

400 North Fourth Street Bismarck, ND 58501 (701) 222-7900

June 22, 2020

Mr. Will Rosquist Administrator, Utility Division Montana Public Service Commission 1701 Prospect Avenue PO Box 202601 Helena, MT 59620-2601

Re: General Natural Gas Rate Application Docket No. 2020.06.___

Dear Mr. Rosquist:

Montana-Dakota Utilities Co. (Montana-Dakota, Company or Applicant) herewith submits its application for approval to increase its rates for natural gas service pursuant to the Montana Code Annotated, Title 69, Chapter 3, regarding regulation of utilities; Title 2, Chapter 4, regarding administrative proceedings; and this Commission's rules regarding the filing of utility rate change applications (Administrative Rules of Montana (ARM) §38.5.101, <u>et seq</u>.). Montana-Dakota also submits its Application for an Interim Increase in accordance with the requirements set forth in ARM §38.5.501 through §38.5.506.

Montana-Dakota will prove by competent evidence that its existing natural gas rates do not allow Montana-Dakota to fully recover the cost of providing gas service to its Montana customers; therefore, the current rates are unjust, unreasonable, and not compensatory.

The primary reason for the need for an increase in rates is Montana-Dakota's continued investment in distribution facilities to improve system safety and reliability. The additional investment has generally increased the associated depreciation, taxes, and operation and maintenance expenses.

Authorization of the requested increase in revenues will provide Montana-Dakota a reasonable opportunity to earn a fair rate of return for its Montana natural gas operations.

Montana-Dakota proposes a total increase in distribution revenues of \$8,559,529 as shown on Statement M, page 2 based on an average test year for the twelve months ended December 31, 2019 adjusted for known and measurable changes.

The proposed increase will affect approximately 86,435 natural gas customers in Montana. The proposed change in rates will affect customer classes by the following amounts and percentages:

Class	Amount	Percent Increase
Residential	\$7,571,275	19.81%
Firm General	892,944	3.76%
Small Interruptible	70,922	7.17%
Large Interruptible	24,388	2.95%
Total	\$8,559,529	13.42%

Montana-Dakota also requests interim rate relief as set forth in its Application for Interim Increase in Natural Gas Rates in the amount of \$4,884,024 to take effect February 1, 2021. The interim rate increase was calculated in accordance with ARM §38.5.506.

Pursuant to ARM §38.5.503, the attached Notice has been served (as a part of this filing) to this Commission and the Montana Consumer Counsel and also mailed to all parties on the Certificate of Service, which includes interested parties that participated in the last general rate case (Docket No. D2017.9.79).

In support of the Company's request, the following documents are included with this Letter of Transmittal:

- Notice and Certificate of Service
- The Application including:
 - Appendix A Current Rate Schedules
 - Appendix B Proposed Final Rate Schedules including a redlined version of tariffs denoting proposed changes.
- The Application for Interim Increase in Natural Gas Rates including:
 - Proposed Interim Rate Schedules
 - o Statements and Workpapers underlying the interim request
- Prefiled Direct Testimony and Exhibits in support of the Application

 Supporting Statements and Workpapers required by the Commission's filing requirements, ARM §38.5.103 through §38.5.180. The requirement to submit a marginal cost study under ARM §38.5.176 was waived by the Commission in Docket No. 2020.04.044 (Notice of Commission Action issued on May 26, 2020).

Please refer all inquiries regarding this filing to:

Mr. Travis Jacobson Director of Regulatory Affairs Montana-Dakota Utilities Co. 400 North Fourth Street Bismarck, North Dakota 58501 travis.jacobson@mdu.com

Also, please send copies of all written inquiries, correspondence and pleadings to:

Mr. Michael W. Green Crowley Fleck PLLP 900 N. Last Chance Gulch, Suite 200 Helena, MT 59601 mgreen@crowleyfleck.com

The original and ten (10) copies of this Letter of Transmittal, Application and Appendices, Application for Interim Increase in Natural Gas Rates, Testimony and Exhibits, and Statements have been filed with the Montana Public Service Commission.

Two (2) copies of same have this day been mailed to the Montana Consumer Counsel, P.O. Box 201703, Helena, Montana 59620-1703. All of the materials included in this Application will be available for public inspection at each of Montana-Dakota's business offices.

Sincerely,

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Garret Senger Executive Vice President – Regulatory Affairs, Customer Service & Administration

In the Matter of the Application of MONTANA-DAKOTA UTILITIES CO. for Authority to Establish Increased Rates for Natural Gas Service

Docket No. 2020.06.

Notice

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An Application to increase natural gas rates was filed with the Montana Public Service Commission on June 22, 2020 by Montana-Dakota Utilities Co. Such Application proposes a revenue increase of \$8,559,529, representing an overall percentage increase of 13.4 percent.

Montana-Dakota has also requested that an interim increase of \$4,884,024 be effective February 1, 2021.

Pursuant to Administrative Rules of Montana §38.5.503, all parties listed on the attached Certificate of Service have been mailed this Notice. Parties desiring a complete copy of the said Application will be promptly provided a copy upon receipt of a written request directed to:

> Travis R. Jacobson – Director, Regulatory Affairs Montana-Dakota Utilities Co. 400 North Fourth Street Bismarck, North Dakota 58501 travis.jacobson@mdu.com

Dated this 22nd day of June 2020.

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Travis R. Jacobson Director of Regulatory Affairs Montana-Dakota Utilities Co. 400 North Fourth Street Bismarck, North Dakota 58501

Montana-Dakota Utilities Co. Docket No. 2020.06. Service List

Mr. Will Roquist, Administrator (11) Utility Division Montana Public Service Commission 1701 Prospect Avenue Helena, MT 59620 wroquist@mt.gov Robert Nelson (2) Montana Consumer Counsel 111 North Last Chance Gulch Suite 1B Helena, MT 59620-1703 robnelson@mt.gov

Mike Green Crowley Fleck PLLP 900 N. Last Chance Gulch, Suite 200 Helena, MT 59601 mgreen@crowleyfleck.com

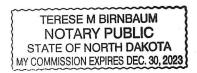
CERTIFICATE OF SERVICE

I hereby certify that on the 22nd day of June 2020, I served copies of Montana-Dakota Utilities Co.'s Notice via first class mail on all parties listed on the attached Service List. This Notice advised that Montana-Dakota has requested increased rates for its natural gas service operations.

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Caitlin Straabe Regulatory Liaison Montana-Dakota Utilities Co. Bismarck, North Dakota 58501

Subscribed and sworn to before me this 22nd day of June 2020.



Terese M. Birnbaum, Notary Public Burleigh County, North Dakota My Commission Expires: 12/30/2023

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MONTANA

In the Matter of the Application of MONTANA-DAKOTA UTILITIES CO. for) Authority to Establish Increased Rates for Natural Gas Service

Docket No. 2020.06.____

* * * *

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APPLICATION

COMES NOW, Montana-Dakota Utilities Co., the Applicant in the above-

entitled proceeding (hereafter "Montana-Dakota" or "Applicant"), and respectfully alleges as follows:

I.

That Montana-Dakota is a Delaware corporation duly authorized to do business in the State of Montana as a foreign corporation, and that it is doing business in the State of Montana as a public utility.

11.

That the Certificate of Incorporation and Amendments thereto have previously been filed with the Montana Public Service Commission (PSC or Commission) and reference thereto is hereby made, and such Certificate and Amendments are hereby incorporated herein by reference as though fully set forth herein.

III.

That Applicant's full name and post office address are:

Montana-Dakota Utilities Co. 400 North Fourth Street Bismarck, North Dakota 58501

IV.

That the following described rate schedules presently on file with and

approved by the Commission are attached hereto as Appendix A.

Volume No. 6	Description
6 th Revised Sheet No. 1	Table of Contents
1 st Revised Sheet No. 2	Communities Served
171 st Revised Sheet No. 3	Rate Summary Sheet
10 th Revised Sheet No. 4	Thermal Zone Boundaries
15 th Revised Sheet No. 11	Residential Gas Service Rate 60
5 th Revised Sheet No. 11.1	Residential Gas Service Rate 60
15 th Revised Sheet No. 21	Firm General Gas Service Rate 70
4 th Revised Sheet No. 21.1	Firm General Gas Service Rate 70
8 th Revised Sheet No. 22	Small Interruptible General Gas Service Rate 71
3 rd Revised Sheet Nos. 22.1 –22.4	Small Interruptible General Gas Service Rate 71
16 th Revised Sheet No. 23	Optional Seasonal General Gas Service Rate 72
4 th Revised Sheet No. 23.1	Optional Seasonal General Gas Service Rate 72
2 nd Revised Sheet No. 32	Transportation Service Rates 81 and 82
7 th Revised Sheet No. 32.1	Transportation Service Rates 81 and 82
4 th Revised Sheet No. 32.2	Transportation Service Rates 81 and 82
	2

2nd Revised Sheet Nos. 32.3-32.7 3rd Revised Sheet Nos. 32.8-32.11 7th Revised Sheet No. 34

3rd Revised Sheet Nos. 34.1-34.2

4th Revised Sheet Nos. 34.3-34.4

Original Sheet Nos. 36-36.1

4th Revised Sheet No. 36.2

4th Revised Sheet No. 37

2nd Revised Sheet No. 37.1

1st Revised Sheet No. 37.2

3rd Revised Sheet No. 37.3

1st Revised Sheet Nos. 37.4 – 37.5

2nd Revised Sheet No. 38 7th Revised Sheet No. 39

2nd Revised Sheet No. 42 3rd Revised Sheet No. 49

4th Revised Sheet No. 49.1

2nd Revised Sheet No. 49.2 4th Revised Sheet Nos. 49.3-49.4 3rd Revised Sheet Nos. 49.5-49.13 4th Revised Sheet Nos. 49.14-49.16 5th Revised Sheet No. 49.17 4th Revised Sheet Nos. 49.18-49.20 5th Revised Sheet Nos. 49.21-49.22 2nd Revised Sheet Nos. 49.23 Original Sheet Nos. 49.24-49.25 Original Sheet Nos. 50-50.1 1st Revised Sheet Nos. 68 – 68.2 2nd Revised Sheet Nos. 69 – 69.7

2nd Revised Sheet Nos. 74 - 74.1

Transportation Service Rates 81 and 82 Transportation Service Rates 81 and 82 Large Interruptible General Gas Service Rate 85 Large Interruptible General Gas Service Rate 85 Large Interruptible General Gas Service Rate 85 Gas Tax Tracking Adjustment Rate 87 Gas Tax Tracking Adjustment Rate 87 Gas Cost Tracking Adjustment Procedure Rate 88 Universal System Benefits Charge Rate 89 **Conservation Program Tracking Mechanism** Rate 90 Special Gas Service Rate 93 Table of Contents Conditions of Service Rate 100 Table of Contents Conditions of Service Rate 100 Gas Meter Testing Program Rate 101 Interruptible Gas Service Extension Policy Rate 119 Firm Gas Service Extension Policy Rate 120 New Installation, Replacement, Relocation and Repair of Gas Service Lines Rate 124 That Applicant respectfully submits herewith the following described

proposed rate schedules for natural gas service, copies attached hereto as

Appendix B, which Applicant proposes to be approved on a final basis in this

Docket. The Rate Summary Sheet (Sheet No. 3) will be submitted upon final

disposition of the Company's request in this Docket.

Volume No. 7	Description
Original Sheet No. 1	Table of Contents
Original Sheet No. 2	Communities Served
Original Sheet No. 3	Thermal Zone Boundaries
Original Sheet Nos. 11-11.1	Residential Gas Service Rate 60
Original Sheet Nos. 21-21.1	Firm General Gas Service Rate 70
Original Sheet Nos. 22-22.3	Small Interruptible General Gas Service Rate 71
Original Sheet Nos. 23-23.1	Optional Seasonal General Gas Service Rate 72
Original Sheet Nos. 27-27.2	Firm General Contracted Demand Service Rate 74
Original Sheet Nos. 32-32.9	Transportation Service Rates 81 and 82
Original Sheet Nos. 34-34.3	Large Interruptible General Gas Service Rate 85
Original Sheet Nos. 36-36.2	Gas Tax Tracking Adjustment Rate 87
Original Sheet Nos. 37-37.5	Gas Cost Tracking Adjustment Procedure Rate 88
Original Sheet No. 38	Universal System Benefits Charge Rate 89
Original Sheet No. 39	Conservation Program Tracking Mechanism Rate 90
Original Sheet Nos. 49-49.1	Table of Contents Conditions of Service Rate 100
Original Sheet Nos. 49.2-49.24	Conditions of Service Rate 100
Original Sheet Nos. 50-50.1	Gas Meter Testing Program Rate 101
Original Sheet Nos 68-68.1	Interruptible Gas Service Extension Policy Rate 119
Original Sheet Nos. 69-69.7	Firm Gas Service Extension Policy Rate 120
Original Sheet No. 74	Replacement, Relocation and Repair of Gas Service Lines Rate 124

That the existing rates of Applicant are unjust, unreasonable and not compensatory, and that said rates should be increased so that Applicant will have an opportunity to earn a just and reasonable rate of return on its natural gas property devoted to providing service to its Montana natural gas customers.

VII.

That in submitting this Application and in proposing the implementation of the increased rates contained herein, Applicant is seeking additional revenues of \$8,559,529 based on a 2020 test period, adjusted for known and measurable changes, for gas service rendered to customers in the State of Montana. This request for additional revenues amounts to a 13.4 percent increase over current natural gas rates.

IX.

That Applicant is entitled to interim rate relief in the amount of \$4,884,024 as set forth in the enclosed Application for Interim Increase in Natural Gas Rates.

Х.

That Applicant will prove by competent evidence that existing rates are unjust, unreasonable, and not compensatory, and that said rate schedules should be increased as requested herein. Filed concurrently with this Application and its Appendices are supporting Statements and Direct Testimony and Exhibits of Applicant's witnesses. Such Statements, Testimony, and Exhibits are by this reference incorporated as if fully set forth herein.

XI.

That this Application is submitted in accordance with the provisions of Title 69 of the Montana Code Annotated and the rules and regulations promulgated by the Public Service Commission of the State of Montana.

WHEREFORE, Applicant respectfully requests that the Public Service Commission of the State of Montana:

- Grant interim rate relief to Applicant in the amount of \$4,884,024 in accordance with Applicant's Application for Interim Increase in Natural Gas Rates, submitted herewith;
- Approve and adopt the proposed rate changes as set forth in Appendix
 B of this Application that will produce an annual increase in revenues
 of \$8,559,529 to be effective upon final disposition of this Docket; and
- Grant such other and additional relief as the Commission shall deem just and proper.

Dated this 22nd day of June 2020.

MONTANA-DAKOTA UTILITIES CO.

By: M

Michael W. Green Crowley Fleck PLLP Attorney for the Applicant 900 N. Last Chance Gulch, Suite 200 Helena, Montana 59601



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

6th Revised Sheet No. 1

Canceling 5th Revised Sheet No. 1

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 Issued:
 April 23, 2018
 By:
 Tamie A. Aberle Director – Regulatory Affairs

 For Office Use Only – Do Not Print Below This Line
 Director – Regulatory Affairs

 Docket No. D2017.9.79
 Effective with service rendered on and after June 15, 2018



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 1st Revised Sheet No. 2 Canceling Original Sheet No. 2

COMMUNITIES SERVED

NATURAL GAS SERVICE

Rocky Mountain Region

Badlands Region

Belfry Billings* Bridger Crow Agency Edgar

Baker

Fairview

Forsyth

Frazer

Fort Peck

Glasgow

Glendive

Hinsdale

Fromberg Hardin Joliet Laurel Park City Pryor Rockvale Silesia

Ismay Malta Miles City Nashua Poplar Richey Rosebud Saco

Savage Sidney St. Marie Terry Whitewater Wibaux Wolf Point

*Designates Region Office

Issued: April 22, 2003

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By: Donald R. Ball Assistance Vice President-Regulatory Affairs

Effective for bills rendered on or after April 13, 2003

Docket No. D2002.5.59



Montana-Dakota Utilities Co.

A Subsidiary of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

171st Revised Sheet No. 3

Canceling 170th Revised Sheet No. 3

RATE SUMMARY SHEET

Rate Schedule	Sheet No.	Basic Service Charge	Distribution Delivery Charge	СТА	Cost of Gas	Total Rate/ Dk
Residential Rate 60 1/	11	\$0.26 per day	\$1.034	\$0.014	\$3.415	\$4.463
Firm General Service Rate 70 1/ Meters rated < 500 cubic feet Meters rated > 500 cubic feet	21	\$0.45 per day \$0.90 per day	\$1.390	\$0.014	\$3.415	\$4.819
Small Interruptible Gas Rate 71 1/	22	\$225 per month	(Maximum) \$0.673		\$2.224	(Maximum) \$2.897
Optional Seasonal Gas Service Rate 72 1/ Meters rated < 500 cubic feet Meters rated > 500 cubic feet	23	\$0.45 per day \$0.90 per day	\$1.390	\$0.014	\$1.809	\$3.213
Transportation Service Small Interruptible Rate 81 1/ Maximum Minimum	32	\$225 per month	\$0.673 \$0.101			\$0.673 \$0.101
Large Interruptible Rate 82 1/ Maximum Minimum		\$567.25 per month	\$0.460 \$0.050			\$0.460 \$0.050
Large Interruptible Gas Rate 85 1/	34	\$567.25 per month	(Maximum) \$0.460		\$2.224	(Maximum) \$2.684

1/ Tax Tracking Adjustment of 19.9336% applicable to Basic Service Charge and Distribution Delivery Charge.

Issued:

May 8, 2020

By:

Travis R. Jacobson Director - Regulatory Affairs

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Page 1 of 1



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

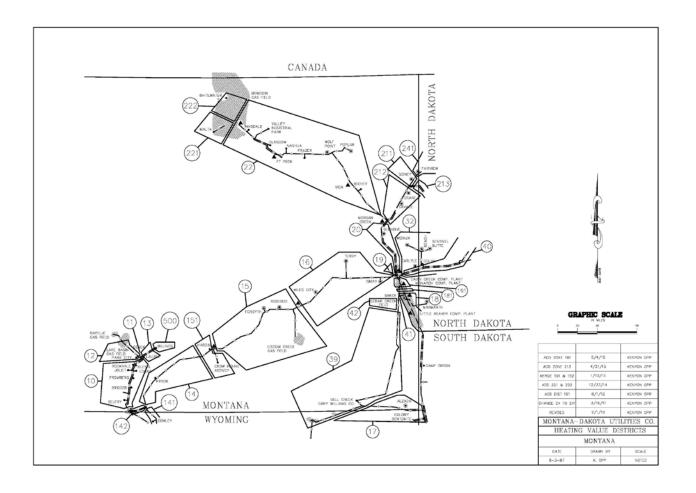
Natural Gas Service

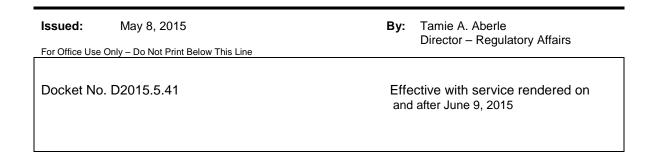
Volume No. 6

10th Revised Sheet No. 4 Canceling 9th Revised Sheet No. 4

THERMAL ZONE BOUNDARIES

Page 1 of 1







Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 15th Revised Sheet No. 11 Canceling 14th Revised Sheet No. 11

RESIDENTIAL GAS SERVICE Rate 60

Page 1 of 2

Availability:

In all communities served for all domestic uses. See Rate 100, §V.3, for definition of class of service.

Rate:

Basic Service Charge:

Distribution Delivery Charge:

Cost of Gas:

Determined Monthly- See Rate Summary Sheet for Current Rate

\$0.26 per day

\$1.034 per dk

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

Low-Income Discount:

Customers qualifying for and receiving energy assistance through the Low Income Energy Assistance Program (LIEAP) administered by the State of Montana

Issued: April 23, 2018

By: Tamie A. Aberle Director – Regulatory Affairs

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Docket No. D2017.9.79



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 5th Revised Sheet No. 11.1 Canceling 4rd Revised Sheet No. 11.1

RESIDENTIAL GAS SERVICE Rate 60

Page 2 of 2

Department of Public Health and Human Services (DPHHS) shall obtain a discount from the amount billed under this rate schedule. The applicable discount, as set forth below, will be administered based upon the percentage of poverty guidelines established by DPHHS and information supplied to the Company by DPHHS at the time the customer qualifies for LIEAP assistance.

% Of Federal Poverty	Discount Rate
0-60%	30%
61%-90%	25%
91%-maximum allowed	20%

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

Issued: April 23, 2018

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Docket No. D2017.9.79

By: Tamie A. Aberle Director – Regulatory Affairs



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 15th Revised Sheet No. 21 Canceling 14th Revised Sheet No. 21

Page 1 of 2

FIRM GENERAL GAS SERVICE Rate 70

Availability:

In all communities served for all firm purposes except for resale. See Rate 100, §V.3, for definition of class of service.

Rate:

Basic Service Charge: For customers with meters rated under 500 cubic feet per hour	\$0.45 per day
For customers with meters rated over 500 cubic feet per hour	\$0.90 per day
Distribution Delivery Charge:	\$1.390 per dk
Cost of Gas:	Determined Monthly- See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88

Issued: April 23, 2018

By: Tamie A. Aberle Director - Regulatory Affairs

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Docket No. D2017.9.79



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 4th Revised Sheet No. 21.1 Canceling 3rd Revised Sheet No. 21.1

FIRM GENERAL GAS SERVICE Rate 70

Page 2 of 2

- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

Issued: April 23, 2018

By: Tamie A. Aberle Director - Regulatory Affairs

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Docket No. D2017.9.79



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 8th Revised Sheet No. 22 Canceling 7th Revised Sheet No. 22

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 1 of 5

Availability and Applicability of Service:

In all communities served for all interruptible general gas service customers whose interruptible natural gas fueled load will exceed an input rate of 2,500,000 Btu per hour, metered at a single delivery point and whose use of natural gas will not exceed 100,000 dk annually. The rates herein are applicable only to customer's interruptible load. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70. For interruption purposes, the maximum daily firm requirement shall be set forth in the firm service agreement.

Rate:

Basic Service Charge:

\$225.00 per month

Distribution Delivery Charge:

Maximum \$0.673 per dk <u>Minimum</u> \$0.101 per dk

Cost of Gas:

Determined Monthly- See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Issued: April 23, 2018

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Docket No. D2017.9.79

Service rendered on and

Director - Regulatory Affairs

Tamie A. Aberle

By:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

3rd Revised Sheet No. 22.1

Canceling 2nd Revised Sheet No. 22.1

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 2 of 5

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

- 1. PRIORITY OF SERVICE Deliveries of gas under this schedule shall be subject at all times to the prior demands of customers served on the Company's firm gas service rates. Customers taking service hereunder agree that the Company, without prior notice, shall have the right to curtail or interrupt such service whenever, in the Company's sole judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with Rate 100, §V.10.
- 2. STANDBY REQUIREMENTS:
 - a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will

 Issued:
 April 23, 2018
 By:
 Tamie A. Aberle Director - Regulatory Affairs

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 Director - Regulatory Affairs

 Docket No. D2017.9.79
 Service rendered on and after June 15, 2018



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

3rd Revised Sheet No. 22.2

Canceling 2nd Revised Sheet No. 22.2

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 3 of 5

remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.

- b. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of automatic shut-off equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Company-approved equipment and fuel for standby service is not installed and maintained.
- 3. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken shall be billed at the Firm General Gas Service Rate 70 (distribution delivery charge and cost of gas), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.
- 4. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder. If mutually agreed to by the Company and customer, the term of service reflected in such agreement may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under another appropriate rate schedule for customer's operations.

Issued:	September 25, 2017 Only – Do Not Print Below This Line	By:	Tamie A. Aberle Director - Regulatory Affairs
Docket No	. D2017.9.79		ervice rendered on and fter June 15, 2018



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 3rd Revised Sheet No. 22.3

Canceling 2nd Revised Sheet No. 22.3

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 4 of 5

- 5. OBLIGATION TO NOTIFY THE COMPANY OF CHANGE IN DAILY OPERATIONS - Customer will be required as specified in the service agreement to notify the Company of an anticipated change in daily operations. Failure to comply with requirements specified in the service agreement may result in the assessment of penalties to customer equal to the penalty amounts the Company must pay to the interconnecting pipeline caused by customer's action.
- 6. METERING REQUIREMENTS:
 - a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.
 - b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
 - c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement.

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By: Tamie A. Aberle Director – Regulatory Affairs

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Docket No. D2017.9.79



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 3rd Revised Sheet No. 22.4

Canceling 2nd Revised Sheet No. 22.4

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 5 of 5

7. RULES - The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 16th Revised Sheet No. 23 Canceling 15th Revised Sheet No. 23

OPTIONAL SEASONAL GENERAL GAS SERVICE Rate 72

Page 1 of 2

Availability:

In all communities served for all firm purposes except for resale. See Rate 100, §V.3, for definition of class of service.

Rate:

Basic Service Charge: For customers with meters rated under 500 cubic feet per hour	\$0.45 per day
For customers with meters rated over 500 cubic feet per hour	\$0.90 per day
Distribution Delivery Charge:	\$1.390 per dk
Cost of Gas: Winter- Service rendered October 1 through May 31	Determined Monthly- See Rate Summary Sheet for Current Rate
Summer- Service rendered June 1 through September 30	Determined Monthly- See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

4th Revised Sheet No. 23.1

Canceling 3rd Revised Sheet No. 23.1

OPTIONAL SEASONAL GENERAL GAS SERVICE Rate 72

Page 2 of 2

provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

- 1. Customer agrees to contract for service under the Optional Seasonal General Gas Service Rate 72 for a minimum of one year.
- 2. The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 32 Canceling 1st Revised Sheet No. 32

TRANSPORTATION SERVICE Rates 81 and 82

Page 1 of 11

Availability:

This service is applicable for transportation of natural gas to customer's premise (metered at a single delivery point) through the Company's distribution facilities. In order to obtain transportation service, customer must qualify under an applicable gas transportation service rate; meet the general terms and conditions of service provided hereunder; and enter into a gas transportation agreement upon request of the Company.

The transportation services are as follows:

Small Interruptible General Gas Transportation Service Rate 81: Transportation service is available for all general gas service customers whose interruptible natural gas load will exceed an input rate of 2,500,000 Btu per hour, metered at a single delivery point, whose average use of natural gas will not exceed 100,000 dk annually, and who, absent the request for transportation service, are eligible for natural gas service, on an interruptible basis, pursuant to the Company's effective Small Interruptible General Gas Service Rate 71. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70.

Large Interruptible General Gas Transportation Service Rate 82:

Transportation service is available for all general gas service customers whose interruptible natural gas requirements will exceed 100,000 dk annually metered at a single delivery point, and who, absent the request for transportation service, are eligible for natural gas service pursuant to the Company's effective Large Interruptible General Gas Service Rate 85. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 7th Revised Sheet No. 32.1 Canceling 6th Revised Sheet No. 32.1

> <u>Rate 82</u> \$0.460

\$0.050

TRANSPORTATION SERVICE Rates 81 and 82

Page 2 of 11

Rate:

Basic Service Charge

Rate 81 \$225.00 per month Rate 82 \$567.25 per month

Transportation Charges:	
Maximum Rate per dk	
Minimum Rate per dk	

\$0.673 \$0.101

Rate 81

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Universal System Benefits Charge Rate 89

General Terms and Conditions:

- CRITERIA FOR SERVICE In order to receive the service, customer must qualify under one of the Company's applicable natural gas transportation service rates and comply with the general terms and conditions of the service provided herein. Customer is responsible for making all arrangements for transporting the gas from its source to the Company's interconnection with the delivering pipeline(s).
- 2. REQUEST FOR GAS TRANSPORTATION SERVICE- To qualify for gas transportation service, customer must request the service pursuant to the provisions set forth herein. The service shall be provided only to the extent that the Company's existing operating capacity permits.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 4th Revised Sheet No. 32.2 Canceling 3rd Revised Sheet No. 32.2

TRANSPORTATION SERVICE Rates 81 and 82

Page 3 of 11

- 3. MULTIPLE SERVICES THROUGH ONE METER:
 - a. In the event customer desires firm sales service in addition to gas transportation service, customer shall request such firm volume requirements, and upon approval by the Company, such firm volume requirements shall be set forth in a firm service agreement. For billing purposes, the level of volumes so specified or the actual volume used, whichever is lower, shall be billed at Rate 70. Volumes delivered in excess of such firm volumes shall be billed at the applicable gas transportation rate. Customer has the option to install, at their expense, piping necessary for separate measurement of sales and transportation volumes.
 - b. Customer shall pay, in addition to charges specified in the applicable gas transportation rate schedule, charges under all other applicable rate schedules for any service in addition to that provided herein (irrespective of whether customer receives only gas transportation service in any billing period).
- 4. PRIORITY OF SERVICE The Company shall have the right to curtail or interrupt deliveries without being required to give previous notice of intention to curtail or interrupt, whenever, in its judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with the provisions of Rate 100, §V.10.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 32.3 Canceling 1st Revised Sheet No. 32.3

TRANSPORTATION SERVICE Rates 81 and 82

Page 4 of 11

5. STANDBY REQUIREMENTS:

- a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.
- b. Customer shall provide and maintain, at no cost to the Company, a 120 volt, 15 ampere, AC power supply or other power source acceptable to the Company and telephone service at customer's meter location(s). Customer agrees to provide and maintain, at no cost to the Company, any necessary telephone enhancements to assure the Company of a quality telephone signal necessary to properly operate equipment. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of the automatic shutoff equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Company-approved equipment and fuel for standby service is not installed and maintained.

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 By:
 Tamie A. Aberle Director – Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 32.4 Canceling 1st Revised Sheet No. 32.4

TRANSPORTATION SERVICE Rates 81 and 82

Page 5 of 11

- 6. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken above that received on customer's behalf, shall be billed at the Firm General Gas Service Rate 70 (distribution delivery charge and cost of gas), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply of gas in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.
- 7. CUSTOMER USE OF NON-DELIVERED VOLUMES In the event customer's gas is not being delivered to the receipt point for any reason and customer continues to take gas, customer shall be subject to any applicable penalties or charges set forth in Paragraph 11.b. Gas volumes supplied by Company will be charged at Firm General Gas Service Rate 70 (distributed delivery charge and cost of gas). The Company is under no obligation to notify customer of non-delivered volumes.
- REPLACEMENT OF SUPPLEMENTAL SALES SERVICE In the event customer's transportation volumes are not available for any reason, customer may take interruptible sales service if such service is available. The availability of interruptible sales service shall be determined at the sole discretion of the Company.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 32.5 Canceling 1st Revised Sheet No. 32.5

TRANSPORTATION SERVICE Rates 81 and 82

Page 6 of 11

- 9. ELECTION OF SERVICE Prior to the initiation of service hereunder, customer shall make an election of its requirements under each applicable rate schedule for the entire term of service. If mutually agreed to by the Company and customer, the term of service may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under the appropriate sales rate schedule for customer's operations.
- 10. RECONNECTION FEE Transportation customers who cease service and then resume service within the succeeding 12 months, shall be subject to a reconnection charge as specified in Rate 100, §V.19.
- 11. DAILY IMBALANCE
 - a. To the extent practicable, customer and the Company agree to the daily balancing of volumes of gas received and delivered on a thermal basis. Such balancing is subject to customer's request and the Company's discretion to vary scheduled receipts and deliveries within existing Company operating limitations.
 - b. In the event that the deviation between scheduled daily volumes and actual daily volumes of gas used by customer causes the Company to incur any additional costs from interconnecting pipeline(s), customer shall be solely responsible for all such penalties, fines, fees or costs incurred. If more than one customer has cause the Company to incur these additional costs, all costs (excluding those associated with Company's firm deliveries) will be prorated to each customer based on the customer's over- or under-take as a percentage of the total.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 32.6 Canceling 1st Revised Sheet No. 32.6

TRANSPORTATION SERVICE Rates 81 and 82

Page 7 of 11

- c. The Company may waive any penalty associated with Company adjustments to end-use customer nominations in those instances where the Company, due to operating limitations, is required to adjust end-use transportation customer nominations and such Company adjustments create a penalty situation or preclude customer from correcting an imbalance which results in a penalty.
- 12. MONTHLY IMBALANCE The customer's monthly imbalance is the difference between the amount of gas received by Company on customer's behalf and the customer's actual metered use. Monthly imbalances will not be carried forward to the next calendar month.
 - Undertake Purchase Payment If the monthly imbalance is due to more gas delivered on customer's behalf than the actual volumes used, Company shall pay customer an Undertake Purchase Payment in accordance with the following schedule:

% Monthly	
Imbalance	Undertake Purchase Rate
0 – 5%	100% Cash-out Mechanism
> 5 – 10%	85% Cash-out Mechanism
> 10 – 15%	70% Cash-out Mechanism
> 15 – 20%	60% Cash-out Mechanism
> 20%	50% Cash-out Mechanism

Where the Cash-out Mechanism is equal to the lesser of the Company's WACOG or the Index Price, as defined in Paragraph 12(c).

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 By:
 Tamie A. Aberle Director – Regulatory Affairs

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 Director – Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 32.7

Canceling 1st Revised Sheet No. 32.7

TRANSPORTATION SERVICE Rates 81 and 82

Page 8 of 11

b. Overtake Charge – If the monthly imbalance is due to more gas actually used by the customer than volumes delivered on their behalf, customer shall pay Company an Overtake Charge in accordance with the following schedule:

% Monthly	
Imbalance	Overtake Charge Rate
0 – 5%	100% Cash-in Mechanism
> 5 – 10%	115% Cash-in Mechanism
> 10 – 15%	130% Cash-in Mechanism
> 15 – 20%	140% Cash-in Mechanism
> 20%	150% Cash-in Mechanism

Where the Cash-in Mechanism is equal to the greater of the Company's WACOG or the Index Price, as defined in Paragraph 12(c).

c. The Index Price shall be the arithmetic average of the "Weekly Weighted Averages Prices" published by Gas Daily for CIG Rockies and Northern Ventura during the given month. The Company's WACOG (Weighted Average Cost of Gas) includes the commodity cost of gas and applicable transportation charges including the fuel cost of transportation.

13. METERING REQUIREMENTS:

a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.

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By: Tamie A. Aberle Director – Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 3rd Revised Sheet No. 32.8 Canceling 2nd Revised Sheet No. 32.8

TRANSPORTATION SERVICE Rates 81 and 82

Page 9 of 11

- b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement

14. DAILY NOMINATION REQUIREMENTS:

- a. Customer or customer's shipper and/or agent shall advise the Company's Gas Supply Department, via the Company's Electronic Bulletin Board in accordance with FERC timelines, of the dk requirements customer has requested to be delivered at each delivery point during the following day. Customer's daily nomination shall be its best estimate of the expected utilization for the gas day. Unless other arrangements are made, customer will be required to nominate for the non-business days involved prior to weekends and holidays.
- All nominations should include shipper and/or agent defined begin and end dates. Shippers and/or agents may nominate for periods longer than 1 day, provided the nomination begin and end dates are within the term of the service agreement.

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By: Tamie A. Aberle Director – Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 3rd Revised Sheet No. 32.9 Canceling 2nd Revised Sheet No. 32.9

TRANSPORTATION SERVICE Rates 81 and 82

Page 10 of 11

- c. The Company has the sole right to refuse receipt of any volumes which exceed the maximum daily contract quantity and at no time shall the Company be required to accept quantities of gas for customer in excess of the quantities of gas to be delivered to customer.
- d. At no time shall the Company have the responsibility to deliver gas in excess of customer's nomination.
- 15. WARRANTY Customer, customer's agent, or customer's shipper warrants that it will have title to all gas it tenders or causes to be tendered to the Company, and such gas shall be free and clear of all liens and adverse claims and customer, customer's agent, or customer's shipper shall indemnify the Company against all damages, costs, and expenses of any nature whatsoever arising from every claim against said gas.
- 16. FACILITY EXTENSIONS If facilities are required in order to furnish gas transportation service, and those facilities are in addition to the facilities required to furnish firm gas service, customer shall pay for those additional facilities and their installation in accordance with the Company's applicable natural gas extension policy. The Company may remove such facilities when service hereunder is terminated.
- 17. PAYMENT Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with Rate 100, §V.12, or any amendments or alterations thereto.

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By: Tamie A. Aberle Director – Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 3rd Revised Sheet No. 32.10 Canceling 2nd Revised Sheet No. 32.10

TRANSPORTATION SERVICE Rates 81 and 82

Page 11 of 11

- 18. BILLING ERROR In the event an error is discovered in any bill that the Company renders to customer, such error shall be adjusted within a period not to exceed 6 months from the date the billing error is first discovered.
- 19. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder.
- 20. RULES The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

Issued: June 7, 2017

By: Tamie A. Aberle Director – Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 3rd Revised Sheet No. 32.11 Canceling 2nd Revised Sheet No. 32.11

Reserved for Future Use

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Tamie A. Aberle

By:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 7th Revised Sheet No. 34 Canceling 6th Revised Sheet No. 34

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

Page 1 of 5

Availability and Applicability of Service:

In all communities served for all interruptible general gas service customers whose interruptible natural gas requirements will exceed 100,000 dk annually as metered at a single delivery point. The rates herein are applicable only to customer's interruptible load. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70. For interruption purposes, the maximum daily firm requirement shall be set forth in the firm service agreement. The Company reserves the right to refuse the initiation of service under this rate schedule based on the availability of gas supply.

Rate:

Basic Service Charge:

\$567.25 per month

Distribution Delivery Charge:

<u>Maximum</u> \$0.460 per dk

Minimum \$0.050 per dk

Determined Monthly - See Rate Summary Sheet for Current Rate

Minimum Bill:

Cost of Gas:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

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Service rendered on and

Service rendered on and after June 15, 2018

Tamie A. Aberle

Director - Regulatory Affairs

By:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

3rd Revised Sheet No. 34.1

Canceling 2nd Revised Sheet No. 34.1

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

Page 2 of 5

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

 PRIORITY OF SERVICE - Deliveries of gas under this schedule shall be subject at all times to the prior demands of customers served on the Company's firm gas service rates. Customers taking service hereunder agree that the Company, without prior notice, shall have the right to curtail or interrupt such service whenever, in the Company's sole judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with Rate 100, §V.10.

2. STANDBY REQUIREMENTS:

a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must

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Tamie A. Aberle

Director - Regulatory Affairs



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

3rd Revised Sheet No. 34.2

Canceling 2nd Revised Sheet No. 34.2

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

Page 3 of 5

be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.

- b. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of automatic shut-off equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Companyapproved equipment and fuel for standby service is not installed and maintained.
- 3. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken shall be billed at the Firm General Gas Service Rate 70 (distribution delivery charge and cost of gas), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply of gas in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

4th Revised Sheet No. 34.3

Canceling 3rd Revised Sheet No. 34.3

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

Page 4 of 5

- 4. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder. If mutually agreed to by the Company and customer, the term of service reflected in such agreement may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under another appropriate rate schedule for customer's operations.
- 5. OBLIGATION TO NOTIFY THE COMPANY OF CHANGE IN DAILY OPERATIONS - Customer will be required as specified in the service agreement to notify the Company of an anticipated change in daily operations. Failure to comply with requirements specified in the service agreement may result in the assessment of penalties to customer equal to the penalty amounts the Company must pay to the interconnecting pipeline caused by customer's action.

6. METERING REQUIREMENTS:

- a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.
- b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 4th Revised Sheet No. 34.4

Canceling 3rd Revised Sheet No. 34.4

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

Page 5 of 5

- c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement.
- 7. RULES The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

Issued: September 25, 2017

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By: Tamie A. Aberle Director - Regulatory Affairs



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 Original Sheet No. 36

GAS TAX TRACKING ADJUSTMENT Rate 87

Page 1 of 3

1. Applicability:

This rate schedule sets forth the procedure to be used in calculating the Tax Tracking Adjustment in order to reflect: (a) changes in Montana-Dakota's Montana – state and local taxes and fees, and (b) a true-up of taxes recovered to actual taxes paid. The tax adjustment shall be shown as a separate item on the bill.

2. Effective Date:

The effective date of the Tax Tracking Adjustment shall be service rendered on and after January 1 each year.

3. Tax Tracking Adjustment:

- a. The Tax Tracking Adjustment shall reflect changes in Montana-Dakota's Montana state and local taxes and fees as compared to the base levels approved in its most recent general rate case. The difference to be included in the Tax Tracking Adjustment shall be net of income taxes.
- b. Base Tax A base tax amount shall be established and updated in a general rate case for each rate schedule:
 - (1) The ratio of authorized Montana state and local taxes and fees, excluding tribal taxes, to the total distribution revenues authorized in the rate case shall be determined.
 - (2) The ratio is applied to the total basic service charge and distribution delivery charge revenues for each rate schedule to derive the base tax amount for each rate schedule.
- c. Rates excluding taxes
 - (1) The authorized margin excluding base taxes (defined as base margin) is established by applying the ratio derived in 3.b.(1) to the authorized distribution revenues by rate schedule.
 - (2) The percentage of taxes to base margin is derived to establish the basic service charge and distribution delivery charge amounts excluding the base

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 By:
 Tamie. A. Aberle Director - Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 Original Sheet No. 36.1

GAS TAX TRACKING ADJUSTMENT Rate 87

Page 2 of 3

tax amount by applying the percentage to each rate component of each rate schedule.

- d. The Tax Tracking Adjustment shall be computed as follows:
 - (1) Tax expense for the year is compared to the tax expense recovered, including the tax related revenue from the conservation tracking adjustment lost margin with the difference net of income taxes determined.
 - (2) A true-up of the prior year's adjustment for:
 - i. Actual tax expense less actual tax recovery (adjusted for income taxes).
 - ii. Tax expense less tax recovery included in the filing.
 - iii. The net of 3.d.(2)i. and 3.2.(2)ii. is calculated and adjusted to exclude income taxes.
 - (3) The sum of amounts in 3.d.(1) and 3.d.(2) above is divided by the base margin to derive the percent increase (decrease) in taxes.
 - (4) The base tax percentage determined in 3.c.(2) and the tax adjustment percentage determined in 3.d.(3) are added to calculate the total percent of taxes.
 - (5) The total percent of taxes is applied to the basic service charge and distribution delivery charge billed to each customer, and shown separately on the customer bill.

4. Time and Manner of Filing:

Each filing shall be made on or before the effective date of the adjustment, accompanied by the detailed computations which clearly show the derivation of the relevant amounts.

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Natural Gas Service

Volume No. 6 4th Revised Sheet No. 36.2 Canceling 3rd Revised Sheet No. 36.2

GAS TAX TRACKING ADJUSTMENT Rate 87

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5. Tax Tracking Adjustment:

Base Adjustment Total tax 20.2181% (0.2845)% 19.9336%

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 4th Revised Sheet No. 37 Canceling 3rd Revised Sheet No. 37

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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1. Applicability:

This rate schedule sets forth the procedure to be used in calculating Gas Cost Tracking Adjustments. It specifies the procedure to be utilized to adjust the rates for gas sold under Montana-Dakota's rate schedules in the state of Montana in order to reflect: (a) changes in Montana-Dakota's average cost of gas supply and (b) amortization of the Unreflected Purchased Gas Cost Account.

2. Effective Date and Limitation on Adjustments:

- a. Unless otherwise ordered by the Commission, the effective dates of the gas cost tracking adjustment shall be service rendered on and after the first day of each month. The effective date of the adjustment for amortization of the Unreflected Purchased Gas Cost Account shall be October 1 of each year.
- b. Montana-Dakota shall file an adjustment to reflect changes in its average cost of gas supply only when the amount of change in such adjustment is at least 25 (twenty-five) cents per dk. The tracking adjustment to be effective October 1 shall be filed each year, regardless of the amount of the change.

3. Minimum Filing Requirements:

Montana-Dakota's filing to implement the Gas Cost Tracking Adjustment effective October 1 of each year shall include the following:

- a. Billing determinants by service agreement by month by supply source, with annual totals;
- b. Rates applicable to those billing determinants;
- c. Purchased gas costs by service agreement by month by supply source, with annual totals;

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Montana-Dakota Utilities Co.

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Natural Gas Service

Volume No. 6

2nd Revised Sheet No. 37.1

Canceling 1st Revised Sheet No. 37.1

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- d. A list of FERC proceedings in which Montana-Dakota has participated with a brief description of the purpose of each and position taken by Montana-Dakota;
- e. Total Montana-Dakota sales by major customer class by month with annual totals;
- f. Montana-Dakota sales by major customer class by jurisdiction by month, with annual totals;
- g. If Montana-Dakota has executed a new direct purchase contract since the last October 1 Gas Cost Tracking Adjustment, a description of what efforts, if any, were undertaken to ensure that the contract had pricing provisions which assured a firm supply of gas at a competitive price over the full term of the contract;
- h. A description of what efforts, if any, Montana-Dakota has undertaken since the last October 1 Gas Cost Tracking Adjustment to utilize spot gas.

4. Gas Cost Tracking Adjustment:

a. The monthly Gas Cost Tracking Adjustment shall reflect changes in Montana-Dakota's cost of gas supply as compared to the cost of gas supply approved in its most recent Gas Cost Tracking Adjustment. The cost of gas supply shall be the sum of all costs incurred in obtaining gas for general system supply. General system supply is defined as gas available for use by all customers served under retail sales rate schedules. The cost of gas supply shall include, but not be limited to, all demand, commodity, storage, gathering, and transportation charges incurred by Montana-Dakota for such gas supply. Any extraordinary costs, such as penalty charges and take-or-pay charges, shall be clearly identified as such and separately described in a supporting exhibit.

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Vice President - Regulatory Affairs

October 1, 2007

Donald R. Ball

By:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 1st Revised Sheet No. 37.2

Canceling Original Sheet No. 37.2

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- b. The Gas Cost Tracking Adjustment shall be computed as follows:
 - (1) Demand costs shall include all annual gathering, transportation and storage demand charges at current rates.
 - (2) Commodity costs shall include all annual gathering, transportation and storage charges at current rates.
 - (3) The gas commodity cost shall reflect all commodity related gas costs estimated to be in effect for the month the gas cost tracking adjustment will be in effect and annual dk requirements.

The cost per dk for the month is the sum of the above divided by annual, weather normalized dk deliveries adjusted to reflect losses.

- c. Monthly gas costs shall be calculated as follows:
 - Demand costs shall be apportioned to all state jurisdictions served by Montana-Dakota on the basis of the overall ratio of each state's Maximum Daily Delivery Quantity (MDDQ).
 - (2) Demand costs for interruptible sales customers shall be stated on a 100% load factor basis.
 - (3) All commodity costs and other costs associated with the acquisition of gas for general system supply shall be apportioned to each state on the basis of total dk's sold in each state, regardless of the actual points of delivery of such gas.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

3rd Revised Sheet No. 37.3

Canceling 2nd Revised Sheet No. 37.3

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- (4) All costs related to specific gas transportation services shall not be included in the cost of gas supply determination but shall be directly billed to the customer(s) contracting for such service.
- d. The Gas Cost Tracking Adjustment shall be applied to each of Montana-Dakota's rate schedules, recognizing differences among customer classes consistent with the cost of gas supply included in the applicable class sales rate.

5. Unreflected Gas Cost Adjustment:

All sales rate schedules shall be subject to an Unreflected Gas Cost Adjustment to be effective on October 1 of each year. The Unreflected Gas Cost Adjustment per dk sold shall reflect amortization of the applicable balance in the Unreflected Purchased Gas Cost Account calculated by dividing the applicable balance by the estimated dk sales for the twelve months following the effective date of the adjustment.

6. Unreflected Purchased Gas Cost Account:

- a. Items to be included in the Unreflected Purchased Gas Cost Account, as calculated in accordance with Subsection 6(b) are:
 - Charges for gas supply which Montana-Dakota is unable to reflect in a Gas Cost Tracking Adjustment by reason of the twenty-five (25) cent minimum limitation set forth in Subsection 2(b).
 - (2) Amounts of increased/decreased charges for gas supplies which were paid during any period after the effective date of the most recent general rate case, but not yet included in sales rates.

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By: Tamie A. Aberle Director – Regulatory Affairs



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Natural Gas Service

Volume No. 6 1st Revised Sheet No. 37.4 Canceling Original Sheet No. 37.4

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- (3) Refunds received from supplier(s) with respect to gas supply. Such refunds received shall be credited to the Unreflected Purchased Gas Cost Account.
- (4) Demand costs recovered from the interruptible sales customers will be credited to the residential and firm general service customers.
- b. The amount to be included in the Unreflected Purchased Gas Cost Account in order to reflect the items specified in Subsections 6(a)(1), (2), and (3) shall be calculated as follows:
 - (1) Montana-Dakota shall first determine each month the unit cost for that month's natural gas supply as adjusted to levelize demand charges. Such adjustment to levelize supplier(s) demand charges shall be calculated as follows:

The suppliers' annual (calendar or fiscal) demand charges, which are payable in equal monthly payments, shall be accumulated in a prepaid account (FERC Account 165). Each month a portion of such accumulated prepaid amount shall be amortized to cost of natural gas purchased (FERC Account 804). Such monthly amortization shall be based on a rate calculated by dividing the annual supplier(s) demand charges by projected annual dk sales (calendar or fiscal, as appropriate). The resulting product shall then be multiplied by the projected natural gas unit sales for the current month. Such amount shall constitute the monthly amortization of prepaid supplier(s) demand charges to cost of natural gas supply.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

1st Revised Sheet No. 37.5

Canceling Original Sheet No. 37.5

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- (2) Montana-Dakota shall then subtract from each month's unit cost the unit cost for gas supply which is reflected in the currently effective Tracking Adjustment.
- (3) The resulting difference (which may be positive or negative) shall be multiplied by the dk's sold during that month under each rate schedule. The resulting amounts shall be reflected in an Unreflected Purchased Gas Cost Account for each rate schedule.
- c. Reduction of Amounts in the Unreflected Purchased Gas Cost Account:
 - (1) The amounts in the Unreflected Purchased Gas Cost Account shall be decreased each month by an amount determined by multiplying the currently effective unreflected gas cost adjustment included in rates for that month (as calculated in Section 5) by the dk's sold during that month under each rate schedule. The Account shall be increased in the event the adjustment is a negative amount.

7. Time and Manner of Filing:

- a. Each filing by Montana-Dakota shall be made by means of revised rate schedule tariff sheets identifying the amounts of the adjustments and the resulting currently effective rates.
- b. Each filing shall be accompanied by detailed computations which clearly show the derivation of the relevant amounts.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 38 Cancelling 1st Revised Sheet No. 38

UNIVERSAL SYSTEM BENEFITS CHARGE Rate 89

Page 1 of 1

Applicability:

In all communities served for all end use sales and transportation service customers for funding of Universal System Benefits (USB) Programs.

Rate:

Charge per dk:	
Sales Service Schedules (Rates 60, 70, 71, 72 and 85)	\$.0655
Transportation Service Schedules (Rates 80, 81 and 82)) \$.0028

Tracking Mechanism:

The rate above shall be subject to adjustment on an annual basis to be effective on May 1. The adjustment shall reflect the true up of actual expenditures associated with approved USB Programs and any adjustments necessary to provide funding at a target level of 0.48% of the prior year's total revenues. A filing to effectuate the May 1 change shall be made by March 1 of each year.

General Terms and Conditions:

The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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By: Donald R. Ball Vice President-Regulatory Affairs

Docket No. D2006.1.2



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 7th Revised Sheet No. 39 Canceling 6th Revised Sheet No. 39

CONSERVATION PROGRAM TRACKING MECHANISM Rate 90

Page 1 of 1

Applicability:

This rate schedule represents a Conservation Program Tracking Mechanism and specifies the procedure to be utilized to recover the costs of conservation programs, as authorized by the Commission, including the recovery of distribution delivery charge revenues reduced as a result of the conservation programs. Service provided under the Company's Residential Service Rate 60 and Firm General Service Rates 70 and 72 shall be subject to this tracking mechanism.

Conservation Program Tracker:

An adjustment per dk will be determined for each rate schedule subject to the Conservation Program Tracking Mechanism. Monthly bills beginning with bills issued on and after May 1, 2007 and each May 1 thereafter, will be adjusted by the application of the Conservation Tracking Adjustment rate indicated below. The rate will reflect the amortization of the conservation program costs including the dk savings associated with each measure implemented in the prior 12 month period. The currently authorized Distribution Delivery Charge will be applied to the dk savings to compute the reduction in Distribution Delivery revenues associated with the conservation programs. The total program costs including the lost distribution revenues will be amortized over projected volumes to be sold over the next 12 month period. Following the initial one-year term, and annually thereafter, the Conservation Program Tracker rate calculation shall include any over or under collection of revenue from the preceding twelve month recovery period.

Conservation Tracking Adjustment: \$0.014 per dk

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By: Tamie A. Aberle Director - Regulatory Affairs



Montana-Dakota Utilities Co.

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Natural Gas Service

Volume No. 6 2ndRevised Sheet No. 42 Canceling 1st Revised Sheet No. 42

SPECIAL GAS SERVICE Rate 93

Page 1 of 1

Availability:

This service is applicable only to Account No. 270377-21 and Account No. 270340-21 at which the present customers are entitled to receive certain quantities of natural gas from WBI Energy under the terms of leases with WBI Energy under which natural gas is produced. WBI Energy is obligated to provide such gas to Montana-Dakota at no charge and to reimburse Montana-Dakota for meter reading costs.

Rate:

\$0.04 per Mcf

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.12, or any amendments or alterations thereto.

General Terms and Conditions:

The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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By: Tamie A. Aberle Director - Regulatory Affairs

Docket No. D2012.9.100



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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Volume No. 6 3rd Revised Sheet No. 49 Canceling 2nd Revised Sheet No. 49

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Natural Gas Service	
	Volume No. 6
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Canceling 3rd Revised Sheet No. 49.1

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CONDITIONS OF SERVICE Rate 100

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I. PURPOSE:

These rules are intended to define good practice which can normally be expected, but are not intended to exclude other accepted standards and practices not covered herein. They are intended to ensure adequate service to the public and protect the Company from unreasonable demands.

The Company undertakes to furnish service subject to the rules and regulations of the Public Service Commission of Montana and as supplemented by these general provisions, as now in effect or as may hereafter be lawfully established, and in accepting service from the Company, each customer agrees to comply with and be bound by said rules and regulations and the applicable rate schedules.

II. DEFINITIONS:

The following terms used in this tariff shall have the following meanings, unless otherwise indicated:

AGENT – The party authorized by the transportation service customer to act on that customer's behalf.

APPLICANT - Customer requesting the Company to provide service.

COMMISSION - The Public Service Commission of the State of Montana.

COMPANY - Montana-Dakota Utilities Co. (Montana-Dakota)

COMPANY'S OPERATING CONVENIENCE - The utilization, under certain circumstances, of facilities or practices not ordinarily employed which contribute to the overall efficiency of the Company's operations. This does not refer to customer's convenience nor to the use of facilities or adoption of practices required

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to comply with applicable laws, ordinances, rules or regulations, or similar requirements of public authorities.

CURTAILMENT - A reduction of transportation or retail natural gas service deemed necessary by the Company.

CUSTOMER - Any individual, partnership, corporation, firm, other organization or government agency supplied with service by the Company at one location and at one point of delivery unless otherwise expressly provided in these rules or in a rate schedule.

DELIVERY POINT - The point at which customer assumes custody of the gas being transported. This point will normally be at the outlet of the Company's meter(s) located on customer's premises.

EXCESS FLOW VALVE – Safety device designed to automatically stop or restrict the flow of gas if an underground pipe is broken or severed.

GAS DAY - Means a period of 24 consecutive hours, beginning and ending at 9:00 a.m. Central Clock Time.

INTERRUPTION - A cessation of transportation or retail natural gas service deemed necessary by the Company.

NOMINATION - The daily dk volume of the natural gas requested by customer for transportation and delivery to customer at the delivery point during a gas day.

PIPELINE – The transmission company(s) delivering natural gas into Company's system.

RATE - Shall mean and include every compensation, charge, fare, toll, rental and classification, demanded, observed, charged or collected by the Company for any

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service, product, or commodity, offered by the Company to the public. This includes any rules, regulations, practices or contracts affecting any such compensation, charge, fare, toll, rental or classification.

RECEIPT POINT - The intertie between the Company and the interconnecting Pipeline(s) at which point the Company assumes custody of the gas being transported.

SHIPPER - The party with whom the Pipeline has entered into a service agreement with in order to provide transportation service.

III. CUSTOMER OBLIGATIONS:

1. APPLICATION FOR SERVICE - Customer desiring gas service must make application to the Company before commencing the use of the Company's service. The Company reserves the right to require a signed application or written contract for service to be furnished. All applications and contracts for service must be made in the legal name of customer desiring the service. The Company may refuse an applicant or terminate service to customer who fails or refuses to furnish reasonable information requested by the Company for the establishment of a service account. Any person who uses gas service in the absence of an application or contract shall be subject to the Company's rates, rules, and regulations and shall be responsible for payment of all service used.

Subject to rates, rules, and regulations, the Company will continue to supply gas service until notified by customer to discontinue the service. Customer will be responsible for payment of all service furnished through the date of discontinuance.

Any customer may be required to make a deposit as required pursuant to Rate 100, §V.6.

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Montana-Dakota Utilities Co.

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CONDITIONS OF SERVICE Rate 100

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- SERVICE AVAILABILITY Gas will normally be delivered at standard pressures of four or five ounces, dependent on the service area where the gas service is being delivered. Delivery of gas service at pressures greater than the standard operating pressure may be available and will require a consultation with the Company to determine availability.
- 3. INPUT RATING All new customers whose consumption of gas for any purpose will exceed an input of 2,500,000 Btu per hour, metered at a single delivery point, shall consult with the Company and furnish details of estimated hourly input rates and pressures required for all gas utilization equipment. Where system design capacity permits, such customers may be served on a firm basis. Where system design capacity is limited, and at the Company's sole discretion, the Company will serve all such new customers on an interruptible basis only. Architects, contractors, heating engineers and installers, and all others should consult with the Company before proceeding to design, erect or redesign such installations for the use of natural gas. This will ensure that such equipment will conform to the Company's ability to adequately serve such installations with gas.
- 4. ACCESS TO CUSTOMER'S PREMISES Company representatives, when properly identified, shall have access to customer's premises at all reasonable times (8:00 am to 5:00 pm Monday through Friday unless an emergency requires access outside of these hours) for the purpose of reading meters, making repairs, making inspections, removing the Company's property, or for any other purpose incident to the service.
- 5. COMPANY PROPERTY Customer shall exercise reasonable diligence in protecting the Company's property on their premises and shall be liable to the Company in case of loss or damage caused by their negligence or that of their employees.

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- 6. INTERFERENCE WITH COMPANY PROPERTY Customer shall not disconnect, change connections, make connections or otherwise interfere with the Company's meters or other property or permit same to be done by other than the Company's authorized employees.
- 7. RELOCATED LINES Where Company facilities are located on a public or private utility easement and there is a building encroachment over gas facilities (Company-owned main, Company-owned service line or customer-owned service line) the customer shall be charged for the line re-location on the basis of actual costs incurred by the Company including any required easements.
- 8. NOTIFICATION OF LEAKS Customer shall immediately notify the Company at its office of any escape of gas in or about customer's premises.
- 9. TERMINATION OF SERVICE Customer is required to notify the Company, to prevent liability for service used by succeeding tenants, when vacating their premises. Upon receipt of such notice, the Company will read the meter and further liability for service used on the part of the vacating customer will cease.
- 10. REPORTING REQUIREMENTS Customer shall furnish the Company all information as may be required or appropriate to comply with reporting requirements of duly constituted authorities having jurisdiction over the matter herein.
- 11. QUALITY OF GAS The gas tendered to the Company shall conform to the applicable quality specifications of the transporting Pipeline's tariff.

IV. LIABILITY:

1. CONTINUITY OF SERVICE - The Company will use all reasonable care to provide continuous service but does not assume responsibility for a regular and uninterrupted supply of gas service and will not be liable for any loss,

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injury or damage resulting from the use of service, or arising from or caused by the interruption or curtailment of the same, except when such loss, injury or damage results from the negligence of the Company.

- 2. CUSTOMER'S EQUIPMENT Neither by inspection or non-rejection, nor in any other way does the Company give any warranty, express or implied, as to the adequacy, safety or other characteristics of any structures, equipment, lines, appliances or devices owned, installed or maintained by customer or leased by customer from third parties. The customer is responsible for the proper installation and maintenance of all structures, equipment, lines, appliances, or devices on the customer's side of the point of delivery. The customer must assume the duties of inspecting all structures including the house piping, chimneys, flues and appliances on the customer's side of the point of delivery.
- 3. COMPANY EQUIPMENT AND USE OF SERVICE The Company will not be liable for any loss, injury, death or damage resulting in any way from the supply or use of gas or from the presence or operation of the Company's structures, equipment, lines, or devices on customer's premises, except loss, injuries or damages resulting from the negligence of the Company.
- 4. INDEMNIFICATION Customer agrees to indemnify and hold the Company harmless from any and all injury, death, loss or damage resulting from customer's negligent or wrongful acts under and during the term of service. The Company agrees to indemnify and hold customer harmless from any and all injury, death, loss or damage resulting from the Company's negligent or wrongful acts under and during the term of service.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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5. FORCE MAJEURE - In the event of either party being rendered wholly or in part by force majeure unable to carry out its obligations, then the obligations of the parties hereto, so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused. Such causes or contingencies affecting the performance by either party, however, shall not relieve it of liability in the event of its concurring negligence or in the event of its failure to use due diligence to remedy the situation and remove the cause in an adequate manner and with all reasonable dispatch, nor shall such causes or contingencies affecting the performance relieve either party from its obligations to make payments of amounts then due hereunder, nor shall such causes or contingencies relieve either party of liability unless such party shall give notice and full particulars of the same in writing or by telephone to the other party as soon as possible after the occurrence relied on. If volumes of customer's gas are destroyed while in the Company's possession by an event of force majeure, the obligations of the parties shall terminate with respect to the volumes lost.

The term "force majeure" as employed herein shall include, but shall not be limited to, acts of God, strikes, lockouts or other industrial disturbances, failure to perform by any third party, which performance is necessary to the performance by either customer or the Company, acts of the public enemy or terrorists, wars, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrest and restraint of rulers and peoples, civil disturbances, explosions, breakage or accident to machinery or lines of pipe, line freeze-ups, sudden partial or sudden entire failure of gas supply, failure to obtain materials and supplies due to governmental regulations, and causes of like or similar kind, whether herein enumerated or not, and not within the control of the party claiming suspension, and which by the exercise of due diligence such party is unable to overcome; provided that the exercise of due diligence shall not require settlement of labor disputes against the better judgment of the party having the dispute.

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The term "force majeure" as employed herein shall also include, but shall not be limited to, inability to obtain or acquire, at reasonable cost, grants, servitudes, rights-of-way, permits, licenses or any other authorizations from third parties or agencies (private or governmental) or inability to obtain or acquire at reasonable cost necessary materials or supplies to construct, maintain and operate any facilities required for the performance of any obligations under this agreement, when any such inability directly or indirectly contributes to or results in either party's inability to perform its obligations.

V. GENERAL TERMS AND CONDITIONS:

- 1. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for any service.
- 2. RATE OPTIONS Where more than one rate schedule is available for the same class of service, the Company will assist customer in selecting the applicable rate schedule(s). The Company is not required to change a customer from one rate schedule to another more often than once in 12 months unless there is a material change in customer's load which alters the availability and/or applicability of such rate(s), or unless a change becomes necessary as a result of an order issued by the Commission or a court having jurisdiction. The Company will not be required to make any change in a fixed term contract except as provided therein.

3. RULES FOR APPLICATION OF GAS SERVICE:

a. Residential gas service is available to any residential customer for domestic purposes only. Residential gas service is defined as service for general domestic household purposes in space occupied as living quarters, designed for occupancy by one family with separate cooking facilities. Typical service would include the following: single private residences, single apartments, mobile homes with separate meters and

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auxiliary buildings on the same premise when used for residential purposes by the residential customer. This is not an all-inclusive list.

- b. Nonresidential service is defined as service provided to a business enterprise in space occupied and operated for nonresidential purposes. Typical service would include stores, offices, shops, restaurants, sorority and fraternity houses, boarding houses, hotels, service garages, wholesale houses, filling stations, barber shops, beauty salons, apartment houses, common areas of shopping malls or apartments (such as halls or basements), churches, elevators, schools and facilities located away from the home site. This is not an all-inclusive list.
- c. The definitions above are based upon the supply of service to an entire premise through a single delivery and metering point. Separate supply for the same customer at other points of consumption may be separately metered and billed.
- d. If separate metering is not practical for a single unit (one premise) that is using gas for both domestic purposes and for conducting business (or for nonresidential purposes as defined herein), customer will be billed under the predominate use policy. Under this policy, customer's combined service is billed under the rate (residential or nonresidential) applicable to the type of service which constitutes 50% or more of customer's total connected load.
- e. Other classes of service furnished by the Company shall be defined in applicable rate schedules, or in rules and regulations pertaining thereto. Service to customers for which no specific rate schedule is applicable shall be billed under the nonresidential rates.

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- 4. DISPATCHING Transportation customers will adhere to gas dispatching policies and procedures established by the Company to facilitate transportation service. The Company will inform customer of any changes in dispatching policies that may affect transportation services as they occur.
- 5. RULES COVERING GAS SERVICE TO MANUFACTURED HOMES The rules and regulations for providing gas service to manufactured homes are in accordance with the Code of Federal Regulations (24CFR Part 3280 Manufactured Home Construction and Safety Standards) Subparts G and H which pertain to gas piping and appliance installation. In addition to the above rules, the Company also follows the regulations set forth in the NFPA 501A, Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities. This information is available at Montana-Dakota Utilities Co.'s offices.
- 6. CONSUMER DEPOSITS The Company will determine whether or not a deposit shall be required of an applicant for gas service in accordance with Commission Rules ARM 38.5.1101 through 38.5.1112.
 - a. The amount of such deposit for residential service shall not exceed one-sixth of the estimated annual billing. For nonresidential service, the amount of the applicant's deposit shall not exceed 25% of the applicant's estimated annual billing.
 - b. The Company shall accept in lieu of a cash deposit a contract signed by a guarantor, whereby the payment of a specified sum not to exceed an estimated one year bill shall be guaranteed. Such estimation shall be made at the time the service is established. Guarantee terms and conditions will be in accordance with Commission Rules ARM 38.5.1111 and 38.5.1112.

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Interest on deposits held shall be accrued at the rate set forth in Rate 100, §VI.3. Interest shall be computed from the time of deposit to the time of refund or of termination. Interest shall be credited to customer's account annually during the month of December.

Deposits with interest shall be refunded to customers at termination of service provided all billings for service have been paid. Deposits with interest will be refunded to all active customers, after the deposit has been held for 12 months, provided a prompt payment record, as defined in the Commission rules, has been established.

7. METERING AND MEASUREMENT- The Company will meter the quantity of natural gas delivered to customer at the delivery point. Such meter measurement will be conclusive upon both parties unless such meter is found to be inaccurate, in which case the quantity supplied to customer shall be determined by as correct an estimate as it is possible to make, taking into consideration the time of year, the schedule of customer's operations and other pertinent facts. The Company will test meters in accordance with applicable state utility rules and regulations.

Customer may install, operate, and maintain at its sole expense, equipment for the purpose of measuring the amount of natural gas delivered over any measurement period, provided the equipment shall not interfere with such delivery or with the Company's meter.

 MEASUREMENT UNIT FOR BILLING PURPOSES - The measurement unit for billing purposes shall be one (1) decatherm (dk), unless otherwise specified. Billing will be calculated to the nearest one-tenth (1/10) dk. One dk equals 10 therms or 1,000,000 Btu's. Dk's shall be calculated by the application of a thermal factor to the volumes metered. This thermal factor consists of:

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- a. An altitude adjustment factor used to convert metered volumes at local sales base pressure to a standard pressure base of 14.73 psia, and
- b. A Btu adjustment factor to reflect the heating value of gas delivered.
- 9. UNIT OF VOLUME FOR MEASUREMENT The unit of volume for purpose of measurement shall be one (1) cubic foot of gas at either local sales base pressure or 14.73 psia, as appropriate, and a temperature base of 60 degrees Fahrenheit (60 F). All measurement of natural gas by orifice meter shall be reduced to this standard by computation methods, in accordance with procedures contained in ANSI-API Standard 2530, First Edition, as amended. Where natural gas is measured with positive displacement or turbine meters, correction to local sales base pressure shall be made for actual pressure and temperature with factors calculated from Boyle's and Charles' Laws. Where gas is delivered at 20 psig or more, the deviation of the natural gas from Boyle's Law shall be determined by application of Supercompressibility Factors for Natural Gas published by the American Gas Association, Inc., Copyright 1955, as amended or superseded. Where gas is measured with electronic correcting instruments at pressures greater than local sales base. supercompressibility will be calculated in the corrector using AGA-3/NX-19, as amended, supercompressibility calculation. For handbilled accounts, application of supercompressibility factors will be waived on monthly billed volumes of 250 dk or less.

Local sales base pressure is defined as four or five ounces (depending on service area) per square inch gauge pressure plus local average atmospheric pressure.

 PRIORITY OF SERVICE AND ALLOCATION OF CAPACITY - Priority of Service from highest to lowest:
 a. Priority 1 - Firm sales service.

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- b. Priority 2 Small interruptible sales and small interruptible gas transportation service at the maximum rate on a pro rata basis.
- c. Priority 3 Large interruptible sales and large interruptible gas transportation service at the maximum rate on a pro rata basis.
- d. Priority 4 Small interruptible sales and transportation services at less than the maximum rate from the highest rate to the lowest rate and on a pro rata basis where equal rates are applicable among customers.
- e. Priority 5 Large interruptible sales and transportation services at less than the maximum rate from the highest rate to the lowest rate and on a pro rata basis where equal rates are applicable among customers.
- f. Priority 6 Gas scheduled to clear imbalances.

Montana-Dakota shall have the right, in its sole discretion, to deviate from the above schedule when necessary for system operational reasons and if following the above schedule would cause an interruption in service to a customer who is not contributing to an operational problem on Montana-Dakota's system.

Montana-Dakota reserves the right to provide service to customers with a lower priority while service to higher priority customers is being curtailed due to restrictions at a given delivery or receipt point. When such restrictions are eliminated, Montana-Dakota will reinstate sales and/or transportation of gas according to each customer's original priority.

11. EXCESS FLOW VALVE - In accordance with Federal Pipeline Safety Regulations 49 CFR 192.383, the Company will install an excess flow valve on an existing service line at the customer's request at a mutually agreeable date. The actual cost of the installation will be assessed to the customer.

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- 12. REPORTING REQUIREMENTS Customer shall furnish the Company all information as may be required or appropriate to comply with reporting requirements of duly constituted authorities having jurisdiction over the matter herein.
- 13. LATE PAYMENT Amounts billed for energy or transportation services will be considered past due if not paid by the due date shown on the bill.

For residential customers, an amount equal to the percentage set forth in Rate 100, §VI.2 will be applied to any unpaid balance existing at the second subsequent billing date provided, however, that such amount shall not apply where a bill is in dispute, written payment schedule has been arranged and complied with, or where the Low Income Energy Assistance Program (LIEAP) is being utilized up to the point where the funds are exhausted and the recipient has full responsibility for the account. In the event of a breach of a written payment arrangement, an amount equal to the percentage set forth in Rate 100, §VI.2 of the total remaining unpaid balance shall apply beginning 60 days after the date of the last payment under the payment arrangement. Such amount shall also apply (where the LIEAP program was utilized) to the total remaining unpaid balance on all accounts beginning 60 days after the LIEAP program no longer applies to such account.

For nonresidential customers, an amount equal to the percentage set forth in Rate 100, §VI.2 will be applied to any unpaid balance existing at the immediate subsequent billing date.

All payments received will apply to customer's account prior to calculating the late payment charge. Those payments applied shall satisfy the oldest portion of the bill first.

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- 14. RETURNED CHECK CHARGE A charge as set forth in Rate 100, §VI.1.b. will be collected by the Company for any check not honored by customer's financial institution for any reason.
- 15. MANUAL METER READING CHARGE A charge as set forth in Rate 100, §V.1.k. will be assessed monthly for customer(s) who have requested, and received Company approval, to have their meter read manually each month in lieu of an AMR-equipped meter read. Customers agree to contract for the manual reading of the meter for minimum period of one year.
- 16. TAX CLAUSE In addition to the charges provided for in the gas tariffs of the Company, there shall be charged pro rata amounts which, on an annual basis, shall be sufficient to yield to the Company the full amount of any usage fees or any sales, uses, franchise, or excise taxes, whether they be denominated as license taxes, occupation taxes, business taxes, privilege taxes, or otherwise, levied against or imposed upon the Company by any municipality, political subdivision, or other entity, for the privilege of conducting its utility operations therein.

The charges to be added to customer's service bills under this clause shall be limited to customers within the corporate limits of the municipality, political subdivision or other entity imposing the tax.

- 17. UTILITY CUSTOMER SERVICES:
 - a. The following services will be performed at no charge regardless of the time of performance:
 - 1. Responding to fire and explosion calls.
 - 2. Investigating hazardous conditions on customer premises, such as gas leaks, odor complaints and combustion gas fumes.

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- 3. Maintenance or repair of Company-owned facilities on customer's premises.
- 4. Pilot relighting will be performed at no charge two (2) times per calendar year per customer. Additional pilot relights will be performed on a chargeable basis. Customers that qualified for the Low Income Energy Assistance Program (LIEAP) during the current LIEAP year will not be charged for a pilot relight.
- b. The following service calls will be performed at no charge during the Company's regular business hours:
 - 1. Reconnecting service to an existing facility (cut-in) or disconnecting service (cut-out).
 - 2. Lighting pilots in connection with establishing service when working cutin orders.
 - 3. Investigating high bills or inadequate service complaints.
 - 4. Locating underground Company facilities for contractors, builders, plumbers, etc.
 - 5. Investigating noisy meter complaint.
 - 6. Moving meter from inside to outside.
- 18. UTILITY SERVICES PERFORMED AFTER NORMAL BUSINESS HOURS -For service requested by customers to be performed after the Company's normal business hours of 8:00 am to 5:00 pm Monday through Friday local time, a charge will be made for labor at the overtime service rate set forth in Rate 100, §VI.1.f. and material at retail prices.

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Customers requesting service after the Company's normal business hours will be informed of the after-hour service rate and encouraged to have the service performed during normal business hours.

To ensure the Company can service the customer during normal business hours, the customer's call must be received by 12:00 p.m. on a regular work day for a disconnection or reconnection of service that same day. For calls received after 12:00 p.m. on a regular work day, customers will be advised that over time service rates will apply if service is required that day and the work cannot be completed during normal working hours. Service may be scheduled for a future workday to avoid overtime charges.

19. NOTICE TO DISCONTINUE GAS SERVICE - Customers desiring to have their gas service discontinued shall notify the Company during regular business hours, one business day before service is to be disconnected. Such notice shall be by letter, or telephone call to the Company's Customer Service.

Saturdays, Sundays and legal holidays are not considered business days.

- 20. INSTALLING TEMPORARY METERING FACILITIES OR SERVICE A customer requesting a temporary meter installation and service will be charged for such installation in accordance with Rate 100, §VI.1.i.
- 21. RECONNECTION FEE FOR SEASONAL OR TEMPORARY CUSTOMER A customer who requests reconnection of service, at a location where same customer discontinued the same service during the preceding 12-month period will be charged as follows:

Residential – The Basic Service Charge applicable during the period service was not being used and a charge of \$30.00. The minimum will be based on standard overtime rates for reconnecting service after normal business hours.

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Non-Residential – The Basic Service Charge applicable during the period while service was not being used. However, the reconnection charge applicable to seasonal business concerns such as irrigation, swimming facilities, grain drying, and asphalt processing shall be the Basic Service Charge applicable during the period while service was not being used less the Distribution Delivery Charge revenue collected during the period in-service for usage above the annual authorized usage by rate class (Small Firm General = 155 dk; Large Firm General = 1164 dk; and Small Interruptible = 7917 dk). A reconnection fee of \$30.00 will also apply to reconnections. The minimum will be based on standard overtime rates for reconnecting service occurring after normal business hours.

Transportation customers who cease service and then resume service within the succeeding 12 months shall be subject to a reconnection charge as set forth in Rate 100, §VI.1.e. whenever reinstallation of the required remote data acquisition equipment is necessary.

22. DISCONTINUANCE OF SERVICE FOR NONPAYMENT OF BILLS - All amounts billed for services are due when rendered and become delinquent if not paid by the due date shown on the bill. If any customer shall become delinquent in the payment of amounts billed, such service may be discontinued by the Company under the applicable rules of the Commission.

The Company may collect a fee, as set forth in Rate 100, § VI.1.c., before restoring gas service which has been disconnected for non-payment of service bills. Customers that qualified for the Low Income Energy Assistance Program during the current LIEAP program year will be subject to a reconnection charge of \$12.00.

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For calls received after 12:00 p.m. on a regular work day, customers will be advised that over time service rates will apply if service is required that day and the work cannot be completed during normal working hours. Service may be scheduled for a future workday to avoid overtime charges.

- DISCONTINUANCE OF SERVICE FOR CAUSES OTHER THAN NONPAYMENT OF BILLS - The Company reserves the right to discontinue service for any of the following reasons:
 - a. In the event of customer use of equipment in such a manner as to adversely affect the Company's equipment or service to others.
 - b. In the event of tampering with the equipment furnished and owned by the Company.
 - c. For violation of, or noncompliance with, the Company's rules on file with the Commission.
 - d. For failure of customer to fulfill the contractual obligations imposed as conditions of obtaining service.
 - e. For refusal of reasonable access to property to the agent or employee of the Company for the purpose of inspecting the facilities or for testing, reading, maintaining or removing meters.

The right to discontinue service for any of the above reasons may be exercised whenever and as often as such reasons may occur, and any delay on the part of the Company in exercising such rights, or omission of any action permissible hereunder, shall not be deemed a waiver of its rights to exercise same.

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Nothing in these regulations shall be construed to prevent discontinuing service without advance notice for reasons of safety, health, cooperation with civil authorities, or fraudulent use, tampering with or destroying the Company's facilities.

The Company may collect a reconnect fee, as set forth in Rate 100, § VI.1.c. before restoring gas service which has been disconnected for the above causes.

- 24. UNAUTHORIZED USE OF SERVICE Unauthorized use of service is defined as any deliberate interference such as tampering with the Company's meter, pressure regulator, registration, connections, equipment, seals, procedures or records that result in a loss of revenue to the Company. Unauthorized service is also defined as reconnection of service that has been terminated, without the Company's consent.
 - 1. Examples of unauthorized use of service includes, but is not limited to the tampering or unauthorized reconnection by the following methods:
 - a. Bypass piping around meter.
 - b. Bypass piping installed in place of meter.
 - c. Meter reversed.
 - d. Meter index disengaged or removed.
 - e. Service or equipment tampered with or piping connected ahead of meter.
 - f. Tampering with meter or pressure regulator that affects the accurate registration of gas usage.
 - g. Gas being used after service has been discontinued by the Company.
 - h. Gas being used after service has been discontinued by the Company as a result of a new customer turning gas on without the proper connect request.

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- 2. In the event that there has been unauthorized use of service, customer shall be charged for:
 - a. Time, material and transportation costs used in investigation or surveillance.
 - b. Estimated charge for non-metered gas.
 - c. On-premise time to correct situation.
 - d. Any damage to Company property.
 - e. All such charges shall be at current standard or customary amounts being charged for similar services, equipment, facilities and labor by the Company. A minimum fee of \$30.00 will apply.
- 3. Reconnection of Service:

Gas service disconnected for any of the above reasons shall be reconnected after a customer has furnished satisfactory evidence of compliance with the Company's rules and conditions of service and paid any service charges which are due, including:

- a. All delinquent bills, if any;
- b. The amount of any Company revenue loss attributable to said tampering;
- c. Expenses incurred by the Company in replacing or repairing the meter or other appliance, costs incurred in preparation of the bill, plus costs as outlined in Paragraph 2 above;
- d. Reconnection fee applicable; and
- e. A cash deposit, the amount of which will not exceed the maximum amount determined in accordance with Commission Rules ARM 38.5.1105.
- 25. GAS METER TEST BY CUSTOMER REQUEST Any customer may request the Company to test its gas meter. The Company shall make the test as soon as possible after receipt of the request. If a request is made within one year after a previous request, the Company may require a deposit as follows:

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 Meter Rating
 Deposit Amount

 All
 Residential

 All
 \$10.00

 Non-Residential
 \$40.00

 425 CFH* or less
 \$40.00

 426 CFH to 1000 CFH
 \$40.00

 Over 1000 CFH
 \$70.00

* Cubic feet per hour

The deposit shall be refunded only if the meter is found to have an unacceptable error of greater than or less than two percent, as defined in the Commission's regulations. In the case where a meter is replaced due to malfunction, a customer will be allowed one additional free meter test within 12 months, if requested by the customer.

