			Firm General-Meter < 500 cubic feet			Total Small Firm General	
		Total			Residential			Total Residential			Energy			Customer	Firm General
		North Dakota	Demand	Energy	Demand	Energy	Customer	Demand	Energy	Customer	Demand	Energy	Customer	Energy	Customer
Income Statement															
Gas Operating Revenues															
Retail Sales & Transportation															
Residential															
Firm General															
Air Force Delivery															
Small interruptible															
Large interruptible															
Total Sales & Transportation Revenues		108,609	11,841	23,597	22,763	58,201	11,841	23,597	22,763	58,201	2,981	5,213	4,140	12,334	
Other Operating Revenue															
Miscellaneous															
Reconnect Fees	6	31	0	0	27	27	0	0	0	0	0	0	3	3	
Minot Maintenance Fee Rate 65	Direct	456	0	0	0	0	0	0	0	0	0	0	0	0	
NSF Check Fees & Other	6	19	0	0	16	16	0	0	0	0	0	0	2	2	
Miscellaneous	24	1	0	0	1	1	0	0	0	0	0	0	0	0	
Rent From Gas Property	24	466	112	0	172	284	112	0	172	284	28	0	22	50	
Other Gas Revenues															
Miscellaneous	31	267	38	3	129	170	38	3	129	170	10	1	17	28	
Heskett Pipeline Revenue - \$2,275															
Demand Related 75%	2	1,706	846	0	0	846	846	0	0	846	213	0	0	213	
Customer Related 25%	8	569	0	0	489	489	0	0	489	489	0	0	55	55	
Transport and Penalty Revenue - Net	24	13	3	0	5	8	3	0	5	8	1	0	1	2	
Total Other Operating Revenue		3,528	999	3	839	1,841	999	3	839	1,841	252	1	100	353	
Unbilled Revenue	26	3,072	999	3	839	1,841	999	3	839	1,841	252	1	100	353	
Total Operating Revenues		112,137	12,840	23,600	23,602	60,042	12,840	23,600	23,602	60,042	3,233	5,214	4,240	12,687	
Operation & Maintenance Expenses															
Cost of Purchased Gas	Direct	70,913	11,841	23,598	0	35,439	11,841	23,598	0	35,439	2,981	5,203	0	8,184	
Other Gas Supply Expenses	3	372	0	184	0	184	0	184	0	184	0	42	0	42	
Distribution Expenses															
Operation															
Load Dispatch	1	20	0	8	0	8	0	8	0	8	0	2	0	2	
Mains and Services	22	2,326	583	0	916	1,499	583	0	916	1,499	147	0	131	278	
Measuring Stations - General	18	119	39	0	23	62	39	0	23	62	10	0	3	13	
Measuring Stations - Industrial	21	151	22	0	14	36	22	0	14	36	5	0	1	6	
Measuring Stations - City Gate	19	40	16	0	8	24	16	0	8	24	4	0	1	5	
Meters & House Regulators	16	488	0	0	306	306	0	0	306	306	0	0	41	41	
Customer Installations	5	667	0	0	419	419	0	0	419	419	0	0	56	56	
Other Gas Distribution	27	2,182	378	5	964	1,347	378	5	964	1,347	95	1	133	229	
Rents	27	75	13	0	34	34	13	0	34	34	3	0	5	8	
Supervision & Engineering	27	1,371	237	3	606	846	237	3	606	846	60	1	84	145	
Direct - Minot AFB Distribution System	Direct	78	0	0	0	0	0	0	0	0	0	0	0	0	
Total Operation Expense		7,517	1,288	16	3,290	4,594	1,288	16	3,290	4,594	324	4	455	783	

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Allocation Factor	Total North Dakota	Firm General > 500 cubic feet			Total Large			Air Force Delivery			Small Interruptible			Total Small Interruptible
		Demand	Energy	Customer	Firm General	Demand	Energy	Customer	Demand	Energy	Customer	Demand	Energy	
Income Statement														
Gas Operating Revenues														
Retail Sales & Transportation														
Residential	58,201	0	0	0	0	0	0	0	0	0	0	0	0	0
Firm General	44,072	7,067	17,025	7,646	31,738	0	0	0	0	0	0	0	0	0
Air Force Delivery	1,605	0	0	0	0	166	1,319	120	1,605	0	0	0	0	0
Small interruptible	3,403	0	0	0	0	0	0	0	0	195	1,508	1,700	0	3,403
Large interruptible	1,328	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Sales & Transportation Revenues	108,609	7,067	17,025	7,646	31,738	166	1,319	120	1,605	195	1,508	1,700	0	3,403
Other Operating Revenue														
Miscellaneous														
Reconnect Fees	6	31	0	0	1	0	0	0	0	0	0	0	0	0
Minot Maintenance Fee Rate 65	Direct	456	0	0	0	0	0	0	0	0	0	0	0	0
NSF Check Fees & Other	6	19	0	0	1	0	0	0	0	0	0	0	0	0
Miscellaneous	24	1	0	0	0	0	0	0	0	0	0	0	0	0
Rent From Gas Property	24	466	67	0	27	94	0	0	0	15	0	3	0	18
Other Gas Revenues														
Miscellaneous	31	267	23	2	25	50	0	0	0	7	0	3	0	10
Heskett Pipeline Revenue - \$2,275														
Demand Related 75%	2	1,706	505	0	0	505	0	0	0	106	0	0	0	106
Customer Related 25%	8	569	0	0	24	24	0	0	0	0	0	1	0	1
Transport and Penalty Revenue - Net	24	13	2	0	1	3	0	0	0	0	0	0	0	0
Total Other Operating Revenue	3,528	597	2	79	678	0	0	0	0	128	0	7	135	135
Unbilled Revenue	26	3,072	597	2	79	678	0	0	0	128	0	7	135	135
Total Operating Revenues	112,137	7,664	17,027	7,725	32,416	166	1,319	120	1,605	323	1,508	1,707	0	3,538
Operation & Maintenance Expenses														
Cost of Purchased Gas	Direct	70,913	7,067	17,036	0	24,103	166	1,318	0	1,484	195	1,508	0	1,703
Other Gas Supply Expenses	3	372	0	124	0	124	0	10	0	0	0	12	0	12
Distribution Expenses														
Operation														
Load Dispatch	1	20	0	5	0	5	0	0	0	0	0	0	0	1
Mains and Services	22	2,326	349	0	70	419	0	0	0	73	0	4	0	77
Measuring Stations - General	18	119	26	0	2	28	0	0	0	5	0	0	0	5
Measuring Stations - Industrial	21	151	13	0	1	14	8	0	3	41	0	13	0	54
Measuring Stations - City Gate	19	40	9	0	0	9	0	0	0	1	0	0	0	1
Meters & House Regulators	16	488	0	0	124	124	0	0	1	0	0	15	0	15
Customer Installations	5	667	0	0	169	169	0	0	1	0	0	20	0	20
Other Gas Distribution	27	2,182	227	3	210	440	5	0	3	69	1	30	0	100
Rents	27	75	8	0	7	15	0	0	0	2	0	1	0	3
Supervision & Engineering	27	1,371	143	2	132	277	3	0	2	43	0	19	0	62
Direct - Minot AFB Distribution System	Direct	78	0	0	0	0	0	0	0	0	0	0	0	0
Total Operation Expense		7,517	775	10	715	1,500	16	0	10	234	2	102	0	338