- 26. BILL DISCOUNT FOR QUALIFYING EMPLOYEES A bill discount may be available for residential use only in a single family unit served by Montana-Dakota Utilities Co. to qualifying retirees of MDU Resources and its subsidiaries. The bill shall be computed at the applicable rate, and the amount reduced by 33 1/3 percent.
- 27. RATES FOR SPECIAL PROVISIONS: Rate 101 - Gas Meter Testing Program Rate 119 - Interruptible Gas Service Extension Policy Rate 120 - Firm Gas Service Extension Policy Rate 124 - Replacement, Relocation and Repair of Gas Service Lines

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 Original Sheet No. 49.24

CONDITIONS OF SERVICE Rate 100

Page 25 of 26 Amount or VI. MISCELLANEOUS CHARGES Reference 1. Service Charges Consumer deposits Rate 100, §V.6 a. b. Returned check \$30.00 C. Minimum reconnect charge after termination for nonpayment or other causes - During normal business hours \$30.00 (\$12.00 for LIEAP) - After normal business hours standard overtime rates d. Minimum reconnect charge applicable to seasonal or temporary customers - During normal business hours \$30.00 minimum - After normal business hours standard overtime rates (See Rate 100 §V.22.) e. Reconnection charge applicable to transport customers when electronic metering must be reinstalled \$160.00 f. Service request after normal Materials & labor at business hours standard overtime rate Rate 119 Interruptible service main extension g. Firm service main extension Rate 120 h.

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Tamie A. Aberle By: Director – Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 Original Sheet No. 49.25

CONDITIONS OF SERVICE Rate 100

			Pa	ge 26 of 26
	i.	Installation of temporary metering or service facilities	Materials	& labor
	j.	Replacement, relocation and repair of gas service lines	Rate	9 124
	k.	Manual Meter Read Charge	\$18.35 p	er month
2.	Lat	e Payment Charges (on unpaid balance)	Per <u>Month</u> 1%	Approx. Annual <u>Percent</u> 12%
3.	Inte	erest on Consumer Deposits	0.5%	6%
3.	Inte	erest on Consumer Deposits	0.5%	6%

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By: Tamie A. Aberle Director – Regulatory Affairs



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 Original Sheet No. 50

GAS METER TESTING PROGRAM Rate 101

Page 1 of 2

The policy of the Company for testing meters pursuant to ARM 38.5.2513 is as follows:

- 1. This policy shall not apply to meters of 750 cubic feet per hour or greater capacity. Such meters shall be tested and adjusted or repaired, if necessary, at a periodic interval of at least once in eight years.
- 2. New meters received from a manufacturer shall be subjected to testing on a random sample basis of five percent of the total received, but never less than five meters, and must be found satisfactory before the shipment is released for use. If unsatisfactory, all meters in the shipment shall be tested, and repaired if necessary, or the shipment shall be returned to the manufacturer.
- 3. Meters removed from service because of damage, meters that do not pass gas or that pass gas but do not register, and meters that are otherwise suspect as to accuracy, shall be tested and adjusted before reinstallation.
- 4. All other active meters will be assigned to lots on the basis of years since last test year installation and type of meter construction. A random sample of meters from each lot will be tested each year. The minimum number of samples taken from each lot will be as specified by Military Standard No. 414 for inspection by variables, inspection level IV with specification limits of +2.0 percent.
- 5. Lot Acceptability will be determined by the standard deviation method based on single sample, double specification limit, variability unknown, for an acceptable quality level of 15 percent as follows:
 - a. A meter lot for which the sample is satisfactory will remain in service.

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By: Tamie A. Aberle Director - Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 Original Sheet No. 50.1

GAS METER TESTING PROGRAM Rate 101

Page 2 of 2

- b. A meter lot for which the sample fails may remain in service if it passed the previous year and if no more than 10 percent of the sample registers over 102 percent.
- c. A meter lot for which the sample fails will be removed if the lot failed the previous year or if more than 10 percent of the sample registers over 102 percent. Removal of a failed lot of meters will be removed from service for testing and repair within one year.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 1st Revised Sheet No. 68 Canceling Original Sheet No. 68

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

Page 1 of 3

The policy of Montana-Dakota Utilities Co. for gas extensions necessary to provide interruptible sales or interruptible transportation service to customers is as follows:

- 1. Contribution
 - a. Prior to construction, the customer shall contribute an amount equal to the total cost of construction including all gas main extensions, valves, service line(s), regulators, meters (excluding remote data equipment), any required payments made by the Company to the transmission pipeline to accommodate the extensions, and other costs as adjusted for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the provisions of the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).
 - b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. The customer may post a bond, irrevocable letter of credit, or a written guarantee commitment in the amount of the total contribution required prior to construction. Such bond, issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for a five-year period commencing at the plant in-service date, and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists for the subject project, the surety or guarantor shall pay the Company for such contribution requirement, or

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6

1st Revised Sheet No. 68.1

Canceling Original Sheet No. 68.1

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

Page 2 of 3

- iii. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions: 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.
- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- d. Remote data acquisition equipment costs shall be subject to the terms and conditions specified in Transportation Service Rates 81 and 82.
- 2. Refund
 - a. If within the five-year period from the extension(s) in-service date, the total of the customer's contribution and actual margin paid to the Company equals or exceeds the total present value of the revenue requirement associated with the extension, Company shall refund the amount exceeding the revenue requirement on the following basis:
 - i. Annually, beginning at the second anniversary of the extension(s) inservice date, the Company will refund to the customer, the amount exceeding the total present value of the revenue requirement at a rate of 50% of the current year margin associated with the customer's actual throughput.
 - ii. Customers who have posted a bond, letter of credit or a written guarantee commitment will be notified of any reduction in surety or guarantee requirements based on the above calculation.

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 1st Revised Sheet No. 68.2 Canceling Original Sheet No. 68.2

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

Page 3 of 3

- iii. No refunds will be made for amounts less than \$25.
- b. Interest will be calculated annually by the Company on any refund amounts and shall be equal to the average commercial paper interest rate (A1/P1), not to exceed 12 percent per annum.
- c. No refund shall be made by the Company after the five-year refund period has expired, and in no case shall the refund, excluding interest, exceed the amount of contribution made by the customer.

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69 Canceling 1st Revised Sheet No. 69

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 1 of 8

The policy of Montana-Dakota Utilities Co. for gas main extensions necessary to provide firm sales or firm transportation service to customers is as follows:

- A. General Rules and Regulations Applicable to all Firm Service Extensions
 - 1. An extension will be constructed without a contribution if the estimated capital expenditure is cost justified as defined in paragraph A.3.
 - 2. The Company may require customer or developer cost participation if the estimated capital expenditure is not cost justified.
 - 3. The extension will be considered cost justified if the calculated maximum allowable investment equals or exceeds the estimated capital expenditure using the following formula:

Maximum Allowable Investment =

Annual Basic Service Charge + (Project Estimated 3rd Year Annual Dk x Distribution Delivery Charge)/Levelized Annual Revenue Requirement Factor

- 4. Cost of the extension shall include the gas main extension(s), valves, service line(s), any required payments made by the Company to the transmission pipeline company to accommodate the extension(s), and other costs up to, and including the riser.
- 5. Where cost participation is required, such extension is subject to execution of the Company's standard agreement for extensions by the customer or the developer and Company.

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Tamie A. Aberle

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69.1 Canceling 1st Revised Sheet No. 69.1

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 2 of 8

6. A refund will be made only when there is a reduction in the amount of contribution required within a five-year period from the extension(s) in-service date. Interest will be calculated annually by the Company on any refund amounts and shall be equal to the average commercial paper interest rate (A1/P1), not to exceed 12 percent per annum.

No refund shall be made by Company after the five-year refund period, and in no case shall the refund, excluding interest, exceed the amount of the contribution.

7. The Company reserves the right to charge customer the cost associated with providing service to customer if service is not initiated within 12 months of such installation.

B. <u>Customer Extensions</u>

Cost participation for extensions where customers will be immediately available for service is as follows:

- 1. Contribution
 - a. When a contribution is required, the customer(s) shall pay the Company the portion of the capital expenditure not cost justified as determined in accordance with paragraph A.3., plus an amount for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the provisions of the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).

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Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69.2 Canceling 1st Revised Sheet No. 69.2

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 3 of 8

- b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. Payment of 25% of the contribution prior to construction and the balance in no more than twenty-four equal monthly installments. If customer discontinues service within the twenty-four month period, the balance will be due and payable upon discontinuance of service, or
 - iii. Customer may post a bond, irrevocable letter of credit, or a written guarantee commitment in the amount of the required contribution prior to construction. Such bond, issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for the original five-year term and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists in the subject project based on a recalculated maximum expenditure, the surety or guarantor shall reimburse the Company for such recalculated contribution requirement, or
 - iv. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions: 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69.3 Canceling 1st Revised Sheet No. 69.3

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 4 of 8

- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- d. If within the five-year period from the extension(s) in-service date, the number of active customers and related volumes exceeds the third-year projections, the Company shall recompute the contribution requirement by recalculating the maximum allowable investment.
- e. The recalculated contribution requirement shall be collected from the new applicant(s).
- 2. Refund -
 - The Company will refund to the original contributor(s) the amount required to reduce their contribution to the recalculated contribution requirement. No refunds will be made for amounts less than \$25. Customers who have posted a bond, letter of credit, or written guarantee commitment will be notified of any reduction in surety or guarantee requirements.
 - b. No refunds will be made until the new applicants begin taking service from the Company.
 - c. If the addition of new customers will increase the contribution required from existing customer(s), the extension will be considered a new extension and treated separately.

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Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69.4 Canceling 1st Revised Sheet No. 69.4

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 5 of 8

- 3. Incremental Expansion Surcharge
 - a. The Company, in its sole discretion, may offer an Incremental Expansion Surcharge (Surcharge) to groups of customers requesting service totaling 10 or more when the total estimated cost would otherwise have been prohibitive under the Company's present rates and gas service extension policy. The contribution requirement to be collected under the Surcharge shall be the amount of the capital expenditure in excess of the Maximum Allowable Investment determined in accordance with ¶A.3.
 - i. A minimum up-front payment of \$100.00 will be collected from each customer who signs an agreement to participate in the expansion.
 - ii. For projects that are expected to be recovered within a 5year period, the Surcharge shall be set at a fixed monthly charge of \$5.00 per month plus \$1.50 per dk.
 - iii. For projects that are not expected to be recovered within a 5-year period, the Surcharge shall be set at a fixed monthly charge of \$5.00 per month plus a commodity charge designed to provide recovery of the contribution requirement in a 5-year period.
 - b. The Surcharge shall remain in effect until the net present value of the contribution requirement, calculated using a discount rate equal to the overall rate of return authorized in the last rate case, is collected.

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69.5 Canceling 1st Revised Sheet No. 69.5

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 6 of 8

- c. The Surcharge shall apply to all customers connecting to natural gas service within the expansion area until the contribution requirement is satisfied.
- d. The net present value of the Surcharge will be treated as a contribution-in-aid of construction for accounting purposes.

C. Developer Extensions

Cost participation may be required for extension(s) such as a subdivision or mobile home court, in which a developer is installing roads, utilities, etc., before housing is built.

- 1. Contribution
 - a. When a contribution is required, the developer shall pay the Company the portion of the capital expenditure not cost justified as determined in accordance with paragraph A.3., plus an amount for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).
 - b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. Developer may post a bond, irrevocable letter of credit, or a written guarantee commitment in the amount of the required contribution prior to construction. Such bond,

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69.6 Canceling 1st Revised Sheet No. 69.6

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 7 of 8

issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for the original five-year term and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists in the subject project based on a recalculated maximum expenditure, the surety shall reimburse the Company for such recalculated contribution requirement, or

- iii. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions:
 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.
- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- 2. Refund
 - a. If within the five-year period from the extension(s) in-service date, the number of active customers and related volumes exceeds the third-year projections, the Company shall recompute the contribution requirement by recalculating the maximum allowable investment. Such recalculation shall be done annually based upon the anniversary of the extension(s) in-service date.

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Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 69.7 Canceling 1st Revised Sheet No. 69.7

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 8 of 8

- b. The Company will refund to the developer the amount required to reduce their contribution to the recalculated contribution requirement. No refunds will be made for amounts less than \$25. Developers who have posted a bond, letter of credit, or written guarantee commitment will be notified of any reduction in surety or guarantee requirements.
- c. If the addition of new customer(s) will increase the contribution required from the developer, the extension will be considered a new extension and treated separately.

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Montana-Dakota Utilities Co.

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Natural Gas Service

Volume No. 6 2nd Revised Sheet No. 74 Canceling 1st Revised Sheet No. 74

REPLACEMENT, RELOCATION AND REPAIR OF GAS SERVICE LINES Rate 124

Page 1 of 1

- Where service line location changes are made due to building encroachments (a building is being constructed or is already located over a service line, etc.), customer shall be charged on the basis of direct costs incurred by the Company.
- 2. Whenever a service line is damaged by the customer or someone under the employ of the customer necessitating the service line to be either repaired or replaced in whole or in substantial part, such work shall be charged for on a direct cost basis. If the damage was caused by independent contractors, not in the employ of customer, the charges shall be billed directly to such contractor.
- 3. Service line changes necessary to increase the size and capacity of an existing service line because of increased demand shall be treated in accordance with the Firm Gas Service Extension Policy Rate 120.

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Natural Gas Service

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Montana-Dakota Utilities Co. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7

Original Sheet No. 1

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 2

COMMUNITIES SERVED

NATURAL GAS SERVICE

Rocky Mountain Region

Belfry Billings* Bridger Crow Agency Edgar Fromberg Hardin Joliet Laurel Park City

Badlands Region

Baker Fairview Forsyth Fort Peck Frazer Glasgow Glendive Hinsdale Ismay Malta Miles City Nashua Poplar Richey Rosebud Saco Pryor Rockvale Silesia

Savage Sidney St. Marie Terry Whitewater Wibaux Wolf Point

*Designates Region Office

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By: Travis R. Jacobson Director - Regulatory Affairs



Montana-Dakota Utilities Co.

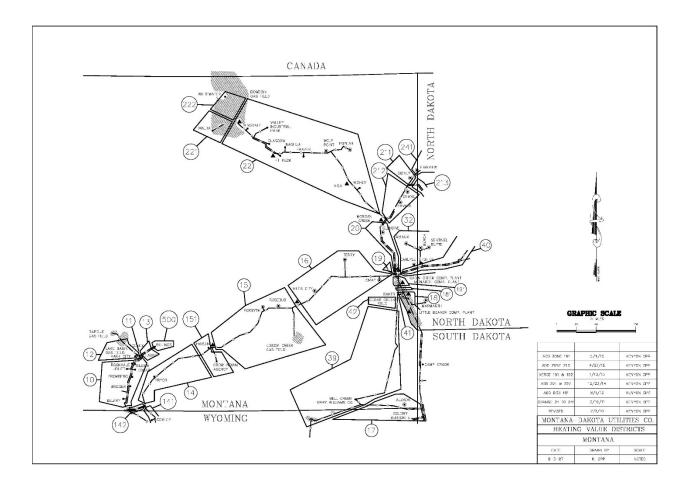
400 N 4th Street Bismarck, ND 58501

Natural Gas Service

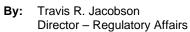
Volume No. 7 Original Sheet No. 4

THERMAL ZONE BOUNDARIES

Page 1 of 1









Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 11

RESIDENTIAL GAS SERVICE Rate 60

Page 1 of 2

Availability:

In all communities served for all domestic uses. See Rate 100, §V.3, for definition of class of service.

Rate:

 Basic Service Charge:	\$0.38 per day
Distribution Delivery Charge:	\$1.457 per dk
Cost of Gas:	Determined Monthly- See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

Low-Income Discount:

Customers qualifying for and receiving energy assistance through the Low Income Energy Assistance Program (LIEAP) administered by the State of Montana

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 11.1

RESIDENTIAL GAS SERVICE Rate 60

Page 2 of 2

Department of Public Health and Human Services (DPHHS) shall obtain a discount from the amount billed under this rate schedule. The applicable discount, as set forth below, will be administered based upon the percentage of poverty guidelines established by DPHHS and information supplied to the Company by DPHHS at the time the customer gualifies for LIEAP assistance.

<u>% Of Federal Poverty</u>	Discount Rate
0-60%	30%
61%-90%	25%
91%-maximum allowed	20%

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 21

FIRM GENERAL GAS SERVICE Rate 70

Page 1 of 2

Availability:

In all communities served for all firm purposes except for resale. See Rate 100, §V.3, for definition of class of service.

Rate:

For customers with meters rated under 500 cubic feet per hour	
Basic Service Charge:	\$0.60 per day
Distribution Delivery Charge	\$1.195 per dk
For customers with meters rated over 500 cubic feet per hour Basic Service Charge: Distribution Delivery Charge:	\$1.75 per day \$1.237 per dk
Cost of Gas:	Determined Monthly- See Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88

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Summary Sheet for Current Rate



Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 21.1

FIRM GENERAL GAS SERVICE Rate 70

Page 2 of 2

- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 22

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 1 of 4

Availability and Applicability of Service:

In all communities served for all interruptible general gas service customers whose interruptible natural gas fueled load will exceed an input rate of 2,500,000 Btu per hour, metered at a single delivery point and whose use of natural gas will not exceed 100,000 dk annually. The rates herein are applicable only to customer's interruptible load. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70. For interruption purposes, the maximum daily firm requirement shall be set forth in the firm service agreement.

Rate:

Basic Service Charge:

Distribution Delivery Charge:

\$312.00 per month

<u>Maximum</u> \$0.665 per dk <u>Minimum</u> \$0.101 per dk

Cost of Gas:

Determined Monthly- See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

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By: Travis R. Jacobson Director - Regulatory Affairs



Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 22.1

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

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Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89

General Terms and Conditions:

 PRIORITY OF SERVICE - Deliveries of gas under this schedule shall be subject at all times to the prior demands of customers served on the Company's firm gas service rates. Customers taking service hereunder agree that the Company, without prior notice, shall have the right to curtail or interrupt such service whenever, in the Company's sole judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with Rate 100, §V.10.

2. STANDBY REQUIREMENTS:

a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

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SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

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- b. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of automatic shut-off equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Company-approved equipment and fuel for standby service is not installed and maintained.
- 3. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken shall be billed at the charges applicable under Firm General Gas Service Rate 70 (excluding the Basic Service Charge), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.
- 4. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder. If mutually agreed to by the Company and customer, the term of service reflected in such agreement may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under another appropriate rate schedule for customer's operations.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

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- 5. OBLIGATION TO NOTIFY THE COMPANY OF CHANGE IN DAILY OPERATIONS - Customer will be required as specified in the service agreement to notify the Company of an anticipated change in daily operations. Failure to comply with requirements specified in the service agreement may result in the assessment of penalties to customer equal to the penalty amounts the Company must pay to the interconnecting pipeline caused by customer's action.
- 6. METERING REQUIREMENTS:
 - a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.
 - b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
 - c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement.
- 7. RULES The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 23

OPTIONAL SEASONAL GENERAL GAS SERVICE Rate 72

	Page 1 of 2
Availability: In all communities served for all firm purposes except for r §V.3, for definition of class of service.	esale. See Rate 100,
Rate:	
For customers with meters rated	
under 500 cubic feet per hour	• • • • •
Basic Service Charge:	\$0.60 per day
Distribution Delivery Charge:	\$1.195 per dk
For customers with meters rated	
over 500 cubic feet per hour	
Basic Service Charge:	\$1.75 per day
Distribution Delivery Charge:	\$1.237 per dk
Cost of Gas:	
Winter- Service rendered October 1 through	Determined Monthly- See
May 31	Rate Summary Sheet for
	Current Rate
Summer- Service rendered June 1 through	Determined Monthly- See
September 30	Rate Summary Sheet for
	Current Rate
Minimum Bill:	

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

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400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 23.1

OPTIONAL SEASONAL GENERAL GAS SERVICE Rate 72

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Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

- 1. Customer agrees to contract for service under the Optional Seasonal General Gas Service Rate 72 for a minimum of one year.
- 2. The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume 7 Original Sheet No. 27

FIRM GENERAL CONTRACTED DEMAND SERVICE Rate 74

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Availability:

In all communities served applicable to non-residential customers with standby natural gas generators and, available on an optional basis to, customers qualifying for service under the interruptible service tariffs that have requested, and received approval from the Company, for gas service under this rate.

Rate:

Basic Service Charge: For customers with meters rated	under
500 cubic feet per hour For customers with meters rated	\$0.60 per day
500 cubic feet per hour	\$1.75 per day
Distribution Demand Charge:	\$4.89 per Dk per month of billing demand
Capacity Charge per Monthly Demand Dk:	Determined Monthly – See Rate Summary Sheet for Current Rate
Cost of Gas – Commodity per Dk:	Determined Monthly – See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge, Distribution Demand Charge, and Capacity Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

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Natural Gas Service

Volume 7 Original Sheet No. 27.1

FIRM GENERAL CONTRACTED DEMAND SERVICE Rate 74

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Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89

Determination of Monthly Billing Demand:

Customer's billing demand will be determined in consultation with the Company. Customer's actual demand will be reviewed annually and, if warranted, a new monthly billing demand established.

Metering Requirements:

- 1. Service provided for under tariff must be separately metered from customer's other gas services.
- 2. Remote data acquisition equipment (telemetering equipment) may be required by the Company for a single customer installation for daily measurement.
- 3. Customer may be required, upon consultation with the Company, to contribute towards any additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the Customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- 4. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to meter installation.

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Natural Gas Service

Volume 7 Original Sheet No. 27.2

FIRM GENERAL CONTRACTED DEMAND SERVICE Rate 74

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General Terms and Conditions:

- 1. Customers with standby gas generators required to take service under this schedule are not required to execute a contract. Other customers choosing to take service under this schedule will be required to execute a contract applicable for a minimum period of one year.
- 2. The foregoing schedule is subject to Rates 100 through 124 and any amendments or alterations therefore or additional rules and regulations promulgated by the Company under the laws of the state.

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400 N 4th Street Bismarck, ND 58501

Natural Gas Service

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TRANSPORTATION SERVICE Rates 81 and 82

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Availability:

This service is applicable for transportation of natural gas to customer's premise (metered at a single delivery point) through the Company's distribution facilities. In order to obtain transportation service, customer must qualify under an applicable gas transportation service rate; meet the general terms and conditions of service provided hereunder; and enter into a gas transportation agreement upon request of the Company.

The transportation services are as follows:

<u>Small Interruptible General Gas Transportation Service Rate 81:</u> Transportation service is available for all general gas service customers whose interruptible natural gas load will exceed an input rate of 2,500,000 Btu per hour, metered at a single delivery point, whose average use of natural gas will not exceed 100,000 dk annually, and who, absent the request for transportation service, are eligible for natural gas service, on an interruptible basis, pursuant to the Company's effective Small Interruptible General Gas Service Rate 71. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70.

Large Interruptible General Gas Transportation Service Rate 82:

Transportation service is available for all general gas service customers whose interruptible natural gas requirements will exceed 100,000 dk annually metered at a single delivery point, and who, absent the request for transportation service, are eligible for natural gas service pursuant to the Company's effective Large Interruptible General Gas Service Rate 85. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70.

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Bv: Travis R. Jacobson Director – Regulatory Affairs



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Natural Gas Service

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TRANSPORTATION SERVICE Rates 81 and 82

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Rate:

Basic Service Charge: <u>Rate 81</u> \$312.00 per month

Rate 82 \$567.25 per month

Transportation Charges:	<u>Rate 81</u>	<u>Rate 82</u>
Maximum Rate per dk	\$0.665	\$0.500
Minimum Rate per dk	\$0.101	\$0.050

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Universal System Benefits Charge Rate 89

General Terms and Conditions:

- CRITERIA FOR SERVICE In order to receive the service, customer must qualify under one of the Company's applicable natural gas transportation service rates and comply with the general terms and conditions of the service provided herein. Customer is responsible for making all arrangements for transporting the gas from its source to the Company's interconnection with the delivering pipeline(s).
- 2. REQUEST FOR GAS TRANSPORTATION SERVICE- To qualify for gas transportation service, customer must request the service pursuant to the provisions set forth herein. The service shall be provided only to the extent that the Company's existing operating capacity permits.

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TRANSPORTATION SERVICE Rates 81 and 82

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3. MULTIPLE SERVICES THROUGH ONE METER:

- a. In the event customer desires firm sales service in addition to gas transportation service, customer shall request such firm volume requirements, and upon approval by the Company, such firm volume requirements shall be set forth in a firm service agreement. For billing purposes, the level of volumes so specified or the actual volume used, whichever is lower, shall be billed at Rate 70. Volumes delivered in excess of such firm volumes shall be billed at the applicable gas transportation rate. Customer has the option to install, at their expense, piping necessary for separate measurement of sales and transportation volumes.
- b. Customer shall pay, in addition to charges specified in the applicable gas transportation rate schedule, charges under all other applicable rate schedules for any service in addition to that provided herein (irrespective of whether customer receives only gas transportation service in any billing period).
- 4. PRIORITY OF SERVICE The Company shall have the right to curtail or interrupt deliveries without being required to give previous notice of intention to curtail or interrupt, whenever, in its judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with the provisions of Rate 100, §V.10.
- 5. STANDBY REQUIREMENTS:
 - a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for

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such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.

- b. Customer shall provide and maintain, at no cost to the Company, a 120 volt, 15 ampere, AC power supply or other power source acceptable to the Company and telephone service at customer's meter location(s). Customer agrees to provide and maintain, at no cost to the Company, any necessary telephone enhancements to assure the Company of a quality telephone signal necessary to properly operate equipment. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of the automatic shutoff equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Company-approved equipment and fuel for standby service is not installed and maintained.
- 6. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken above that received on customer's behalf, shall be billed at the charges applicable under Firm General Gas Service Rate 70 (excluding the Basic Service Charge), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the

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volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply of gas in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.

- 7. CUSTOMER USE OF NON-DELIVERED VOLUMES In the event customer's gas is not being delivered to the receipt point for any reason and customer continues to take gas, customer shall be subject to any applicable penalties or charges set forth in Paragraph 11.b. Gas volumes supplied by Company will be charged at charges applicable under Firm General Gas Service Rate 70 (excluding the Basic Service Charge). The Company is under no obligation to notify customer of non-delivered volumes.
- 8. REPLACEMENT OF SUPPLEMENTAL SALES SERVICE In the event customer's transportation volumes are not available for any reason, customer may take interruptible sales service if such service is available. The availability of interruptible sales service shall be determined at the sole discretion of the Company.
- 9. ELECTION OF SERVICE Prior to the initiation of service hereunder, customer shall make an election of its requirements under each applicable rate schedule for the entire term of service. If mutually agreed to by the Company and customer, the term of service may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under the appropriate sales rate schedule for customer's operations.
- 10. RECONNECTION FEE Transportation customers who cease service and then resume service within the succeeding 12 months, shall be subject to a reconnection charge as specified in Rate 100, §V.21.

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- 11. DAILY IMBALANCE
 - a. To the extent practicable, customer and the Company agree to the daily balancing of volumes of gas received and delivered on a thermal basis. Such balancing is subject to customer's request and the Company's discretion to vary scheduled receipts and deliveries within existing Company operating limitations.
 - b. In the event that the deviation between scheduled daily volumes and actual daily volumes of gas used by customer causes the Company to incur any additional costs from interconnecting pipeline(s), customer shall be solely responsible for all such penalties, fines, fees or costs incurred. If more than one customer has cause the Company to incur these additional costs, all costs (excluding those associated with Company's firm deliveries) will be prorated to each customer based on the customer's over- or under-take as a percentage of the total.
 - c. The Company may waive any penalty associated with Company adjustments to end-use customer nominations in those instances where the Company, due to operating limitations, is required to adjust end-use transportation customer nominations and such Company adjustments create a penalty situation or preclude customer from correcting an imbalance which results in a penalty.
- 12. MONTHLY IMBALANCE The customer's monthly imbalance is the difference between the amount of gas received by Company on customer's behalf and the customer's actual metered use. Monthly imbalances will not be carried forward to the next calendar month.
 - a. Undertake Purchase Payment If the monthly imbalance is due to more gas delivered on customer's behalf than the actual volumes used,

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Company shall pay customer an Undertake Purchase Payment in accordance with the following schedule:

% Monthly	
Imbalance	Undertake Purchase Rate
0 – 5%	100% Cash-out Mechanism
> 5 – 10%	85% Cash-out Mechanism
> 10 – 15%	70% Cash-out Mechanism
> 15 – 20%	60% Cash-out Mechanism
> 20%	50% Cash-out Mechanism

Where the Cash-out Mechanism is equal to the lesser of the Company's WACOG or the Index Price, as defined in Paragraph 12(c).

b. Overtake Charge – If the monthly imbalance is due to more gas actually used by the customer than volumes delivered on their behalf, customer shall pay Company an Overtake Charge in accordance with the following schedule:

% Monthly	
Imbalance	Overtake Charge Rate
0 – 5%	100% Cash-in Mechanism
> 5 – 10%	115% Cash-in Mechanism
> 10 – 15%	130% Cash-in Mechanism
> 15 – 20%	140% Cash-in Mechanism
> 20%	150% Cash-in Mechanism

Where the Cash-in Mechanism is equal to the greater of the Company's WACOG or the Index Price, as defined in Paragraph 12(c).

c. The Index Price shall be the arithmetic average of the "Weekly Weighted Averages Prices" published by Gas Daily for CIG Rockies and Northern Ventura during the given month. The Company's WACOG (Weighted

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TRANSPORTATION SERVICE Rates 81 and 82

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Average Cost of Gas) includes the commodity cost of gas and applicable transportation charges including the fuel cost of transportation.

- 13. METERING REQUIREMENTS:
 - a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.
 - b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
 - c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement.
- 14. DAILY NOMINATION REQUIREMENTS:
 - a. Customer or customer's shipper and/or agent shall advise the Company's Gas Supply Department, via the Company's Electronic Bulletin Board in accordance with FERC timelines, of the dk requirements customer has requested to be delivered at each delivery point during the following day.

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Customer's daily nomination shall be its best estimate of the expected utilization for the gas day. Unless other arrangements are made, customer will be required to nominate for the non-business days involved prior to weekends and holidays.

- All nominations should include shipper and/or agent defined begin and end dates. Shippers and/or agents may nominate for periods longer than 1 day, provided the nomination begin and end dates are within the term of the service agreement.
- c. The Company has the sole right to refuse receipt of any volumes which exceed the maximum daily contract quantity and at no time shall the Company be required to accept quantities of gas for customer in excess of the quantities of gas to be delivered to customer.
- d. At no time shall the Company have the responsibility to deliver gas in excess of customer's nomination.
- 15. WARRANTY Customer, customer's agent, or customer's shipper warrants that it will have title to all gas it tenders or causes to be tendered to the Company, and such gas shall be free and clear of all liens and adverse claims and customer, customer's agent, or customer's shipper shall indemnify the Company against all damages, costs, and expenses of any nature whatsoever arising from every claim against said gas.
- 16. FACILITY EXTENSIONS If facilities are required in order to furnish gas transportation service, and those facilities are in addition to the facilities required to furnish firm gas service, customer shall pay for those additional facilities and their installation in accordance with the Company's applicable natural gas extension policy. The Company may remove such facilities when service hereunder is terminated.

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- 17. PAYMENT Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with Rate 100, §V.13, or any amendments or alterations thereto.
- 18. BILLING ERROR In the event an error is discovered in any bill that the Company renders to customer, such error shall be adjusted within a period not to exceed 6 months from the date the billing error is first discovered.
- 19. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder.
- 20. RULES The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

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Natural Gas Service

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LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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Availability and Applicability of Service:

In all communities served for all interruptible general gas service customers whose interruptible natural gas requirements will exceed 100,000 dk annually as metered at a single delivery point. The rates herein are applicable only to customer's interruptible load. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70. For interruption purposes, the maximum daily firm requirement shall be set forth in the firm service agreement. The Company reserves the right to refuse the initiation of service under this rate schedule based on the availability of gas supply.

Rate:

Basic Service Charge:

\$567.25 per month

Distribution Delivery Charge:

<u>Maximum</u> \$0.500 per dk

Minimum \$0.050 per dk

Cost of Gas:

Determined Monthly - See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

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LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89

General Terms and Conditions:

 PRIORITY OF SERVICE - Deliveries of gas under this schedule shall be subject at all times to the prior demands of customers served on the Company's firm gas service rates. Customers taking service hereunder agree that the Company, without prior notice, shall have the right to curtail or interrupt such service whenever, in the Company's sole judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with Rate 100, §V.10.

2. STANDBY REQUIREMENTS:

a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.

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LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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- b. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of automatic shut-off equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Companyapproved equipment and fuel for standby service is not installed and maintained.
- 3. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken shall be billed at the charges applicable under Firm General Gas Service Rate 70 (excluding the Basic Service Charge), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply of gas in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.
- 4. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder. If mutually agreed to by the Company and customer, the term of service reflected in such agreement may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under another appropriate rate schedule for customer's operations.

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LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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- 5. OBLIGATION TO NOTIFY THE COMPANY OF CHANGE IN DAILY OPERATIONS - Customer will be required as specified in the service agreement to notify the Company of an anticipated change in daily operations. Failure to comply with requirements specified in the service agreement may result in the assessment of penalties to customer equal to the penalty amounts the Company must pay to the interconnecting pipeline caused by customer's action.
- 6. METERING REQUIREMENTS:
 - a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.
 - b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
 - c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement.
- 7. RULES The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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GAS TAX TRACKING ADJUSTMENT Rate 87

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1. Applicability:

This rate schedule sets forth the procedure to be used in calculating the Tax Tracking Adjustment in order to reflect: (a) changes in Montana-Dakota's Montana – state and local taxes and fees, and (b) a true-up of taxes recovered to actual taxes paid. The tax adjustment shall be shown as a separate item on the bill.

2. Effective Date:

The effective date of the Tax Tracking Adjustment shall be service rendered on and after January 1 each year.

3. Tax Tracking Adjustment:

- a. The Tax Tracking Adjustment shall reflect changes in Montana-Dakota's Montana state and local taxes and fees as compared to the base levels approved in its most recent general rate case. The difference to be included in the Tax Tracking Adjustment shall be net of income taxes.
- b. Base Tax A base tax amount shall be established and updated in a general rate case for each rate schedule:
 - (1) The ratio of authorized Montana state and local taxes and fees, excluding tribal taxes, to the total distribution revenues authorized in the rate case shall be determined.
 - (2) The ratio is applied to the total basic service charge and distribution delivery charge revenues for each rate schedule to derive the base tax amount for each rate schedule.
- c. Rates excluding taxes
 - (1) The authorized margin excluding base taxes (defined as base margin) is established by applying the ratio derived in 3.b.(1) to the authorized distribution revenues by rate schedule.
 - (2) The percentage of taxes to base margin is derived to establish the basic service charge and distribution delivery charge amounts excluding the base

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GAS TAX TRACKING ADJUSTMENT Rate 87

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tax amount by applying the percentage to each rate component of each rate schedule.

- d. The Tax Tracking Adjustment shall be computed as follows:
 - (1) Tax expense for the year is compared to the tax expense recovered, including the tax related revenue from the conservation tracking adjustment lost margin with the difference net of income taxes determined.
 - (2) A true-up of the prior year's adjustment for:
 - i. Actual tax expense less actual tax recovery (adjusted for income taxes).
 - ii. Tax expense less tax recovery included in the filing.
 - iii. The net of 3.d.(2)i. and 3.2.(2)ii. is calculated and adjusted to exclude income taxes.
 - (3) The sum of amounts in 3.d.(1) and 3.d.(2) above is divided by the base margin to derive the percent increase (decrease) in taxes.
 - (4) The base tax percentage determined in 3.c.(2) and the tax adjustment percentage determined in 3.d.(3) are added to calculate the total percent of taxes.
 - (5) The total percent of taxes is applied to the basic service charge and distribution delivery charge billed to each customer, and shown separately on the customer bill.

4. Time and Manner of Filing:

Each filing shall be made on or before the effective date of the adjustment, accompanied by the detailed computations which clearly show the derivation of the relevant amounts.

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GAS TAX TRACKING ADJUSTMENT Rate 87

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5. Tax Tracking Adjustment:

Base	22.8468%
Adjustment	0.0000%
Total tax	22.8468%

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GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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1. Applicability:

This rate schedule sets forth the procedure to be used in calculating Gas Cost Tracking Adjustments. It specifies the procedure to be utilized to adjust the rates for gas sold under Montana-Dakota's rate schedules in the state of Montana in order to reflect: (a) changes in Montana-Dakota's average cost of gas supply and (b) amortization of the Unreflected Purchased Gas Cost Account.

2. Effective Date and Limitation on Adjustments:

- a. Unless otherwise ordered by the Commission, the effective dates of the gas cost tracking adjustment shall be service rendered on and after the first day of each month. The effective date of the adjustment for amortization of the Unreflected Purchased Gas Cost Account shall be October 1 of each year.
- b. Montana-Dakota shall file an adjustment to reflect changes in its average cost of gas supply only when the amount of change in such adjustment is at least 25 (twenty-five) cents per dk. The tracking adjustment to be effective October 1 shall be filed each year, regardless of the amount of the change.

3. Minimum Filing Requirements:

Montana-Dakota's filing to implement the Gas Cost Tracking Adjustment effective October 1 of each year shall include the following:

- a. Billing determinants by service agreement by month by supply source, with annual totals;
- b. Rates applicable to those billing determinants;
- c. Purchased gas costs by service agreement by month by supply source, with annual totals;

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- d. A list of FERC proceedings in which Montana-Dakota has participated with a brief description of the purpose of each and position taken by Montana-Dakota;
- e. Total Montana-Dakota sales by major customer class by month with annual totals;
- f. Montana-Dakota sales by major customer class by jurisdiction by month, with annual totals;
- g. If Montana-Dakota has executed a new direct purchase contract since the last October 1 Gas Cost Tracking Adjustment, a description of what efforts, if any, were undertaken to ensure that the contract had pricing provisions which assured a firm supply of gas at a competitive price over the full term of the contract;
- h. A description of what efforts, if any, Montana-Dakota has undertaken since the last October 1 Gas Cost Tracking Adjustment to utilize spot gas.

4. Gas Cost Tracking Adjustment:

a. The monthly Gas Cost Tracking Adjustment shall reflect changes in Montana-Dakota's cost of gas supply as compared to the cost of gas supply approved in its most recent Gas Cost Tracking Adjustment. The cost of gas supply shall be the sum of all costs incurred in obtaining gas for general system supply. General system supply is defined as gas available for use by all customers served under retail sales rate schedules. The cost of gas supply shall include, but not be limited to, all demand, commodity, storage, gathering, and transportation charges incurred by Montana-Dakota for such gas supply. Any extraordinary costs, such as penalty charges and take-or-pay charges, shall be clearly identified as such and separately described in a supporting exhibit.

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GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- b. The Gas Cost Tracking Adjustment shall be computed as follows:
 - (1) Demand costs shall include all annual gathering, transportation and storage demand charges at current rates.
 - (2) Commodity costs shall include all annual gathering, transportation and storage charges at current rates.
 - (3) The gas commodity cost shall reflect all commodity related gas costs estimated to be in effect for the month the gas cost tracking adjustment will be in effect and annual dk requirements.

The cost per dk for the month is the sum of the above divided by annual, weather normalized dk deliveries adjusted to reflect losses.

- c. Monthly gas costs shall be calculated as follows:
 - Demand costs shall be apportioned to all state jurisdictions served by Montana-Dakota on the basis of the overall ratio of each state's Maximum Daily Delivery Quantity (MDDQ).
 - (2) Demand costs for interruptible sales customers shall be stated on a 100% load factor basis.
 - (3) Demand costs for firm general contracted demand customers shall be stated on the incremental MDDQ basis.
 - (4) All commodity costs and other costs associated with the acquisition of gas for general system supply shall be apportioned to each state on the basis of total dk's sold in each state, regardless of the actual points of delivery of such gas.

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- (5) All costs related to specific gas transportation services shall not be included in the cost of gas supply determination but shall be directly billed to the customer(s) contracting for such service.
- d. The Gas Cost Tracking Adjustment shall be applied to each of Montana-Dakota's rate schedules, recognizing differences among customer classes consistent with the cost of gas supply included in the applicable class sales rate.

5. Unreflected Gas Cost Adjustment:

All sales rate schedules shall be subject to an Unreflected Gas Cost Adjustment to be effective on October 1 of each year. The Unreflected Gas Cost Adjustment per dk sold shall reflect amortization of the applicable balance in the Unreflected Purchased Gas Cost Account calculated by dividing the applicable balance by the estimated dk sales for the twelve months following the effective date of the adjustment.

6. Unreflected Purchased Gas Cost Account:

- a. Items to be included in the Unreflected Purchased Gas Cost Account, as calculated in accordance with Subsection 6(b) are:
 - Charges for gas supply which Montana-Dakota is unable to reflect in a Gas Cost Tracking Adjustment by reason of the twenty-five (25) cent minimum limitation set forth in Subsection 2(b).
 - (2) Amounts of increased/decreased charges for gas supplies which were paid during any period after the effective date of the most recent general rate case, but not yet included in sales rates.

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- (3) Refunds received from supplier(s) with respect to gas supply. Such refunds received shall be credited to the Unreflected Purchased Gas Cost Account.
- (4) Demand costs recovered from the interruptible sales customers will be credited to the residential and firm general service customers.
- b. The amount to be included in the Unreflected Purchased Gas Cost Account in order to reflect the items specified in Subsections 6(a)(1), (2), and (3) shall be calculated as follows:
 - (1) Montana-Dakota shall first determine each month the unit cost for that month's natural gas supply as adjusted to levelize demand charges. Such adjustment to levelize supplier(s) demand charges shall be calculated as follows:

The suppliers' annual (calendar or fiscal) demand charges, which are payable in equal monthly payments, shall be accumulated in a prepaid account (FERC Account 165). Each month a portion of such accumulated prepaid amount shall be amortized to cost of natural gas purchased (FERC Account 804). Such monthly amortization shall be based on a rate calculated by dividing the annual supplier(s) demand charges by projected annual dk sales (calendar or fiscal, as appropriate). The resulting product shall then be multiplied by the projected natural gas unit sales for the current month. Such amount shall constitute the monthly amortization of prepaid supplier(s) demand charges to cost of natural gas supply.

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- (2) Montana-Dakota shall then subtract from each month's unit cost the unit cost for gas supply which is reflected in the currently effective Tracking Adjustment.
- (3) The resulting difference (which may be positive or negative) shall be multiplied by the dk's sold during that month under each rate schedule. The resulting amounts shall be reflected in an Unreflected Purchased Gas Cost Account for each rate schedule.
- c. Reduction of Amounts in the Unreflected Purchased Gas Cost Account:
 - (1) The amounts in the Unreflected Purchased Gas Cost Account shall be decreased each month by an amount determined by multiplying the currently effective unreflected gas cost adjustment included in rates for that month (as calculated in Section 5) by the dk's sold during that month under each rate schedule. The Account shall be increased in the event the adjustment is a negative amount.

7. Time and Manner of Filing:

- a. Each filing by Montana-Dakota shall be made by means of revised rate schedule tariff sheets identifying the amounts of the adjustments and the resulting currently effective rates.
- b. Each filing shall be accompanied by detailed computations which clearly show the derivation of the relevant amounts.

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UNIVERSAL SYSTEM BENEFITS CHARGE Rate 89

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Applicability:

In all communities served for all end use sales and transportation service customers for funding of Universal System Benefits (USB) Programs.

Rate:

Charge per dk:	
Sales Service Schedules (Rates 60, 70, 71, 72, 74, and 85)	\$.0655
Transportation Service Schedules (Rates 81 and 82)	\$.0028

Tracking Mechanism:

The rate above shall be subject to adjustment on an annual basis to be effective on May 1. The adjustment shall reflect the true up of actual expenditures associated with approved USB Programs and any adjustments necessary to provide funding at a target level of 0.48% of the prior year's total revenues. A filing to effectuate the May 1 change shall be made by March 1 of each year.

General Terms and Conditions:

...

The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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CONSERVATION PROGRAM TRACKING MECHANISM Rate 90

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Applicability:

This rate schedule represents a Conservation Program Tracking Mechanism and specifies the procedure to be utilized to recover the costs of conservation programs, as authorized by the Commission, including the recovery of distribution delivery charge revenues reduced as a result of the conservation programs. Service provided under the Company's Residential Service Rate 60 and Firm General Service Rates 70 and 72 shall be subject to this tracking mechanism.

Conservation Program Tracker:

An adjustment per dk will be determined for each rate schedule subject to the Conservation Program Tracking Mechanism. Monthly bills beginning with bills issued on and after May 1, 2007 and each May 1 thereafter, will be adjusted by the application of the Conservation Tracking Adjustment rate indicated below. The rate will reflect the amortization of the conservation program costs including the dk savings associated with each measure implemented in the prior 12 month period. The currently authorized Distribution Delivery Charge will be applied to the dk savings to compute the reduction in Distribution Delivery revenues associated with the conservation programs. The total program costs including the lost distribution revenues will be amortized over projected volumes to be sold over the next 12 month period. Following the initial one-year term, and annually thereafter, the Conservation Program Tracker rate calculation shall include any over or under collection of revenue from the preceding twelve month recovery period.

Conservation Tracking Adjustment: \$0.014 per dk

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I. PURPOSE:

These rules are intended to define good practice which can normally be expected, but are not intended to exclude other accepted standards and practices not covered herein. They are intended to ensure adequate service to the public and protect the Company from unreasonable demands.

The Company undertakes to furnish service subject to the rules and regulations of the Public Service Commission of Montana and as supplemented by these general provisions, as now in effect or as may hereafter be lawfully established, and in accepting service from the Company, each customer agrees to comply with and be bound by said rules and regulations and the applicable rate schedules.

II. DEFINITIONS:

The following terms used in this tariff shall have the following meanings, unless otherwise indicated:

AGENT – The party authorized by the transportation service customer to act on that customer's behalf.

APPLICANT - Customer requesting the Company to provide service.

COMMISSION - The Public Service Commission of the State of Montana.

COMPANY - Montana-Dakota Utilities Co. (Montana-Dakota)

COMPANY'S OPERATING CONVENIENCE - The utilization, under certain circumstances, of facilities or practices not ordinarily employed which contribute to the overall efficiency of the Company's operations. This does not refer to customer's convenience nor to the use of facilities or adoption of practices required to comply with applicable laws, ordinances, rules or regulations, or similar requirements of public authorities.

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CURTAILMENT - A reduction of transportation or retail natural gas service deemed necessary by the Company.

CUSTOMER - Any individual, partnership, corporation, firm, other organization or government agency supplied with service by the Company at one location and at one point of delivery unless otherwise expressly provided in these rules or in a rate schedule.

DELIVERY POINT - The point at which customer assumes custody of the gas being transported. This point will normally be at the outlet of the Company's meter(s) located on customer's premises.

EXCESS FLOW VALVE – Safety device designed to automatically stop or restrict the flow of gas if an underground pipe is broken or severed.

GAS DAY - Means a period of 24 consecutive hours, beginning and ending at 9:00 a.m. Central Clock Time.

INTERRUPTION - A cessation of transportation or retail natural gas service deemed necessary by the Company.

NOMINATION - The daily dk volume of the natural gas requested by customer for transportation and delivery to customer at the delivery point during a gas day.

PIPELINE – The transmission company(s) delivering natural gas into Company's system.

RATE - Shall mean and include every compensation, charge, fare, toll, rental and classification, demanded, observed, charged or collected by the Company for any service, product, or commodity, offered by the Company to the public. This includes any rules, regulations, practices or contracts affecting any such compensation, charge, fare, toll, rental or classification.

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RECEIPT POINT - The intertie between the Company and the interconnecting Pipeline(s) at which point the Company assumes custody of the gas being transported.

SHIPPER - The party with whom the Pipeline has entered into a service agreement with in order to provide transportation service.

III. CUSTOMER OBLIGATIONS:

1. APPLICATION FOR SERVICE - Customer desiring gas service must make application to the Company before commencing the use of the Company's service. The Company reserves the right to require a signed application or written contract for service to be furnished. All applications and contracts for service must be made in the legal name of customer desiring the service. The Company may refuse an applicant or terminate service to customer who fails or refuses to furnish reasonable information requested by the Company for the establishment of a service account. Any person who uses gas service in the absence of an application or contract shall be subject to the Company's rates, rules, and regulations and shall be responsible for payment of all service used.

Subject to rates, rules, and regulations, the Company will continue to supply gas service until notified by customer to discontinue the service. Customer will be responsible for payment of all service furnished through the date of discontinuance.

Any customer may be required to make a deposit as required pursuant to Rate 100, §V.6.

 SERVICE AVAILABILITY – Gas will normally be delivered at standard pressures of four or five ounces, dependent on the service area where the gas service is being delivered. Delivery of gas service at pressures greater than the standard operating pressure may be available and will require a consultation with the Company to determine availability.

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- 3. INPUT RATING All new customers whose consumption of gas for any purpose will exceed an input of 2,500,000 Btu per hour, metered at a single delivery point, shall consult with the Company and furnish details of estimated hourly input rates and pressures required for all gas utilization equipment. Where system design capacity permits, such customers may be served on a firm basis. Where system design capacity is limited, and at the Company's sole discretion, the Company will serve all such new customers on an interruptible basis only. Architects, contractors, heating engineers and installers, and all others should consult with the Company before proceeding to design, erect or redesign such installations for the use of natural gas. This will ensure that such equipment will conform to the Company's ability to adequately serve such installations with gas.
- 4. ACCESS TO CUSTOMER'S PREMISES Company representatives, when properly identified, shall have access to customer's premises at all reasonable times (8:00 am to 5:00 pm Monday through Friday unless an emergency requires access outside of these hours) for the purpose of reading meters, making repairs, making inspections, removing the Company's property, or for any other purpose incident to the service.
- 5. COMPANY PROPERTY Customer shall exercise reasonable diligence in protecting the Company's property on their premises and shall be liable to the Company in case of loss or damage caused by their negligence or that of their employees.
- 6. INTERFERENCE WITH COMPANY PROPERTY Customer shall not disconnect, change connections, make connections or otherwise interfere with the Company's meters or other property or permit same to be done by other than the Company's authorized employees.
- 7. RELOCATED LINES Where Company facilities are located on a public or private utility easement and there is a building encroachment over gas facilities

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(Company-owned main, Company-owned service line or customer-owned service line) the customer shall be charged for the line re-location on the basis of actual costs incurred by the Company including any required easements.

- 8. NOTIFICATION OF LEAKS Customer shall immediately notify the Company at its office of any escape of gas in or about customer's premises.
- 9. TERMINATION OF SERVICE Customer is required to notify the Company, to prevent liability for service used by succeeding tenants, when vacating their premises. Upon receipt of such notice, the Company will read the meter and further liability for service used on the part of the vacating customer will cease.
- 10. REPORTING REQUIREMENTS Customer shall furnish the Company all information as may be required or appropriate to comply with reporting requirements of duly constituted authorities having jurisdiction over the matter herein.
- 11. QUALITY OF GAS The gas tendered to the Company shall conform to the applicable quality specifications of the transporting Pipeline's tariff.

IV. LIABILITY:

- 1. CONTINUITY OF SERVICE The Company will use all reasonable care to provide continuous service but does not assume responsibility for a regular and uninterrupted supply of gas service and will not be liable for any loss, injury or damage resulting from the use of service, or arising from or caused by the interruption or curtailment of the same, except when such loss, injury or damage results from the negligence of the Company.
- 2. CUSTOMER'S EQUIPMENT Neither by inspection or non-rejection, nor in any other way does the Company give any warranty, express or implied, as to the adequacy, safety or other characteristics of any structures, equipment, lines, appliances or devices owned, installed or maintained by customer or

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leased by customer from third parties. The customer is responsible for the proper installation and maintenance of all structures, equipment, lines, appliances, or devices on the customer's side of the point of delivery. The customer must assume the duties of inspecting all structures including the house piping, chimneys, flues and appliances on the customer's side of the point of delivery.

- 3. COMPANY EQUIPMENT AND USE OF SERVICE The Company will not be liable for any loss, injury, death or damage resulting in any way from the supply or use of gas or from the presence or operation of the Company's structures, equipment, lines, or devices on customer's premises, except loss, injuries or damages resulting from the negligence of the Company.
- 4. INDEMNIFICATION Customer agrees to indemnify and hold the Company harmless from any and all injury, death, loss or damage resulting from customer's negligent or wrongful acts under and during the term of service. The Company agrees to indemnify and hold customer harmless from any and all injury, death, loss or damage resulting from the Company's negligent or wrongful acts under and during the term of service.
- 5. FORCE MAJEURE In the event of either party being rendered wholly or in part by force majeure unable to carry out its obligations, then the obligations of the parties hereto, so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused. Such causes or contingencies affecting the performance by either party, however, shall not relieve it of liability in the event of its concurring negligence or in the event of its failure to use due diligence to remedy the situation and remove the cause in an adequate manner and with all reasonable dispatch, nor shall such causes or contingencies affecting the performance relieve either party from its obligations to make payments of amounts then due hereunder, nor shall such causes or contingencies relieve either party of liability unless such party shall

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give notice and full particulars of the same in writing or by telephone to the other party as soon as possible after the occurrence relied on. If volumes of customer's gas are destroyed while in the Company's possession by an event of force majeure, the obligations of the parties shall terminate with respect to the volumes lost.

The term "force majeure" as employed herein shall include, but shall not be limited to, acts of God, strikes, lockouts or other industrial disturbances, failure to perform by any third party, which performance is necessary to the performance by either customer or the Company, acts of the public enemy or terrorists, wars, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrest and restraint of rulers and peoples, civil disturbances, explosions, breakage or accident to machinery or lines of pipe, line freeze-ups, sudden partial or sudden entire failure of gas supply, failure to obtain materials and supplies due to governmental regulations, and causes of like or similar kind, whether herein enumerated or not, and not within the control of the party claiming suspension, and which by the exercise of due diligence such party is unable to overcome; provided that the exercise of due diligence shall not require settlement of labor disputes against the better judgment of the party having the dispute.

The term "force majeure" as employed herein shall also include, but shall not be limited to, inability to obtain or acquire, at reasonable cost, grants, servitudes, rights-of-way, permits, licenses or any other authorizations from third parties or agencies (private or governmental) or inability to obtain or acquire at reasonable cost necessary materials or supplies to construct, maintain and operate any facilities required for the performance of any obligations under this agreement, when any such inability directly or indirectly contributes to or results in either party's inability to perform its obligations.

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V. GENERAL TERMS AND CONDITIONS:

- 1. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for any service.
- 2. RATE OPTIONS Where more than one rate schedule is available for the same class of service, the Company will assist customer in selecting the applicable rate schedule(s). The Company is not required to change a customer from one rate schedule to another more often than once in 12 months unless there is a material change in customer's load which alters the availability and/or applicability of such rate(s), or unless a change becomes necessary as a result of an order issued by the Commission or a court having jurisdiction. The Company will not be required to make any change in a fixed term contract except as provided therein.

3. RULES FOR APPLICATION OF GAS SERVICE:

- a. Residential gas service is available to any residential customer for domestic purposes only. Residential gas service is defined as service for general domestic household purposes in space occupied as living quarters, designed for occupancy by one family with separate cooking facilities. Typical service would include the following: single private residences, single apartments, mobile homes with separate meters and auxiliary buildings on the same premise when used for residential purposes by the residential customer. This is not an all-inclusive list.
- b. Nonresidential service is defined as service provided to a business enterprise in space occupied and operated for nonresidential purposes. Typical service would include stores, offices, shops, restaurants, sorority and fraternity houses, boarding houses, hotels, service garages, wholesale houses, filling stations, barber shops, beauty salons, apartment houses, common areas of shopping malls or apartments (such as halls or basements), churches, elevators, schools and facilities located away from the home site. This is not an all-inclusive list.
- c. The definitions above are based upon the supply of service to an entire premise through a single delivery and metering point. Separate supply for

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the same customer at other points of consumption may be separately metered and billed.

- d. If separate metering is not practical for a single unit (one premise) that is using gas for both domestic purposes and for conducting business (or for nonresidential purposes as defined herein), customer will be billed under the predominate use policy. Under this policy, customer's combined service is billed under the rate (residential or nonresidential) applicable to the type of service which constitutes 50% or more of customer's total connected load.
- e. Other classes of service furnished by the Company shall be defined in applicable rate schedules, or in rules and regulations pertaining thereto. Service to customers for which no specific rate schedule is applicable shall be billed under the nonresidential rates.
- 4. DISPATCHING Transportation customers will adhere to gas dispatching policies and procedures established by the Company to facilitate transportation service. The Company will inform customer of any changes in dispatching policies that may affect transportation services as they occur.
- 5. RULES COVERING GAS SERVICE TO MANUFACTURED HOMES The rules and regulations for providing gas service to manufactured homes are in accordance with the Code of Federal Regulations (24CFR Part 3280 Manufactured Home Construction and Safety Standards) Subparts G and H which pertain to gas piping and appliance installation. In addition to the above rules, the Company also follows the regulations set forth in the NFPA 501A, Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities. This information is available at Montana-Dakota Utilities Co.'s offices.
- 6. CONSUMER DEPOSITS The Company will determine whether or not a deposit shall be required of an applicant for gas service in accordance with Commission Rules ARM 38.5.1101 through 38.5.1112.

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- a. The amount of such deposit for residential service shall not exceed one-sixth of the estimated annual billing. For nonresidential service, the amount of the applicant's deposit shall not exceed 25% of the applicant's estimated annual billing.
- b. The Company shall accept in lieu of a cash deposit a contract signed by a guarantor, whereby the payment of a specified sum not to exceed an estimated one year bill shall be guaranteed. Such estimation shall be made at the time the service is established. Guarantee terms and conditions will be in accordance with Commission Rules ARM 38.5.1111 and 38.5.1112.

Interest on deposits held shall be accrued at the rate set forth in Rate 100, §VI.3. Interest shall be computed from the time of deposit to the time of refund or of termination. Interest shall be credited to customer's account annually during the month of December.

Deposits with interest shall be refunded to customers at termination of service provided all billings for service have been paid. Deposits with interest will be refunded to all active customers, after the deposit has been held for 12 months, provided a prompt payment record, as defined in the Commission rules, has been established.

7. METERING AND MEASUREMENT- The Company will meter the quantity of natural gas delivered to customer at the delivery point. Such meter measurement will be conclusive upon both parties unless such meter is found to be inaccurate, in which case the quantity supplied to customer shall be determined by as correct an estimate as it is possible to make, taking into consideration the time of year, the schedule of customer's operations and other pertinent facts. The Company will test meters in accordance with applicable state utility rules and regulations.

Customer may install, operate, and maintain at its sole expense, equipment for the purpose of measuring the amount of natural gas delivered over any

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measurement period, provided the equipment shall not interfere with such delivery or with the Company's meter.

- MEASUREMENT UNIT FOR BILLING PURPOSES The measurement unit for billing purposes shall be one (1) decatherm (dk), unless otherwise specified. Billing will be calculated to the nearest one-tenth (1/10) dk. One dk equals 10 therms or 1,000,000 Btu's. Dk's shall be calculated by the application of a thermal factor to the volumes metered. This thermal factor consists of:
 - a. An altitude adjustment factor used to convert metered volumes at local sales base pressure to a standard pressure base of 14.73 psia, and
 - b. A Btu adjustment factor to reflect the heating value of gas delivered.
 - 9. UNIT OF VOLUME FOR MEASUREMENT The unit of volume for purpose of measurement shall be one (1) cubic foot of gas at either local sales base pressure or 14.73 psia, as appropriate, and a temperature base of 60 degrees Fahrenheit (60 F). All measurement of natural gas by orifice meter shall be reduced to this standard by computation methods, in accordance with procedures contained in ANSI-API Standard 2530, First Edition, as amended. Where natural gas is measured with positive displacement or turbine meters, correction to local sales base pressure shall be made for actual pressure and temperature with factors calculated from Boyle's and Charles' Laws. Where gas is delivered at 20 psig or more, the deviation of the natural gas from Boyle's Law shall be determined by application of Supercompressibility Factors for Natural Gas published by the American Gas Association, Inc., Copyright 1955, as amended or superseded. Where gas is measured with electronic correcting instruments at pressures greater than local sales base, supercompressibility will be calculated in the corrector using AGA-3/NX-19, as amended, supercompressibility calculation. For handbilled accounts, application of supercompressibility factors will be waived on monthly billed volumes of 250 dk or less.

Local sales base pressure is defined as four or five ounces (depending on service area) per square inch gauge pressure plus local average atmospheric pressure.

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- 10. PRIORITY OF SERVICE AND ALLOCATION OF CAPACITY Priority of Service from highest to lowest:
 - a. Priority 1 Firm sales service.
 - b. Priority 2 Small interruptible sales and small interruptible gas transportation service at the maximum rate on a pro rata basis.
 - c. Priority 3 Large interruptible sales and large interruptible gas transportation service at the maximum rate on a pro rata basis.
 - d. Priority 4 Small interruptible sales and transportation services at less than the maximum rate from the highest rate to the lowest rate and on a pro rata basis where equal rates are applicable among customers.
 - e. Priority 5 Large interruptible sales and transportation services at less than the maximum rate from the highest rate to the lowest rate and on a pro rata basis where equal rates are applicable among customers.
 - f. Priority 6 Gas scheduled to clear imbalances.

Montana-Dakota shall have the right, in its sole discretion, to deviate from the above schedule when necessary for system operational reasons and if following the above schedule would cause an interruption in service to a customer who is not contributing to an operational problem on Montana-Dakota's system.

Montana-Dakota reserves the right to provide service to customers with a lower priority while service to higher priority customers is being curtailed due to restrictions at a given delivery or receipt point. When such restrictions are eliminated, Montana-Dakota will reinstate sales and/or transportation of gas according to each customer's original priority.

11. EXCESS FLOW VALVE - In accordance with Federal Pipeline Safety Regulations 49 CFR 192.383, the Company will install an excess flow valve on an existing service line at the customer's request at a mutually agreeable date. The actual cost of the installation will be assessed to the customer.

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- 12. REPORTING REQUIREMENTS Customer shall furnish the Company all information as may be required or appropriate to comply with reporting requirements of duly constituted authorities having jurisdiction over the matter herein.
- 13. LATE PAYMENT Amounts billed for energy or transportation services will be considered past due if not paid by the due date shown on the bill.

For residential customers, an amount equal to the percentage set forth in Rate 100, §VI.2 will be applied to any unpaid balance existing at the second subsequent billing date provided, however, that such amount shall not apply where a bill is in dispute, written payment schedule has been arranged and complied with, or where the Low Income Energy Assistance Program (LIEAP) is being utilized up to the point where the funds are exhausted and the recipient has full responsibility for the account. In the event of a breach of a written payment arrangement, an amount equal to the percentage set forth in Rate 100, §VI.2 of the total remaining unpaid balance shall apply beginning 60 days after the date of the last payment under the payment arrangement. Such amount shall also apply (where the LIEAP program was utilized) to the total remaining unpaid balance on all accounts beginning 60 days after the LIEAP program no longer applies to such account.

For nonresidential customers, an amount equal to the percentage set forth in Rate 100, §VI.2 will be applied to any unpaid balance existing at the immediate subsequent billing date.

All payments received will apply to customer's account prior to calculating the late payment charge. Those payments applied shall satisfy the oldest portion of the bill first.

14. RETURNED CHECK CHARGE - A charge as set forth in Rate 100, §VI.1.b. will be collected by the Company for any check not honored by customer's financial institution for any reason.

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- 15. MANUAL METER READING CHARGE A charge as set forth in Rate 100, §V.1.k. will be assessed monthly for customer(s) who have requested, and received Company approval, to have their meter read manually each month in lieu of an AMR-equipped meter read. Customers agree to contract for the manual reading of the meter for minimum period of one year.
- 16. TAX CLAUSE In addition to the charges provided for in the gas tariffs of the Company, there shall be charged pro rata amounts which, on an annual basis, shall be sufficient to yield to the Company the full amount of any usage fees or any sales, uses, franchise, or excise taxes, whether they be denominated as license taxes, occupation taxes, business taxes, privilege taxes, or otherwise, levied against or imposed upon the Company by any municipality, political subdivision, or other entity, for the privilege of conducting its utility operations therein.

The charges to be added to customer's service bills under this clause shall be limited to customers within the corporate limits of the municipality, political subdivision or other entity imposing the tax.

17. UTILITY CUSTOMER SERVICES:

- a. The following services will be performed at no charge regardless of the time of performance:
 - 1. Responding to fire and explosion calls.
 - 2. Investigating hazardous conditions on customer premises, such as gas leaks, odor complaints and combustion gas fumes.
 - 3. Maintenance or repair of Company-owned facilities on customer's premises.
 - 4. Pilot relights necessary due to an interruption in gas service deemed to be the Company's responsibility.

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- b. The following service calls will be performed at no charge during the Company's regular business hours:
 - 1. Reconnecting service to an existing facility (cut-in) or disconnecting service (cut-out).
 - 2. Investigating high bills or inadequate service complaints.
 - 3. Locating underground Company facilities for contractors, builders, plumbers, etc.
 - 4. Investigating noisy meter complaint.
 - 5. Moving meter from inside to outside.
- 18. UTILITY SERVICES PERFORMED AFTER NORMAL BUSINESS HOURS -For service requested by customers to be performed after the Company's normal business hours of 8:00 am to 5:00 pm Monday through Friday local time, a charge will be made for labor at the overtime service rate set forth in Rate 100, §VI.1.f. and material at retail prices.

Customers requesting service after the Company's normal business hours will be informed of the after-hour service rate and encouraged to have the service performed during normal business hours.

To ensure the Company can service the customer during normal business hours, the customer's call must be received by 12:00 p.m. on a regular work day for a disconnection or reconnection of service that same day. For calls received after 12:00 p.m. on a regular work day, customers will be advised that overtime service rates will apply if service is required that day and the work cannot be completed during normal working hours. Service may be scheduled for a future workday to avoid overtime charges.

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19. NOTICE TO DISCONTINUE GAS SERVICE - Customers desiring to have their gas service discontinued shall notify the Company during regular business hours, one business day before service is to be disconnected. Such notice shall be by letter, or telephone call to the Company's Customer Service.

Saturdays, Sundays and legal holidays are not considered business days.

- 20. INSTALLING TEMPORARY METERING FACILITIES OR SERVICE A customer requesting a temporary meter installation and service will be charged for such installation in accordance with Rate 100, §VI.1.i.
- 21. RECONNECTION FEE FOR SEASONAL OR TEMPORARY CUSTOMER A customer who requests reconnection of service, at a location where same customer discontinued the same service during the preceding 12-month period will be charged as follows:

Residential – The Basic Service Charge applicable during the period service was not being used and a charge of \$30.00. The minimum will be based on standard overtime rates for reconnecting service after normal business hours.

Non-Residential – The Basic Service Charge applicable during the period while service was not being used. However, the reconnection charge applicable to seasonal business concerns such as irrigation, swimming facilities, grain drying, and asphalt processing shall be the Basic Service Charge applicable during the period while service was not being used less the Distribution Delivery Charge revenue collected during the period in-service for usage above the annual authorized usage by rate class (Small Firm General = 144 dk; Large Firm General = 1,122 dk; and Small Interruptible = 6,573 dk). A reconnection fee of \$30.00 will also apply to reconnections. The minimum will be based on standard over time rates for reconnecting service occurring after normal business hours.

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Transportation customers who cease service and then resume service within the succeeding 12 months shall be subject to a reconnection charge as set forth in Rate 100, §VI.1.e. whenever reinstallation of the required remote data acquisition equipment is necessary.

22. DISCONTINUANCE OF SERVICE FOR NONPAYMENT OF BILLS - All amounts billed for services are due when rendered and become delinquent if not paid by the due date shown on the bill. If any customer shall become delinquent in the payment of amounts billed, such service may be discontinued by the Company under the applicable rules of the Commission.

The Company may collect a fee, as set forth in Rate 100, § VI.1.c., before restoring gas service which has been disconnected for non-payment of service bills. Customers that qualified for the Low Income Energy Assistance Program during the current LIEAP program year will be subject to a reconnection charge of \$12.00.

For calls received after 12:00 p.m. on a regular work day, customers will be advised that over time service rates will apply if service is required that day and the work cannot be completed during normal working hours. Service may be scheduled for a future workday to avoid overtime charges.

- DISCONTINUANCE OF SERVICE FOR CAUSES OTHER THAN NONPAYMENT OF BILLS - The Company reserves the right to discontinue service for any of the following reasons:
 - a. In the event of customer use of equipment in such a manner as to adversely affect the Company's equipment or service to others.
 - b. In the event of tampering with the equipment furnished and owned by the Company.
 - c. For violation of, or noncompliance with, the Company's rules on file with the Commission.

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- d. For failure of customer to fulfill the contractual obligations imposed as conditions of obtaining service.
- e. For refusal of reasonable access to property to the agent or employee of the Company for the purpose of inspecting the facilities or for testing, reading, maintaining or removing meters.

The right to discontinue service for any of the above reasons may be exercised whenever and as often as such reasons may occur, and any delay on the part of the Company in exercising such rights, or omission of any action permissible hereunder, shall not be deemed a waiver of its rights to exercise same.

Nothing in these regulations shall be construed to prevent discontinuing service without advance notice for reasons of safety, health, cooperation with civil authorities, or fraudulent use, tampering with or destroying the Company's facilities.

The Company may collect a reconnect fee, as set forth in Rate 100, § VI.1.c. before restoring gas service which has been disconnected for the above causes.

- 24. UNAUTHORIZED USE OF SERVICE Unauthorized use of service is defined as any deliberate interference such as tampering with the Company's meter, pressure regulator, registration, connections, equipment, seals, procedures or records that result in a loss of revenue to the Company. Unauthorized service is also defined as reconnection of service that has been terminated, without the Company's consent.
 - 1. Examples of unauthorized use of service includes, but is not limited to the tampering or unauthorized reconnection by the following methods:
 - a. Bypass piping around meter.
 - b. Bypass piping installed in place of meter.
 - c. Meter reversed.

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- d. Meter index disengaged or removed.
- e. Service or equipment tampered with or piping connected ahead of meter.
- f. Tampering with meter or pressure regulator that affects the accurate registration of gas usage.
- g. Gas being used after service has been discontinued by the Company.
- h. Gas being used after service has been discontinued by the Company as a result of a new customer turning gas on without the proper connect request.
- 2. In the event that there has been unauthorized use of service, customer shall be charged for:
 - a. Time, material and transportation costs used in investigation or surveillance.
 - b. Estimated charge for non-metered gas.
 - c. On-premise time to correct situation.
 - d. Any damage to Company property.
 - e. All such charges shall be at current standard or customary amounts being charged for similar services, equipment, facilities and labor by the Company. A minimum fee of \$30.00 will apply.
- 3. Reconnection of Service:

Gas service disconnected for any of the above reasons shall be reconnected after a customer has furnished satisfactory evidence of compliance with the Company's rules and conditions of service and paid any service charges which are due, including:

- a. All delinquent bills, if any;
- b. The amount of any Company revenue loss attributable to said tampering;
- c. Expenses incurred by the Company in replacing or repairing the meter or other appliance, costs incurred in preparation of the bill, plus costs as outlined in Paragraph 2 above;
- d. Reconnection fee applicable; and

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- e. A cash deposit, the amount of which will not exceed the maximum amount determined in accordance with Commission Rules ARM 38.5.1105.
- 25. GAS METER TEST BY CUSTOMER REQUEST Any customer may request the Company to test its gas meter. The Company shall make the test as soon as possible after receipt of the request. If a request is made within one year after a previous request, the Company may require a deposit as follows:

Meter Rating		Deposit Amount
All	Residential	\$10.00
	Non-Residential	
<u>Non-Residential</u> 425 CFH* or less 426 CFH to 1000 CFH Over 1000 CFH		\$40.00 \$40.00 \$70.00

* Cubic feet per hour

The deposit shall be refunded only if the meter is found to have an unacceptable error of greater than or less than two percent, as defined in the Commission's regulations. In the case where a meter is replaced due to malfunction, a customer will be allowed one additional free meter test within 12 months, if requested by the customer.

26. BILL DISCOUNT FOR QUALIFYING EMPLOYEES – A bill discount may be available for residential use only in a single family unit served by Montana-Dakota Utilities Co. to qualifying retirees of MDU Resources and its subsidiaries. The bill shall be computed at the applicable rate, and the amount reduced by 33 1/3 percent.

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	27.	Rate Rate Rate	101 119 120	OR SPECIAL PROVISIONS: - Gas Meter Testing Program - Interruptible Gas Service Extension Policy - Firm Gas Service Extension Policy - Replacement, Relocation and Repair of Gas	s Service Lines
VI.	MISC	CELL	ANE	OUS CHARGES	Amount or <u>Reference</u>
		1.	Ser a.	vice Charges Consumer deposits	Rate 100, §V.6
			b.	Returned check	\$30.00
			C.	Minimum reconnect charge after termination for nonpayment or other causes - During normal business hours - After normal business hours	\$30.00 (\$12.00 for LIEAP) standard overtime rates
			d.	Minimum reconnect charge applicable to seasonal or temporary customers - During normal business hours - After normal business hours (See Rate 100 §V.22.)	\$30.00 minimum standard overtime rates
			e.	Reconnection charge applicable to transport customers when electronic metering must be reinstalled	\$160.00
			f.	Service request after normal business hours	Materials & labor at standard overtime rate
			g.	Interruptible service main extension	Rate 119
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	h.	Firm service main extension	Rate	120	
	i.	Installation of temporary metering or service facilities	Materials	Materials & labor	
	j.	Replacement, relocation and repair of gas service lines	Rate	9 124	
	k.	Manual Meter Read Charge	\$18.35 p	er month	
2.	Lat	e Payment Charges (on unpaid balance)	Per <u>Month</u> 1%	Approx. Annual <u>Percent</u> 12%	
3.	Interest on Consumer Deposits 0.5% 6%				

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The policy of the Company for testing meters pursuant to ARM 38.5.2513 is as follows:

1. This policy shall not apply to meters larger than 650 cubic feet per hour or greater capacity. Such meters shall be tested and adjusted or repaired, if necessary, at a periodic interval of at least once in ten years.

All active meters, 650 cfh and smaller, will be combined into a single random test program. The population of meters shall come from the states of North Dakota, South Dakota, and Wyoming.

- 2. New meters received from a manufacturer shall be subjected to testing on a random sample basis of five percent of the total received, but never less than five meters, and must be found satisfactory before the shipment is released for use. If unsatisfactory, all meters in the shipment shall be tested, and repaired if necessary, or the shipment shall be returned to the manufacturer.
- 3. Meters removed from service because of damage, meters that do not pass gas or that pass gas but do not register, and meters that are otherwise suspect as to accuracy, shall be tested and adjusted before reinstallation.
- 4. At the time the random selection is made, meters more than ten years old and active meters that have not been tested in the last ten years will be placed into an installation class defined model installation date lot (lot) to be part of a random population for testing.
 - a. All active meters will be assigned to lots on the basis of installation date. Meters shall be divided into lots based on manufacturer, type, and last install date in five year groups. The minimum number of samples taken from each lot will be as specified by Military Standard No. 414 for inspection by variables, inspection level IV with specification limits of +2.0 percent.

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- b. Meters tested within the random test program will include meters selected via a computer-generated random selection process and meters pulled from a customer's premise in correlation with service technicians being on-site for other service related work.
- 5. Lot Acceptability will be determined by the standard deviation method based on single sample, double specification limit, variability unknown, for an acceptable quality level of 15 percent as follows:
 - a. A meter lot for which the sample is satisfactory will remain in service.
 - b. A meter lot for which the sample fails may remain in service if it passed the previous year and if no more than 10 percent of the sample registers over 102 percent.
 - c. A meter lot for which the sample fails will be removed if the lot failed the previous year or if more than 10 percent of the sample registers over 102 percent.
 - i. If evaluation determines the group is homogeneous, the entire group will be removed.
 - ii. If group is not homogeneous and a subset of the group is found defective, that subset will be removed. Removal of a failed lot of meters will be removed from service for testing and repair within one year.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 68

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

Page 1 of 2

The policy of Montana-Dakota Utilities Co. for gas extensions necessary to provide interruptible sales or interruptible transportation service to customers is as follows:

- 1. Contribution
 - a. Prior to construction, the customer shall contribute an amount equal to the total cost of construction including all gas main extensions, valves, service line(s), regulators, meters (excluding remote data equipment), any required payments made by the Company to the transmission pipeline to accommodate the extensions, and other costs as adjusted for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the provisions of the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).
 - b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. The customer may post a bond or irrevocable letter of credit in the amount of the total contribution required prior to construction. Such bond, issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for a five-year period commencing at the plant in-service date, and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists for the subject project, the surety or guarantor shall pay the Company for such contribution requirement, or
 - iii. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions: 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.

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 Director - Regulatory Affairs



Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 68.1

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

Page 2 of 2

- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- d. Remote data acquisition equipment costs shall be subject to the terms and conditions specified in Transportation Service Rates 81 and 82.

2. Refund

- a. If within the five-year period from the extension(s) in-service date, the total of the customer's contribution and actual margin paid to the Company equals or exceeds the total present value of the revenue requirement associated with the extension, Company shall refund the amount exceeding the revenue requirement on the following basis:
 - i. Annually, beginning at the second anniversary of the extension(s) inservice date, the Company will refund to the customer, the amount exceeding the total present value of the revenue requirement at a rate of 50% of the current year margin associated with the customer's actual throughput.
 - ii. Customers who have posted a bond, letter of credit or a written guarantee commitment will be notified of any reduction in surety or guarantee requirements based on the above calculation.
 - iii. No refunds will be made for amounts less than \$25.
- b. Interest will be calculated annually by the Company on any refund amounts and shall be equal to the average commercial paper interest rate (A1/P1), not to exceed 12 percent per annum.
- c. No refund shall be made by the Company after the five-year refund period has expired, and in no case shall the refund, excluding interest, exceed the amount of contribution made by the customer.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 69

FIRM GAS SERVICE EXTENSION POLICY Rate 120

Page 1 of 8

The policy of Montana-Dakota Utilities Co. for gas main extensions necessary to provide firm sales or firm transportation service to customers is as follows:

- A. General Rules and Regulations Applicable to all Firm Service Extensions
 - 1. An extension will be constructed without a contribution if the estimated capital expenditure is cost justified as defined in paragraph A.3.
 - 2. The Company may require customer or developer cost participation if the estimated capital expenditure is not cost justified.
 - 3. The extension will be considered cost justified if the calculated maximum allowable investment equals or exceeds the estimated capital expenditure using the following formula:

Maximum Allowable Investment =

Annual Basic Service Charge + (Project Estimated 3rd Year Annual Dk x Distribution Delivery Charge) + Demand Charge + Gas Tax Tracking Adjustment / Levelized Annual Revenue Requirement Factor

- 4. Cost of the extension shall include the gas main extension(s), valves, service line(s), any required payments made by the Company to the transmission pipeline company to accommodate the extension(s), and other costs up to, and including the riser.
- 5. Where cost participation is required, such extension is subject to execution of the Company's standard agreement for extensions by the customer or the developer and Company.

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Natural Gas Service

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FIRM GAS SERVICE EXTENSION POLICY Rate 120

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6. A refund will be made only when there is a reduction in the amount of contribution required within a five-year period from the extension(s) in-service date. Interest will be calculated annually by the Company on any refund amounts and shall be equal to the average commercial paper interest rate (A1/P1), not to exceed 12 percent per annum.

No refund shall be made by Company after the five-year refund period, and in no case shall the refund, excluding interest, exceed the amount of the contribution.

- 7. The Company reserves the right to charge customer the cost associated with providing service to customer if service is not initiated within 12 months of such installation.
- B. Customer Extensions

Cost participation for extensions where customers will be immediately available for service is as follows:

- 1. Contribution
 - a. When a contribution is required, the customer(s) shall pay the Company the portion of the capital expenditure not cost justified as determined in accordance with paragraph A.3., plus an amount for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the provisions of the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).

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400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 69.2

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. Payment of 25% of the contribution prior to construction and the balance in no more than twenty-four equal monthly installments. If customer discontinues service within the twenty-four month period, the balance will be due and payable upon discontinuance of service, or
 - iii. Customer may post a bond or irrevocable letter of credit in the amount of the required contribution prior to construction. Such bond, issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for the original five-year term and is subject to approval and acceptance by the Company. If at the end of the original fiveyear term, a contribution requirement exists in the subject project based on a recalculated maximum expenditure, the surety or guarantor shall reimburse the Company for such recalculated contribution requirement, or
 - iv. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions: 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.