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	Allocation Factor	Total North Dakota			Residential			Total Residential			Firm General-Meter < 500 cubic feet			Total Small Firm General			
		North Dakota	Demand	Energy	Customer	Demand	Energy	Customer	Residential	Demand	Energy	Customer	Demand	Energy	Customer	Demand	Energy
Maintenance																	
Structures & Improvements	13	10	5	0	2	7	1	0	0	0	0	1	0	0	0	0	1
Mains	13	371	135	0	78	213	34	0	0	0	9	43	0	0	0	9	43
Measuring Stations - General	18	118	38	0	23	61	10	0	0	0	3	13	0	0	0	3	13
Measuring Stations - Industrial	21	50	8	0	4	12	2	0	0	0	0	2	0	0	0	0	2
Measuring Stations - City Gate	19	30	12	0	6	18	3	0	0	0	1	4	0	0	0	1	4
Services	5	250	0	0	157	157	0	0	0	0	21	21	0	0	0	21	21
Meters & House Regulators	16	323	0	0	202	202	0	0	0	0	27	27	0	0	0	27	27
Other Equipment	28	433	74	0	177	251	19	0	0	0	23	42	0	0	0	23	42
Supervision & Engineering	28	367	63	0	150	213	16	0	0	0	19	35	0	0	0	19	35
Direct - Minot AFB Distribution System	Direct	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Maintenance Expense		2,007	335	0	799	1,134	85	0	0	0	103	188	0	0	0	103	188
Total Distribution Expenses		9,524	1,623	16	4,089	5,728	409	4	4	4	558	971	0	0	0	558	971
Customer Accounts	4	95	0	0	82	82	0	0	0	0	9	9	0	0	0	9	9
Meter Reading	5	232	0	0	145	145	0	0	0	0	20	20	0	0	0	20	20
Customer Records & Collection	4	2,206	0	0	1,898	1,898	0	0	0	0	213	213	0	0	0	213	213
Uncollectible Accounts	6	283	0	0	244	244	0	0	0	0	27	27	0	0	0	27	27
Miscellaneous Customer Accounts	4	125	0	0	108	108	0	0	0	0	12	12	0	0	0	12	12
Customer Service & Information	4	254	0	0	219	219	0	0	0	0	24	24	0	0	0	24	24
Sales Expenses	4	94	0	0	81	81	0	0	0	0	9	9	0	0	0	9	9
Administration & General Expenses	30	8,347	1,422	14	3,584	5,020	358	4	4	4	489	851	0	0	0	489	851
Total Gas O&M Expenses		92,445	14,886	23,812	10,450	49,148	3,748	5,253	1,361	1,361	10,362	10,362	0	0	0	10,362	10,362
O&M Excl. Cost of Gas and A&G		13,185	1,623	200	6,866	8,689	409	46	872	872	1,327	1,327	0	0	0	1,327	1,327
O&M Excl. Cost of Gas		21,532	3,045	214	10,450	13,709	767	50	1,361	1,361	2,178	2,178	0	0	0	2,178	2,178
Depreciation Expense																	
Production Plant																	
Distribution Plant																	
Rights of Way	13	7	3	0	1	4	1	0	0	0	0	0	0	0	0	0	0
Structures & Improvements	23	13	4	0	2	6	1	0	0	0	0	1	0	0	0	1	1
Mains	40	2,618	973	0	563	1,536	245	0	63	63	308	308	0	0	0	308	308
Direct - Minot AFB Distribution System	Direct	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heskett Pipeline - \$461	Direct																
Demand Related 75%	2	346	173	0	0	173	43	0	0	0	0	43	0	0	0	43	43
Customer Related 25%	8	115	0	0	99	99	0	0	11	11	11	11	0	0	0	11	11
Meas. & Reg. Equip. - General	18	47	16	0	9	25	4	0	0	0	1	5	0	0	0	1	5
Meas. & Reg. Equip. - City Gate	19	134	49	0	28	77	12	0	3	3	15	15	0	0	0	3	15
Services	17	2,983	0	0	2,403	2,403	0	0	375	375	375	375	0	0	0	375	375
Direct - Minot AFB Distribution System	Direct	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meters	5	1,078	0	0	677	677	0	0	91	91	91	91	0	0	0	91	91
Direct - Minot AFB Distribution System	Direct	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Service Regulators	20	66	0	0	41	41	0	0	6	6	6	6	0	0	0	6	6
Ind. Meas. & Reg. Station Equipment	21	29	4	0	2	6	1	0	0	0	0	1	0	0	0	1	1
Cathodic Protection & Other Equipment	13	28	10	0	6	16	3	0	1	1	4	4	0	0	0	1	4
Total Distribution Plant		7,486	1,232	0	3,831	5,063	310	0	551	551	861	861	0	0	0	551	861

MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
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 (in thousands)

Allocation Factor	Total North Dakota		Firm General > 500 cubic feet				Total Large				Air Force Delivery				Total Small			
	Dakota	Total	Demand	Energy	Customer	Firm General	Demand	Energy	Customer	Air Force	Demand	Energy	Customer	Delivery	Demand	Energy	Customer	Interruptible
Maintenance																		
Structures & Improvements	13	10	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Mains	13	371	81	0	4	85	0	0	0	0	0	0	0	0	17	0	0	17
Measuring Stations - General	18	118	26	0	2	28	0	0	0	0	0	0	0	0	5	0	0	5
Measuring Stations - Industrial	21	50	4	0	0	4	3	0	1	4	4	0	0	0	14	0	4	18
Measuring Stations - City Gate	19	30	6	0	0	6	0	0	0	0	0	0	0	0	1	0	0	1
Services	5	250	0	0	63	63	0	0	0	0	0	0	0	0	0	0	8	8
Meters & House Regulators	16	323	0	0	82	82	0	0	1	1	0	0	0	0	0	10	0	10
Other Equipment	28	433	45	0	57	102	1	0	1	2	14	0	0	0	14	0	8	22
Supervision & Engineering	28	367	38	0	48	86	1	0	1	2	12	0	0	0	12	0	7	19
Direct - Minot AFB Distribution System	Direct	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Maintenance Expense		2,007	202	0	256	458	5	0	4	9	63	0	0	0	63	0	37	100
Total Distribution Expenses		9,524	977	10	971	1,958	21	0	14	35	297	2	139	2	297	2	139	438
Customer Accounts	4	95	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0
Meter Reading	5	232	0	0	59	59	0	0	0	0	0	0	0	0	0	0	7	7
Customer Records & Collection	4	2,206	0	0	92	92	0	0	0	0	0	0	0	0	0	0	3	3
Uncollectible Accounts	6	283	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Customer Accounts	4	125	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0
Customer Service & Information	4	254	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0
Sales Expenses	4	94	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0
Administration & General Expenses	30	8,347	856	9	851	1,716	18	0	12	30	260	2	122	2	260	2	122	384
Total Gas O&M Expenses		92,445	8,900	17,179	2,009	28,088	205	1,328	26	1,559	752	1,524	271	2	752	1,524	271	2,547
O&M Excl. Cost of Gas and A&G		13,185	977	134	1,158	2,269	21	10	14	45	297	14	149	4	297	14	149	460
O&M Excl. Cost of Gas		21,532	1,833	143	2,009	3,985	39	10	26	75	557	16	271	7	557	16	271	844
Depreciation Expense																		
Production Plant	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distribution Plant																		
Rights of Way	13	7	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Structures & Improvements	23	13	3	0	1	4	0	0	0	0	0	0	0	0	1	0	0	1
Mains	40	2,618	582	0	28	610	0	0	0	0	122	0	1	0	122	0	1	123
Direct - Minot AFB Distribution System	Direct	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heskett Pipeline - \$461	Direct																	
Demand Related 75%	2	346	102	0	0	102	0	0	0	0	0	0	0	0	21	0	0	21
Customer Related 25%	8	115	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0
Meas. & Reg. Equip. - General	18	47	10	0	1	11	0	0	0	0	2	0	0	0	2	0	0	2
Meas. & Reg. Equip. - City Gate	19	134	29	0	1	30	1	0	0	1	6	0	0	0	6	0	0	6
Services	17	2,983	0	0	189	189	0	0	0	0	0	0	0	0	0	0	15	15
Direct - Minot AFB Distribution System	Direct	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meters	5	1,078	0	0	273	273	0	0	2	2	0	0	0	0	0	0	32	32
Direct - Minot AFB Distribution System	Direct	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Service Regulators	20	66	0	0	17	17	0	0	0	0	0	0	0	0	0	0	2	2
Incl. Meas. & Reg. Station Equipment	21	29	3	0	0	3	2	0	1	3	8	0	2	0	8	0	2	10
Catholic Protection & Other Equipment	13	28	6	0	0	6	0	0	0	0	1	0	0	0	1	0	0	1
Total Distribution Plant		7,486	737	0	515	1,252	3	0	3	6	161	0	52	0	161	0	52	213

MONTANA-DAKOTA UTILITIES CO.
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 (in thousands)