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Natural Gas Service

Volume No. 7 Original Sheet No. 69.3

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- d. If within the five-year period from the extension(s) in-service date, the number of active customers and related volumes exceeds the third-year projections, the Company shall recompute the contribution requirement by recalculating the maximum allowable investment.
- e. The recalculated contribution requirement shall be collected from the new applicant(s).
- 2. Refund
 - a. The Company will refund to the original contributor(s) the amount required to reduce their contribution to the recalculated contribution requirement. No refunds will be made for amounts less than \$25. Customers who have posted a bond, letter of credit, or written guarantee commitment will be notified of any reduction in surety or guarantee requirements.
 - b. No refunds will be made until the new applicants begin taking service from the Company.
 - c. If the addition of new customers will increase the contribution required from existing customer(s), the extension will be considered a new extension and treated separately.

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400 N 4th Street Bismarck, ND 58501

Natural Gas Service

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FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- 3. Incremental Expansion Surcharge
 - a. The Company, in its sole discretion, may offer an Incremental Expansion Surcharge (Surcharge) to groups of customers requesting service totaling 10 or more when the total estimated cost would otherwise have been prohibitive under the Company's present rates and gas service extension policy. The contribution requirement to be collected under the Surcharge shall be the amount of the capital expenditure in excess of the Maximum Allowable Investment determined in accordance with paragraph A. 3.
 - i. A minimum up-front payment of \$100.00 will be collected from each customer who signs an agreement to participate in the expansion.
 - ii. For projects that are expected to be recovered within a 5year period, the Surcharge shall be set at a fixed monthly charge of \$5.00 per month plus \$1.50 per dk.
 - iii. For projects that are not expected to be recovered within a 5-year period, the Surcharge shall be set at a fixed monthly charge of \$5.00 per month plus a commodity charge designed to provide recovery of the contribution requirement in a 5-year period.
 - b. The Surcharge shall remain in effect until the net present value of the contribution requirement, calculated using a discount rate equal to the overall rate of return authorized in the last rate case, is collected.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

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FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- c. The Surcharge shall apply to all customers connecting to natural gas service within the expansion area until the contribution requirement is satisfied.
- d. The net present value of the Surcharge will be treated as a contribution-in-aid of construction for accounting purposes.

C. <u>Developer Extensions</u>

Cost participation may be required for extension(s) such as a subdivision or mobile home court, in which a developer is installing roads, utilities, etc., before housing is built.

- 1. Contribution
 - a. When a contribution is required, the developer shall pay the Company the portion of the capital expenditure not cost justified as determined in accordance with paragraph A.3., plus an amount for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).
 - b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. Developer may post a bond, irrevocable letter of credit, or a written guarantee commitment in the amount of the required contribution prior to construction. Such bond,

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FIRM GAS SERVICE EXTENSION POLICY Rate 120

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issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for the original five-year term and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists in the subject project based on a recalculated maximum expenditure, the surety shall reimburse the Company for such recalculated contribution requirement, or

- iii. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions:
 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.
- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- 2. Refund
 - a. If within the five-year period from the extension(s) in-service date, the number of active customers and related volumes exceeds the third-year projections, the Company shall recompute the contribution requirement by recalculating the maximum allowable investment. Such recalculation shall be done annually based upon the anniversary of the extension(s) in-service date.

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Natural Gas Service

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FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- b. The Company will refund to the developer the amount required to reduce their contribution to the recalculated contribution requirement. No refunds will be made for amounts less than \$25. Developers who have posted a bond, letter of credit, or written guarantee commitment will be notified of any reduction in surety or guarantee requirements.
- c. If the addition of new customer(s) will increase the contribution required from the developer, the extension will be considered a new extension and treated separately.

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400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 7 Original Sheet No. 74

REPLACEMENT, RELOCATION AND REPAIR OF GAS SERVICE LINES Rate 124

Page 1 of 1

- 1. Where service line location changes are made due to building encroachments (a building is being constructed or is already located over a service line, etc.), customer shall be charged on the basis of direct costs incurred by the Company.
- 2. Whenever a service line is damaged by the customer or someone under the employ of the customer necessitating the service line to be either repaired or replaced in whole or in substantial part, such work shall be charged for on a direct cost basis. If the damage was caused by independent contractors, not in the employ of customer, the charges shall be billed directly to such contractor.
- 3. Service line changes necessary to increase the size and capacity of an existing service line because of increased demand shall be treated in accordance with the Firm Gas Service Extension Policy Rate 120.

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Tariffs Reflecting Proposed Changes



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 6th-Revised-Original Sheet No. 1 Canceling 5th-Revised Sheet No. 1

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Natural Gas Service

Volume No. 6<u>7</u> 1st-Revised-Original Sheet No. 2 Canceling Original Sheet No. 2

COMMUNITIES SERVED

NATURAL GAS SERVICE

Rocky Mountain Region

Belfry Billings* Bridger Crow Agency Edgar

Baker Fairview Forsyth Fort Peck Frazer Glasgow Glendive Hinsdale Fromberg Hardin Joliet Laurel Park City

Badlands Region

Ismay Malta Miles City Nashua Poplar Richey Rosebud Saco Pryor Rockvale Silesia

Savage Sidney St. Marie Terry Whitewater Wibaux Wolf Point

*Designates Region Office

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 April 22, 2003 June 22, 2020
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 Donald R. BallTravis R. Jacobson Assistance Vice PresidentDirector -Regulatory Affairs

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Montana-Dakota Utilities Co.

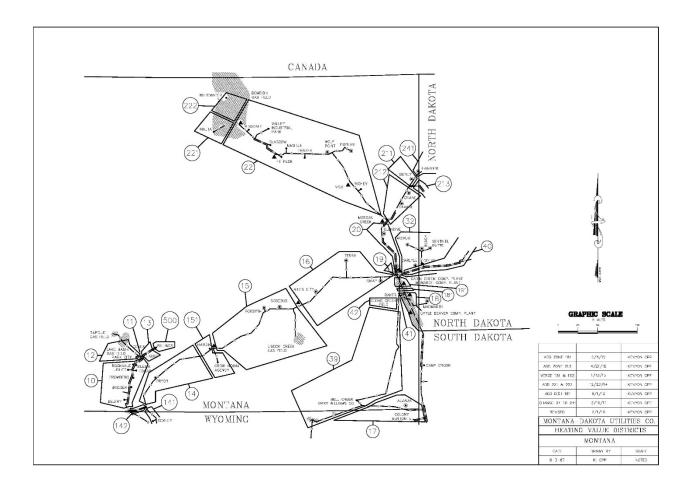
A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

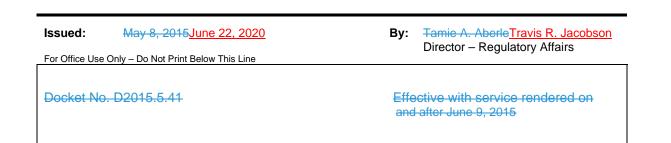
Natural Gas Service

Volume No. 6<u>7</u> 10th Revised Original Sheet No. 4 Canceling 9th Revised Sheet No. 4

THERMAL ZONE BOUNDARIES

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Montana-Dakota Utilities Co.

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Natural Gas Service

Volume No. 67 15th-Revised-Original Sheet No. 11 Canceling 14th-Revised Sheet No. 11

RESIDENTIAL GAS SERVICE Rate 60

Page 1 of 2

Availability:

In all communities served for all domestic uses. See Rate 100, §V.3, for definition of class of service.

Rate:

Basic Service Charge:

Distribution Delivery Charge:

Cost of Gas:

\$1.034-<u>1.457</u> per dk Determined Monthly- See Rate

\$0.26-0.38 per day

Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

Low-Income Discount:

Customers qualifying for and receiving energy assistance through the Low Income Energy Assistance Program (LIEAP) administered by the State of Montana

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 5th-Revised Original Sheet No. 11.1 Canceling 4rd Revised Sheet No. 11.1

RESIDENTIAL GAS SERVICE Rate 60

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Department of Public Health and Human Services (DPHHS) shall obtain a discount from the amount billed under this rate schedule. The applicable discount, as set forth below, will be administered based upon the percentage of poverty guidelines established by DPHHS and information supplied to the Company by DPHHS at the time the customer gualifies for LIEAP assistance.

% Of Federal Poverty	Discount Rate
0-60%	30%
61%-90%	25%
91%-maximum allowed	20%

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 15th-Revised-Original Sheet No. 21 Canceling 14th-Revised Sheet No. 21

FIRM GENERAL GAS SERVICE Rate 70

Availability:

Page 1 of 3

In all communities served for all firm purposes except for resale. See Rate 100, §V.3, for definition of class of service.

Rate:

Basic Service Charge: For customers with meters rated under 500 cubic feet per hour For customers with meters rated under 500 cubic feet per hourBasic Service Charge:

Distribution Delivery Charge

For customers with meters rated
 over 500 cubic feet per hour
 <u>Basic Service Charge:</u>
 Distribution Delivery Charge:

\$<u>0.90</u><u>1.75</u> per day \$1.237 per dk

\$0.450.60 per day

\$1.3901.195 per dk

Determined Monthly- See Rate Summary Sheet for Current Rate

Cost of Gas:

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

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Natural Gas Service

Volume No. 6<u>7</u> 15th-Revised-Original Sheet No. 21 Canceling 14th-Revised Sheet No. 21

FIRM GENERAL GAS SERVICE Rate 70

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Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 4th-Revised-Original Sheet No. 21.1 Canceling 3rd Revised Sheet No. 21.1

FIRM GENERAL GAS SERVICE Rate 70

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- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Natural Gas Service

Volume No. 6<u>7</u> 8th-Revised <u>Original</u> Sheet No. 22 Canceling 7th Revised Sheet No. 22

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 1 of 6

Availability and Applicability of Service:

In all communities served for all interruptible general gas service customers whose interruptible natural gas fueled load will exceed an input rate of 2,500,000 Btu per hour, metered at a single delivery point and whose use of natural gas will not exceed 100,000 dk annually. The rates herein are applicable only to customer's interruptible load. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70. For interruption purposes, the maximum daily firm requirement shall be set forth in the firm service agreement.

Rate:

Basic Service Charge:

Distribution Delivery Charge:

Cost of Gas:

\$225.00312.00 per month

<u>Maximum</u> \$<u>0.6730.665</u> per dk

<u>Minimum</u> \$0.101 per dk

Determined Monthly- See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 16th-Revised-Original Sheet No. 22.1 Canceling 15th-Revised Sheet No. 22.1

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 2 of 6

provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

- PRIORITY OF SERVICE Deliveries of gas under this schedule shall be subject at all times to the prior demands of customers served on the Company's firm gas service rates. Customers taking service hereunder agree that the Company, without prior notice, shall have the right to curtail or interrupt such service whenever, in the Company's sole judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with Rate 100, §V.10.
- 2. STANDBY REQUIREMENTS:
 - a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 3rd-Revised Original Sheet No. 22.2 Canceling 2rd-Revised Sheet No. 22.2

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

Page 3 of 6

remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.

- b. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of automatic shut-off equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Company-approved equipment and fuel for standby service is not installed and maintained.
- 3. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken shall be billed at the <u>charges applicable under</u> Firm General Gas Service Rate 70 (distribution delivery charge and cost of <u>gasexcluding the Basic Service Charge</u>), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.
- 4. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder. If mutually agreed to by the Company and customer, the term of service reflected in such agreement may be amended. Upon expiration of service, customer may apply for and receive, at the sole

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 3rd Revised Original Sheet No. 22.2 Canceling 2rd Revised Sheet No. 22.2

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

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discretion of the Company, gas service under another appropriate rate schedule for customer's operations.

Issued: September 25, 2017 June 22, 2020

2020 For Office Use Only – Do Not Print Below This Line By: Tamie A. Aberle<u>Travis R. Jacobson</u> Director - Regulatory Affairs

Docket No. D2017.9.79



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 3rd-Revised Original Sheet No. 22.4 Canceling 2rd-Revised Sheet No. 22.4

SMALL INTERRUPTIBLE GENERAL GAS SERVICE Rate 71

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- 5. OBLIGATION TO NOTIFY THE COMPANY OF CHANGE IN DAILY OPERATIONS - Customer will be required as specified in the service agreement to notify the Company of an anticipated change in daily operations. Failure to comply with requirements specified in the service agreement may result in the assessment of penalties to customer equal to the penalty amounts the Company must pay to the interconnecting pipeline caused by customer's action.
- 6. METERING REQUIREMENTS:
 - a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.
 - b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
 - c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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7. RULES - The foregoing schedule is subject to Rates 100-124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 16th-Revised-Original Sheet No. 23 Canceling 15th-Revised Sheet No. 23

OPTIONAL SEASONAL GENERAL GAS SERVICE Rate 72

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Availability:

In all communities served for all firm purposes except for resale. See Rate 100, §V.3, for definition of class of service.

Rate:

<u>For customers with meters rated</u> <u>under 500 cubic feet per hourBasic Service Charge:</u> <u>Basic Service Charge:</u> <u>Distribution Delivery Charge:</u> For customers with meters rated <u>under 500 cubic feet per hour</u>	\$ <u>0.45<mark>0.60</mark></u> per day \$ 1.390<u>1.195</u> per dk
 For customers with meters rated 	
over 500 cubic feet per hour <u>Basic Service Charge:</u> Distribution Delivery Charge:	\$ <u>0.90-1.75</u> per day <u>\$1.237 per dk</u>
Cost of Gas: Winter- Service rendered October 1 through May 31	Determined Monthly- See Rate Summary Sheet for Current Rate
Summer- Service rendered June 1 through September 30	Determined Monthly- See Rate Summary Sheet for Current Rate

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the

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			Director - F
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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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Volume No. 67 4th-Revised-Original Sheet No. 23.1 Canceling 3rd Revised Sheet No. 23.1

OPTIONAL SEASONAL GENERAL GAS SERVICE Rate 72

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provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

- 1. Customer agrees to contract for service under the Optional Seasonal General Gas Service Rate 72 for a minimum of one year.
- 2. The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume 7 Original Sheet No. 27

FIRM GENERAL CONTRACTED DEMAND SERVICE Rate 74

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Availability:

In all communities served applicable to non-residential customers with standby natural gas generators and, available on an optional basis to, customers gualifying for service under the interruptible service tariffs that have requested, and received approval from the Company, for gas service under this rate.

Rate:

Basic Service Charge:

<u>Dadie Connec Charger</u>	
For customers with meters rated	<u>d under</u>
500 cubic feet per hour	<u>\$0.60 per day</u>
For customers with meters rated 500 cubic feet per hour	<u>d over</u> <u>\$1.75 per day</u>
Distribution Demand Charge:	\$4.89 per Dk per month of billing dema

Capacity Charge per Monthly Demand Dk:

Cost of Gas -Commodity per Dk: <u>\$4.89 per Dk per month of billing demand</u>

Determined Monthly – See Rate Summary Sheet for Current Rate

<u>Determined Monthly – See Rate Summary</u> Sheet for Current Rate

Minimum Bill:

Basic Service Charge, Distribution Demand Charge, and Capacity Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

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Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume 7 Original Sheet No. 27.1

FIRM GENERAL CONTRACTED DEMAND SERVICE Rate 74

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Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

1. Gas Tax Tracking Adjustment Rate 87

2. Gas Cost Tracking Adjustment Procedure Rate 88

3. Universal System Benefits Charge Rate 89

Determination of Monthly Billing Demand:

Customer's billing demand will be determined in consultation with the Company. Customer's actual demand will be reviewed annually and, if warranted, a new monthly billing demand established.

Metering Requirements:

- 1. <u>Service provided for under tariff must be separately metered from customer's other</u> <u>gas services.</u>
- 2. <u>Remote data acquisition equipment (telemetering equipment) may be required by the</u> <u>Company for a single customer installation for daily measurement.</u>
- 3. <u>Customer may be required, upon consultation with the Company, to contribute towards any additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the Customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.</u>
- 4. <u>Consultation between the customer and the Company regarding telemetering</u> requirements shall occur prior to meter installation.

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400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume 7 Original Sheet No. 27.2

FIRM GENERAL CONTRACTED DEMAND SERVICE Rate 74

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General Terms and Conditions:

- Customers with standby gas generators required to take service under this schedule are not required to execute a contract. Other customers choosing to take service under this schedule will be required to execute a contract applicable for a minimum period of one year.
- 2. <u>The foregoing schedule is subject to Rates 100 through 124 and any amendments or alterations therefore or additional rules and regulations promulgated by the Company under the laws of the state.</u>

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-Original Sheet No. 32 Canceling 1st Revised Sheet No. 32

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Availability:

This service is applicable for transportation of natural gas to customer's premise (metered at a single delivery point) through the Company's distribution facilities. In order to obtain transportation service, customer must qualify under an applicable gas transportation service rate; meet the general terms and conditions of service provided hereunder; and enter into a gas transportation agreement upon request of the Company.

The transportation services are as follows:

Small Interruptible General Gas Transportation Service Rate 81: Transportation service is available for all general gas service customers whose interruptible natural gas load will exceed an input rate of 2,500,000 Btu per hour, metered at a single delivery point, whose average use of natural gas will not exceed 100,000 dk annually, and who, absent the request for transportation service, are eligible for natural gas service, on an interruptible basis, pursuant to the Company's effective Small Interruptible General Gas Service Rate 71. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70.

Large Interruptible General Gas Transportation Service Rate 82:

Transportation service is available for all general gas service customers whose interruptible natural gas requirements will exceed 100,000 dk annually metered at a single delivery point, and who, absent the request for transportation service, are eligible for natural gas service pursuant to the Company's effective Large Interruptible General Gas Service Rate 85. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No.-6<u>7</u> 7th-Revised-Original Sheet No. 32.1 Canceling 6th Revised Sheet No. 32.1

TRANSPORTATION SERVICE Rates 81 and 82

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Rate:

Basic Service Charge

Rate 81 \$225.00-<u>312.00</u> per month Rate 82 \$567.25 per month

Transportation Charges: Maximum Rate per dk Minimum Rate per dk

<u>Rate 81</u> \$0.673<u>0.665</u> \$0.101

<u>Rate 82</u> \$0.460<u>0.500</u> \$0.050

Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Universal System Benefits Charge Rate 89

General Terms and Conditions:

- CRITERIA FOR SERVICE In order to receive the service, customer must qualify under one of the Company's applicable natural gas transportation service rates and comply with the general terms and conditions of the service provided herein. Customer is responsible for making all arrangements for transporting the gas from its source to the Company's interconnection with the delivering pipeline(s).
- 2. REQUEST FOR GAS TRANSPORTATION SERVICE- To qualify for gas transportation service, customer must request the service pursuant to the provisions set forth herein. The service shall be provided only to the extent that the Company's existing operating capacity permits.

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Natural Gas Service

Volume No. 6<u>7</u> 4th-Revised-Original Sheet No. 32.2 Canceling 3rd Revised Sheet No. 32.2

TRANSPORTATION SERVICE Rates 81 and 82

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- 3. MULTIPLE SERVICES THROUGH ONE METER:
 - a. In the event customer desires firm sales service in addition to gas transportation service, customer shall request such firm volume requirements, and upon approval by the Company, such firm volume requirements shall be set forth in a firm service agreement. For billing purposes, the level of volumes so specified or the actual volume used, whichever is lower, shall be billed at Rate 70. Volumes delivered in excess of such firm volumes shall be billed at the applicable gas transportation rate. Customer has the option to install, at their expense, piping necessary for separate measurement of sales and transportation volumes.
 - b. Customer shall pay, in addition to charges specified in the applicable gas transportation rate schedule, charges under all other applicable rate schedules for any service in addition to that provided herein (irrespective of whether customer receives only gas transportation service in any billing period).
- 4. PRIORITY OF SERVICE The Company shall have the right to curtail or interrupt deliveries without being required to give previous notice of intention to curtail or interrupt, whenever, in its judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with the provisions of Rate 100, §V.10.

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5. STANDBY REQUIREMENTS:

- a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.
- b. Customer shall provide and maintain, at no cost to the Company, a 120 volt, 15 ampere, AC power supply or other power source acceptable to the Company and telephone service at customer's meter location(s). Customer agrees to provide and maintain, at no cost to the Company, any necessary telephone enhancements to assure the Company of a quality telephone signal necessary to properly operate equipment. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of the automatic shutoff equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Company-approved equipment and fuel for standby service is not installed and maintained.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

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- 6. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken above that received on customer's behalf, shall be billed at the charges applicable under Firm General Gas Service Rate 70 (distribution delivery charge and cost of gasexcluding the Basic Service Charge), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply of gas in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.
- 7. CUSTOMER USE OF NON-DELIVERED VOLUMES In the event customer's gas is not being delivered to the receipt point for any reason and customer continues to take gas, customer shall be subject to any applicable penalties or charges set forth in Paragraph 11.b. Gas volumes supplied by Company will be charged at charges applicable under Firm General Gas Service Rate 70 (distributed delivery charge and cost of gasexcluding the Basic Service Charge). The Company is under no obligation to notify customer of non-delivered volumes.
- 8. REPLACEMENT OF SUPPLEMENTAL SALES SERVICE In the event customer's transportation volumes are not available for any reason, customer may take interruptible sales service if such service is available. The availability of interruptible sales service shall be determined at the sole discretion of the Company.

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- 9. ELECTION OF SERVICE Prior to the initiation of service hereunder, customer shall make an election of its requirements under each applicable rate schedule for the entire term of service. If mutually agreed to by the Company and customer, the term of service may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under the appropriate sales rate schedule for customer's operations.
- RECONNECTION FEE Transportation customers who cease service and then resume service within the succeeding 12 months, shall be subject to a reconnection charge as specified in Rate 100, §V.1921.
- 11. DAILY IMBALANCE
 - a. To the extent practicable, customer and the Company agree to the daily balancing of volumes of gas received and delivered on a thermal basis. Such balancing is subject to customer's request and the Company's discretion to vary scheduled receipts and deliveries within existing Company operating limitations.
 - In the event that the deviation between scheduled daily volumes and actual daily volumes of gas used by customer causes the Company to incur any additional costs from interconnecting pipeline(s), customer shall be solely responsible for all such penalties, fines, fees or costs incurred. If more than one customer has cause the Company to incur these additional costs, all costs (excluding those associated with Company's firm deliveries) will be prorated to each customer based on the customer's over- or under-take as a percentage of the total.

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- c. The Company may waive any penalty associated with Company adjustments to end-use customer nominations in those instances where the Company, due to operating limitations, is required to adjust end-use transportation customer nominations and such Company adjustments create a penalty situation or preclude customer from correcting an imbalance which results in a penalty.
- 12. MONTHLY IMBALANCE The customer's monthly imbalance is the difference between the amount of gas received by Company on customer's behalf and the customer's actual metered use. Monthly imbalances will not be carried forward to the next calendar month.
 - a. Undertake Purchase Payment If the monthly imbalance is due to more gas delivered on customer's behalf than the actual volumes used, Company shall pay customer an Undertake Purchase Payment in accordance with the following schedule:

% Monthly	
Imbalance	Undertake Purchase Rate
0 – 5%	100% Cash-out Mechanism
> 5 – 10%	85% Cash-out Mechanism
> 10 – 15%	70% Cash-out Mechanism
> 15 – 20%	60% Cash-out Mechanism
> 20%	50% Cash-out Mechanism

Where the Cash-out Mechanism is equal to the lesser of the Company's WACOG or the Index Price, as defined in Paragraph 12(c).

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b. Overtake Charge – If the monthly imbalance is due to more gas actually used by the customer than volumes delivered on their behalf, customer shall pay Company an Overtake Charge in accordance with the following schedule:

% Monthly		
Imbalance	Overtake Charge Rate	
0 – 5%	100% Cash-in Mechanism	
> 5 – 10%	115% Cash-in Mechanism	
> 10 – 15%	130% Cash-in Mechanism	
> 15 – 20%	140% Cash-in Mechanism	
> 20%	150% Cash-in Mechanism	

Where the Cash-in Mechanism is equal to the greater of the Company's WACOG or the Index Price, as defined in Paragraph 12(c).

c. The Index Price shall be the arithmetic average of the "Weekly Weighted Averages Prices" published by Gas Daily for CIG Rockies and Northern Ventura during the given month. The Company's WACOG (Weighted Average Cost of Gas) includes the commodity cost of gas and applicable transportation charges including the fuel cost of transportation.

13. METERING REQUIREMENTS:

a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.

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- b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement

14. DAILY NOMINATION REQUIREMENTS:

- a. Customer or customer's shipper and/or agent shall advise the Company's Gas Supply Department, via the Company's Electronic Bulletin Board in accordance with FERC timelines, of the dk requirements customer has requested to be delivered at each delivery point during the following day. Customer's daily nomination shall be its best estimate of the expected utilization for the gas day. Unless other arrangements are made, customer will be required to nominate for the non-business days involved prior to weekends and holidays.
- All nominations should include shipper and/or agent defined begin and end dates. Shippers and/or agents may nominate for periods longer than 1 day, provided the nomination begin and end dates are within the term of the service agreement.

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- c. The Company has the sole right to refuse receipt of any volumes which exceed the maximum daily contract quantity and at no time shall the Company be required to accept quantities of gas for customer in excess of the quantities of gas to be delivered to customer.
- d. At no time shall the Company have the responsibility to deliver gas in excess of customer's nomination.
- 15. WARRANTY Customer, customer's agent, or customer's shipper warrants that it will have title to all gas it tenders or causes to be tendered to the Company, and such gas shall be free and clear of all liens and adverse claims and customer, customer's agent, or customer's shipper shall indemnify the Company against all damages, costs, and expenses of any nature whatsoever arising from every claim against said gas.
- 16. FACILITY EXTENSIONS If facilities are required in order to furnish gas transportation service, and those facilities are in addition to the facilities required to furnish firm gas service, customer shall pay for those additional facilities and their installation in accordance with the Company's applicable natural gas extension policy. The Company may remove such facilities when service hereunder is terminated.
- 17. PAYMENT Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with Rate 100, §V.4213, or any amendments or alterations thereto.

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- BILLING ERROR In the event an error is discovered in any bill that the Company renders to customer, such error shall be adjusted within a period not to exceed 6 months from the date the billing error is first discovered.
- 19. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder.
- 20. RULES The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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Availability and Applicability of Service:

In all communities served for all interruptible general gas service customers whose interruptible natural gas requirements will exceed 100,000 dk annually as metered at a single delivery point. The rates herein are applicable only to customer's interruptible load. Customer's firm natural gas requirements must be separately metered or specified in a firm service agreement. Customer's firm load shall be treated and billed in accordance with the provisions of Firm General Gas Service Rate 70. For interruption purposes, the maximum daily firm requirement shall be set forth in the firm service agreement. The Company reserves the right to refuse the initiation of service under this rate schedule based on the availability of gas supply.

Rate:

Basic Service Charge:

\$567.25 per month

Maximum

Distribution Delivery Charge:

Cost of Gas:

\$0.460<u>0.500</u> per dk \$0.050 per dk

Determined Monthly - See Rate Summary Sheet for Current Rate

Minimum

Minimum Bill:

Basic Service Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

Issued: April 23, 2018June 22, 2020

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Docket No. D2017.9.79

By: Tamie A. Aberle Travis R. Jacobson Director - Regulatory Affairs



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 3rd-Revised Original Sheet No. 34.1 Canceling 2rd-Revised Sheet No. 34.1

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89
- 4. Conservation Program Tracking Mechanism Rate 90

General Terms and Conditions:

- PRIORITY OF SERVICE Deliveries of gas under this schedule shall be subject at all times to the prior demands of customers served on the Company's firm gas service rates. Customers taking service hereunder agree that the Company, without prior notice, shall have the right to curtail or interrupt such service whenever, in the Company's sole judgment, it may be necessary to do so to protect the interest of its customers whose capacity requirements are otherwise and hereby given preference. The priority of service and allocation of capacity shall be accomplished in accordance with Rate 100, §V.10.
- 2. STANDBY REQUIREMENTS:
 - a. If Company-approved equipment and fuel for standby service is not installed and maintained, the Company, in its discretion, may install automatic shut-off equipment in order to allow for the interruption of natural gas supply. The cost of the equipment and its installation shall be paid for by customer. The cost shall be the current market price for such equipment including the current installation costs. Such contribution in aid, as adjusted for federal and state income taxes, must

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 3rd-Revised-Original Sheet No. 34.2 Canceling 2rd-Revised Sheet No. 34.2

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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be paid prior to the installation of such equipment unless otherwise agreed to by the Company. Such equipment will be maintained by the Company and will remain the sole property of the Company. The Company may remove such equipment when service hereunder is terminated.

- b. Customer shall pay all charges for continuous electric and telephone service associated with the Company's connection of automatic shut-off equipment, and any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- c. Customer's firm load must be separately metered if Companyapproved equipment and fuel for standby service is not installed and maintained.
- 3. PENALTY FOR FAILURE TO CURTAIL OR INTERRUPT If customer fails to curtail or interrupt their use of gas hereunder when requested to do so by the Company, any gas taken shall be billed at the <u>charges applicable under</u> Firm General Gas Service Rate 70 (distribution delivery charge and cost of <u>gasexcluding the Basic Service Charge</u>), plus either an amount equal to any penalty payments or overrun charges the Company is required to make to its interconnecting pipeline(s) under the terms of its contract(s) as a result of such failure to curtail or interrupt, or \$50.00 per dk of gas used in excess of the volume of gas to which customer was requested to curtail or interrupt, whichever amount is greater. The Company, in its discretion, may shut off customer's supply of gas in the event of customer's failure to curtail or interrupt use of gas when requested to do so by the Company.

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Natural Gas Service

Volume No. 6<u>7</u> 4th-Revised-Original Sheet No. 34.3 Canceling 3rd Revised Sheet No. 34.3

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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- 4. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for service hereunder. If mutually agreed to by the Company and customer, the term of service reflected in such agreement may be amended. Upon expiration of service, customer may apply for and receive, at the sole discretion of the Company, gas service under another appropriate rate schedule for customer's operations.
- 5. OBLIGATION TO NOTIFY THE COMPANY OF CHANGE IN DAILY OPERATIONS - Customer will be required as specified in the service agreement to notify the Company of an anticipated change in daily operations. Failure to comply with requirements specified in the service agreement may result in the assessment of penalties to customer equal to the penalty amounts the Company must pay to the interconnecting pipeline caused by customer's action.

6. METERING REQUIREMENTS:

- a. Remote data acquisition equipment (telemetering equipment) required by the Company for a single customer installation for daily measurement will be purchased and installed by the Company prior to the initiation of service hereunder.
- b. Customer may be required, upon consultation with the Company, to contribute towards additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 4th-Revised-Original Sheet No. 34.4 Canceling 3rd Revised Sheet No. 34.4

LARGE INTERRUPTIBLE GENERAL GAS SERVICE Rate 85

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- c. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to execution of the required service agreement.
- 7. RULES The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 Original Sheet No. 36

GAS TAX TRACKING ADJUSTMENT Rate 87

Page 1 of 3

1. Applicability:

This rate schedule sets forth the procedure to be used in calculating the Tax Tracking Adjustment in order to reflect: (a) changes in Montana-Dakota's Montana – state and local taxes and fees, and (b) a true-up of taxes recovered to actual taxes paid. The tax adjustment shall be shown as a separate item on the bill.

2. Effective Date:

The effective date of the Tax Tracking Adjustment shall be service rendered on and after January 1 each year.

3. Tax Tracking Adjustment:

- a. The Tax Tracking Adjustment shall reflect changes in Montana-Dakota's Montana state and local taxes and fees as compared to the base levels approved in its most recent general rate case. The difference to be included in the Tax Tracking Adjustment shall be net of income taxes.
- b. Base Tax A base tax amount shall be established and updated in a general rate case for each rate schedule:
 - (1) The ratio of authorized Montana state and local taxes and fees, excluding tribal taxes, to the total distribution revenues authorized in the rate case shall be determined.
 - (2) The ratio is applied to the total basic service charge and distribution delivery charge revenues for each rate schedule to derive the base tax amount for each rate schedule.
- c. Rates excluding taxes
 - (1) The authorized margin excluding base taxes (defined as base margin) is established by applying the ratio derived in 3.b.(1) to the authorized distribution revenues by rate schedule.
 - (2) The percentage of taxes to base margin is derived to establish the basic service charge and distribution delivery charge amounts excluding the base

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Volume No. 67 Original Sheet No. 36.1

GAS TAX TRACKING ADJUSTMENT Rate 87

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tax amount by applying the percentage to each rate component of each rate schedule.

- d. The Tax Tracking Adjustment shall be computed as follows:
 - (1) Tax expense for the year is compared to the tax expense recovered, including the tax related revenue from the conservation tracking adjustment lost margin with the difference net of income taxes determined.
 - (2) A true-up of the prior year's adjustment for:
 - i. Actual tax expense less actual tax recovery (adjusted for income taxes).
 - ii. Tax expense less tax recovery included in the filing.
 - iii. The net of 3.d.(2)i. and 3.2.(2)ii. is calculated and adjusted to exclude income taxes.
 - (3) The sum of amounts in 3.d.(1) and 3.d.(2) above is divided by the base margin to derive the percent increase (decrease) in taxes.
 - (4) The base tax percentage determined in 3.c.(2) and the tax adjustment percentage determined in 3.d.(3) are added to calculate the total percent of taxes.
 - (5) The total percent of taxes is applied to the basic service charge and distribution delivery charge billed to each customer, and shown separately on the customer bill.

4. Time and Manner of Filing:

Each filing shall be made on or before the effective date of the adjustment, accompanied by the detailed computations which clearly show the derivation of the relevant amounts.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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GAS TAX TRACKING ADJUSTMENT Rate 87

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5. Tax Tracking Adjustment:

Base Adjustment Total tax 20.218122.8468% (0.2845)0.0000% 19.933622.8468%

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By: <u>Tamie. A. AberleTravis R.</u> Jacobson Director - Regulatory Affairs

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 4th-Revised-Original Sheet No. 37 Canceling 3rd Revised Sheet No. 37

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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1. Applicability:

This rate schedule sets forth the procedure to be used in calculating Gas Cost Tracking Adjustments. It specifies the procedure to be utilized to adjust the rates for gas sold under Montana-Dakota's rate schedules in the state of Montana in order to reflect: (a) changes in Montana-Dakota's average cost of gas supply and (b) amortization of the Unreflected Purchased Gas Cost Account.

2. Effective Date and Limitation on Adjustments:

- a. Unless otherwise ordered by the Commission, the effective dates of the gas cost tracking adjustment shall be service rendered on and after the first day of each month. The effective date of the adjustment for amortization of the Unreflected Purchased Gas Cost Account shall be October 1 of each year.
- b. Montana-Dakota shall file an adjustment to reflect changes in its average cost of gas supply only when the amount of change in such adjustment is at least 25 (twenty-five) cents per dk. The tracking adjustment to be effective October 1 shall be filed each year, regardless of the amount of the change.

3. Minimum Filing Requirements:

Montana-Dakota's filing to implement the Gas Cost Tracking Adjustment effective October 1 of each year shall include the following:

- a. Billing determinants by service agreement by month by supply source, with annual totals;
- b. Rates applicable to those billing determinants;
- c. Purchased gas costs by service agreement by month by supply source, with annual totals;

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- d. A list of FERC proceedings in which Montana-Dakota has participated with a brief description of the purpose of each and position taken by Montana-Dakota;
- e. Total Montana-Dakota sales by major customer class by month with annual totals;
- f. Montana-Dakota sales by major customer class by jurisdiction by month, with annual totals;
- g. If Montana-Dakota has executed a new direct purchase contract since the last October 1 Gas Cost Tracking Adjustment, a description of what efforts, if any, were undertaken to ensure that the contract had pricing provisions which assured a firm supply of gas at a competitive price over the full term of the contract;
- h. A description of what efforts, if any, Montana-Dakota has undertaken since the last October 1 Gas Cost Tracking Adjustment to utilize spot gas.

4. Gas Cost Tracking Adjustment:

a. The monthly Gas Cost Tracking Adjustment shall reflect changes in Montana-Dakota's cost of gas supply as compared to the cost of gas supply approved in its most recent Gas Cost Tracking Adjustment. The cost of gas supply shall be the sum of all costs incurred in obtaining gas for general system supply. General system supply is defined as gas available for use by all customers served under retail sales rate schedules. The cost of gas supply shall include, but not be limited to, all demand, commodity, storage, gathering, and transportation charges incurred by Montana-Dakota for such gas supply. Any extraordinary costs, such as penalty charges and take-or-pay charges, shall be clearly identified as such and separately described in a supporting exhibit.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 1st-Revised Original Sheet No. 37.2 Canceling Original Sheet No. 37.2

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- b. The Gas Cost Tracking Adjustment shall be computed as follows:
 - (1) Demand costs shall include all annual gathering, transportation and storage demand charges at current rates.
 - (2) Commodity costs shall include all annual gathering, transportation and storage charges at current rates.
 - (3) The gas commodity cost shall reflect all commodity related gas costs estimated to be in effect for the month the gas cost tracking adjustment will be in effect and annual dk requirements.

The cost per dk for the month is the sum of the above divided by annual, weather normalized dk deliveries adjusted to reflect losses.

- c. Monthly gas costs shall be calculated as follows:
 - Demand costs shall be apportioned to all state jurisdictions served by Montana-Dakota on the basis of the overall ratio of each state's Maximum Daily Delivery Quantity (MDDQ).
 - (2) Demand costs for interruptible sales customers shall be stated on a 100% load factor basis.
 - (3) Demand costs for firm general contracted demand customers shall be stated on the incremental MDDQ basis.

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By: Donald R. Ball<u>Travis R. Jacobson</u> Assistance Vice President<u>Director</u> -Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 1st-Revised-Original Sheet No. 37.2 Canceling Original Sheet No. 37.2

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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(34) All commodity costs and other costs associated with the acquisition of gas for general system supply shall be apportioned to each state on the basis of total dk's sold in each state, regardless of the actual points of delivery of such gas.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 3rd-Revised Original Sheet No. 37.3 Canceling 2rd-Revised Sheet No. 37.3

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- (4<u>5</u>) All costs related to specific gas transportation services shall not be included in the cost of gas supply determination but shall be directly billed to the customer(s) contracting for such service.
- d. The Gas Cost Tracking Adjustment shall be applied to each of Montana-Dakota's rate schedules, recognizing differences among customer classes consistent with the cost of gas supply included in the applicable class sales rate.

5. Unreflected Gas Cost Adjustment:

All sales rate schedules shall be subject to an Unreflected Gas Cost Adjustment to be effective on October 1 of each year. The Unreflected Gas Cost Adjustment per dk sold shall reflect amortization of the applicable balance in the Unreflected Purchased Gas Cost Account calculated by dividing the applicable balance by the estimated dk sales for the twelve months following the effective date of the adjustment.

6. Unreflected Purchased Gas Cost Account:

- a. Items to be included in the Unreflected Purchased Gas Cost Account, as calculated in accordance with Subsection 6(b) are:
 - (1) Charges for gas supply which Montana-Dakota is unable to reflect in a Gas Cost Tracking Adjustment by reason of the twenty-five (25) cent minimum limitation set forth in Subsection 2(b).
 - (2) Amounts of increased/decreased charges for gas supplies which were paid during any period after the effective date of the most recent general rate case, but not yet included in sales rates.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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Volume No. 67 1st-Revised-Original Sheet No. 37.4 Canceling Original Sheet No. 37.4

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- (3) Refunds received from supplier(s) with respect to gas supply. Such refunds received shall be credited to the Unreflected Purchased Gas Cost Account.
- (4) Demand costs recovered from the interruptible sales customers will be credited to the residential and firm general service customers.
- b. The amount to be included in the Unreflected Purchased Gas Cost Account in order to reflect the items specified in Subsections 6(a)(1), (2), and (3) shall be calculated as follows:
 - (1) Montana-Dakota shall first determine each month the unit cost for that month's natural gas supply as adjusted to levelize demand charges. Such adjustment to levelize supplier(s) demand charges shall be calculated as follows:

The suppliers' annual (calendar or fiscal) demand charges, which are payable in equal monthly payments, shall be accumulated in a prepaid account (FERC Account 165). Each month a portion of such accumulated prepaid amount shall be amortized to cost of natural gas purchased (FERC Account 804). Such monthly amortization shall be based on a rate calculated by dividing the annual supplier(s) demand charges by projected annual dk sales (calendar or fiscal, as appropriate). The resulting product shall then be multiplied by the projected natural gas unit sales for the current month. Such amount shall constitute the monthly amortization of prepaid supplier(s) demand charges to cost of natural gas supply.

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 1st-Revised Original Sheet No. 37.5 Canceling Original Sheet No. 37.5

GAS COST TRACKING ADJUSTMENT PROCEDURE Rate 88

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- (2) Montana-Dakota shall then subtract from each month's unit cost the unit cost for gas supply which is reflected in the currently effective Tracking Adjustment.
- (3) The resulting difference (which may be positive or negative) shall be multiplied by the dk's sold during that month under each rate schedule. The resulting amounts shall be reflected in an Unreflected Purchased Gas Cost Account for each rate schedule.
- c. Reduction of Amounts in the Unreflected Purchased Gas Cost Account:
 - (1) The amounts in the Unreflected Purchased Gas Cost Account shall be decreased each month by an amount determined by multiplying the currently effective unreflected gas cost adjustment included in rates for that month (as calculated in Section 5) by the dk's sold during that month under each rate schedule. The Account shall be increased in the event the adjustment is a negative amount.

7. Time and Manner of Filing:

- a. Each filing by Montana-Dakota shall be made by means of revised rate schedule tariff sheets identifying the amounts of the adjustments and the resulting currently effective rates.
- b. Each filing shall be accompanied by detailed computations which clearly show the derivation of the relevant amounts.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-Original Sheet No. 38 Cancelling 1st Revised Sheet No. 38

UNIVERSAL SYSTEM BENEFITS CHARGE Rate 89

Page 1 of 1

Applicability:

In all communities served for all end use sales and transportation service customers for funding of Universal System Benefits (USB) Programs.

Rate:

Charge per dk:	
Sales Service Schedules (Rates 60, 70, 71, 72, 74, and 85)	\$.0655
Transportation Service Schedules (Rates 80, 81 and 82)	\$.0028

Tracking Mechanism:

The rate above shall be subject to adjustment on an annual basis to be effective on May 1. The adjustment shall reflect the true up of actual expenditures associated with approved USB Programs and any adjustments necessary to provide funding at a target level of 0.48% of the prior year's total revenues. A filing to effectuate the May 1 change shall be made by March 1 of each year.

General Terms and Conditions:

The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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By: Donald R. Ball<u>Travis R. Jacobson</u> Vice President<u>Director</u> - Regulatory Affairs

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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 7th-Revised-<u>Original</u> Sheet No. 39 Canceling 6th Revised Sheet No. 39

CONSERVATION PROGRAM TRACKING MECHANISM Rate 90

Page 1 of 1

Applicability:

This rate schedule represents a Conservation Program Tracking Mechanism and specifies the procedure to be utilized to recover the costs of conservation programs, as authorized by the Commission, including the recovery of distribution delivery charge revenues reduced as a result of the conservation programs. Service provided under the Company's Residential Service Rate 60 and Firm General Service Rates 70 and 72 shall be subject to this tracking mechanism.

Conservation Program Tracker:

An adjustment per dk will be determined for each rate schedule subject to the Conservation Program Tracking Mechanism. Monthly bills beginning with bills issued on and after May 1, 2007 and each May 1 thereafter, will be adjusted by the application of the Conservation Tracking Adjustment rate indicated below. The rate will reflect the amortization of the conservation program costs including the dk savings associated with each measure implemented in the prior 12 month period. The currently authorized Distribution Delivery Charge will be applied to the dk savings to compute the reduction in Distribution Delivery revenues associated with the conservation programs. The total program costs including the lost distribution revenues will be amortized over projected volumes to be sold over the next 12 month period. Following the initial one-year term, and annually thereafter, the Conservation Program Tracker rate calculation shall include any over or under collection of revenue from the preceding twelve month recovery period.

Conservation Tracking Adjustment: \$0.014 per dk

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N-4th-Street Bismarck, ND 58501

Natural Gas Service

-Volume No. 6 2ndRevised Sheet No. 42 Canceling 1st Revised Sheet No. 42

SPECIAL GAS SERVICE Rate 93

Page 1 of 1

Availability:

This service is applicable only to Account No. 270377-21 and Account No. 270340-21 at which the present customers are entitled to receive certain quantities of natural gas from WBI Energy under the terms of leases with WBI Energy under which natural gas is produced. WBI Energy is obligated to provide such gas to Montana-Dakota at no charge and to reimburse Montana-Dakota for meter reading costs.

Rate:

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.12, or any amendments or alterations thereto.

General Terms and Conditions:

The foregoing schedule is subject to Rates 100 -124 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

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Natural Gas Service

Volume No. 6<u>7</u> 3rd-Revised Original Sheet No. 49 Canceling 2ndRevised Sheet No. 49

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I. PURPOSE:

These rules are intended to define good practice which can normally be expected, but are not intended to exclude other accepted standards and practices not covered herein. They are intended to ensure adequate service to the public and protect the Company from unreasonable demands.

The Company undertakes to furnish service subject to the rules and regulations of the Public Service Commission of Montana and as supplemented by these general provisions, as now in effect or as may hereafter be lawfully established, and in accepting service from the Company, each customer agrees to comply with and be bound by said rules and regulations and the applicable rate schedules.

II. DEFINITIONS:

The following terms used in this tariff shall have the following meanings, unless otherwise indicated:

AGENT – The party authorized by the transportation service customer to act on that customer's behalf.

APPLICANT - Customer requesting the Company to provide service.

COMMISSION - The Public Service Commission of the State of Montana.

COMPANY - Montana-Dakota Utilities Co. (Montana-Dakota)

COMPANY'S OPERATING CONVENIENCE - The utilization, under certain circumstances, of facilities or practices not ordinarily employed which contribute to the overall efficiency of the Company's operations. This does not refer to customer's convenience nor to the use of facilities or adoption of practices required

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to comply with applicable laws, ordinances, rules or regulations, or similar requirements of public authorities.

CURTAILMENT - A reduction of transportation or retail natural gas service deemed necessary by the Company.

CUSTOMER - Any individual, partnership, corporation, firm, other organization or government agency supplied with service by the Company at one location and at one point of delivery unless otherwise expressly provided in these rules or in a rate schedule.

DELIVERY POINT - The point at which customer assumes custody of the gas being transported. This point will normally be at the outlet of the Company's meter(s) located on customer's premises.

EXCESS FLOW VALVE – Safety device designed to automatically stop or restrict the flow of gas if an underground pipe is broken or severed.

GAS DAY - Means a period of 24 consecutive hours, beginning and ending at 9:00 a.m. Central Clock Time.

INTERRUPTION - A cessation of transportation or retail natural gas service deemed necessary by the Company.

NOMINATION - The daily dk volume of the natural gas requested by customer for transportation and delivery to customer at the delivery point during a gas day.

PIPELINE – The transmission company(s) delivering natural gas into Company's system.

RATE - Shall mean and include every compensation, charge, fare, toll, rental and classification, demanded, observed, charged or collected by the Company for any

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service, product, or commodity, offered by the Company to the public. This includes any rules, regulations, practices or contracts affecting any such compensation, charge, fare, toll, rental or classification.

RECEIPT POINT - The intertie between the Company and the interconnecting Pipeline(s) at which point the Company assumes custody of the gas being transported.

SHIPPER - The party with whom the Pipeline has entered into a service agreement with in order to provide transportation service.

III. CUSTOMER OBLIGATIONS:

1. APPLICATION FOR SERVICE - Customer desiring gas service must make application to the Company before commencing the use of the Company's service. The Company reserves the right to require a signed application or written contract for service to be furnished. All applications and contracts for service must be made in the legal name of customer desiring the service. The Company may refuse an applicant or terminate service to customer who fails or refuses to furnish reasonable information requested by the Company for the establishment of a service account. Any person who uses gas service in the absence of an application or contract shall be subject to the Company's rates, rules, and regulations and shall be responsible for payment of all service used.

Subject to rates, rules, and regulations, the Company will continue to supply gas service until notified by customer to discontinue the service. Customer will be responsible for payment of all service furnished through the date of discontinuance.

Any customer may be required to make a deposit as required pursuant to Rate 100, §V.6.

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- SERVICE AVAILABILITY Gas will normally be delivered at standard pressures of four or five ounces, dependent on the service area where the gas service is being delivered. Delivery of gas service at pressures greater than the standard operating pressure may be available and will require a consultation with the Company to determine availability.
- 3. INPUT RATING All new customers whose consumption of gas for any purpose will exceed an input of 2,500,000 Btu per hour, metered at a single delivery point, shall consult with the Company and furnish details of estimated hourly input rates and pressures required for all gas utilization equipment. Where system design capacity permits, such customers may be served on a firm basis. Where system design capacity is limited, and at the Company's sole discretion, the Company will serve all such new customers on an interruptible basis only. Architects, contractors, heating engineers and installers, and all others should consult with the Company before proceeding to design, erect or redesign such installations for the use of natural gas. This will ensure that such equipment will conform to the Company's ability to adequately serve such installations with gas.
- 4. ACCESS TO CUSTOMER'S PREMISES Company representatives, when properly identified, shall have access to customer's premises at all reasonable times (8:00 am to 5:00 pm Monday through Friday unless an emergency requires access outside of these hours) for the purpose of reading meters, making repairs, making inspections, removing the Company's property, or for any other purpose incident to the service.
- 5. COMPANY PROPERTY Customer shall exercise reasonable diligence in protecting the Company's property on their premises and shall be liable to the Company in case of loss or damage caused by their negligence or that of their employees.

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- 6. INTERFERENCE WITH COMPANY PROPERTY Customer shall not disconnect, change connections, make connections or otherwise interfere with the Company's meters or other property or permit same to be done by other than the Company's authorized employees.
- 7. RELOCATED LINES Where Company facilities are located on a public or private utility easement and there is a building encroachment over gas facilities (Company-owned main, Company-owned service line or customer-owned service line) the customer shall be charged for the line re-location on the basis of actual costs incurred by the Company including any required easements.
- 8. NOTIFICATION OF LEAKS Customer shall immediately notify the Company at its office of any escape of gas in or about customer's premises.
- 9. TERMINATION OF SERVICE Customer is required to notify the Company, to prevent liability for service used by succeeding tenants, when vacating their premises. Upon receipt of such notice, the Company will read the meter and further liability for service used on the part of the vacating customer will cease.
- 10. REPORTING REQUIREMENTS Customer shall furnish the Company all information as may be required or appropriate to comply with reporting requirements of duly constituted authorities having jurisdiction over the matter herein.
- 11. QUALITY OF GAS The gas tendered to the Company shall conform to the applicable quality specifications of the transporting Pipeline's tariff.

IV. LIABILITY:

1. CONTINUITY OF SERVICE - The Company will use all reasonable care to provide continuous service but does not assume responsibility for a regular and uninterrupted supply of gas service and will not be liable for any loss,

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injury or damage resulting from the use of service, or arising from or caused by the interruption or curtailment of the same, except when such loss, injury or damage results from the negligence of the Company.

- 2. CUSTOMER'S EQUIPMENT Neither by inspection or non-rejection, nor in any other way does the Company give any warranty, express or implied, as to the adequacy, safety or other characteristics of any structures, equipment, lines, appliances or devices owned, installed or maintained by customer or leased by customer from third parties. The customer is responsible for the proper installation and maintenance of all structures, equipment, lines, appliances, or devices on the customer's side of the point of delivery. The customer must assume the duties of inspecting all structures including the house piping, chimneys, flues and appliances on the customer's side of the point of delivery.
- 3. COMPANY EQUIPMENT AND USE OF SERVICE The Company will not be liable for any loss, injury, death or damage resulting in any way from the supply or use of gas or from the presence or operation of the Company's structures, equipment, lines, or devices on customer's premises, except loss, injuries or damages resulting from the negligence of the Company.
- 4. INDEMNIFICATION Customer agrees to indemnify and hold the Company harmless from any and all injury, death, loss or damage resulting from customer's negligent or wrongful acts under and during the term of service. The Company agrees to indemnify and hold customer harmless from any and all injury, death, loss or damage resulting from the Company's negligent or wrongful acts under and during the term of service.

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5. FORCE MAJEURE - In the event of either party being rendered wholly or in part by force majeure unable to carry out its obligations, then the obligations of the parties hereto, so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused. Such causes or contingencies affecting the performance by either party, however, shall not relieve it of liability in the event of its concurring negligence or in the event of its failure to use due diligence to remedy the situation and remove the cause in an adequate manner and with all reasonable dispatch, nor shall such causes or contingencies affecting the performance relieve either party from its obligations to make payments of amounts then due hereunder, nor shall such causes or contingencies relieve either party of liability unless such party shall give notice and full particulars of the same in writing or by telephone to the other party as soon as possible after the occurrence relied on. If volumes of customer's gas are destroyed while in the Company's possession by an event of force majeure, the obligations of the parties shall terminate with respect to the volumes lost.

The term "force majeure" as employed herein shall include, but shall not be limited to, acts of God, strikes, lockouts or other industrial disturbances, failure to perform by any third party, which performance is necessary to the performance by either customer or the Company, acts of the public enemy or terrorists, wars, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrest and restraint of rulers and peoples, civil disturbances, explosions, breakage or accident to machinery or lines of pipe, line freeze-ups, sudden partial or sudden entire failure of gas supply, failure to obtain materials and supplies due to governmental regulations, and causes of like or similar kind, whether herein enumerated or not, and not within the control of the party claiming suspension, and which by the exercise of due diligence such party is unable to overcome; provided that the exercise of due diligence shall not require settlement of labor disputes against the better judgment of the party having the dispute.

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The term "force majeure" as employed herein shall also include, but shall not be limited to, inability to obtain or acquire, at reasonable cost, grants, servitudes, rights-of-way, permits, licenses or any other authorizations from third parties or agencies (private or governmental) or inability to obtain or acquire at reasonable cost necessary materials or supplies to construct, maintain and operate any facilities required for the performance of any obligations under this agreement, when any such inability directly or indirectly contributes to or results in either party's inability to perform its obligations.

V. GENERAL TERMS AND CONDITIONS:

- 1. AGREEMENT Upon request of the Company, customer may be required to enter into an agreement for any service.
- 2. RATE OPTIONS Where more than one rate schedule is available for the same class of service, the Company will assist customer in selecting the applicable rate schedule(s). The Company is not required to change a customer from one rate schedule to another more often than once in 12 months unless there is a material change in customer's load which alters the availability and/or applicability of such rate(s), or unless a change becomes necessary as a result of an order issued by the Commission or a court having jurisdiction. The Company will not be required to make any change in a fixed term contract except as provided therein.

3. RULES FOR APPLICATION OF GAS SERVICE:

a. Residential gas service is available to any residential customer for domestic purposes only. Residential gas service is defined as service for general domestic household purposes in space occupied as living quarters, designed for occupancy by one family with separate cooking facilities. Typical service would include the following: single private residences, single apartments, mobile homes with separate meters and



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auxiliary buildings on the same premise when used for residential purposes by the residential customer. This is not an all-inclusive list.

- b. Nonresidential service is defined as service provided to a business enterprise in space occupied and operated for nonresidential purposes. Typical service would include stores, offices, shops, restaurants, sorority and fraternity houses, boarding houses, hotels, service garages, wholesale houses, filling stations, barber shops, beauty salons, apartment houses, common areas of shopping malls or apartments (such as halls or basements), churches, elevators, schools and facilities located away from the home site. This is not an all-inclusive list.
- c. The definitions above are based upon the supply of service to an entire premise through a single delivery and metering point. Separate supply for the same customer at other points of consumption may be separately metered and billed.
- d. If separate metering is not practical for a single unit (one premise) that is using gas for both domestic purposes and for conducting business (or for nonresidential purposes as defined herein), customer will be billed under the predominate use policy. Under this policy, customer's combined service is billed under the rate (residential or nonresidential) applicable to the type of service which constitutes 50% or more of customer's total connected load.
- e. Other classes of service furnished by the Company shall be defined in applicable rate schedules, or in rules and regulations pertaining thereto. Service to customers for which no specific rate schedule is applicable shall be billed under the nonresidential rates.

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- 4. DISPATCHING Transportation customers will adhere to gas dispatching policies and procedures established by the Company to facilitate transportation service. The Company will inform customer of any changes in dispatching policies that may affect transportation services as they occur.
- 5. RULES COVERING GAS SERVICE TO MANUFACTURED HOMES The rules and regulations for providing gas service to manufactured homes are in accordance with the Code of Federal Regulations (24CFR Part 3280 Manufactured Home Construction and Safety Standards) Subparts G and H which pertain to gas piping and appliance installation. In addition to the above rules, the Company also follows the regulations set forth in the NFPA 501A, Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities. This information is available at Montana-Dakota Utilities Co.'s offices.
- 6. CONSUMER DEPOSITS The Company will determine whether or not a deposit shall be required of an applicant for gas service in accordance with Commission Rules ARM 38.5.1101 through 38.5.1112.
 - a. The amount of such deposit for residential service shall not exceed one-sixth of the estimated annual billing. For nonresidential service, the amount of the applicant's deposit shall not exceed 25% of the applicant's estimated annual billing.
 - b. The Company shall accept in lieu of a cash deposit a contract signed by a guarantor, whereby the payment of a specified sum not to exceed an estimated one year bill shall be guaranteed. Such estimation shall be made at the time the service is established. Guarantee terms and conditions will be in accordance with Commission Rules ARM 38.5.1111 and 38.5.1112.

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Interest on deposits held shall be accrued at the rate set forth in Rate 100, §VI.3. Interest shall be computed from the time of deposit to the time of refund or of termination. Interest shall be credited to customer's account annually during the month of December.

Deposits with interest shall be refunded to customers at termination of service provided all billings for service have been paid. Deposits with interest will be refunded to all active customers, after the deposit has been held for 12 months, provided a prompt payment record, as defined in the Commission rules, has been established.

7. METERING AND MEASUREMENT- The Company will meter the quantity of natural gas delivered to customer at the delivery point. Such meter measurement will be conclusive upon both parties unless such meter is found to be inaccurate, in which case the quantity supplied to customer shall be determined by as correct an estimate as it is possible to make, taking into consideration the time of year, the schedule of customer's operations and other pertinent facts. The Company will test meters in accordance with applicable state utility rules and regulations.

Customer may install, operate, and maintain at its sole expense, equipment for the purpose of measuring the amount of natural gas delivered over any measurement period, provided the equipment shall not interfere with such delivery or with the Company's meter.

 MEASUREMENT UNIT FOR BILLING PURPOSES - The measurement unit for billing purposes shall be one (1) decatherm (dk), unless otherwise specified. Billing will be calculated to the nearest one-tenth (1/10) dk. One dk equals 10 therms or 1,000,000 Btu's. Dk's shall be calculated by the application of a thermal factor to the volumes metered. This thermal factor consists of:

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- a. An altitude adjustment factor used to convert metered volumes at local sales base pressure to a standard pressure base of 14.73 psia, and
- b. A Btu adjustment factor to reflect the heating value of gas delivered.
- UNIT OF VOLUME FOR MEASUREMENT The unit of volume for purpose of measurement shall be one (1) cubic foot of gas at either local sales base pressure or 14.73 psia, as appropriate, and a temperature base of 60 degrees Fahrenheit (60 F). All measurement of natural gas by orifice meter shall be reduced to this standard by computation methods, in accordance with procedures contained in ANSI-API Standard 2530, First Edition, as amended. Where natural gas is measured with positive displacement or turbine meters, correction to local sales base pressure shall be made for actual pressure and temperature with factors calculated from Boyle's and Charles' Laws. Where gas is delivered at 20 psig or more, the deviation of the natural gas from Boyle's Law shall be determined by application of Supercompressibility Factors for Natural Gas published by the American Gas Association, Inc., Copyright 1955, as amended or superseded. Where gas is measured with electronic correcting instruments at pressures greater than local sales base, supercompressibility will be calculated in the corrector using AGA-3/NX-19, as amended, supercompressibility calculation. For handbilled accounts, application of supercompressibility factors will be waived on monthly billed volumes of 250 dk or less.

Local sales base pressure is defined as four or five ounces (depending on service area) per square inch gauge pressure plus local average atmospheric pressure.

- 10. PRIORITY OF SERVICE AND ALLOCATION OF CAPACITY Priority of Service from highest to lowest:
 - a. Priority 1 Firm sales service.

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- b. Priority 2 Small interruptible sales and small interruptible gas transportation service at the maximum rate on a pro rata basis.
- c. Priority 3 Large interruptible sales and large interruptible gas transportation service at the maximum rate on a pro rata basis.
- d. Priority 4 Small interruptible sales and transportation services at less than the maximum rate from the highest rate to the lowest rate and on a pro rata basis where equal rates are applicable among customers.
- e. Priority 5 Large interruptible sales and transportation services at less than the maximum rate from the highest rate to the lowest rate and on a pro rata basis where equal rates are applicable among customers.
- f. Priority 6 Gas scheduled to clear imbalances.

Montana-Dakota shall have the right, in its sole discretion, to deviate from the above schedule when necessary for system operational reasons and if following the above schedule would cause an interruption in service to a customer who is not contributing to an operational problem on Montana-Dakota's system.

Montana-Dakota reserves the right to provide service to customers with a lower priority while service to higher priority customers is being curtailed due to restrictions at a given delivery or receipt point. When such restrictions are eliminated, Montana-Dakota will reinstate sales and/or transportation of gas according to each customer's original priority.

11. EXCESS FLOW VALVE - In accordance with Federal Pipeline Safety Regulations 49 CFR 192.383, the Company will install an excess flow valve on an existing service line at the customer's request at a mutually agreeable date. The actual cost of the installation will be assessed to the customer.

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- 12. REPORTING REQUIREMENTS Customer shall furnish the Company all information as may be required or appropriate to comply with reporting requirements of duly constituted authorities having jurisdiction over the matter herein.
- 13. LATE PAYMENT Amounts billed for energy or transportation services will be considered past due if not paid by the due date shown on the bill.

For residential customers, an amount equal to the percentage set forth in Rate 100, §VI.2 will be applied to any unpaid balance existing at the second subsequent billing date provided, however, that such amount shall not apply where a bill is in dispute, written payment schedule has been arranged and complied with, or where the Low Income Energy Assistance Program (LIEAP) is being utilized up to the point where the funds are exhausted and the recipient has full responsibility for the account. In the event of a breach of a written payment arrangement, an amount equal to the percentage set forth in Rate 100, §VI.2 of the total remaining unpaid balance shall apply beginning 60 days after the date of the last payment under the payment arrangement. Such amount shall also apply (where the LIEAP program was utilized) to the total remaining unpaid balance on all accounts beginning 60 days after the LIEAP program no longer applies to such account.

For nonresidential customers, an amount equal to the percentage set forth in Rate 100, §VI.2 will be applied to any unpaid balance existing at the immediate subsequent billing date.

All payments received will apply to customer's account prior to calculating the late payment charge. Those payments applied shall satisfy the oldest portion of the bill first.

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- 14. RETURNED CHECK CHARGE A charge as set forth in Rate 100, §VI.1.b. will be collected by the Company for any check not honored by customer's financial institution for any reason.
- 15. MANUAL METER READING CHARGE A charge as set forth in Rate 100, §V.1.k. will be assessed monthly for customer(s) who have requested, and received Company approval, to have their meter read manually each month in lieu of an AMR-equipped meter read. Customers agree to contract for the manual reading of the meter for minimum period of one year.
- 16. TAX CLAUSE In addition to the charges provided for in the gas tariffs of the Company, there shall be charged pro rata amounts which, on an annual basis, shall be sufficient to yield to the Company the full amount of any usage fees or any sales, uses, franchise, or excise taxes, whether they be denominated as license taxes, occupation taxes, business taxes, privilege taxes, or otherwise, levied against or imposed upon the Company by any municipality, political subdivision, or other entity, for the privilege of conducting its utility operations therein.

The charges to be added to customer's service bills under this clause shall be limited to customers within the corporate limits of the municipality, political subdivision or other entity imposing the tax.

- 17. UTILITY CUSTOMER SERVICES:
 - a. The following services will be performed at no charge regardless of the time of performance:
 - 1. Responding to fire and explosion calls.
 - 2. Investigating hazardous conditions on customer premises, such as gas leaks, odor complaints and combustion gas fumes.

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 April 23, 2018 June 22, 2020
 By:
 Tamie A. Aberle Travis R. Jacobson Director – Regulatory Affairs

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 Director – Regulatory Affairs

 Docket No. D2017.9.79
 Service rendered on and after June 15, 2018



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 5th-Revised-Original Sheet No. 49.17 Canceling 4th-Revised Sheet No. 49.17

CONDITIONS OF SERVICE Rate 100

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- 3. Maintenance or repair of Company-owned facilities on customer's premises.
- 4. Pilot relighting will be performed at no charge two (2) times per calendar year per customer. Additional pilot relights will be performed on a chargeable basis. Customers that qualified for the Low Income Energy Assistance Program (LIEAP) during the current LIEAP year will not be charged for a pilot relight. Pilot relights necessary due to an interruption in gas service deemed to be the Company's responsibility
- b. The following service calls will be performed at no charge during the Company's regular business hours:
 - 1. Reconnecting service to an existing facility (cut-in) or disconnecting service (cut-out).
 - Lighting pilots in connection with establishing service when working cutin orders.
 - 32. Investigating high bills or inadequate service complaints.
 - 43. Locating underground Company facilities for contractors, builders, plumbers, etc.
 - 54. Investigating noisy meter complaint.
 - 6<u>5</u>. Moving meter from inside to outside.
- 18. UTILITY SERVICES PERFORMED AFTER NORMAL BUSINESS HOURS -For service requested by customers to be performed after the Company's normal business hours of 8:00 am to 5:00 pm Monday through Friday local time, a charge will be made for labor at the overtime service rate set forth in Rate 100, §VI.1.f. and material at retail prices.

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Volume No. 6<u>7</u> 4th-Revised-Original Sheet No. 49.18 Canceling 3rd-Revised Sheet No. 49.18

CONDITIONS OF SERVICE Rate 100

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Customers requesting service after the Company's normal business hours will be informed of the after-hour service rate and encouraged to have the service performed during normal business hours.

To ensure the Company can service the customer during normal business hours, the customer's call must be received by 12:00 p.m. on a regular work day for a disconnection or reconnection of service that same day. For calls received after 12:00 p.m. on a regular work day, customers will be advised that over-time service rates will apply if service is required that day and the work cannot be completed during normal working hours. Service may be scheduled for a future workday to avoid overtime charges.

19. NOTICE TO DISCONTINUE GAS SERVICE - Customers desiring to have their gas service discontinued shall notify the Company during regular business hours, one business day before service is to be disconnected. Such notice shall be by letter, or telephone call to the Company's Customer Service.

Saturdays, Sundays and legal holidays are not considered business days.

- 20. INSTALLING TEMPORARY METERING FACILITIES OR SERVICE A customer requesting a temporary meter installation and service will be charged for such installation in accordance with Rate 100, §VI.1.i.
- 21. RECONNECTION FEE FOR SEASONAL OR TEMPORARY CUSTOMER A customer who requests reconnection of service, at a location where same customer discontinued the same service during the preceding 12-month period will be charged as follows:

Residential – The Basic Service Charge applicable during the period service was not being used and a charge of \$30.00. The minimum will be based on standard over_time rates for reconnecting service after normal business hours.

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CONDITIONS OF SERVICE Rate 100

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Non-Residential – The Basic Service Charge applicable during the period while service was not being used. However, the reconnection charge applicable to seasonal business concerns such as irrigation, swimming facilities, grain drying, and asphalt processing shall be the Basic Service Charge applicable during the period while service was not being used less the Distribution Delivery Charge revenue collected during the period in-service for usage above the annual authorized usage by rate class (Small Firm General = 155144 dk; Large Firm General = 11641,122 dk; and Small Interruptible = 79176,573 dk). A reconnection fee of \$30.00 will also apply to reconnections. The minimum will be based on standard overtime rates for reconnecting service occurring after normal business hours.

Transportation customers who cease service and then resume service within the succeeding 12 months shall be subject to a reconnection charge as set forth in Rate 100, §VI.1.e. whenever reinstallation of the required remote data acquisition equipment is necessary.

22. DISCONTINUANCE OF SERVICE FOR NONPAYMENT OF BILLS - All amounts billed for services are due when rendered and become delinquent if not paid by the due date shown on the bill. If any customer shall become delinquent in the payment of amounts billed, such service may be discontinued by the Company under the applicable rules of the Commission.

The Company may collect a fee, as set forth in Rate 100, § VI.1.c., before restoring gas service which has been disconnected for non-payment of service bills. Customers that qualified for the Low Income Energy Assistance Program during the current LIEAP program year will be subject to a reconnection charge of \$12.00.

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For calls received after 12:00 p.m. on a regular work day, customers will be advised that over time service rates will apply if service is required that day and the work cannot be completed during normal working hours. Service may be scheduled for a future workday to avoid overtime charges.

- DISCONTINUANCE OF SERVICE FOR CAUSES OTHER THAN NONPAYMENT OF BILLS - The Company reserves the right to discontinue service for any of the following reasons:
 - a. In the event of customer use of equipment in such a manner as to adversely affect the Company's equipment or service to others.
 - b. In the event of tampering with the equipment furnished and owned by the Company.
 - c. For violation of, or noncompliance with, the Company's rules on file with the Commission.
 - d. For failure of customer to fulfill the contractual obligations imposed as conditions of obtaining service.
 - e. For refusal of reasonable access to property to the agent or employee of the Company for the purpose of inspecting the facilities or for testing, reading, maintaining or removing meters.

The right to discontinue service for any of the above reasons may be exercised whenever and as often as such reasons may occur, and any delay on the part of the Company in exercising such rights, or omission of any action permissible hereunder, shall not be deemed a waiver of its rights to exercise same.

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Nothing in these regulations shall be construed to prevent discontinuing service without advance notice for reasons of safety, health, cooperation with civil authorities, or fraudulent use, tampering with or destroying the Company's facilities.

The Company may collect a reconnect fee, as set forth in Rate 100, § VI.1.c. before restoring gas service which has been disconnected for the above causes.

- 24. UNAUTHORIZED USE OF SERVICE Unauthorized use of service is defined as any deliberate interference such as tampering with the Company's meter, pressure regulator, registration, connections, equipment, seals, procedures or records that result in a loss of revenue to the Company. Unauthorized service is also defined as reconnection of service that has been terminated, without the Company's consent.
 - 1. Examples of unauthorized use of service includes, but is not limited to the tampering or unauthorized reconnection by the following methods:
 - a. Bypass piping around meter.
 - b. Bypass piping installed in place of meter.
 - c. Meter reversed.
 - d. Meter index disengaged or removed.
 - e. Service or equipment tampered with or piping connected ahead of meter.
 - f. Tampering with meter or pressure regulator that affects the accurate registration of gas usage.
 - g. Gas being used after service has been discontinued by the Company.
 - h. Gas being used after service has been discontinued by the Company as a result of a new customer turning gas on without the proper connect request.

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CONDITIONS OF SERVICE Rate 100

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- 2. In the event that there has been unauthorized use of service, customer shall be charged for:
 - a. Time, material and transportation costs used in investigation or surveillance.
 - b. Estimated charge for non-metered gas.
 - c. On-premise time to correct situation.
 - d. Any damage to Company property.
 - e. All such charges shall be at current standard or customary amounts being charged for similar services, equipment, facilities and labor by the Company. A minimum fee of \$30.00 will apply.
- 3. Reconnection of Service:

Gas service disconnected for any of the above reasons shall be reconnected after a customer has furnished satisfactory evidence of compliance with the Company's rules and conditions of service and paid any service charges which are due, including:

- a. All delinquent bills, if any;
- b. The amount of any Company revenue loss attributable to said tampering;
- c. Expenses incurred by the Company in replacing or repairing the meter or other appliance, costs incurred in preparation of the bill, plus costs as outlined in Paragraph 2 above;
- d. Reconnection fee applicable; and
- e. A cash deposit, the amount of which will not exceed the maximum amount determined in accordance with Commission Rules ARM 38.5.1105.
- 25. GAS METER TEST BY CUSTOMER REQUEST Any customer may request the Company to test its gas meter. The Company shall make the test as soon as possible after receipt of the request. If a request is made within one year after a previous request, the Company may require a deposit as follows:

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Volume No. 6<u>7</u> 2nd Revised Original Sheet No. 49.23 Canceling 1st Revised Sheet No. 49.23

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CONDITIONS OF SERVICE Rate 100

Meter RatingDeposit AmountAllResidentialAll\$10.00Non-Residential\$40.00425 CFH* or less\$40.00426 CFH to 1000 CFH\$40.00Over 1000 CFH\$70.00

* Cubic feet per hour

The deposit shall be refunded only if the meter is found to have an unacceptable error of greater than or less than two percent, as defined in the Commission's regulations. In the case where a meter is replaced due to malfunction, a customer will be allowed one additional free meter test within 12 months, if requested by the customer.

- 26. BILL DISCOUNT FOR QUALIFYING EMPLOYEES A bill discount may be available for residential use only in a single family unit served by Montana-Dakota Utilities Co. to qualifying retirees of MDU Resources and its subsidiaries. The bill shall be computed at the applicable rate, and the amount reduced by 33 1/3 percent.
- 27. RATES FOR SPECIAL PROVISIONS: Rate 101 - Gas Meter Testing Program Rate 119 - Interruptible Gas Service Extension Policy Rate 120 - Firm Gas Service Extension Policy Rate 124 - Replacement, Relocation and Repair of Gas Service Lines

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Montana-Dakota Utilities Co.

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Natural Gas Service

Volume No. 67 Original Sheet No. 49.24

CONDITIONS OF SERVICE Rate 100

VI. MISCELLANEOUS CHARGES

a.

b.

C.

1. Service Charges

Consumer deposits

Returned check

Page 25 of 26 Amount or Reference Rate 100, §V.6 \$30.00 Minimum reconnect charge after termination for nonpayment or other causes - During normal business hours \$30.00 (\$12.00 for LIEAP) - After normal business hours standard overtime rates

d. Minimum reconnect charge applicable to seasonal or temporary customers - During normal business hours \$30.00 minimum - After normal business hours standard overtime rates (See Rate 100 §V.22.) e. Reconnection charge applicable to transport customers when electronic metering must be reinstalled \$160.00

f. Service request after normal Materials & labor at business hours standard overtime rate

- Interruptible service main extension g.
- h. Firm service main extension

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Rate 119

Rate 120

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

	Natural Gas Service		
		Volume No. 6 Original Sheet No. 49.2	
CONDITIONS C	DF SERVICE Rate 100		
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i.	Installation of temporary metering or service facilities	Materials & labor	
j.	Replacement, relocation and repair of gas service lines	Rate 124	
k	. Manual Meter Read Charge	\$18.35 per month	
2. L	ate Payment Charges (on unpaid balance)	Approx Per Annual <u>Month Percen</u> 1% 12%	
3. li	nterest on Consumer Deposits	0.5% 6%	

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 Original Sheet No. 50

GAS METER TESTING PROGRAM Rate 101

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The policy of the Company for testing meters pursuant to ARM 38.5.2513 is as follows:

 This policy shall not apply to meters of <u>larger than 750650</u> cubic feet per hour or greater capacity. Such meters shall be tested and adjusted or repaired, if necessary, at a periodic interval of at least once in <u>eightten</u> years.

<u>All active meters, 650 cfh and smaller, will be combined into a single</u> random test program. The population of meters shall come from the states of North Dakota, South Dakota, and Wyoming.

- 2. New meters received from a manufacturer shall be subjected to testing on a random sample basis of five percent of the total received, but never less than five meters, and must be found satisfactory before the shipment is released for use. If unsatisfactory, all meters in the shipment shall be tested, and repaired if necessary, or the shipment shall be returned to the manufacturer.
- 3. Meters removed from service because of damage, meters that do not pass gas or that pass gas but do not register, and meters that are otherwise suspect as to accuracy, shall be tested and adjusted before reinstallation.
- 4. <u>At the time the random selection is made, meters more than ten years old</u> <u>and active meters that have not been tested in the last ten years will be</u> <u>placed into an installation class defined model installation date lot (lot) to</u> <u>be part of a random population for testing.</u>
 - a. All other active meters will be assigned to lots on the basis of years since last test year installation <u>date</u> and type of meter construction. A random sample of meters from each lot will be tested each year. <u>Meters</u> shall be divided into lots based on manufacturer, type, and last install <u>date in five year groups.</u> The minimum number of samples taken from

	date in five year groups. The	minimum number of samples taken from
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A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 Original Sheet No. 50.1

GAS METER TESTING PROGRAM Rate 101

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each lot will be as specified by Military Standard No. 414 for inspection by variables, inspection level IV with specification limits of +2.0 percent.

b. Meters tested within the random test program will include meters selected via a computer-generated random selection process and meters pulled from a customer's premise in correlation with service technicians being on-site for other service related work.

5. Lot Acceptability will be determined by the standard deviation method based on single sample, double specification limit, variability unknown, for an acceptable quality level of 15 percent as follows:

- a. A meter lot for which the sample is satisfactory will remain in service.
- b. A meter lot for which the sample fails may remain in service if it passed the previous year and if no more than 10 percent of the sample registers over 102 percent.
- c. A meter lot for which the sample fails will be removed if the lot failed the previous year or if more than 10 percent of the sample registers over 102 percent.

i. If evaluation determines the group is homogeneous, the entire group will be removed.

i.i. If group is not homogeneous and a subset of the group is found defective, that subset will be removed. Removal of a failed lot of meters will be removed from service for testing and repair within one year.

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Natural Gas Service

Volume No. 67 1st-Revised Original Sheet No. 68 Canceling Original Sheet No. 68

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

Page 1 of 3

The policy of Montana-Dakota Utilities Co. for gas extensions necessary to provide interruptible sales or interruptible transportation service to customers is as follows:

- 1. Contribution
 - a. Prior to construction, the customer shall contribute an amount equal to the total cost of construction including all gas main extensions, valves, service line(s), regulators, meters (excluding remote data equipment), any required payments made by the Company to the transmission pipeline to accommodate the extensions, and other costs as adjusted for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the provisions of the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).
 - b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. The customer may post a bond <u>or</u>, irrevocable letter of credit, <u>or a written</u> <u>guarantee commitment</u> in the amount of the total contribution required prior to construction. Such bond, issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for a five-year period commencing at the plant in-service date, and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists for the subject project, the surety or guarantor shall pay the Company for such contribution requirement, or

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Effective for bills rendered on or after April 13, 2003



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 67 1st-Revised Original Sheet No. 68.1 Canceling Original Sheet No. 68.1

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

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- iii. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions: 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.
- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- d. Remote data acquisition equipment costs shall be subject to the terms and conditions specified in Transportation Service Rates 81 and 82.
- 2. Refund
 - a. If within the five-year period from the extension(s) in-service date, the total of the customer's contribution and actual margin paid to the Company equals or exceeds the total present value of the revenue requirement associated with the extension, Company shall refund the amount exceeding the revenue requirement on the following basis:
 - i. Annually, beginning at the second anniversary of the extension(s) inservice date, the Company will refund to the customer, the amount exceeding the total present value of the revenue requirement at a rate of 50% of the current year margin associated with the customer's actual throughput.
 - ii. Customers who have posted a bond, letter of credit or a written guarantee commitment will be notified of any reduction in surety or guarantee requirements based on the above calculation.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

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Volume No. 67 4st-Revised-Original Sheet No. 68.2 Canceling Original Sheet No. 68.2

INTERRUPTIBLE GAS SERVICE EXTENSION POLICY Rate 119

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- iii. No refunds will be made for amounts less than \$25.
- b. Interest will be calculated annually by the Company on any refund amounts and shall be equal to the average commercial paper interest rate (A1/P1), not to exceed 12 percent per annum.
- c. No refund shall be made by the Company after the five-year refund period has expired, and in no case shall the refund, excluding interest, exceed the amount of contribution made by the customer.

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Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-Original Sheet No. 69 Canceling 1st Revised Sheet No. 69

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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The policy of Montana-Dakota Utilities Co. for gas main extensions necessary to provide firm sales or firm transportation service to customers is as follows:

- A. General Rules and Regulations Applicable to all Firm Service Extensions
 - 1. An extension will be constructed without a contribution if the estimated capital expenditure is cost justified as defined in paragraph A.3.
 - 2. The Company may require customer or developer cost participation if the estimated capital expenditure is not cost justified.
 - 3. The extension will be considered cost justified if the calculated maximum allowable investment equals or exceeds the estimated capital expenditure using the following formula:

Maximum Allowable Investment =

Annual Basic Service Charge + (Project Estimated 3rd Year Annual Dk x Distribution Delivery Charge) + Demand Charge + Gas Tax Tracking Adjustment / Levelized Annual Revenue Requirement Factor

- 4. Cost of the extension shall include the gas main extension(s), valves, service line(s), any required payments made by the Company to the transmission pipeline company to accommodate the extension(s), and other costs up to, and including the riser.
- 5. Where cost participation is required, such extension is subject to execution of the Company's standard agreement for extensions by the customer or the developer and Company.

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Volume No. 6<u>7</u> 2nd-Revised-<u>Original</u> Sheet No. 69.1 Canceling 1st Revised Sheet No. 69.1

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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6. A refund will be made only when there is a reduction in the amount of contribution required within a five-year period from the extension(s) in-service date. Interest will be calculated annually by the Company on any refund amounts and shall be equal to the average commercial paper interest rate (A1/P1), not to exceed 12 percent per annum.

No refund shall be made by Company after the five-year refund period, and in no case shall the refund, excluding interest, exceed the amount of the contribution.

7. The Company reserves the right to charge customer the cost associated with providing service to customer if service is not initiated within 12 months of such installation.

B. Customer Extensions

Cost participation for extensions where customers will be immediately available for service is as follows:

- 1. Contribution
 - a. When a contribution is required, the customer(s) shall pay the Company the portion of the capital expenditure not cost justified as determined in accordance with paragraph A.3., plus an amount for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the provisions of the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).

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Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-Original Sheet No. 69.2 Canceling 1st Revised Sheet No. 69.2

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. Payment of 25% of the contribution prior to construction and the balance in no more than twenty-four equal monthly installments. If customer discontinues service within the twenty-four month period, the balance will be due and payable upon discontinuance of service, or
 - iii. Customer may post a bond <u>or</u>, irrevocable letter of credit, or a written guarantee commitment in the amount of the required contribution prior to construction. Such bond, issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for the original five-year term and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists in the subject project based on a recalculated maximum expenditure, the surety or guarantor shall reimburse the Company for such recalculated contribution requirement, or
 - iv. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions: 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

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FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- d. If within the five-year period from the extension(s) in-service date, the number of active customers and related volumes exceeds the third-year projections, the Company shall recompute the contribution requirement by recalculating the maximum allowable investment.
- e. The recalculated contribution requirement shall be collected from the new applicant(s).
- 2. Refund -
 - The Company will refund to the original contributor(s) the amount required to reduce their contribution to the recalculated contribution requirement. No refunds will be made for amounts less than \$25. Customers who have posted a bond, letter of credit, or written guarantee commitment will be notified of any reduction in surety or guarantee requirements.
 - b. No refunds will be made until the new applicants begin taking service from the Company.
 - c. If the addition of new customers will increase the contribution required from existing customer(s), the extension will be considered a new extension and treated separately.

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Docket No.	D2017.9.79		Service rendered on and after June 15, 2018



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-<u>Original</u> Sheet No. 69.4 Canceling 1st Revised Sheet No. 69.4

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- 3. Incremental Expansion Surcharge
 - a. The Company, in its sole discretion, may offer an Incremental Expansion Surcharge (Surcharge) to groups of customers requesting service totaling 10 or more when the total estimated cost would otherwise have been prohibitive under the Company's present rates and gas service extension policy. The contribution requirement to be collected under the Surcharge shall be the amount of the capital expenditure in excess of the Maximum Allowable Investment determined in accordance with **A.3paragraph A. 3**.
 - i. A minimum up-front payment of \$100.00 will be collected from each customer who signs an agreement to participate in the expansion.
 - ii. For projects that are expected to be recovered within a 5year period, the Surcharge shall be set at a fixed monthly charge of \$5.00 per month plus \$1.50 per dk.
 - iii. For projects that are not expected to be recovered within a 5-year period, the Surcharge shall be set at a fixed monthly charge of \$5.00 per month plus a commodity charge designed to provide recovery of the contribution requirement in a 5-year period.
 - b. The Surcharge shall remain in effect until the net present value of the contribution requirement, calculated using a discount rate equal to the overall rate of return authorized in the last rate case, is collected.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-<u>Original</u> Sheet No. 69.5 Canceling 1st Revised Sheet No. 69.5

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- c. The Surcharge shall apply to all customers connecting to natural gas service within the expansion area until the contribution requirement is satisfied.
- d. The net present value of the Surcharge will be treated as a contribution-in-aid of construction for accounting purposes.
- C. Developer Extensions

Cost participation may be required for extension(s) such as a subdivision or mobile home court, in which a developer is installing roads, utilities, etc., before housing is built.

- 1. Contribution
 - a. When a contribution is required, the developer shall pay the Company the portion of the capital expenditure not cost justified as determined in accordance with paragraph A.3., plus an amount for applicable federal and state income taxes. Such tax amount will be calculated in accordance with the Commission's Order in Docket No. 86.11.62, Order No. 5236(f).
 - b. The contribution shall be made by:
 - i. A one-time payment prior to construction, or
 - ii. Developer may post a bond, irrevocable letter of credit, or a written guarantee commitment in the amount of the required contribution prior to construction. Such bond,

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-<u>Original</u> Sheet No. 69.6 Canceling 1st Revised Sheet No. 69.6

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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issued by a bonding company authorized to do business in the state, letter of credit, or written guarantee commitment, shall be effective for the original five-year term and is subject to approval and acceptance by the Company. If at the end of the original five-year term, a contribution requirement exists in the subject project based on a recalculated maximum expenditure, the surety shall reimburse the Company for such recalculated contribution requirement, or

- iii. Customer, upon approval by Company, may finance the amount of the required contribution subject to the following conditions:
 1) maximum contribution to be financed shall be determined by the Company at its sole discretion, 2) maximum term shall be five years, and 3) interest will be charged at the Company's incremental weighted cost of capital.
- c. Upon completion of construction, the contribution amount will be adjusted to reflect actual costs, and an additional charge may be levied or a refund may be made.
- 2. Refund
 - a. If within the five-year period from the extension(s) in-service date, the number of active customers and related volumes exceeds the third-year projections, the Company shall recompute the contribution requirement by recalculating the maximum allowable investment. Such recalculation shall be done annually based upon the anniversary of the extension(s) in-service date.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-Original Sheet No. 69.7 Canceling 1st Revised Sheet No. 69.7

FIRM GAS SERVICE EXTENSION POLICY Rate 120

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- b. The Company will refund to the developer the amount required to reduce their contribution to the recalculated contribution requirement. No refunds will be made for amounts less than \$25. Developers who have posted a bond, letter of credit, or written guarantee commitment will be notified of any reduction in surety or guarantee requirements.
- c. If the addition of new customer(s) will increase the contribution required from the developer, the extension will be considered a new extension and treated separately.

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6<u>7</u> 2nd-Revised-Original Sheet No. 74 Canceling 1st Revised Sheet No. 74

REPLACEMENT, RELOCATION AND REPAIR OF GAS SERVICE LINES Rate 124

Page 1 of 1

- Where service line location changes are made due to building encroachments (a building is being constructed or is already located over a service line, etc.), customer shall be charged on the basis of direct costs incurred by the Company.
- 2. Whenever a service line is damaged by the customer or someone under the employ of the customer necessitating the service line to be either repaired or replaced in whole or in substantial part, such work shall be charged for on a direct cost basis. If the damage was caused by independent contractors, not in the employ of customer, the charges shall be billed directly to such contractor.
- 3. Service line changes necessary to increase the size and capacity of an existing service line because of increased demand shall be treated in accordance with the Firm Gas Service Extension Policy Rate 120.

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By: Tamie A. AberleTravis R. Jacobson Director – Regulatory Affairs

Docket No. D2017.9.79

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc. 400 N 4th-Street Bismarck, ND 58501

Natural Gas Service

Volume No. 6 2rd Revised Sheet No. 74.1 Canceling 1st Revised Sheet No. 74.1

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Issued: September 25, 2017 June 22, 2020 For Office Use Only – Do Not Print Below This Line By: Tamie A. Aberle Travis R. Jacobson Director – Regulatory Affairs

Docket No. D2017.9.79

Service rendered on and after June 15, 2018

MONTANA-DAKOTA UTILITIES CO.

Before the Montana Public Service Commission

Docket No. 2020.06.____

Direct Testimony of Nicole A. Kivisto

- 1 Q. Please state your name and business address.
- 2 A. Yes. My name is Nicole A. Kivisto, and my business address is 400
- 3 North Fourth Street, Bismarck, North Dakota 58501.

4 Q. By whom are you employed and in what capacity?

- 5 A. I am the President and Chief Executive Officer (CEO) of Montana-
- 6 Dakota Utilities Co. (Montana-Dakota), Cascade Natural Gas Corporation
- 7 and Intermountain Gas Company, all subsidiaries of MDU Resources
- 8 Group, Inc. as well as Great Plains Natural Gas Co., a division of
- 9 Montana-Dakota, collectively the MDU Utilities Group.

10 Q. Please describe your duties and responsibilities with Montana-

- 11 Dakota.
- 12 A. I have executive responsibility for the development, coordination,
- 13 and implementation of strategies and policies relative to operations of the
- 14 above-mentioned companies that, in combination, serve over 1.1 million
- 15 customers in eight states.
- 16 Q. Please outline your educational and professional background.

1	A.	I hold a Bachelor's Degree in Accounting from Minnesota State
2		University Moorhead. I began working for MDU Resources/Montana-
3		Dakota in 1995 and have been in my current capacity since January 2015.
4		I was the Vice President-Operations of Montana-Dakota and Great Plains
5		from January of 2014 until assuming my present position.
6		Prior to that, I was the Vice President, Controller and Chief
7		Accounting Officer for MDU Resources for nearly four years and held
8		other finance related positions prior to that.
9	Q.	Have you testified in other proceedings before regulatory bodies?
10	A.	Yes. I have previously presented testimony before this
11		Commission, the Public Service Commissions of North Dakota and
12		Wyoming, the Public Utilities Commissions of Idaho, Minnesota, and
13		South Dakota, the Public Utility Commission of Oregon, and the
14		Washington Utilities and Transportation Commission.
15	Q.	What is the purpose of your testimony?
16	A.	The purpose of my testimony is to provide an overview of Montana-
17		Dakota's gas operations in the state of Montana. I will also provide an
18		overview of the Company's request for a natural gas distribution rate
19		increase and discuss the policies and reasons underlying the major
20		aspects of the request. Finally, I will address the need for an interim
21		increase and introduce the other Company witnesses that will present
22		testimony and exhibits in further support of the Company's request.

Q. Would you provide a summary of Montana-Dakota's gas operations in Montana?

3 Α. Montana-Dakota provides natural gas service to approximately 4 86,435 customers in 36 communities in Montana, operating approximately 5 1,770 miles of distribution mains and approximately 83,494 service lines. 6 The customer base is 88 percent residential and 12 percent commercial 7 and industrial. As of December 31, 2019, the Company had 151 full and 8 part-time employees who live and work throughout the Company's 9 Montana electric and gas service area. Montana-Dakota has added two 10 additional employees for its gas distribution operations since the last gas 11 rate case. A supervisor of field operations was added in Wolf Point in late 12 2017 and a service fitter was added in Glasgow in 2018.

Montana-Dakota's Montana gas service area is divided into two
 operating regions with regional offices located in Billings, Montana and
 Dickinson, North Dakota and a number of smaller district offices located in
 communities throughout Montana.

Montana-Dakota's customers have toll-free access to the Customer
Experience Team located at the Customer Service Centers in Meridian,
Idaho and Bismarck, North Dakota as well as the Credit Center in
Bismarck, North Dakota, to place routine utility service requests and
inquiries from 7:30 am to 6:30 pm local time, Monday through Friday and
emergency calls on a 24-hour basis. A scheduling center, part of the
Customer Experience Team located in Meridian, Idaho transmits electronic

service orders to the mobile terminals placed in our fleet of service and
 construction vehicles. This network allows the Company to respond
 quickly to customer requests and emergency situations.

4 Q. Would you please provide more information regarding the customers
 5 the Company serves?

6 Α. Yes. The residential, firm general service, and small interruptible 7 customers use natural gas primarily for space and water heating. As 8 such, Montana-Dakota's system has a low load factor with peak gas 9 requirements occurring during the winter. Summer loads are small by 10 comparison. Montana-Dakota is projecting to deliver approximately 13.6 11 Mmdk of natural gas to customers in Montana in 2020. The natural gas 12 requirements by customer class is as follows: approximately 44 percent 13 residential, 29 percent firm general service, 5 percent small interruptible 14 and 22 percent large interruptible.

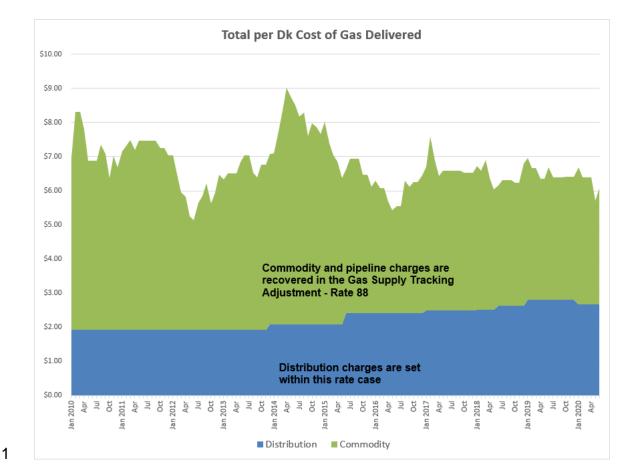
Q. Would you please describe the basic elements that make up the total
 costs of providing natural gas service?

A. For a natural gas distribution utility, the basic elements which make
up the cost of providing natural gas service are the cost of gas delivered at
the town border stations in its service territory and the cost of distributing
the gas from the town border station to the end use customer. It is the
second of these two elements, the distribution costs, which are the subject
of this application for a general rate increase.

1 The natural gas the Company purchases from suppliers is a 2 commodity like wheat or corn, the price of which is not regulated. The 3 cost of delivering the gas to the Company's distribution system at the town 4 border station is regulated by the FERC or other regulatory agencies. 5 These gas costs are passed on to customers on a dollar-for-dollar basis 6 as specified in the Commission approved Gas Cost Tracking Adjustment 7 tariff. The gas portion of the cost of providing natural gas service currently 8 comprises about 58 percent of a typical residential bill for gas service.

9 The distribution cost portion of the Company's cost of service is the 10 subject of this proceeding. This element includes the costs of new 11 distribution investments, replacement of aging infrastructure, operation 12 and maintenance expenses, depreciation, taxes, and the opportunity to 13 earn a return on the Company's investments in facilities that provide 14 natural gas service. Distribution costs are currently about 42 percent of a 15 typical residential bill.

The table below reflects the per dekatherm cost of gas delivered to a residential customer's home for the period beginning January 2010 through June 2020. The information includes both the cost of gas and the distribution charges described above. As shown, natural gas continues to provide a significant value to customers with recent costs representing the lowest costs during the period shown.



2 Q. How is the COVID-19 pandemic impacting Montana-Dakota and its

3 customers?

4	Α.	Montana-Dakota has implemented appropriate measures to ensure
5		that it can continue to operate safely and ensure that the Company's
6		customers can continue to receive essential gas service during this
7		challenging time. To that end, the Company has temporarily suspended
8		the collection of late payment charges for its customers and has
9		implemented a moratorium on service disconnections for non-payment
10		related to hardships incurred from COVID-19. The Customer Experience
11		team is working with customers to establish longer than normal repayment

plans if appropriate and to ensure customers are aware of energy
 assistance programs available to them.

Q. Has Montana-Dakota considered the impact of filing a general rate case during these trying times?

5 Α. We understand that many of our customers may be experiencing 6 economic hardship resulting from the COVID-19 pandemic, and that the 7 prospect of a rate increase may be difficult at this time. We carefully 8 considered the appropriate timing for this filing and ultimately determined 9 that the rate increase is necessary in order to meet customers' needs in regard to maintaining safe and reliable service as well as provide timely 10 11 recovery of the Company's investments and costs. While there is 12 uncertainty regarding how long Montana-Dakota and its customers will be 13 impacted by the COVID-19 pandemic and the magnitude of the impacts, 14 Montana-Dakota is optimistic that the situation will be improved by the 15 time rates go into effect in 2021.

Q. Please summarize Montana-Dakota's requested increase in this filing.

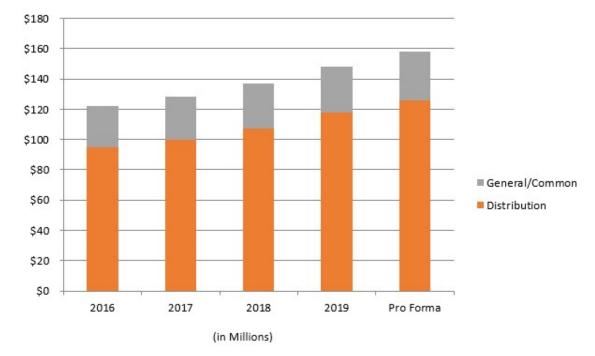
A. Montana-Dakota's cost of doing business in Montana is increasing
despite the Company's efforts to control costs and increase efficiency.
Since 2016, the base period for the last rate case, the Company has
invested approximately \$36.3 million to improve the safety and reliability of
its distribution system in Montana. While much progress was made over
this period, Montana-Dakota believes its necessary to maintain its focus

1 on system improvements and estimates it will invest more than \$29.6 2 million to ensure system safety and reliability between 2020 and 2024. 3 Further, the Company continues to experience increases in labor and 4 personnel costs, general inflation across its business lines and a 5 significant increase in property taxes assessed by the State of Montana. 6 Montana-Dakota's rate base growth and increased operating 7 expenses since its last filed rate case require it to request an overall rate 8 increase of \$8,559,529 million or 13.4 percent based on a 2019 base 9 period adjusted for known and measurable changes through 2020. The 10 Company's demonstrated increase is based on an overall rate of return of 11 7.36 percent based on a weighted capital structure of 50.210 percent 12 common equity, 49.790 percent debt, and a return on equity of 10.2 13 percent. 14 Q. Ms. Kivisto, did you authorize the filing of the rate application in this 15 proceeding? 16 Α. Yes, I did. 17 Q. Why has Montana-Dakota filed this application for a natural gas rate 18 increase? 19 Α. Montana-Dakota is requesting an increase in its general gas rates 20 at this time because the current rates do not reflect the cost of providing 21 natural gas service to the Company's Montana customers. Montana gas 22 operations had a realized return on rate base of 3.696 percent and a 23 return on equity of 2.696 percent for the twelve months ended December

1		31, 2019. Adjusted for normal weather, Montana gas operations produced
2		a return on rate base of 1.81 percent did not have enough income to cover
3		interest expense, therefore reflecting a negative return on equity of (1.07)
4		percent for the twelve months ended December 31, 2019.
5	Q.	When was the Company's last general rate case?
6	A.	The Company's last rate case was Docket No. D2017.9.079. The
7		resulting rate increase was \$975,000 or a 1.41 percent overall increase.
8		Final rates in that case became effective on June 15, 2018.
9	Q.	What are the primary reasons that Montana-Dakota needs an
10		increase at this time?
11	Α.	As noted earlier, the last rate increase was implemented June 15,
12		2018 and was based on a pro forma 2017 revenue requirement. The
13		primary reason for the need for an increase in rates is Montana-Dakota's
14		continued investment in distribution facilities to improve system safety and
15		reliability. The additional investment has generally increased the
16		associated depreciation, taxes, and operation and maintenance expenses.
17	Q.	Would you please describe the investment in distribution facilities to
18		improve system safety and integrity in greater detail?
19	Α.	The investment in system safety and integrity is a focused effort
20		based on the Company's Distribution Integrity Management Program
21		(DIMP). Mr. Darras will explain in further detail how the DIMP is used to
22		identify the pipeline replacement projects necessary for safety reasons
23		and to reduce risk on Montana-Dakota's system.

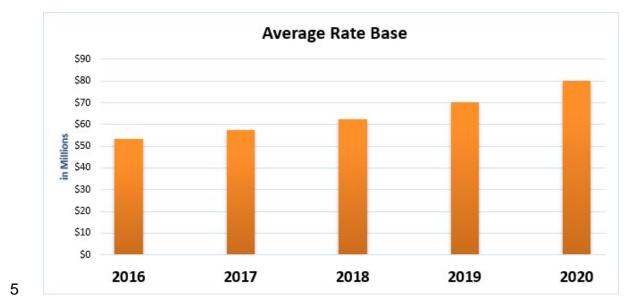
Q. How much has the gross investment and rate base increased since the last case?

A. The table below shows the average gross investment in natural gas
plant assigned and allocated to Montana gas operations. The pro forma
2020 average investment is \$158 million representing an increase of
\$36.3 million or approximately 30% percent greater than the average
investment as of 2016. The chart below illustrates the increase in
investment since 2016.



At the same time, rate base has increased from \$53.3 million to \$79.9
million from 2016 to the 2020 pro forma period. As noted above, the
increase in distribution plant is the largest contributor. Also contributing to
the increase in rate base is the pension regulatory asset in working capital
and other additions. Montana-Dakota continues to make cash

contributions to its pension plan based on guidance from the Company's
 actuary. The pension regulatory asset reflects the net cash contributions
 in excess of pension expense recovered from customers as a component
 of the cost of service established in each rate case.



6 Q. Have increased operating expenses contributed to the need for this 7 rate increase?

8 Α. Yes, the Company's operating expenses, which include 9 depreciation and taxes other than income, have increased since the last 10 rate case. However, as mentioned earlier, the largest contributing factor 11 has been the investment necessary to safely and adequately serve 12 customers. 13 Q. Ms. Kivisto, would you explain how Montana-Dakota strives to 14 efficiently provide safe and reliable service to its Montana 15 customers?

1 Α. Montana-Dakota works hard to control its costs by continually 2 looking for opportunities that create efficiencies and control costs. In spite 3 of Montana-Dakota's efforts to control costs, the Company is seeing a need for increased revenue, as the necessity to replace existing 4 5 infrastructure and add new infrastructure continues. 6 The MDU Utilities Group, which encompasses the four brands I 7 discussed previously, has recently moved forward from a regional 8 operations structure by brand to a functional approach across all brands 9 covering an eight-state service area, striving for operational consistency. 10 The goal is to develop an operations organizational structure to 11 operate as one utility with one vision. 12 Create efficiencies in operations, technology and support services 13 through common approaches and standards 14 ٠ Gain economics of scale by using resources more effectively 15 Streamline decision making • 16 Reduce duplication of effort ٠ 17 Better manage the need for additional resources 18 Implementation of a Pipeline Safety Management System 19 Ensure the organization is better prepared for growth Evolution of continuous improvement 20 21 Build specialized groups with a high level of expertise in their field 22 The functions are organized as follows, each reporting to a Vice 23 President who oversees the function across all brands and eight states:

1		Field Operations (Eric Martuscelli - Vice President)
2		Directs and coordinates activities for the entire gas and electric
3		distribution field operations across the eight-state service territory.
4		Oversees the delivery of regulated products and services to our
5		customers.
6		Engineering and Operations Services (Pat Darras - Vice
7		President)
8		Oversees the development, design and execution of critical and
9		transformative operational strategic initiatives including but not
10		limited to asset management, infrastructure upgrades, and
11		compliance while maintaining engineering and operational
12		excellence across the MDU Utilities Group.
13		Safety, Process Improvement, and Operations Technology
14		(Hart Gilchrest - Vice President)
15		Oversees the development, design and execution of critical and
16		transformative operational excellence strategic initiatives including
17		but not limited to safety, technical training, safety management
18		systems, process improvement and operations technology.
19	Q.	How will the requested increase affect the various classes of
20		customers?

A. The proposed percentage change in rates by customer class is as
 follows:

Class	Percent
Residential	19.81%
Firm General	3.76%
Small Interruptible	7.17%
Large Interruptible	2.95%
Overall	13.42%

The increase to residential customers is significantly higher than

3 4

5

Q.

other customer classes. Can you explain why Montana-Dakota has

6 proposed to allocate the increase among the rate classes in this

- 7 manner?
- A. As noted in the detailed testimony of Mr. Amen, the residential class
 produced a loss or a negative rate of return of (5.729) percent, based on
 the actual results of operations for the 12 months ended December 31,
 2019, adjusted for known and measurable changes, whereas the
 remaining customer classes produce a rate of return that is close to or
 exceeding the propose overall rate of return. The Company's proposal
 seeks to mitigate increased subsidation of residential customers by the
- 15 other customer classes.

Based on the increase noted above, a residential customer using
77 dekatherms would see an average increase of \$8.24 per month.

- 18 Q. What return is Montana-Dakota requesting in this case?
- 19 A. Montana-Dakota is requesting an overall return of 7.36 percent,
- 20 inclusive of a return on equity (ROE) of 10.2 percent. Ms. Bulkley's

analysis indicates that a 10.2 percent ROE is fully justified and supported
 based on the results of her studies.

3 Q. Is Montana-Dakota seeking interim rate relief in this proceeding?

4 Yes. Interim rate relief is being sought in this case consistent with Α. 5 the Administrative Rules of Montana (ARM) § 38.5.5 Interim Utility Rate 6 Increases. Montana-Dakota's overall rate of return on its investment was 7 3.696 percent as of December 31, 2019, resulting in a return on equity of 8 2.696 percent, well below the authorized return of 9.40 percent. The 9 amount of interim relief sought is \$4,884,024 or 8.2 percent and consists of the Company's pro forma 2020 revenue requirement adjusted to reflect 10 11 the return on equity of 9.40 percent authorized in Docket No. D2017.9.079 12 and the exclusion of items that were not a part of the last rate case. 13 Montana-Dakota recognizes that the current COVID-19 pandemic has 14 impacted some of its customers. To minimize the impact to customers, 15 Montana-Dakota proposes to delay implementation of interim rates until 16 February 1, 2021. The delay in implementation will reduce the impact by 17 largely avoiding a rate increase during the winter heating season while at 18 the same time allowing the Company to begin to earn a reasonable rate of 19 return. The interim request will be described in more detail by Ms. Vesey. 20 The proposed interim rates are described by Ms. Bosch. The interim 21 increase is necessary to provide the Company an opportunity to recover the costs of providing service to customers today. 22

1	Q.	Will you please identify the witnesses who will testify on behalf of
2		Montana-Dakota in this proceeding?
3	A.	Yes. Following is a list of witnesses that will provide testimony
4		and/or exhibits in support of the Company's application:
5		Ms. Ann Bulkley, Senior Vice President of Concentric Energy Advisors,
6		Inc. will testify regarding the appropriate cost of common equity for
7		Montana-Dakota's Montana gas operations.
8		Mr. Patrick C. Darras, Vice President – Engineering & Operations
9		Services for Montana-Dakota Utilities Co. will testify regarding the
10		Montana gas distribution operations and the System Safety and
11		Integrity Program.
12		Ms. Tammy J. Nygard, Controller for Montana-Dakota, will testify
13		regarding the overall cost of capital, capital structure, and overall debt
14		costs.
15		Mr. Matthew Shoemake, Regulatory Analyst for Montana-Dakota will
16		testify regarding the volumes projected in this case.
17		• Mr. Travis R. Jacobson, Regulatory Affairs Director for Montana-
18		Dakota, will testify regarding the total revenue requirement and provide
19		an overview of the interim revenue requirement necessary for Montana
20		gas operations.
21		Ms. Tara S. Vesey, Regulatory Affairs Manager for Montana-Dakota will
22		testify regarding the pro forma rate base and operation and
23		maintenance adjustments, including pro forma rate base and operation

- and maintenance adjustments in the Company's interim revenue
 requirement.
- Mr. Ron Amen, Managing Partner with Atrium Economics, LLC working
 with Black and Veatch Management Consulting, LLC will testify on the
 Company's embedded class cost of service study and proposed rate
 design.
- Ms. Stephanie Bosch, Regulatory Affairs Manager for Montana-Dakota
 will testify regarding proposed tariff changes and the derivation of
 interim rates.

Q. Ms. Kivisto, are the rates requested in this proceeding just and reasonable?

- 12 A. Yes. In my opinion, the proposed rates are just and reasonable as
- 13 they are reflective of the total costs being incurred by Montana-Dakota to
- 14 provide safe and reliable natural gas service to its customers. The
- 15 proposed rates will provide Montana-Dakota the opportunity to earn a fair
- 16 and reasonable return on its Montana natural gas operations.
- 17 Q. Does this complete your direct testimony?
- 18 A. Yes, it does.

MONTANA-DAKOTA UTILITIES CO.

Before the Montana Public Service Commission

Docket No. 2020.06.___

Direct Testimony of Tammy J. Nygard

1	Q.	Would you please state your name, business address and position?	
2	Α.	Yes. My name is Tammy Nygard and my business address is 400	
3		North Fourth Street, Bismarck, North Dakota 58501. I am the Controller for	
4		Montana-Dakota Utilities Co. (Montana-Dakota), Cascade Natural Gas	
5		Corporation (Cascade) and Intermountain Gas Company, subsidiaries of	
6		MDU Resources Group, Inc. as well as Great Plains Natural Gas Co.	
7		(Great Plains), a division of Montana-Dakota, collectively the MDU Utilities	
8		Group.	
9	Q.	Would you please describe your duties?	
10	Α.	I am responsible for providing leadership and management of the	
11		accounting and the financial forecasting/planning functions, including the	
12		analysis and reporting of all financial transactions for the MDU Utilities	
13		Group.	
14	Q.	Would you please outline your educational and professional	
15		background?	
16	Α.	I graduated from the University of Mary with a Bachelor of Science	
17		degree in Accounting and Computer Information Systems. I have over 18	
18		years of experience in the utility industry. During my tenure with the MDU 1	

1		Utilities Group, I have held positions of increasing responsibility, including
2		Financial Analyst for Montana-Dakota, Director of Accounting and Finance
3		for Cascade, and now as MDU Utilities Group Controller.
4	Q.	What is the purpose of your testimony in this proceeding?
5	Α.	I am responsible for presenting Statement A, Statement B, and
6		Statement F.
7	Q.	Were these statements and the data contained therein prepared by
8	you or under your supervision?	
9	Α.	Yes, they were.
10	Q.	Are they true to the best of your knowledge and belief?
11	Α.	Yes, they are.
12	Q.	Would you describe Statement A and Statement B?
13	Α.	Statement A, pages 1 and 2 show Montana-Dakota's balance sheet
14		as of December 31, 2018 and December 31, 2019 with March 31, 2019
15		and March 31, 2020 information shown on pages 3 and 4, with notes to
16		the financial statements following. Statement B consists of Montana-
17	Dakota's income statement for the twelve months ended December 31,	
18		2019 and the three months ended March 31, 2020. These statements
19		have been prepared from the Company's books and records that are
20		maintained in accordance with the Federal Energy Regulatory
21		Commission (FERC) Uniform System of Accounts.

1

Q. Would you please explain Statement F?

Α.	Statement F shows the average utility capital structure of Montana-	
	Dakota for the twelve months ended December 31, 2019, and the	
	projected capital structure for 2020. Statement F includes the associated	
	costs of debt and common equity. This capital structure and the	
	associated costs serve as the basis for the overall rate of return requested	
	by Montana-Dakota in this rate filing of 7.360 percent. The basis for the	
	requested 10.20 percent return on equity contained within the overall	
	requested rate of return is supported through the testimony of Ms. Ann	
	Bulkley.	
	Statement F, Rule 38.5.146 summarizes the average of the actual	
	utility capital structure at December 31, 2019 and the projected average	
	and year end capital structure and the related utility costs of capital for	
	2020. As shown on page 1, the components of the 2020 projected overall	
	annual rate of return, which are used by Ms. Vesey to calculate the	
	A.	

16 revenue requirement, are:

		Weighted Cost of Capital
	Long Term Debt	2.110%
	Short Term Debt	0.129%
	Equity	5.121%
	Required Rate of Return	7.360%
17		

Page 2 of Rule 38.5.146 reflects the Company's utility common
equity balance at December 31, 2019 and the projected balance at

December 31, 2020. The changes to the common equity balances include
 the normal changes, including projected earnings.

Q. How does the Company finance its gas utility operations and determine the amount of equity and debt to be included in its capital structure?

6 Α. As a regulated public utility, the Company has a duty and obligation 7 to provide safe and reliable service to its customers across its service 8 territory while prudently balancing cost and risk. In order to fulfill its 9 service obligations, the Company is making significant capital 10 expenditures for new plant investment throughout its service territory, 11 especially in mains and services, including System Safety and Integrity 12 Projects (SSIP). These new investments also have associated operating 13 and maintenance costs. Through its financial planning process, the 14 Company determines the amounts of necessary financing required to 15 support these activities. The Company finances its operations with a 16 target of 50 percent equity. Capital expenditure investments are financed 17 through a mix of internally generated funds, the utilization of the 18 Company's short-term credit line and the issuance of additional debt and 19 equity financing as required to maintain targeted capital ratios. 20 The Company issued \$100 million senior notes in both October and 21 November 2019, for a total of \$200 million. The Company does not

22 anticipate debt issuances in 2020.

Q. What does Statement F, Rule 38.5.147 show?

2	Α.	Page 1 is a summary showing the Company's long-term debt at
3		December 31, 2019 and the associated cost of debt, and it shows the
4		projected long-term debt and associated costs for 2020, as well as the
5		average cost of debt for the two periods. Page 2 shows the cost and the
6		debt balance by issue at December 31, 2019. Page 3 shows the projected
7		cost and the debt balance by issue at December 31, 2020.
8	Q.	How did you derive the projected cost of debt for 2020?
9	A.	The projected cost of debt for 2020 is based upon the yield to
10		maturity of each debt issue outstanding.
11	Q.	Would you please describe Statement F, Rule 38.5.147, page 4 and
12		explain the amortization method utilized?
13	A.	Page 4 reflects the annual amortization of the costs associated with
14		the redemption of certain long-term debt. For this proceeding, the
15		amortization has been computed on a straight-line basis over the
16		remaining life of the original debt issued. The Company uses the same
17		calculation for accounting purposes.
18	Q.	Would you please describe Statement F, Rule 38.5.147, page 5?
19	A.	Page 5 presents the average short-term debt balance for 2019 and
20		projected for 2020 as well as the average cost of short-term debt. A
21		twelve-month average of short-term debt is used in the cost of capital
22		calculation to reflect the seasonality in the short-term debt balance. Short-
23		term debt is historically at or near its peak in December and the twelve-

month average calculation is more reflective of the borrowing level than a
 year-end balance.

3	Q.	What does Statement F, Rule 38.5.148 show?
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4 A. This schedule shows the Company has no preferred stock for the
5 12 months ending December 31, 2019.

6 Q. What does Statement F, Rule 38.5.149-151 show?

- 7 A. The schedule presents the Company's common stock as of
- 8 December 31, 2019. As authorized in Per Docket No. D2018.1.6,
- 9 Montana-Dakota is a subsidiary of MDU Energy Capital, LLC, which is a
- 10 direct subsidiary of MDU Resources Group, Inc. As such, Montana-
- 11 Dakota no longer has publicly traded stock, issues dividends, or had any
- 12 changes in par or stated value price since the reorganization.

13 Q. Would you please describe Statement F, Rule 38.5.152?

14 Α. This schedule shows the reacquisition of bonds and preferred stock 15 for the 18-month period prior to the date of this filing. The Company issued 16 a thirteen month \$100 million London Interbank Offered Rate (LIBOR) 17 floating rate note in both September and October 2018, for a total of \$200 18 million. This temporary bridge financing was put in place to delay 19 issuance of permanent private placement debt in order to aggregate debt 20 issuances and achieve more attractive long-term pricing and avoid duplication of issuance costs. These notes were retired in October and 21 22 November 2019 and replaced with the senior notes issued in 2019 as

- 1 mentioned previously. Montana-Dakota does not have any preferred
- 2 stock.

3 Q. Does this conclude your direct testimony?

4 A. Yes, it does.

MONTANA-DAKOTA UTILITIES CO.

BEFORE THE MONTANA PUBLIC SERVICE COMMISSION

D2020.06.____

PREPARED DIRECT TESTIMONY OF

ANN E. BULKLEY

1 Q1. Please state your name and business address.

- 2 A1. My name is Ann E. Bulkley. My business address is 293 Boston Post Road West,
- 3 Suite 500, Marlborough, Massachusetts 01752.
- 4 Q2. What is your position with Concentric Energy Advisors, Inc. ("Concentric")?
- 5 A2. I am employed by Concentric as a Senior Vice President.

6 Q3. On whose behalf are you submitting this Direct Testimony?

- 7 A3. I am submitting this Direct Testimony before the Montana Public Service
 8 Commission ("Commission") on behalf of Montana-Dakota Utilities Co.
 9 ("Montana-Dakota" or the "Company").
- 10 Q4. Please describe your education and experience.

11 A4. I hold a Bachelor's degree in Economics and Finance from Simmons College and 12 a Master's degree in Economics from Boston University, with more than 20 years 13 of experience consulting to the energy industry. I have advised numerous energy 14 and utility clients on a wide range of financial and economic issues with primary 15 concentrations in valuation and utility rate matters. Many of these assignments 16 have included the determination of the cost of capital for valuation and ratemaking

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purposes. I have included my resume and a summary of testimony that I have filed in other proceedings as Exhibit No. (AEB-2), Schedule 1.

3 Q5. Please describe Concentric's activities in energy and utility engagements.

4 A5. Concentric provides financial and economic advisory services to many and various 5 energy and utility clients across North America. Our regulatory, economic, and 6 market analysis services include utility ratemaking and regulatory advisory 7 services; energy market assessments; market entry and exit analysis; corporate and 8 business unit strategy development; demand forecasting; resource planning; and 9 energy contract negotiations. Our financial advisory activities include buy and sell-10 side merger, acquisition and divestiture assignments; due diligence and valuation 11 assignments; project and corporate finance services; and transaction support 12 services. In addition, we provide litigation support services on a wide range of financial and economic issues on behalf of clients throughout North America. 13

14 Q6. Have you testified before any regulatory authorities?

A6. Yes. A list of proceedings in which I have provided testimony is provided in
Exhibit No. (AEB-2), Schedule 1.

17 I. PURPOSE AND OVERVIEW OF DIRECT TESTIMONY

18 Q7. Please describe the purpose of your Direct Testimony.

A7. The purpose of my Direct Testimony is to present evidence and provide a
 recommendation regarding the appropriate Return on Equity ("ROE")¹ for

Throughout my direct testimony, I interchangeably use the terms "ROE" and "cost of equity".

1 Montana-Dakota's natural gas operations in Montana to be used for ratemaking 2 purposes. I also address the appropriateness of the Company's proposed capital 3 structure. My analyses and recommendations are supported by the data presented 4 in Exhibit No.___(AEB-2), Schedules 2 through 14, which were prepared by me or 5 under my direction.

6 Q8. Please provide a brief overview of the analyses that led to your ROE 7 recommendation.

8 A8. As discussed in more detail in Section VI, I applied the Constant Growth form of 9 the Discounted Cash Flow ("DCF") model, the Capital Asset Pricing Model 10 ("CAPM"), the Empirical Capital Asset Pricing Model ("ECAPM"), the Risk 11 Premium Approach and the Expected Earnings Analysis. My recommendation also 12 takes into consideration: (1) the Company's small size; (2) Flotation costs; (3) the 13 Company's capital expenditure requirements; (4) the regulatory environment in 14 which the Company operates; and (5) the Company's adjustment mechanisms. 15 Finally, I considered the Company's proposed capital structure as compared to the capital structures of the proxy companies.² While I did not make any specific 16 17 adjustments to my ROE estimates for any of these factors, I did take them into 18 consideration in aggregate when determining where the Company's ROE falls 19 within the range of analytical results.

20

The selection and purpose of developing a group of comparable companies will be discussed in detail in Section V of my Direct Testimony.

1

Q9. How is the remainder of your Direct Testimony organized?

2 A9. Section II provides a summary of my analyses and conclusions. Section III reviews 3 the regulatory guidelines pertinent to the development of the cost of capital. Section IV discusses current and projected capital market conditions and the effect 4 5 of those conditions on Montana-Dakota's cost of equity in Montana. Section V 6 explains my selection of a proxy group of natural gas utilities. Section VI describes 7 my analyses and the analytical basis for the recommendation of the appropriate 8 ROE for Montana-Dakota. Section VII provides a discussion of specific regulatory, 9 business, and financial risks that have a direct bearing on the ROE to be authorized 10 for the Company in this case. Section VIII assesses the Company's proposed 11 capital structure as compared to the proxy group. Section IX presents my 12 conclusions and recommendations for the market cost of equity.

13 II. SUMMARY OF ANALYSIS AND CONCLUSIONS

14 **Q10.** Please summarize the key factors considered in your analyses and upon which

- 15 you base your recommended ROE.
- 16 A10. In developing my recommended ROE for Montana-Dakota, I considered the
- 17 following:

• The *Hope* and *Bluefield* decisions³ that established the standards for determining a fair and reasonable allowed ROE, including consistency of the allowed return with the returns of other businesses having similar risk, adequacy of the return to provide access to capital and support credit quality, and the requirement that the result lead to just and reasonable rates.

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^{Federal Power Commission v.} *Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Bluefield Waterworks & Improvement Co.*, v. Public Service Commission of West Virginia, 262 U.S. 679 (1923).

1	• The effect of current and projected capital market conditions on investors'
2	return requirements.
3	
4	• The results of several analytical approaches that provide estimates of the
5	Company's cost of equity.

- 6 7 8
- The Company's regulatory, business, and financial risks relative to the proxy group of comparable companies, and the implications of those risks.
- 9
- Q11. Please explain how you considered those factors.

10 I relied on several analytical approaches to estimate Montana-Dakota's cost of A11. 11 equity based on a proxy group of publicly traded companies. As shown in Figure 12 1, those ROE estimation models produce a wide range of results. My conclusion 13 about where within that range of results Montana-Dakota's ROE falls is based on 14 the Company's business and financial risk relative to the proxy group. Although 15 the companies in my proxy group are generally comparable to Montana-Dakota, 16 each company is unique, and no two companies have the exact business and 17 financial risk profiles. Accordingly, I selected a proxy group with similar, but not 18 the same risk profiles; and I adjusted the results of my analysis either upwards or 19 downwards within the reasonable range of results to account for any residual 20 differences in risk.

- Q12. Please summarize the results of the ROE estimation models that you
 considered to establish the range of ROEs for Montana-Dakota.
- 23 A12. Figure 1 summarizes the range of results produced by the Constant Growth DCF,
- 24 CAPM, ECAPM, Risk Premium, and Expected Earnings analyses.

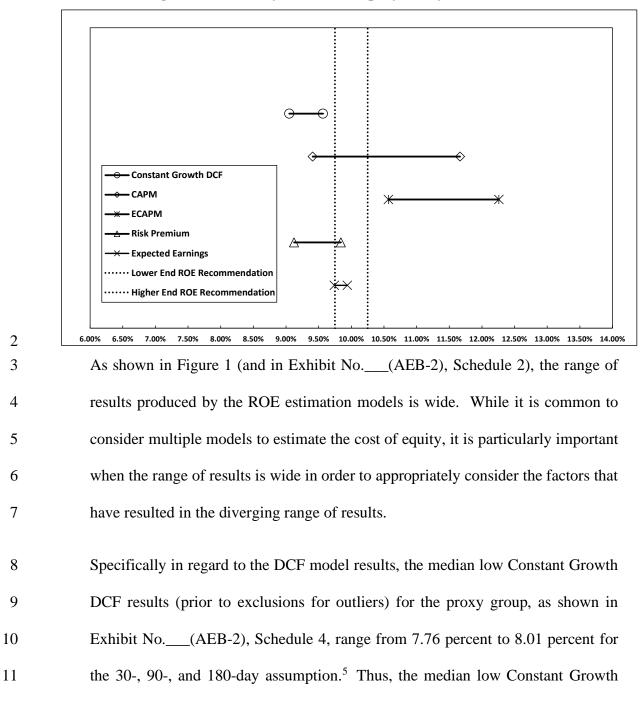


Figure 1: Summary of Cost of Equity Analytical results ⁴

⁴ The analytical results reflect the results of the Constant Growth DCF analysis excluding the results for individual companies that did not meet the minimum threshold of 7.00 percent.

⁵ My DCF models generated a low, mean, and high result. The low result is the median of the proxy group DCF results calculated using the lowest earnings growth rate for each company from Value Line, Yahoo! Finance or Zacks.

1 DCF results are below any authorized ROE for an electric utility or natural gas 2 utility in the U.S. since at least 1980.⁶ Therefore, I conclude that the median low 3 DCF results do not provide a sufficient risk premium to compensate equity 4 investors for the residual risks of ownership, including the risk that they have the 5 lowest claim on the assets and income of Montana-Dakota.

As a result, my ROE recommendation considers the median and median-high
results of the DCF model, forward looking CAPM and ECAPM analyses, a Bond
Yield Plus Risk Premium analysis and an Expected Earnings analysis. I also
consider company-specific risk factors and current and prospective capital market
conditions.

11 Q13. What is your recommended ROE for Montana-Dakota?

A13. Considering the analytical results presented in Figure 1, as well as the level of regulatory, business, and financial risk faced by Montana-Dakota's natural gas operations in Montana relative to the proxy group, I believe a range from 9.9 to 10.40 percent is reasonable. This recommendation reflects the range of results for the proxy group companies, the relative risk of Montana-Dakota's natural gas operations in Montana as compared to the proxy group, and current capital market conditions. Within that range, a return of 10.20 percent is reasonable.

⁶

Source: Regulatory Research Associates, Rate Case History, January 1, 1980 – February 28, 2020.

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Q14. Please summarize the analysis you conducted in determining that Montana-Dakota's requested capital structure is reasonable and appropriate.

3 A14. Based on the analysis presented in Section VIII of my testimony, I conclude that 4 Montana-Dakota's proposed 50.210 percent common equity is reasonable. To 5 determine if Montana-Dakota's requested capital structure was reasonable, I 6 reviewed the capital structures of the utility subsidiaries of the proxy companies. 7 As shown in Exhibit No. (AEB-2), Schedule 14, the results of that analysis 8 demonstrate that the average equity ratios for the utility operating companies of the 9 proxy group range from 42.93 percent to 62.03 percent, with an average of 53.44 10 percent. Comparing the proposed equity ratio to the proxy group demonstrates that 11 the Company's requested equity ratio is well within the range of equity ratios for 12 the utility operating subsidiaries of the proxy group companies. Further, the 13 Company's proposed equity ratio is reasonable considering that federal tax reform 14 legislation has had a negative effect on the cash flows and credit metrics of 15 regulated utilities.

16

III.REGULATORY GUIDELINES

17 Q15. Please describe the guiding principles to be used in establishing the cost of 18 capital for a regulated utility.

19 The United States Supreme Court's precedent-setting Hope and Bluefield cases A15. 20 established the standards for determining the fairness or reasonableness of a 21 utility's allowed ROE. Among the standards established by the Court in those cases 22 are: (1) consistency with other businesses having similar or comparable risks; (2) 23 adequacy of the return to support credit quality and access to capital; and (3) the

1		principle that the result reached, as opposed to the methodology employed, is the
2		controlling factor in arriving at just and reasonable rates. ⁷
3	Q16.	Has the Commission provided similar guidance in establishing the appropriate
4		return on common equity?
5	A16.	Yes, it has. In Docket No. D2017.9.80 for Energy West Montana, Inc. ("EWM"),
6		the Commission stated that:
7 8 9		[t]he paradigm of utility regulation requires commissions to authorize ROEs commensurate with returns on alternative investments with similar risk. See <i>Hope</i> and <i>Bluefield</i> . ⁸
10		Additionally, the Commission further noted that:
11 12 13 14 15 16		[t]he cost of equity is a vigorously contested issue in this proceeding, because unlike long-term debt which is priced based on transparent agreements between the utility and a third-party issuer, the cost of equity is estimated based on expectations of what equity investors demand in return for the time-value of their money and the risk of the investment at hand. ⁹
17		This guidance is in accordance with the Hope and Bluefield decisions and the
18		principles that I employed to estimate the ROE for the Company, including the
19		principle that an allowed rate of return must be sufficient to enable regulated
20		companies like Montana-Dakota to attract capital on reasonable terms.

⁹ *Id.*, at 39-40.

⁷ *Hope*, 320 U.S. 591 (1944); *Bluefield*, 262 U.S. 679 (1923).

⁸ Docket No. D2017.9.80, Order No. 7575c, IN THE MATTER OF the Joint Application for Approval to Change and Establish Natural Gas Delivery Rates for Energy West Montana, Inc. and Cut Bank Gas Company (Sep. 26, 2018), at 50.

Q17. Why is it important for a utility to be allowed the opportunity to earn an ROE that is adequate to attract capital at reasonable terms?

A17. An ROE that is adequate to attract capital at reasonable terms enables the Company
to continue to provide safe, reliable natural gas service while maintaining its
financial integrity. To the extent the Company is provided the opportunity to earn
its market-based cost of capital, neither customers nor shareholders are
disadvantaged.

8 Q18. Is a utility's ability to attract capital also affected by the ROEs that are 9 authorized for other utilities?

10 A18. Yes. Utilities compete directly for capital with other investments of similar risk, 11 which include other natural gas and electric utilities. Therefore, the ROE awarded 12 to a utility sends an important signal to investors regarding whether there is 13 regulatory support for financial integrity, dividends, growth, and fair compensation 14 for business and financial risk. The cost of capital represents an opportunity cost 15 to investors. If higher returns are available for other investments of comparable 16 risk, investors have an incentive to direct their capital to those investments. Thus, 17 an authorized ROE significantly below authorized ROEs for other natural gas and 18 electric utilities can inhibit the utility's ability to attract capital for investment in 19 Montana.

While Montana-Dakota is committed to investing the required capital to provide safe and reliable service, because Montana-Dakota is a subsidiary of MDU Resources, the Company competes with the other MDU Resources subsidiaries for discretionary investment capital. In determining how to allocate its finite

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discretionary capital resources, it would be reasonable for MDU Resources to consider the authorized ROE of each of its subsidiaries.

3 Q19. What are your conclusions regarding regulatory guidelines?

A19. The ratemaking process is premised on the principle that a utility must have the
opportunity to recover the return of, and the market-required return on, its invested
capital. Because utility operations are capital-intensive, regulatory decisions
should enable the utility to attract capital at reasonable terms under a variety of
economic and financial market conditions; doing so balances the long-term
interests of the utility and its ratepayers.

10 The financial community carefully monitors the current and expected financial 11 condition of utility companies, and the regulatory framework in which they operate. 12 In that respect, the regulatory framework is one of the most important factors in 13 both debt and equity investors' assessments of risk. The Commission's order in 14 this proceeding, therefore, should establish rates that provide the Company with the 15 opportunity to earn an ROE that is: (1) adequate to attract capital at reasonable 16 terms under a variety of economic and financial market conditions; (2) sufficient to 17 ensure good financial management and firm integrity; and (3) commensurate with 18 returns on investments in enterprises with similar risk. To the extent Montana-19 Dakota is authorized the opportunity to earn its market-based cost of capital, the 20 proper balance is achieved between customers' and shareholders' interests.

21 IV. CAPITAL MARKET CONDITIONS

1 Q20. Why is it important to analyze capital market conditions?

2 A20. The ROE estimation models rely on market data that are either specific to the proxy 3 group, in the case of the DCF model, or the expectations of market risk, in the case 4 of the CAPM. The results of the ROE estimation models can be affected by 5 prevailing market conditions at the time the analysis is performed. While the ROE 6 that is established in a rate proceeding is intended to be forward-looking, the 7 practitioner uses current and projected market data, specifically stock prices, 8 dividends, growth rates and interest rates in the ROE estimation models to estimate 9 the required return for the subject company.

10 As discussed in the remainder of this section, current market conditions affect the 11 results of ROE estimation models. As a result, it is important to consider the effect 12 of these conditions on the ROE estimation models when determining the appropriate range and recommended ROE to be determined for a future period. If 13 14 investors do not expect current market conditions to be sustained in the future, it is 15 possible that the ROE estimation models will not provide an accurate estimate of 16 investors' required return during that rate period. Therefore, it is very important to 17 consider projected market data to estimate the return for that forward-looking 18 period.

Q21. What factors are affecting the cost of equity for regulated utilities in the current and prospective capital markets?

A21. The cost of equity for regulated utility companies is being affected by several factors in the current and prospective capital markets, including: (1) the current market volatility has created a short-term aberration in the market which must be carefully considered when selecting the inputs for the ROE estimation models; 2)
utility stock valuations, which are inversely related to dividend yields, are currently
unsustainably high given investors' demand for defensive sectors during the shortterm market dislocation; and (3) recent Federal tax reform. In this section, I discuss
each of these factors and how it affects the models used to estimate the cost of
equity for regulated utilities.

7 A. Current Market Conditions

8 Q22. Please summarize current market conditions.

9 A22. In 2020, market conditions have been extremely volatile. In January and early 10 February 2020, major market indices were generally increasing, many reaching 11 new threshold levels. By mid-February, as the global health pandemic became more 12 apparent, market conditions became increasingly more volatile. In mid-February 13 utility stock prices reached an all-time high, followed by a significant decline in the 14 overall market and utility stocks. Market conditions in March 2020 were more 15 volatile than the last half of February. As shown in Figure 2 below, the S&P 500 16 Index swung more than 3 percent in 16 of the 22 trading days in the month of 17 March.

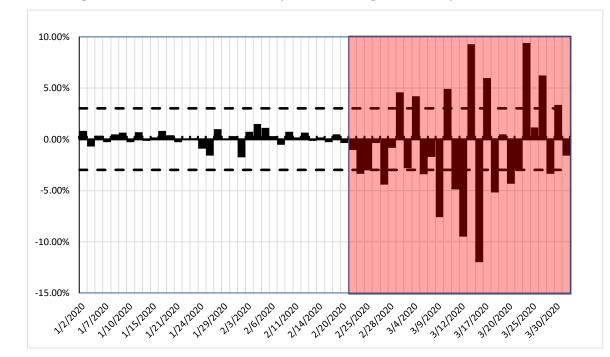


Figure 2: S&P 500 Index – Daily Price Change – January-March 2020



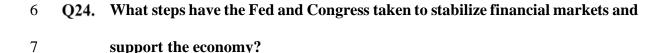
Q23. Have you reviewed any other indicators that measure volatility in the financial
markets?

5 A23. Yes, I reviewed two other measures of volatility in financial markets which are the 6 Chicago Board Options Exchange ("CBOE") Volatility Index ("VIX") and the U.S. 7 Treasury Note Volatility Index ("TYVIX"). The VIX measures investors' 8 expectation of volatility in the S&P 500 over the next 30 days. The TYVIX, also 9 published by CBOE, measures investors' expectation of volatility in the 10-year 10 Treasury Bond over the next 30 days. As shown in Figure 3, the VIX and TYVIX 11 have recently reached levels not seen since the Great Recession of 2008/09. For 12 example, the VIX was 82.69 on March 16, 2020. The VIX has not reached 80.00 13 since November of 2008; however, it is important to note that the highest level 14 reached during the Great Recession of 2008/09 was 80.86. Similarly, the TYVIX 15 was 16.39 on March 19, 2020. Since at least January 2003, the TYVIX has never exceeded 15.00 including during the Great Recession of 2008/09. These indicators
 show that COVID-19 has caused an increase in the level of uncertainty and
 volatility in the market even greater than during the Great Recession of 2008/09.

Figure 3: CBOE VIX and TYVIX – January 2003 – March 2020

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A24. On March 23, 2020, the Federal Reserve began expansive programs to support credit to large employers; the Primary Market Corporate Credit Facility ("PMCCF") to provide liquidity for new issuances of corporate bonds, and the Secondary Market Corporate Credit Facility ("SMCCF") to provide liquidity for outstanding corporate debt issuances. Further, the Federal Reserve supported the flow of credit to consumers and businesses through the Term Asset-Backed Securities Loan Facility ("TALF"). ¹⁰ Additionally, on March 27, 2020, the

¹⁰ Federal Reserve Board Press Release, "Federal Reserve announces extensive new measures to support the economy", March 23, 2020.

Coronavirus Aid, Relief, and Economic Security ("CARES") Act was signed into
 law which is a large fiscal stimulus package aimed at also mitigating the economic
 effects of the coronavirus. While these expansive programs have provided for
 greater price stability, both the VIX and the TYVIX remained well above long-term
 historical normal levels.

Q25. Have you reviewed any indicators that measure the uncertainty in the global economy related to COVID-19?

8 A25. Yes, I have. I reviewed the global economic policy uncertainty index developed 9 by economists Scott Baker, Nicholas Bloom and Steven Davis. The index is a 10 GDP-weighted average of the economic policy uncertainty index of 21 countries. 11 The economic policy uncertainty index measures the frequency that articles in publications of a country discuss economic policy uncertainty.¹¹ 12 As shown in 13 Figure 4, uncertainty regarding global economic policy is at its highest level since 14 at least 1997, with the largest increase occurring in the last two years as a result of 15 the escalating trade dispute between the U.S. and China and the spread of COVID-16 19.

Source: Economic Policy Uncertainty: https://www.policyuncertainty.com/index.html.

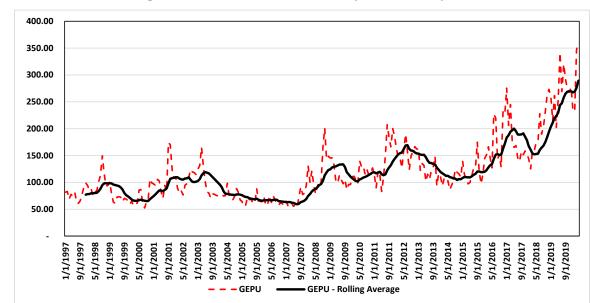


Figure 4: Global Economic Policy Uncertainty Index

Q26. Has the increased global economic uncertainty resulted in increased volatility
in financial markets?

5 A26. Yes, it has. As shown in Figure 3 above, the VIX is currently at levels not reached 6 since the Great Recession of 2008/09. However, in addition to the VIX, I also 7 reviewed the U.S. equity market volatility index which similar to the global 8 economic policy uncertainty index is an index developed by Scott Baker, Nicholas 9 Bloom and Steven Davis from the National Bureau of Economic Research. The 10 U.S. equity market volatility index measures the frequency that articles in U.S. 11 publications discuss equity market volatility. In addition, this index tracks VIX and 12 realized volatility of returns on the S&P 500. As shown in Figure 5, the U.S. equity 13 market volatility index has recently increased to its highest level since at least 2011. 14 The increase in the index between 2017 and 2020 can be attributed to recent 15 external events such as the trade war between the U.S. and China and COVID-19

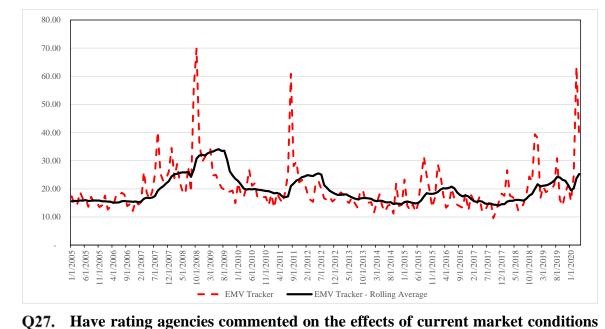
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as investors have become increasingly concerned regarding the short-term effects that these events may have on the U.S. economy.

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Figure 5: US Equity Market Volatility Index



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on regulated utilities?

A27. Yes. Standard & Poor's recently downgraded the outlook on the entire North
American utilities sector indicating that 25 percent of the industry was previously
on a negative outlook or CreditWatch with negative implications and that S&P
expected that COVID-19 would create incremental pressure and that a recession
would lead to an increasing number of downgrades and negative outlooks.¹²

¹² Standard & Poor's Ratings Direct, COVID-19: The Outlook for North American Regulated Utilities Turns Negative, April 2, 2020.

Q28. How has the recent uncertainty in the market affected the yields on long-term government bonds?

A28. The uncertainty surrounding the trade dispute between the U.S. and China and the
spread of COVID-19 has resulted in a flight-to-quality as investors have purchased
safer assets such as U.S. Treasuries due to increased fears of a possible recession.
This has been increasingly evident over the past few months as investors responded
to news of increases in tariffs by both China and the U.S. and the number of
coronavirus cases outside of China as the effects of the virus spread globally.

9 Figure 6 highlights significant macroeconomic and global events and reactions of 10 investors as shown through the yield on the 10-year U.S. Treasury Bond between 11 September 1, 2019, and March 31, 2020. As shown in Figure 6, investors responded 12 to both positive and negative developments regarding the trade dispute with China 13 as well as policy announcements from the Federal Reserve. As shown in the figure, 14 the yield on the 10-year Treasury Bond fluctuated between 1.50 percent and 2.00 15 percent between September and December 2019. In 2020, the economic effects of 16 the spread of COVID-19 and the intervention of the Federal Reserve and the 17 Federal Government have resulted in a marked decline in the yield on the 10-year 18 Treasury Bond. Furthermore, since March 9th, the 10-year Treasury Bond has 19 experienced extreme volatility, ranging from 0.54 percent to 1.18 percent as 20 investors respond to both positive and negative news regarding the spread of 21 COVID-19 and its economic effects. In summary, the emergence of COVID-19 22 in China and its subsequent spread across the globe has resulted in unprecedented 23 volatility in the markets.

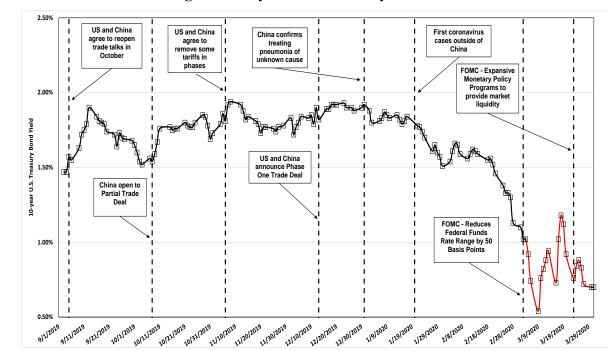


Figure 6: 10-year U.S. Treasury Yield

3 4

Q29. What are your conclusions regarding the recent market volatility and its effect on the cost of equity for Montana-Dakota?

5 A29. As discussed above, investors have responded to the trade war between the U.S. 6 and China and more recently the spread of COVID-19 by divesting higher-risk 7 assets and purchasing lower-risk assets such as U.S. Treasury bonds or defensive 8 sector equites such as utilities. Furthermore, the constant news regarding the spread 9 of COVID-19 and its economic effects has resulted in an abundance of information 10 for investors to consider. This has resulted in unprecedented volatility in financial 11 markets as investors have rotated in and out of various assets classes responding to 12 both positive and negative developments. Therefore, ROE estimation models which rely on recent market data must be interpreted with extreme caution. For 13 14 example, the Constant Growth DCF model relies on the average share prices for 15 the proxy companies, which have been extremely volatile in the last several months

1	and are not likely representative of what should be expected during the period that
2	Montana-Dakota's rates will be in effect. This highlights two key factors that must
3	be considered when determining the ROE for Montana-Dakota: 1) current and
4	prospective market conditions should be considered when determining where
5	among the range of results Montana-Dakota's ROE should fall and 2) where
6	possible it is necessary to consider projected market data in each of the models
7	which reflect economists' expectations for the market conditions that will exists
8	during the period that Montana-Dakota's rates will be in effect.

9 B. <u>The Effect of Market Conditions on Valuations</u>

Q30. Please provide a brief summary of the recent monetary policy actions of the Federal Reserve.

12 A30. On March 15, 2020 the Federal Reserve acknowledged that the recent spread of 13 COVID-19 poses increased risks to economic activity in the U.S. and therefore lowered the federal funds rate by 100 basis points, to a range of 0.00 percent to 0.25 14 percent.¹³ This was the second unscheduled Federal Reserve meeting to occur in 15 16 March with first occurring on March 3rd where the Federal Reserve decreased the 17 federal funds rate by 50 basis points. In addition to the reduction in the federal funds 18 rate, the Federal Reserve also announced plans to increase its holdings of both Treasury and mortgage-backed securities.¹⁴ As discussed previously, on March 23, 19 20 2020, the Federal Reserve also implemented an expansive credit program designed

¹³ FOMC, Federal Reserve Press Release, March 15, 2020, at 1.

¹⁴ *Id.*, at 2.

to provide liquidity to corporations, large employers, consumers, businesses and
municipalities. ¹⁵ This program initially targeted investment grade corporations, but
in April 2020 was expanded to include corporations that were investment grade
rated as of March 22, 2020. The PMCF and SCCF programs were initially funded
at \$75 billion, but the combined size of these programs, including the addition of
below investment grade corporate debt is proposed to be up to \$750 billion. ¹⁶
It is important to view the recent Fed policy decisions in the context of the reactions
to global exogenous events in particular COVID-19. The recent spread of COVID-
19 has affected the global economy and caused a rise in volatility in the financial
markets; thus, the Federal Reserve reacted by reducing the federal funds rate to
minimize the effect of COVID-19 on the U.S. economy. At his press conference,
following the recent Federal Reserve meeting on April 29, 2020 in which the
Federal Reserve decided to maintain the level of the federal funds rate from the
March 15 th meeting, Chairman Powell noted the following regard the length of the
effects COVID-19:

16 So, then we will enter this new phase, and we're just beginning to 17 maybe do that, where we will, formal measures that require social 18 distancing will be rolled back gradually and at different paces in 19 different parts of the country. And, in time, during this period, the 20 economy will begin to recover. People will come out of their homes, 21 start to spend again. We'll see unemployment go down; we'll see 22 economic activity pick up. And, you know, when will that be? It's 23 very hard to say. But let's just say, for this purpose, that it's in the 24 third quarter. So, as I mentioned earlier, that could be a fairly, you 25 know, a large increase. Given the size of the fall, the increase could 26 also be substantially large, although it's unlikely that it would bring

¹⁵ Federal Reserve Board Press Release, "Federal Reserve announces extensive new measures to support the economy", March 23, 2020.

¹⁶ FOMC Term Sheet, Primary and Secondary Corporate Credit Facilities, April 9, 2020.

1 us quickly all the way back to pre-crisis levels. Of course, this is the 2 period as well, that carries the risk of new outbreaks of the virus, 3 something we really want to avoid. I think then, after that period, at 4 some point, you will have, you know, the kind of formal social 5 distancing measures will be gone, but you'll still be left with, probably, a level of caution on the part of people who will worry 6 7 and probably keep worrying for some time. You would think that 8 behavior will change as people gain confidence, so that the sooner 9 we get the virus under control, the sooner people can regain that 10 confidence and regain their economic activity. I think trying to be really precise about when that might happen and what the numbers 11 might look like is, I think it's very tough to do that.¹⁷ 12

13 Q31. How has the Federal Reserve's monetary policy affected capital markets in

14 recent years?

15 A31. Extraordinary and persistent federal intervention in capital markets artificially 16 lowered government bond yields after the Great Recession of 2008-2009, as the 17 Federal Open Market Committee ("FOMC") used monetary policy (both reductions 18 in short-term interest rates and purchases of Treasury bonds and mortgage-backed 19 securities) to stimulate the U.S. economy. As a result of very low or zero returns 20 on short-term government bonds, yield-seeking investors have been forced into 21 longer-term instruments, bidding up prices and reducing yields on those 22 investments. As investors have moved along the risk spectrum in search of yields 23 that meet their return requirements, there has been increased demand for dividend-24 paying equities, such as natural gas and electric utility stocks.

FOMC, Transcript of Chair Powell's Press Conference, April 29, 2020, at 12-13.

2

Q32. How have recent market conditions affected the valuation and dividend yields of utility shares?

3 A32. The Federal Reserve's accommodative monetary policy has caused investors to 4 seek alternatives to the historically low interest rates available on Treasury bonds. 5 A result of this search for higher yield is that share prices for many common stocks, 6 especially dividend-paying stocks such as utilities, have been driven higher while 7 the dividend yields (which are computed by dividing the dividend payment by the 8 stock price) have decreased to levels well below the historical average. As shown 9 in Figure 7, over the period from 2009 through February 18, 2020 (i.e., the peak of 10 the market prior to the recent decline resulting from the effects of COVID-19), 11 Treasury bond yields and utility dividend yields had declined. While investors have 12 responded to the economic effects of COVID-19 resulting heightened volatility and 13 in a recent decline in the market, it is important to highlight the relative performance of natural gas utilities during this time-period. As shown in Figure 7, while the 14 15 stock prices of natural gas utilities have declined which has resulted in an increase 16 in dividend yields, the average dividend yield for electric utilities over the period 17 of February 19, 2020 through March 31, 2020 was 3.19 percent which even after a 18 decline in stock prices of approximately 20 percent is still low when compared to 19 historical dividend yields.

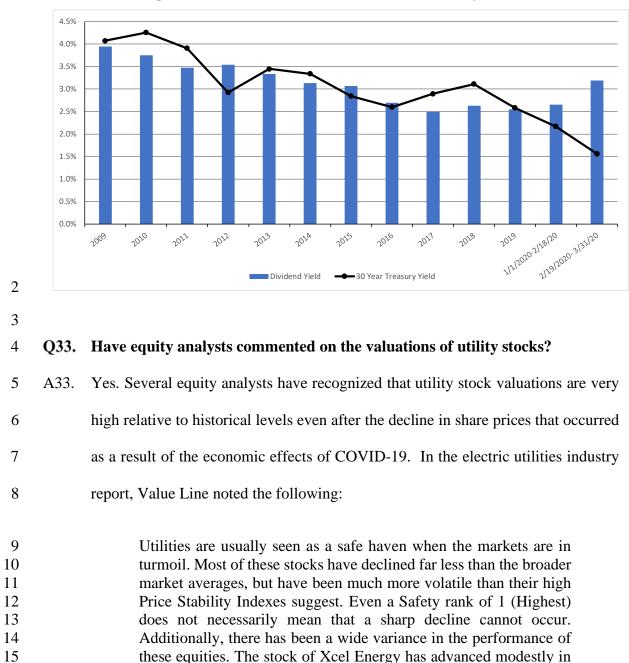


Figure 7: Dividend Yields for Natural Gas Utility Stocks¹⁸

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price this year, but the stock of Edison International has fallen more

than 20% in price. The average dividend yield of stocks in this

industry has risen to 3.55% after having fallen below 3% before the

market tumbled in late February. Because the broader market has declined far more than the Electric Utility Industry, the median yield

of dividend-paying stocks in The Value Line Investment Survey is

Source: Bloomberg Professional. Figure 7 includes 2020 data through March 31, 2020.

1 not considerably lower than the median of the equities in this 2 group.¹⁹ 3

4

13

This is further supported by a recent Edward Jones report on the utility sector:

5 Utility valuations have become more attractive as shares have fallen 6 from recent highs. On a price-to-earnings basis, shares are now 7 trading closer to their historical averages, after trading near all-time 8 highs. Until early this year, we have seen utility valuations moving 9 with interest rate movements, although there have been exceptions to this. Overall, however, we believe the low-interest-rate 10 environment has been the biggest factor in pushing utilities higher 11 12 since many investors buy them for their dividend yield.²⁰

As noted by equity analysts, utility stocks have experienced high valuations and 14 15 low dividend yields, driven by investors moving into dividend paying stocks. This 16 has occurred as a result of a) the low interest rates in the bond market and b) as 17 discussed above, the increased economic uncertainty in the market which has 18 resulted in equity investors rotating into defensive sectors such as utilities from 19 cyclical sectors which are more likely to be affected by economic downturns. 20 Conversely, if economic conditions improve and interest rates increase, bonds 21 become a substitute for utility stocks and equity investors are more likely to rotate 22 back to cyclical sectors, which results in an increase in dividend yields. As noted 23 in the prior section of my testimony, this change in market conditions that is 24 expected over the long-term implies that the ROE calculated using historical market 25 data in the DCF model may understate the forward-looking cost of equity.

¹⁹ Value Line Investment Survey, Electric Utility (West) Industry, April 24, 2020, at 2214.

²⁰ Andy Smith. Edward Jones, Utilities Sector Outlook (March 24, 2020), at 2.

Exhibit No.___(AEB-1)

1 Q34. What is the effect of high valuations on utility stocks on the DCF model?

A34. High valuations have the effect of depressing the dividend yields, which results in
overall lower estimates of the cost of equity resulting from the DCF model.

4 Q35. How do the valuations of public utilities compare to the historical average?

5 A35. Figure 8 summarizes the average historical and projected Price-to-Earnings ("P/E") 6 ratios for the proxy companies calculated using data from Bloomberg Professional 7 and Value Line. As shown in Figure 8, the average P/E ratio for the proxy 8 companies increased from 2018 through the beginning of 2020 as a result of 9 uncertainty in market surrounding the trade dispute between the U.S. and China 10 and the spread of COVID-19. The uncertainty resulted in investors shifting to 11 defensive sectors such as utilities and consumer staples. However, the P/E ratios 12 for the proxy companies have declined slightly in 2020 as investors have rotated 13 from utilities to Treasury Bonds due to the economic effects of COVID-19. 14 Although, as of March 31, 2020, the prices of utility stocks and thus the P/E ratios 15 are still at unsustainable levels. For example, the average P/E ratio for the proxy 16 group from February 19, 2020 through March 31, 2020 (i.e., the period since the 17 decline in the market as a result of COVID-19) was 21.92 which is well above the 18 average for the period of 2000-2020 of 18.03. It is not reasonable to expect the 19 proxy companies to maintain P/E ratios that are well above long-term averages. As 20 shown in Figure 8, Value Line is projecting that P/E ratios will decline over the 21 period of 2020 through 2023. All else equal, if P/E ratios for the proxy companies 22 decline, as Value Line projects, the ROE results from the DCF model would be

higher. Therefore, the DCF model using historical market data is likely understating the forward-looking cost of equity for the proxy group companies.

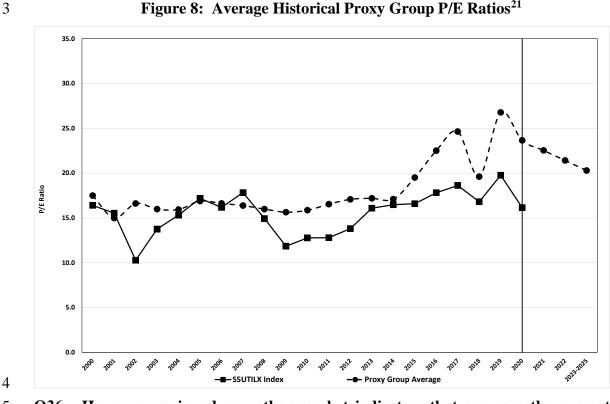


Figure 8: Average Historical Proxy Group P/E Ratios²¹

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Q36. Have you reviewed any other market indicators that compare the current 6 valuation of utilities to the historical average?

Yes. To further assess how the currently low interest rate environment has affected 7 A36. 8 the valuations of the companies in my proxy group, I reviewed the price/earnings 9 to growth ("PEG") ratio for the S&P Utilities Index. The PEG ratio is commonly 10 used by investors to determine if a company is considered over- or under-valued. 11 The ratio compares the P/E ratio of a company to the expected growth rate of future 12 earnings. This allows investors to compare companies with similar P/E ratios but

²¹ Bloomberg Professional, Data through March 31, 2020 and Value Line Investment Survey, February 28, 2020.

different earnings growth projections. If two companies have a P/E ratio of 20, but
 Company A is growing at a rate of 6 percent and Company B is growing at a rate
 of 15 percent, then on a relative valuation basis Company B is the better investment.

4 As shown in a report published by Yardeni Research, Inc., the PEG ratio for the 5 S&P Utilities Index is significantly higher than it has historically been because of 6 the accommodative monetary policy pursued by the Federal Reserve following the Great Recession of 2008/09.²² In general, stocks with lower long-term PEG ratios 7 8 are considered better values. As the PEG ratio increases above the long-term 9 historical average, as has been the case with the S&P Utilities Index, then the stocks 10 are considered relatively over-valued unless the growth rate increases to support 11 the higher valuation. As of April 2020, the PEG ratio for the S&P Utilities Index is 12 close to 4.0, which indicates that many of the stocks contained in the index are 13 currently trading at levels well above the historical average. This analysis supports 14 the P/E Ratio projections produced by Value Line, which as shown in Figure 8, are 15 projecting the P/E ratios of utilities to decline over the near-term.

16 C. Effect of Tax Reform on the ROE and Capital Structure

Q37. Are there other factors that should be considered in determining the cost of equity for Montana-Dakota?

A37. Yes. The effect of the TCJA should also be considered in the determination of the
cost of equity. It is also relevant to setting the equity ratio in the capital structure,
which I address in Section VIII of my testimony. The credit rating agencies have

Yardeni Research, Inc. "S&P 500 Industry Briefing: Utilities." April 24, 2020, p. 5.

1		commented on the effect of the TCJA on regulated utilities. In summary, the TCJA
2		has reduced utility revenues due to the lower federal income taxes, the end of bonus
3		depreciation, and the requirement to return excess Accumulated Deferred Income
4		Taxes ("ADIT"). This change in revenue reduces Funds From Operations ("FFO")
5		metrics across the sector, and absent regulatory mitigation strategies, has led to
6		weaker credit metrics and negative ratings actions for some utilities. ²³
7	Q38.	Have credit or equity analysts commented on the effect of the TCJA on
8		utilities?
9	A38.	Yes. Each of the credit rating agencies has indicated that the TCJA would have an
10		overall negative credit impact on regulated operating companies of utilities and
11		their holding companies due to the reduction in cash flow that results from the
12		change in the federal tax rate and the loss of bonus depreciation. ^{24,25}
13	Q39.	How has Moody's responded to the increased risk for utilities resulting from
14		the TCJA?
15	A39.	Moody's downgraded the outlook for the entire regulated utility industry from
16		Stable to Negative for the first time ever, citing ongoing concerns about the
17		negative effect of the TCJA on cash flows of regulated utilities. Since mid-2018,
18		Moody's has downgraded the credit ratings of several utilities based in part on the

²³ FitchRatings, Special Report, What Investors Want to Know, "Tax Reform Impact on the U.S. Utilities, Power & Gas Sector," January 24, 2018.

²⁴ Standard & Poor's Ratings, "Industry Top Trends 2019, North America Regulated Utilities", November 8, 2018.

²⁵ FitchRatings, Special Report, What Investors Want to Know, "Tax Reform Impact on the U.S. Utilities, Power & Gas Sector", January 24, 2018.

- 1 effects of tax reform on financial metrics. As shown in Figure 9, the downgrades
- 2 have continued in recent months.

Utility	Rating Agency	Credit Rating before TCJA	Credit Rating after TCJA	Downgrade Date
Consolidated Edison Company of New York	Moody's	A3	Baa1	3/17/2020
Consolidated Edison, Inc.	Moody's	Baa1	Baa2	3/17/2020
Washington Gas Light Company	Moody's	A2	A3	1/30/2020
Public Service Co. of North Carolina, Inc.	Moody's	A3	Baa1	1/30/2020
Wisconsin Power and Light Company	Moody's	A2	A3	12/11/2019
Wisconsin Gas LLC	Moody's	A2	A3	11/20/2019
Vectren Utility Holdings	Moody's	A2	A3	10/25/2019
Southern Indiana Gas & Electric Company	Moody's	A2	A3	10/25/2019
Indiana Gas Company	Moody's	A2	A3	10/25/2019
El Paso Electric Company	Moody's	Baa1	Baa2	9/17/2019
Questar Gas Company	Moody's	A2	A3	8/15/2019
DTE Gas Company	Moody's	A2	A3	7/22/2019
South Jersey Gas Company	Moody's	A2	A3	7/17/2019
Central Hudson Gas & Electric	Moody's	A2	A3	7/12/2019
Oklahoma Gas & Electric Company	Moody's	A2	A3	5/31/2019
American Water Works	Moody's	A3	Baa1	4/1/2019
Niagara Mohawk Power Corporation	Moody's	A2	A3	3/29/2019
KeySpan Gas East Corporation (KEDLI)	Moody's	A2	A3	3/29/2019
Xcel Energy	Moody's	A3	Baa1	3/28/2019
ALLETE, Inc.	Moody's	A3	Baa1	3/26/2019
Brooklyn Union Gas Company (KEDNY)	Moody's	A2	A3	2/22/2019
Avista Corp.	Moody's	Baa1	Baa2	12/30/2018
Consolidated Edison Company of New York	Moody's	A2	A3	10/30/2018
Consolidated Edison, Inc.	Moody's	A3	Baa1	10/30/2018
Orange and Rockland Utilities	Moody's	A3	Baa1	10/30/2018
Southwestern Public Service Company	Moody's	Baa1	Baa2	10/19/2018
Dominion Energy Gas Holdings	Moody's	A2	A3	9/20/2018
Piedmont Natural Gas Company, Inc.	Moody's	A2	A3	8/1/2018
WEC Energy Group, Inc.	Moody's	A3	Baa1	7/12/2018
Wisconsin Energy Capital	Moody's	A3	Baa1	7/12/2018
Integrys Holdings Inc.	Moody's	A3	Baa1	7/12/2018
OGE Energy Corp.	Moody's	A3	Baa1	7/5/2018
Oklahoma Gas & Electric Company	Moody's	A1	A2	7/5/2018

Q40. Have state regulatory commissions considered market events and the utility's ability to attract capital in determining the equity return?