	Allocation Factor	Total North Dakota			Large Interruptible			Total Large			Minot Air Force Base Distribution			Total Minot Air Force
		North Dakota	Demand	Energy	Demand	Energy	Customer	Interruptible	Demand	Energy	Customer			
Maintenance														
Structures & Improvements	13	10	0	0	0	0	0	0	0	0	0	0	0	0
Mains	13	371	11	0	2	13	0	0	0	0	0	0	0	0
Measuring Stations - General	18	118	9	0	2	11	9	0	0	0	0	0	0	0
Measuring Stations - Industrial	21	50	8	0	2	10	0	0	0	0	0	0	0	0
Measuring Stations - City Gate	19	30	1	0	0	1	0	0	0	0	0	0	0	0
Services	5	250	0	0	1	1	0	0	0	0	0	0	0	0
Meters & House Regulators	16	323	0	0	1	1	0	0	0	0	0	0	0	0
Other Equipment	28	433	11	0	3	14	0	0	0	0	0	0	0	0
Supervision & Engineering	28	367	9	0	3	12	0	0	0	0	0	0	0	0
Direct - Minot AFB Distribution System	Direct	55	0	0	0	0	0	55	0	0	0	0	0	55
Total Maintenance Expense		2,007	49	0	14	63	0	55	0	0	0	0	0	55
Total Distribution Expenses		9,524	203	7	51	261	133	0	0	0	0	0	0	133
Customer Accounts	4	95	0	0	0	0	0	0	0	0	0	0	0	0
Meter Reading	5	232	0	0	1	1	0	0	0	0	0	0	0	0
Customer Records & Collection	4	2,206	0	0	0	0	0	0	0	0	0	0	0	0
Uncollectible Accounts	6	283	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Customer Accounts	4	125	0	0	0	0	0	0	0	0	0	0	0	0
Customer Service & Information	4	254	0	0	0	0	0	0	0	0	0	0	0	0
Sales Expenses	4	94	0	0	0	0	0	0	0	0	0	0	0	0
Administration & General Expenses	30	8,347	178	6	45	229	117	0	0	0	0	0	0	117
Total Gas O&M Expenses		92,445	381	13	97	491	250	0	0	0	0	0	0	250
O&M Excl. Cost of Gas and A&G		13,185	203	7	52	262	133	0	0	0	0	0	0	133
O&M Excl. Cost of Gas		21,532	381	13	97	491	250	0	0	0	0	0	0	250
Depreciation Expense														
Production Plant	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Distribution Plant														
Rights of Way	13	7	0	0	0	0	0	0	0	0	0	0	0	0
Structures & Improvements	23	13	1	0	0	1	0	0	0	0	0	0	0	0
Mains	40	2,618	41	0	0	41	0	0	0	0	0	0	0	0
Direct - Minot AFB Distribution System	Direct	14	0	0	0	0	0	14	0	0	0	0	0	14
Heskett Pipeline - \$461	Direct													
Demand Related 75%	2	346	7	0	0	7	0	0	0	0	0	0	0	0
Customer Related 25%	8	115	0	0	0	0	0	0	0	0	0	0	0	0
Meas. & Reg. Equip. - General	18	47	3	0	1	4	0	0	0	0	0	0	0	0
Meas. & Reg. Equip. - City Gate	19	134	4	0	1	5	0	0	0	0	0	0	0	0
Services	17	2,983	0	0	1	1	0	0	0	0	0	0	0	0
Direct - Minot AFB Distribution System	Direct	6	0	0	0	0	0	0	0	0	0	0	0	6
Meters	5	1,078	0	0	3	3	0	0	0	0	0	0	0	0
Direct - Minot AFB Distribution System	Direct	2	0	0	0	0	0	0	0	0	0	0	0	2
Service Regulators	20	66	0	0	0	0	0	0	0	0	0	0	0	0
Ind. Meas. & Reg. Station Equipment	21	29	4	0	2	6	0	0	0	0	0	0	0	0
Cathodic Protection & Other Equipment	13	28	1	0	0	1	0	0	0	0	0	0	0	0
Total Distribution Plant		7,486	61	0	8	69	14	0	0	0	0	0	0	8

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 (in thousands)

	Allocation Factor	Total North Dakota		Residential			Firm General-Meter < 500 cubic feet			Total Small Firm General	
		Demand	Energy	Customer	Demand	Energy	Customer	Demand	Energy	Customer	Demand
General Plant	38	160	37	0	65	102	9	0	0	9	18
Direct -Minot AFB Distribution System	Direct	5	0	0	0	0	0	0	0	0	0
Amort. of Intangible Plant - General	15	226	47	0	95	142	12	0	0	13	25
Direct	Direct	56	0	0	0	0	0	0	0	0	0
Common Plant	15	354	74	0	149	223	19	0	0	21	40
Intangible Plant - Common (Excluding CC&B)	15	265	55	0	112	167	14	0	0	16	30
Intangible Plant - Common (CC&B)	4	625	0	0	538	538	0	0	0	60	60
Amortization of Gain	15	26	5	0	12	17	1	0	0	2	3
Acquisition Adjustment	15	3	1	0	1	2	0	0	0	0	0
Total Depreciation Expense		9,206	1,451	0	4,803	6,254	365	0	0	672	1,037
Taxes Other Than Income	3	0	0	0	0	0	0	0	0	0	0
Ad Valorem Taxes-Production	15	1,180	246	0	498	744	62	0	0	69	131
Other Taxes - Payroll, Franchise, Other	31	860	122	9	416	547	31	2	2	54	87
Other Taxes - Minot AFB Distribution- Direct	Direct	0	0	0	0	0	0	0	0	0	0
Other Taxes - Revenue	26	0	0	0	0	0	0	0	0	0	0
Total Taxes Other Than Income Taxes		2,040	368	9	914	1,291	93	2	2	123	218
Total Operating Expense		103,691	16,705	23,821	16,167	56,693	4,206	5,255	2,156	11,617	
Interest Expense/AFUDC Equity Add Back	36	3,245	788	0	1,201	1,989	198	0	0	157	355
Direct -Minot AFB Distribution System	Direct	0	0	0	0	0	0	0	0	0	0
Taxable Income		5,201	(4,653)	(221)	6,234	1,360	(1,171)	(41)	1,927	715	
Income Taxes	24-4049%	1,268	(1,136)	(54)	1,521	331	(286)	(10)	470	174	
ARAM Amortization	24	(406)	(96)	0	(149)	(245)	(25)	0	(19)	(44)	
Amortized Excess - DIT	24	65	16	0	25	41	4	0	3	7	
Full Normalization	24	(102)	(25)	0	(37)	(62)	(6)	0	(5)	(11)	
Total Income Taxes		825	(1,241)	(54)	1,360	65	(313)	(10)	449	126	
Total Operating Expense		104,516	15,464	23,767	17,527	56,758	3,893	5,245	2,605	11,743	
Operating Income:		7,621	(2,624)	(167)	6,075	3,284	(660)	(31)	1,635	944	

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
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Twelve Months Ended December 31, 2016
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 (in thousands)

	Allocation Factor	Total North Dakota		Firm General > 500 cubic feet				Total Large				Air Force Delivery				Total Small Interruptible				Total Small Interruptible
		North Dakota	Total	Demand	Energy	Customer	Firm General	Demand	Energy	Customer	Air Force Delivery	Demand	Energy	Customer	Air Force Delivery	Demand	Energy	Customer		
General Plant	38	160	160	22	0	10	32	0	0	0	0	0	0	0	0	5	0	0	1	6
Direct - Minot AFB Distribution System	Direct	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amort. of Intangible Plant - General	15	226	226	28	0	16	44	0	0	0	0	0	0	0	0	6	0	0	2	8
Direct	Direct	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Plant	15	354	354	44	0	25	69	0	0	0	0	0	0	0	0	10	0	0	3	13
Intangible Plant - Common (Excluding CC&B)	15	265	265	33	0	18	51	0	0	0	0	0	0	0	0	7	0	0	2	9
Intangible Plant - Common (CC&B)	4	625	625	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	1	1
Amortization of Gain	15	26	26	3	0	2	5	0	0	0	0	0	0	0	0	1	0	0	0	1
Acquisition Adjustment	15	3	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Depreciation Expense		9,206	867	0	612	1,479	4	0	3	7	190	0	61	0	0	0	0	0	0	251
Taxes Other Than Income	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ad Valorem Taxes-Production	15	1,180	148	0	82	230	1	0	1	2	32	0	9	0	0	0	0	0	0	41
Other Taxes - Payroll, Franchise, Other	31	860	73	6	80	159	2	0	1	3	22	1	11	0	0	0	0	0	0	34
Other Taxes - Minot AFB Distribution- Direct	Direct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Taxes - Revenue	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Taxes Other Than Income Taxes		2,040	221	6	162	389	3	0	2	5	54	1	20	0	0	0	0	0	0	75
Total Operating Expense		103,691	9,988	17,185	2,783	29,956	212	1,328	31	1,571	996	1,525	352	2,873	0	0	0	0	0	0
Interest Expense/AFUDC Equity Add Back	36	3,245	472	0	192	664	2	0	2	4	102	0	20	122	0	0	0	0	0	0
Direct - Minot AFB Distribution System	Direct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Taxable Income		5,201	(2,796)	(158)	4,750	1,796	(48)	(9)	87	30	(775)	(17)	1,335	543	0	0	0	0	0	0
Income Taxes	24.4049%	1,268	(682)	(39)	1,159	438	(12)	(2)	21	7	(189)	(4)	326	133	0	0	0	0	0	0
ARAM Amortization	24	(406)	(59)	0	(24)	(83)	0	0	0	0	(13)	0	(3)	(16)	0	0	0	0	0	0
Amortized Excess - DIT	24	65	9	0	4	13	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Full Normalization	24	(102)	(15)	0	(6)	(21)	0	0	0	0	(3)	0	(1)	(4)	0	0	0	0	0	0
Total Income Taxes		825	(747)	(39)	1,133	347	(12)	(2)	21	7	(203)	(4)	322	115	0	0	0	0	0	0
Total Operating Expense		104,516	9,241	17,146	3,916	30,303	200	1,326	52	1,578	793	1,521	674	2,988	0	0	0	0	0	0
Operating Income:		7,621	(1,577)	(119)	3,809	2,113	(34)	(7)	68	27	(470)	(13)	1,033	550	0	0	0	0	0	0

**MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
 EMBEDDED CLASS COST OF SERVICE STUDY
 ALLOCATION FACTOR REPORT
 TWELVE MONTHS ENDED DECEMBER 31, 2018
 PROJECTED AVERAGE PLANT**

	Total North Dakota	Residential		Small Firm General		
		Demand	Energy	Demand	Energy	Customer
1 DK Throughput Projected	23,351,305	0	8,826,214	0	2,036,838	0
	100.000000%	0.000000%	37.797520%	0.000000%	8.722587%	0.000000%
2 Peak Design Day @ Distribution	192,668	95,561	0	24,062	0	0
	100.000000%	49.598792%	0.000000%	12.488841%	0.000000%	0.000000%
3 DK Sales Projected	17,924,849	0	8,826,214	0	2,036,838	0
	100.000000%	0.000000%	49.240102%	0.000000%	11.363209%	0.000000%
4 Average Customers	112,516	0	0	96,792	0	10,850
	100.000000%	0.000000%	0.000000%	86.025099%	0.000000%	9.643073%
5 Total Weighted Customers	154,248	0	0	96,792	0	13,020
	100.000000%	0.000000%	0.000000%	62.750894%	0.000000%	8.440952%
6 Average Res. & Firm General Cust.	112,352	0	0	96,792	0	10,850
	100.000000%	0.000000%	0.000000%	86.150669%	0.000000%	9.657149%
8 Average Customers @ Distribution	112,512	0	0	96,792	0	10,850
	100.000000%	0.000000%	0.000000%	86.028157%	0.000000%	9.643416%
9 Total Weighted Customers Excluding Large IT - Transmission Customers	154,172	0	0	96,792	0	13,020
	100.000000%	0.000000%	0.000000%	62.781829%	0.000000%	8.445113%
10 Residential & Firm General Propane Sales	50,826	0	21,374	0	13,787	0
	100.000000%	0.000000%	42.053280%	0.000000%	27.125880%	0.000000%
13 Distribution Mains (000's) excluding Heskett & AF Dist	102,475	37,419	0	21,634	9,422	2,425
	100.000000%	36.515246%	0.000000%	21.111491%	9.194438%	2.366431%
15 Distribution Plant (000's) excluding Heskett	198,650	41,491	0	83,839	10,448	11,698
	100.000000%	20.886517%	0.000000%	42.204448%	5.259510%	5.888759%
16 Meters & Regulators (000's) Excl AF Distribution	36,097	0	0	22,662	0	3,048
	100.000000%	0.000000%	0.000000%	62.780840%	0.000000%	8.443915%
17 Weighted Services	120,124	0	0	96,792	0	15,082
	100.000000%	0.000000%	0.000000%	80.576737%	0.000000%	12.555359%
18 Meas. & Reg. Sta. Eqpt. - General (000's)	1,962	651	0	377	164	42
	100.000000%	33.180427%	0.000000%	19.215087%	8.358818%	2.140673%

**MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
 EMBEDDED CLASS COST OF SERVICE STUDY
 ALLOCATION FACTOR REPORT
 TWELVE MONTHS ENDED DECEMBER 31, 2018
 PROJECTED AVERAGE PLANT**

	Total North Dakota	Large Firm General		Air Force Delivery	
		Demand	Energy	Demand	Energy
1 DK Throughput Projected	23,351,305	0	5,998,825	0	490,100
	100.000000%	0.000000%	25.689464%	0.000000%	2.098812%
2 Peak Design Day @ Distribution	192,668	57,033	0	0	0
	100.000000%	29.601698%	0.000000%	0.000000%	0.000000%
3 DK Sales Projected	17,924,849	0	5,998,825	0	490,100
	100.000000%	0.000000%	33.466530%	0.000000%	2.734193%
4 Average Customers	112,516	0	0	4,710	0
	100.000000%	0.000000%	0.000000%	4.186071%	0.000000%
5 Total Weighted Customers	154,248	0	0	39,093	0
	100.000000%	0.000000%	0.000000%	25.344251%	0.000000%
6 Average Res. & Firm General Cust.	112,352	0	0	4,710	0
	100.000000%	0.000000%	0.000000%	4.192182%	0.000000%
8 Average Customers @ Distribution	112,512	0	0	4,710	0
	100.000000%	0.000000%	0.000000%	4.186220%	0.000000%
Total Weighted Customers Excluding 9 Large IT - Transmission Customers	154,172	0	0	39,093	0
	100.000000%	0.000000%	0.000000%	25.356744%	0.000000%
10 Residential & Firm General Propane Sales	50,826	0	15,665	0	0
	100.000000%	0.000000%	30.820840%	0.000000%	0.000000%
13 Distribution Mains (000's) excluding Heskett & AF Dist	102,475	22,385	0	1,070	0
	100.000000%	21.844352%	0.000000%	1.044157%	0.000000%
15 Distribution Plant (000's) excluding Heskett	198,650	24,878	0	13,777	120
	100.000000%	12.523554%	0.000000%	6.935325%	0.060287%
16 Meters & Regulators (000's) Excl AF Distribution	36,097	0	0	9,153	0
	100.000000%	0.000000%	0.000000%	25.356678%	0.000000%
17 Weighted Services	120,124	0	0	7,630	0
	100.000000%	0.000000%	0.000000%	6.351770%	0.000000%
18 Meas. & Reg. Sta. Eqpt. - General (000's)	1,962	424	0	30	0
	100.000000%	21.610601%	0.000000%	1.529052%	0.000000%

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 GAS UTILITY - NORTH DAKOTA
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 PROJECTED AVERAGE PLANT**