A40. Yes. In a recent rate case for Consumers Energy Company in Michigan, Case No.
U-18322, the Michigan Public Service Commission ("Michigan PSC") Staff
recommended a 9.80 percent ROE based on the results of the DCF, CAPM and
Risk Premium approaches, which was supported by the Administrative Law Judge
("ALJ").²⁶ However, in its Order issued on March 29, 2018, the Michigan PSC
partly disagreed with the ALJ and Staff regarding expected market conditions and
authorized a 10.00 percent ROE for Consumers Energy Company. The Michigan

10 PSC noted that:

11 [i]n setting the ROE at 10.00%, the Commission believes there is an 12 opportunity for the company to earn a fair return during this period of atypical market conditions. This decision also reinforces the 13 Commission's belief that customers do not benefit from a lower 14 ROE if it means the utility has difficulty accessing capital at 15 attractive terms and in a timely manner. The fact that other utilities 16 17 have been able to access capital despite lower ROEs, as argued by 18 many intervenors, is also a relevant consideration. It is also 19 important to consider how extreme market reactions to singular 20 events, as have occurred in the recent past, may impact how easily 21 capital will be able to be accessed during the future test period 22 should an unforeseen market shock occur. The Commission will 23 continue to monitor a variety of market factors in future rate cases to gauge whether volatility and uncertainty continue to be prevalent 24 25 issues that merit more consideration in setting the ROE.²⁷

- 26
- 27 The Michigan PSC references "singular events" and the overall effect the events
- 28

could have on the ability of a utility to access capital. Consistent with the Michigan

²⁶ Michigan Public Service Commission Order, Cause No. U-18322, Consumers Energy Company, March 29, 2018, at 37.

²⁷ *Id.*, at 43.

1		PSC's views, it is important to consider a) that the TCJA has had a negative effect
2		on the cash flows of utilities and b) the effects of the increase volatility associated
3		with the uncertainty surrounding the economic effects of COVID-19.
4	Q41.	What conclusions do you draw from your analysis of capital market
5		conditions?
6	A41.	The important conclusions regarding capital market conditions are:
7		• The assumptions used in the ROE estimation models have been affected by
8		recent, historically atypical market conditions.
9		• Recent market conditions reflect short-term exogenous shocks that are not
10		expected to persist over the long-term. As a result, the recent atypical
11		market conditions do not reflect the market conditions that should be
12		expected to be present when the rates for Montana-Dakota will be in effect.
13		• Recent market conditions demonstrate significant volatility and risk to
14		equity that would be reflected as higher expected returns for investors to
15		take on incremental equity risk. As a result, it is critical to consider the
16		results of a variety of ROE estimation models, using forward-looking
17		assumptions to estimate the cost of equity.
18		• Without adequate regulatory support, the TCJA has had a negative effect on
19		utility cash flows, which increases investor risk expectations for utilities.

20 V. PROXY GROUP SELECTION

Q42. Why have you used a group of proxy companies to estimate the cost of equity for Montana-Dakota?

A42. In this proceeding, we are focused on estimating the cost of equity for a natural gas
utility company that is not itself publicly traded. Because the cost of equity is a
market-based concept and because Montana-Dakota's operations do not make up
the entirety of a publicly traded entity, it is necessary to establish a group of
companies that is both publicly traded and comparable to Montana-Dakota in
certain fundamental business and financial respects to serve as its "proxy" in the
ROE estimation process.

Even if Montana-Dakota was a publicly-traded entity, it is possible that transitory events could bias its market value over a given period. A significant benefit of using a proxy group is that it moderates the effects of unusual events that may be associated with any one company. The proxy companies used in my analyses all possess a set of operating and risk characteristics that are substantially comparable to the Company, and thus provide a reasonable basis to derive and estimate the appropriate ROE for Montana-Dakota.

17 Q43. Please provide a brief profile of Montana-Dakota.

A43. Montana-Dakota is a natural gas distribution company that is a wholly-owned
subsidiary of MDU Resources. The Company operates in Montana, North Dakota,
South Dakota and Wyoming. In Montana, the Company distributes natural gas to
approximately 85,846 residential, commercial and industrial customers in 40

1	communities. ²⁸ As of December 31, 2019, Montana-Dakota's net utility natural
2	gas plant in Montana was approximately \$79.87 million. ²⁹ In addition, Montana-
3	Dakota had total natural gas sales in Montana in 2019 of approximately 14.75
4	million Dths, made up of 47.45 percent residential, 29.35 percent commercial, 1.31
5	percent industrial, 0.37 percent other ³⁰ and 21.53 percent transportation. ³¹ For
6	Montana-Dakota's parent company, MDU Resources, Montana accounted for 9.00
7	percent of the natural gas distribution operating sales revenues in 2019, while Idaho
8	(29.00 percent), Washington (28.00 percent), North Dakota (15.00 percent),
9	Oregon (8.00 percent), South Dakota (6.00 percent), Minnesota (3.00 percent) and
10	Wyoming (2.00 percent) accounted for the other 91.00 percent of retail gas
11	distribution operating sales revenues. ³² Montana-Dakota currently has an
12	investment grade long-term rating of A- (Outlook: Negative) from S&P and BBB+
13	(Outlook: Stable) from Fitch. ³³

14

Q44. How did you select the companies included in your proxy group?

A44. I began with the group of 10 companies that Value Line classifies as Natural Gas
 Distribution Utilities and applied the following screening criteria to select
 companies that:

- 18 19
- pay consistent quarterly cash dividends, because companies that do not cannot be analyzed using the Constant Growth DCF model;
- 20

²⁸ Montana-Dakota Utilities, 2019 Annual Report to the Montana Public Service Commission, at 34 (Schedule 29).

²⁹ *Id.*, at 32 (Schedule 27).

³⁰ Other sales include: CNG Motor Vehicle Fuels and Interdepartmental.

³¹ Data provided by Montana-Dakota Utilities Co.

³² MDU Resources Group, 2019 SEC Form 10-K, at 13.

³³ S&P Global Market Intelligence, April 27, 2020 and FitchRatings, April 27, 2020.

1 2		• have investment grade long-term issuer ratings from S&P and/or Moody's;
2 3 4		• have positive long-term earnings growth forecasts from at least two utility industry equity analysts;
5 6 7		• derive more than 70.00 percent of their total operating income from regulated operations:
8		regulated operations;
9 10 11		• derive more than 60.00 percent of regulated operating income from gas distribution operations; and
12 13		• were not parties to a merger or transformative transaction during the analytical periods relied on.
14	Q45.	What is the composition of your proxy group?
15	A45.	The screening criteria discussed above are shown in Exhibit No(AEB-2),
16		Schedule 3 and resulted in a proxy group consisting of the companies shown in
17		Figure 10 below.

18

Figure 10: Proxy Group

Company	Ticker
Atmos Energy Corporation	ATO
New Jersey Resources Corporation	NJR
Northwest Natural Gas Company	NWN
ONE Gas, Inc.	OGS
South Jersey Industries, Inc.	SJI
Southwest Gas Corporation	SWX
Spire, Inc.	SR

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20 VI. COST OF EQUITY ESTIMATION

21 Q46. Please briefly discuss the ROE in the context of the regulated rate of return.

A46. The ROE is the cost rate applied to the equity capital in the ROR. The ROR for a regulated utility is the weighted average cost of capital, in which the cost rates of

the individual sources of capital are weighted by their respective book values.
 While the costs of debt and preferred stock can be directly observed, the cost of
 equity is market-based and, therefore, must be estimated based on observable
 market data.

5 Q47. How is the required ROE determined?

6 A47. The required ROE is estimated by using one or more analytical techniques that rely 7 on market-based data to quantify investor expectations regarding required equity 8 returns, adjusted for certain incremental costs and risks. Informed judgment is then 9 applied to determine where the company's cost of equity falls within the range of 10 results. The key consideration in determining the cost of equity is to ensure that 11 the methodologies employed reasonably reflect investors' views of the financial 12 markets in general, as well as the subject company (in the context of the proxy 13 group), in particular.

14 Q48. What methods did you use to determine Montana-Dakota's ROE?

A48. I considered the results of the Constant Growth DCF model, the CAPM, the
ECAPM, the Bond Yield Plus Risk Premium methodology and an Expected
Earnings analysis. As discussed in more detail below, a reasonable ROE estimate
appropriately considers alternative methodologies and the reasonableness of their
individual and collective results.

1

A. Importance of Multiple Analytical Approaches

2 Q49. Why is it important to use more than one analytical approach?

3 A49. Because the cost of equity is not directly observable, it must be estimated based on 4 both quantitative and qualitative information. When faced with the task of 5 estimating the cost of equity, analysts and investors are inclined to gather and 6 evaluate as much relevant data as reasonably can be analyzed. Several models have 7 been developed to estimate the cost of equity, and I use multiple approaches to 8 estimate the cost of equity. As a practical matter, however, all of the models 9 available for estimating the cost of equity are subject to limiting assumptions or 10 other methodological constraints. Consequently, many well-regarded finance texts 11 recommend using multiple approaches when estimating the cost of equity. For example, Copeland, Koller, and Murrin³⁴ suggest using the CAPM and Arbitrage 12 Pricing Theory model, while Brigham and Gapenski³⁵ recommend the CAPM, 13 14 DCF, and Bond Yield Plus Risk Premium approaches.

Q50. Is it important given the current market conditions to use more than one analytical approach?

A50. Yes. Low interest rates and the effects of the investor "flight to quality" can be
seen in high utility share valuations, relative to historical levels and relative to the
broader market. Higher utility stock valuations produce lower dividend yields and
result in lower cost of equity estimates from a DCF analysis. Low interest rates

³⁴ Tom Copeland, Tim Koller and Jack Murrin, <u>Valuation: Measuring and Managing the Value of</u> <u>Companies</u>, 3rd Ed. (New York: McKinsey & Company, Inc., 2000), at 214.

³⁵ Eugene Brigham, Louis Gapenski, <u>Financial Management: Theory and Practice</u>, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

1 also affect the CAPM in two ways: (1) the risk-free rate is lower, and (2) because 2 the market risk premium is a function of interest rates, (i.e., it is the return on the 3 broad stock market less the risk-free interest rate), the risk premium should move higher when interest rates are lower. Therefore, it is important to use multiple 4 5 analytical approaches to moderate the impact that the current low interest rate 6 environment is having on the ROE estimates for the proxy group and, where 7 possible, consider using projected market data in the models to estimate the return 8 for the forward-looking period.

- 9 Q51. Has the Commission recognized that it is important to consider the results of
- 10 multiple models?
- 11 A51. Yes. It is my understanding that in its recent order for EWM, the Commission
- 12 determined the authorized ROE for EWM based on variations of both the DCF and
- 13 the ECAPM. Specifically, the Commission noted that:

14[t]he Commission calculates the allowed ROE as follows: (1)15calculates the arithmetic mean of the three DCF results, (2)16calculates the arithmetic mean of the two ECAPM analyses, (3)17takes the results of the Commissions Modified ECAPM using a18MRP of 9.19% and a β of .72 Supra ¶ 124. (4) calculates both the19arithmetic and geometric means of the resulting figures from steps201-3.36

21 While the Commission preferred the ECAPM model to the DCF model, the 22 Commission relied on the DCF model as a check on the results of the ECAPM to

³⁶ Docket No. D2017.9.80, Order No. 7575c, IN THE MATTER OF the Joint Application for Approval to Change and Establish Natural Gas Delivery Rates for Energy West Montana, Inc. and Cut Bank Gas Company (Sep. 26, 2018), at 46.

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ensure the ROE results from the ECAPM model were consistent with investors' expectations.³⁷

3 Q52. What are your conclusions about the results of the DCF and CAPM models?

4 A52. Recent market data that is used as the basis for the assumptions for both models 5 have been affected by market conditions. As a result, relying exclusively on 6 historical assumptions in these models, without considering whether these 7 assumptions are consistent with investors' future expectations, will underestimate 8 the cost of equity that investors would require over the period that the rates in this 9 case are to be in effect. In this instance, relying on the historically low dividend 10 yields that are not expected to continue over the period that the new rates will be in 11 effect will underestimate the ROE for Montana-Dakota.

12 Furthermore, as discussed in Section IV above, Treasury bond yields have 13 experienced unprecedented volatility in recent months due to the economic effects 14 of COVID-19 and the subsequent intervention into the Treasury bond market by 15 the Federal Reserve. Therefore, the use of current averages of Treasury bond yields 16 as the estimate of the risk-free rate in the CAPM is not appropriate since recent 17 market conditions are not expected to continue over the long-term. Instead, analysts 18 should rely on projected yields of Treasury Bonds in the CAPM. The projected 19 Treasury Bond yields results in CAPM estimates that are more reflective of the 20 market conditions that investors expect during the period that the Company's rates 21 will be in effect.

³⁷ *Ibid.*

1 B. <u>Constant Growth DCF Model</u>

6

2 **Q53.** Please describe the DCF approach.

A53. The DCF approach is based on the theory that a stock's current price represents the
present value of all expected future cash flows. In its most general form, the DCF
model is expressed as follows:

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_{\infty}}{(1+k)^{\infty}}$$
 [1]

7 Where P_0 represents the current stock price, $D_1...D\infty$ are all expected future 8 dividends, and k is the discount rate, or required ROE. Equation [1] is a standard 9 present value calculation that can be simplified and rearranged into the following 10 form:

$$k = \frac{D_0(1+g)}{P_0} + g$$
[2]

Equation [2] is often referred to as the Constant Growth DCF model in which the first term is the expected dividend yield and the second term is the expected longterm growth rate.

15 Q54. What assumptions are required for the Constant Growth DCF model?

A54. The Constant Growth DCF model requires the following four assumptions: (1) a
constant growth rate for earnings and dividends; (2) a stable dividend payout ratio;
(3) a constant price-to-earnings ratio; and (4) a discount rate greater than the
expected growth rate. To the extent that any of these assumptions are violated,
considered judgment and/or specific adjustments should be applied to the results.

Q55. What market data did you use to calculate the dividend yield in your Constant Growth DCF model?

A55. The dividend yield in my Constant Growth DCF model is based on the proxy
companies' current annualized dividend and average closing stock prices over the
30-, 90-, and 180-trading days ended March 31, 2020.

6 Q56. Why did you use 30-, 90-, and 180-day averaging periods?

In my Constant Growth DCF model, I use an average of recent trading days to 7 A56. 8 calculate the term P_0 in the DCF model to ensure that the ROE is not skewed by 9 anomalous events that may affect stock prices on any given trading day. The 10 averaging period should also be reasonably representative of expected capital 11 market conditions over the long-term. However, the averaging periods that I use 12 rely on historical data that are not consistent with the forward-looking market 13 expectations. Therefore, the results of my Constant Growth DCF model using 14 historical data may underestimate the forward-looking cost of equity. As a result, 15 I place more weight on the median to median-high results produced by my Constant 16 Growth DCF model.

Q57. Did you make any adjustments to the dividend yield to account for periodic growth in dividends?

A57. Yes, I did. Because utility companies tend to increase their quarterly dividends at
different times throughout the year, it is reasonable to assume that dividend
increases will be evenly distributed over calendar quarters. Given that assumption,
it is reasonable to apply one-half of the expected annual dividend growth rate for
purposes of calculating the expected dividend yield component of the DCF model.

1 This adjustment ensures that the expected first-year dividend yield is, on average, 2 representative of the coming twelve-month period, and does not overstate the 3 aggregated dividends to be paid during that time.

- 4 Q58. Why is it important to select appropriate measures of long-term growth in
 5 applying the DCF model?
- A58. In its Constant Growth form, the DCF model (*i.e.*, Equation [2]) assumes a single
 growth estimate in perpetuity. To reduce the long-term growth rate to a single
 measure, one must assume that the payout ratio remains constant and that earnings
 per share, dividends per share and book value per share all grow at the same
 constant rate. Over the long run, however, dividend growth can only be sustained
 by earnings growth. Therefore, it is important to incorporate a variety of sources
 of long-term earnings growth rates into the Constant Growth DCF model.

13 Q59. Which sources of long-term earnings growth rates did you use?

14 A59. My Constant Growth DCF model incorporates three sources of long-term earnings

- 15 growth rates: (1) Zacks Investment Research; (2) Thomson First Call (provided by
- 16 Yahoo!Finance); and (3) Value Line Investment Survey.
- 17 C. Discounted Cash Flow Model Results

18 Q60. How did you calculate the range of results for the Constant Growth DCF
19 Models?

A60. I calculated the low result for my DCF model using the minimum growth rate (*i.e.*,
the lowest of the First Call, Zacks, and Value Line earnings growth rates) for each
of the proxy group companies. Thus, the low result reflects the minimum DCF

result for the proxy group. I used a similar approach to calculate the high results,
 using the highest growth rate for each proxy group company. The mean results
 were calculated using the average growth rates from all sources.

Q61. Have you excluded any of the DCF results for individual companies in your

- 4
- 5

proxy group?

A61. 6 Yes, I have. It is appropriate to exclude Constant Growth DCF results below a 7 specified threshold at which equity investors would consider such returns to provide 8 an insufficient return increment above long-term debt costs. The average credit 9 rating for the companies in my proxy group is A from S&P and A3 from Moody's. 10 The average yield on Moody's A-rated utility bonds for the 30 trading days ending March 31, 2020, was 3.38 percent.³⁸ As shown in Exhibit No.___(AEB-2), 11 12 Schedule 4, I have eliminated Constant Growth DCF results lower than 7.00% because such returns would provide equity investors a risk premium only 362 basis 13 14 points above A-rated utility bonds.

15 Q62. What were the results of your Constant Growth DCF analyses?

A62. Figure 11 summarizes the results of my DCF analyses. As shown in Figure 11, the median DCF results range from 9.27 percent to 9.39 percent, and the median high results are in the range of 9.47 percent to 9.72 percent. While I also summarize the median low DCF results, I do not believe that the low DCF results provide a reasonable spread over the expected yields on Treasury bonds to compensate investors for the incremental risk related to an equity investment.

Source: Bloomberg Professional.

	Median Low	Median	Median High
30-Day Average	9.29%	9.39%	9.72%
90-Day Average	9.07%	9.28%	9.51%
180-Day Average	8.79%	9.27%	9.47%

Figure 11: Constant Growth Discounted Cash Flow Results³⁹

2 Q63. What are your conclusions about the results of the DCF models?

3 A63. As discussed previously, one primary assumption of the DCF models is a constant 4 P/E ratio. That assumption is heavily influenced by the market price of utility stocks. To the extent that utility valuations are high and may not be sustainable, it 5 6 is important to consider the results of the DCF models with caution. As discussed 7 in Section IV above, while dividend yields have increased slightly due to the 8 declines in utility share prices as a result of the economic effects of COVID-19, 9 they are still low historically. This demonstrates that the results of the current DCF 10 models are significantly below more normal market conditions. Therefore, while I 11 have given weight to the results of the Constant Growth DCF model, my 12 recommendation also gives weight to the results of other ROE estimation models.

13 D. <u>CAPM Analysis</u>

14 **Q64.** Please briefly describe the Capital Asset Pricing Model.

A64. The CAPM is a risk premium approach that estimates the cost of equity for a given
security as a function of a risk-free return plus a risk premium to compensate
investors for the non-diversifiable or "systematic" risk of that security. This second

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See Exhibit No.___(AEB-2), Schedule 4.

1	component is the product of the market risk premium and the Beta coefficient,
2	which measures the relative riskiness of the security being evaluated.
3	The CAPM is defined by four components, each of which must theoretically be a
4	forward-looking estimate:
5 6	$K_e = r_f + \beta (r_m - r_f) $ [3] Where:
7	K_e = the required market ROE;
8	β = Beta coefficient of an individual security;
9	r_f = the risk-free rate of return; and
10	r_m = the required return on the market.
11	In this specification, the term $(r_m - r_f)$ represents the market risk premium.
12	According to the theory underlying the CAPM, because unsystematic risk can be
13	diversified away, investors should only be concerned with systematic or non-
14	diversifiable risk. Non-diversifiable risk is measured by
15	Beta, which is defined as:
	$\beta = \frac{Covariance(r_e, r_m)}{Variance(r_m)} $ [4]

16 The variance of the market return (i.e., Variance (r_m)) is a measure of the 17 uncertainty of the general market, and the covariance between the return on a 18 specific security and the general market (i.e., Covariance (r_e, r_m)) reflects the extent 19 to which the return on that security will respond to a given change in the general 1

2

market return. Thus, Beta represents the risk of the security relative to the general market.

3 Q65. What risk-free rate did you use in your CAPM analysis?

A65. I relied on three sources for my estimate of the risk-free rate: (1) the current 30-day
average yield on 30-year U.S. Treasury bonds, which is 1.56 percent;⁴⁰ (2) the
average projected 30-year U.S. Treasury bond yield for the third quarter of 2020
through the third quarter of 2021, which is 1.80 percent;⁴¹ and (3) the average
projected 30-year U.S. Treasury bond yield for 2021 through 2025, which is 3.20
percent.⁴²

10 Q66. Would you place more weight on one of these scenarios?

11 A66. Yes. Based on current market conditions, I place more weight on the results of the 12 projected yields on the 30-year Treasury bonds. As discussed previously, the 13 estimation of the cost of equity in this case should be forward-looking because it is 14 the return that investors would receive over the future rate period. Therefore, the 15 inputs and assumptions used in the CAPM analysis should reflect the expectations 16 of the market at that time. While I have included the results of a CAPM analysis 17 that relies on the current average risk-free rate, this analysis fails to take into 18 consideration the effect of the market's expectations for interest rate increases on 19 the cost of equity.

⁴⁰ Bloomberg Professional, as of March 31, 2020.

⁴¹ Blue Chip Financial Forecasts, Vol. 39, No. 4, April 1, 2020, at 2.

⁴² Blue Chip Financial Forecasts, Vol. 38, No. 12, December 1, 2019, at 14.

Q67. Has the Commission relied on projected long-term U.S. Treasury Bond yields as the estimate of the risk-free rate?

A67. Yes. In Docket No. D2017.9.80 for EWM, the Commission relied on a projection
 of the 30-year U.S. Treasury Bond yield as the estimate of the risk-free rate in the
 ECAPM which is the model the Commission placed primary reliance on to
 determine the authorized ROE for EWM.⁴³

7 Q68. What Beta coefficients did you use in your CAPM analysis?

A68. As shown on Exhibit No. (AEB-2), Schedule 5, I used the Beta coefficients for
the proxy group companies as reported by Bloomberg and Value Line. The Beta
coefficients reported by Bloomberg were calculated using ten years of weekly
returns relative to the S&P 500 Index. Value Line's calculation is based on five
years of weekly returns relative to the New York Stock Exchange Composite Index.

13 Q69. How did you estimate the market risk premium in the CAPM?

A69. I estimated the market risk premium based on the expected return on the S&P 500
Index less the yield on the 30-year Treasury bond. I calculated the expected return
on the S&P 500 Index using S&P's published dividend yield and five-year
projected growth rate for the entire S&P 500 Index. As shown in Exhibit
No.___(AEB-2), Schedule 5, based on S&P's five-year growth rate for the S&P
500 of 11.60 percent and dividend yield of 2.31 percent, the estimated required
market return for the S&P 500 Index is 14.05 percent. The implied market risk

⁴³ Docket No. D2017.9.80, Order No. 7575c, IN THE MATTER OF the Joint Application for Approval to Change and Establish Natural Gas Delivery Rates for Energy West Montana, Inc. and Cut Bank Gas Company (Sep. 26, 2018), at 42-43.

- premium over the current 30-day average of the 30-year U.S. Treasury bond yield,
 and projected yields on the 30-year U.S. Treasury bond, range from 10.85 percent
 to 12.49 percent.
- 4 Q70. Have other regulators endorsed the use of a forward-looking market risk
 5 premium?
- 6 A70. Yes. The Staff in the Maine Public Utilities Commission ("Maine PUC") have 7 supported the forward-looking market risk premium. In the Bench Analysis in 8 Docket No. 2018-00194 for Central Maine Power Company, Docket No. 2017-9 00198 for Emera Maine and Docket No. 2017-00065 for Northern Utilities, the 10 Staff accepted the forward-looking methodology for calculating the market return that was proposed by the companies.⁴⁴ In each case, the market return was the 11 12 expected return for the S&P 500, which was calculated using a Constant Growth 13 DCF model. In Docket No. 2017-00198, Staff noted the following:

14Staff has no issue with the methodology used by Mr. Perkins in15calculating market parameters based on the S&P 500 and used the16model provided by Mr. Perkins with the revised risk-free rate to re-17calculate the market risk premiums.45

⁴⁴ Central Maine Power Company, Investigation into Rates and Revenue Requirements of Central Maine Power Company, Docket No. 2018-00194, Bench Analysis at 52 (February 22, 2019); Emera Maine, Request for Approval of a Proposed Rate Increase, Docket No. 2017-00198, Bench Analysis at 71-72 (December 21, 2017); Northern Utilities, Inc. d/b/a UNITIL, Request for Approval of Rate

<sup>Change Pursuant to Section 307, Docket No. 2017-00065, Bench Analysis, at 15-16 (October 6, 2017).
Emera Maine, Request for Approval of a Proposed Rate Increase, Docket No. 2017-00198, Bench</sup>

⁴⁵ Emera Maine, Request for Approval of a Proposed Rate Increase, Docket No. 2017-00198, Bench Analysis, at 71-72 (December 21, 2017).

Furthermore, the Maine PUC in Docket No. 2017-0198 used the CAPM results calculated by Staff and Emera Maine as a check on the reasonableness of the DCF results in the case and did not dispute the use of the forward-looking market risk premium by the parties (i.e., Staff and Emera Maine).⁴⁶

5 Q71. Did you consider another form of the CAPM in your analysis?

6 Yes. I have also considered the results of an Empirical CAPM ("ECAPM" or A71. alternatively referred to as the Zero-Beta CAPM)⁴⁷ in estimating the cost of equity 7 8 for Montana-Dakota. The ECAPM calculates the product of the adjusted Beta 9 coefficient and the market risk premium and applies a weight of 75.00 percent to 10 that result. The model then applies a 25.00 percent weight to the market risk 11 premium, without any effect from the Beta coefficient. The results of the two 12 calculations are summed, along with the risk-free rate, to produce the ECAPM 13 result, as noted in Equation [5] below:

14
$$k_{\rm e} = r_{\rm f} + 0.75\beta(r_{\rm m} - r_{\rm f}) + 0.25(r_{\rm m} - r_{\rm f})$$
 [5]

15 Where:

16	k_e = the required market ROE;
----	----------------------------------

- 17 β = Adjusted Beta coefficient of an individual security;
- 18 r_f = the risk-free rate of return; and
- 19 r_m = the required return on the market as a whole.

⁴⁶ Emera Maine, Request for Approval of Proposed Rate Increase, Docket No. 2017-00198, June 28, 2018, at 41.

⁴⁷ See e.g., Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 189.

1		In essence, the Empirical form of the CAPM addresses the tendency of the
2		"traditional" CAPM to underestimate the cost of equity for companies with low
3		Beta coefficients such as regulated utilities. In that regard, the ECAPM is not
4		redundant to the use of adjusted Betas; rather, it recognizes the results of academic
5		research indicating that the risk-return relationship is different (in essence, flatter)
6		than estimated by the CAPM, and that the CAPM underestimates the "alpha," or
7		the constant return term. ⁴⁸
8		As with the CAPM, my application of the ECAPM uses the forward-looking market
9		risk premium estimates, the three yields on 30-year Treasury securities noted earlier
10		as the risk-free rate, and the Bloomberg and Value Line Beta coefficients.
11	Q72.	Has the Commission relied on the ECAPM analysis?
12	A72.	Yes. As noted above, in Docket No. D2017.9.80 for EWM, the Commission placed
12 13	A72.	Yes. As noted above, in Docket No. D2017.9.80 for EWM, the Commission placed primary reliance on the results of the ECAPM and incorporated the results of the
	A72.	
13	A72.	primary reliance on the results of the ECAPM and incorporated the results of the
13 14	A72.	primary reliance on the results of the ECAPM and incorporated the results of the DCF analysis as a check on the ECAPM results to ensure the ECAPM did not
13 14 15	A72.	primary reliance on the results of the ECAPM and incorporated the results of the DCF analysis as a check on the ECAPM results to ensure the ECAPM did not produce results that differed wildly from investor's expected returns. ⁴⁹ Further, in

⁴⁸ *Id.*, at 191.

⁴⁹ Docket No. D2017.9.80, Order No. 7575c, IN THE MATTER OF the Joint Application for Approval to Change and Establish Natural Gas Delivery Rates for Energy West Montana, Inc. and Cut Bank Gas Company (Sep. 26, 2018), at 46.

1 if a company's beta is estimated accurately, the CAPM still 2 understates the return for low-beta stocks." See Morin, Roger A. 3 "Chapter 6: Alternative Asset Pricing Models." New Regulatory 4 Finance Vienna: Public Utilities Reports, Inc. 2006.191. The 5 Commission agrees with Scheig that the issue should be remedied 6 by adopting the ECAPM, including his x factor of 0.25, which is 7 intended to approximate the α effect identified by the academic literature reviewed in Morin's textbook.⁵⁰ 8

9 Q73. What are the results of your CAPM analyses?

- A73. As shown in Figure 12 (see also Exhibit No.___(AEB-2), Schedule 5), my
 traditional CAPM analysis produces a range of returns from 9.41 percent to 11.66
 percent. The ECAPM analysis results range from 10.57 percent to 12.26 percent.
 The range established by the traditional CAPM and the ECAPM is 9.41 percent to
- 14 12.26 percent with a mean of 10.98 percent.

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Figure 12: CAPM Results

	Current Risk-Free Rate (1.56%)	Q3 2020 – Q3 2021 Projected Risk-Free Rate (1.80)	2021-2025 Projected Risk- Free Rate (3.20%)
	CAPM		
Value Line Beta	9.41%	9.50%	10.02%
Bloomberg Beta	11.30%	11.36%	11.66%
	ECAPM	[
Value Line Beta	10.57%	10.63%	11.02%
Bloomberg Beta	11.99%	12.03%	12.26%

16 E. Bond Yield Plus Risk Premium Analysis

17 Q74. Please describe the Bond Yield Plus Risk Premium approach.

18 A74. In general terms, this approach is based on the fundamental principle that equity

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investors bear the residual risk associated with equity ownership and therefore

⁵⁰ *Id.*, at 42.

require a premium over the return they would have earned as a bondholder. That
is, because returns to equity holders have greater risk than returns to bondholders,
equity investors must be compensated to bear that risk. Risk premium approaches,
therefore, estimate the cost of equity as the sum of the equity risk premium and the
yield on a particular class of bonds. In my analysis, I used actual authorized returns
for natural gas utility companies as the historical measure of the cost of equity to
determine the risk premium.

8 Q75. Are there other considerations that should be addressed in conducting this 9 analysis?

10 A75. Yes. It is important to recognize both academic literature and market evidence 11 indicating that the equity risk premium (as used in this approach) is inversely 12 related to the level of interest rates. That is, as interest rates increase (decrease), 13 the equity risk premium decreases (increases). Consequently, it is important to 14 develop an analysis that: (1) reflects the inverse relationship between interest rates 15 and the equity risk premium; and (2) relies on recent and expected market 16 conditions. Such an analysis can be developed based on a regression of the risk 17 premium as a function of U.S. Treasury bond yields. If we let authorized ROEs for 18 natural gas utilities serve as the measure of required equity returns and define the

Exhibit No.___(AEB-1)

yield on the long-term U.S. Treasury bond as the relevant measure of interest rates,
 the risk premium simply would be the difference between those two points.⁵¹

3 Q76. Is the Bond Yield Plus Risk Premium analysis relevant to investors?

A76. Yes. Investors are aware of ROE awards in other jurisdictions, and they consider
those awards as a benchmark for a reasonable level of equity returns for utilities of
comparable risk operating in other jurisdictions. Because my Bond Yield Plus Risk
Premium analysis is based on authorized ROEs for utility companies relative to
corresponding Treasury yields, it provides relevant information to assess the return
expectations of investors.

10 Q77. What did your Bond Yield Plus Risk Premium analysis reveal?

A77. As shown in Figure 13 below, from 1992 through March 2020, there was a strong
 negative relationship between risk premia and interest rates. To estimate that
 relationship, I conducted a regression analysis using the following equation:

14RP = a + b(T) [6]15Where:16RP = Risk Premium (difference between allowed ROEs and the yield on1730-year U.S. Treasury bonds);18a = intercept term;

⁵¹ See e.g., S. Keith Berry, Interest Rate Risk and Utility Risk Premia during 1982-93, Managerial and Decision Economics, Vol. 19, No. 2 (March, 1998), in which the author used a methodology similar to the regression approach described below, including using allowed ROEs as the relevant data source, and came to similar conclusions regarding the inverse relationship between risk premia and interest rates. See also Robert S. Harris, Using Analysts' Growth Forecasts to Estimate Shareholders Required Rates of Return, Financial Management, Spring 1986, at 66.

b = slope term; and
T = 30-year U.S. Treasury bond yield.
Data regarding allowed ROEs were derived from 649 natural gas utility rate cases
from 1992 through March 2020 as reported by Regulatory Research Associates
("RRA").⁵² This equation's coefficients were statistically significant at the 99.00
percent level.

8.00% 7 00% y = -0.5633x + 0.0844 $R^2 = 0.832$ 6.00% Risk Premium 5.00% 4.00% 3.00% 2 00% 3.00% 4 00% 5 00% 6.00% 7.00% 8 00% 2 00% U.S. Government 30-year Treasury Yield As shown on Exhibit No. (AEB-2), Schedule 6, based on the current 30-day average of the 30-year U.S. Treasury bond yield (i.e., 1.56 percent), the risk premium would be 7.56 percent, resulting in an estimated ROE of 9.12 percent. Based on the near-term (Q3 2020 – Q3 2021) projections of the 30-year U.S.

Figure 13: Risk Premium Results

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Treasury bond yield (i.e., 1.80 percent), the risk premium would be 7.43 percent,

This analysis began with a total of 1,026 cases and was screened to eliminate limited issue rider cases, transmission-only cases, and cases that were silent with respect to the authorized ROE. After applying those screening criteria, the analysis was based on data for 649 cases.

1	resulting in an estimated ROE of 9.23 percent. Based on longer-term (2021-2025)
2	projections of the 30-year U.S. Treasury bond yield (i.e., 3.20 percent), the risk
3	premium would be 6.64 percent, resulting in an estimated ROE of 9.84 percent.

- 4 Q78. How did the results of the Bond Yield Risk Premium inform your
 5 recommended ROE for Montana-Dakota?
- A78. I have considered the results of the Bond Yield Risk Premium analysis in setting
 my recommended ROE for Montana-Dakota. As noted above, investors consider
 the ROE award of a company when assessing the risk of that company as compared
 to utilities of comparable risk operating in other jurisdictions. The risk premium
 analysis takes into account this comparison by estimating the return expectations
 of investors based on the current and past ROE awards of gas utilities across the
 U.S.
- 13 F. Expected Earnings Analysis

Q79. Have you considered any additional analysis to estimate the cost of equity for Montana-Dakota?

- A79. Yes. I have considered an Expected Earnings analysis based on the projected ROEs
 for each of the proxy group companies.
- 18 **Q80.** What is an Expected Earnings Analysis?
- A80. The Expected Earnings methodology is a comparable earnings analysis that calculates the earnings that an investor expects to receive on the book value of a stock. The expected earnings analysis is a forward-looking estimate of investors' expected returns. The use of an Expected Earnings approach based on the proxy

companies provides a range of the expected returns on a group of risk comparable
 companies to the subject company. This range is useful in helping to determine the
 opportunity cost of investing in the subject company, which is relevant in
 determining a company's ROE.

5 Q81. Have any regulators considered the use of an Expected Earnings Analysis?

6 A81. Yes. The Washington Utilities & Transportation Commission ("Washington 7 UTC"), in its order in Dockets UE-170485 and UG-170486, considered the results of the Comparable Earnings analysis⁵³ in establishing the authorized ROE for 8 9 Avista Corporation. The Washington UTC noted that it tends to place more weight 10 on the results of the DCF, CAPM and Risk Premium analyses; however, given the 11 wide range of CAPM results presented by the ROE witnesses in the case, the 12 Washington UTC decided to apply weight to the results of the Comparable Earnings analysis.⁵⁴ Specifically, the Washington UTC stated the following: 13

14 Finally, as additional data points for our consideration of 15 establishing Avista's ROE, we note that two witness, Mr. McKenzie 16 for Avista and Mr. Parcell for Staff, employ the CE approach to two 17 proxy groups of companies. The respective mid-points of each 18 witnesses' CE analysis are 10.5 and 9.5 percent, respectively, with 19 an average of 10.0 percent. Although we generally do not apply 20 material weight to the CE method, having stronger reliance on the 21 DCF, CAPM and RP methods, we are inclined to include the CE 22 method here given the anomalous CAPM results described 23 previously.⁵⁵

⁵³ The Expected Earnings analysis is a form of the Comparable Earnings analysis that relies exclusively on forward-looking projections.

⁵⁴ Wash. Utils. & Transp. Comm'n v. Avista Corp., Docket Nos. UE-170485 and UG-170486, Order 07, ¶ 65 (April 26,2018). Comparable Earnings as discussed in this docket is similar to the Expected Earnings analysis developed in my Direct Testimony.

⁵⁵ *Ibid*.

Exhibit No.___(AEB-1)

Additionally, in its order in Docket No. ER12111052 for Jersey Central Power and
 Light Company, the New Jersey Board of Public Utilities ("NJ Board") noted that
 rate of return experts use a number of models including the DCF, CAPM, Risk
 Premium and Comparable Earnings to estimate the return required by investors.
 Specifically, the Board noted:

6 In determining the cost of equity capital for a regulated utility, rate 7 of return experts typically use a variety of financial models to 8 simulate the returns assertedly required by investors. These include 9 Discounted Cash Flow (DCF) models, Risk Premium models, Capital Asset Pricing Models (CAPM), Comparable Earnings 10 models and variations thereof. However, it is widely acknowledged 11 12 that these economic models constitute estimates, which, although 13 probative, are not necessarily precise. The imprecision in the 14 estimates provided by these models is more pronounced as a result 15 of the current economic environment still recovering from the Great Recession, characterized by some as the worst economy since the 16 Great Depression.⁵⁶ 17

18 **Q82.** How did you develop the Expected Earnings Approach?

A82. I relied primarily on the projected ROE capital for the proxy companies as reported
by Value Line for the period from 2023-2025. However, I adjusted those projected
ROEs to account for the fact that the ROEs reported by Value Line are calculated
on the basis of common shares outstanding at the end of the period, as opposed to
average shares outstanding over the period. As shown in Exhibit No.___(AEB-2),
Schedule 7, the Expected Earnings analysis results in a mean of 9.94 percent and a
median of 9.74 percent.

⁵⁶ BPU Docket No. ER12111052, OAL Docket No. PUC16310-12, Order Adopting Initial Decision with Modifications and Clarifications, March 18, 2015, at 71.

G. <u>Commission's ROE Methodology in Docket D2017.9.80 for Energy West</u>
 Montana

Q83. Please describe the Commission's approach to determine the authorized ROE in its recent order for Energy West Montana ("EWM").

5 A83. As discussed above, the Commission developed a formula to calculate the ROE 6 based on the results of various specifications of the DCF model and ECAPM using market data provided by EWM in the case.⁵⁷ Specifically, to calculate the ROE, 7 8 the Commission calculated the average of the Constant Growth DCF analyses using 9 earnings growth rate estimates from Value Line, Zacks and Bloomberg. The 10 Commission also calculated the average of the ECAPM analyses using a historical 11 market risk premium and Beta coefficient estimates from Value Line and 12 Bloomberg. In addition, the Commission also relied on a version of the ECAPM 13 analysis using a forward-looking market risk premium and Beta coefficients from 14 Value Line. Finally, the Commission calculated the arithmetic and geometric 15 averages of the average DCF result, the average ECAPM result using a historical market risk premium and the ECAPM result using a forward-looking market risk 16 17 premium. The resulting arithmetic and geometric averages were used to determine 18 the authorized ROE for EWM.

⁵⁷ Docket No. D2017.9.80, Order No. 7575c, IN THE MATTER OF the Joint Application for Approval to Change and Establish Natural Gas Delivery Rates for Energy West Montana, Inc. and Cut Bank Gas Company (Sep. 26, 2018), at 46-47.

Q84. How does your ROE recommendation compare with the return that would be
 derived using the Commission's approach of averaging the results of the DCF
 and ECAPM analyses to estimate the ROE?

4 While I continue to believe that it is also important to rely on the results of both the A84. 5 Risk Premium and Expected Earnings analysis, I did calculate the resulting ROE 6 using the Commission's methodology in its recent order for EWM. The 7 Commission's methodology is calculated by averaging the results of the Constant 8 Growth DCF analysis and the ECAPM analysis. As shown in Figure 14 below, I 9 calculated the average of my median Constant Growth DCF results using the 30-, 10 90- and 180-day stock price averaging periods. I also calculated the average of my 11 ECAPM results which were estimated using a forward-looking market risk 12 premium, Value Line and Bloomberg Beta coefficients and current and projected 13 interest rates. As shown in Figure 14, based on the Commission methodology, the 14 ROE calculated as the average of the DCF and ECAPM results is 10.37 percent. 15 This demonstrates that my ROE recommendation of 10.20 percent is in line with 16 the ROE estimated using the averaging convention relied on by the Commission in 17 its order for EWM.

Model	ROE Estimat
Constant Growth Discounted Cash Flow (Average Earning)	ngs Growth Estimate):
30-day Average Price	9.39%
90-day Average Price	9.28%
180-day Average Price	9.27%
Average	9.31%
ECAPM (Forward-looking Market Risk Premium):	
Value Line Beta Coefficient:	
Current Risk-Free Rate	10.57%
2020Q3–2021Q3 Projected Risk-Free Rate	10.63%
2021-2025 Projected Risk-Free Rate	11.02%
Bloomberg Beta Coefficient:	
Current Risk-Free Rate	11.99%
2020Q3–2021Q3 Projected Risk-Free Rate	12.03%
2021-2025 Projected Risk-Free Rate	12.26%
Average	11.42%
Average ROE	10.37%

Figure 14: Summary of the Commission's Methodology in Docket D2017.9.80 for

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EWM

Q85. Do the DCF, CAPM, Risk Premium and Expected Earnings results for the
proxy group, taken alone, provide an appropriate estimate of the cost of equity
for Montana-Dakota?

8 A85. No. These results provide only a range of the appropriate estimate of the 9 Company's cost of equity. There are several additional factors that must be taken 10 into consideration when determining where the Company's cost of equity falls 11 within the range of results. These factors, which are discussed below, should be 12 considered with respect to their overall effect on the Company's risk profile.

1 A. <u>Small Size Risk</u>

2	Q86.	Please explain the risk associated with small size.
3	A86.	Both the financial and academic communities have long accepted the proposition
4		that the cost of equity for small firms is subject to a "size effect." While empirical
5		evidence of the size effect often is based on studies of industries other than
6		regulated utilities, utility analysts also have noted the risk associated with small
7		market capitalizations. Specifically, an analyst for Ibbotson Associates noted:
8 9 10 11		For small utilities, investors face additional obstacles, such as a smaller customer base, limited financial resources, and a lack of diversification across customers, energy sources, and geography. These obstacles imply a higher investor return. ⁵⁸
12	Q87.	How does the smaller size of a utility affect its business risk?
13	A87.	In general, smaller companies are less able to withstand adverse events that affect
14		their revenues and expenses. The impact of weather variability, the loss of large
15		customers to bypass opportunities, or the destruction of demand as a result of
16		general macroeconomic conditions or fuel price volatility will have a
17		proportionately greater impact on the earnings and cash flow volatility of smaller
18		utilities. Similarly, capital expenditures for non-revenue producing investments,
19		such as system maintenance and replacements, will put proportionately greater
20		pressure on customer costs, potentially leading to customer attrition or demand
21		reduction. Taken together, these risks affect the return required by investors for
22		smaller companies.

Michael Annin, Equity and the Small-Stock Effect, Public Utilities Fortnightly, October 15, 1995.

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Q88. How does Montana-Dakota's natural gas distribution operations in Montana compare in size to the proxy group companies?

3 A88. As noted previously, Montana-Dakota serves approximately 85,846 residential, 4 commercial and industrial customers in 40 communities and as of year-end 2019, 5 had net utility natural gas plant in Montana of approximately \$79.87 million.⁵⁹ 6 Montana-Dakota's natural gas distribution operations in Montana are substantially 7 smaller than the median for the proxy group companies in terms of market 8 capitalization. Exhibit No. (AEB-2), Schedule 8 provides the actual market 9 capitalization for the proxy group companies and estimates the implied market 10 capitalization for Montana-Dakota (i.e., the implied market capitalization if 11 Montana-Dakota's natural gas distribution operations in Montana were a stand-12 alone publicly-traded entity). To estimate the size of the Company's market 13 capitalization relative to the proxy group, I calculated Montana-Dakota's proposed 14 capital structure equity component of \$40.02 million by multiplying Montana-15 Dakota's projected test year rate base of \$79.70 million by Montana-Dakota's 16 projected test year common equity ratio of 50.210 percent. I then applied the 17 median market-to-book ratio for the proxy group of 1.82 to Montana-Dakota's 18 implied common equity balance and arrived at an implied market capitalization of 19 approximately \$72.64 million, or 1.99 percent of the median market capitalization 20 for the proxy group.

⁵⁹ Montana-Dakota Utilities, 2019 Annual Report to the Montana Public Service Commission, at 32 (Schedule 27) and 34 (Schedule 29).

1 Q89. How did you estimate the size premium for Montana-Dakota?

2 A89. Given this relative size information, it is possible to estimate the impact of size on 3 the ROE for Montana-Dakota using Duff and Phelps data that estimates the stock risk premia based on the size of a company's market capitalization. As shown in 4 5 Exhibit No. (AEB-2), Schedule 8, the median market capitalization of the proxy 6 group of approximately \$3.65 billion corresponds to the fifth decile of the Duff and 7 Phelps market capitalization data. Based on Duff and Phelps' analysis, that decile 8 corresponds to a size premium of 1.08 percent (i.e., 108 basis points). Montana-9 Dakota's implied market capitalization of approximately \$72.64 million falls 10 within the tenth decile, which comprises market capitalization levels up to \$229.75 11 million and corresponds to a size premium of 4.99 percent (i.e., 499 basis points). 12 The difference between those size premia is 391 basis points (i.e., 4.99 percent 13 minus 1.08 percent).

14 **Q90.** Has the Commission recently considered the small size risk premium?

A90. Yes. In Docket D2017.9.80 for EWM, the Commission considered the evidence
presented by EWM concerning an adjustment to the authorized ROE for small size
risk. However, the Commission rejected the proposed small size risk premium due
to the following reasons:⁶⁰

⁶⁰ Docket No. D2017.9.80, Order No. 7575c, IN THE MATTER OF the Joint Application for Approval to Change and Establish Natural Gas Delivery Rates for Energy West Montana, Inc. and Cut Bank Gas Company (Sep. 26, 2018), at 51-53.

1	• EWM did not show that the ROE results did not already include a size
2	premium given that the companies in the proxy group are made up of
3	numerous smaller operating subsidiaries.
4	• A smaller firm should have a higher Beta coefficient due to the additional
5	risk associated with the firm's small size; however, the Commission noted
6	that this relationship did not hold with the companies contained in the proxy
7	group used to estimate the ROE for EWM;
8	• The Commission agreed with the Montana Consumer Counsel that the small
9	size risk premium for the broader market could not be seamlessly applied
10	to the regulated utility industry; and
11	• The Commission reasoned that EWM did not provide enough detail to show
12	how the company arrived at the estimated small size risk premium.
13	While the Commission rejected the small size risk premium in the rate case for
14	EWM, the Commission indicated that it would be open to reviewing small size risk
15	premium proposals in future cases. The Commission reasoned that for a small size
16	risk premium an applicant must show that the small size effect is applicable to the
17	regulated utility industry and that the ROE results based on the companies in the
18	proxy group did not already contain a small size risk premium. ⁶¹

⁶¹ *Id.*, at 53.

1	Q91.	Have you considered the Commission's criteria for a small size risk premium?		
2	A91.	Yes, I have. One of the reasons the Commission rejected the small size risk		
3		premium in the EWM rate case was that the smallest companies in the proxy group		
4		did not necessarily have the highest Beta coefficients which would indicate greater		
5		risk. However, there are two important reasons why a smaller company may not		
6		always have the highest Beta coefficient. First, smaller companies are traded more		
7		infrequently than larger companies. A lower trading frequency can bias the		
8		estimate of the Beta coefficient. As Thomas Zepp notes in his article "Utility stocks		
9		and the size effect – revisited":		
10 11 12 13 14 15		Roll (1980) concluded trading infrequency seems to be a powerful cause of bias in beta risk estimates when time intervals of a month or less are used to estimate betas for small stocks. When a small stock is thinly traded, its stock price does not reflect the movement of the market, which drives down the apparent covariance with the market and creates an artificially low beta estimate. ⁶²		
16		In fact, Zepp showed that Beta coefficients for a sample of water companies were		
17		greater when annual data (i.e., the approach employed by Ibbotson Associates) was		
18		used to estimate the Beta coefficient than the Beta coefficients reported by Value		
19		Line which use weekly data. ⁶³		
20 21		Second, the Beta coefficients for small companies do not account for all of the risk associated with a company's small size. For example, Figure 15 contains the		
21		average Beta coefficient, average arithmetic annual return and average annual		

 ⁶² Zepp, Thomas M. "Utility Stocks and the Size Effect—Revisited." *The Quarterly Review of Economics and Finance*, vol. 43, no. 3, 2003, pp. 578–582., doi:10.1016/s1062-9769(02)00172-2.
 ⁶³ Ibid.

1 standard deviation for the companies included in each size decile developed by 2 Duff and Phelps. As shown in Figure 15, the average annual arithmetic return for 3 the tenth decile (i.e., the decile in which Montana-Dakota would be classified) was 19.87 percent. This equates to an equity risk premium of 14.93 percent if the long-4 5 term income only return of 4.94 percent from long-term government bonds is 6 subtracted from the total annual return. Conversely, we could also estimate the 7 equity risk premium using the Beta coefficient for the tenth decile and the historical 8 market risk premium as report by Duff and Phelps from 1926-2019. If we multiply 9 the historical market risk premium as reported by Duff and Phelps of 7.15 percent⁶⁴ 10 by the Beta coefficient for the tenth decile of 1.39, the resulting equity risk premium 11 Thus, calculating the equity risk premium using the Beta is 9.94 percent. 12 coefficient significantly understates the actual long-term equity risk premium for 13 companies contained in the tenth decile. Therefore, the Beta coefficient does not 14 appropriately account for the additional risk associated with small size.

⁶⁴ The market risk premium from 1926-2019 is calculated as the average return on large company stocks from 1926-2019 minus the average income only return on long-term government bonds from 1926-2019 (i.e., 12.09 percent – 4.94 percent = 7.15 percent). Source: Duff &Phelps, Cost of Capital Navigator, CRSP Deciles Size Study – Supplementary Data Exhibits, p. 2.

Decile	Beta	Annual	Annual Standard
		Arithmetic Mean	Deviation of
		Return	Returns
1 – Largest	0.92	11.25%	18.83%
2	1.04	12.86%	21.33%
3	1.11	13.57%	23.16%
4	1.13	13.19%	25.31%
5	1.17	14.39%	25.91%
6	1.17	14.68%	26.87%
7	1.25	15.35%	28.75%
8	1.30	15.84%	32.52%
9	1.33	16.71%	36.65%
10 - Smallest	1.39	19.87%	41.89%

Figure 15: Duff & Phelps – CRSP Deciles Size Study as of December 31, 201965

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3 **Q92.** Were utility companies included in the size premium study conducted by Duff

A92. Yes. In fact, as shown in Exhibit 7.2 of Duff and Phelp's 2019 Valuation
Handbook, OGE Energy Corp. had the largest market capitalization of the
companies contained in the fourth decile.⁶⁶ Therefore, Duff and Phelp's did
include utility companies in its size risk premium study.

9 Q93. Is the size premium applicable to companies in regulated industries such as

10 **natural gas utilities?**

11 A93. Yes, it is. In fact, Stephanie Chretien and Frank Coggins in the article "Cost of 12 Equity for Energy Utilities: Beyond the CAPM",⁶⁷ recently studied the CAPM and 13 its ability to estimate the risk premium for the utility industry in particular

⁶⁵ Source: Duff &Phelps, Cost of Capital Navigator, CRSP Deciles Size Study – Supplementary Data Exhibits.

⁶⁶ Source: Duff &Phelps, Valuation Handbook: Guide to Cost of Capital, 2019, Exhibit 7.2.

⁶⁷ Chrétien, Stéphane, and Frank Coggins. "Cost Of Equity For Energy Utilities: Beyond The CAPM." *Energy Studies Review*, vol. 18, no. 2, 2011, doi:10.15173/esr.v18i2.531.

1 subgroups of utilities. One of the subgroups was a group of natural gas distribution 2 companies that contained many of the same natural gas distribution companies included in my proxy group.⁶⁸ The article considered the CAPM, the Fama-French 3 three-factor model and a model similar to the Empirical CAPM that I have also 4 5 considered above. In the article, the Fama-French three-factor model explicitly 6 included an adjustment to the CAPM for risk associated with size. As Chretien and 7 Coggins show the Beta coefficient on the size variable for the U.S. natural gas 8 utility group was positive and statistically significant indicating that small size risk was relevant for regulated natural gas utilities.⁶⁹ This demonstrates that the 9 10 traditional CAPM model would not account for risk associated with small size.

11 Q94. Have regulators in other jurisdictions made a specific risk adjustment to the 12 ROE results based on a company's small size?

A94. Yes. In Order No. 15, the Regulatory Commission of Alaska ("RCA") concluded
that Alaska Electric Light and Power Company ("AEL&P") was riskier than the
proxy group companies due to small size as well as other business risks. The RCA
did "not believe that adopting the upper end of the range of ROE analyses in this
case, without an explicit adjustment, would adequately compensate AEL&P for its
greater risk." ⁷⁰ Thus, the RCA awarded AEL&P an ROE of 12.875 percent which

⁶⁸ The U.S. natural gas utility group included: AGL Resources Inc., Atmos Energy Corp., Laclede Group, New Jersey Resources Corp., Northwest Natural Gas Co., Piedmont Natural Gas Co., South Jersey Industries, Southwest Gas Corp. and WGL Holdings Inc.

⁶⁹ Chrétien, Stéphane, and Frank Coggins. "Cost Of Equity For Energy Utilities: Beyond The CAPM." *Energy Studies Review*, vol. 18, no. 2, 2011, doi:10.15173/esr.v18i2.531, at 31.

⁷⁰ Docket No. U-10-29, In the Matter of the Revenue Requirement and Cost of Service Study Designated as TA381-1 Filed by Alaska Electric Light and Power Company, Order entered September 2, 2011 (Order No. 15), at 37.

1	was 108 basis points above the highest return on equity estimate from any model
2	presented in the case. ⁷¹ Similarly, in Order No. 19, the RCA noted that small size
3	as well as other business risks such as structural regulatory lag, weather risk,
4	alternative rate mechanisms, gas supply risk, geographic isolation and economic
5	conditions increased the risk of ENSTAR Natural Gas Company. ⁷² Ultimately,
6	the RCA concluded that:
7 8 9 10 11 12 13 14	Although we agree that the risk factors identified by ENSTAR increase its risk, we do not attempt to quantify the amount of that increase. Rather, we take the factors into consideration when evaluating the remainder of the record and the recommendations presented by the parties. After applying our reasoned judgment to the record, we find that 11.875% represents a fair ROE for ENSTAR. ⁷³
15	Additionally, in Docket No. E017/GR-15-1033 for Otter Tail Power Company
16	("Otter Tail"), the Minnesota Public Utilities Commission ("Minnesota PUC")
17	selected an ROE above the mean DCF results, as a result of multiple factors
18	including Otter Tail's small size. The Minnesota PUC stated:
19 20 21 22 23 24	The record in this case establishes a compelling basis for selecting an ROE above the mean average within the DCF range, given Otter Tail's unique characteristics and circumstances relative to other utilities in the proxy group. These factors include the company's relatively smaller size, geographically diffuse customer base, and the scope of the Company's planned infrastructure investments. ⁷⁴

⁷¹ *Id.*, at 32 and 37.

 ⁷² Docket No. U-16-066, In the Matter of the Tariff Revision Designated as TA285-4 Filed by ENSTAR Natural Gas Company, A Division of SEMCO Energy, Inc., Order entered September 22, 2017 (Order No. 19), at 50-52.

⁷³ Ibid.

⁷⁴ Order in Docket No. E017/GR-15-1033, In the Matter of the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota (August 16, 2016), at 55.

1 Q95. How have you considered the smaller size of Montana-Dakota in your 2 recommendation?

3 While I have estimated the effect of Montana-Dakota's small size on the ROE, I A95. 4 am not proposing a specific adjustment for this risk factor. Rather, I believe it is 5 important to consider the small size of Montana-Dakota's natural gas distribution 6 operations in Montana in the determination of where, within the range of analytical 7 results, the Company's required ROE falls. Therefore, the additional risk 8 associated with small size indicates that the Company's ROE should be established 9 above the mean results for the proxy group companies.

10 B. <u>Flotation Cost</u>

11 **Q96.** What are flotation costs?

A96. Flotation costs are the costs associated with the sale of new issues of common stock.
These costs include out-of-pocket expenditures for preparation, filing,
underwriting, and other issuance costs.

15 Q97. Why is it important to consider flotation costs in the allowed ROE?

A97. A regulated utility must have the opportunity to earn an ROE that is both competitive and compensatory to attract and retain new investors. To the extent that a company is denied the opportunity to recover prudently incurred flotation costs, actual returns will fall short of expected (or required) returns, thereby diluting equity share value.

Q98. Are flotation costs part of the utility's invested costs or part of the utility's expenses?

3 A98. Flotation costs are part of the invested costs of the utility, which are properly 4 reflected on the balance sheet under "paid in capital." They are not current 5 expenses, and, therefore, are not reflected on the income statement. Rather, like investments in rate base or the issuance costs of long-term debt, flotation costs are 6 7 incurred over time. As a result, the great majority of a utility's flotation cost is 8 incurred prior to the test year but remains part of the cost structure that exists during 9 the test year and beyond, and as such, should be recognized for ratemaking 10 purposes. Therefore, it is irrelevant whether an issuance occurs during the test year 11 or is planned for the test year because failure to allow recovery of past flotation 12 costs may deny Montana-Dakota the opportunity to earn its required ROR in the 13 future.

Q99. Please provide an example of why a flotation cost adjustment is necessary to compensate investors for the capital they have invested.

16 A99. Suppose MDU Resources issues stock with a value of \$100, and an equity investor 17 invests \$100 in MDU Resources in exchange for that stock. Further suppose that, 18 after paying the flotation costs associated with the equity issuance, which include 19 fees paid to underwriters and attorneys, among others, MDU Resources ends up 20 with only \$97 of issuance proceeds, rather than the \$100 the investor contributed. 21 MDU Resources invests that \$97 in plant used to serve its customers, which 22 becomes part of rate base. Absent a flotation cost adjustment, the investor will 23 thereafter earn a return on only the \$97 invested in rate base, even though she

1	contributed \$100. Making a small flotation cost adjustment gives the investor a
2	reasonable opportunity to earn the authorized return, rather than the lower return
3	that results when the authorized return is applied to an amount less than what the
4	investor contributed.

5 Q100. Is the date of MDU Resources' last issued common equity important in the 6 determination of flotation costs?

7 A100. No. As shown in Exhibit No. (AEB-2), Schedule 9, MDU Resources closed on 8 equity issuances of approximately \$58 million and \$54 million (for a total of 4.7 9 million shares of common stock) in November 2002 and February 2004, 10 respectively. The vintage of the issuance, however, is not particularly important 11 because the investor suffers a shortfall in every year that he should have a 12 reasonable opportunity to earn a return on the full amount of capital that he has 13 contributed. Returning to my earlier example, the investor who contributed \$100 14 is entitled to a reasonable opportunity to earn a return on \$100 not only in the first 15 year after the investment, but in every subsequent year in which he has the \$100 16 invested. Leaving aside depreciation, which is dealt with separately, there is no 17 basis to conclude that the investor is entitled to earn a return on \$100 in the first 18 year after issuance, but thereafter is entitled to earn a return on only \$97. As long 19 as the \$100 is invested, the investor should have a reasonable opportunity to earn a 20 return on the entire amount.

1	Q101.	Is the need to consider f	otation costs reco	ognized by the ac	cademic and financial
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2 communities?

3	A101. Yes. The need to reimburse shareholders for the lost returns associated with equity
4	issuance costs is recognized by the academic and financial communities in the same
5	spirit that investors are reimbursed for the costs of issuing debt. This treatment is
6	consistent with the philosophy of a fair ROR. According to Dr. Shannon Pratt:

7 Flotation costs occur when new issues of stock or debt are sold to 8 the public. The firm usually incurs several kinds of flotation or 9 transaction costs, which reduce the actual proceeds received by the firm. Some of these are direct out-of-pocket outlays, such as fees 10 paid to underwriters, legal expenses, and prospectus preparation 11 12 costs. Because of this reduction in proceeds, the firm's required 13 returns on these proceeds equate to a higher return to compensate 14 for the additional costs. Flotation costs can be accounted for either 15 by amortizing the cost, thus reducing the cash flow to discount, or by incorporating the cost into the cost of capital. Because flotation 16 costs are not typically applied to operating cash flow, one must 17 incorporate them into the cost of capital.⁷⁵ 18

19 Q102. How did you calculate the flotation costs for Montana-Dakota?

A102. My flotation cost calculation is based on the costs of issuing equity that were
incurred by MDU Resources in its two most recent common equity
issuances. Those issuance costs were applied to my proxy group. Applying the
actual issuance costs for MDU Resources provided in Exhibit No.__(AEB-2),
Schedule 9, to the DCF analysis, the flotation costs are estimated to be 0.09 percent

25 (i.e., 9 basis points).

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Shannon P. Pratt, Cost of Capital Estimation and Applications, Second Edition, at 220-221.

Exhibit No.___(AEB-1)

1 **Q103.** Do your final results include an adjustment for flotation cost recovery? 2 A103. No. I did not make an explicit adjustment for flotation costs to any of my 3 quantitative analyses. Rather, I provide the above result for consideration in my 4 recommended ROE, which reflects the range of results from my Constant Growth 5 DCF, CAPM, ECAPM and Risk Premium and Expected Earnings analyses. 6 C. Capital Expenditures 7 **Q104.** Please summarize the Company's capital expenditure requirements. 8 A104. The Company's current projections for 2020 through 2024 include approximately \$73.62 million in capital investments for the period.⁷⁶ Based on the Company's net 9 utility plant of approximately \$70.08 million as of December 31, 2018,⁷⁷ the \$73.62 10 11 million of anticipated capital expenditures are approximately 105.06 percent of 12 Montana-Dakota's net utility plant as of December 31, 2018. 13 Q105. How is the Company's risk profile affected by their substantial capital 14 expenditure requirements? 15 A105. As with any utility faced with substantial capital expenditure requirements, the 16 Company's risk profile may be adversely affected in two significant and related 17 ways: (1) the heightened level of investment increases the risk of under-recovery 18 or delayed recovery of the invested capital; and (2) an inadequate return would put 19 downward pressure on key credit metrics.

⁷⁶ Data provided by Montana-Dakota Utilities Co. for Capital Expenditures 2020-2024.

⁷⁷ Montana-Dakota Utilities, 2018 Annual Report to the Montana Public Service Commission, at 32 (Schedule 27).

1 Q106. Do credit rating agencies recognize the risks associated with elevated levels of

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capital expenditures?

A106. Yes, they do. From a credit perspective, the additional pressure on cash flows
associated with high levels of capital expenditures exerts corresponding pressure
on credit metrics and, therefore, credit ratings. To that point, S&P explains the
importance of regulatory support for large capital projects:

7 When applicable, a jurisdiction's willingness to support large capital 8 projects with cash during construction is an important aspect of our 9 analysis. This is especially true when the project represents a major addition to rate base and entails long lead times and technological 10 risks that make it susceptible to construction delays. Broad support 11 12 for all capital spending is the most credit-sustaining. Support for 13 only specific types of capital spending, such as specific 14 environmental projects or system integrity plans, is less so, but still favorable for creditors. Allowance of a cash return on construction 15 work-in-progress or similar ratemaking methods historically were 16 extraordinary measures for use in unusual circumstances, but when 17 construction costs are rising, cash flow support could be crucial to 18 maintain credit quality through the spending program. Even more 19 20 favorable are those jurisdictions that present an opportunity for a higher return on capital projects as an incentive to investors.⁷⁸ 21 22

23 Therefore, to the extent that Montana-Dakota's rates do not permit the opportunity

24 to recover its capital investments on a regular basis, the Company will face

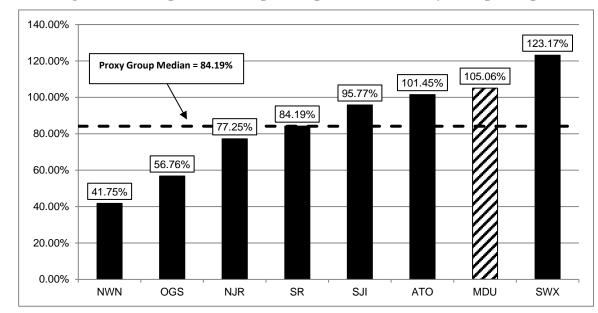
25 increased recovery risk and thus increased pressure on its credit metrics.

⁷⁸ S&P Global Ratings, "Assessing U.S. Investor-Owned Utility Regulatory Environments," August 10, 2016, at 7.

Q107. How do Montana-Dakota's capital expenditure requirements compare to those of the proxy group companies?

3 A107. As shown in Exhibit No. (AEB-2), Schedule 10, I calculated the ratio of 4 expected capital expenditures to net utility plant for Montana-Dakota and each of 5 the companies in the proxy group by dividing each company's projected capital 6 expenditures for the period from 2020-2024 by its total net utility plant as of 7 December 31, 2018. As shown in Exhibit No. (AEB-2), Schedule 10 (see also 8 Figure 16 below), Montana-Dakota's ratio of capital expenditures as a percentage 9 of net utility plant is 105.06 percent, which is approximately 1.25 times the median 10 for the proxy group companies of 84.19 percent. This result indicates a risk level 11 for Montana-Dakota that is greater than the companies in the proxy group.

12 Figure 16: Comparison of Capital Expenditures – Proxy Group Companies



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Q108. Does Montana-Dakota have a capital tracking mechanism to recover the costs associated with its capital expenditures plan between rate cases?

3 A108. No. Montana-Dakota currently has not requested approval to recover capital 4 investment costs between rate cases utilizing a capital tracking mechanism. 5 Therefore, Montana-Dakota depends entirely on rate case filings for capital cost 6 recovery. However, significant programs like Montana-Dakota's that drive capital 7 expenditure requirements generally receive cost recovery through infrastructure 8 and capital trackers. As shown in Exhibit No. (AEB-2), Schedule 11, 68.42 9 percent of the proxy group utilities recover costs through capital tracking 10 mechanisms. Since Montana-Dakota does not currently have a capital tracking 11 mechanism, Montana-Dakota's risk relative to the proxy group is significantly 12 increased.

Q109. What are your conclusions regarding the effect of the Company's capital spending requirements on its risk profile and cost of capital?

15 A109. The Company's capital expenditure requirements as a percentage of net utility plant 16 are significant and will continue over the next few years. Additionally, unlike a 17 number of the operating subsidiaries of the proxy group, Montana-Dakota does not 18 have a comprehensive capital tracking mechanism to recover the Company's 19 projected capital expenditures. Therefore, Montana-Dakota's significant capital 20 expenditures plan and limited ability to recover the capital investment on an as-21 incurred basis results in a risk profile that is greater than that of the proxy group 22 and supports an ROE toward the higher end of the reasonable range of ROEs.

1 D. <u>Regulatory Risk</u>

Q110. Please explain how the regulatory environment affects investors' risk assessments.

4 A110. The ratemaking process is premised on the principle that, for investors and 5 companies to commit the capital needed to provide safe and reliable utility service, 6 the subject utility must have the opportunity to recover the return of, and the 7 market-required return on, invested capital. Regulatory authorities recognize that 8 because utility operations are capital intensive, regulatory decisions should enable 9 the utility to attract capital at reasonable terms; doing so balances the long-term 10 interests of investors and customers. Utilities must finance their operations and 11 require the opportunity to earn a reasonable return on their invested capital to 12 maintain their financial profiles. Montana-Dakota is no exception. In that respect, 13 the regulatory environment is one of the most important factors considered in both 14 debt and equity investors' risk assessments.

15 From the perspective of debt investors, the authorized return should enable the 16 utility to generate the cash flow needed to meet its near-term financial obligations, 17 make the capital investments needed to maintain and expand its systems, and 18 maintain the necessary levels of liquidity to fund unexpected events. This financial 19 liquidity must be derived not only from internally generated funds, but also by 20 efficient access to capital markets. Moreover, because fixed income investors have 21 many investment alternatives, even within a given market sector, the utility's 22 financial profile must be adequate on a relative basis to ensure its ability to attract 23 capital under a variety of economic and financial market conditions.

Equity investors require that the authorized return be adequate to provide a riskcomparable return on the equity portion of the utility's capital investments. Because equity investors are the residual claimants on the utility's cash flows (which is to say that the equity return is subordinate to interest payments), they are particularly concerned with the strength of regulatory support and its effect on future cash flows.

Q111. Please explain how credit rating agencies consider regulatory risk in establishing a company's credit rating.

- 9 A111. Both S&P and Moody's consider the overall regulatory framework in establishing 10 credit ratings. Moody's establishes credit ratings based on four key factors: (1) 11 regulatory framework; (2) the ability to recover costs and earn returns; (3) 12 diversification; and (4) financial strength, liquidity and key financial metrics. Of 13 these criteria, regulatory framework and the ability to recover costs and earn returns 14 are each given a broad rating factor of 25.00 percent. Therefore, Moody's assigns 15 regulatory risk a 50.00 percent weighting in the overall assessment of business and 16 financial risk for regulated utilities.⁷⁹
- S&P also identifies the regulatory framework as an important factor in credit ratings
 for regulated utilities, stating: "One significant aspect of regulatory risk that
 influences credit quality is the regulatory environment in the jurisdictions in which

⁷⁹ Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, June 23, 2017, at 4.

a utility operates."⁸⁰ S&P identifies four specific factors that it uses to assess the
 credit implications of the regulatory jurisdictions of investor-owned regulated
 utilities: (1) regulatory stability; (2) tariff-setting procedures and design; (3)
 financial stability; and (4) regulatory independence and insulation.⁸¹

5 Q112. How does the regulatory environment in which a utility operates affect its 6 access to and cost of capital?

7 A112. The regulatory environment can significantly affect both the access to, and cost of 8 capital in several ways. First, the proportion and cost of debt capital available to 9 utility companies are influenced by the rating agencies' assessment of the 10 regulatory environment. As noted by Moody's, "[f]or rate regulated utilities, which 11 typically operate as a monopoly, the regulatory environment and how the utility adapts to that environment are the most important credit considerations."⁸² 12 13 Moody's further highlighted the relevance of a stable and predictable regulatory 14 environment to a utility's credit quality, noting: "[b]roadly speaking, the 15 Regulatory Framework is the foundation for how all the decisions that affect 16 utilities are made (including the setting of rates), as well as the predictability and 17 consistency of decision-making provided by that foundation."83

Standard & Poor's Global Ratings, Ratings Direct, U.S. and Canadian Regulatory Jurisdictions Support Utilities' Credit Quality—But Some More So Than Others, June 25, 2018, at 2.
 Id., at 1.

⁸² Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, June 23, 2017, at 6.

⁸³ *Ibid*.

4 A113. Yes. I have evaluated the regulatory framework in Montana on four factors that are 5 important in terms of providing a regulated utility an opportunity to earn its 6 authorized ROE. These are: 1) test year convention (i.e., forecast vs. historical); 7 2) method for determining rate base (i.e., average vs. year-end); 3) use of revenue 8 decoupling mechanisms or other clauses that mitigate volumetric risk; and 4) 9 prevalence of capital cost recovery between rate cases. The results of this 10 regulatory risk assessment are shown in Exhibit No. (AEB-2), Schedule 11 and are summarized below. 11

12 Test year convention: Montana-Dakota uses a historical test year adjusted 13 for known and measurable changes in Montana, while 42.11 percent of the 14 operating companies held by the proxy group provide service in 15 jurisdictions that use a fully or partially forecast test year. Forecast test years 16 have been relied on for several years and produce cost estimates that are 17 more reflective of future costs which results in more accurate recovery of 18 incurred costs and mitigates the regulatory lag associated with historical test 19 years. As Lowry, Hovde, Getachew, and Makos explain in their 2010 report, 20 Forward Test Years for US Electric Utilities:

This report provides an in depth discussion of the test year issue. It includes the results of empirical research which explores why the unit costs of electric IOUs are rising and shows that utilities operating under forward test years realize higher returns on capital and have credit ratings that are materially better than those of

Q113. Have you conducted any analysis of the regulatory framework in Montana
 relative to the jurisdictions in which the companies in your proxy group
 operate?

- utilities operating under historical test years. The research suggests
 that shifting to a future test year is a prime strategy for rebuilding
 utility credit ratings as insurance against an uncertain future.⁸⁴
- <u>Rate Base</u>: The Company's rate base in Montana is determined based on
 average original cost, while 63.16 percent of the operating companies held
 by proxy group are allowed to use year-end rate base, meaning that the rate
 base includes capital additions that occurred in the second half of the test
 year and is more reflective of net utility plant going forward.
- 9 <u>Volumetric Risk:</u> Montana-Dakota does not have protection against
 10 volumetric risk in Montana, either through a revenue decoupling
 11 mechanism or a weather normalization adjustment clause. By comparison,
 12 89.47 percent of the operating companies held by the proxy group have
 13 some form of protection against volumetric risk.
- 14Capital Cost Recovery:
As discussed above, Montana-Dakota does not15have a capital tracking mechanism to recover capital investment costs16between rate cases. However, 68.42 percent of the operating companies17held by the proxy group have some form of capital cost recovery mechanism18in place.

⁸⁴

M.N. Lowry, D. Hovde, L. Getachew, and M. Makos, Forward Test Years for US Electric Utilities, prepared for Edison Electric Institute, August 2010, at 1.

A114. Yes. I have conducted two additional analyses to compare the regulatory
framework of Montana to the jurisdictions in which the companies in the proxy
group operate. Specifically, I considered two different rankings: (1) the Regulatory
Research Associates ("RRA") ranking of regulatory jurisdictions; and (2) S&P's
ranking of the credit supportiveness of regulatory jurisdictions.

9 Q115. Please explain how you used the RRA ratings to compare the regulatory 10 jurisdictions of the proxy group companies with the Company's regulatory 11 jurisdiction.

12 A115. RRA develops their ranking based on their assessment of how investors perceive the regulatory risk associated with ownership of utility securities in that 13 14 jurisdiction, specifically reflecting their assessment of the probable level and 15 quality of earnings to be realized by the State's utilities as a result of regulatory, 16 legislative, and court actions. RRA assigns a ranking for each regulatory 17 jurisdiction between "Above Average/1" to "Below Average/3," with nine total 18 rankings between these categories. I applied a numeric ranking system to the RRA 19 rankings with "Above Average/1" assigned the highest ranking ("1") and "Below 20 Average/3" assigned the lowest ranking ("9"). As shown in Exhibit No.___(AEB-21 2), Schedule 12, the Montana regulatory environment is ranked as "Below 22 Average/1," while the proxy group is ranked between "Average/2" and "Average/3." Additionally, Montana is one of eight Commissions⁸⁵ out of the 53
 Commissions that RRA ranks to receive a rating of either "Below Average/1",
 "Below Average/2" or "Below Average/3".

4 Q116. How did you conduct your analysis of the S&P Credit Supportiveness?

5 A116. S&P classifies the regulatory jurisdictions into five categories ranging from "Credit 6 Supportive" to "Most Credit Supportive" based on the level of credit 7 supportiveness. Similar to the RRA regulatory ranking analysis discussed above, I 8 assigned a numerical ranking to each jurisdiction ranked by S&P, from most credit 9 supportive ("1") to credit supportive ("5"). As shown in Exhibit No.___(AEB-2), 10 Schedule 13, the proxy group is ranked between very credit supportive and highly 11 credit supportive while the Montana regulatory jurisdiction is only ranked as more 12 credit supportive. Thus, similar to the results using the RRA regulatory rankings, 13 Montana is perceived as being below the average for the proxy group.

14 Q117. Has RRA provided recent commentary regarding its regulatory ranking for

- 15 **the Montana?**
- 16 A117. Yes. In February 2018, RRA updated its evaluation of the regulatory environment
- 17 in Montana and noted the following:

18The regulatory climate in Montana is somewhat restrictive from an19investor point-of-view. Authorized ROEs have generally been20consistent with prevailing industry averages at the time established,21as calculated by Regulatory Research Associates, an offering of22S&P Global Market Intelligence. In addition, the PSC relies upon

⁸⁵ The other seven Commissions are the District of Columbia Public Service Commission, the Kansas Corporation Commission, the Maryland Public Service Commission, the New Jersey Board of Public Utilities, the New Mexico Public Regulation Commission, the Public Service Commission of West Virginia and the Regulatory Commission of Alaska.

1 historical test periods, which coupled with an average rate base 2 valuation methodology, exacerbates regulatory lag. While many rate 3 cases are resolved by settlements, the regulators have been known 4 to modify certain aspects of the agreement, and in so doing, lowering 5 the authorized rate increase. State law initially called for 6 implementation of retail competition for electric generation, but 7 subsequent legislation reversed this process. While Montana 8 utilities are permitted to seek pre-approval of the regulatory 9 framework to apply to new generation assets, a cash return on 10 construction work in progress is not allowed. Also, the PSC has opposed strategic mergers, rejecting one recent major deal outright. 11 12 Regulation of the gas local distribution companies, or LDCs, has been more stable, as retail choice has been in place since the late-13 14 1990s, and LDCs are now permitted to acquire upstream assets. Both the electric and gas utilities have mechanisms in place to 15 16 provide expedited recognition of changes in commodity and related 17 costs; some of these include cost-sharing provisions. A proceeding 18 is pending regarding a utility's proposal to implement an electric cost supply mechanism that would also include a cost-sharing 19 20 provisions. However, there are no other innovative or alternative 21 ratemaking provisions in place. In conjunction with the Nov. 15, 22 2017, issuance of its rankings, RRA lowered the ranking of the 23 Montana regulatory climate to Below Average/1 from Average/3, 24 primarily due to a rebalancing of the rankings; Montana had been at the lower end of the Average/3 category.⁸⁶ 25

26 Q118. What are your conclusions regarding the perceived risks related to the

27 Montana regulatory environment?

A118. As discussed throughout this section of my testimony, both Moody's and S&P have
identified the supportiveness of the regulatory environment as an important
consideration in developing their overall credit ratings for regulated utilities.
Considering the regulatory adjustment mechanisms, many of the companies in the
proxy group have more timely cost recovery (through forecasted test years, cost
recovery trackers and revenue stabilization mechanisms) than Montana-Dakota has

⁸⁶ Regulatory Research Associates, Profile of Montana Public Service Commission, accessed April 30, 2020.

in Montana. In addition, the RRA jurisdictional ranking and the S&P credit
supportiveness ranking for Montana indicates greater risk than the average for the
proxy group. Therefore, the average ROE for the proxy group would understate
the return on equity that an investor would require in Montana because the risks of
timely and full cost recovery are greater for Montana-Dakota in Montana than for
the proxy group. For that reason, I conclude that the authorized ROE for MontanaDakota should be higher than the proxy group mean.

8 VIII. CAPIT

CAPITAL STRUCTURE

9 Q119. Is the capital structure of the Company an important consideration in the 10 determination of the appropriate ROE?

11 A119. Yes, it is. Assuming other factors equal, a higher debt ratio increases the risk to 12 investors. For debt holders, higher debt ratios result in a greater portion of the 13 available cash flow being required to meet debt service, thereby increasing the risk 14 associated with the payments on debt. The result of increased risk is a higher 15 interest rate. The incremental risk of a higher debt ratio is more significant for 16 common equity shareholders, who are the residual claimants on the cash flow of 17 the Company. Therefore, the greater the debt service requirement, the less cash 18 flow is available for common equity holders.

19 Q120. What is Montana-Dakota's proposed capital structure?

A120. The Company's proposal is to establish a capital structure consisting of 50.210 percent common equity, 44.718 percent long-term debt and 5.072 percent shortterm debt.

Q121. Did you conduct any analysis to determine if this requested equity ratio was reasonable?

A121. Yes, I did. I reviewed the Company's proposed capital structure and the capital
structures of the utility operating subsidiaries of the proxy companies. Because the
ROE is set based on the return that is derived from the risk-comparable proxy
group, it is reasonable to look to the proxy group average capital structure to
benchmark the equity ratio for the Company.