	Total North Dakota	Small Interruptible			Large Interruptible		
		Demand	Energy	Customer	Demand	Energy	Customer
1 DK Throughput Projected	23,351,305	0	1,677,385	0	0	4,321,943	0
	100.000000%	0.000000%	7.183260%	0.000000%	0.000000%	18.508357%	0.000000%
2 Peak Design Day @ Distribution	192,668	11,967	0	0	4,045	0	0
	100.000000%	6.211203%	0.000000%	0.000000%	2.099466%	0.000000%	0.000000%
3 DK Sales Projected	17,924,849	0	572,872	0	0	0	0
	100.000000%	0.000000%	3.195966%	0.000000%	0.000000%	0.000000%	0.000000%
4 Average Customers	112,516	0	0	155	0	0	6
	100.000000%	0.000000%	0.000000%	0.137758%	0.000000%	0.000000%	0.005333%
5 Total Weighted Customers	154,248	0	0	4,650	0	0	456
	100.000000%	0.000000%	0.000000%	3.014626%	0.000000%	0.000000%	0.295628%
6 Average Res. & Firm General Cust.	112,352	0	0	0	0	0	0
	100.000000%	0.000000%	0.000000%	0.000000%	0.000000%	0.000000%	0.000000%
8 Average Customers @ Distribution	112,512	0	0	155	0	0	5
	100.000000%	0.000000%	0.000000%	0.137763%	0.000000%	0.000000%	0.004444%
Total Weighted Customers Excluding 9 Large IT - Transmission Customers	154,172	0	0	4,650	0	0	380
	100.000000%	0.000000%	0.000000%	3.016112%	0.000000%	0.000000%	0.246478%
10 Residential & Firm General Propane Sales	50,826	0	0	0	0	0	0
	100.000000%	0.000000%	0.000000%	0.000000%	0.000000%	0.000000%	0.000000%
13 Distribution Mains (000's) excluding Heskett & AF Dist	102,475	4,686	0	35	2,944	0	455
	100.000000%	4.572823%	0.000000%	0.034155%	2.872896%	0.000000%	0.444011%
15 Distribution Plant (000's) excluding Heskett	198,650	5,454	0	1,447	3,490	0	677
	100.000000%	2.745537%	0.000000%	0.728418%	1.756987%	0.000000%	0.340675%
16 Meters & Regulators (000's) Excl AF Distribution	36,097	0	0	1,089	0	0	89
	100.000000%	0.000000%	0.000000%	3.016871%	0.000000%	0.000000%	0.246558%
17 Weighted Services	120,124	0	0	593	0	0	23
	100.000000%	0.000000%	0.000000%	0.493657%	0.000000%	0.000000%	0.019147%
18 Meas. & Reg. Sta. Eqpt.- General (000's)	1,962	90	0	4	142	0	38
	100.000000%	4.587156%	0.000000%	0.203874%	7.237513%	0.000000%	1.936799%

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	Total North Dakota	Minot Air Force Base Distribution	
		Demand	Energy Customer
1 DK Throughput Projected	23,351,305 100.000000%	0 0.000000%	0 0.000000%
2 Peak Design Day @ Distribution	192,668 100.000000%	0 0.000000%	0 0.000000%
3 DK Sales Projected	17,924,849 100.000000%	0 0.000000%	0 0.000000%
4 Average Customers	112,516 100.000000%	0 0.000000%	0 0.000000%
5 Total Weighted Customers	154,248 100.000000%	0 0.000000%	0 0.000000%
6 Average Res. & Firm General Cust.	112,352 100.000000%	0 0.000000%	0 0.000000%
8 Average Customers @ Distribution	112,512 100.000000%	0 0.000000%	0 0.000000%
9 Total Weighted Customers Excluding Large IT - Transmission Customers	154,172 100.000000%	0 0.000000%	0 0.000000%
10 Residential & Firm General Propane Sales	50,826 100.000000%	0 0.000000%	0 0.000000%
13 Distribution Mains (000's) excluding Heskett & AF Dist	102,475 100.000000%	0 0.000000%	0 0.000000%
15 Distribution Plant (000's) excluding Heskett	198,650 100.000000%	570 0.286937%	0 0.334760%
16 Meters & Regulators (000's) Excl AF Distribution	36,097 100.000000%	0 0.000000%	0 0.000000%
17 Weighted Services	120,124 100.000000%	0 0.000000%	4 0.003330%
18 Meas. & Reg. Sta. Eqpt.- General (000's)	1,962 100.000000%	0 0.000000%	0 0.000000%

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	Total North Dakota	Residential			Small Firm General		
		Demand	Energy	Customer	Demand	Energy	Customer
19 Meas. & Reg. Eqpt.- City Gate (000's)	5,360	1,932	0	1,116	486	0	125
	100.000000%	36.046927%	0.000000%	20.822139%	9.067706%	0.000000%	2.332229%
20 Service Regulators (000's)	4,494	0	0	2,812	0	0	378
	100.000000%	0.000000%	0.000000%	62.572319%	0.000000%	0.000000%	8.411215%
21 Ind. Meas. & Reg. Sta. Eqpt. (000's)	969	139	0	81	35	0	9
	100.000000%	14.344685%	0.000000%	8.359134%	3.611971%	0.000000%	0.928793%
22 Mains & Services (000's) Excl AF Distribution	149,285	37,419	0	58,822	9,422	0	8,386
	100.000000%	25.065479%	0.000000%	39.402485%	6.311418%	0.000000%	5.617443%
23 Structures and Improvements	504	157	0	91	40	0	10
	100.000002%	31.150795%	0.000000%	18.055556%	7.936508%	0.000000%	1.984127%
24 Net Gas Plant in Service (000's)	169,080	40,714	0	62,046	10,253	0	8,110
	100.000000%	24.079771%	0.000000%	36.696308%	6.064005%	0.000000%	4.796555%
25 Total Gas Plant in Service (000's)	268,555	57,591	0	111,489	14,502	0	15,203
	100.000000%	21.444795%	0.000000%	41.514450%	5.400018%	0.000000%	5.661045%
26 Projected Operating Revenue (000's)	108,609	11,841	23,597	22,763	2,981	5,213	4,140
	100.000000%	10.902411%	21.726561%	20.958668%	2.744708%	4.799786%	3.811839%
27 All Other Dist. Operation Exp. (000's) Excl AF Dist	3,811	660	8	1,686	166	2	233
	100.000000%	17.318289%	0.209919%	44.240356%	4.355812%	0.052480%	6.113881%
28 All Other Dist. Maintenance Exp. (000's) Excl AF Dist	1,152	198	0	472	50	0	61
	100.000000%	17.187500%	0.000000%	40.972222%	4.340278%	0.000000%	5.295139%
30 Distribution O&M (000's)	9,524	1,623	16	4,089	409	4	558
	100.000000%	17.041159%	0.167997%	42.933640%	4.294414%	0.041999%	5.858883%
31 O&M Excl. Cost of Gas (000's)	21,532	3,045	214	10,450	767	50	1,361
	100.000000%	14.141743%	0.993870%	48.532415%	3.562140%	0.232213%	6.320825%
36 Net Gas Plant in Service (000's) Excluding Minot AFB	167,660	40,714	0	62,046	10,253	0	8,110
	100.000000%	24.283716%	0.000000%	37.007107%	6.115364%	0.000000%	4.837180%
37 Weighted Services Excluding Transmission Level Customers	121,836	0	0	96,792	0	0	15,516
	100.000000%	0.000000%	0.000000%	79.444499%	0.000000%	0.000000%	12.735152%

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	Total North Dakota	Large Firm General		Air Force Delivery			
		Demand	Energy	Demand	Energy	Customer	
19 Meas. & Reg. Eqpt.- City Gate (000's)	5,360	1,155	0	55	54	18	
	100.000000%	21.549794%	0.000000%	1.026181%	1.003045%	0.000000%	0.334348%
20 Service Regulators (000's)	4,494	0	0	1,136	0	0	7
	100.000000%	0.000000%	0.000000%	25.278149%	0.000000%	0.000000%	0.155763%
21 Ind. Meas. & Reg. Sta. Eqpt. (000's)	969	84	0	4	53	0	18
	100.000000%	8.668731%	0.000000%	0.412797%	5.469556%	0.000000%	1.857585%
22 Mains & Services (000's) Excl AF Distribution	149,285	22,385	0	4,490	0	0	0
	100.000000%	14.994809%	0.000000%	3.007670%	0.000000%	0.000000%	0.000000%
23 Structures and Improvements	504	116	0	11	13	0	4
	100.000002%	23.015873%	0.000000%	2.182540%	2.579365%	0.000000%	0.793651%
24 Net Gas Plant in Service (000's)	169,080	24,385	0	9,900	97	0	78
	100.000000%	14.422194%	0.000000%	5.855228%	0.057227%	0.000000%	0.046085%
25 Total Gas Plant in Service (000's)	268,555	34,501	0	16,828	133	0	111
	100.000000%	12.846918%	0.000000%	6.266135%	0.049435%	0.000000%	0.041303%
26 Projected Operating Revenue (000's)	108,609	7,067	17,025	7,646	166	1,319	120
	100.000000%	6.506827%	15.675497%	7.039322%	0.152842%	1.214448%	0.110488%
27 All Other Dist. Operation Exp. (000's) Excl AF Dist	3,811	397	5	366	8	0	5
	100.000000%	10.417213%	0.131199%	9.603779%	0.209919%	0.000000%	0.131199%
28 All Other Dist. Maintenance Exp. (000's) Excl AF Dist	1,152	119	0	151	3	0	2
	100.000000%	10.329861%	0.000000%	13.107639%	0.260417%	0.000000%	0.173611%
30 Distribution O&M (000's)	9,524	977	10	971	21	0	14
	100.000000%	10.258295%	0.104998%	10.195296%	0.220496%	0.000000%	0.146997%
31 O&M Excl. Cost of Gas (000's)	21,532	1,833	143	2,009	39	10	26
	100.000000%	8.512911%	0.664128%	9.330299%	0.181126%	0.046443%	0.120751%
36 Net Gas Plant in Service (000's) Excluding Minot AFB	167,660	24,385	0	9,900	97	0	78
	100.000000%	14.544344%	0.000000%	5.904819%	0.057712%	0.000000%	0.046475%
37 Weighted Services Excluding Transmission Level Customers	121,836	0	0	8,902	0	0	0
	100.000000%	0.000000%	0.000000%	7.306543%	0.000000%	0.000000%	0.000000%