8 Q122. Please discuss your analysis of the capital structures of the proxy group 9 companies.

10 A122. I calculated the mean proportions of common equity, long-term debt, short-term 11 debt and preferred equity for the most recent year for each of the companies in the proxy group at the operating subsidiary level.⁸⁷ My analysis of the capital 12 structures of the proxy group companies is provided in Exhibit No.___(AEB-2), 13 14 Schedule 14. As shown in Exhibit No. (AEB-2), Schedule 14, the equity ratios 15 for the proxy group at the operating utility company level ranged from 42.93 16 percent to 62.03 percent, with an average of 53.44 percent. Montana-Dakota's 17 proposed equity ratio of 50.210 percent is below the average equity ratio for the 18 utility operating subsidiaries of the proxy group companies and is therefore 19 reasonable.

⁸⁷ Source: SNL Financial and FERC Form 1 and FERC Form 2 annual reports.

Q123. Are there other factors to be considered in setting the Company's capital structure?

A123. Yes. The credit rating agencies' response to the TCJA must also be considered
when determining the equity ratio. As discussed previously in my testimony, all
three rating agencies have noted that the TCJA has negative implications for utility
cash flows. Moody's unprecedented downgrade of the rating outlook for the entire
utilities sector in June 2018 and continued downgrades of utilities since that time
stresses the importance of maintaining adequate cash flow metrics for the industry
as a whole and Montana-Dakota in the context of this proceeding.

10 Q124. Is there a relationship between the equity ratio and the authorized ROE?

A124. Yes. The equity ratio is the primary indicator of financial risk for a regulated utility
 such as Montana-Dakota. To the extent the equity ratio is reduced, it is necessary
 to increase the authorized ROE to compensate investors for the greater financial
 risk associated with greater leverage and the resulting increased fixed payment
 obligations.

16 Q125. What is your conclusion regarding an appropriate equity ratio for Montana-

17 Dakota?

A125. Considering the actual capital structures of the proxy group operating companies, I
 believe that Montana-Dakota's proposed common equity ratio of 50.210 percent is
 reasonable. The proposed equity ratio is well withing the range of equity ratios
 established by the capital structures of the utility operating subsidiaries of the proxy
 companies. In addition, based on the cash flow concerns raised by credit rating

agencies as a result of the TCJA, it is reasonable to rely on a higher equity ratio
 than the Company may have relied on in prior.

3 IX. CONCLUSIONS AND RECOMMENDATION

4 Q126. What is your conclusion regarding a fair ROE for Montana-Dakota?

5 A126. Figure 17 below provides a summary of my analytical results. Based on these 6 results, the qualitative analyses presented in my Direct Testimony, the business and 7 financial risks of Montana-Dakota compared to the proxy group, and the effects of 8 Federal tax reform on the cash flow metrics of utilities, it is my view that an ROE 9 of 10.20 percent is reasonable and would fairly balance the interests of customers 10 and shareholders. This ROE would enable the Company to maintain its financial 11 integrity and therefore its ability to attract capital at reasonable rates under a variety 12 of economic and financial market conditions, while continuing to provide safe, 13 reliable and affordable natural gas utility service to customers in Montana.

Constant Growth DCF				
	Median Low	Median	Median High	
30-Day Average Price	9.29%	9.39%	9.72%	
90-Day Average Price	9.07%	9.28%	9.51%	
180-Day Average Price	8.79%	9.27%	9.47%	
(Capital Asset P	ricing Model		
		Q3 2020 – Q3	2021-2025	
	Current	2021 Projected	Projected Risk-	
	Risk-Free	Risk-Free Rate	Free Rate	
	Rate (1.56%)	(1.80%)	(3.20%)	
Value Line Beta	9.41%	9.50%	10.02%	
Bloomberg Beta	11.30%	11.36%	11.66%	
Empir	rical Capital As	set Pricing Model		
Value Line Beta	10.57%	10.63%	11.02%	
Bloomberg Beta	11.99%	12.03%	12.26%	
Bo	ond Yield Plus	Risk Premium		
	Current Risk-	Q3 2020 – Q3 2021	2021-2025	
	Free Rate	Projected Risk-Free	Projected Risk-Free	
	(1.56%)	Rate (1.80%)	Rate (3.20%)	
Risk Premium Results	9.12%	9.23%	9.84%	
	Expected Earni	ngs Analysis		
]	Median		
Expected Earnings Results	9	9.94%		

Figure 17:	Summary	of Analytical	Results ⁸⁸
8			

2

3 Q127. What is your conclusion with respect to Montana-Dakota's proposed capital

4 structure?

A127. My conclusion is that Montana-Dakota's proposal to establish a capital structure
 consisting of 50.210 percent common equity, 44.718 percent long-term debt and
 5.072 percent short-term debt is reasonable when compared to the capital structures

⁸⁸ The analytical results included in Figure 17 reflect the results of the Constant Growth DCF analysis excluding the results for individual companies that did not meet the minimum threshold of 7.00 percent.

- 1 of the companies in the proxy group and taking in consideration the impact of the
- 2 TCJA on the cash flows and therefore should be adopted.

3 Q128. Does this conclude your Direct Testimony?

4 A128. Yes, it does.



D2020.06.___ Exhibit No.___(AEB-2) Schedule 1 Page 1 of 10 Resume of Ann E. Bulkley

ANN E. BULKLEY Senior Vice President

Ms. Bulkley has more than two decades of management and economic consulting experience in the energy industry. Ms. Bulkley has extensive state and federal regulatory experience on both electric and natural gas issues including rate of return, cost of equity and capital structure issues. Ms. Bulkley has provided expert testimony on the cost of capital in more than 30 regulatory proceedings before regulatory commissions in Arizona, Arkansas, Colorado, Connecticut, Kansas, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, Texas, South Dakota, West Virginia, and the Federal Energy Regulatory Commission. In addition, Ms. Bulkley has prepared and provided supporting analysis for at least forty Federal and State regulatory proceedings. In addition, Ms. Bulkley has worked on acquisition teams with investors seeking to acquire utility assets, providing valuation services including an understanding of regulation, market expected returns, and the assessment of utility risk factors. Ms. Bulkley has assisted clients with valuations of public utility and industrial properties for ratemaking, purchase and sale considerations, ad valorem tax assessments, and accounting and financial purposes. In addition, Ms. Bulkley has experience in the areas of contract and business unit valuation, strategic alliances, market restructuring and regulatory and litigation support. Prior to joining Concentric, Ms. Bulkley held senior expertise-based consulting positions at several firms, including Reed Consulting Group and Navigant Consulting, Inc. where she specialized in valuation. Ms. Bulkley holds an M.A. in economics from Boston University and a B.A. in economics and finance from Simmons College. Ms. Bulkley is a Certified General Appraiser licensed in the Commonwealth of Massachusetts and the State of New Hampshire.

REPRESENTATIVE PROJECT EXPERIENCE

Regulatory Analysis and Ratemaking

Ms. Bulkley has provided a range of advisory services relating to regulatory policy analysis and many aspects of utility ratemaking. Specific services have included: cost of capital and return on equity testimony, cost of service and rate design analysis and testimony, development of ratemaking strategies; development of merchant function exit strategies; analysis and program development to address residual energy supply and/or provider of last resort obligations; stranded costs assessment and recovery; performance-based ratemaking analysis and design; and many aspects of traditional utility ratemaking (e.g., rate design, rate base valuation).

Cost of Capital

Ms. Bulkley has provided expert testimony on the cost of capital in more than 30 regulatory proceedings before regulatory commissions in Arizona, Arkansas, Colorado, Connecticut, Kansas, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, Texas, South Dakota, West Virginia, and the Federal Energy Regulatory Commission. In addition, Ms. Bulkley has prepared and provided supporting analysis for at least forty Federal and State regulatory proceedings in which she did not testify.



Valuation

Ms. Bulkley has provided valuation services to utility clients, unregulated generators and private equity clients for a variety of purposes including ratemaking, fair value, ad valorem tax, litigation and damages, and acquisition. Ms. Bulkley's appraisal practices are consistent with the national standards established by the Uniform Standards of Professional Appraisal Practice.

Representative projects/clients have included:

- Northern Indiana Fuel and Light: Provided expert testimony regarding the fair value of the company's natural gas distribution system assets. Valuation relied on cost approach.
- Kokomo Gas: Provided expert testimony regarding the fair value of the company's natural gas distribution system assets. Valuation relied on cost approach.
- Prepared fair value rate base analyses for Northern Indiana Public Service Company for several electric rate proceedings. Valuation approaches used in this project included income, cost and comparable sales approaches.
- Confidential Utility Client: Prepared valuation of fossil and nuclear generation assets for financing purposes for regulated utility client.
- Prepared a valuation of a portfolio of generation assets for a large energy utility to be used for strategic planning purposes. Valuation approach included an income approach, a real options analysis and a risk analysis.
- Assisted clients in the restructuring of NUG contracts through the valuation of the underlying assets. Performed analysis to determine the option value of a plant in a competitively priced electricity market following the settlement of the NUG contract.
- Prepared market valuations of several purchase power contracts for large electric utilities in the sale of purchase power contracts. Assignment included an assessment of the regional power market, analysis of the underlying purchase power contracts, a traditional discounted cash flow valuation approach, as well as a risk analysis. Analyzed bids from potential acquirers using income and risk analysis approached. Prepared an assessment of the credit issues and value at risk for the selling utility.
- Prepared appraisal of a portfolio of generating facilities for a large electric utility to be used for financing purposes.
- Prepared an appraisal of a fleet of fossil generating assets for a large electric utility to establish the value of assets transferred from utility property.
- Conducted due diligence on an electric transmission and distribution system as part of a buy-side due diligence team.
- Provided analytical support for and prepared appraisal reports of generation assets to be used in ad valorem tax disputes.
- Provided analytical support and prepared testimony regarding the valuation of electric distribution system assets in five communities in a condemnation proceeding.
- Valued purchase power agreements in the transfer of assets to a deregulated electric market.



Ratemaking

Ms. Bulkley has assisted several clients with analysis to support investor-owned and municipal utility clients in the preparation of rate cases. Sample engagements include:

• Assisted several investor-owned and municipal clients on cost allocation and rate design issues including the development of expert testimony supporting recommended rate alternatives.

Worked with Canadian regulatory staff to establish filing requirements for a rate review of a newly regulated electric utility. Analyzed and evaluated rate application. Attended hearings and conducted investigation of rate application for regulatory staff. Prepared, supported and defended recommendations for revenue requirements and rates for the company. Developed rates for gas utility for transportation program and ancillary services.

Strategic and Financial Advisory Services

Ms. Bulkley has assisted several clients across North America with analytically based strategic planning, due diligence and financial advisory services.

Representative projects include:

- Preparation of feasibility studies for bond issuances for municipal and district steam clients.
- Assisted in the development of a generation strategy for an electric utility. Analyzed various NERC regions to identify potential market entry points. Evaluated potential competitors and alliance partners. Assisted in the development of gas and electric price forecasts. Developed a framework for the implementation of a risk management program.
- Assisted clients in identifying potential joint venture opportunities and alliance partners. Contacted interviewed and evaluated potential alliance candidates based on companyestablished criteria for several LDCs and marketing companies. Worked with several LDCs and unregulated marketing companies to establish alliances to enter into the retail energy market. Prepared testimony in support of several merger cases and participated in the regulatory process to obtain approval for these mergers.
- Assisted clients in several buy-side due diligence efforts, providing regulatory insight and developing valuation recommendations for acquisitions of both electric and gas properties.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2002 – Present) Senior Vice President Vice President Assistant Vice President Project Manager

Navigant Consulting, Inc. (1995 – 2002) Project Manager



D2020.06. Exhibit No.__(AEB-2) Schedule 1 Page 4 of 10 Resume of Ann E. Bulkley

Cahners Publishing Company (1995) Economist

EDUCATION

Boston University M.A., Economics, 1995

Simmons College B.A., Economics and Finance, 1991

CERTIFICATIONS

Certified General Appraiser licensed in the Commonwealth of Massachusetts and the State of New Hampshire.



SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT			
Arizona Corporation Comm	Arizona Corporation Commission						
Arizona Public Service Company	10/19	Arizona Public Service Company	Docket No. E-01345A- 19-0236	Return on Equity			
Tucson Electric Power Company	04/19	Tucson Electric Power Company	Docket No. E-01933A- 19-0028	Return on Equity			
Tucson Electric Power Company	11/15	Tucson Electric Power Company	Docket No. E-01933A- 15-0322	Return on Equity			
UNS Electric	05/15	UNS Electric	Docket No. E-04204A- 15-0142	Return on Equity			
UNS Electric	12/12	UNS Electric	Docket No. E-04204A- 12-0504	Return on Equity			
Arkansas Public Service Cor	nmissio	n					
Arkansas Oklahoma Gas Corporation	10/13	Arkansas Oklahoma Gas Corporation	Docket No. 13-078-U	Return on Equity			
Colorado Public Utilities Co	mmissio	on					
Public Service Company of Colorado	02/20	Public Service Company of Colorado	20AL-0049G	Return on Equity			
Public Service Company of Colorado	05/19	Public Service Company of Colorado	19AL-0268E	Return on Equity			
Public Service Company of Colorado	01/19	Public Service Company of Colorado	19AL-0063ST	Return on Equity			
Atmos Energy Corporation	05/15	Atmos Energy Corporation	Docket No. 15AL-0299G	Return on Equity			
Atmos Energy Corporation	04/14	Atmos Energy Corporation	Docket No. 14AL-0300G	Return on Equity			
Atmos Energy Corporation	05/13	Atmos Energy Corporation	Docket No. 13AL-0496G	Return on Equity			
Connecticut Public Utilities	Regulat	ory Authority					
Connecticut Natural Gas Corporation	06/18	Connecticut Natural Gas Corporation	Docket No. 18-05-16	Return on Equity			
Yankee Gas Services Co. d/b/a Eversource Energy	06/18	Yankee Gas Services Co. d/b/a Eversource Energy	Docket No. 18-05-10	Return on Equity			
The Southern Connecticut Gas Company	06/17	The Southern Connecticut Gas Company	Docket No. 17-05-42	Return on Equity			
The United Illuminating Company	07/16	The United Illuminating Company	Docket No. 16-06-04	Return on Equity			
Federal Energy Regulatory	Commis	sion					
Panhandle Eastern Pipe Line Company, LP	10/19	Panhandle Eastern Pipe Line Company, LP	Docket Nos. RP19-78-000 RP19-78-001	Return on Equity			



SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Panhandle Eastern Pipe Line Company, LP	08/19	Panhandle Eastern Pipe Line Company, LP	Docket Nos. RP19-1523	Return on Equity
Sea Robin Pipeline Company LLC	11/18	Sea Robin Pipeline Company LLC	Docket# RP19-352-000	Return on Equity
Tallgrass Interstate Gas Transmission	10/15	Tallgrass Interstate Gas Transmission	RP16-137	Return on Equity
Indiana Utility Regulatory C	ommiss	sion		
Indiana and Michigan American Water Company	09/18	Indiana and Michigan American Water Company	IURC Cause No. 45142	Return on Equity
Northern Indiana Public Service Company	09/17	Northern Indiana Public Service Company	Cause No. 44988	Fair Value
Indianapolis Power and Light Company	12/16	Indianapolis Power and Light Company	Cause No.44893	Fair Value
Northern Indiana Public Service Company	10/15	Northern Indiana Public Service Company	Cause No. 44688	Fair Value
Indianapolis Power and Light Company	09/15	Indianapolis Power and Light Company	Cause No. 44576 Cause No. 44602	Fair Value
Kokomo Gas and Fuel Company	09/10	Kokomo Gas and Fuel Company	Cause No. 43942	Fair Value
Northern Indiana Fuel and Light Company, Inc.	09/10	Northern Indiana Fuel and Light Company, Inc.	Cause No. 43943	Fair Value
Kansas Corporation Commi	ssion			
Atmos Energy Corporation	08/15	Atmos Energy Corporation	Docket No. 16-ATMG- 079-RTS	Return on Equity
Kentucky Public Service Co	nmissio	n		
Kentucky American Water Company	11/18	Kentucky American Water Company	Docket No. 2018-00358	Return on Equity
Maine Public Utilities Comn	nission			
Central Maine Power	10/18	Central Maine Power	Docket No. 2018-00194	Return on Equity
Maryland Public Service Co	mmissio	n		
Maryland American Water Company	06/18	Maryland American Water Company	Case No. 9487	Return on Equity
Massachusetts Appellate Ta	x Board			
Hopkinton LNG Corporation	03/20	Hopkinton LNG Corporation	Docket No.	Valuation of LNG Facility
FirstLight Hydro Generating Company	06/17	FirstLight Hydro Generating Company	Docket No. F-325471 Docket No. F-325472 Docket No. F-325473 Docket No. F-325474	Valuation of Electric Generation Assets



SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT			
Massachusetts Department	Massachusetts Department of Public Utilities						
Berkshire Gas Company	05/18	Berkshire Gas Company	DPU 18-40	Rate Case			
Unitil Corporation	01/04	Fitchburg Gas and Electric	DTE 03-52	Integrated Resource Plan; Gas Demand Forecast			
Michigan Public Service Cor	nmissio	n					
Wisconsin Electric Power Company	12/11	Wisconsin Electric Power Company	Case No. U-16830	Return on Equity			
Michigan Tax Tribunal							
New Covert Generating Co., LLC.	03/18	The Township of New Covert Michigan	MTT Docket No. 000248TT and 16- 001888-TT	Valuation of Electric Generation Assets			
Covert Township	07/14	New Covert Generating Co., LLC.	Docket No. 399578	Valuation of Electric Generation Assets			
Minnesota Public Utilities C	ommiss	ion					
Allete, Inc. d/b/a Minnesota Power	11/19	Allete, Inc. d/b/a Minnesota Power	E015/GR-19-442	Return on Equity			
CenterPoint Energy Resources Corporation d/b/a CenterPoint Energy Minnesota Gas	10/19	CenterPoint Energy Resources Corporation d/b/a CenterPoint Energy Minnesota Gas	G-008/GR-19-524	Return on Equity			
Great Plains Natural Gas Co.	09/19	Great Plains Natural Gas Co.	Docket No. G004/GR-19- 511	Return on Equity			
Minnesota Energy Resources Corporation	10/17	Minnesota Energy Resources Corporation	Docket No. G011/GR-17- 563	Return on Equity			
Missouri Public Service Con	nmission	1					
Missouri American Water Company	06/17	Missouri American Water Company	Case No. WR-17-0285 Case No. SR-17-0286	Return on Equity			
Montana Public Service Con	nmissio	n					
Montana-Dakota Utilities Co.	09/18	Montana-Dakota Utilities Co.	D2018.9.60	Return on Equity			
New Hampshire - Board of T	ax and	Land Appeals					
Public Service Company of New Hampshire d/b/a Eversource	11/19 12/19	Public Service Company of New Hampshire d/b/a	Master Docket No. 28873-14-15-16-17PT	Valuation of Utility Property and			
Energy		Eversource Energy		Generating Assets			
New Hampshire Public Utili	ties Con	nmission					
Public Service Company of New Hampshire	05/19	Public Service Company of New Hampshire	DE-19-057	Return on Equity			



SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT			
New Hampshire-Merrimack	New Hampshire-Merrimack County Superior Court						
Northern New England Telephone Operations, LLC d/b/a FairPoint Communications, NNE	04/18	Northern New England Telephone Operations, LLC d/b/a FairPoint Communications, NNE	220-2012-CV-1100	Valuation of Utility Property			
New Hampshire-Rockingha	m Super	ior Court	-				
Eversource Energy	05/18	Public Service Commission of New Hampshire	218-2016-CV-00899 218-2017-CV-00917	Valuation of Utility Property			
New Jersey Board of Public	Utilities						
New Jersey American Water Company, Inc.	12/19	New Jersey American Water Company, Inc.	WR19121516	Return on Equity			
Public Service Electric and Gas Company	04/19	Public Service Electric and Gas Company	E018060629 G018060630	Return on Equity			
Public Service Electric and Gas Company	02/18	Public Service Electric and Gas Company	GR17070776	Return on Equity			
Public Service Electric and Gas Company	01/18	Public Service Electric and Gas Company	ER18010029 GR18010030	Return on Equity			
New Mexico Public Regulati	on Com	mission					
Southwestern Public Service Company	07/19	Southwestern Public Service Company	Case No. 19-00170-UT	Return on Equity			
Southwestern Public Service Company	10/17	Southwestern Public Service Company	Case No. 17-00255-UT	Return on Equity			
Southwestern Public Service Company	12/16	Southwestern Public Service Company	Case No. 16-00269-UT	Return on Equity			
Southwestern Public Service Company	10/15	Southwestern Public Service Company	Case No. 15-00296-UT	Return on Equity			
Southwestern Public Service Company	06/15	Southwestern Public Service Company	Case No. 15-00139-UT	Return on Equity			
New York State Department	of Publ	ic Service					
Corning Natural Gas Corporation	02/20	Corning Natural Gas Corporation	Case No. 20-G-0101	Return on Equity			
New York State Electric and Gas Company	05/19	New York State Electric and Gas Company	19-E-0378 19-G-0379 19-E-0380	Return on Equity			
Rochester Gas and Electric		Rochester Gas and Electric	19-G-0381				
Brooklyn Union Gas Company d/b/a National Grid NY KeySpan Gas East Corporation d/b/a National Grid	04/19	Brooklyn Union Gas Company d/b/a National Grid NY KeySpan Gas East Corporation d/b/a National Grid	19-G-0309 19-G-0310	Return on Equity			



SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Central Hudson Gas and Electric Corporation	07/17	Central Hudson Gas and Electric Corporation	Gas 17-G-0460 Electric 17-E-0459	Return on Equity
Niagara Mohawk Power Corporation	04/17	National Grid USA	Case No. 17-E-0238 17-G-0239	Return on Equity
Corning Natural Gas Corporation	06/16	Corning Natural Gas Corporation	Case No. 16-G-0369	Return on Equity
National Fuel Gas Company	04/16	National Fuel Gas Company	Case No. 16-G-0257	Return on Equity
KeySpan Energy Delivery	01/16	KeySpan Energy Delivery	Case No. 15-G-0058 Case No. 15-G-0059	Return on Equity
New York State Electric and Gas Company Rochester Gas and Electric	05/15	New York State Electric and Gas Company Rochester Gas and Electric	Case No. 15-G-0284 Case No. 15-E-0285 Case No. 15-G-0286	Return on Equity
North Dakota Public Service	e Commi	ssion		
Northern States Power Company	12/12	Northern States Power Company	C-PU-12-813	Return on Equity
Northern States Power Company	12/10	Northern States Power Company	C-PU-10-657	Return on Equity
Oklahoma Corporation Com	mission	l		
Arkansas Oklahoma Gas Corporation	01/13	Arkansas Oklahoma Gas Corporation	Cause No. PUD 201200236	Return on Equity
Oregon Public Service Com	nission			
PacifiCorp d/b/a Pacific Power & Light	02/20	PacifiCorp d/b/a Pacific Power & Light	Docket No. UE-374	Return on Equity
Pennsylvania Public Utility	Commis	sion		
American Water Works Company Inc.	04/20	Pennsylvania-American Water Company	Docket No. R-2020- 3019371	Return on Equity
American Water Works Company Inc.	04/17	Pennsylvania-American Water Company	Docket No. R-2017- 2595853	Return on Equity
South Dakota Public Utilitie	s Comm	ission		
Northern States Power Company	06/14	Northern States Power Company	Docket No. EL14-058	Return on Equity
Texas Public Utility Commis	sion			
Southwestern Public Service Commission	08/19	Southwestern Public Service Commission	Docket No. D-49831	Return on Equity
Southwestern Public Service Company	01/14	Southwestern Public Service Company	Docket No. 42004	Return on Equity
Utah Public Service Commis	sion			
PacifiCorp d/b/a Rocky Mountain Power	05/20	PacifiCorp d/b/a Rocky Mountain Power	Docket No. 20-035-04	Return on Equity



SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Virginia State Corporation	Commis	sion		
Virginia American Water Company, Inc.	11/18	Virginia American Water Company, Inc.	Docket No. PUR-2018- 00175	Return on Equity
Washington Utilities Trans	portatio	n Commission		
PacifiCorp d/b/a Pacific Power & Light	12/19	PacifiCorp d/b/a Pacific Power & Light	Docket No. UE-191024	Return on Equity
Cascade Natural Gas Corporation	04/19	Cascade Natural Gas Corporation	Docket No. UG-190210	Return on Equity
West Virginia Public Servic	e Comm	ission		
West Virginia American Water Company	04/18	West Virginia American Water Company	Case No. 18-0573-W-42T Case No. 18-0576-S-42T	Return on Equity
Wisconsin Public Service Co	ommissi	on		
Wisconsin Electric Power Company and Wisconsin Gas LLC	03/19	Wisconsin Electric Power Company and Wisconsin Gas LLC	Docket No. 05-UR-109	Return on Equity
Wisconsin Public Service Corp.	03/19	Wisconsin Public Service Corp.	6690-UR-126	Return on Equity
Wyoming Public Service Co	mmissio	n		
PacifiCorp d/b/a Rocky Mountain Power	03/20	PacifiCorp d/b/a Rocky Mountain Power	Docket No. 20000-578- ER-20	Return on Equity
Montana-Dakota Utilities Co.	05/19	Montana-Dakota Utilities Co.	30013-351-GR-19	Return on Equity

Constant Growth DCF									
	Median Low	Median	Median High						
30-Day Average	9.29%	9.39%	9.72%						
90-Day Average	9.07%	9.28%	9.51%						
180-Day Average	8.79%	9.27%	9.47%						
Constant Growth Average	9.05%	9.31%	9.57%						
САРМ									
	Current 30-day	Near-Term Blue	Long-Term Blue						
	Average Treasury	Chip Forecast	Chip Forecast						
	Bond Yield	Yield	Yield						
Value Line Beta	9.41%	9.50%	10.02%						
Bloomberg Beta	11.30%	11.36%	11.66%						
ЕСАРМ									
Value Line Beta	10.57%	10.63%	11.02%						
Bloomberg Beta	11.99%	12.03%	12.26%						
Treasury Yield Plus Risk Premium									
	Current 30-day	Near-Term Blue	Long-Term Blue						
	Average Treasury	Chip Forecast	Chip Forecast						
	Bond Yield	Yield	Yield						
Risk Premium Analysis	9.12%	9.23%	9.84%						
Risk Premium Mean Result	9.40%								
Expected Earnings Analysis									
	Mea	Median							
Exepected Earnings Analysis	9.94	9.74%							

SUMMARY OF ROE ANALYSES RESULTS¹

Notes:

[1] The analytical results included in the table reflect the results of the Constant Growth DCF analysis excluding the results for individual companies that did not meet the minimum threshold of 7 percent.

PROXY GROUP SCREENING DATA AND RESULTS - FINAL PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]
				Positive Growth Rates from		% Regulated	
			S&P Credit Rating	at least two sources (Value	% Regulated	Natural Gas	
			Between BBB-	Line, Yahoo! First Call, and	Operating Income	Operating Income	Announced
Company	Ticker	Dividends	and AAA	Zacks)	> 70%	> 60%	Merger
Atmos Energy Corporation	ATO	Yes	A	Yes	100.00%	67.74%	No
New Jersey Resources Corporation	NJR	Yes	AA-	Yes	71.28%	100.00%	No
Northwest Natural Gas Company	NWN	Yes	A+	Yes	100.00%	90.38%	No
ONE Gas Inc.	OGS	Yes	A	Yes	100.00%	100.00%	No
South Jersey Industries, Inc.	SJI	Yes	BBB	Yes	88.13%	100.00%	No
Southwest Gas Corporation	SWX	Yes	BBB+	Yes	82.14%	100.00%	No
Spire, Inc.	SR	Yes	A-	Yes	97.43%	100.00%	No

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional
[3] Source: Yahoo! Finance, Value Line Investment Survey, and Zacks
[4] Source: Form 10-K's for 2018, 2017, and 2016
[5] Source: Form 10-K's for 2018, 2017, and 2016

[6] Source: SNL Financial News Releases

30-DAY CONSTANT GROWTH DCF -- MDU MONTANA PROXY GROUP With Exclusions All Proxy Group [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] Yahoo! Expected Value Line Finance Zacks Average Annualized Dividend Dividend Stock Earnings Earnings Earnings Growth Mean Mean Ticker Growth Rate Low ROE ROE Hiah ROE Low ROE ROE High ROE Company Dividend Price Yield Yield Growth Growth ATO 2.21% 9.39% 9.49% Atmos Energy Corporation \$2.30 \$103.86 2.29% 7.00% 7.10% 7.20% 7.10% 9.29% 9.39% 9.49% 9.29% New Jersey Resources Corporation NJR \$1.25 \$34.74 3.60% 3.67% 2.50% 6.00% NA% 4.25% 6.14% 7.92% 9.71% 7.92% 9.71% Northwest Natural Gas Company NWN \$1.91 \$65.44 2.92% 3.11% 22.50% 3.75% NA% 13.13% 6.72% 16.24% 25.75% 16.24% 25.75% 8.54% ONE Gas Inc. OGS \$2.16 \$82.27 2.63% 2.70% 7.00% 5.00% 5.50% 5.83% 7.69% 8.54% 9.72% 7.69% 9.72% 4.57% SJI \$27.11 4.35% 9.50% 10.20% 10.20% 9.97% 14.06% 14.54% 14.77% 14.06% 14.54% 14.77% South Jersey Industries, Inc. \$1.18 Southwest Gas Corporation SWX \$2.18 \$66.20 3.29% 3.42% 8.00% 8.20% 6.00% 7.40% 9.39% 10.82% 11.63% 9.39% 10.82% 11.63% Spire, Inc. SR \$2.49 \$75.74 3.29% 3.37% 5.50% 4.65% 4.80% 4.98% 8.01% 8.35% 8.88% 8.01% 8.35% 8.88% Median 3.29% 3.37% 7.00% 6.00% 6.00% 7.10% 8.01% 9.39% 9.72% 9.29% 9.39% 9.72%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 30-day average as of March 31, 2020.

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.50 x [8])

[5] Source: Value Line [6] Source: Yahoo! Finance

[7] Source: Zacks

[8] Equals Average ([5], [6], [7])

[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])

[10] Equals [4] + [8]

[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

[12] - [14] Excludes companies with ROEs less than the a 7.00% return.

90-DAY CONSTANT GROWTH DCF -- MDU MONTANA PROXY GROUP With Exclusions All Proxy Group [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] Yahoo! Expected Value Line Finance Zacks Average Annualized Dividend Dividend Stock Earnings Earnings Earnings Growth Mean Mean Ticker Growth Rate Low ROE ROE Hiah ROE Low ROE ROE High ROE Company Dividend Price Yield Yield Growth Growth ATO 2.10% 9.38% 9.28% 9.38% Atmos Energy Corporation \$2.30 \$109.44 2.18% 7.00% 7.10% 7.20% 7.10% 9.18% 9.28% 9.18% New Jersey Resources Corporation NJR \$1.25 \$40.41 3.09% 3.16% 2.50% 6.00% NA% 4.25% 5.63% 7.41% 9.19% 7.41% 9.19% Northwest Natural Gas Company NWN \$1.91 \$69.92 2.73% 2.91% 22.50% 3.75% NA% 13.13% 6.53% 16.04% 25.54% 16.04% 25.54% 8.33% ONE Gas Inc. OGS \$2.16 \$89.12 2.42% 2.49% 7.00% 5.00% 5.50% 5.83% 7.48% 8.33% 9.51% 7.48% 9.51% SJI \$30.12 3.92% 4.11% 9.50% 10.20% 10.20% 9.97% 13.60% 14.08% 14.32% 13.60% 14.08% 14.32% South Jersey Industries, Inc. \$1.18 Southwest Gas Corporation SWX \$2.18 \$73.06 2.98% 3.09% 8.00% 8.20% 6.00% 7.40% 9.07% 10.49% 11.31% 9.07% 10.49% 11.31% Spire, Inc. SR \$2.49 \$80.10 3.11% 3.19% 5.50% 4.65% 4.80% 4.98% 7.83% 8.17% 8.69% 7.83% 8.17% 8.69% Median 2.98% 7.00% 6.00% 7.10% 7.83% 9.51% 9.07% 9.51% 3.09% 6.00% 9.28% 9.28%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 90-day average as of March 31, 2020

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.50 x [8])

[5] Source: Value Line

[6] Source: Yahoo! Finance

[7] Source: Zacks

[8] Equals Average ([5], [6], [7]) [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])

[10] Equals [4] + [8]

[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

[12] - [14] Excludes companies with ROEs less than the a 7.00% return.

				180-DAY CO	ONSTANT GR	ROWTH DCF	MDU MON	TANA PROX	Y GROUP						
										A	II Proxy Gr	oup	W	ith Exclusion	ons
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
							Yahoo!								
					Expected	Value Line	Finance	Zacks	Average						
		Annualized	Stock	Dividend	Dividend	Earnings	Earnings	Earnings	Growth		Mean			Mean	
Company	Ticker	Dividend	Price	Yield	Yield	Growth	Growth	Growth	Rate	Low ROE	ROE	High ROE	Low ROE	ROE	High ROE
Atmos Energy Corporation	ATO	\$2.30	\$109.81	2.09%	2.17%	7.00%	7.10%	7.20%	7.10%	9.17%	9.27%	9.37%	9.17%	9.27%	9.37%
New Jersey Resources Corporation	NJR	\$1.25	\$42.71	2.93%	2.99%	2.50%	6.00%	NA%	4.25%	5.46%	7.24%	9.01%		7.24%	9.01%
Northwest Natural Gas Company	NWN	\$1.91	\$69.95	2.73%	2.91%	22.50%	3.75%	NA%	13.13%	6.53%	16.03%	25.54%		16.03%	25.54%
ONE Gas Inc.	OGS	\$2.16	\$90.37	2.39%	2.46%	7.00%	5.00%	5.50%	5.83%	7.45%	8.29%	9.47%	7.45%	8.29%	9.47%
South Jersey Industries, Inc.	SJI	\$1.18	\$31.11	3.79%	3.98%	9.50%	10.20%	10.20%	9.97%	13.47%	13.95%	14.19%	13.47%	13.95%	14.19%
Southwest Gas Corporation	SWX	\$2.18	\$80.59	2.70%	2.80%	8.00%	8.20%	6.00%	7.40%	8.79%	10.20%	11.02%	8.79%	10.20%	11.02%
Spire, Inc.	SR	\$2.49	\$81.97	3.04%	3.11%	5.50%	4.65%	4.80%	4.98%	7.76%	8.10%	8.62%	7.76%	8.10%	8.62%
Median				2.73%	2.91%	7.00%	6.00%	6.00%	7.10%	7.76%	9.27%	9.47%	8.79%	9.27%	9.47%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 180-day average as of March 31, 2020

[2] Source: Bioomberg Professi
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.50 x [8])
[5] Source: Value Line
[6] Source: Yahoo! Finance
[7] Source: Zacks

[7] Source: Zacks [8] Equals Average ([5], [6], [7]) [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]) [10] Equals [4] + [8] [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]) [12] - [14] Excludes companies with ROEs less than the a 7.00% return.

[2] [3] [4] [5] [6] [1] Current 30-day average of 30-vear U.S. Treasury bond Market Risk ECAPM Market Premium CAPM ROE Company Ticker yield Beta Return ROE Atmos Energy Corporation ATO 1.56% 0.55 14.05% 12.49% 9.83% 8.43% New Jersey Resources Corporation NJR 1.56% 0.65 14.05% 12.49% 9.68% 10.77% Northwest Natural Gas Company NWN 1.56% 0.55 12.49% 8.43% 14.05% 9.83% ONE Gas Inc. OGS 1.56% 0.60 14.05% 12.49% 9.05% 10.30% South Jersey Industries, Inc. SJI 1.56% 0.80 14.05% 12.49% 11.55% 12.17% Southwest Gas Corporation SWX 10.77% 1.56% 14.05% 12.49% 9.68% 0.65 Spire, Inc. SR 1.56% 0.60 14.05% 12.49% 9.05% 10.30% Mean 9.41% 10.57%

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VL BETA

Notes:

[1] Source: Bloomberg Professional

[2] Source: Value Line; dated February 28, 2020

[3] Source: Schedule-5, page 3

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4] [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & VL BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Near-term projected					
		30-year U.S. Treasury					
		bond yield		Market	Market Risk		ECAPM
Company	Ticker	(Q3 2020 - Q3 2021)	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	1.80%	0.55	14.05%	12.25%	8.54%	9.91%
New Jersey Resources Corporation	NJR	1.80%	0.65	14.05%	12.25%	9.76%	10.83%
Northwest Natural Gas Company	NWN	1.80%	0.55	14.05%	12.25%	8.54%	9.91%
ONE Gas Inc.	OGS	1.80%	0.60	14.05%	12.25%	9.15%	10.37%
South Jersey Industries, Inc.	SJI	1.80%	0.80	14.05%	12.25%	11.60%	12.21%
Southwest Gas Corporation	SWX	1.80%	0.65	14.05%	12.25%	9.76%	10.83%
Spire, Inc.	SR	1.80%	0.60	14.05%	12.25%	9.15%	10.37%
Mean						9.50%	10.63%

Notes

[1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 4, April 1, 2020, at 2

[2] Source: Value Line; dated February 28, 2020

[3] Source: Schedule-5, page 3

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VL BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Projected 30-year					
		U.S. Treasury bond		Market	Market Risk		ECAPM
Company	Ticker	yield (2021 - 2025)	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	3.20%	0.55	14.05%	10.85%	9.17%	10.39%
New Jersey Resources Corporation	NJR	3.20%	0.65	14.05%	10.85%	10.25%	11.20%
Northwest Natural Gas Company	NWN	3.20%	0.55	14.05%	10.85%	9.17%	10.39%
ONE Gas Inc.	OGS	3.20%	0.60	14.05%	10.85%	9.71%	10.79%
South Jersey Industries, Inc.	SJI	3.20%	0.80	14.05%	10.85%	11.88%	12.42%
Southwest Gas Corporation	SWX	3.20%	0.65	14.05%	10.85%	10.25%	11.20%
Spire, Inc.	SR	3.20%	0.60	14.05%	10.85%	9.71%	10.79%
Mean						10.02%	11.02%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 12, December 1, 2019, at 14

[2] Source: Value Line; dated February 28, 2020

[3] Source: Schedule-5, page 3

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4] [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

		[1]	[2]	[3]	[4]	[5]	[6]
		Current 30-day	[-]	[0]	[.]	[0]	[0]
		average of 30-year					
		U.S. Treasury bond		Market	Market Risk		ECAPM
Company	Ticker	yield	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	1.56%	0.76	14.05%	12.49%	11.07%	11.81%
New Jersey Resources Corporation	NJR	1.56%	0.78	14.05%	12.49%	11.28%	11.97%
Northwest Natural Gas Company	NWN	1.56%	0.71	14.05%	12.49%	10.42%	11.33%
ONE Gas Inc.	OGS	1.56%	0.80	14.05%	12.49%	11.61%	12.22%
South Jersey Industries, Inc.	SJI	1.56%	0.82	14.05%	12.49%	11.75%	12.33%
Southwest Gas Corporation	SWX	1.56%	0.87	14.05%	12.49%	12.37%	12.79%
Spire, Inc.	SR	1.56%	0.73	14.05%	12.49%	10.63%	11.49%
Mean						11.30%	11.99%

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & BLOOMBERG BETA

Notes:

[1] Source: Bloomberg Professional [1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional
[3] Source: Schedule-5, page 3
[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4] [6] Equals [1] + $0.25 \times ([4]) + 0.75 \times ([2] \times [4])$

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Near-term projected					
		30-year U.S. Treasury					
		bond yield		Market	Market Risk		ECAPM
Company	Ticker	(Q3 2020 - Q3 2021)	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	1.80%	0.76	14.05%	12.25%	11.12%	11.85%
New Jersey Resources Corporation	NJR	1.80%	0.78	14.05%	12.25%	11.33%	12.01%
Northwest Natural Gas Company	NWN	1.80%	0.71	14.05%	12.25%	10.49%	11.38%
ONE Gas Inc.	OGS	1.80%	0.80	14.05%	12.25%	11.66%	12.25%
South Jersey Industries, Inc.	SJI	1.80%	0.82	14.05%	12.25%	11.80%	12.36%
Southwest Gas Corporation	SWX	1.80%	0.87	14.05%	12.25%	12.40%	12.81%
Spire, Inc.	SR	1.80%	0.73	14.05%	12.25%	10.70%	11.53%
Mean						11.36%	12.03%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 4, April 1, 2020, at 2 [2] Source: Bloomberg Professional

[3] Source: Schedule-5, page 3

[4] Equals [3] - [1] [5] Equals [1] + [2] x [4] [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Projected 30-year					
		U.S. Treasury bond		Market	Market Risk	[ECAPM
Company	Ticker	yield (2021 - 2025)	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	3.20%	0.76	14.05%	10.85%	11.46%	12.10%
New Jersey Resources Corporation	NJR	3.20%	0.78	14.05%	10.85%	11.64%	12.24%
Northwest Natural Gas Company	NWN	3.20%	0.71	14.05%	10.85%	10.90%	11.68%
ONE Gas Inc.	OGS	3.20%	0.80	14.05%	10.85%	11.93%	12.46%
South Jersey Industries, Inc.	SJI	3.20%	0.82	14.05%	10.85%	12.05%	12.55%
Southwest Gas Corporation	SWX	3.20%	0.87	14.05%	10.85%	12.59%	12.95%
Spire, Inc.	SR	3.20%	0.73	14.05%	10.85%	11.08%	11.82%
Mean						11.66%	12.26%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 38, No. 12, December 1, 2019, at 14

[2] Source: Bloomberg Professional [3] Source: Schedule-5, page 3

[4] Equals [3] - [1] [5] Equals [1] + [2] x [4] [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

MARKET RISK PREMIUM DERIVED FROM S&P EARNINGS AND ESTIMATE REPORT

[7] S&P's estimate of the S&P 500 Dividend Yield	2.31%
[8] S&P's estimate of the S&P 500 Growth Rate	11.60%
[9] S&P 500 Estimated Required Market Return	14.05%

Notes:

[7] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, March 31, 2020

[9] Equals ([7] x (1 + (0.5 x [8]))) + [8]

^[8] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, March 31, 2020

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average	U.S. Govt.	Diale
	Authorized Gas ROE	30-year Treasury	Risk Premium
1992.1	12.42%	7.80%	4.62%
1992.1	12.42 %	7.89%	4.02%
1992.2	11.87%	7.45%	4.42%
1992.4	11.94%	7.52%	4.42%
1993.1	11.75%	7.07%	4.68%
1993.2	11.71%	6.86%	4.85%
1993.3	11.39%	6.31%	5.07%
1993.4	11.16%	6.14%	5.02%
1994.1	11.12%	6.57%	4.55%
1994.2	10.84%	7.35%	3.48%
1994.3	10.87%	7.58%	3.28%
1994.4	11.53%	7.96%	3.57%
1995.2	11.00%	6.94%	4.06%
1995.3	11.07%	6.71%	4.35%
1995.4	11.61%	6.23%	5.37%
1996.1	11.45%	6.29%	5.16%
1996.2	10.88%	6.92%	3.96%
1996.3	11.25%	6.96%	4.29%
1996.3			
1996.4	11.19% 11.31%	6.62% 6.81%	4.58% 4.49%
1997.2	11.70%	6.93%	4.77%
1997.3	12.00%	6.53%	5.47%
1997.4	10.92%	6.14%	4.78%
1998.2	11.37%	5.85%	5.52%
1998.3	11.41%	5.47%	5.94%
1998.4	11.69%	5.10%	6.59%
1999.1	10.82%	5.37%	5.44%
1999.2	11.25%	5.79%	5.46%
1999.4	10.38%	6.25%	4.12%
2000.1	10.66%	6.29%	4.36%
2000.2	11.03%	5.97%	5.06%
2000.3	11.33%	5.79%	5.55%
2000.4	12.10%	5.69%	6.41%
2001.1	11.38%	5.44%	5.93%
2001.2	10.75%	5.70%	5.05%
2001.4	10.65%	5.30%	5.35%
2002.1	10.67%	5.51%	5.15%
2002.2	11.64%	5.61%	6.03%
2002.3	11.50%	5.08%	6.42%
2002.4	11.01%	4.93%	6.08%
2003.1	11.38%	4.85%	6.53%
2003.2	11.36%	4.60%	6.76%
2003.3	10.61%	5.11%	5.50%
2003.4	10.84%	5.11%	5.73%
2004.1	11.06%	4.88%	6.18%
2004.2	10.57%	5.32%	5.25%
2004.3	10.37%	5.06%	5.31%
2004.4	10.66%	4.86%	5.79%
2005.1	10.65%	4.69%	5.96%
2005.2	10.54%	4.47%	6.07%
2005.3	10.47%	4.44%	6.03%
2005.4	10.32%	4.68%	5.63%
2006.1	10.68%	4.63%	6.05%
2006.2	10.60%	5.14%	5.46%
2006.3	10.34%	4.99%	5.34%
2006.4	10.14%	4.74%	5.40%
2007.1	10.52%	4.80%	5.72%
2007.2	10.13%	4.99%	5.14%
2007.3	10.03%	4.95%	5.08%
2007.4	10.12%	4.61%	5.50%
2007.4	10.38%	4.41%	5.97%
2008.2	10.00%	4.57%	5.60%
2008.3	10.55%	4.44%	6.11%
	10.33%	3.65%	6.69%
	10.07/0	0.0070	0.0070
2008.4 2009 1	10 24%	3 44%	6 81%
2008.4 2009.1 2009.2	10.24% 10.11%	3.44% 4.17%	6.81% 5.94%

BOND YIELD PLUS RISK PREMIUM

[1] [2] [3] Average U.S. Govt. Authorized 30-year Risk Gas ROE Treasury Premium 2009.4 10.31% 4.34% 5.97% 2010.1 10.24% 4.62% 5.61% 2010.2 9.99% 4.36% 5.62% 2010.3 10.43% 3.86% 6.57% 2010.4 10.09% 4.17% 5.93% 2011.1 10.10% 4.56% 5.54% 2011.2 9.85% 4.34% 5.51% 2011.3 9.65% 3.69% 5.96% 2012.2 9.83% 2.93% 6.90% 2012.3 9.75% 2.74% 7.01% 2013.1 9.57% 3.13% 6.44% 2013.2 9.47% 3.14% 6.33% 2013.3 9.60% 3.71% 5.89% 2013.4 9.83% 3.79% 6.04% 2014.3 9.45% 3.26% 6.19%												
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	2020.1	9.35%	1.89%	7.46%								
MEDIAN 10.38% 4.68% 5.93%	AVERAGE	10.50%	4.72%	5.78%								
	MEDIAN	10.38%	4.68%	5.93%								

Lower 95.0%

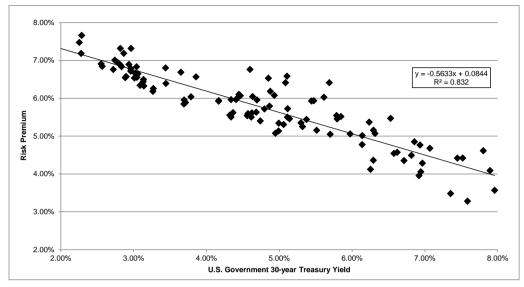
0.082016

(0.611782)

Upper 95.0%

0.086831

(0.514761)



SUMMARY OUTPUT

Regression Statis	stics					
Multiple R	0.912131					
R Square	0.831982					
Adjusted R Square	0.830412					
Standard Error	0.003921					
Observations	109					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	0.008145	0.008145	529.836946	0.000000	
Residual	107	0.001645	0.000015			
Total	108	0.009790				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0.0844	0.0012144	69.52	0.000000	0.082016	0.086831
U.S. Govt. 30-year Treasury	(0.5633)	0.0244707	(23.02)	0.000000	(0.611782)	(0.514761)

	[7]	[8]	[9]
	U.S. Govt.	6. 1	
	30-year Treasurv	Risk Premium	ROE
	ricadary	1 Torniani	ROE
Current 30-day average of 30-year U.S. Treasury bond yield [4]	1.56%	7.56%	9.12%
Blue Chip Consensus Forecast (Q3 2020 - Q3 2021) [5]	1.80%	7.43%	9.23%
Blue Chip Consensus Forecast (2021-2025) [6]	3.20%	6.64%	9.84%
AVERAGE			9.40%

Notes:

[1] Source: Regulatory Research Associates, rate cases through March 31, 2020 [2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the quarter [3] Equals Column [1] – Column [2]

[4] Source: Bloomberg Professional, 30-day average as of March 31, 2020

[5] Source: Blue Chip Financial Forecasts, Vol. 39, No. 4, April 1, 2020, at 2
[6] Source: Blue Chip Financial Forecasts, Vol. 38, No. 12, December 1, 2019, at 14

[7] See notes [4], [5] & [6]

[8] Equals 0.084369 + (-0.562291 x Column [7])

[9] Equals Column [7] + Column [8]

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EXPECTED EARNINGS ANALYSIS

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
		Value Line ROE 2023-2025	Value Line Total Capital 2019	Value Line Common Equity Ratio 2019	Total Equity 2019	Value Line Total Capital 2023-2025	Value Line Common Equity Ratio 2023-2025	Total Equity 2023-2025	Compound Annual Growth Rate	Adjustment Factor	Adjusted Return on Common Equity
Atmos Energy Corporation	ΑΤΟ	9.00%	9.279.70	62.00%	5,753	16,000	60.00%	9,600	10.78%	1.051	9.46%
New Jersey Resources Corporation	NJR	9.00%	3,088.90	50.20%	1,551	4,615	56.50%	2,607	10.95%	1.052	9.47%
Northwest Natural Gas Company	NWN	11.50%	1,520.00	52.00%	790	1,825	52.50%	958	3.92%	1.019	11.72%
One Gas Inc.	OGS	9.50%	3,415.00	62.00%	2,117	4,400	62.00%	2,728	5.20%	1.025	9.74%
South Jersey Industries, Inc.	SJI	11.50%	3,550.00	42.50%	1,509	4,925	44.00%	2,167	7.51%	1.036	11.92%
Southwest Gas Corporation	SWX	9.50%	5,000.00	50.00%	2,500	7,150	56.50%	4,040	10.07%	1.048	9.96%
Spire, Inc.	SR	7.00%	4,625.60	55.00%	2,544	7,200	55.00%	3,960	9.25%	1.044	7.31%
Mean											9.94%
Median											9.74%

Notes:

Source: Value Line, February 28, 2020
 Source: Value Line, February 28, 2020
 Source: Value Line, February 28, 2020
 Equals [2] x [3]
 Source: Value Line, February 28, 2020
 Equals [5] x [6]
 Equals ([7] / [4]) ^ (1/5) - 1
 Equals 2 x (1 + [8]) / (2 + [8])
 Equals [1] x [9]

SIZE PREMIUM CALCULATION

Proxy Group Market Capitalization and Market-to-Book Ratio

		[1]	[2]
Company	Ticker	Market Capitalization (\$ billions)	Market-to- Book Ratio
Company	Ticker	(@ 01110113)	Dook Ratio
Atmos Energy Corporation	ATO	12.70	2.07
New Jersey Resources Corporation	NJR	3.32	1.82
Northwest Natural Gas Company	NWN	1.99	2.32
ONE Gas Inc.	OGS	4.34	2.04
South Jersey Industries, Inc.	SJI	2.50	1.76
Southwest Gas Corporation	SWX	3.65	1.46
Spire, Inc.	SR	3.87	1.65
Average		4.62	1.87
Median		3.65	1.82

Common Equity (\$ millions) [3]	\$ 40.02
Implied Market Capitalization [4]	72.64
As a percent of Proxy Group Median Market Capitalization	1.99%

Duff & Phelps C	ost of Capital	Navigator	Size	Premium

	[5]	[6]
	Market	
	Capitalization	
	of Largest	
	Company	Size
Breakdown of Deciles 1-10	(\$ millions)	Premium
1-Largest	1,061,355.01	-0.27%
2	30,542.94	0.48%
3	13,100.23	0.69%
4	6,614.96	0.77%
5	4,311.25	1.08%
6	2,685.87	1.37%
7	1,668.28	1.47%
8	993.85	1.61%
9	515.60	2.26%
10-Smallest	229.75	4.99%
Montana-Dakota Utilities Co MT Natural Gas - Implied Market Capitalizatio	72.64	4.99%
· · ·	-	4.99%
Proxy Group Median Market Capitalization	3,646.60	1.00%
Size Premium [7]		3.91%

NL	otes	
140	JIES	•

[1] Source: SNL Financial; equals 30-day average as of March 31, 2020

[2] Source: SNL Financial; equals 30-day average as of March 31, 2020

[3] Data provided by Montana-Dakota Utilities Co.

[4] Equals [3] x proxy group median market-to-book ratio

[5] Duff & Phelps Cost of Capital Navigator - Size Premium: Annual Data as of 12/31/2019

[6] Duff & Phelps Cost of Capital Navigator - Size Premium: Annual Data as of 12/31/2019

[7] Equals 4.99% - 1.08%

FLOTATION COST ADJUSTMENT

Company	Date [i]	Shares Issued (000)		ffering Price	Under- writing Discount [ii]	E	ffering (pense \$000)		Net roceeds er Share		Total lotation Costs (\$000)		uity Issue Before Costs (\$000)	Ρ	Net roceeds (\$000)	Flotation Cost Percentage
MDU Resources Group MDU Resources Group	2/4/2004 11/19/2002	2,300 2,400	\$ \$	23.32 24.00	0.79 0.72	\$ \$	350 193	\$ \$	22.37 23.20	\$ \$	2,174 1,921	\$ \$	53,636 57,600	\$ \$	51,462 55,680	4.05% 3.33%
· · · · · ·										\$	4,094	\$	111,236	\$	107,142	3.68%

Notes:

[i] Offering Completion Date

[ii] Underwriting discount was calculated as the market price minus the offering price when not explicitly given in the prospectus.

The flotation cost adjustment is derived by dividing the dividend yield by 1 – F (where F = flotation costs expressed in percentage terms), or by 0.9632, and adding that result to the constant growth rate to determine the cost of equity. Using the formulas shown previously in my testimony, the Constant Growth DCF calculation is modified as follows to accommodate an adjustment for flotation costs:

 $k = \frac{D \times (1 + 0.5g)}{P \times (1 - F)} + g$

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		Annualized		Dividend	Expected Dividend	Expected Dividend Yield Adjusted for Flotation	Value Line Earnings	Yahoo! Finance Earnings	Zacks Earnings	Average Earnings		ROE Adjusted for Flotation
Company	Ticker	Dividend	Stock Price	Yield	Yield	Costs	Growth	Growth	Growth	Growth	ROE	Costs
Atmos Energy Corporation	ATO	\$2.30	\$103.86	2.21%	2.29%	2.38%	7.00%	7.10%	7.20%	7.10%	9.39%	9.48%
New Jersey Resources Corporation	NJR	\$1.25	\$34.74	3.60%	3.67%	3.82%	2.50%	6.00%	NA%	4.25%	7.92%	8.07%
Northwest Natural Gas Company	NWN	\$1.91	\$65.44	2.92%	3.11%	3.23%	22.50%	3.75%	NA%	13.13%	16.24%	16.35%
ONE Gas Inc.	OGS	\$2.16	\$82.27	2.63%	2.70%	2.81%	7.00%	5.00%	5.50%	5.83%	8.54%	8.64%
South Jersey Industries, Inc.	SJI	\$1.18	\$27.11	4.35%	4.57%	4.74%	9.50%	10.20%	10.20%	9.97%	14.54%	14.71%
Southwest Gas Corporation	SWX	\$2.18	\$66.20	3.29%	3.42%	3.55%	8.00%	8.20%	6.00%	7.40%	10.82%	10.95%
Spire, Inc.	SR	\$2.49	\$75.74	3.29%	3.37%	3.50%	5.50%	4.65%	4.80%	4.98%	8.35%	8.48%
Median											9.39%	9.48%
Flotation Cost Adjustment											[12]	0.09%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 30-day average as of March 31, 2020
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [9])
[5] Equals [4] / (1 - Flotation Cost)
[6] Source: Value Line
[7] Source: Vahoo! Finance
[8] Source: Zacks
[9] Equals Average ([6], [7], [8])
[10] Equals [4] + [9]
[11] Equals [5] + [9]
[12] Equals Median ([11]) - Median ([10])

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
								2020-24 Cap. Ex. / 2018
		2018	2020	2021	2022	2023	2024	Net Plant
Atmos Energy Corporation	ΑΤΟ							
Capital Spending per Share			\$15.20	\$15.40	15.45	\$15.50	\$15.50	
Common Shares Outstanding			125.00	130.00	137.50	145.00	145.00	
Capital Expenditures			\$1,900.0	\$2,002.0	\$2,124.4	\$2,247.5	\$2,247.5	101.45%
Net Plant		\$10,371.0						
New Jersey Resources Corporation	NJR	. ,						
Capital Spending per Share			\$4.70	\$4.10	4.05	\$4.00	\$4.00	
Common Shares Outstanding			96.00	97.00	98.50	100.00	100.00	
Capital Expenditures			\$451.2	\$397.7	\$398.9	\$400.0	\$400.0	77.25%
Net Plant		\$2,651.0	¢.0.112	<i>\</i>	çooolo	\$ 10010	\$	
Northwest Natural Gas Company	NWN	\$2,00110						
Capital Spending per Share			\$6.50	\$6.65	6.45	\$6.25	\$6.25	
Common Shares Outstanding			31.00	31.00	31.50	32.00	32.00	
Capital Expenditures			\$201.5	\$206.2	\$203.2	\$200.0	\$200.0	41.75%
Net Plant		\$2,421.4	Ψ201.0	φ200.2	φ200.2	φ200.0	\$200.0	11.1070
ONE Gas Inc.	OGS	ΨΖ, ΤΖΤ. Τ						
Capital Spending per Share	000		\$8.40	\$8.60	8.98	\$9.35	\$9.35	
Common Shares Outstanding			53.50	\$4.00	54.50	\$5.00	\$5.00	
Capital Expenditures			\$449.4	\$464.4	\$489.1	\$514.3	\$514.3	56.76%
Net Plant		\$4,283.7	ψ-+-0.+	φ-το-τ-	φ+05.1	ψ014.0	ψ014.0	00.7070
South Jersey Industries, Inc.	SJI	φ4,200.7						
Capital Spending per Share	001		\$5.90	\$6.45	7.15	\$7.85	\$7.85	
Common Shares Outstanding			95.00	97.00	99.50	102.00	102.00	
Capital Expenditures			\$560.5	\$625.7	\$711.4	\$800.7	\$800.7	95.77%
Net Plant		¢2 652 5	\$500.5	φ025.7	φ/11.4	φου0. <i>1</i>	φ000. <i>1</i>	95.77%
Southwest Gas Corporation	CMAX	\$3,653.5						
	SWX		¢10.40	¢40.50	20 52	¢04.55	©04 CC	
Capital Spending per Share			\$18.40	\$19.50	20.53	\$21.55	\$21.55	
Common Shares Outstanding			57.00	59.00	62.00	65.00	65.00	400.470/
Capital Expenditures		¢5,000,0	\$1,048.8	\$1,150.5	\$1,272.6	\$1,400.8	\$1,400.8	123.17%
Net Plant	0.5	\$5,093.2						
Spire, Inc.	SR			.	40.50	\$40.00	\$40.00	
Capital Spending per Share			\$11.75	\$12.00	12.50	\$13.00	\$13.00	
Common Shares Outstanding		-	52.00	52.50	53.75	55.00	55.00	
Capital Expenditures			\$611.0	\$630.0	\$671.9	\$715.0	\$715.0	84.19%
Net Plant		\$3,970.5						
Montana-Dakota Utilities Co.	MDU		4 5 6 6			10.00	40.10	105 0001
Capital Expenditures [8]		A-	15.98	14.47	11.96	12.02	19.19	105.06%
Net Plant [9]		\$70.1						
				MDU CanF	x Total (2020	0 - 2024)		\$73.6
								\$14.7

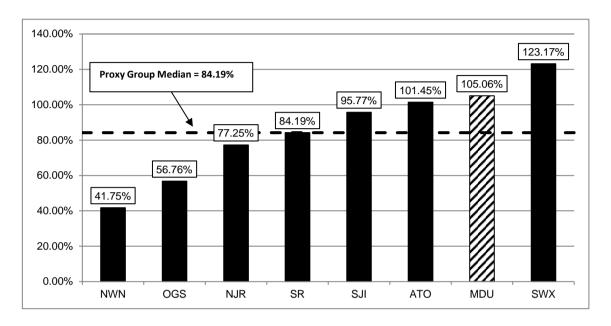
2020-2024 CAPITAL EXPENDITURES AS A PERCENT OF 2018 NET PLANT (\$ Millions)

MDU CapEx Annual Average \$14.7 Proxy Group Median Ratio of MDU to the Proxy Group Median 84.19% 1.25

Notes:

[1] - [6] Source: Value Line, dated February 28, 2020 [7] Equals (Column [2] + [3] + [4] + [5] + [6]) / Column [1] [8] Data provided by Montana-Dakota Utilities Co.

[9] Montana-Dakota Utilities Co. - 2018 Annual Report to the Montana Public Service Commission, pp. 110



2020-2024 CAPITAL EXPENDITURES AS A PERCENT OF 2018 NET PLANT

Projected CAPEX / 2018 Net Plant

Company		2020-2024
Northwest Natural Gas Company	NWN	41.75%
ONE Gas Inc.	OGS	56.76%
New Jersey Resources Corporation	NJR	77.25%
Spire, Inc.	SR	84.19%
South Jersey Industries, Inc.	SJI	95.77%
Atmos Energy Corporation	ATO	101.45%
Montana-Dakota Utilities Co.	MDU	105.06%
Southwest Gas Corporation	SWX	123.17%
Proxy Group Median		84.19%
MDU/Proxy Group		1.25

Notes:

Source: Schedule-10, page 1, col. [7]

COMPARISON OF MONTANA-DAKOTA AND PROXY GROUP COMPANIES RISK ASSESSMENT

		[1]	[2	<u>2]</u>	[3]		[4	4]
							Capital Cos	st Recovery
Company	Jurisdiction/Service	Test Year	Rate	Base	Revenue Dec	oupling	Mech	anism
Atmos Energy Corporation	Kansas - Gas	Historical		Year End		Partial		Yes
	Kentucky - Gas	Fully Forecast		Average		Partial		Yes
	Louisiana - Gas	Historical		Year End		Partial		Yes
	Mississippi - Gas	Partially Forecast		Average		Partial		Yes
	Tennessee - Gas	Fully Forecast		Average		Partial		No
	Texas - Gas	Historical		Year End		Partial		Yes
New Jersey Resources Corporation	New Jersey - Gas	Partially Forecast		Year End		Full		Yes
Northwest Natural Gas Company	Oregon - Gas	Fully Forecast		Average		Partial		No
	Washington - Gas	Historical		Average		No		No
ONE Gas, Inc.	Kansas - Gas	Historical		Year End		Partial		Yes
	Oklahoma - Gas	Historical		Year End		Partial		No
	Texas - Gas	Historical		Year End		Partial		Yes
South Jersey Industries, Inc.	New Jersey - Gas	Partially Forecast		Year End		Full		Yes
Southwest Gas Corporation	Arizona - Gas	Historical		Year End		Full		Yes
	California - Gas	Fully Forecast		Average		Full		No
	Nevada - Gas	Historical		Year End		Full		Yes
Spire, Inc.	Alabama - Gas	Fully Forecast		Average		Partial		No
	Missouri East - Gas	Historical		Year End		Partial		Yes
	Missouri West - Gas	Historical		Year End		No		Yes
					Revenue De	coupling	Capital Co	st Recovery
Proxy Group Average	Fully Forecast	5	Year End	12	Full	5	Yes	13
, , ,	Partially Forecast	3	Average	7	Partial	12	No	6
	Historic	11			No	2		-
	Forecast	42.11%	Year End	63.16%	RDM	89.47%	CCRM	68.42%
Montana-Dakota Utilities Co. [5]	Montana	Historical		Average		No		No

Notes

[1] Source: S&P Global - Market Intelligence Rate Case History (Past Rate Cases), accessed 3/31/2020

 [2] Source: S&P Global - Market Intelligence Rate Case History (Past Rate Cases), accessed 3/31/2020
 [3] - [4] Source: "Adjustment Clauses: A State-by-state Overview," Regulatory Research Associates, November 12, 2019. Operating subsidiaries not covered in this report were excluded from this exhibit.

[5] Data provided by MDU

		[1]	[2]
		RR	
	Operation State	Rank	Numeric Rank
Atmos Energy Corporation	Colorado	Average / 2	F
Atmos Energy Corporation	Kansas	Average / 2 Below Average / 1	5 7
		0	•
	Kentucky	Average / 1	4
	Louisiana (PSC)	Average / 1	4
	Mississippi	Average / 1	4
	Tennessee	Above Average / 3	3
	Texas (RRC)	Average / 2	5
New Jersey Resources Corporation	New Jersey	Below Average / 1	7
Northwest Natural Gas Company	Oregon	Average / 2	5
	Washington	Average / 3	6
ONE Gas, Inc.	Kansas	Below Average / 1	7
	Oklahoma	Average / 3	6
	Texas (RRC)	Average / 2	5
South Jersey Industries, Inc.	New Jersey	Below Average / 1	7
Southwest Gas Corporation	Arizona	Average / 3	6
	California	Average / 2	5
	Nevada	Average / 2	5
Spire, Inc.	Alabama	Above Average / 1	1
	Mississippi	Average / 1	4
	Missouri	Average / 3	6
		Average / 2 /	
Proxy Group Average		Average / 2 / Average / 3	5.10
Montana-Dakota Utilities Co.	Montana	Below Average / 1	7

COMPARISON OF MONTANA-DAKOTA AND PROXY GROUP COMPANIES RRA JURISDICTIONAL RANKINGS

Notes

[1] Source: State Regulatory Evaluations, Regulatory Research Associates, as of March 25, 2020 [2] AA/1= 1, AA/2= 2, AA/3= 3, A/1= 4, A/2= 5, A/3=6, BA/1= 7, BA/2= 8, BA/3= 9

		[1]	[2]
	_	S&P	
	Operation State	Rank	Numeric Rank
Atmos Energy Corporation	Colorado	Most credit supportive	1
37	Kansas	Highly credit supportive	2
	Kentucky	Most credit supportive	1
	Louisiana	Highly credit supportive	2
	Mississippi	Credit supportive	5
	Tennessee	Highly credit supportive	2
	Texas (RRC)	Highly credit supportive	2
New Jersey Resources Corporation	New Jersey	More credit supportive	4
Northwest Natural Gas Company	Oregon	Highly credit supportive	2
	Washington	More credit supportive	4
ONE Gas, Inc.	Kansas	Highly credit supportive	2
	Oklahoma	More credit supportive	4
	Texas (RRC)	Highly credit supportive	2
South Jersey Industries, Inc.	New Jersey	More credit supportive	4
Southwest Gas Corporation	Arizona	More credit supportive	4
	California	More credit supportive	4
	Nevada	Very Credit Supportive	3
Spire, Inc.	Alabama	Most Credit Supportive	1
	Mississippi	Credit Supportive	5
	Missouri	Very Credit Supportive	3
		Highly credit supportive /	2.85
Proxy Group Average		Very credit supportive	2.03
Montana-Dakota Utilities Co.	Montana	More credit supportive	4

COMPARISON OF MONTANA-DAKOTA AND PROXY GROUP COMPANIES S&P JURISDICTIONAL RANKINGS

Notes

[1] Source: U.S. And Canadian Regulatory Jurisdiction Updates And Insights, Standard and Poor's Ratings Services, May 14, 2019

[2] Most= 1, Highly= 2, Very= 3, More= 4, Credit Supportive= 5

COMMON EQUITY RATIO [1]					
Proxy Group Company	Ticker	2018	2017	MRY	
Atmos Energy Corporation	ATO	58.35%	55.84%	58.35%	
New Jersey Resources Corporation	NJR	58.86%	55.79%	58.86%	
Northwest Natural Gas Company	NWN	42.93%	47.00%	42.93%	
One Gas Inc.	OGS	62.03%	63.16%	62.03%	
South Jersey Industries, Inc.	SJI	50.01%	51.12%	50.01%	
Southwest Gas Corporation	SWX	47.39%	48.38%	47.39%	
Spire Inc.	SR	54.53%	55.49%	54.53%	
MEAN		53.44%	53.82%	53.44%	
LOW		42.93%	47.00%	42.93%	
HIGH		62.03%	63.16%	62.03%	

COMMON EQUITY RATIO - UTILITY OPERATING COMPANIES [2]

Company Name	Ticker	2018	2017	MRY
Atmos Energy Corporation	ATO	58.35%	55.84%	58.35%
New Jersey Natural Gas Company	NJR	58.86%	55.79%	58.86%
Northwest Natural Holding Company	NWN	42.93%	47.00%	42.93%
Kansas Gas Service Company, Inc.	OGS	62.20%	63.35%	62.20%
Oklahoma Natural Gas Company	OGS	61.94%	63.12%	61.94%
Texas Gas Service Company, Inc.	OGS	61.95%	63.01%	61.95%
South Jersey Gas Company	SJI	50.01%	51.12%	50.01%
Southwest Gas Corporation	SWX	47.39%	48.38%	47.39%
Spire Alabama Inc.	SR	63.49%	67.50%	63.49%
Spire Gulf Inc.	SR	40.08%	38.61%	40.08%
Spire Mississippi Inc.	SR	48.88%	53.10%	48.88%
Spire Missouri Inc.	SR	50.72%	49.78%	50.72%

Notes:

[1] Ratios are weighted by actual common capital, preferred equity, long-term debt, and short-term debt of Operating Subsidiaries.

LONG-T	ERM DEBT	RATIO [1]		
Proxy Group Company	Ticker	2018	2017	MRY
Atmos Energy Corporation	ATO	33.95%	37.80%	33.95%
New Jersey Resources Corporation	NJR	36.20%	33.68%	36.20%
Northwest Natural Gas Company	NWN	42.31%	43.47%	42.31%
One Gas Inc.	OGS	37.97%	36.84%	37.97%
South Jersey Industries, Inc.	SJI	43.38%	42.46%	43.38%
Southwest Gas Corporation	SWX	48.57%	45.89%	48.57%
Spire Inc.	SR	31.04%	31.63%	31.04%
MEAN		39.06%	38.82%	39.06%
LOW		31.04%	31.63%	31.04%
HIGH		48.57%	45.89%	48.57%

LONG-TERM DEBT RATIO - UTILITY OPERATING COMPANIES [2]

Company Name	Ticker	2018	2017	MRY
Atmos Energy Corporation	ATO	33.95%	37.80%	33.95%
New Jersey Natural Gas Company	NJR	36.20%	33.68%	36.20%
Northwest Natural Holding Company	NWN	42.31%	43.47%	42.31%
Kansas Gas Service Company, Inc.	OGS	37.80%	36.65%	37.80%
Oklahoma Natural Gas Company	OGS	38.06%	36.87%	38.06%
Texas Gas Service Company, Inc.	OGS	38.05%	36.99%	38.05%
South Jersey Gas Company	SJI	43.38%	42.46%	43.38%
Southwest Gas Corporation	SWX	48.57%	45.89%	48.57%
Spire Alabama Inc.	SR	25.33%	19.28%	25.33%
Spire Gulf Inc.	SR	48.38%	53.90%	48.38%
Spire Mississippi Inc.	SR	0.00%	24.97%	0.00%
Spire Missouri Inc.	SR	33.37%	37.34%	33.37%

Notes:

[1] Ratios are weighted by actual common capital, preferred equity, long-term debt, and short-term debt of Operating Subsidiaries.

PREFERRED EQUITY RATIO [1]					
Proxy Group Company	Ticker	2018	2017	MRY	
Atmos Energy Corporation	ATO	0.00%	0.00%	0.00%	
New Jersey Resources Corporation	NJR	0.00%	0.00%	0.00%	
Northwest Natural Gas Company	NWN	0.00%	0.00%	0.00%	
One Gas Inc.	OGS	0.00%	0.00%	0.00%	
South Jersey Industries, Inc.	SJI	0.00%	0.00%	0.00%	
Southwest Gas Corporation	SWX	0.00%	0.00%	0.00%	
Spire Inc.	SR	0.00%	0.00%	0.00%	
MEAN		0.00%	0.00%	0.00%	
LOW		0.00%	0.00%	0.00%	
HIGH		0.00%	0.00%	0.00%	

PREFERRED EQUITY RATIO - UTILITY OPERATING COMPANIES [2]

Company Name	Ticker	2018	2017	MRY
Atmos Energy Corporation	ATO	0.00%	0.00%	0.00%
New Jersey Natural Gas Company	NJR	0.00%	0.00%	0.00%
Northwest Natural Holding Company	NWN	0.00%	0.00%	0.00%
Kansas Gas Service Company, Inc.	OGS	0.00%	0.00%	0.00%
Oklahoma Natural Gas Company	OGS	0.00%	0.00%	0.00%
Texas Gas Service Company, Inc.	OGS	0.00%	0.00%	0.00%
South Jersey Gas Company	SJI	0.00%	0.00%	0.00%
Southwest Gas Corporation	SWX	0.00%	0.00%	0.00%
Spire Alabama Inc.	SR	0.00%	0.00%	0.00%
Spire Gulf Inc.	SR	0.00%	0.00%	0.00%
Spire Mississippi Inc.	SR	0.00%	0.00%	0.00%
Spire Missouri Inc.	SR	0.00%	0.00%	0.00%

Notes:

[1] Ratios are weighted by actual common capital, preferred equity, long-term debt, and short-term debt of Operating Subsidiaries.

SHORT-TERM DEBT RATIO [1]				
Proxy Group Company	Ticker	2018	2017	MRY
Atmos Energy Corporation	ATO	7.70%	6.35%	7.70%
New Jersey Resources Corporation	NJR	4.94%	10.53%	4.94%
Northwest Natural Gas Company	NWN	14.76%	9.53%	14.76%
One Gas Inc.	OGS	0.00%	0.00%	0.00%
South Jersey Industries, Inc.	SJI	6.61%	6.42%	6.61%
Southwest Gas Corporation	SWX	4.04%	5.74%	4.04%
Spire Inc.	SR	14.44%	12.88%	14.44%
MEAN		7.50%	7.35%	7.50%
LOW		0.00%	0.00%	0.00%
HIGH		14.76%	12.88%	14.76%

SHORT-TERM DEBT RATIO - UTILITY OPERATING COMPANIES [2]

	-			
Company Name	Ticker	2018	2017	MRY
Atmos Energy Corporation	ATO	7.70%	6.35%	7.70%
New Jersey Natural Gas Company	NJR	4.94%	10.53%	4.94%
Northwest Natural Holding Company	NWN	14.76%	9.53%	14.76%
Kansas Gas Service Company, Inc.	OGS	0.00%	0.00%	0.00%
Oklahoma Natural Gas Company	OGS	0.00%	0.00%	0.00%
Texas Gas Service Company, Inc.	OGS	0.00%	0.00%	0.00%
South Jersey Gas Company	SJI	6.61%	6.42%	6.61%
Southwest Gas Corporation	SWX	4.04%	5.74%	4.04%
Spire Alabama Inc.	SR	11.19%	13.22%	11.19%
Spire Gulf Inc.	SR	11.53%	7.48%	11.53%
Spire Mississippi Inc.	SR	51.12%	21.94%	51.12%
Spire Missouri Inc.	SR	15.91%	12.88%	15.91%

Notes:

[1] Ratios are weighted by actual common capital, preferred equity, long-term debt, and short-term debt of Operating Subsidiaries.

MONTANA-DAKOTA UTILITIES CO.

Before the Montana Public Service Commission

Docket No. 2020.06.____

Direct Testimony of Patrick C. Darras

1	Q.	Please state your name and business address.
---	----	--

2 A. My name is Patrick C. Darras, and my business address is 400

3 North Fourth Street, Bismarck, North Dakota 58501.

4 Q. By whom are you employed and in what capacity?

- 5 A. I am the Vice President Engineering & Operations Services for
- 6 Montana-Dakota Utilities Co. ("Montana-Dakota" or "Company"), Great
- 7 Plains Natural Gas Co. ("Great Plains"), Cascade Natural Gas Corporation
- 8 ("Cascade"), and Intermountain Gas Company ("Intermountain").

9 Q. Please describe your duties and responsibilities with Montana-

10 Dakota.

11 A. I have executive responsibility for the development, coordination,

- 12 and implementation of Company strategies and policies relative to all
- 13 areas of engineering and operations including design, construction,
- 14 compliance, and pipeline integrity and safety.
- 15 Q. Please outline your educational and professional background.
- 16 A. I am a graduate of North Dakota State University with a Bachelor of
- 17 Science Degree in Construction Engineering. I also hold an MBA along

with a Master's Degree in Management both from the University of Mary.
 In June of 2014 I attended the Utility Executive Course at the University of
 Idaho.

I began my career in 2002 as a gas engineer with Montana-Dakota 4 5 in Bismarck. I held that position for four years primarily working with the 6 construction and service group in day to day operations. In 2006 I was 7 promoted into the role of Region Gas Superintendent where I was 8 responsible for the overall gas engineering, construction, and service of 9 the Dakota Heartland Region of Montana-Dakota. I worked in that 10 capacity for two years and was then promoted to Region Director for 11 Montana-Dakota's Dakota Heartland Region and Great Plains. My 12 responsibility in this role was oversight of all gas and electric operations 13 for the Region. In January 2015, I accepted the promotion to Vice 14 President of Operations for Montana-Dakota and Great Plains. My 15 responsibilities in this role included gas and electric distribution operations 16 and engineering across the five states of Montana, North Dakota, South 17 Dakota, Wyoming, and Minnesota. In June of 2018, I accepted my current 18 role of Vice President – Engineering and Operations Services.

Prior to joining Montana-Dakota, I worked for a local industrial
 contractor specializing in refinery and power plant maintenance along with
 turn-key construction of industrial facilities such as refineries and food
 processing plants. I spent seven years with this group in various
 capacities in engineering, construction, and project management.

1

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to: (1) provide an overview of the
Company's project selection and budgeting process; and (2) provide an overview
of the Company's major capital projects that have been completed since the last
rate case and those currently in progress.

6 OVERVIEW OF PROJECT SELECTION AND BUDGETING PROCESS

Q. What type of major capital projects does the Company typically 8 perform?

9 Α. The bulk of Montana-Dakota's major capital projects are pipeline 10 replacement projects that have been identified for safety reasons and to 11 reduce risk on Montana-Dakota's system, and system reinforcements or 12 system expansions that have been identified as needed to ensure system 13 reliability and to accommodate growth on the Company's system. A 14 reinforcement is an upgrade to existing infrastructure or new system 15 additions, which increases system capacity, reliability, and safety. An 16 expansion is a new system addition to accommodate an increase in 17 demand. Collectively, these are known as distribution system 18 enhancements. Distribution system enhancements do not reduce 19 demand, nor do they create additional supply. Instead, enhancements can increase the overall capacity of a distribution pipeline system while 20 21 utilizing existing gate station supply points. The two broad categories of 22 distribution enhancement solutions are pipelines and regulators.

23 Q. How does the Company identify safety-related projects?

1 Α. The Company uses the Distribution Integrity Management Program 2 ("DIMP") and the expertise of its own engineers and field management to 3 identify areas of risk on its system and to develop the safety projects 4 required to remediate risk. The DIMP supports Montana-Dakota's 5 understanding of the system and material characteristics and is used to 6 identify, assess, and prioritize integrity risks to Company-owned and 7 operated infrastructure. The Company reviews and analyzes the DIMP 8 risk model outputs after each model run to identify areas of highest risk 9 and those areas where risk increased from the last model run.

Additionally, because the DIMP model does not perfectly capture all
risk factors, the Company also considers input from its system engineers,
local field management, and other subject matter experts ("SMEs") who
have detailed knowledge of specific portions of Montana-Dakota's system
to identify other areas of potential concern.

15 The Company then considers and analyzes existing and proposed 16 measures to address the threats to Montana-Dakota's pipeline system. 17 The prioritization and selection of the appropriate remediation actions 18 depends on the type of threat being addressed, whether the threat is 19 current or potential, and the viability of the remedial action in managing 20 the relevant risk factors.

Q. What types of projects are typically performed to address safety related concerns?

1 Α. Pipeline replacement is typically the most viable option to remediate 2 risks associated with corrosion, natural forces, material, weld, joint, and/or 3 equipment. If Montana-Dakota determines that replacement is an 4 appropriate action to reduce the risk, the Company establishes a 5 replacement project.

How does the Company prioritize and select safety-related projects? 7 Α. Once pipe segments requiring replacement have been identified, the 8 Company plans and prioritizes specific projects within these segments. 9 This process ensures that higher risk threats are mitigated in a timely 10 manner.

6

Q.