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 GAS UTILITY - NORTH DAKOTA
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	Total North Dakota	Small Interruptible			Large Interruptible		
		Demand	Energy	Customer	Demand	Energy	Customer
19 Meas. & Reg. Eqpt.- City Gate (000's)	5,360	242	0	2	152	0	23
	100.000000%	4.515195%	0.000000%	0.037316%	2.835990%	0.000000%	0.429130%
20 Service Regulators (000's)	4,494	0	0	135	0	0	11
	100.000000%	0.000000%	0.000000%	3.004005%	0.000000%	0.000000%	0.244771%
21 Ind. Meas. & Reg. Sta. Eqpt. (000's)	969	266	0	83	149	0	48
	100.000000%	27.450980%	0.000000%	8.565531%	15.376677%	0.000000%	4.953560%
22 Mains & Services (000's) Excl AF Distribution	149,285	4,686	0	268	2,944	0	463
	100.000000%	3.138962%	0.000000%	0.179522%	1.972067%	0.000000%	0.310145%
23 Structures and Improvements	504	20	0	0	33	0	9
	100.000002%	3.968254%	0.000000%	0.000000%	6.597222%	0.000000%	1.736111%
24 Net Gas Plant in Service (000's)	169,080	5,287	0	1,044	4,689	0	1,057
	100.000000%	3.126928%	0.000000%	0.617460%	2.773397%	0.000000%	0.625001%
25 Total Gas Plant in Service (000's)	268,555	7,499	0	1,717	6,015	0	1,308
	100.000000%	2.792355%	0.000000%	0.639348%	2.239860%	0.000000%	0.486959%
26 Projected Operating Revenue (000's)	108,609	195	1,508	1,700	0	0	1,328
	100.000000%	0.179543%	1.388467%	1.565248%	0.000000%	0.000000%	1.222735%
27 All Other Dist. Operation Exp. (000's) Excl AF Dist	3,811	120	1	52	79	4	19
	100.000000%	3.148780%	0.026240%	1.364471%	2.072947%	0.104959%	0.498557%
28 All Other Dist. Maintenance Exp. (000's) Excl AF Dist	1,152	37	0	22	29	0	8
	100.000000%	3.211806%	0.000000%	1.909722%	2.517361%	0.000000%	0.694444%
30 Distribution O&M (000's)	9,524	297	2	139	203	7	51
	100.000000%	3.118438%	0.021000%	1.459471%	2.131457%	0.073499%	0.535489%
31 O&M Excl. Cost of Gas (000's)	21,532	557	16	271	381	13	97
	100.000000%	2.586847%	0.074308%	1.258592%	1.769459%	0.060375%	0.450492%
36 Net Gas Plant in Service (000's) Excluding Minot AFB	167,660	5,287	0	1,044	4,689	0	1,057
	100.000000%	3.153412%	0.000000%	0.622690%	2.796886%	0.000000%	0.630295%
37 Weighted Services Excluding Transmission Level Customers	121,836	0	0	606	0	0	20
	100.000000%	0.000000%	0.000000%	0.497390%	0.000000%	0.000000%	0.016416%

**MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
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 PROJECTED AVERAGE PLANT**

	Total North Dakota	Minot Air Force Base Distribution	
		Demand	Energy
19 Meas. & Reg. Eqpt.- City Gate (000's)	5,360	0	0
	100.000000%	0.000000%	0.000000%
20 Service Regulators (000's)	4,494	0	15
	100.000000%	0.000000%	0.333778%
21 Ind. Meas. & Reg. Sta. Eqpt. (000's)	969	0	0
	100.000000%	0.000000%	0.000000%
22 Mains & Services (000's) Excl AF Distribution	149,285	0	0
	100.000000%	0.000000%	0.000000%
23 Structures and Improvements	504	0	0
	100.000002%	0.000000%	0.000000%
24 Net Gas Plant in Service (000's)	169,080	721	699
	100.000000%	0.426426%	0.413415%
25 Total Gas Plant in Service (000's)	268,555	847	811
	100.000000%	0.315392%	0.301987%
26 Projected Operating Revenue (000's)	108,609	0	0
	100.000000%	0.000000%	0.000000%
27 All Other Dist. Operation Exp. (000's) Excl AF Dist	3,811	0	0
	100.000000%	0.000000%	0.000000%
28 All Other Dist. Maintenance Exp. (000's) Excl AF Dist	1,152	0	0
	100.000000%	0.000000%	0.000000%
30 Distribution O&M (000's)	9,524	133	0
	100.000000%	1.396472%	0.000000%
31 O&M Excl. Cost of Gas (000's)	21,532	250	0
	100.000000%	1.161063%	0.000000%
36 Net Gas Plant in Service (000's) Excluding Minot AFB	167,660	0	0
	100.000000%	0.000000%	0.000000%
37 Weighted Services Excluding Transmission Level Customers	121,836	0	0
	100.000000%	0.000000%	0.000000%

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 GAS UTILITY - NORTH DAKOTA
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 PROJECTED AVERAGE PLANT

	Total North Dakota	Large Firm General		Air Force Delivery	
		Demand	Energy	Demand	Energy
38 Distribution Plant Less Direct Assignment (000's)	216,759	29,695	0	13,974	56
	100.000000%	13.699547%	0.000000%	6.446791%	0.025835%
40 Distribution Mains (000) Excluding Transmission Level Customer-Direct Assigned	100,661	22,385	0	1,070	0
	100.000000%	22.238007%	0.000000%	1.062974%	0.000000%

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 PROJECTED AVERAGE PLANT

	Small Interruptible			Large Interruptible		
	Demand	Energy	Customer	Demand	Energy	Customer
Total North Dakota	216,759	6,231	1,369	2,196	0	128
38 Distribution Plant Less Direct Assignment (000's)	100.000000%	2.874621%	0.631577%	1.013107%	0.000000%	0.059052%
40 Distribution Mains (000) Excluding Transmission Level Customer-Direct Assigned	100,661	4,686	35	1,584	0	1
	100.000000%	4.655229%	0.034770%	1.573599%	0.000000%	0.000993%

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 PROJECTED AVERAGE PLANT

	Minot Air Force Base Distribution		
	Demand	Energy	Customer
Total			
North Dakota	0	0	0
	100.0000000%	0.0000000%	0.0000000%
	100,661	0	0
	100.0000000%	0.0000000%	0.0000000%

38 Distribution Plant Less Direct Assignment (000's)

40 Distribution Mains (000) Excluding
 Transmission Level Customer-Direct Assigned

**MONTANA-DAKOTA UTILITIES CO.
 REVENUES UNDER CURRENT AND PROPOSED RATES
 GAS UTILITY - NORTH DAKOTA
 REVISED FOR UPDATED REVENUE REQUIREMENT**

Customer Class/Rate	Projected 2018 1\)		Total Proposed Revenue	Proposed Revenue Increase	Percent Increase
	Customers	Dk			
Residential - Rate 60	96,792	8,826,214	\$58,201,289	\$2,109,146	3.6%
Firm General Service - Rate 70	15,560	8,035,663	44,071,987	1,469,531	3.3%
Air Force - Rate 64					
Firm	1	32,523	143,249	0	0.0%
Interruptible	2	457,577	1,461,611	0	0.0%
Total Air Force	3	490,100	1,604,860	0	0.0%
Small Interruptible					
Sales - Rate 71	92	572,872	2,532,810		0.0%
Transport - Rate 81	63	1,104,513	870,115		0.0%
Total Small Interruptible	155	1,677,385	3,402,925	(171)	0.0%
Large Interruptible					
Sales - Rate 85	0	0	0		
Transport - Rate 82	6	4,321,943	1,327,781		
Total Large Interruptible	6	4,321,943	1,327,781	139	0.0%
Total North Dakota	112,516	23,351,305	\$108,608,842	\$3,578,645	3.3%

1\ Statement K, page 5.

**MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
 ALLOCATION OF REVENUES
 Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT**

RATE CLASS	Billing Determinants 1/				Embedded COS Before Increase 2/			Increase Required @ Overall Return %			
	Customers	Dk	Distribution Revenues	Fuel Revenues	Total Revenues	Operating Income	Rate Base	Rate Of Return	Operating Income	Revenues	Increase
Residential	96,792	8,826,214	\$22,762,526	\$35,438,763	\$58,201,289	\$3,284,000	\$85,522,000	3.840%	\$3,168,000	\$4,190,748	7.20%
Firm General Service	15,560	8,035,663	11,785,787	32,286,200	44,071,987	3,057,000	43,300,000	7.060%	209,000	276,473	0.63%
Air Force											
Firm Interruptible	1	32,523	12,800	130,449	143,249						
Total Air Force	2	457,577	107,091	1,354,520	1,461,611						
Small Interruptible	3	490,100	119,891	1,484,969	1,604,860	27,000	157,000	17.197%	(15,000)	(19,843)	-1.24%
Sales	92	572,872	830,234	1,702,576	2,532,810						
Transportation	63	1,104,513	870,115	0	870,115						
Total Small IT	155	1,677,385	1,700,349	1,702,576	3,402,925	550,000	2,939,000	18.714%	(329,000)	(435,213)	-12.79%
Large Interruptible											
Sales	0	0	0	0	0						
Transportation	6	4,321,943	1,327,781	0	1,327,781	576,000	3,666,000	15.712%	(300,000)	(396,851)	-29.89%
Total Large IT	6	4,321,943	1,327,781	0	1,327,781	127,000	1,278,000	9.937%	(30,000)	(39,685)	-
MAFB Distribution 3/											
Total North Dakota	112,516	23,351,305	\$37,696,334	\$70,912,508	\$108,608,842	\$7,621,000	\$136,862,000	5.568%	\$2,703,000	\$3,575,629	3.29%

**MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
 ALLOCATION OF REVENUES
 Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT**

RATE CLASS	Target Rate Design			Rate Design Results				
	Increase In Revenue	% Increase	Operating Income	Rate Of Return	Increase In Revenue	Total Revenues	% Incr	Rate Of Return
Residential	\$2,108,163	3.62%	\$4,877,668	5.703%	\$2,109,146	\$60,310,435	3.62%	5.704%
Firm General Service	1,467,225	3.33%	4,166,150	9.622%	1,469,531	45,541,518	3.33%	9.626%
Air Force								
Firm Interruptible	0	0.00%			0	143,249	0.00%	
Total Air Force	0	0.00%	27,000	17.197%	0	1,461,611	0.00%	
Small Interruptible								
Sales Transportation								
Total Small IT	0	0.00%	550,000	18.714%	(171)	3,402,754	-0.01%	18.709%
Large Interruptible								
Sales Transportation								
Total Large IT	0	0.00%	576,000	15.712%	139	1,327,919	0.01%	15.715%
MAFB Distribution	0	-	127,000	9.937%				
Total North Dakota	\$3,575,388	3.29%	\$10,323,818	7.543%	\$3,578,645	\$112,187,486	3.29%	7.545%

Requested Return on Rate Base 7.542% 4/
 Proposed Increase 3,575,388 4/
 % Increase (Excl Flex) 3.329156%
 Inverse Of Tax Rate 75.5951%

- 1/ Statement K, Page 5.
- 2/ Statement M, Pages 1-4.
- 3/ Recorded as Other Revenues
- 4/ Statement J, Page 3.

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
RATE RECONCILIATION
RESIDENTIAL GAS SERVICE - RATES 60 & 90
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

	Billing Units	Current		Proposed	
		Rate	Amount	Rate	Amount
Residential Rates 60 & 90					
Basic Service Charge (600)	96,516 Cust	\$0.6443	\$22,697,619	\$0.7040	\$24,800,751
Basic Service Charge (900)	276 Cust	\$0.6443	64,907	\$0.7040	70,921
			22,762,526		24,871,672
Distribution Charge	8,826,214 dk	0	0	0.000	0
Cost of Gas (600)	8,808,050 dk	4.011	35,329,089	4.011	35,329,089
Cost of Gas (900)	18,164 dk	6.038	109,674	6.038	109,674
	8,826,214		\$35,438,763		\$35,438,763
Total Revenue Rates 60 & 90			\$58,201,289		\$60,310,435

Total Distribution Revenues Per Design	\$24,871,672
Target Distribution Revenues	24,870,689
Difference	<u><u>\$983</u></u>

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
RESIDENTIAL GAS SERVICE - RATES 60 & 90
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

Current Non-Gas Revenues	\$22,762,526
Proposed Revenue Increase	<u>2,108,163</u>
Total Revenue Requirement	\$24,870,689
Projected Customers	96,792
Basic Service Charge per customer	\$257
Basic Service Charge per day	\$0.70400

**MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
 AIR FORCE FIRM SERVICE - RATE 64
 Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT**

	Billing Units	Current		Proposed	
		Rate	Amount	Rate	Amount
<u>Air Force Rate 64</u>					
Basic Service Charge	1 Cust	\$175.00	\$2,100	\$175.00	\$2,100
Distribution Charge	32,523 dk	0.329	10,700	0.329	10,700
Cost of Gas	32,523 dk	4.011	130,450	4.011	130,450
Total Revenue Rate 64			\$143,250	\$143,250	

Total Distribution Revenues Per Design	\$12,800
Target Distribution Revenues	12,800
Difference	<u>\$0</u>

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
PROPOSED RATE DESIGN
AIR FORCE FIRM SERVICE - RATE 64
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT**

Air Force Firm Revenue Requirement	\$12,800
Proposed Revenue Increase	<u>0</u>
Total Revenue Requirement	\$12,800
Less: Proposed Basic Service Charge Revenues	<u>2,100</u>
Remaining Revenues To Be Collected	\$10,700
Total Rate 64 Firm Consumption	32,523
Non-Gas Commodity Charge	\$0.329

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
AIR FORCE INTERRUPTIBLE SERVICE - RATE 64
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

	<u>Billing Units</u>	<u>Current</u>		<u>Proposed</u>	
		Rate	Amount	Rate	Amount
<u>Air Force Interruptible</u>					
Basic Service Charge					
Minot Air Force	1 Cust	\$2,000.00	\$24,000	\$2,000.00	\$24,000
PAR Site	1 Cust	175.00	2,100	175.00	2,100
Subtotal	<u>2</u>		<u>26,100</u>		<u>26,100</u>
Distribution Delivery	457,577 dk	\$0.177	80,991	\$0.177	80,991
Cost of Gas					
MAFB	415,260 dk	2.959	1,228,754	2.959	1,228,754
PAR Site	42,317 dk	2.972	125,766	2.972	125,766
	<u>457,577</u>		<u>1,354,520</u>		<u>1,354,520</u>
 Total Revenue			 \$1,461,611		 \$1,461,611
 Total Distribution Revenues Per Design			 \$107,091		
Target Distribution Revenue			<u>107,091</u>		
 Difference			 <u><u>\$0</u></u>		

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
PROPOSED RATE DESIGN
AIR FORCE INTERRUPTIBLE SERVICE - RATE 64
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT**

Air Force Interruptible Revenue Requirement	\$107,091
Proposed Revenue Increase	<u>0</u>
Total Revenue Requirement	\$107,091
Less: Base Service Charge Revenues	<u>26,100</u>
Remaining Revenues To Be Collected	\$80,991
Total Rate 64 IT Consumption	457,577
Non-Gas Commodity Charge	\$0.177

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
RATE RECONCILIATION
FIRM GENERAL GAS SERVICE - RATE 70, 72, & 92
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