11 Q. Please provide an overview of Montana-Dakota's capital budgeting 12 process.

13 Capital additions and changes are planned through the annual Α. 14 budget process using PowerPlan ("PP"). The budget process begins with 15 an individual (originator) creating specific funding projects in PP for all new 16 projects to be included in the five-year capital budget. Originators are 17 generally managers at the district level or engineering staff at the 18 corporate level. Sources of information for capital projects include the 19 DIMP, state and local government agencies, and internal Montana-Dakota 20 personnel. Funding projects are used to hold the capital budget estimates 21 and will be linked to the capital work orders to be created when actual 22 costs commence. A Fixed Asset Financial Analyst reviews the funding 23 projects for proper setup. If the project is not considered a capital

expenditure as it was submitted, it is rejected and sent back to the
originator for revision, cancelled, or it is moved to Operations and
Maintenance ("O&M") Expense. After the review has been completed, the
Fixed Asset Financial Analyst will add appropriate overheads and approve
the funding project. Blanket funding projects are used year after year to
budget for high volume mass property work orders typically under
\$100,000 each.

8 Once all the funding projects have been updated with expenditures, 9 various Company operating managers generate reports to show estimated expenditures and justification for each project. The managers perform the 10 11 review of funding projects and see that any necessary changes are made 12 to the estimate and that the project is supported. Reports are then 13 generated by the budgeting personnel for review and approval by the 14 Directors and Vice Presidents of the Utility Group. Any final budget 15 changes are made, and the budgets are then presented to the Utility 16 Group's President for review and approval. The final Utility Group budget 17 is then presented to the MDU Resources CEO for review and approval. If 18 the budget is approved by the MDU Resources CEO, the final review and 19 approval occurs with the Board of Directors. At each stage of review and 20 approval process a project (or projects) can be challenged for 21 appropriateness and removed from the capital budget or moved to another 22 year within the five-year budget. The addition or removal of projects can

also be impacted by other factors such as available capital and/or
 borrowing capacity.

After final approval, an approved budget version is created in PP 3 4 and locked for entry and the funding projects and estimated amounts in 5 the approved budget version are copied back to the working budget 6 version. Project managers are notified that the budget has been approved 7 and the funding projects are open for work order creation. Projects are 8 monitored and updated throughout the year as part of the review process 9 and to insure, as best as possible, that projects are completed on time and 10 within the approved budget.

11 Q. Have there been any changes to these processes since the

12 **Company's last rate case?**

13 Yes. Beginning in January 2019, MDU Utilities Group moved Α. 14 toward a "one utility" model. As a result, the engineering department was 15 reorganized, and more consistent tasks and processes were defined. 16 The engineering managers and directors collaboratively review all projects 17 and determine which are the most important from a risk standpoint and 18 what the timing of the projects should be to best mitigate risks. Within this 19 effort, there is also a new internal requirement to develop a more robust 20 analysis for any project with a cost estimate over \$1 million dollars. As 21 part of the that analysis, the Company develops documentation supporting 22 the project, including a substantial executive summary, Synergi model 23 snapshots, alternatives considered, and timing and justification.

1 Q. For work that will be performed in 2020, does the Company

anticipate that its actual investment may vary from the budgeted
amounts?

- A. The Company's capital budgets were developed in November
 2019, and the Company expects that its actual investment will not differ
 materially from the budgeted amounts for the projects that are not yet
 complete. Ongoing construction work is still being performed during the
 COVID-19 pandemic and Montana-Dakota is not aware of any immediate
- 9 impacts to the construction schedules for its capital projects.

10 MAJOR CAPITAL PROJECTS

- 11 Q. Would you please describe the major capital projects that have been
- 12 completed since the last rate case and the projects that are

13 currently underway?

A. Yes. I will provide a description of each project including the need
for each project.

16 Billings Central Avenue Replacement

- 17 Q. Please describe the Billings Central Avenue Replacement?
- 18 A. The Billings Central Avenue project involved replacing 5,646 feet of
- 19 Early Vintage Steel Main (EVSP) 16-inch steel main with 16-inch High
- 20 Density Polyethylene (HDPE) main from the West Billings Town Border
- 21 Station to east of 31st St. W. The Company also installed 2,014 feet of 2-
- inch PE main and 1,555 feet of 4-inch polyethylene (PE) main to connect

- 1 and loop existing pipe to maintain and reestablish service. The Billings
- 2 Central Avenue project was a one-year project started and completed in
- 3 2018.
- 4 Figure 1



7	Q.	Why did the Company	undertake the Billings Central Avenue

- 8 **Replacement?**
- 9 A. The Billings Central Avenue project was constructed to accommodate
- 10 planned infrastructure improvements by the City of Billings. The existing
- 11 16-inch Early Vintage Steel Pipe (EVSP) gas main was in conflict with

- 1 street improvement plans consisting of new storm drain, streetlights,
- 2 roundabouts, and grading plan.

3 Q. How will the Company's customers benefit from the project?

- 4 A. The benefits of the project are increased system safety and reliability
- 5 by removing EVSP main and replacing it with new polyethylene (PE) pipe.
- 6 The elimination of EVSP, or aging and obsolete pipelines, bare steel,
- 7 poorly coated pipe, with unknown or missing data, inside gas meters,
- 8 mechanical fittings, will ultimately increase system safety and reliability.

9 Q. Did the Company consider alternative ways to meet the need for this 10 project?

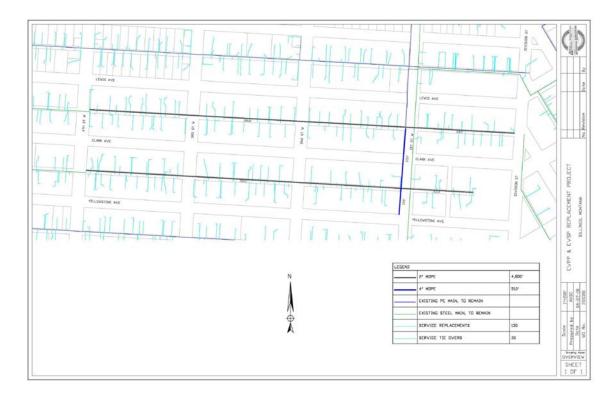
- 11 A. No alternative was identified. Given the vintage of the pipe and the
- 12 amount of pipe in conflict with the city project, the only option was
- replacement. Replacing this Early Vintage Steel Pipe increases overall
 system safety and reliability.
- 15 Q. What were the costs of the project?
- 16 A. The cost of the project was \$940,531.

17 2018 Billings System Safety and Integrity Program (SSIP) Replacement

- 18 Project
- 19 Q. Would you please describe the 2018 Billings SSIP Replacement
- 20 project?
- A. The 2018 Billings SSIP project involved replacing approximately
- 4,160 feet of 4" EVSP main and 640 feet of 6" EVSP main with 4,800 feet

- 1 of 2" PE and 510 feet of 4" PE main. The Company replaced 92 service
- 2 lines and tied-over 35 existing service lines.

3 Figure 2



5 Q. Why did the Company undertake the 2018 Billings SSIP

6 **Replacement**?

4

7 A. The Billings 2018 SSIP replacement project was constructed to
8 accommodate sanitary sewer infrastructure improvements by the City of
9 Billings. This project gave the Company an opportunity to replace EVPP
10 and EVSP pipe. The Billings SSIP replacement project was a one-year
11 project started and completed in 2018.

12 Q. How will the Company's customers benefit from this SSIP project?

A. This project replaces and eliminates early vintage steel and plastic
 pipelines prone to bare or poor coating, industry documented Aldyl-a
 plastic defects, unknown attributes, missing data, mechanical fittings,
 inside gas meters, and ultimately increases overall system safety and
 reliability.

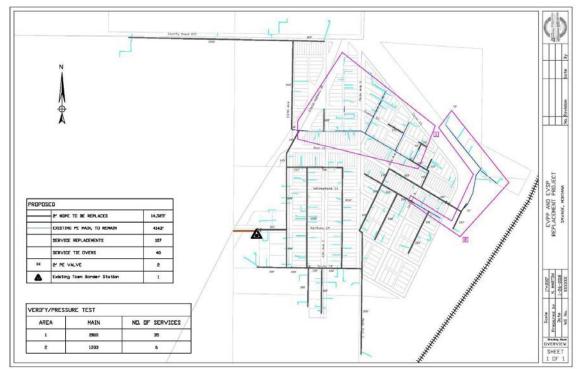
6 Q. What are the costs of the project?

- 7 A. The costs of the project are as follows:
- 8 Main Replacements \$264,141
- 9 Service Replacements \$493,820

10 2018 Savage SSIP Replacement Project

- 11 Q. Please describe the Savage SSIP Replacement.
- 12 A. The 2018 Savage SSIP replacement project includes the replacement
- 13 of the Early Vintage Plastic Pipe (EVPP) and Early Vintage Steel Pipe
- 14 (EVSP) gas mains and services in Savage. This project consisted of
- 15 installing over 15,000 feet of 2" PE to replace existing EVPP and EVPS
- 16 main. This project also included the replacement of 90 service lines.
- 17

1 Figure 3



2

3 Q. Why did the Company undertake the 2018 Savage SSIP

4 **Replacement?**

5 A. Savage was identified as a high risk Early Vintage Plastic Pipe

6 (EVPP) natural gas system through the SSIP. The Savage Replacement

7 project was a one-year project started and completed in 2018.

8 Q. How will the Company's customers benefit from this SSIP project?

9 A. Montana-Dakota's SSIP replaces and eliminates early vintage steel

10 and plastic pipelines prone to bare or poor coating, industry documented

- 11 Aldyl-a plastic defects, unknown attributes, missing data, mechanical
- 12 fittings, inside gas meters, and ultimately increases overall system safety
- 13 and reliability.

1 Q. Did the Company consider alternative ways to meet the need for this

2 project?

- 3 A. No alternative for the project was identified. The system was targeted
- 4 based on high scores within the EVPP category.

5 Q. What were the costs of the project?

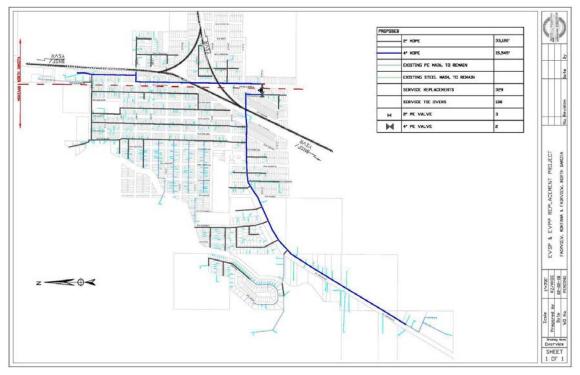
- 6 A. The costs of the project are as follows:
- 7 Main Replacements \$418,374
- 8 Service Replacements \$208,821

9 Fairview, MT SSIP Replacement Project

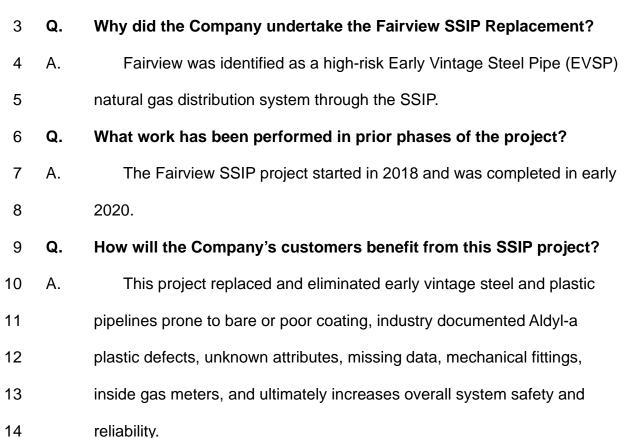
10 Q. Please describe the Fairview SSIP Replacement?

- 11 A. The Fairview SSIP Replacement project includes the replacement of
- 12 the Early Vintage Plastic Pipe (EVPP) and Early Vintage Steel Pipe
- 13 (EVSP) gas mains and services in Fairview. This project consisted of
- 14 installing nearly 30,000 feet of 2-inch PE and 8,400 feet of 4-inch PE to
- 15 replace all the existing EVPP and EVPS main. The Company also
- 16 replaced 310 service lines.

1 Figure 4







1 Q. Did the Company consider alternative ways to meet the need for this

2 project?

- 3 A. No alternative for the project was identified. The system was targeted
- 4 based on high scores within the EVSP category.

5 Q. What were the costs of the project?

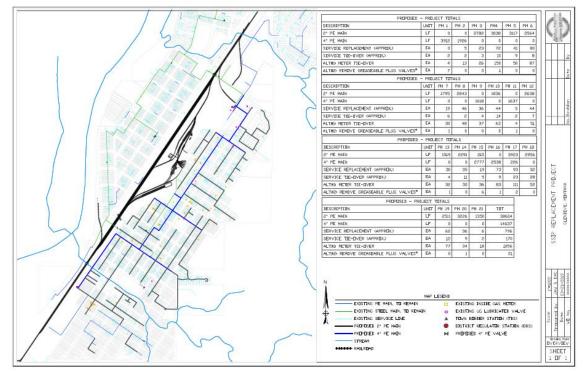
- 6 A. The costs of the project are as follows:
- 7 2018 Main Replacements \$692,705
- 8 2018 Service Replacements \$590,018
- 9 2019 Main Replacements \$322,128
- 10 2019 Service Replacements \$129,523
- 11 The estimated costs for 2020 are as follows:
- 12 2020 Main Replacements <\$10,000

13 Glendive, MT SSIP Replacement Project

14 Q. Please describe the Glendive SSIP Replacement?

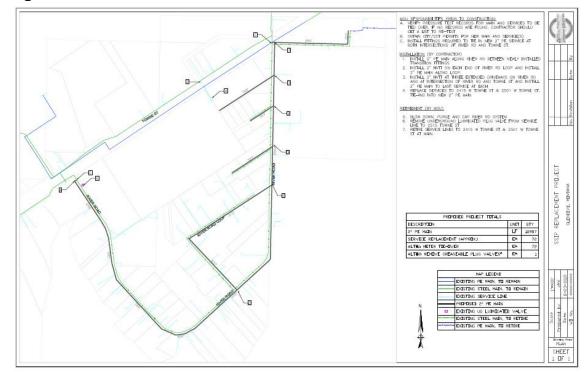
15	Α.	The Glendive SSIP Replacement project includes the replacement of
16		the Early Vintage Plastic Pipe (EVPP) and Early Vintage Steel Pipe
17		(EVSP) gas mains and services in Glendive. In 2019 this project consisted
18		of installing nearly 59,000 feet of 2-inch PE, over 15,000 feet of 4-inch PE
19		main, replacing 963 service lines. In 2020 the Company is planning on
20		replacing and installing approximately 17,000 feet of 2-inch PE, 14,000
21		feet of 4-inch PE, 1,250 feet of 6-inch PE, replacing 562 service lines.
22		Additional scopes of work years 2021-2023 will be similar in size to 2019
23		and 2020.

1 Figure 5 2019

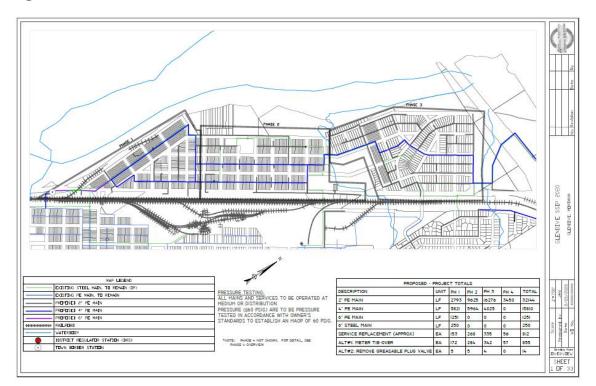


2

3 Figure 6 2019



1 Figure 7 2020



2

3 Q. Why did the Company undertake the Glendive SSIP Replacement?

- A. In 2019, the Glendive natural gas distribution system was identified to
 have Montana's highest combined Early Vintage Steel Pipe (EVSP) and
 Early Vintage Plastic Pipe (EVPP) risk ratio.
- 7 Q. How will the Company's customers benefit from this SSIP project?
- 8 A. The MDU SSIP replaces and eliminates early vintage steel and plastic
- 9 pipelines prone to bare or poor coating, industry documented Aldyl-a
- 10 plastic defects, unknown attributes, missing data, mechanical fittings,
- 11 inside gas meters, and ultimately increases overall system safety and
- 12 reliability.

Q. Did the Company consider alternative ways to meet the need for this project?

- 3 A. No alternative for the project was identified. This system was deemed
- 4 to have the highest combined EVSP and EVPP risk ratio in Montana in
- 5 2019. Due to this system having the highest combined EVSP and EVPP
- 6 risk ratio this system was scheduled for replacement.

7 Q. What is the timing of the Glendive SSIP Project?

- 8 A. The project was started in spring of 2019 and is planned to be
- 9 complete in fall of 2023.

10 Q. What were the costs of the project?

- 11 A. The cost of the project to date is as follows:
- 12 2019 Main Replacements \$3,640,512
- 13 2019 Service Replacements \$3,201,194
- 14 The approved 2020 budget is as follows:
- 15 2020 Main Replacements \$3,237,337
- 16 2020 Service Replacements \$1,963,406
- 17 Q. Does this complete your direct testimony?
- 18 A. Yes, it does.

MONTANA-DAKOTA UTILITIES CO.

Before the Montana Public Service Commission

Docket No. 2020.06.____

Direct Testimony of Matthew T. Shoemake

1 Q. Would you please state your name and business address? 2 Α. Yes. My name is Matthew T. Shoemake, and my business address 3 is 400 North Fourth Street, Bismarck, North Dakota 58501. Q. 4 What is your position with Montana-Dakota Utilities Co.? 5 Α. I am a Regulatory Analyst in the Regulatory Affairs Department for 6 Montana-Dakota Utilities Co. (Montana-Dakota). 7 Q. Would you please describe your duties as a Regulatory Analyst? 8 Α. I prepare Montana-Dakota's ad valorem tax tracker, monthly 9 purchase gas adjustment filings, weather normalization of volumes, assist 10 in monthly fuel cost adjustment filings, and other filings required by state 11 commissions. 12 Q. Would you please describe your education and professional 13 background? 14 Α. I graduated from Texas A&M University with a Bachelor of Science 15 degree in Economics with a minor in Business Administration. I have 16 been in my current position with Montana-Dakota for 4 years. Prior to 17 starting in my current role May of 2016, I was a quality control analyst for Knife River, a subsidiary of MDU Resources, for approximately 8 years. 18

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

- A. Yes. I have previously presented testimony before the Public
 Service Commission of North Dakota and the Public Utilities Commission
 of Minnesota.
- 5 Q. Wh

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

A. The purpose of my testimony is to present the methodology used
by Montana-Dakota to forecast sales data, including weather normalized
volumes, pro forma volumes and pro forma customers. The totality of this
process and its results are the foundational basis for the underlying pro
forma revenues used in this rate case.

11 Q. What statements, schedules and exhibits are you sponsoring?

- 12 A. I am sponsoring the development of the pro forma billing units as
- 13 summarized on Exhibit No. (MTS-1) and ultimately used in the pro
- 14 forma revenues on Statement H, pages 1 through 19. I am also
- 15 sponsoring the regression models included in Statement Workpapers,

16 pages H-11 through H-48.

17 Q. Would you describe the development of the normalized volumes?

A. Volumes for residential, firm general, and select interruptible and
transportation customers were adjusted to reflect normal weather patterns,
where appropriate. Each of the aforementioned customer classes were
adjusted separately. Billing period sales volumes and customers, by
month, were the starting point for the data utilized in the models.

1		First, customer classes were analyzed to determine whether natural
2		gas usage was associated with heating purposes and therefore correlated
3		with weather with input from Montana-Dakota's Gas Supply Department.
4		The general idea of heat-sensitivity is that some customers will increase
5		the amount of natural gas that they consume as the outside temperature
6		drops. Typically, this increase in consumption is cyclical with the calendar
7		- as fall and winter set in, natural gas volumes sold to customers tend to
8		increase. However, there are certain customers and instances in which
9		colder weather is not correlated with the amount of natural gas consumed
10		 these customers are considered non-heat-sensitive.
11		All firm service customer classes were determined to be heat-
12		sensitive. Interruptible and transportation customers were analyzed on an
13		individual basis and grouped into heat-sensitive and non-heat-sensitive by
14		each customer class.
15	Q.	How were the normalized volumes calculated for heat-sensitive
16		customers?
17	Α.	For customer classes and individual customers that were
18		determined to be heat-sensitive, weather and billing data were
19		incorporated into a model using an Ordinary Least Squares (OLS)
20		regression for each respective class of service. To incorporate seasonal
21		weather patterns, billing period degree days based on a 60-degree day
22		were included as an input in the modeled regressions. Billing data used
23		as inputs in the model were the monthly distinct count of customers and

1	the actual dekatherms of gas consumed. The time period for each
2	customer class in the modeled regressions was 36 months, or 3 years.
3	The structured equation for the OLS models used for heat-sensitive
4	customers is as follows:
5	$y = b_0 + b_1 x_i$
6	Where, y is the natural gas volumes consumed in a month, b_0 is the
7	daily baseload, b_1 is the use per degree day, and x_i is the number of
8	degree days per month.
9	Using the results of the regression analysis for residential and firm
10	general service customer classes, the daily baseload use per customer
11	(the intercept of the OLS) was multiplied by the respective number of days
12	in each calendar month to arrive at the monthly baseload use per
13	customer. The use per degree day per customer (the slope of the OLS)
14	was then applied to the normal billing period degree days (based on
15	normal weather for 30 years) to determine the normalized heating use per
16	customer. Montana-Dakota has historically used 30-year normals for
17	weather normalization purposes and believes that using 30-years of
18	normal weather data continues to be most appropriate to capture historical
19	weather trends. The results of each of these equations was then
20	combined by the number of customers in each respective month to
21	determine the normalized usage for the twelve months ended December
22	31, 2019.

Q. How were the normalized volumes calculated for non-heat-sensitive customers?

3 Α. For customers that were determined to be non-heat-sensitive, 4 simple averages of historical consumption patterns were utilized. These 5 averages are considered to be the normalized volumes for the non-heat-6 sensitive customers. These averages were calculated at an individual 7 customer level. For most non-heat customers, a 36 month average was 8 calculated (January 2017 – December 2019). In some instances, either a 24 month average was calculated or a customer's per books consumption 9 10 for the most recent 12 months was used. In these cases, either there was 11 not enough historical data for the customer or the customer cut in and out 12 of service and using longer periods of consumption was deemed 13 inappropriate.

14

15

Q.

classes?

A. Yes. Montana-Dakota analyzed the historical data for interruptible
and transportation customers that changed rate classes during the time
period in the data. During the time period of 2017 through 2019 there
were a number of customers that changed rates under which they took
service. In its normalization models and pro forma, Montana-Dakota
ensured that customers were represented in the rate class in which they
are currently billed.

Was any consideration given to customers which changed rate

Montana-Dakota also discussed internally with its field operations
 and gas supply departments to determine if there were any foreseeable
 changes to the classifications of its interruptible and transportation
 customers. Any discussions or agreements with customers to change
 their service rate or stop service altogether that were known at the time of
 filing were incorporated within the forecasted sales data.

Q. Were any modifications made to a rate class' historical data prior to
the development of normalized and/or pro forma volumes and if so,

9 why?

10 Α. Yes, there was a single large Firm General Rate 70 customer that 11 was removed from the historical volume data set and, in turn, the pro 12 forma 2020 volumes and revenues. The closure of a large firm customer's 13 facility was the basis for removing their consumption and revenues. This 14 customer informed Montana-Dakota of their decision to close the facility 15 during the preparation of this filing and is therefore appropriate to exclude 16 the customer and associated volumes from the development of pro forma 17 customers and volumes in this case. As such, this customer's volumes 18 were removed from the normalization process so that they would be 19 excluded from the pro forma volumes and revenues.

20 **Q.** How were the pro forma volumes calculated for heat-sensitive

- 21 customers?
- A. The pro forma volumes were based upon the calculated normalized
 volumes for each customer class. For the residential and firm general rate

classes, Montana-Dakota utilized an annualization process to obtain a pro
forma level of customers and volumes. The annualization process allows
for Montana-Dakota to account for customer growth within 2019 and
reflect volumes had these new customers been in service for the entire
calendar year of 2019. For other heat-sensitive customers and classes,
the pro forma volumes were set equal to the normalized volumes as
calculated and described previously.

- Q. How were the pro forma volumes calculated for non-heat sensitive
 customers?
- 10 A. The pro forma volumes for these customers were set equal to their
 11 normalized volumes.
- Q. Would you describe the weather data utilized in developing weather
 normalized gas sales?

14 Α. Montana-Dakota purchases raw daily weather data from DTN. The 15 data utilized in the weather normalizations is the average temperature in 16 degrees Fahrenheit for areas of Montana that Montana-Dakota provides 17 natural gas service in. The daily average temperature is compared to an 18 industry standard 60 (sixty) degrees Fahrenheit and if the temperature is 19 below 60 degrees, the difference is considered the degree day value. For 20 example, if the average daily temperature is 55 for March 1st, then the 21 amount of degree days is 5 (60-55=5). These temperatures are collected 22 from four regional weather stations in Montana (Billings, Glasgow, 23 Glendive and Miles City) and the differences for each day are considered

calendar degree days. These calendar degree days for each respective
area are then weighted based upon the amount of historical number of
bills that are sent to customers in each respective billing period cycle to
calculate a billing period degree day (BPDD) for each of the four regions.
These regional BPDDs are then weighted based upon the historical
number of firm customer service points to calculate a system-wide
Montana BPDD.

8 Q. Would you describe the methodology used to calculate customer
 9 counts?

10 Α. Montana-Dakota's Customer Care and Billing System (CC&B) was 11 the starting point for the development of the customer counts. A Microsoft 12 Excel file containing the service identification numbers (SA IDs) for each 13 rate class was extracted from CC&B. The method to determine customer 14 counts is a feature in Excel named Distinct Count, which counts the 15 number of unique values. The Count feature in Excel counts the total 16 number of values corresponding to a range of data, regardless if a specific 17 value has multiple entries in the data set. The Distinct Count feature has 18 been utilized by Montana-Dakota to determine its customer counts in 19 previous rate cases as it accounts for adjustments and corrections to 20 customer bills in the CC&B data set.

- 21 Q. Does this complete your direct testimony?
- 22 A. Yes, it does.

			Montana Gas Normalization Summary	malization Summ	ary		
		Rate	Authorized Volumes	Per Books Volumes 2019	Restated Volumes 2019	Normalized Volumes	Annualized Volumes
Sales	Residential	600	5,968,846	6,860,061.9	6,860,061.9	5,880,470	5,912,347
	Firm General Small Gas Large Gas Total Firm General	700 701	1,109,554 2,815,399 3,924,953	1,277,484.0 3,217,853.4 4,495,337.4	1,277,484.0 3,217,853.4 4,495,337.4	1,068,573 2,798,599 3,867,172	1,076,027 2,833,750 3,909,777
	Optional Seasonal	721	12,909	13,433.5	13,433.5	13,029	13,029
	Interruptible Small Interruptible Large Interruptible Total Interruptible	710 850	142,548 57,372 199,920	124,243.5 85,465.0 209,708.5	110,247.0 81,536.6 191,783.6	118,305 64,013 182,318	118,305 64,013 182,318
	Total Sales		10,106,628	11,578,541.3	11,560,616.4	9,942,989	10,017,471
Transportation	Small Interruptible	810 811	579,787	598,865.1 38,524.0	612,861.6 38,524.0	582,626 32,581	582,626 32,581
	Total Small Interruptible		579,787	637,389.1	651,385.6	615,207	615,207
	Large Interruptible	820 821 822 823	52,815 643,118 100,412 2,150,263	104,023.7 582,056.1 212,563.4 1,640,038.4	104,023.7 582,056.1 212,563.4 1,643,966.8	94,888 679,749 184,888 1,959,366	94,888 679,749 184,888 1,959,366
	Total Large Interruptible		2,946,608	2,538,681.6	2,542,610.0	2,918,891	2,918,891
	Total Transportation		3,526,395	3,176,070.7	3,193,995.6	3,534,098	3,534,098
	Total Sales and Transportation		13,633,023	14,754,612.0	14,754,612.0	13,477,087	13,551,569

Docket No. 2020.06. Exhibit No. ___ (MTS-1) Page 1 of 2

			Montana Gas Normalization Summary	malization Sun	nmary		
		Rate	Authorized Customers	Per Books Customers	Restated Customers	Normalized Customers	Annualized Customers
Sales	Residential	600	74,574	76,034	76,034	76,034	76,379
	Firm General Small Gas Large Gas Total Firm General	700 701	7,172 2,419 9,591	7,432 2,515 9,947	7,432 2,515 9,947	7,432 2,514 9,946	7,474 2,525 9,999
	Optional Seasonal	721	9	5	ว	5	S
	Interruptible Small Interruptible Large Interruptible Total Interruptible	710 850	18 20	20 21	8 <u>-</u> 6	10 10 10 10 10 10 10 10 10 10 10 10 10 1	8 - 6
	Total Sales		84,191	86,007	86,005	86,004	86,402
Transportation	Small Interruptible	810 811	28	26	28	28	28
	Total Small Interruptible		28	27	29	29	29
	Large Interruptible	820 821 822 823	∞ - 0 0			~ ~ ~ ~	~ ~ ~ ~
	Total Large Interruptible		4	4	4	4	4
	Total Transportation		32	31	33	33	33
	Total Sales and Transportation		84,223	86,038	86,038	86,037	86,435

Docket No. 2020.06. Exhibit No. ___ (MTS-1) Page 2 of 2

MONTANA-DAKOTA UTILITIES CO.

Docket No. 2020.06.___

Direct Testimony of Tara R. Vesey

1	Q.	Would you please state your name and business address?
2	A.	Yes. My name is Tara R. Vesey 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 Regulatory Affairs Manager for Montana-Dakota Utilities
6		Co. (Montana-Dakota).
7	Q.	Would you please describe your duties as Regulatory Affairs
8		Manager?
9	A.	I am responsible for the preparation of cost of service studies, fuel
10		cost adjustments, purchased gas cost adjustments and gas tracking
11		adjustments in each of the jurisdictions in which Montana-Dakota
12		operates.
13	Q.	Would you please describe your education and professional
14		background?
15	A.	I graduated from North Dakota State University with a Bachelor of
16		Science degree in Economics. I started my career with Montana-Dakota in
17		2019 as a Regulatory Affairs Manager. Prior to that I was employed for 13
18		years by a power cooperative. During that time, I held positions of

2 Transportation Manager, and Manager of Market Operations & Logistics. 3 Q. Have you testified in other proceedings before regulatory bodies? 4 Α. Yes. I have previously presented testimony before the Public 5 Service Commission of Wyoming. 6 Are you familiar with the books and records of Montana-Dakota and Q. 7 the manner in which they are kept? 8 Α. Yes. Montana-Dakota's books and records are kept in accordance 9 with the Federal Energy Regulatory Commission (FERC) Uniform System

increasing responsibility, including Contract Administrator, Sales Manager,

10 of Accounts.

1

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

- A. The purpose of my testimony is to present the per books cost of
 service for the twelve months ended December 31, 2019, the pro forma
 cost of service reflecting known and measurable adjustments that will
 occur by December 31, 2020, the pro forma cost of service supporting the
 request for interim rate relief and the calculation of the interim and final
 revenue deficiencies. I will also present proposed changes to Rate 88 Gas Cost Tracking Adjustment to be established in this filing.
- 19 Q. What statements, schedules and exhibits are you sponsoring?
- 20 A. I am sponsoring Statements C through E, Statement G through K,
- 21 and Part A of Statement O, the Interim Statements C through E, Statement
- G through K, Statement O, Part A, and Exhibit No.___(TRV-1) through
- 23 Exhibit No. ___(TRV-2).

1 Pro Forma Revenue Requirement

Q. What were the results of Montana gas operations for the twelve months ended December 31, 2019?

4 Α. Rule 38.5.175, pages 1 and 2 show the per books income 5 statement and rate base for total Company and Montana. As shown on 6 page 1, Montana gas operations had a return on rate base of 3.696 7 percent for the twelve months ended December 31, 2019. The details for 8 each line item, i.e. sales revenue, other revenue, etc., are included in the 9 applicable Statement or rule listed. Pages 3 and 4 list the pro forma adjustments to operating revenues, expenses and rate base. All 10 11 adjustments were calculated on either a Montana specific basis or on a 12 total Company basis and allocated to Montana, as indicated on the 13 statement or schedule detailing each adjustment.

14 Q. How was the per books cost of service allocated to Montana?

A. The Company utilizes a jurisdictional accounting system that
 directly assigns and/or allocates every item of revenue, expense and rate
 base to the jurisdictions as part of the regular accounting process on a
 monthly basis. The allocation methods and procedures are the same as
 have previously been used in Commission proceedings and are based on
 the principle of assigning and/or allocating costs to the cost causer.

21 Q. What criteria were used to determine the pro forma adjustments?

A. The pro forma adjustments to operating revenue, expenses and
 rate base were based on known and measurable changes occurring by

1 December 31, 2020, conform to past Commission practices and are listed 2 on pages 3 and 4 of Rule 38.5.175. All of these adjustments are 3 reasonably certain to occur and can be measured with reasonable 4 accuracy, thus meeting the criteria of known and measurable. 5 Q. Would you describe the pro forma adjustments to the income 6 statement and rate base? 7 Α. Yes. The adjustments to the income statement are summarized on 8 Rule 38.5.175, page 3 and consist of adjustments to revenue, operation 9 and maintenance expenses, depreciation expense, taxes other, and current and deferred income taxes. The adjustments to rate base are 10

- summarized on page 4 and include plant, accumulated reserve and
 associated additions and deductions.
- 13 Pro Forma Income Statement

14 Q. What adjustments were made to operating revenues?

A. The adjustments to operating revenues are contained in Rule
38.5.164, Statement H. Adjustment No. 1, as shown on page 3, restates
the per books consumption at current rates, adjusted to reflect an annual
gas cost for 2020, exclusive of the unreflected gas cost adjustment, and
eliminates the unbilled revenue, decreasing revenue by \$711,816.
Adjustment No. 2 (page 4) decreases revenues by \$8,276,642 to

- 21 reflect the effect of normal weather on sales and transportation volumes.
- 22 Weather was 19.53 percent colder than normal in 2019.

1	Page 5 shows Adjustment No. 3 is an increase to revenues of
2	\$441,964 to reflect the annualization of firm customers to the December
3	2019 level. More detailed testimony regarding the development of
4	revenue reflected in this case is supported in the Direct Testimony of Ms.
5	Bosch.
6	Rule 38.5.164, Statement H, page 20, Adjustment No. 4 includes
7	the adjustments to other operating revenues. The pro forma adjustment
8	decreases revenue by \$46,997 and consists of several adjustments. They
9	are as follows:
10	 Seasonal Reconnect Fee, Reconnect Fee for Non-payment, and
11	NSF Check Fees were adjusted to reflect a two-year average in
12	order to account for changes in the tariff authorized in Docket No.
13	2017.9.79.;
14	Rent from Property was updated to reflect actual 2020 activity on
15	an annualized basis;
16	Late payment revenue is based on a three-year average ratio of the
17	late payment revenue collected and the sales and transportation
18	revenue, which is then applied to the Pro Forma Revenue;
19	 Net gains and losses during the period 2015-2019 on the sale of
20	land and office buildings in Montana which were no longer needed
21	were adjusted to reflect a five-year amortization;
22	 Penalty revenue was adjusted to reflect a three-year average; and

- The Conservation Tracking Adjustment was adjusted to reflect 2019
 actual expense incurred. Montana-Dakota recovers the expense
 through the Conservation Program Tracking Mechanism Rate 90.
 Q. What adjustments were made to operations and maintenance (O&M)
 - expenses?

22

A. The adjustments to operation and maintenance expenses are
contained in Rule 38.5.157, Statement G, and are summarized in Rule
38.5.156.

9 The adjustment to the cost of gas (Adjustment No. 5) is shown on 10 Rule 38.5.157, page 3, and adjusts the cost of gas to reflect the pro forma 11 dekatherm (dk) sales and an annual 2020 gas cost level. Adjustment No. 12 5 includes volume adjustments reflected in Adjustment Nos. 1 through 3 13 as discussed above. The pro forma cost of gas per dk was derived by 14 calculating annual demand charges and commodity cost of gas and 15 applying those costs to the April 2020 gas cost tracking adjustment billing 16 determinants. The distribution loss factor of 0.72 percent represents the 17 current loss factor.

18 Q. How were the pro forma labor and benefits developed?

19A.The adjustment to labor is Adjustment No. 6, as shown on page 6.20The pro forma labor was developed by applying the percentage increase21in total Company labor costs to the actual 2019 Montana labor expense.

23 increase of 3.0 percent for union employees and 4.0 percent for nonunion

6

Pro forma total Company labor costs were based on the application of an

employees effective in 2020. Bonuses and commissions reflect the actual
 stock compensation and expected miscellaneous expenses for 2020.
 Incentive compensation has been adjusted to reflect 11.41% of straight
 time and vacation. This results in an overall net increase in labor expense
 of \$138,208 or 1.73%.

Benefits are shown on page 7 of Statement G. Adjustment No. 7 is
an overall increase of \$140,957 in benefits. Benefits expense consists of
medical/dental insurance, pension expense, post-retirement, 401K,
workers compensation, and other benefits (primarily disability insurance).
Each of these items was adjusted individually using current information

11 and applying the percentage change to each type of benefit.

Medical and dental expense is increasing 9.0 percent to reflect the premiums in effect January 1, 2020. Actuarial Pension expense increased 21.1 percent and Post-retirement credit to expense increased by 3.23 percent from 2019 levels. 401K expense, workers compensation and other benefits are tied to labor costs and increase 3.63 percent to reflect the overall average increase in straight time labor.

18 Q. Would you describe the other adjustments made to O&M expense?

A. Yes. Vehicles and work equipment (Adjustment No. 8) reflects all
 expenses associated with the Company's vehicles and equipment, such

- as backhoes, skid steers and excavators, including the costs of fuel,
- insurance, maintenance and depreciation expense. Adjustment No. 8
- reflects an increase of \$47,715 to match the depreciation expense

1 calculated in Statement I. The depreciation component on these items is 2 not charged to depreciation expense but rather is charged to a clearing 3 account where it is then recorded in O&M expense as the vehicles or work 4 equipment is used. 5 Company consumption (Adjustment No. 9) is the expense for 6 electric and natural gas consumption in Company buildings. The electric 7 component is projected to increase \$1,873. The natural gas component is 8 expected to decrease \$5,888 based on the decrease in normalized firm 9 sales. 10 Uncollectible accounts (Adjustment No. 10) is a decrease of 11 \$47,870 based on the three-year average of net write-offs to pro forma 12 sales and transportation revenues. 13 Advertising expense (Adjustment No. 11) is shown on page 11. 14 Pursuant to past Commission policy, general promotional and institutional 15 advertising expense has been eliminated. Informational advertising is 16 adjusted to exclude advertising not directly applicable to Montana gas 17 operations. 18 Software maintenance expense (Adjustment No. 12) is an increase 19 of \$108,751 and is based on the current and estimated levels of expense. 20 Insurance expense (Adjustment No. 13) reflects the expense at 21 current levels for 2020 and represents a decrease of \$75,062. The 22 reduction in self-insurance expense was due to the calculation reflecting a 23 five-year average of claims and related expenses paid.

Industry dues (Adjustment No. 14) reflects the pro forma level of
 industry dues and is an increase of \$14,150. Rule 38.5.157, Statement G,
 page 14 shows those dues that are directly assigned or allocated to
 Montana and appropriately included in the pro forma expense level. In
 compliance with past Orders, 40 percent of dues to the local Chambers of
 Commerce are excluded.

Regulatory Commission Expense (Adjustment No. 15) reflects the
expenses to be incurred in this filing, amortized over a three-year period,
and a three-year average of ongoing regulatory commission expenses. In
addition, the expenses related to the Common and Gas depreciation
studies have been included as an amortization over five years. The
adjustment is an increase of \$51,908.

Materials Expense (Adjustment No. 16) is an increase of \$8,258
and is adjusted to reflect an increase in materials associated with pipeline
safety and integrity replacement projects.

16 The items adjusted individually above represent approximately 95 17 percent of total Montana gas O&M. The remaining items, which make up 18 approximately 5 percent of other O&M, are assumed to remain flat.

19 Q. What adjustments were made to depreciation expense?

A. The adjustment to depreciation expense is contained in Rule
38.5.165, Statement I. Adjustment No. 17, as found on pages 3 and 4,
restates the annual depreciation expense based on depreciation rates

approved in Docket No. 2017.9.79 to the average pro forma level of plant
 in service resulting in an increase of \$620,794.

3 Q. What adjustments were made to taxes other than income?

4 Α. The adjustments to taxes other than income are contained in Rule 5 38.5.174, Statement K. Adjustment No. 18 is shown on page 1 and 6 updates Montana direct ad valorem taxes which reflect the Final 7 Department of Revenue 2020 Valuation Assessment increase over the 8 2019 report. Adjustment No. 18 also restates ad valorem taxes allocated 9 from North Dakota to the average allocated pro forma plant balances and 10 Montana tribal taxes based on the average increase over the last three 11 years. The net result is an increase of \$829,289, of which Montana direct 12 ad valorem taxes account for \$822,772.

13 The adjustment to payroll taxes (Adjustment No. 19) is an increase 14 of \$10,058 based on the ratio of payroll taxes to labor expense for 2019 15 applied to pro forma labor expense.

16 The Montana Consumer Counsel Tax and Public Service 17 Commission taxes are restated in Adjustment No. 20 to the pro forma level 18 of revenue and the rates effective October 1, 2019 and results in an 19 increase of \$147,486.

20 Q. What adjustments were made to income taxes?

A. The adjustments to income taxes are contained in Rule 38.5.169,

- 22 Statement J. The adjustment to interest expense (Adjustment No. 21) is
- shown on page 6. Interest is deductible for tax purposes and interest

expense is calculated on the pro forma rate base using the weighted cost
 of debt and debt ratio from Statement F. The resulting interest expense
 deduction is an increase of \$335,122 from the per books level.

The adjustments for book/tax depreciation differences and the
associated deferred taxes, including differences on pro forma plant
additions, are shown on page 7 (Adjustment No. 22). The calculation of
book/tax depreciation and the resulting deferred taxes are shown on page
10.

9 The current income tax expense on the pro forma adjustments to 10 operating revenues and expenses is calculated on page 5 in Adjustment 11 No. 23.

12 The closing/filing and prior period adjustments in the current 13 income tax accrual and in the deferred taxes are eliminated in Adjustment 14 No. 24 (on page 8). Adjusted current and deferred income taxes match 15 those calculated for Montana and conform to past Commission practices. 16 Montana-Dakota recognizes plant related excess accumulated 17 deferred income taxes on an Average Rate Assumption Method (ARAM) 18 basis. The 2019 per books value was \$270,537 and the pro forma value 19 is \$268,870 resulting in and adjustment of \$1,667 found in Adjustment No. 20 25 as shown on page 11.

1 Pro Forma Rate Base

2 Q. How was the rate base developed?

3 Α. The pro forma rate base is based on the average 2019 rate base 4 and reflects known and measurable adjustments that will occur within twelve months beyond December 31, 2019. The resulting rate base is 5 6 stated on an average basis. The pro forma adjustments to rate base are 7 summarized on Rule 38.5.175, page 4. Adjustment A, shown in Rule 8 38.5.123, Statement C, Pages 3 and 4, is the known and measurable 9 plant additions that will be in service by December 31, 2020. The increase 10 of \$13,364,657 includes additions to distribution, general and common 11 plant and is shown on Rule 38.5.124, Statement C, pages 4 through 7. 12 The resulting increase in average plant is \$13,100,411 as summarized in 13 Rule 38.5.123, Statement C, page 2.

Adjustment B, shown in Rule 38.5.133, Statement D page 2, increases the average reserve for depreciation by \$4,761,422 reflecting the annualization of the per book balance, depreciation expense at the proposed rates on existing plant, and depreciation at the approved rates on plant additions. The result is the restatement of the reserve to the average pro forma level which matches the average pro forma plant levels.

The working capital adjustments are summarized in Rule 38.5.141,
Statement E. Page 1 of Rule 38.5.143, Statement E shows the materials
and supplies balances restated to a thirteen-month average, with actual

balances through February 2020, in Adjustment C, for an increase of
 \$188,481.

The gas in underground storage (Adjustment D) restates the gas in 3 underground storage balance as a thirteen-month average balance for 4 5 2020 and is a decrease of \$148,633. The pro forma reflects actual 6 balances through February 2020. March through December 2020 reflect 7 expected storage injection and withdrawal volumes and forecasted pricing. 8 Insurance expense is restated to a thirteen-month average balance 9 in Adjustment E with actual balances through February 2020 and balances 10 for March through December 2020 based on the expected insurance 11 expense and is an increase of \$141,452. 12 Prepaid demand and commodity balances reflect actual balances 13 through February 2020 and projected balances for March through 14 December 2020 restated to a thirteen-month average balance in 15 Adjustment F, for a decrease of \$466,103. 16 The average net unamortized loss on reacquired debt balance and 17 the associated deferred income taxes as of December 31, 2020 is 18 included as Adjustment G on page 5. 19 The average net Provision for Pensions and Benefits as of 20 December 31, 2019 and the associated deferred income taxes is included 21 as Adjustment H in conformance with Order 5856b in Docket No. 22 D95.7.90.

1 The average Provision for Injuries and Damages balance and the 2 associated deferred income taxes as of December 31, 2019 is included as 3 Adjustment I in conformance with Order 5856b in Docket No. D95.7.90 as 4 well.

5 Montana-Dakota is proposing to include the Post Retirement 6 regulatory asset balance in the amount of \$365,634 and the associated 7 deferred income taxes in rate base (Adjustment J, Page 8), as described 8 by Mr. Jacobson.

9 The unamortized redemption of preferred stock (Adjustment K)
10 shows the projected 2020 decrease of \$1,339 based on a 15 year
11 amortization schedule.

12 The Accumulated Deferred Income Taxes included in rate base are 13 summarized at Rule 38.5.169, Statement J, page 9. The deferred taxes 14 associated with the unamortized loss on debt (Adjustment G), provision for 15 pensions and benefits (Adjustment H), provision for injuries and damages 16 (Adjustment I), and provision for post retirement (Adjustment J) are also 17 included on page 9. The annualization of the deferred income tax 18 balances associated with prepaid demand charges and customer 19 advances are presented on page 9 as Adjustment N. 20 Adjustment L is the increase to deferred taxes necessary to extend 21 the average accumulated deferred tax balance to match the pro forma

22 plant and accumulated reserve balances.

1 Adjustment M, as shown on page 11, is the decrease to deferred 2 taxes to reflect the amortization of the full normalization as well as the 3 adjustment for 2020 Plant & Non Plant Excess Deferred Income Taxes associated with the Tax Cuts and Jobs Act of 2017. 4 5 Customer advances for construction (Adjustment O) are restated to 6 a thirteen-month average balance, with actual balances through February 7 2020 and is a decrease of \$83,697 as shown on Rule 38.5.143, Statement 8 E, page 10. 9 These are all of the pro forma adjustments to revenue, expense 10 and rate base. 11 Q. Are you proposing any changes to Rate 88 – Cost of Gas? 12 Α. Montana-Dakota has proposed a Firm General Contracted Demand 13 Service Rate 74 as discussed by Ms. Bosch. Rate 88 has been updated 14 to reflect the cost of gas to be charged for Rate 74. The Capacity Charge 15 will be developed on an incremental pipeline capacity basis and applied to 16 the contracted billing demand. The Cost of Gas - Commodity Charge will 17 be based on costs applicable to firm customers, exclusive of pipeline 18 demand charges, and will be applied to the customer's actual measured 19 Dk for the given month. 20 Q. What does Rule 38.5.190, Statement O show? 21 The charts and graphs contained in Rule 38.5.190, Statement O, Α. 22 Part A are the pictorial exhibits that are related to the revenue requirement 23 and required by Commission rules.

- 1 Q. Can you please explain Exhibit No.___(TRV-1)?
- 2 A. Exhibit No. (TRV-1), which is identical to Rule 38.5.175, page
- 7, shows the calculation of the revenue deficiency of \$8,559,701 based on
 the pro forma operating income and rate base and using the overall rate of
 return of 7.360 percent from Statement F, page 1.

6 Interim Revenue Requirement

7 Q. Would you please describe the variances of the interim increases

8 from the increase requested on a final basis?

9 A. Yes. The interim increase has been developed in a separate set of
10 Interim Statements pursuant to the Commission's rules regarding interim
11 rate increase requests in general rate proceedings (Administrative Rules
12 of Montana 38.5.505 and 38.5.506). The interim case holds all things
13 constant from the revenue requirement on a final basis except for the
14 following:

- The Return on Equity (ROE) was modified to be inclusive of the last
 authorized ROE by this Commission, in Docket No. 2017.9.79, of
 9.4 percent resulting in an overall return of 6.959 percent. The
 Company maintained the year end capital structure for the same
 reasons discussed earlier in my testimony.
- The revenue associated with the Tax Tracking Adjustment was
 excluded as well as Montana Property Tax.
- All plant additions were removed.

1		The Post Retirement regulatory asset was removed from the Rate
2		Base.
3		 Regulatory Commission Expense was adjusted to exclude the
4		costs associated with this case.
5	Q.	Would you describe the interim adjustments to operating revenues?
6	Α.	The interim adjustments to operating revenues are contained in
7		Rule 38.5.164, Statement H. Adjustment No. 1, as shown on page 3,
8		restates the per books consumption at current rates, adjusted to reflect an
9		annual gas cost for 2020, exclusive of the unreflected gas cost adjustment
10		and Tax Tracking Adjustment, and eliminates the unbilled revenue,
11		decreasing revenue by \$5,477,950.
12		Adjustment No. 2 (page 4) decreases revenues by \$7,907,697 to
13		reflect the effect of normal weather on sales and transportation volumes,
14		as weather was 19.53 percent colder than normal in 2019.
15		Page 5 shows Adjustment No. 3 is an increase to revenues of
16		\$414,967 to reflect the annualization of firm customers to the December
17		2019 level. More detailed testimony regarding the development of
18		revenue reflected in this case is supported in the Direct Testimony of Ms.
19		Bosch.
20		Rule 38.5.164, Statement H, Page 20, Adjustment No. 4 includes
21		the adjustments to other operating revenues. The pro forma adjustment
22		decreases revenue by \$51,567 and consists of several adjustments.
23		They are as follows:

1		 Seasonal Reconnect Fee, Reconnect Fee for Non-payment, and
2		NSF Check Fees were adjusted to reflect a two-year average in
3		order to account for changes in the tariff authorized in Docket No.
4		2017.9.79;
5		Rent from Property was updated to reflect actual 2020 activity on
6		an annualized basis;
7		Late payment revenue is based on a three-year average ratio of the
8		late payment revenue collected and the sales and transportation
9		revenue. This ratio is then applied to the Pro Forma Revenue;
10		 Net gains and losses during the period 2015-2019 on the sale of
11		land and office buildings in Montana which were no longer needed
12		were adjusted to reflect a five-year amortization;
13		 Penalty revenue was adjusted to reflect a three-year average; and
14		The Conservation Tracking Adjustment was adjusted to reflect 2019
15		actual expense incurred. Montana-Dakota recovers the expense
16		through the Conservation Program Tracking Mechanism Rate 90.
17	Q.	What interim adjustments were made to operation and maintenance
18		expenses?
19	A.	The interim adjustments to operation and maintenance expenses
20		are contained in Rule 38.5.157, Statement G, and are summarized in Rule
21		38.5.156.
22		The cost of gas is adjusted (Adjustment No. 5) to reflect the
23		normalized and annualized dk sales and an annual 2020 gas cost level.

Adjustment No. 5 includes volume adjustments reflected in Adjustment
 Nos. 1 through 3 as discussed above. The pro forma cost of gas per dk
 was derived by calculating annual demand charges and commodity cost of
 gas and applying those costs to the April 2020 gas cost tracking
 adjustment billing determinants. The distribution loss factor of 0.72
 percent represents the current loss factor.

7 Q. Would you describe the other interim adjustments to O&M expense?

8 The adjustment to labor is Adjustment No. 6. The pro forma labor 9 was developed by applying the percentage increase in total Company 10 labor costs to the actual 2019 Montana labor expense. Pro forma total 11 Company labor costs were based on the application of an increase of 3.0 12 percent for union employees and 4.0 percent for nonunion employees 13 effective in 2020. Bonuses and commissions were the actual stock 14 compensation and expected miscellaneous expenses for 2020. Incentive 15 compensation has been adjusted to reflect 11.41% of straight time and 16 vacation. The result in an overall net increase in labor expense of 17 \$138,208 or 1.73%

Benefits are shown on page 5 of Statement G. Adjustment No. 7 is
an overall increase of \$140,957 in benefits. Benefits expense consists of
medical/dental insurance, pension expense, post-retirement, 401K,
workers compensation, and other benefits (primarily disability insurance).

22 Each of these items was adjusted individually using current information

and applying the percentage change to each type of benefit.

23

Medical and dental expense is increasing 9.0 percent to reflect the premiums in effect January 1, 2020. Actuarial pension expense increased 21.1 percent and Post-retirement expense increased by 3.23 percent from 2019 levels. 401K expense, workers compensation and other benefits are tied to labor costs and increase 3.63 percent to reflect the overall average increase in straight time labor.

7 Vehicles and work equipment (Adjustment No. 8) reflects all 8 expenses associated with the Company's vehicles and equipment, such 9 as backhoes, including the costs of fuel, insurance, maintenance and 10 depreciation expense. Adjustment No. 8 reflects an increase of \$3,808. 11 Depreciation is calculated based on the pro forma plant (excluding plant 12 additions) and depreciation rates shown in Statement I. The depreciation 13 expense on these items is not charged to depreciation but rather is 14 charged to a clearing account where it is then recorded as an O&M 15 expense as the vehicles or work equipment is used.

16 Company consumption (Adjustment No. 9) is the expense for 17 electric and natural gas consumption in Company buildings. The electric 18 component is projected to increase \$1,873. The natural gas component is 19 expected to decrease \$5,888 based on the decrease in normalized firm 20 sales revenues.

Uncollectible accounts (Adjustment No. 10) is a decrease of
\$65,008 based on the three-year average of net write-offs to pro forma
sales and transportation revenues.

 Advertising expense (Adjustment No. 11) is shown on page 9.
 Pursuant to past Commission policy, general promotional and institutional advertising expenses have been eliminated. Informational advertising is adjusted to exclude advertising not directly applicable to Montana gas operations.

Software maintenance expense (Adjustment No. 12) is an increase
of \$108,751 and is based on current and estimated levels of expense.
Insurance expense (Adjustment No. 13) reflects the expense at
current levels for 2020 and represents a decrease of \$75,062. Selfinsurance expense was adjusted to reflect a five-year average of claims
and related expenses paid.

Industry dues (Adjustment No. 14) reflects the pro forma level of
industry dues and is an increase of \$14,150. Rule 38.5.157, Statement G,
page 12 shows those dues that are directly assigned or allocated to
Montana and appropriately included in the pro forma expense level. In
compliance with past orders, 40 percent of dues to the local Chambers of
Commerce are excluded.

18 Regulatory Commission Expense (Adjustment No. 15) reflects a
19 three-year average of ongoing regulatory commission expenses and
20 expenses related to the Common and Gas depreciation studies which
21 have been included as an amortization over five years. The adjustment is
22 an increase of \$6,395.

1		Materials Expense (Adjustment No. 16) is an increase of \$8,258
2		and is adjusted to reflect an increase in materials associated with pipeline
3		safety and integrity replacement projects.
4	Q.	What interim adjustments were made to depreciation expense?
5	A.	The adjustment to depreciation expense is contained in Rule
6		38.5.165, Statement I. Adjustment No. 17 restates the annual
7		depreciation rates approved in Docket No. 2017.9.79 to the average pro
8		forma level of plant in service resulting in an increase of \$362,684.
9	Q.	What adjustments were made to taxes other than income?
10	Α.	The interim adjustments to taxes other than income are contained
11		in Rule 38.5.174, Statement K. In Adjustment No. 18, Montana direct ad
12		valorem taxes were eliminated for interim purposes as noted earlier in my
13		testimony.
14		The adjustment to payroll taxes (Adjustment No. 19) is an increase
15		of \$10,058 based on the ratio of payroll taxes to labor expense for 2019
16		applied to pro forma labor expense.
17		The Montana Consumer Counsel Tax and Public Service
18		Commission taxes are restated in Adjustment No. 20 to the pro forma level
19		of revenue and the rates effective October 1, 2019 and results in an
20		increase of \$122,590.
21	Q.	What adjustments were made to income taxes?
22	Α.	The interim adjustments to income taxes are contained in Rule
23		38.5.169, Statement J. The adjustment to interest expense (Adjustment

1		No. 21) is shown on page 2. Interest is deductible for tax purposes and
2		interest expense is calculated on the pro forma interim rate base using the
3		weighted cost of debt and debt ratio from Statement F. The resulting
4		interest expense is an increase of \$184,005 from the per books level.
5		Book/tax differences related to existing plant assets as of
6		December 31, 2019 have been included on page 3 in Adjustment 22.
7		The current income tax expense on all of the interim pro forma
8		adjustments to operating revenues and expenses are calculated on page
9		4 in Adjustment No. 23.
10		The closing/filing and prior period adjustments in the current
11		income tax accrual and in the deferred taxes are eliminated in Adjustment
12		No. 24 (on page 5). Adjusted current and deferred income taxes match
13		those calculated for Montana and conform to past Commission practices.
14		Montana-Dakota recognizes plant related excess accumulated
15		deferred income taxes on an Average Rate Assumption Method (ARAM)
16		basis. The 2019 per books value was \$270,537 and the pro forma value
17		is \$268,870 resulting in an adjustment of \$1,667 found in Adjustment No.
18		25, as shown on page 8.
19	Q.	What interim adjustments were made to rate base?
20	А.	The pro forma interim adjustments to rate base are listed on Rule
21		38.5.175, page 4.
22		Adjustment A, shown in Rule 38.5.123, Statement C, pages 2 and 3
23		reflect the annualization of the plant in service to the 2019 ending balance.

Likewise, Adjustment B (Rule 38.5.133, Statement D, page 2) reflects the
 annualization of the accumulated reserve for depreciation balance and
 accounts for the change in depreciation associated with the plant in
 service annualization in Adjustment A above.

5 The working capital adjustments are summarized in Rule 38.5.141, 6 Statement E. Page 1 of Rule 38.5.143, Statement E shows the materials 7 and supplies balances restated to a thirteen-month average, with actual 8 balances through February 2020, in Adjustment C, for an increase of 9 \$188,481.

10 The gas in underground storage (Adjustment D) restates the gas in 11 underground storage balance as a thirteen-month average balance for 12 2020 and is a decrease of \$148,633. The pro forma reflects actual 13 balances through February 2020. March through December 2020 reflect 14 expected storage injection and withdrawal volumes and forecasted pricing. 15 Insurance expense is restated to a thirteen-month average balance 16 in Adjustment E with actual balances through February 2020 and balances 17 for March through December 2020 based on the expected insurance 18 expense and is an increase of \$141,452.

Prepaid demand and commodity balances reflect actual balances
through February 2020 and projected balances for March through
December 2020 and are also restated to a thirteen-month average
balance in Adjustment F, for a decrease of \$466,103.

1	The average net unamortized loss on reacquired debt balance and
2	the associated deferred income taxes as of December 31, 2020 is
3	included as Adjustment G on page 5.
4	The average net Provision for Pensions and Benefits as of
5	December 31, 2019 and the associated deferred income taxes is included
6	as Adjustment H in conformance with Order 5856b in Docket No.
7	D95.7.90.
8	The average Provision for Injuries and Damages balance and the
9	associated deferred income taxes as of December 31, 2019 is included as
10	Adjustment I in conformance with Order 5856b in Docket No. D95.7.90 as
11	well.
12	The unamortized redemption of preferred stock (Adjustment K)
13	shows the projected 2020 decrease of \$1,339 based on a 15 year
14	amortization schedule.
15	The Accumulated Deferred Income Taxes included in rate base are
16	summarized at Rule 38.5.169, Statement J, page 6. The deferred taxes
17	associated with the unamortized loss on debt (Adjustment G), provision for
18	pensions and benefits (Adjustment H), and provision for injuries and
19	damages (Adjustment I) are also included on page 6. The annualization
20	of the deferred income tax balances associated with prepaid demand
21	charges and customer advances are presented on page 9 as Adjustment
22	N.

1		Adjustment L is the increase to deferred taxes necessary to extend
2		the average accumulated deferred tax balance to match the pro forma
3		plant and accumulated reserve balances.
4		Adjustment M is the decrease to deferred taxes to reflect the
5		amortization of the full normalization adjustment for 2020 Plant & Non-
6		Plant Excess Deferred Income Taxes.
7		Customer advances for construction (Adjustment O) are restated to
8		a thirteen-month average balance, with actual balances through February
9		2020 and is a decrease of \$83,697 as shown on Rule 38.5.143, Statement
10		E, page 10.
11		These are all of the pro forma adjustments to revenue, expense
12		and rate base related to the interim request.
13	Q.	Can you please explain Exhibit No(TRV-2)?
14	A.	Exhibit No(TRV-2), which is identical to Rule 38.5.175, page 5
15		shows the calculation of the revenue deficiency of \$4,884,024 based on
16		the pro forma operating income and rate base and using the overall rate of
17		return of 6.959 percent from Statement F, page 1.
18	Q.	Does this complete your direct testimony?
19	A.	Yes, it does.

MONTANA-DAKOTA UTILITIES CO. GAS UTILITY - MONTANA PRO FORMA OPERATING INCOME AND RATE OF RETURN REFLECTING ADDITIONAL REVENUE REQUIREMENTS

	Before Additional Revenue Requirements 1/	Additional Revenue Requirements]	Reflecting Additional Revenue Requirements
Operating Revenues				
Sales	\$62,555,348	\$8,559,701	1	\$71,115,049
Transportation	1,207,130	. , ,		1,207,130
Other	732,285			732,285
Total Revenues	\$64,494,763	\$8,559,701		\$73,054,464
Operating Expenses				
Operation and Maintenance				
Cost of Gas	\$37,322,531			\$37,322,531
Other O&M	15,410,333			15,410,333
Total O&M	52,732,864			52,732,864
Depreciation	6,120,527			6,120,527
Taxes Other Than Income	7,537,355	\$48,448	2/	7,585,803
Current Income Taxes	(1,690,380)	2,241,226	2/	550,846
Deferred Income Taxes	183,533			183,533
Total Expenses	\$64,883,899	\$2,289,674		\$67,173,573
Operating Income	(\$389,136)	\$6,270,024	= =	\$5,880,888
Rate Base	\$79,903,363		=	\$79,903,363
Rate of Return	-0.487%		=	7.360%

1/ See Rule 38.5.175, page 5 and 6.

2/ Reflects taxes at 26.3325% after deducting Consumer Counsel tax of 0.127% and PSC tax of 0.00439%.

MONTANA-DAKOTA UTILITIES CO. GAS UTILITY - MONTANA PRO FORMA OPERATING INCOME AND RATE OF RETURN - INTERIM REFLECTING ADDITIONAL REVENUE REQUIREMENTS

	Before Additional Revenue Requirements 1/	Additional Revenue Requirements	Reflecting Additional Revenue Requirements
Operating Revenues			
Sales	\$58,361,793	\$4,884,024	\$63,245,817
Transportation	1,006,499	. , ,	1,006,499
Other	727,715		727,715
Total Revenues	\$60,096,007	\$4,884,024	\$64,980,031
Operating Expenses			
Operation and Maintenance			
Cost of Gas	\$37,322,531		\$37,322,531
Other O&M	15,303,775		15,303,775
Total O&M	52,626,306		52,626,306
Depreciation	5,862,417		5,862,417
Taxes Other Than Income	1,003,635	\$27,644 2/	1,031,279
Current Income Taxes	(954,156)	1,278,806 2/	324,650
Deferred Income Taxes	44,589		44,589
Total Expenses	\$58,582,791	\$1,306,450	\$59,889,241
Operating Income	\$1,513,216	\$3,577,572	\$5,090,788
Rate Base	\$73,154,022		\$73,154,022
Rate of Return	2.069%		6.959%

1/ See Rule 38.5.175, page 1.

2/ Reflects taxes at 26.3325% after deducting Consumer Counsel tax of 0.127% and PSC tax of 0.439%.

MONTANA-DAKOTA UTILITIES CO.

Before the Montana Public Service Commission

Docket No. 2020.06.____

Direct Testimony of Travis R. Jacobson

- 1 Q. Please state your name and business address.
- 2 A. My name is Travis R. Jacobson and my business address is 400
- 3 North Fourth Street, Bismarck, North Dakota 58501.
- 4 Q. By whom are you employed and what is your position?
- 5 A. I am the Director of Regulatory Affairs for Montana-Dakota Utilities
- 6 Co. (Montana-Dakota).
- 7 Q. Would you please describe your duties as Director of Regulatory

8 Affairs?

- 9 A. I am responsible for the development and implementation of
- 10 Company objectives and policies with respect to rate structure, pricing
- 11 policies, cost of service studies, fuel cost adjustments, purchased gas cost
- 12 adjustments and gas tracking adjustments in each of the jurisdictions in
- 13 which Montana-Dakota operates.

14 Q. Would you please describe your education and professional

- 15 background?
- 16 A. I graduated from Minot State University with a Bachelor of Science
- 17 degree in Accounting and I am a Certified Public Accountant (CPA).

1		In June 2019, I completed the Utility Executive Course at the University of
2		Idaho in Moscow, Idaho. I started my career with Montana-Dakota in 1999
3		as a financial analyst in the Financial Reporting area and during my tenure
4		with the Company have held positions of increasing responsibility,
5		including Supervisor, Financial Reporting & Planning and Manager,
6		Financial Reporting & Planning and Manager, Regulatory Affairs before
7		attaining my current position.
8	Q.	Have you testified in other proceedings before regulatory bodies?
9	Α.	Yes. I have previously presented testimony before this
10		Commission, the Public Service Commissions of North Dakota and
11		Wyoming and the Public Utilities Commissions of Minnesota and South
12		Dakota.
13	Q.	Are you familiar with the books and records of Montana-Dakota and
14		the manner in which they are kept?
15	Α.	Yes. Montana-Dakota's books and records are kept in accordance
16		with the Federal Energy Regulatory Commission (FERC) Uniform System
17		of Accounts.
18	Q.	What is the purpose of your testimony in this proceeding?
19	Α.	The purpose of my testimony is to present overall cost of service for
20		the twelve months ended December 31, 2019, the pro forma cost of
21		service for 2020 (test year) and the calculation of the revenue deficiency.
22		I will provide an overview of the interim revenue deficiency as well.

1 Q. What statements, schedules and exhibits are you sponsoring?

2 A. I am sponsoring the Overall Cost of Service and Exhibit No.__(TRJ-1).

3 Q. Please describe the Overall Cost of Service presented in the

4 **Company's Statements.**

5 Α. Rule 38.5.175 shows the per books income statement and rate 6 base for total Company and Montana reflecting Montana's gas operations 7 2019 return on rate base of 3.696 percent. Also shown are the pro forma 8 adjustments to operating revenues, expenses and rate base which will be 9 described in further detail by Ms. Vesey. The Pro Forma 2020 return falls 10 to (0.487) percent. The primary driver in the reduction to Pro Forma 11 earnings is the result of normalizing retail and transportation volumes 12 which reduced the gas sales margin by nearly \$2.2 million as 2019 was 13 almost 20 percent colder than normal.

14 Montana-Dakota continues to see increases in its assessment of 15 property taxes, primarily on its gas distribution assets serving Montana 16 gas customers. An adjustment of approximately \$830,000, compared to 17 the per books level for 2019, for Montana direct property tax was 18 necessary to reflect the Pro Forma level of property tax expense based on 19 the most recent Montana Department of Revenue Appraisal Report. In 20 order to match the revenue currently collected under the Gas Tax Tracking 21 Adjustment Rate 87 to the total Pro Forma Montana direct property tax, a 22 total increase in the revenue requirement of approximately \$2.1 million is 23 required. Montana-Dakota will update its base tax percentage in the Gas

Tax Tracking Adjustment in this filing to match the revenue collected under
 that rate with the Pro Forma property tax expense.

The Pro Forma additions to rate base resulted in increased
depreciation expense as well as other adjustments that reduced 2020 Pro
Forma earnings by approximately \$3.0 million while Pro Forma rate base
increased by nearly \$9.7 million.

The inclusion of these adjustments results in a revenue deficiency
of \$8,559,701 or an approximate increase of 13.4% to bring the return on
rate base to 7.360 percent based on the overall capital structure shown on
Statement F, page 1 as supported by Ms. Nygard.

11 Q. Has Montana-Dakota included its net pension funding in rate base?

12 Α. Yes. Montana-Dakota was required to include pension and benefits 13 in rate base by the Montana Public Service Commission (Commission) in 14 Docket No. D95.7.90. In that proceeding, Montana Consumer Counsel 15 witness Mr. A. Clark testified that the Company makes cash contributions 16 to its pension trust fund and includes the pension expense in the revenue 17 requirement. To the extent Montana-Dakota recovers more or less than 18 the amount of its cash contributions, a regulatory asset or liability exists. 19 When a liability exists, Mr. Clark argued that excluding it from the rate 20 base would allow the Company to earn its return on cash collected from 21 customers through its revenue requirement. Alternatively, when a 22 regulatory asset exists, excluding it from the rate base deprives the

1 Company from earning its return on cash paid. The Commission was 2 persuaded by Mr. Clark's argument in its Order in that docket.

3 Montana-Dakota has included net pension and benefits, both 4 regulatory assets and liabilities, in all rate case filings since the 5 Commission's Order in Docket No. D95.7.90 for both gas and electric 6 operations in Montana. The Commission has not taken issue with the rate 7 base treatment of pension and benefits in any rate case since its Order. 8 The table below presents the regulatory asset or liability position for 9 Montana-Dakota beginning in 2004 through the year ended 2019. As 10 shown, Montana-Dakota has made cash contributions in the amount of 11 \$81.5 million but has recovered only \$29.6 million through the inclusion of

pension expense in the revenue requirement. Montana gas operations' 13 share of the total pension regulatory asset is \$9.8 million as of December

14 31, 2019.

12

Cash <u>Contributions</u>		Pension Expense	Pension Balance Debit (Credit)
Beginning Balance	- 12/31/2004		\$7,777,266
Activity - 2005	\$0	\$4,179,348	3,597,918
Activity - 2006	-	4,118,976	(521,058)
Activity - 2007	1,188,690	3,724,426	(3,056,794)
Activity - 2008	-	2,825,775	(5,882,569)
Activity - 2009	8,347,434	4,759,097	(2,294,232)
Activity - 2010	3,871,657	(5,328)	1,582,753
Activity - 2011	13,757,133	1,610,332	13,729,554
Activity - 2012	12,038,687	(740,118)	26,508,359
Activity - 2013	10,014,592	1,830,351	34,692,600
Activity - 2014	12,202,457	594,340	46,300,717
Activity - 2015	2,182,143	1,398,780	47,084,080
Activity - 2016	-	1,746,833	45,337,247
Activity - 2017	422,015	1,422,159	44,337,103
Activity - 2018	7,200,692	720,403	50,817,392
MDU R funding	(5,133,171)	-	45,684,221
Activity - 2019	15,452,375	1,379,116	59,757,480
Total Funding	\$81,544,704	\$29,564,490	

Ending Balance - 12/31/2019

\$ 59,757,480

1

2 Q. Montana-Dakota has included post-retirement benefits in this filing.

3

Will you explain why?

4 A. Yes. Montana-Dakota has not previously included post-retirement
5 benefits in rate base. At the time of the Commission's Order in Docket No.

6 D95.7.90, the Company treated post-retirement expenses and funding

- 7 differently than pension in that funding was generally matched with
- 8 expenses. Therefore, the Company did not typically maintain a regulatory

asset or liability balance. If one did exist, the balance was small and was
 extinguished shortly after it was created.

Today, Montana-Dakota does account for post-retirement benefits
similar to pension and does maintain a regulatory asset or liability balance,
albeit on a much smaller scale. To ensure consistent treatment for similar
assets and liabilities, the Company has included the post-retirement
balance in rate base in this filing.

8 Q. Please describe Exhibit No.__(TRJ-1).

9 Α. Exhibit No.__(TRJ-1) was prepared to summarize all pro forma 10 adjustments to the income statement and rate base and show the effect to 11 the earnings as well as the contribution to the revenue requirement 12 deficiency. Each adjustment described by Ms. Vesey has been included 13 Q. Has Montana-Dakota included a request for interim rate relief? 14 Α. Yes. An interim rate relief request of \$4,884,024, an 8.2 percent 15 increase, has been developed in a separate set of Interim Statements 16 pursuant to the Commission's rules (Administrative Rules of Montana 17 38.5.505 and 38.5.506). Montana-Dakota's Montana gas operations 18 returns have been significantly below the authorized return of 9.4 percent

19 in Docket No. 2017.9.79 as shown below:

	2019	2018	2017
Actual Returns			
Return on Rate	3.70%	5.42%	5.17%
Return on Equity	2.70%	6.00%	5.34%
Adjusted Returns			
Return on Rate	1.81%	3.22%	4.61%
Return on Equity	-1.07%	1.60%	4.26%

Source: Montana-Dakota's Annual Report of Gas Utility to the Public Service Commission of Montana.

1	The following items	are the primary	/ changes from	n the Company's

2 general rate case filing underlying the interim request:

- The Return on Equity (ROE) was modified to reflect the 9.4 percent
- 4 authorized in Docket No. 2017.9.79;
- Revenue and Taxes Other Than Income were adjusted to remove revenue
- 6 collected through Rate 87 and Ad Valorem Taxes was adjusted to remove
- 7 Montana direct taxes;
- Pro forma plant additions were excluded;
- 9 The balance in the Post Retirement regulatory asset was excluded; and
- Regulatory Commission Expense was adjusted to exclude the costs
- 11 associated with this case.
- 12 Ms. Vesey will provide supporting testimony for all pro forma interim
- 13 adjustments to the income statement and rate base in her testimony.
- 14 Q. Does this complete your direct testimony?
- 15 A. Yes, it does.

MONTANA-DAKOTA UTILITIES CO. REVENUE REQUIREMENT ON PRO FORMA ADJUSTMENTS GAS UTILITY - MONTANA

Adjustmen	t Adjustment Description	Adjustment Amount	Income Tax Amount	Income Effect	Revenue Requirement
Revenue De	eficiency - Per books 2019				\$3,601,290
	Income Statement Adjustments				
1	Current Rates	(\$711,816)	(\$187,439)	\$524,377	\$715,868
2	Normal Weather	(8,276,642)	(2,179,447)	6,097,195	8,323,756
3	Annualized Volumes	441,964	116,380	(325,584)	(444,480)
4	Other Revenue	(46,997)	(12,375)	34,622	47,265
5	Cost of Gas	(6,377,683)	1,679,403	(4,698,280)	(6,413,988)
6	Labor	138,208	(36,394)	101,814	138,994
7	Benefits	140,957	(37,117)	103,840	141,760
8	Vehicles & Work Equipment	47,715	(12,565)	35,150	47,986
9	Company Consumption	(4,015)	1,057	(2,958)	(4,038)
10	Uncollectible Accounts	(47,870)	12,605	(35,265)	(48,143)
11	Advertising	(46,770)	12,316	(34,454)	(47,036)
12	Software Maintenance	108,751	(28,637)	80,114	109,370
13	Insurance	(75,062)	19,766	(55,296)	(75,489)
14	Industry Dues	14,150	(3,726)	10,424	14,231
15	Regulatory Commission Expense	51,908	(13,669)	38,239	52,203
16	Materials	8,258	(2,174)	6,084	8,306
17	Depreciation Expense	620,794	(163,471)	457,323	624,327
18	Ad Valorem	829,289	(218,372)	610,917	834,010
19	Payroll Taxes	10,058	(2,648)	7,410	10,116
20	MCC and PSC Taxes	147,486	(38,837)	108,649	148,325
21	Interest Annualization	335,122	(88,246)	(88,246)	(120,471)
22	Tax Depreciation on Plant Additions	(519,259)	136,734	136,734	186,666
23	Income Taxes on Pro Forma Adj.	(1,046,856)	1,046,856	0	
24	Closing/Filing and Prior Period-Current	226,468		226,468	309,169
22	Def. Tax-Plant Additions-Book/Tax Diff.	(136,734)		(136,734)	(186,666)
25	Plant Excess Deferred Taxes - ARAM	1,667		1,667	2,276
24	Closing/Filing and Prior Period-Deferred	(220,036)		(220,036)	(300,388)
Total Incom	e Statement Adjustments	(\$2,984,174)		(\$2,984,174)	\$4,073,929

MONTANA-DAKOTA UTILITIES CO. REVENUE REQUIREMENT ON PRO FORMA ADJUSTMENTS GAS UTILITY - MONTANA

Adjustment	Adjustment Description	Adjustment Amount	Income Tax Amount	Income Effect	Revenue Requirement
	Rate Base Adjustments				
Plant	t in Service				
А	Plant Additions	\$13,100,411			\$1,316,291
Αςςι	Imulated Reserve				
В	Pro Forma Depreciation	4,761,422			(478,414)
Work	king Capital				
С	Materials and Supplies	188,481			18,938
D	Gas in Underground Storage	(148,663)			(14,937)
E	Prepaid Insurance	141,452			14,213
F	Prepaid Demand and Commodity	(466,103)			(46,833)
G	Unamortized Loss on Debt	(16,042)			(1,612)
Н	Provision for Pensions & Benefits	1,445,093			145,199
I	Provision for Injuries & Damages	(2,897)			(291)
J	Provision for Postretirement	365,634			36,738
K	Unamort. Redemption Cost of Pref. Stk.	(1,339)			(135)
Αςςι	Imulated Deferred Income Taxes				
L	Liberalized Depreciation	264,821			(26,608)
М	Excess Plant Deferred Income Taxes	(297,859)			29,928
М	Full Normalization	(57,659)			5,793
М	Excess Deferreds - Non-Plant	25,007			(2,513)
М	Excess Deferreds - Non-Plant Pension	(187,326)			18,822
Μ	Excess Deferreds - Non-Plant Insurance	366			(37)
Ν	Prepaid Demand Charges	26,597			(2,672)
Ν	Customer Advances	17,239			(1,732)
G	Unamortized Loss on Debt	(4,389)			441
Н	Pensions & Benefits	353,594			(35,528)
I	Injuries and Damages	(707)			71
J	Postretirement	89,188			(8,961)
Cust	omer Advances				
0	Customer Advances for Construction	(83,697)			8,410
Total Rate E	Base Adjustments	\$9,699,430			\$974,571
Cost of Cap	ital - Lower Cost of Debt / Capital Allocat	ion			(\$90,089)

Revenue Deficiency - Pro Forma 2020

\$8,559,701

MONTANA-DAKOTA UTILITIES CO.

Before the Montana Public Service Commission

Docket No. D2020.6.____

Direct Testimony of Ronald J. Amen

June 22, 2020

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I. INTRODUCTION AND SUMMARY

1	Q.	Please state your name and business address.
2	Α.	My name is Ronald J. Amen and my business address is 17806 NE 109th Court,
3		Redmond, Washington 98052.
4	Q.	On whose behalf are you appearing in this proceeding?
5	Α.	I am appearing on behalf of Montana-Dakota Utilities Co. ("Montana-Dakota" or
6		the "Company").
7	Q.	By whom are you employed and in what capacity?
8	Α.	I am employed by Atrium Economics, LLC ("Atrium") as a Managing Partner. In
9		serving as an expert witness for Montana-Dakota in this general rate case
10		proceeding, I am working with Black & Veatch Management Consulting, LLC
11		("Black & Veatch") under a subcontracting arrangement.
12	Q.	What has been the nature of your work in the energy utility consulting field?
13	A.	I have over 40 years of experience in the utility industry, the last 23 years of
14		which have been in the field of utility management and economic consulting. I
15		have advised and assisted utility management, industry trade organizations, and
16		large energy users in matters pertaining to costing and pricing; competitive
17		market analysis; regulatory planning and policy development; resource planning
18		and acquisition; strategic business planning; merger and acquisition analysis;
19		organizational restructuring; new product and service development; and load
20		research studies. I have prepared and presented expert testimony before utility
21		regulatory bodies across North America and have spoken on utility industry
22		issues and activities dealing with the pricing and marketing of gas utility services,
23		gas and electric resource planning and evaluation, and utility infrastructure

	replacement. Further background information summarizing my work experience,
	presentation of expert testimony, and other industry-related activities is included
	as Appendix A to my testimony.
Q.	Please summarize your testimony.
A.	In my testimony I present Montana-Dakota's Cost of Service Study ("COSS") and
	discuss its results. I also present the various rate design proposals filed by
	Montana-Dakota in this proceeding.
	My testimony consists of this introduction and summary section and the
	following additional sections:
	Theoretical Principles of Cost Allocation
	Montana-Dakota's COSS
	Principles of Sound Rate Design
	Determination of Proposed Class Revenues
	Montana-Dakota's Rate Design Proposals
	Customer Bill Impacts
Q.	Please provide a list of the exhibits and schedules supporting your
	testimony.
A.	I am sponsoring Statement L, Statement M, Statement O, Part B, and the
	following exhibits:
	 Exhibit No(RJA-1), Proposed Revenue Allocation
	 Exhibit No(RJA-2), Revenues at Current and Proposed Rates, and
	 Exhibit No(RJA-3), Residential and Firm General Service Bill
	Comparisons.
	А. Q.