	Billing Units		Current		Proposed	
			Rate	Amount	Rate	Amount
Firm General Rate 70						
Basic Service Chg Rates (700)	10,777	Cust	\$0.67	\$2,635,515	\$0.70	\$2,753,524
Basic Service Chg Rates (720)	5		0.67	1,223	0.70	1,278
Basic Service Chg Rates (920)	68		0.67	16,629	0.70	17,374
Basic Service Chg Rates (701)	4,693		1.90	3,254,596	2.05	3,511,537
Basic Service Chg Rates (721)	10		1.90	6,935	2.05	7,483
Basic Service Chg Rates (921)	7		1.90	4,855	2.05	5,238
Subtotal	15,560			\$5,919,753		\$6,296,434
Distribution Delivery	8,035,663	Dk	0.730	5,866,034	0.866	6,958,884
Cost of Gas (700)	2,022,627		4.011	8,112,757	4.011	8,112,757
Cost of Gas (720)	2,437		4.119	10,038	4.119	10,038
Cost of Gas (920)	11,774		6.038	71,091	6.038	71,091
Cost of Gas (701)	5,971,314		4.011	23,950,940	4.011	23,950,940
Cost of Gas (721)	12,891		4.119	53,098	4.119	53,098
Cost of Gas (921)	14,620	Dk	6.038	88,276	6.038	88,276
Subtotal	8,035,663			32,286,200		32,286,200
Total Revenue				\$44,071,987		\$45,541,518
Total Distribution Revenues Per Design				\$13,255,318		
Target Distribution Revenues				13,253,012		
Difference				\$2,306		

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
FIRM GENERAL GAS SERVICE - RATE 70, 72, & 92
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

Current Non-Gas Revenues	\$11,785,787
Proposed Revenue Increase	<u>1,467,225</u>
Total Revenue Requirement	\$13,253,012
Less:	
Base Service Charge Revenue	6,296,434
Remaining Revenues To Be Collected	<u>6,956,578</u>
Total Rates 70, 72 and 90 (Firm) Consumption	8,035,663
Distribution Delivery Charge	\$0.866

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
SMALL INTERRUPTIBLE - RATE 71 & 81
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

	Billing Units	Current		Proposed	
		Rate	Amount	Rate	Amount
Basic Service Charge					
Rate 71 Sales	92 Cust	\$175.00	\$193,200	\$190.00	\$209,760
Rate 81 Transport	63 Cust	175.00	132,300	190.00	143,640
Subtotal	155		325,500		\$353,400
Distribution Delivery					
Rate 71 Sales	572,872 dk	\$1.112	637,034	\$1.063	608,963
Rate 81 Transport	1,104,513 dk	0.668	737,815	\$0.668	737,815
Cost of Gas	572,872 dk	2.972	1,702,576	2.972	1,702,576
Total Revenue			3,402,925		3,402,754
Total Small Interruptible Revenues			\$1,700,178		
Target Revenues			1,700,349		
Difference			<u>(\$171)</u>		

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
PROPOSED RATE DESIGN
SMALL INTERRUPTIBLE SERVICE - RATE 71
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

Small Interruptible Revenue Requirement	\$1,700,349
Less: Flexed Contracts	0
Proposed Revenue Increase	<u>0</u>
Proposed Revenue Requirement	1,700,349
Less:	
Basic Service Charge & Rate 81 Delivery Revenue	<u>1,091,215</u>
Remaining Revenues To Be Collected	\$609,134
Total Throughput Rates 71 (Excluding Flexed Contracts)	572,872
Commodity Charge - Sales	\$1.063

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
REVENUE RECONCILIATION
SMALL INTERRUPTIBLE SERVICE - RATES 71 & 81
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

Small Interruptible Sales	
Base Rate Revenues	\$209,760
Energy Revenues	608,963
Cost of Gas	1,702,576
Total Sales Revenues	\$2,521,299
Small Interruptible Transportation	
Base Rate Revenues	\$143,640
Transportation Revenues @ Ceiling	737,815
Transportation Revenue - Flexed	0
Base Rate Revenues - Flexed	0
Total Transportation Revenue	<u>\$881,455</u>
Total Small Interruptible Revenues Per Design	\$3,402,754
Total Small Interruptible Target Revenues	<u>3,402,925</u>
Difference	<u><u>(\$171)</u></u>

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
LARGE INTERRUPTIBLE SERVICE - RATES 82 & 85
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT
Excluding Flexed Contracts

CLASS	Billing Units	Current		Proposed	
		Rate	Amount	Rate	Amount
Basic Service Charge					
Rate 85 Sales	0 Cust	\$1,000.00	\$0	\$1,500.00	\$0
Rate 82 Transport	3 Cust	1,000.00	36,000	1,500.00	54,000
Subtotal			36,000		54,000
Distribution Delivery					
Rate 85 Sales	0 dk	0.718	\$0	0.718	\$0
Rate 82 Transport	452,444 dk	0.297	134,376	0.231	104,515
Cost of Gas	0 dk	2.972	0	2.972	0
Total Revenue			\$170,376		\$158,515
Total Rate 85 Distribution Revenue			\$158,515		
Target Distribution Revenue			158,377		
Difference			\$138		

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
PROPOSED RATE DESIGN
LARGE INTERRUPTIBLE SERVICE - RATES 82 & 85
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

Current Non-Gas Revenues	\$1,327,781
Less: Flexed Contracts	(1,169,404)
Proposed Revenue Increase	<u>0</u>
Total Revenue Requirement	\$158,377
Less: Basic Service Charge Revenues & Sales @ ceiling	<u>54,000</u>
Total Revenue Requirement	\$104,377
Rate 82 Throughput (Excluding Flexed Volumes) 1\	452,444
Commodity Charge - Transport	\$0.231

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - NORTH DAKOTA
REVENUE RECONCILIATION
LARGE INTERRUPTIBLE SERVICE - RATES 82 & 85
Projected 2018 - REVISED FOR UPDATED REVENUE REQUIREMENT

Large Interruptible Sales & Transportation	
Basic Service Charge Revenues	\$98,400
Distribution Revenues - Transport @ Ceiling	104,515
Transportation Revenues - Flexed	<u>1,125,004</u>
 Total Distribution Revenues	 \$1,327,919
 Total Large Interruptible Revenues Per Design	 \$1,327,919
Total Large Interruptible Target Revenues	<u>1,327,781</u>
 Difference	 <u><u>\$138</u></u>

Flexed Contracts

Customer ID	Cust	Base Rev @ Proposed	Dk	Rate	Dist Rev	Total Rev
1	1	\$8,400	3,383,368		\$1,082,678	\$1,091,078
2 @ Flex Rate	1	18,000	82,764		14,897	32,897
2 @ Ceiling Rate 2\			145,461		43,202	43,202
3	1	18,000	403,367		27,429	45,429
Total	3	\$44,400	4,014,960		\$1,168,206	\$1,212,606
Total Flex Portion		\$44,400	3,869,499		\$1,125,004	\$1,169,404

- 1\ 306,983 Dk attributable to Rate 82 Transport customers plus 145,461 Dk attributable to portion of Flex Customer 2 volumes charged at ceiling rate.
 2\ Flex Customer 2 pays ceiling rate for 1st 400 Dk/day.

**MONTANA-DAKOTA UTILITIES CO.
 GAS UTILITY - NORTH DAKOTA
 RATE 60 BILL COMPARISON
 RESIDENTIAL GAS SERVICE
 REVISED TO REFLECT UPDATED REVENUE REQUIREMENT**

Month	Dk	Present Rate		Proposed Rate		Amount of Increase	% Increase
		Basic Service Charge	Cost of Gas	Basic Service Charge	Cost of Gas		
January	16	\$19.97	\$64.18	\$21.82	\$64.18	\$1.85	2.20%
February	15	18.04	60.17	19.71	60.17	1.67	2.14%
March	12	19.97	48.13	21.82	48.13	1.85	2.72%
April	9	19.33	36.10	21.12	36.10	1.79	3.23%
May	5	19.97	20.06	21.82	20.06	1.85	4.62%
June	2	19.33	8.02	21.12	8.02	1.79	6.54%
July	2	19.97	8.02	21.82	8.02	1.85	6.61%
August	2	19.97	8.02	21.82	8.02	1.85	6.61%
September	2	19.33	8.02	21.12	8.02	1.79	6.54%
October	4	19.97	16.04	21.82	16.04	1.85	5.14%
November	10	19.33	40.11	21.12	40.11	1.79	3.01%
December	12	19.97	48.13	21.82	48.13	1.85	2.72%
Total	91	\$235.15	\$365.00	\$256.93	\$365.00	\$21.78	3.63%

Average Increase \$1.82 \$0.00 \$1.82

RATE 60	Current 1/	Proposed
Basic Delivery Charge	\$0.6443	\$0.7040
Cost of Gas	4.011	\$4.011

1/ Rate effective May 1, 2017