П. THEORETICAL PRINCIPLES OF COST ALLOCTION

- 1 Q. Why do utilities conduct cost allocation studies as part of the regulatory 2 process?
- 3 Α. There are many purposes for utilities conducting cost allocation studies, ranging 4 from designing appropriate price signals in rates to determining the share of 5 costs or revenue requirements borne by the utility's various rate or customer 6 classes. In this case, an embedded COSS is a useful tool for determining the 7 allocation of Montana-Dakota 's revenue requirement among its customer 8 classes. It is also a useful tool for rate design because it can identify the 9 important cost drivers associated with serving customers and satisfying their 10 design day demands.
- 11 Q. Please describe the various types of cost of service studies that may be
- 12 useful to a utility for rate design and the allocation of revenue requirements.
- 13 Α. In general, cost of service studies can be based on embedded costs or marginal 14 costs. Marginal costs can be thought of as the incremental change in costs
- 15 associated with a one-unit change in service (or output) provided by the utility.
- 16 As a result of using an incremental change, capacity additions tend to be lumpy -
- 17 meaning that they may add more capacity than required to serve the increment
- 18 of load assumed in the analysis. To avoid this issue requires that the
- 19 computation of the unit cost be based on the amount of capacity added rather 20
 - than on the level of load that can be served.
- 21 Embedded cost studies analyze the costs for a test period based on 22 either the book value of accounting costs (an historical period) or the estimated 23 book value of costs for a forecast test year or some combination of historical and 24 future costs. Where a forecast test year is used, the costs and revenues are
 - 5

1 typically derived from budgets prepared as part of the utility's financial plan.

2 Typically, embedded cost studies are used to allocate the revenue requirement

3 between jurisdictions, classes, and between customers within a class.

Q. Please discuss the reasons that cost of service studies are utilized in
 regulatory proceedings.

A. Cost of service studies represent an attempt to analyze which customer or group
of customers cause the utility to incur the costs to provide service. The
requirement to develop cost studies results from the nature of utility costs. Utility
costs are characterized by the existence of common costs. Common costs occur
when the fixed costs of providing service to one or more classes, or the cost of
providing multiple products to the same class, use the same facilities and the use
by one class precludes the use by another class.

13 In addition, utility costs may be fixed or variable in nature. Fixed costs do 14 not change with the level of throughput, while variable costs change directly with 15 changes in throughput. Most non-fuel related utility costs are fixed in the short 16 run and do not vary with changes in customers' loads. This includes the cost of 17 distribution mains and service lines, meters, and regulators. The distribution 18 assets of a gas utility do not vary with the level of throughput in the short run. In 19 the long run, main costs vary with either growing design day demand or a 20 growing number of customers.

Finally, utility costs exhibit significant economies of scale. Scale economies result in declining average cost as gas throughput increases and marginal costs must be below average costs. These characteristics have implications for both cost analysis and rate design from a theoretical and practical perspective. The development of cost studies, on either a marginal or

embedded cost basis, requires an understanding of the operating characteristics
 of the utility system. Further, as discussed below, different cost studies provide
 different contributions to the development of economically efficient rates and the
 cost responsibility by customer class.

5 Q. Please discuss the application of economic theory to cost allocation.

6 Α. The allocation of costs using cost of service studies is not a theoretical economic 7 exercise. It is rather a practical requirement of regulation since rates must be set 8 based on the cost of service for the utility under cost-based regulatory models. 9 As a general matter, utilities must be allowed a reasonable opportunity to earn a 10 return of and on the assets used to serve their customers. This is the cost of 11 service standard and equates to the revenue requirements for utility service. The 12 opportunity for the utility to earn its allowed rate of return depends on the rates 13 applied to customers producing that revenue requirement. Using the cost 14 information per unit of demand, customer, and energy developed in the cost of 15 service study to understand and quantify the allocated costs in each customer 16 class is a useful step in the rate design process to guide the development of 17 rates.

18 However, the existence of common costs makes any allocation of costs 19 problematic from a strict economic perspective. This is theoretically true for any 20 of the various utility costing methods that may be used to allocate costs. 21 Theoretical economists have developed the theory of subsidy-free prices to 22 evaluate traditional regulatory cost allocations. Prices are said to be subsidy-free 23 so long as the price exceeds the incremental cost of providing service but is less 24 than stand-alone costs ("SAC"). The logic for this concept is that if customers' 25 prices exceed incremental cost, those customers make a contribution to the fixed

costs of the utility. All other customers benefit from this contribution to fixed costs
 because it reduces the cost they are required to bear. Prices must be below the
 SAC because the customer would not be willing to participate in the service
 offering if prices exceed SAC.

5 SAC is an important concept for Montana-Dakota because certain 6 customers have competitive options for the end uses supplied by natural gas 7 through the use of alternative fuels. As a result, subsidy-free prices permit all 8 customers to benefit from the system's scale and common costs, and all 9 customers are better off because the system is sustainable. If strict application of 10 the cost allocation study suggests rates that exceed SAC for some customers, 11 prices must nevertheless be set below the SAC, but above marginal cost, to 12 ensure that those customers make the maximum practical contribution to the 13 common costs of the utility.

14 Q. If any allocation of common cost is problematic from a theoretical

perspective, how is it possible to meet the practical requirements of cost
allocation?

17 Α. As noted above, the practical reality of regulation often requires that common 18 costs be allocated among jurisdictions, classes of service, rate schedules, and 19 customers within rate schedules. The key to a reasonable cost allocation is an 20 understanding of *cost causation*. Cost causation, as alluded to earlier, addresses 21 the need to identify which customer or group of customers causes the utility to 22 incur particular types of costs. To answer this question, it is necessary to 23 establish a linkage between a Local Distribution Company's ("LDC's") customers 24 and the particular costs incurred by the utility in serving those customers.

An important element in the selection and development of a reasonable COSS allocation methodology is the establishment of relationships between customer requirements, load profiles and usage characteristics on the one hand and the costs incurred by the Company in serving those requirements on the other hand. For example, providing a customer with gas service during peak periods can have much different cost implications for the utility than service to a customer who requires off-peak gas service.

8 Q. Why are the relationships between customer requirements, load profiles and
9 usage characteristics significant to cost causation?

10 Α. The Company's distribution system is designed to meet three primary objectives: 11 (1) to extend distribution services to all customers entitled to be attached to the 12 system; (2) to meet the aggregate design day peak capacity requirements of all 13 customers entitled to service on the peak day; and (3) to deliver volumes of 14 natural gas to those customers either on a sales or transportation basis. There 15 are certain costs associated with each of these objectives. Also, there is 16 generally a direct link between the manner in which such costs are defined and 17 their subsequent allocation.

18 <u>Customer</u> related costs are incurred to attach a customer to the
 19 distribution system, meter any gas usage and maintain the customer's account.
 20 Customer costs are a function of the number of customers served and continue
 21 to be incurred whether or not the customer uses any gas. They generally include
 22 capital costs associated with minimum size distribution mains, services, meters,
 23 regulators and customer service and accounting expenses.

24 <u>Demand</u> or capacity related costs are associated with plant that is
 25 designed, installed and operated to meet maximum hourly or daily gas flow

requirements, such as the transmission and distribution mains, or more localized
 distribution facilities that are designed to satisfy individual customer maximum
 demands. Gas supply contracts also have a capacity related component of cost
 relative to the Company's requirements for serving daily peak demands and the
 winter peaking season.

6 <u>Commodity</u> related costs are those costs that vary with the throughput
7 sold to, or transported for, customers. Costs related to gas supply are classified
8 as commodity related to the extent, they vary with the amount of gas volumes
9 purchased by the Company for its sales service customers.

10 From a cost of service perspective, the best approach is a direct 11 assignment of costs where costs are incurred for a customer or class of 12 customers and can be so identified. Where costs cannot be directly assigned, the 13 development of allocation factors by customer class uses principles of both 14 economics and engineering. This results in appropriate allocation factors for 15 different elements of costs based on cost causation. For example, we know from 16 the manner in which customers are billed that each customer requires a meter. 17 Meters differ in size and type depending on the customer's load characteristics. 18 These meters have different costs based on size and type. Therefore, meter 19 costs are customer-related, but differences in the cost of meters are reflected by 20 using a different meter cost for each class of service. For some classes such as 21 the largest customers, the meter cost may be unique for each customer. 22 Q. How does one establish the cost and utility service relationships you 23 previously discussed?

A. To establish these relationships, the Company must analyze its gas system
design and operations, its accounting records as well as its system and customer

load data (e.g., annual and peak period gas consumption levels). From the
 results of those analyses, methods of direct assignment and common cost
 allocation methodologies can be chosen for all of the utility's plant and expense
 elements.

5 Q. Please explain what you mean by the term "direct assignment"?

6 Α. The term direct assignment relates to a specific identification and isolation of 7 plant and/or expense incurred exclusively to serve a specific customer or group 8 of customers. Direct assignments best reflect the cost causation characteristics 9 of serving individual customers or groups of customers. Therefore, in performing 10 a COSS, the cost analyst seeks to maximize the amount of plant and expense 11 directly assigned to particular customer groups to avoid the need to rely upon 12 other more generalized allocation methods. An alternative to direct assignment 13 is an allocation methodology supported by a special study as is done with costs 14 associated with meters and services.

15 Q. What prompts the analyst to elect to perform a special study?

A. When direct assignment is not readily apparent from the description of the costs
recorded in the various utility plant and expense accounts, then further analysis
may be conducted to derive an appropriate basis for cost allocation. For

example, in evaluating the costs charged to certain operating or administrative
expense accounts, it is customary to assess the underlying activities, the related

21 services provided, and for whose benefit the services were performed.

Q. How do you determine whether to directly assign costs to a particular
 customer or customer class?

A. Direct assignments of plant and expenses to particular customers or classes of
 customers are made on the basis of special studies wherever the necessary data

are available. These assignments are developed by detailed analyses of the
utility's maps and records, work order descriptions, property records and
customer accounting records. Within time and budgetary constraints, the greater
the magnitude of cost responsibility based upon direct assignments, the less
reliance need be placed on common plant allocation methodologies associated
with joint use plant.

Q. Is it realistic to assume that a large portion of the plant and expenses of a
utility can be directly assigned?

9 A. No. The nature of utility operations is characterized by the existence of common
10 or joint use facilities, as mentioned earlier. Out of necessity, then, to the extent a
11 utility's plant and expense cannot be directly assigned to customer groups,

common allocation methods must be derived to assign or allocate the remaining
 costs to the customer classes. The analyses discussed above facilitate the
 derivation of reasonable allocation factors for cost allocation purposes.

15 Q. Were direct assignments of plant made in Montana-Dakota's COSS?

A. Yes. Special studies were performed to determine a portion of the specific
 distribution plant installed to serve Montana-Dakota's Small Firm General, Small
 Interruptible and Large Interruptible customers. The costs related to these
 facilities from the following plant accounts were directly assigned to the Small

20 Firm General, Small Interruptible and Large Interruptible customer classes.

- Account 375 Structures and Improvements. Direct assignment to Small
 Interruptible (Rate 71), and Large Interruptible (Rate 82).
- Account 379 Measuring & Regulating Equipment City Gate. Direct
 assignment to Small Interruptible (Rate 71), and Large Interruptible (Rate
 82).

1	 Account 383 – Service Regulators. Direct assignment to Small Firm
2	General (Rate 70), Small Interruptible (Rate 71), and Small Interruptible
3	(Rate 81).

Account 385 – Industrial Measuring & Regulating Station Equipment.
 Direct assignment to Small Interruptible and Large Interruptible (Rates 81 and 82).

III. MONTANA-DAKOTA'S COST OF SERVICE STUDY

A. Process Steps and Structure of the Cost of Service Study

7 Q. Please describe the process of performing Montana-Dakota's COSS analysis.

8 A. Three broad steps were followed to perform the Company's COSS:

9 (1) functionalization, (2) classification, and (3) allocation. The first step,

10 functionalization, identifies and separates plant and expenses into specific

11 categories based on the various characteristics of utility operation. The

12 Company's functional cost categories associated with gas service include

13 production (i.e., gas supply expenses), distribution and general. Classification of

14 costs, the second step, further separates the functionalized plant and expenses

- 15 into the three cost-defining characteristics previously discussed: (1) customer, (2)
- 16 demand or capacity, and (3) commodity. The final step is the allocation of each

17 functionalized and classified cost element to the individual customer class. Costs

18 typically are allocated on customer, demand, commodity or revenue allocation

19 factors.

- 20 Q. Are there factors that can influence the overall cost allocation framework
- 21 utilized by a gas utility when performing a COSS?

A. Yes. The factors which can influence the cost allocation used to perform a COSS
include: (1) the physical configuration of the utility's gas system; (2) the

availability of data within the utility; and (3) the state regulatory policies and
 requirements applicable to the utility.

3 Q. Why are these considerations relevant to conducting Montana-Dakota's 4 COSS?

A. It is important to understand these considerations because they influence the
overall context within which a utility's cost study was conducted. In particular,
they provide an indication of where efforts should be focused for purposes of
conducting a more detailed analysis of the utility's gas system design and
operations and understanding the regulatory environment in the State of

10 Montana as it pertains to cost of service studies and gas ratemaking issues.

Q. Please explain why the physical configuration of the system is an important consideration.

- A. The particulars of the physical configuration of the transmission and distribution
 system are important. The specific characteristics of the system configuration.
- 14 system are important. The specific characteristics of the system configuration,
- 15 such as, whether the distribution system is a centralized or a dispersed one,
- 16 should be identified. Other such characteristics are whether the utility has a
- 17 single city-gate or a multiple city-gate configuration, whether the utility has an
- 18 integrated transmission and distribution system or a distribution-only operation,
- and whether the system is a multiple-pressure based or a single pressure-basedoperation.

21 Q. What are the specific physical characteristics of Montana-Dakota's system?

- A. The physical configuration of Montana-Dakota's system is a dispersed / multiple
 city-gate, distribution-only and multi pressure-based system.
- 24 Q. What was the source of the cost data analyzed in the Company's COSS?

- A. All cost of service data has been extracted from the Company's total cost of
 service (i.e., total revenue requirement) and subsidiary schedules contained in
 this filing.
- 4 Q. How does the availability of data influence a COSS?
- 5 A. The structure of the utility's books and records can influence the cost study
- 6 framework. This structure relates to attributes such as the level of detail,
- 7 segregation of data by operating unit or geographic region and the types of load
- 8 data available. Montana-Dakota maintains detailed plant accounting records for
- 9 many of its distribution-related facilities.
- 10 Q. How are Montana-Dakota's classes structured for purposes of the COSS?
- 11 A. The COSS evaluated five customer classes: Residential Service (Tariff Schedule
- 12 60); Small Firm General Service (Tariff Schedule 70); Large Firm General Service
- 13 (Tariff Schedule 70); Small Interruptible Service (Tariff Schedules 71 and 81);
- 14 Large Interruptible Service (Tariff Schedules 82 and 85).
- 15 Q. How do state regulatory policies bear upon a utility's COSS?
- 16 A. State regulatory policies and requirements prescribe whether there is a particular
- 17 approach historically used to establish utility rates in the state. Specifically, state
- 18 regulations may set forth the methodological preferences or guidelines for
- 19 performing cost studies or designing rates which can influence the cost allocation
- 20 method utilized by the utility.

B. Classification and Allocation of Distribution Mains

- 21 Q. How did the Company's COSS classify and allocate investment in
- 22 Distribution Mains?
- A. The Company classified 35% of its investment in distribution mains as customer
 related and 65% of the investment as demand related. The customer related

portion of the distribution mains investment was then allocated based on the
 number of customers on Montana-Dakota's system. The demand related
 investment was allocated to the customer classes based on their respective
 contribution to peak day demand under system design weather conditions, in
 other words, on a "design day" basis.

6 Q. Please explain the basis for the Company's choice of classification and 7 allocation methods?

A. It is widely accepted that distribution mains (FERC Account No. 376) are installed
to meet both system peak period load requirements and to connect customers to
the LDC's gas system. Therefore, to ensure that the rate classes that cause the
Company to incur this plant investment or expense are charged with its cost,
distribution mains should be allocated to the rate classes in proportion to their
peak period load requirements and number of customers.

14 There are two cost factors that influence the level of distribution mains 15 facilities installed by an LDC in expanding its gas distribution system. First, the 16 size of the distribution main (i.e., the diameter of the main) is directly influenced 17 by the sum of the peak period gas demands placed on the LDC's gas system by 18 its customers. Secondly, the total installed footage of distribution mains is 19 influenced by the need to expand the distribution system grid to connect new 20 customers to the system. Therefore, to recognize that these two cost factors 21 influence the level of investment in distribution mains, it is appropriate to allocate 22 such investment based on both peak period demands and the number of 23 customers served by the LDC.

Q. Is the method used by the Company to determine a customer cost component of distribution mains a generally accepted technique for determining customer costs?

4 Α. Yes. The two most commonly used methods for determining the customer cost 5 component of distribution mains facilities consist of the following: (1) the zero-6 intercept approach and 2) the most commonly installed, minimum-sized unit of 7 plant investment. Under the zero-intercept approach, which is the method relied 8 upon in the Company's cost study, a customer cost component is developed 9 through regression analyses to determine the unit cost associated with a zero-10 inch diameter distribution main. The method regresses unit costs associated with 11 the various sized distribution mains installed on the LDC's gas system against 12 the size (diameter) of the various distribution mains installed. The zero-intercept 13 method seeks to identify that portion of plant representing the smallest size pipe 14 required merely to connect any customer to the LDC's distribution system, 15 regardless of the customer's peak or annual gas consumption.

16 The most commonly installed, minimum-sized unit approach is intended 17 to reflect the engineering considerations associated with installing distribution 18 mains to serve gas customers. That is, the method utilizes actual installed 19 investment units to determine the minimum distribution system rather than a 20 statistical analysis based upon investment characteristics of the entire distribution 21 system. For purposes of determining the customer component of distribution 22 mains to be used in Montana-Dakota's COSS, the minimum system method was 23 employed to test the reasonableness, by comparison, of the results of the zero-24 intercept method.

1 Two of the more commonly accepted literary references relied upon when 2 preparing embedded cost of service studies, Electric Utility Cost Allocation 3 Manual, by John J. Doran et al, National Association of Regulatory Utility 4 Commissioners ("NARUC"), and Gas Rate Fundamentals, American Gas 5 Association, both describe minimum system concepts and methods as an 6 appropriate technique for determining the customer component of utility 7 distribution facilities. 8 From an overall regulatory perspective, in its publication entitled, Gas 9 Rate Design Manual, NARUC presents a section which describes the zero-10 intercept approach as a minimum system method to be used when identifying 11 and quantifying a customer cost component of distribution mains investment. 12 Clearly, the existence and utilization of a customer component of 13 distribution facilities, specifically for distribution mains, is a fully supportable and 14 commonly used approach in the gas industry. 15 Q. With respect to Montana-Dakota's specific operating experience, is there 16 demonstrable evidence to support the use of a customer component of 17 distribution mains? 18 Α. Yes. In developing an appropriate cost allocation basis for distribution mains, the 19 two methods of cost analysis mentioned in the previous response were 20 conducted for the Company's investment in distribution mains, by size and 21 material type of main installed. The zero-intercept method typically uses linear 22 regression analysis to compare unit costs of the various sized distribution mains 23 installed on Montana-Dakota's gas system against the size (diameter) of the 24 various distribution mains installed. This method seeks to identify that portion of 25 plant representing the smallest size pipe required merely to connect any

1		customer to the LDC's distribution system, regardless of its peak or annual
2		consumption. The linear regression analysis can be expressed formulaically as
3		follows:
4		$y = mx^2 + b$
5		Where: y = average cost per installed foot of Montana-Dakota's distribution
6		mains
7		m = cost per installed foot, per inch of pipe diameter
8		x^2 = diameter squared of distribution mains
9		b = minimum cost per installed foot (the zero-intercept)
10		This equation determines that regardless of the main's diameter, the average
11		cost of a distribution main on Montana-Dakota's gas system will be at least equal
12		to a minimum cost per installed foot. This per foot cost component is exclusively
13		related to the simple fact that Montana-Dakota incurs this cost to install a main,
14		regardless of its size. That is, the installation is unrelated to either peak gas
15		flows or average gas flows. Rather, these distinct costs are related more strongly
16		to the process of extending the distribution mains to connect customers, which is
17		a function of the length of distribution mains and not of the size or diameter of the
18		mains. This is the per foot customer cost component of Montana-Dakota's
19		distribution mains as distinguished from the per foot demand cost component,
20		which is equal to a cost per foot times the diameter of the distribution main.
21	Q.	Do the results of the zero-intercept method described above therefore
22		support the 35% classification of distribution mains as customer related,
23		used by the Company?
24	Α.	Yes. Applying the weighted average of the regression results for plastic and steel
25		mains of \$4.19 per foot cost of the "zero inch" distribution main to the Company's

total footage of distribution mains results in an investment amount equivalent to
 approximately 35% of the total investment in distribution mains, on a current cost
 (year 2019) basis.

4 Q. How do the results under the zero-intercept method compare to the results
5 under the most commonly installed, minimum-sized mains investment
6 approach for Montana-Dakota's Montana service territory?

7 Α. For the purpose of comparison, the most commonly installed, minimum-sized 8 distribution mains analysis focused on two sizes of plastic pipe, 1¹/₄-inch and 2-9 inch. In the last twenty-five years, 1995 through 2019, 2.5 million feet out of 10 approximately 3.2 million total feet or 78% of distribution mains installed in 11 Montana-Dakota's Montana service territory were either 1¹/₄-inch or 2-inch plastic 12 pipe. The reason for including both of these pipe sizes in the analysis is that 13 both have been used extensively for different applications. While the use of 1¹/₄-14 inch plastic pipe has declined steadily over the last seven years, it has averaged 15 over 34,000 installed feet per year since 1995 for a total installed footage over 16 that time of 855,000 feet and is used primarily for extensions from existing 1¹/₄-17 inch plastic mains. The dominant pipe size for new distribution main installations 18 by far is 2-inch plastic, with over 1.6 million feet installed since 1995. As 19 operating conditions over time dictate, replacement of existing 1¹/₄-inch plastic 20 mains will be accomplished with 2-inch plastic pipe. Therefore, both pipe sizes 21 were tested within the minimum system analysis. Of the two pipe sizes, the 1¹/₄-22 inch plastic pipe analysis, adjusted downward to account for its load carrying 23 capacity, yielded a minimum system result of 46.6%, which more closely 24 approached the zero-intercept analysis results than the proportionally higher 25 results for the 2-inch plastic pipe.

Q. Would one expect there to be a strong correlation between the number of
 customers served by Montana-Dakota and the length of its system of
 distribution mains?

4 Α. Yes. Development of the Company's distribution grid over time is a dynamic 5 process. Customers are added to the distribution system on a continuous basis 6 under a variety of installation conditions. Accordingly, this process cannot be 7 viewed as a static situation where a particular customer being added to the 8 system at any one point in time can serve as a representative example for all 9 customers. Rather, it is more appropriate to understand and appreciate that for 10 every situation where a customer can be added with little or no additional footage 11 of mains installed, there are contrasting situations where a customer can be 12 added only by extending the distribution mains to the customer's "off-system" 13 location.

14 Recognizing that the goal is to more reasonably classify and allocate the 15 total cost of Montana-Dakota's distribution mains facilities, it is appropriate to 16 analyze the cost causation factors that relate to these facilities based on the total 17 number of customers serviced from such facilities. Accordingly, the concept of 18 using a minimum system approach for classifying distribution mains simply 19 reflects the fact that the average customer serviced by the Company requires a 20 minimum amount of mains investment to receive such service. Thus, it is entirely 21 appropriate to conclude that the number of customers served by Montana-22 Dakota represents a primary causal factor in determining the amount of 23 distribution mains cost that should be assessed to any particular group of 24 customers. One can readily conclude that a customer component of distribution

mains is a distinct and separate cost category that has much support from an
 engineering and operating standpoint.

- **Distribution and General Plant Classification and Allocation** С. 3 Q. How were the remaining Distribution Plant costs treated in the COSS? 4 Α. As discussed earlier, where possible, costs were directly assigned to the 5 customer classes based on data in the Company's plant records. Weighting 6 factors were developed for plant costs in FERC Account Nos. 380 (Services) and 7 381 (Meters) based on the size and type of the facilities and equipment. The 8 classification and allocation of the balance of the costs in Accounts 383 (House 9 Regulators) and 385 (Industrial M&R Equipment) that were not directly assigned 10 were based on the meters and distribution mains allocators, respectively. The 11 costs in Accounts Nos. 374 (Land & Right of Way); 378 & 379 (Measurement & 12 Regulator Station Equipment – General & City Gate); 387 (Cathodic Protection 13 Equipment); and 375 (Structures & Improvements) were classified and allocated 14 based on the distribution mains allocator. 15 Q. How were the General and Common Plant costs classified and allocated in
- 16 the COSS?
- A. With one exception, General and Common Plant costs were classified and
 allocated to the customer classes based on an internal allocation factor
 generated from the results of the classification and allocation of distribution plant
 costs. Common Intangible Customer Care & Billing (CC&B) plant was
 classified as customer-related and allocated on the average number of
 customers.

D. Operation & Maintenance, Customer Accounts & Services, and Administrative & General Expenses

1 Q. How were O&M expenses classified and allocated in the COSS?

- 2 A. Generally, the classification and allocation of the Operation & Maintenance
- 3 (O&M) expenses followed the treatment of the related plant accounts with the
 4 exception of Account No. 879 (Customer Installations Expense), the treatment of
 5 which followed the weighted meters allocator.

6 Q. Please describe the classification and allocation of Customer Accounts and 7 Customer Service expenses in the COSS.

8 A. Customer accounts and services expenses were classified as customer-related

9

10 class. Exceptions to this treatment were Account Nos. 902 (Meter Reading), 903

costs and allocated based on the average number of distribution customers by

- 11 (Customer Records & Collections) and 904 (Uncollectible Accounts). Meter
- 12 reading expenses were allocated based on the total annualized number of
- 13 customers weighted by meter size. A composite allocation factor was created for
- 14 customer records and collections expenses, based on a study of the various
- 15 functions and related activities of the responsibility areas that charged to this
- 16 account. Uncollectible accounts expenses were assigned to the residential and
- small firm general classes based on number of customers, which reflected the
 historical uncollectible expense experience.

19 Q. Please explain the treatment of Administrative and General expenses in the 20 COSS?

A. The majority of the A&G expenses were classified and allocated based on the
internally generated allocation factor of total O&M expenses, excluding gas
supply related costs and A&G. Taxes Other than Income Taxes and their

corresponding [allocation basis] includes: Ad Valorem taxes [Distribution plant];
 Payroll, Franchise and Other taxes [O&M excluding gas costs]; and Revenue
 taxes [Pro forma operating revenue].

E. Cost of Service Study Results

4 Q. Please explain the COSS information contained in Statement L.

- A. Statement L-1, pages 1 3, provides a report entitled "Cost of Service by
 Component." This report shows the total dollars and unit cost required under
 each rate if the Pro Forma rate of return of 7.360 percent were to be earned for
 the demand, energy and customer cost components of each rate schedule. A
 summary of the results by the major rate classifications, Residential, Small Firm
 General, Large Firm General, Small Interruptible Sales and Transportation, and
- 11 Large Interruptible Sales and Transportation is provided in Statement L,
- 12 Schedule L-1, pages 4 5.
- 13 Statement L, Schedule L-2, pages 1 30, is a report of the rate base,
- 14 income statement and pro forma adjustments as allocated to each rate schedule.
- 15 The description of each allocator and the allocation factors for each class and
- 16 cost component are provided in Statement L, Schedule L-3.
- 17 The COSS is based on the Montana natural gas operations results for the
- 18 12 months ended December 31, 2019 as adjusted to reflect the pro forma
- 19 adjustments sponsored by Company witness Ms. Vesey.

20 Q. Has the Company filed a Marginal Cost Study?

- A. No. On April 10, 2020, the Company filed a request for waiver of the
- 22 Commission's Minimum Rate Case Filing Standards that require the preparation
- and filing of a marginal cost study as part of an application a general increase.

On May 26, 2020, the Commission granted the requested waiver of this filing
 requirement for this rate case.¹

3 Q. Please summarize the results of the COSS.

A. As shown in Schedule L-1, the overall rate of return for Montana natural gas
service is -0.487%, based on the actual results of operations for the 12 months
ended December 31, 2019, adjusted for known and measurable changes and
excluding Montana taxes recovered through Rate 87. The returns by customer
class are shown below:

9	Residential Service	-5.729%
10	Small Firm General Service	6.097%
11	Large Firm General Service	18.148%
12	Small Interruptible Sales & Transportation	30.133%
13	Large Interruptible Sales & Transportation	27.610%

- 14 Q. Please describe the information provided in Statement O, Part B.
- 15 A. Statement O, Part B, consists of twelve pages of illustrative charts and graphs
- 16 depicting various aspects of the COSS results and proposed revenue allocation
- 17 by customer class, as required by Rule 38.5.190.

IV. PRINCIPLES OF SOUND RATE DESIGN

18 Q. Please identify the principles of rate design you rely upon as the basis for

19 rate design proposals.

- A. A number of rate design principles or objectives find broad acceptance in utility
 regulatory and policy literature. These include:
- Efficiency;

¹ See Notice of Commission Action, N2020.04.044, Service Date May 26, 2020.

1		Cost of Service;
2		Value of Service;
3		• Stability;
4		Non-Discrimination;
5		Administrative Simplicity; and
6		Balanced Budget.
7		These rate design principles draw heavily upon the "Attributes of a Sound
8		Rate Structure" developed by James Bonbright in Principles of Public Utility
9		Rates. Each of these principles plays an important role in analyzing the rate
10		design proposals of Montana-Dakota.
11	Q.	Please discuss the principle of efficiency.
12	A.	The principle of efficiency broadly incorporates both economic and technical
13		efficiency. As such, this principle has both a pricing dimension and an
14		engineering dimension. Economically efficient pricing promotes good decision-
15		making by gas producers and consumers, fosters efficient expansion of delivery
16		capacity, results in efficient capital investment in customer facilities, and
17		facilitates the efficient use of existing gas pipeline, storage, transmission, and
18		distribution resources. The efficiency principle benefits stakeholders by creating
19		outcomes for regulation consistent with the long-run benefits of competition while
20		permitting the economies of scale consistent with the best cost of service.
21		Technical efficiency means that the development of the gas utility system is
22		designed and constructed to meet the design day requirements of customers
23		using the most economic equipment and technology consistent with design
24		standards.
25	Q.	Please discuss the cost of service and value of service principles.

1 Α. These principles each relate to designing rates that recover the utility's total 2 revenue requirement without causing inefficient choices by consumers. The cost 3 of service principle contrasts with the value of service principle when certain 4 transactions do not occur at price levels determined by the embedded cost of 5 service. In essence, the value of service acts as a ceiling on prices. Where 6 prices are set at levels higher than the value of service, consumers will not 7 purchase the service. This principle puts the concept of SAC, discussed earlier, 8 into practice and is particularly relevant for Montana-Dakota because of the 9 competitive supply alternatives that cap rates under its flex rates.

10

Q. Please discuss the principle of stability.

A. The principle of stability typically applies to customer rates. This principle
suggests that reasonably stable and predictable prices are important objectives
of a proper rate design.

14 Q. Please discuss the concept of non-discrimination.

A. The concept of non-discrimination requires prices designed to promote fairness
and avoid undue discrimination. Fairness requires no undue subsidization either
between customers within the same class or across different classes of
customers.

19 This principle recognizes that the ratemaking process requires 20 discrimination where there are factors at work that cause the discrimination to be 21 useful in accomplishing other objectives. For example, considerations such as 22 the location, type of meter and service, demand characteristics, size, and a 23 variety of other factors are often recognized in the design of utility rates to 24 properly distribute the total cost of service to and within customer classes. This 25 concept is also directly related to the concepts of vertical and horizontal equity.

The principle of horizontal equity requires that "equals should be treated equally"
and vertical equity requires that "unequals should be treated unequally."
Specifically, these principles of equity require that where cost of service is equal
- rates should be equal and, where costs are different – rates should be different.
In this case, this principle is an important requirement that supports MontanaDakota's proposed use of a single monthly Basic Service Charge for all
customers within certain of its tariff schedules.

8 Q. Please discuss the principle of administrative simplicity.

- 9 A. The principle of administrative simplicity as it relates to rate design requires
- 10 prices be reasonably simple to administer and understand. This concept

11 includes price transparency within the constraints of the ratemaking process.

Prices are transparent when customers are able to reasonably calculate and
 predict bill levels and interpret details about the charges resulting from the

14 application of the tariff.

15 Q. Please discuss the principle of the balanced budget.

A. This principle permits the utility a reasonable opportunity to recover its allowed
revenue requirement based on the cost of service. Proper design of utility rates
is a necessary condition to enable an effective opportunity to recover the cost of
providing service included in the revenue authorized by the regulatory authority.
This principle is very similar to the stability objective that I previously discussed
from the perspective of customer rates.

Q. Can the objectives inherent in these principles compete with each other at
times?

A. Yes, like most principles that have broad application, these principles can
compete with each other. This competition or tension requires further judgment

to strike the right balance between the principles. Detailed evaluation of rate
design alternatives and rate design recommendations must recognize the
potential and actual competition between these principles. Indeed, Bonbright
discusses this tension in detail. Rate design recommendations must deal
effectively with such tension. For example, as noted above, there are tensions
between cost and value of service principles.

Q. Please describe the conflict between marginal cost price signals and the
 recovery of the utility's revenue requirement.

9 Α. The conflict between proper price signals based on marginal cost and the 10 balanced budget principle arises because marginal cost is below average cost 11 due to economies of scale. Where fixed delivery service costs do not vary with 12 the volume of gas sales, marginal costs for delivery equal zero. Marginal 13 customer costs equal the additional cost of the customer accessing the entire 14 gas delivery system. Marginal cost tends to be either above or below average 15 cost in both the short run and the long run. This means that marginal cost-based 16 pricing will produce either too much or too little revenue to support the utility's 17 total revenue requirement. This suggests that efficient price signals may require 18 a multi-part tariff designed to meet the utility's revenue requirements while 19 sending marginal cost price signals related to gas consumption decisions. 20 Properly designed, a multi-part tariff may include elements such as access 21 charges, facilities charges, demand charges, consumption charges, and the 22 potential for revenue credits.

In the case of a local distribution company ("LDC") such as Montana Dakota, for residential and small commercial customers, the combination of scale
 economies and class homogeneity may permit the use of a single fixed monthly

1 charge that meets all of the requirements for an efficient rate that recovers the 2 utility's revenue requirement that is derived on an embedded cost basis. For 3 larger customers, a combination of these elements permits proper price signals 4 and revenue recovery; however, the tariff design becomes more difficult to 5 structure and likely will no longer meet the requirements of simplicity. Therefore, 6 sacrificing some economic efficiency for a customer class in order to maintain 7 simplicity represents a reasonable compromise. For larger customers, the added 8 complexity of a demand charge may not be a concern. Further, for the largest 9 customers, the cost of metering is customer-specific and each customer creates 10 its own unique requirements for gas distribution service based on factors such as 11 distance from the utility's city gate, pressure requirements, and contract demand 12 levels.

13 Q. Are there other potential conflicts?

A. Yes. There are potential conflicts between simplicity and non-discrimination and
between value of service and non-discrimination. Other potential conflicts arise
where utilities face unique circumstances that must be considered as part of the
rate design process.

- 18 Q. Please summarize Bonbright's three primary criteria for sound rate design.
- 19 A. Bonbright identifies the three primary criteria for sound rate design as follows:
- Capital Attraction

22

- Consumer Rationing
 - Fairness to Ratepayers

23 These three criteria are basically a subset of the list of principles above and

24 serve to emphasize fundamental considerations in designing public utility rates.

25 Capital attraction is a combination of an equitable rate of return on rate base and

1		the reasonable opportunity to earn the allowed rate of return. Consumer
2		rationing requires that rates discourage wasteful use and promote all
3		economically efficient use. Fairness to ratepayers reflects avoidance of undue
4		discrimination and equity principles.
5	Q.	How are these principles translated into the design of retail gas rates?
6	A.	The process of developing rates within the context of these principles and
7		conflicts requires a detailed understanding of all the factors that impact rate
8		design. These factors include:
9		System cost characteristics such as established in the COSS required by
10		the Commission, or embedded customer, demand, and commodity
11		related costs by type of service;
12		Customer load characteristics such as peak demand, load factor,
13		seasonality of loads, and quality of service;
14		Market considerations such as elasticity of demand, competitive fuel
15		prices, end-use load characteristics, and LDC bypass alternatives; and
16		Other considerations such as the value of service ceiling/marginal cost
17		floor, unique customer requirements, areas of underutilized facilities,
18		opportunities to offer new services and the status of competitive market
19		development.
20		In addition, the development of rates must consider existing rates and the
21		customer impact from modifications to the rates. In each case, a rate design
22		seeks to recover the authorized level of revenue based on the billing
23		determinants expected to occur during the test period used to develop the rates.
24		The overall rate design process, which includes both the apportionment of
25		the revenues to be recovered among customer classes and the determination of

rate structures within customer classes, consists of finding a reasonable balance
between the above-described criteria or guidelines that relate to the design of
utility rates. Economic, regulatory, historical, and social factors all enter into the
process. In other words, both quantitative and qualitative information is
evaluated before reaching a final rate design determination. Out of necessity
then, the rate design process has to be, in part, influenced by judgmental
evaluations.

V. <u>DETERMINATION OF PROPOSED CLASS REVENUES</u>

8 Q. Please describe the approach generally followed to allocate Montana-

9 Dakota's proposed revenue increase of \$8.6 million to its customer classes.

A. As just described, the apportionment of revenues among customer classes
consists of deriving a reasonable balance between various criteria or guidelines
that relate to the design of utility rates. The various criteria that were considered
in the process included: (1) cost of service; (2) class contribution to present
revenue levels; and (3) customer impact considerations. These criteria were
evaluated for Montana-Dakota's customer classes.

16 Q. Did you consider various class revenue options in conjunction with your

17 evaluation and determination of Montana-Dakota's interclass revenue

18 proposal?

A. Yes. Using Montana-Dakota's proposed revenue increase, and the results of its
 COSS, I evaluated a few options for the assignment of that increase among its
 customer classes and, in conjunction with Montana-Dakota personnel and
 management, ultimately decided upon one of those options as the preferred
 resolution of the interclass revenue issue. The benchmark option that I
 evaluated under Montana-Dakota's proposed total revenue level was to adjust

1 the revenue level for each customer class so that the revenue-to-cost for each 2 class was equal to 1.00 (Unity), as shown in Exhibit No. (RJA-1), Proposed 3 Revenue Allocation, under *Revenues at Equalized Rates of Return*. As a matter 4 of judgment, it was decided that this fully cost-based option was not the preferred 5 solution to the interclass revenue issue. This decision was also made in 6 consideration of the Bonbright rate design criteria discussed earlier. It should be 7 pointed out, however, that those class revenue results represented an important 8 guide for purposes of evaluating subsequent rate design options from a cost of 9 service perspective.

10 A second option I considered was assigning the increase in revenues to 11 Montana-Dakota's customer classes based on an equal percentage basis of its 12 current non-gas revenues (see Scenario A, Equal Percentage Increase, in Exhibit 13 No.____ RJA-1). By definition, this option resulted in each customer class 14 receiving an increase in revenues. However, when this option was evaluated 15 against the COSS Study results (as measured by changes in the revenue-to-cost 16 ratio for each customer class); there was no movement towards cost for most of 17 Montana-Dakota's customer classes (*i.e.*, there was no convergence of the 18 resulting revenue-to-cost ratios towards unity or 1.00). In fact, the disparity in 19 cost responsibility between the classes was widened. While this option was not 20 the preferred solution to the interclass revenue issue, together with the fully cost-21 based option, it defined a range of results that provides further guidance to 22 develop Montana-Dakota's class revenue proposal.

A third option was to exempt the customer classes that are above parity
 under current rates from receiving any revenue increase. This option would
 preserve the current parity ratios for the larger non-residential classes: Large

Firm General, Small Interruptible Sales & Transportation and Large Interruptible
 Sales & Transportation (see *Scenario B, No Class Increase Above Parity*, in
 Exhibit No.____ RJA-1).

4 Q. What was the result of this process?

5 Α. After further discussions with Montana-Dakota, I concluded that the appropriate 6 interclass revenue proposal would consist of adjustments, in varying proportions, 7 to the present revenue levels in all of Montana-Dakota's customer classes: 8 Residential Service (Tariff Schedules 60), Small General Service (Tariff Service 9 70), Large Firm General Service (Tariff Service 70), Small Interruptible Sales & 10 Transportation Service class (Tariff Schedules 71 and 81) and Large Interruptible 11 Sales & Transportation Service (Tariff Schedule 82 and 85), as shown in Exhibit 12 No.____ RJA-1 as Proposed Class Revenues. In the case of the Residential 13 Service class, the revenue adjustment ensures their proposed rates will move 14 class revenues closer to the COSS for the class. Not only was the Residential 15 Service class below unity (< 1.00 revenue-to-cost ratio) in the COSS results, it 16 produced a negative class rate of return ("ROR") at -5.729%. The proposed 17 revenue increase to the residential class will improve the class' revenue to cost 18 ratio from 0.62 to 0.89. While the Small Firm General Service class' rate of return 19 at current rates was 6.097%, its revenue-to-cost ratio was just below unity (0.98) 20 at the Company's proposed ROR of 7.360%. The proposed revenue increase to 21 this class will result in a revenue-to-cost ratio just above parity at 1.05.

The COSS results for the three remaining customer classes indicate their respective class rates of return are above the system average rate of return at both the Company's current and proposed ROR levels. While this would suggest the need for revenue decreases in order to move many of these customer

1 classes closer to cost (*i.e.*, convergence of the resulting revenue-to-cost ratios 2 towards unity or 1.00, as shown in Exhibit No.____ RJA-1 under Revenues at 3 Equalized Rates of Return, the resulting customer impact implications for the 4 Residential Service class has led me to conclude, in consultation with the 5 Company, to refrain from revenue reductions for the remaining customer classes, 6 or alternatively, exempting these classes from revenue increases (Scenario B). 7 Instead, the proposed respective revenue adjustments will mean these three 8 classes will remain at or near their current parity ratio levels relative to unity.

9 The resulting allocation of the total revenue increase of \$6,445,074, 10 excluding the property tax tracker, to the respective rate classes is presented in 11 Statement M, page 2 of 9. The revenue increase percentages range from 12 16.44% to Residential, 2.94% to Small Firm General, 2.26% to Large Firm 13 General, 5.01% to Small Interruptible, and 0.89% to Large Interruptible.

In summary, this preferred revenue allocation approach resulted in
reasonable movement of the Residential class revenue-to-cost ratio toward unity
or 1.00, while providing moderation of the revenue impact on this class by
requiring some level of revenue increase responsibility from all customer classes
for the Company's total proposed revenue requirement. From a class cost of
service standpoint, this type of class movement, and modest reduction in the
existing class rate subsidies, is desirable.

Exhibit No.___(RJA-2), Revenues at Current and Proposed Rates, presents summaries by customer class of the proposed revenue increase. This exhibit displays the revenues calculated under the present and proposed rates for each customer class / tariff rate schedule. The proposed revenue increase by class and corresponding percentage is also shown.

VI. MONTANA-DAKOTA'S RATE DESIGN PROPOSALS

1 Q. Please summarize Montana-Dakota's proposed rate design changes. 2 Α. I will present the specific rate design changes and supporting rationale for 3 Montana-Dakota's proposals. Montana-Dakota has proposed the following rate 4 design changes to its current tariff schedules. For customers served under 5 Residential Service (Tariff Schedule 60), Small General Service (Tariff Schedule 6 70); Large General Service (Tariff Schedule 70); and Small Interruptible Sales & 7 Transportation Service (Tariff Schedules 71 and 81), Montana-Dakota proposes 8 to adjust the monthly Basic Service Charges to better reflect the underlying costs 9 of providing basic customer service, as shown on Statement L. Following the 10 revenue increases recovered through the Basic Service Charges, the remaining 11 allocated revenue increases for these customer classes will be recovered in their 12 respective volumetric Delivery Service Charge components. 13 Q. Please describe the proposed changes to the Basic Service Charges for the 14 respective tariff schedules. 15 Α. As seen on page 3 of Statement M the Basic Service Charge under Residential 16 Rate 60 is proposed at \$0.38 per day which reflects an average monthly charge 17 of \$11.55, an increase of approximately \$3.60 per month from the currently 18 effective charge. The proposed charge is only 46% of the customer cost 19 component identified as \$24.82 per month as shown on Statement L, Schedule 20 L-1, page 1, and is only 39% of the total fixed costs assigned to the Residential 21 class of \$29.40 per month, which reflects both the customer and demand 22 components of the class' allocated cost of service. 23

The Basic Service Charge applicable to Firm General Service customers
 with meters rated less than 500 cubic feet per hour is proposed at \$0.60 per day,

1 and \$1.75 per day for customers requiring the larger meters capable of 2 measuring gas flows of 500 cubic feet per hour or greater. The resulting average 3 monthly charges will be \$18.24 and \$53.20 respectively representing an increase 4 of \$4.56 per month in the Basic Service Charge applicable to customers using 5 meters rated less than 500 cubic feet per hour and an increase of \$25.84 per 6 month in the Basic Service Charge for customers requiring meters rated at 500 7 cubic feet per hour or higher. The rate calculations for the Firm General classes 8 are included on page 4 of statement M.

9 The proposed Basic Service Charge applicable to Small Interruptible 10 Sales Transportation Service customers is \$312.00 per month, which represents 11 an increase of \$87.00 per month and brings the charge up to the total allocated 12 customer related costs for the class. The rate calculations for the Small 13 Interruptible Service class are included on page 5 of Statement M. 14 These increases to the Basic Service Charges will provide significant

15 improvement in the recovery of the fixed customer-related costs via fixed16 charges.

17 Q. Do increases in Basic Service Charges, such as those proposed by Montana 18 Dakota, discourage conservation of the natural gas commodity?

A. No. Under the Company's proposed increase to its Residential Basic Service
Charge, customers will continue to have a financial incentive to pursue energy
efficiency measures. The portion of the customer's gas bill represented by the
Company's Basic Service Charge is small relative to the combined total bill,
including the gas commodity charge incurred by the customer. As depicted in the
accompanying Exhibit No.___(RJA-3), the portion of the typical residential

25 customer's annual bill represented by the average Basic Service Charge

1 increase of \$3.60 per month is approximately 7% of the total bill. The effect of 2 raising the proposed Basic Service Charge by \$.12 per day, the equivalent of 3 \$3.72 per month in January, the month in which the most gas is typically 4 consumed by residential heating customers, is only 4% of the total January bill. 5 This is a relatively small amount. The commodity cost of gas² is 57% of the 6 customer's bill in January, which continues to provide a strong economic price 7 signal that may influence the customer's ongoing gas consumption decisions. In 8 my opinion, the relatively small amount of fixed costs added to the Basic Service 9 Charge that would otherwise be recovered in the volumetric Distribution Delivery 10 Charge will not materially affect a customer's decision to use more or less gas. 11 By recovering more of its fixed customer-related costs in the Basic 12 Service Charge, the Company will be able to continue promoting energy 13 efficiency and conservation for its customers while moderately reducing the real 14 threat of margin losses due to declining gas sales per customer. 15 Q. Does a volumetrically weighted rate design provide the most appropriate 16 prices signals to customers related to gas consumption? 17 Α. No. A volumetrically weighted rate design conveys improper price signals to 18 customers because it recovers fixed costs through the volumetric components of 19 the utility's rate structure. When this undesirable situation exists, it can: (1) 20 increase revenue variability due to factors beyond the gas utility's ability to 21 influence; (2) fail to account for cost differences between and within customer 22 classes; (3) promote inefficient use of the gas utility's system; and (4) needlessly 23 inflate bills in the winter months, when customers face the greatest pressure on 24 their household budgets from utility bills. Montana-Dakota's rate design proposal

² Montana-Dakota's proforma cost of gas in the COSS is \$3.753 per Dk.

to increase the level of its Basic Service Charges moves in the right direction to
 minimize these undesirable effects and best aligns the price signals to customers
 with the underlying costs of providing gas delivery service.

A Basic Service Charge that better reflects the level of customer related
costs will result in a customer's annual bill more accurately reflecting the non-gas
revenue amounts approved by the Commission in this rate case, while customers
will recognize the results of their energy conservation efforts in the amount they
pay for the gas commodity in their monthly bills.

9 In summary, a moderately higher Basic Service Charge provides
10 increased bill stability for customers and increased revenue stability for the
11 Company.

12 Q. In view of the Residential Basic Service Charge proposed by the Company,
 13 can you offer any further analysis that would evaluate the magnitude of

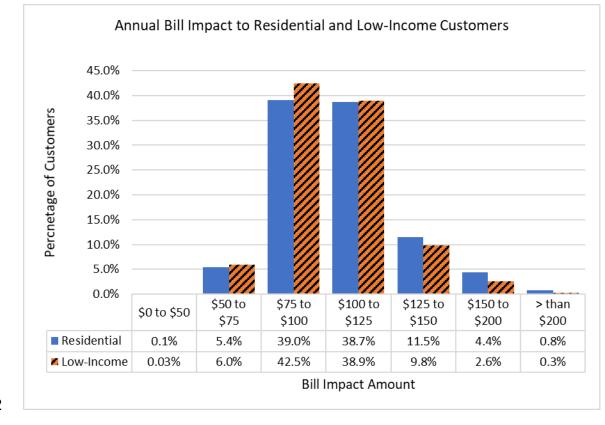
14 increases to which <u>individual</u> customers will be exposed?

- A. Yes. This can generally be assessed by analyzing how a change in rates
 impacts a customer's total bill, rather than the individual rate components, and is
- 17 best analyzed by looking at the sum total of the customer's bills over a twelve-
- 18 month period. The analysis should look at the amount of change in dollars paid
- 19 instead of merely focusing on percentage increases. This is because the
- 20 percentage increase in a smaller bill appears relatively high.
- 21 Q. Have you performed the analysis you recommend for the Company's
- 22 Residential Basic Service Charge proposal?
- A. Yes. Following as *Figure 1*, is a chart showing the impact that an increase from
 current rates to the Company's proposed residential rates, including the
 proposed \$0.38 per day Basic Service Charge, would have on bills paid by

1	Residential customers and Residential low-income customers over a twelve-
2	month period. This chart shows that the majority 77.7% of Residential
3	customers, and 81.4% for Residential low-income customers, would see an
4	annual increase of \$75.00 to \$125.00, an average monthly increase between
5	\$6.25 and \$10.42. An additional 11.5% of Residential customers and 9.8% of
6	low-income customers would see annual increases between \$125.00 and
7	\$150.00. Less than 11% of Residential customers and less than 9% of
8	Residential low-income customers would experience annual bill increases under
9	\$75.00 or exceeding \$150.00, with less than 1% of the customers experiencing
10	annual increases that exceed \$200.00.



Figure 1



12



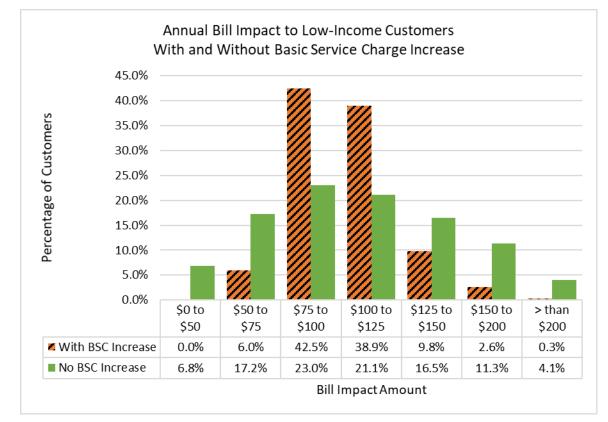
14 Basic Service Charge will have on the bills of low-income customers?

1 Α. Yes. Figure 1 also demonstrates the comparison of the annual bill frequencies of 2 low-income customers with those of the general population of residential 3 customers. Although the Company does not keep records of income 4 characteristics of its customers, it is possible to identify customers who receive 5 bill assistance. Low-income customers generally receive LIHEAP. The Company 6 has provided information on the annual consumption levels of LIHEAP 7 customers. The information presented in Figure 1 shows that the 3,083 LIHEAP 8 customer group had annual usage profiles very similar to those of the larger 9 Residential class. This information addresses a not uncommon perception of 10 low-income customers, which is that they tend to be low-use customers as well. 11 In fact, the chart shows that 81.4% of Residential LIHEAP customers would see 12 an annual increase of \$75.00 to \$125.00, compared to 77.7% of the general 13 population of the Residential class. Only 6% of the LIHEAP group experience an 14 annual increase of \$75.00 or less. 15 Q. Have you evaluated the impact on low-income customers' bills if the 16 Company's proposed revenue increase allocated to Residential customers 17 were collected entirely in the volumetric Delivery Service Charge? 18 Α. Yes. Figure 2 below, provides a side-by-side comparison of the impact to 19 Residential low-income customers from collecting the proposed Residential 20 revenue increase with and without the proposed \$.38 per day increase in the 21 Basic Service Charge. The chart shows how the dispersion of the annual bill 22 increases change when the revenue from the proposed Basic Service Charge 23 increase is moved to the volumetric Delivery Charge. Without the proposed

Basic Service Charge increase, 27.8% of the low-income annual bill increases
will be between \$125.00 and \$200.00; and 4.1% will exceed \$200.00,

representing 125 low-income customers. With the proposed Basic Service
Charge increase, 12.4% of the low-income annual bill increases will be between
\$125,00 and \$200.00, less than half the corresponding percentage under the "No
BSC Increase" scenario; and 0.3% will exceed \$200.00, representing only 8 lowincome customers. Under the "No BSC Increase" scenario, 6.8% of low-income
customers would experience an annual bill increase of \$0 - \$50.00.

Figure 2





7

9 Q. Is Montana-Dakota proposing changes to the Basic Service Charge

10 applicable to the Large Interruptible Sales & Transportation Service Tariff?

11 A. No. The proposed revenue increase to this customer class will be recovered in

- 12 the Distribution Delivery Charges for Tariff Schedules 82 and 85. The current
- 13 Basic Service Charge of \$567.25 under these Tariff Schedules fully recovers the

1	allocated customer related costs for the class and further contributes a modest
2	amount toward the class' allocated demand related costs.

VII. CUSTOMER BILL IMPACTS

Q. Has Montana-Dakota prepared bill comparisons for its Residential Service customers?

- A. Yes. The monthly and annual bill impacts for a typical Residential customer
 using 77 dekatherms (Dk) per year is shown on page 1 of Exhibit No.___(RJA-3),
 Residential and Firm General Service Bill Comparisons. The average monthly
 increase for this residential customer under the Company's proposed rate design
 is \$8.24 or 19.83%.
- 10 Q. What are the corresponding bill comparisons for Montana-Dakota's Small

11 Firm General and Large Firm General customers?

- 12 A. The monthly and annual bill impacts for a typical Small Firm General customer
- 13 using 155 Dk per year is shown on page 2 of Exhibit No.___(RJA-3). The
- 14 average monthly increase for this residential customer under the Company's
- 15 proposed rate design is \$3.43 or 3.97%. The monthly and annual bill impacts for
- 16 a typical Large Firm General customer using 1,165 Dk per year is shown on page
- 17 3 of the exhibit. The average monthly increase for this residential customer
- 18 under the Company's proposed rate design is \$18.24 or 3.26%.
- 19 A presentation of the annual billing impacts for the Residential and Firm
- 20 General Service classes is provided in Pages 7-9 of Statement M.
- 21 Q. Does this conclude your direct testimony?
- 22 A. Yes.



ATRIUM ECONOMICS

Ronald J. Amen Managing Partner, Atrium Economics LLC

Mr. Amen has over 40 years of combined experience in utility management and consulting in the areas of regulatory support, resource planning, organizational development, distribution operations and customer service, marketing, and systems administration.

He has advised gas, electric and water utility clients in the following areas: regulatory policy, strategy and analysis; cost of service studies (embedded and marginal cost analyses); rate design and pricing issues including timeof-use rates, revenue decoupling, weather normalization and other cost tracking mechanisms; resource strategy, planning and financial analysis; and business process design, evaluation and organizational structures. Mr. Amen has provided expert testimony in numerous state and provincial regulatory agencies, and the Federal Energy Regulatory Commission. Prior to establishing Atrium Economics in 2020, Mr. Amen's consulting experience included Director Advisory & Planning at Black & Veatch Management Consulting, LLC, Vice President of Concentric Energy Advisors, Inc. and Director with Navigant Consulting, Inc. His prior utility experience includes leadership of State and Federal Regulatory Affairs at two electric and gas utilities, and management positions in Regulatory Affairs, Information Systems and Distribution Operations.

REPRESENTATIVE PROJECT EXPERIENCE

Regulatory Policy, Strategy and Analysis

Western Export Group (2019)

In a Nova Gas Transmission, LTD. (NGTL) Rate Design and Service Application before the Canadian National Energy Board, Mr. Amen led a consulting team supporting the interests of the Western Export Group, a group of nine utility companies located in the Western U.S. and British Columbia who are export shippers on the NGTL system.

Regulatory Commission of Alaska (2019 – 2020)

Part of a multi-functional team that assisted the Regulatory Commission of Alaska (RCA) in its evaluation of the Chugach Electric Association, Inc's acquisition of the Municipal of Anchorage d/b/a Municipal Light & Power Department. Assisted the RCA with its evaluation of the long-term benefits of the transaction to ML&P and Chugach customers, the implication of terms and assumptions in various agreements, and the careful balance of the fiscal and regulatory implications for the customers of the combined entity.

EDUCATION

Bachelor of Science, Business Administration, Finance and Economics, University of Nebraska– Lincoln, 1978, United States

YEARS EXPERIENCE

PROFESSIONAL ASSOCIATIONS American Gas Association

Southern Gas Association

RELEVANT EXPERTISE

Financial Analysis; Litigation Support; Regulatory Support; Strategy; Utility Operations

CPS Energy (2017 – 2018)

Provided an overall review of the client's Strategic Roadmap to prioritize its multi-year regulatory initiatives. (e.g., changes in product and service offerings, restructuring of current rate classes, introduction of new rate structures, rate levels, and tariff provisions). Current pricing processes and platforms assessed to identify recommended enhancements to enable the development and implementation of dynamic pricing concepts. Assisted client with preparation of next rate case (e.g., costing and pricing analyses, load forecasting, internal communications, and stakeholder engagement).

FortisBC Energy, Inc. (2016 – 2018)

Performed an overall review of the client's Transportation Service Model. Analyzed the client's various midstream transportation and storage capacity resources used in providing balancing of transportation customers' loads. Review included the physical diversity, functionality and flexibility provided by the various capacity resources, and the cost impact caused by transportation customers' imbalance levels. Conducted an industry-wide benchmarking study of current industry-wide best practices, by regulatory jurisdiction, related to transportation balancing tariff provisions. Participated in stakeholder workshops and testified before the BCUC.

McDowell Rackner & Gibson Law Firm (2015 – 2016)

Provided due diligence services to the law firm in connection with a state utility commission investigation into the law firm client's gas storage and optimization activities. Provided an independent opinion as to the likely outcome of the Commission's ongoing investigation.

Gulfport Energy Corporation (2016)

Provided regulatory analysis and support to Gulfport Energy Corporation in the ANR Pipeline Company Natural Gas Act §4 rate proceeding before the Federal Energy Regulatory Commission (FERC). Analyzed as-filed cost of service and rate design to identify key cost of service, cost allocation, rate design and service related/tariff issues. Developed an integrated cost of service and rate design model to prepare studies on client issues. Prepared best/worst case litigation outcomes, discovery and evaluations of discovery of other parties. Analyzed FERC staff top sheets and settlement offers; and assisted in the preparation of settlement positions.

Confidential Financial / Energy Partners (2015)

Provided regulatory due diligence support for client related to a proposed merger with a multijurisdictional gas/electric company including an evaluation of the regulatory landscape in the various applicable state jurisdictions, recent regulatory decisions, and current regulatory issues.

Confidential International Energy Company (2014)

Provided regulatory due diligence support for client related to a proposed merger with a multijurisdictional gas company including an evaluation of the regulatory landscape in the various applicable state jurisdictions, recent regulatory decisions, and current regulatory issues.

Pacific Gas & Electric Company (2014)

Developed an extensive industrywide benchmarking study to determine the cost allocation and ratemaking treatment utilized by Local Distribution Companies (LDCs) in the United States for recovery of gas transmission costs. Benchmarked cost allocation and rate design utilized by Interstate/Intrastate Pipelines. Benchmarked how Industrial & Electric Generation customers are served with natural gas.

Public Service Company of New Mexico (2009-2010)

Provided case management, revenue requirement, cost of service and rate design support for general rate cases in the utility's two state regulatory jurisdictions. Issue management and policy development included an electric fuel and purchased power cost mechanism, recovery of environmental remediation costs for a coal fired power plant, and the valuation of renewable energy credits related to a wind power facility.

Confidential International Energy Company (2009)

Provided due diligence on behalf of client related to the purchase of a gas/electric utility, including a review of the regulatory and market-related assumptions underlying the client's valuation model, resulting in the validation of the model and identification of key business risks and opportunities.

Resource Planning, Strategy and Financial Analysis

Fortis BC Energy, Inc. (2011)

Retained to help develop a gas supply incentive mechanism in cooperation with the British Columbia Utilities Commission staff and the company's other stakeholders. Provided an independent analysis of the utility's management of pipeline and storage capacity and supply. Part of this work entailed a review of the major markets in which the utility transacted, reviewing the size of trading activity at the major market hubs and reviewing the price indices for these markets.

Black Hills Colorado Electric Utility (2009)

Engaged as a member of a consultant team that served as the independent evaluator in a competitive solicitation for non-intermittent generation resources. Jointly recommended by the utility client, the staff of the utility commission and the state attorney general, the consulting team acted as an agent of the public utility commission monitoring and overseeing the solicitation, which included reviewing the request for proposals and solicitation process, including provisions of the power purchase agreement, preliminary review (economic and contractual) of bids received from the request for proposals, initial modeling of bids for screening, selection of bidders with whom to conduct negotiations and oversight of the negotiation process, and the ultimate selection of the winning bid. Provided due diligence review of all input data, preliminary and final model output, and output summaries. The team produced biweekly confidential reports to the commission regarding the process and its results.

NW Natural (2007-2008)

Assisted with the development of its long-term Integrated Resource Plan (IRP) for its Oregon and Washington service territories. The IRP included the evaluation of incremental inter- and intra-state pipeline capacity, underground storage, and two proposed LNG plants under development in the region.

Puget Sound Energy (2007)

Engaged to assist the client with the development of a natural gas resource efficiency and direct enduse strategy, an interdepartmental initiative focused on preparing a natural gas resource efficiency plan that optimizes customers' end-use energy consumption while furthering corporate customer, financial, environmental, and social responsibilities.

Puget Sound Energy (2002 – 2 003)

Provided resource planning strategy and analysis for the company's Least Cost Plan, including a review of the company's underlying 20-year electric and gas demand forecasts. As a member of a consulting team, served as the client's financial advisor for the acquisition of new electric power supply resources. Conducted a multitrack solicitation process for evaluation of generation assets and purchase power agreements. Provided regulatory support for the acquisition.

Cost Allocation, Pricing Issues and Rate Design

Kansas City, KS Board of Public Utilities (2019 – 2020) (pending)

Provided expert witness testimony supporting the basis for a Green Energy Program, its objectives and overall benefits. Provide an assessment of how the program is aligned with best practices in design of Green Energy tariff programs nationally. Testimony also provided an assessment of how the program mitigates potential risks the to the Board of Public Utilities and protects against subsidization of other rate classes.

NW Natural (2018 – 2019)

Provided cost of service, class revenue apportionment, rate design, and expert witness support for the gas utility's general rate case before the Washington Utility and Transportation Commission (WUTC), filed in December 2018. Testimony included theoretical principals and practical application of cost allocation, and rate design principles or objectives that have broad acceptance in utility regulatory and policy literature.

Chesapeake Utilities Corporation (2018 – 2019)

Developed a Weather Normalization Adjustment (WNA) mechanism applicable to the monthly billings of Chesapeake's residential and general service customers. Sponsored the WNA mechanism through expert testimony filed with the Delaware Public Service Commission in January 2019. The testimony included a description of the WNA calculations; back-casting performance analyses, with bill impacts; a WNA tariff; and conceptual and evidentiary support for this ratemaking mechanism.

Louisville Gas & Electric Company and Kentucky Utilities Company (2018)

Engaged by LG&E and KU to a conduct a study in support of a joint utility and stakeholder collaborative concerning economical deployment of electric bus infrastructure by the transit authorities in the Louisville and Lexington KY areas, as well as possible cost-based rate structures related to charging stations and other infrastructure needed for electric buses.

Summit Utilities – Colorado Natural Gas, Inc. (2018)

Engaged by Summit Utilities to develop and support with expert testimony an appropriate normal weather period for the client's five Colorado temperature zones, resulting normalized billing determinants, and a Weather Normalization Adjustment ("WNA") proposal in conjunction with the filing of a general rate case for its Colorado Natural Gas, Inc. subsidiary.

Westar Energy (2018)

Provided cost of service and expert witness support for the electric utility's general rate case filing before the Kansas Corporation Commission (KCC). The cost of service study determined the cost components for a new Residential Distributed Generation (DG) customer class that provided the basis for recommendations for establishing components of a sound, modern three-part rate design for this new Residential DG (roof-top solar) service, which was approved by the KCC.

Florida Public Utilities (Chesapeake Utilities) (2017 – 2018)

Provided a rate stratification study of the utility's commercial and industrial customer classes to facilitate the reconfiguration of the classes by size of service facilities, annual volume, and load factor. Reviewed the cost allocation bases and recommended alternatives for recovery of capital investments related to the utility's Gas Reliability Investment Program (GRIP).

Tacoma Power (2016 – 2018)

Provided cost of service and rate design support for the electric utility's general rate case filings, including support for recovery of fixed costs through fixed charges and impacts on low income customers. Provided recommendations as to specifications in the client's cost of service analysis (COSA) model for deriving Open Access Transmission Tariff rates, using FERC approved standards to guide the evaluation. Conducted an electric utility costing and pricing workshop for the PUB in October 2017; and participated with Tacoma Utilities staff in a comprehensive electric and water Rates and Financial Planning workshop in February 2018. Engagement was extended for the 2019 – 2020 rate filing, which will incorporate the Black & Veatch municipal COSA model for costing and ratemaking purposes. Currently working with Tacoma Power for the potential incorporation of financial forecasting capabilities and revenue requirements development into the COSA model. Future project work involves working on the re-design of the general service and industrial rate schedules, economic development rate strategies, demand response rates, and other innovative rate programs.

Tacoma Power (2017)

Engaged to review and assess current rates for 3rd Party Pole Attachments (PA), and more specifically, to determine and recommend if any rate adjustments were needed. Performed several tasks:

- Performed a market survey of rates charged by comparable utilities;
- Reviewed current regulations on rate setting and practice for 3rd Party Pole Attachments as set forth by the Federal Communications Commission (FCC) and the State of Washington (WA), and the interpretation of such regulations in court decisions;
- Reviewed industry best practices under the FCC, WA, and the American Public Power Association (APPA);
- Collected and reviewed data for cost-based fees including:
 - Application Fees
 - Non-Compliance Fees
- Reviewed cost data supplied by the City of Tacoma as relates to determining pole costs; and
- Performed modeling of rates under the FCC Model, the APPA model and the State of Washington shared model (50 % FCC Rate/ 50% APPA Rate).

BC Hydro (2016)

Provided research and analysis of the line extension policies of a select group of peer utilities in Canada with similar regulatory regimes as well as U.S. utilities based on their geographic relationship to the client. Conducted interviews with peer utilities to gather comparative information regarding their line extension policies and related internal procedures. Performed a comparative analysis of the various line extension policies from the selected peer group.

Cascade Natural Gas Corporation (2015 – 2019)

Provided cost of service and rate design support for several of the company's general rate case filings in its two state jurisdictions, 3 in Oregon and 2 in Washington. Conducted Long-run Incremental Cost Studies in the Oregon jurisdiction and embedded class allocated cost of service studies in the Washington jurisdiction. Performed benchmark analyses to compare each of the client's administrative and general (A&G) and operations and management (O&M) expenses, on a percustomer basis, to various peer groups. Analyses were performed for natural gas utilities and combination utilities with both electric and gas operations. Various iterations of the analyses were prepared to make the peer group of utilities more comparable to the characteristics of the client's utility operations. Represented the client's interests in a Washington generic rulemaking proceeding on the subject of electric and gas cost of service methodologies and minimum filing requirements.

Chesapeake Utilities (2015 – 2016)

For its Delaware jurisdiction, provided cost of service and rate design support in the client's general rate case proceeding, including expert witness testimony in support of the utility's proposed gas revenue decoupling mechanism.

Homer Electric Association / Alaska Electric and Energy Cooperatives (2015)

Represented clients in an ENSTAR gas general rate proceeding. Testimony discuss accepted industry principles of revenue allocation and rate design, including the applicability to and alignment with ENSTAR's revenue allocation and rate design proposals for large power and industrial customers. Provided a critique of certain methodological aspects of ENSTAR's Cost of Service study, proposed revenue allocation, and rate design relating to the various large power and industrial customers.

Arkansas Oklahoma Gas Corporation (2002, 2003, 2004, 2007, 2012, 2013)

Provided cost of service and rate design support for several of the company's general rate case filings in its two state jurisdictions and in support of Section 311 transportation filings (2007, 2010) before the Federal Energy Regulatory Commission. Provided related research, design and expert witness testimony in support of a Revenue Decoupling mechanism in one jurisdiction and a Weather Normalization Adjustment mechanism in the other jurisdiction, along with a significant increase in fixed charges and the introduction of demand charges for the company's largest customer classes. Conducted a pre-filing "decoupling" workshop for the utility commission staff.

Northern Indiana Public Service Company (NiSource) (2009 – 2010, 2013, 2017)

Conducted class allocated cost of service studies for the client's natural gas (including two other affiliate gas utilities) and electric operations. Work included reconfiguring the Company's commercial and industrial customer classes according to size of load and customer-related facilities. Rate design was modernized to recover a greater portion of fixed costs via fixed monthly customer and demand-based charges, a transition to a "Straight-Fixed Variable" form of rate design. Industry research was provided on alternative rate designs for the electric service, including Time-of-Use rates and Critical Peak Pricing. Served as an expert witness on behalf of the client in four general rate cases before the Indiana Utility Regulatory Commission.

Southwestern Public Service Company (Xcel) (2012)

Retained to conduct a study to estimate the conservation effect of replacing its existing electric residential rate design with an alternative rate design such as an inverted block rate design. Reviewed inclining block rate structures that have actively been employed in other jurisdictions and also reviewed technical and academic literature to assess the elasticity of electricity demand for residential

customers in the southwestern U.S. Analyzed 2009-2011 residential data to determine what sort of conservation effect the company may expect by implementing an inclining block rate structure. Provided an overview of alternative rate structures which may also promote conservation effects, such as seasonal rates, three-part rates and time-of-use (TOU) rates, and considered the competing incentives of promoting conservation and cost recovery, without specific rate mechanisms to address this conflict.

Atlantic Wallboard LP and Flakeboard Company Limited (JD Irving) (2012)

Represented clients in an Enbridge Gas New Brunswick Limited Partnership ("EGNB") general rate proceeding. Testimony responded to the 2012 allocated cost of service study and rate design that was submitted to the New Brunswick Energy and Utilities Board by EGNB. Testimony also provided benchmark information regarding EGNB's distribution pipeline infrastructure in New Brunswick. CA.

Western Massachusetts Electric Company (Northeast Utilities) (2010 – 2011)

Supported utility in its decoupling proposal for the company's general rate case. Work included: 1) research on the financial implications of decoupling; 2) identification of decoupling mechanism details to address company and regulatory requirements and objectives; 3) identification of rate adjustment mechanisms that would work together with the company's proposed decoupling mechanism; and 4) preparing pre-filed testimony and testifying at hearings in support of the company's decoupling and rate adjustment proposals. The proposed rate adjustment mechanisms included an inflation adjustment mechanism based on a statistical analysis, and a capital spending mechanism to recover the costs associated with capital plant investment targeted to improving service reliability.

Interstate Power & Light (Alliant Energy) (2010 – 2011)

Conducted class allocated cost of service studies for a Midwestern electric utility's Minnesota electric system. Work included reconfiguring the company's customer classes for cost of service purposes to collapse end-use based classes with the classes to which they would be eligible. Cost of service studies were performed on a before-and-after basis for the existing and proposed classes. The cost of service studies included a fixed/variable study for production costs, and a primary/secondary study for poles, transformers and conductors. Performed a TOU analysis to determine the appropriate rate differentials for its peak and off-peak rates. Served as an expert witness on behalf of the client in a general rate case before the Minnesota Public Service Commission.

National Grid (2010)

Conducted class allocated cost of service studies for the client's Massachusetts natural gas operations. This task included combined gas cost of service studies for the consolidation of four gas service territories into two gas utility subsidiaries. During interrogatories, performed four separate allocated cost of service studies for each gas service territory. Work included reconfiguring the company's commercial and industrial customer classes according to size of load and customer-related facilities. Served as an expert witness on behalf of the client in consolidated general rate cases before the Massachusetts Department of Public Utilities.

Puget Sound Energy (2001 – 2002, 2006 – 2007, 2019 – 2020)

In three Washington general rate proceedings, provided cost of service and rate design support, including expert witness testimony in support of the utility's proposed revenue decoupling mechanism. Conducted research on accelerated cost recovery mechanisms for infrastructure replacement, and electric power cost adjustment mechanisms. In a pending general rate case, Mr. Amen is sponsoring expert testimony on a proposed revenue attrition adjustment to the client's revenue requirement.

Utility System Operations and Organizational Development

Philadelphia Gas Works (2017, 2020)

Engaged to provide an independent consulting engineer's report to be included as an appendix to the official statement prepared in connection with the issuance of the City of Philadelphia, Pennsylvania Gas Works Revenue Bonds. The evaluation of the PGW system included a discussion of organization, management, and staffing; system service area; supply facilities; distribution facilities; and the utility's Capital Improvement Plan (CIP). Our report also contained: (a) financial feasibility information, including analyses of gas rates and rate methodology; (b) projection of future operation and maintenance expenses; (c) CIP financing plans; (d) projection of revenue requirements as a determinant of future revenues; (e) an assessment of PGW's ability to satisfy the covenants in the General Gas Works Revenue Bond Ordinance of 1998 authorizing the issuance of the Bonds; and (f) information regarding potential liquefied natural gas ("LNG") expansion opportunities.

Puget Sound Energy (2013 – 2014)

Engaged to perform a review of its project management and capital spending authorization processes (CSA). The overall project objectives were to educate project management (PM) staff as to the importance and relevance of regulatory prudence standards, evaluate existing PM processes along with newly introduced corporate CSA processes, and propose PM and corporate process and documentation efficiencies. This task was accomplished through 1) a situational assessment and risk review; 2) analysis of project management practices; and 3) development of common documentation for the CSA and PM processes.

Puget Sound Energy (2012 – 2013)

Engaged to perform a review of how the company compares to similarly-situated utilities in the areas of the underlying capitalized costs related to new customer additions ("new business investment") and the management policies and practices that influence the new business capital investment. Examined the interrelationships of our client's management policies and practices in the functional areas related to new business investment and developed an understanding of the nature of the costs captured by the new business investment process. Benchmarked those costs relative to peers' cost factors and management capital expenditure practices and performed targeted peer group interviews on our client's behalf. The review identified certain trends and/or interrelationships between management policies and practices, as well as other exogenous factors, and the resulting impact on new business investment.

Puget Sound Energy (2011 – 2012)

Engaged to perform a review of its electric transmission planning and project prioritization process. The emphasis of the review was to determine if the process implemented by the client could be expected to meet the regulatory standard of prudence, as adopted by the state regulatory commission. Reviewed the prudence standard adopted by the commission in several recent regulatory proceedings, supplemented by our knowledge of the prudence standard adopted at a national level and in other states. The engagement included two phases: 1) an initial situation assessment of the existing process employed by the client, and 2) a review of the historic implementation of that process by reviewing a sampling of transmission projects. Compiled and provided examples of capital planning documents and procedures, viewed as "best practices," from other electric utilities and other relevant transmission entities.

Alliant Energy (2011 – 2012)

Provided audit support for one of the company's gas and electric utilities, Interstate Power & Light, during a management audit ordered by one of its two regulatory jurisdictions. Conducted a pre-audit of distribution operations and resource planning processes to provide the client with potential audit issues. Assisted the client throughout the audit process in responding to information requests, preparing company executives and management personnel for audit interviews, and management of preliminary audit issues and findings by the independent audit firm.

Ameren Illinois Utilities (2009 – 2010)

Performed a number of benchmark analyses to compare each of the client's A&G and O&M expenses, on a per-customer basis, to various peer groups conducted for the client's natural gas and electric operations. Analyses were performed for natural gas, electric and combination utilities with both electric and gas operations. Various iterations of the analyses were prepared to make the peer group of utilities more comparable to the characteristics of the client's utility operations. Served as an expert witness on behalf of the client in a consolidated general rate case proceeding of its three utility subsidiaries before the Illinois Commerce Commission.

EXPERT WITNESS TESTIMONY PRESENTATION

- Alaska Regulatory Commission
- Arkansas Public Service Commission
- British Columbia Utility Commission (Canada)
- Colorado Public Utility Commission
- Connecticut Department of Public Utility Control
- Delaware Public Service Commission
- Illinois Commerce Commission
- Indiana Utility Regulatory Commission
- Kansas Corporation Commission
- Massachusetts Department of Utilities
- Minnesota Public Utilities Commission
- Missouri Public Service Commission
- Montana Public Service Commission
- New Brunswick Energy and Utilities Board (Canada)
- Oklahoma Corporation Commission
- Oregon Public Utility Commission
- Pennsylvania Public Utility Commission
- Washington Utilities and Transportation Commission
- Federal Energy Regulatory Commission

SELECTED PUBLICATIONS / PRESENTATIONS

"Enhancing the Profitability of Growth," American Gas Association, Rate and Regulatory Issues Seminar, April 4 - 7, 2004

"Regulatory Treatment of New Generation Resource Acquisition: Key Aspects of Resource Policy, Procurement and New Resource Acquisition," Law Seminars International, Managing the Modern Utility Rate Case, February 17 -18, 2005

"Managing Regulatory Risk – The Risk Associated with Uncertain Regulatory Outcomes," Western Energy Institute, Spring Energy Management Meeting, May 18 - 20, 2005

"Capital Asset Optimization – An Integrated Approach to Optimizing Utilization and Return on Utility Assets," Southern Gas Association, July 18 -20, 2005

"Resource Planning as a Cost Recovery Tool," Law Seminars International, Utility Rate Case Issues & Strategies, February 22 - 23, 2007

"Natural Gas Infrastructure Development and Regulatory Challenges," Southeastern Association of Regulatory Utility Commissioners, Annual Conference, June 4 – 6, 2007

"Resource Planning in a Changing Regulatory Environment," Law Seminars International, Utility Rate Cases – Current Issues & Strategies, February 7 - 8, 2008

"Natural Gas Distribution Infrastructure Replacement," American Gas Association, Rate Committee Meeting and Regulatory Issues Seminar, April 11 – 13, 2010

"Building a T&D Investment Program to Satisfy Customers, Regulators and Shareholders," SNL Webinar, March 27, 2014

"Utility Infrastructure Replacement; Trends in Aging Infrastructure, Replacement Programs and Rate Treatment," Large Public Power Council, Rates Committee Meeting, August 14, 2014

"Natural Gas in the Decarbonization Era, Gas Resource Planning for Electric Generation," EUCI, January 22-23, 2020

MONTANA-DAKOTA UTILITIES CO. PROPOSED REVENUE ALLOCATION GAS UTILITY - MONTANA

	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
Revenue to Cost Ratio Under Current Rates	0.77	0.62	0.98	1.41	1.81	1.82
Revenues at Equalized Rates of Return Revenue Increase excluding tax tracker Total revenue at equalized rates of return (ex. tax tracker) Parity Ratio	6,445,096 28,490,857 1.00	8,308,172 21,669,776 1.00	46,698 2,769,957 1.00	<mark>(1,384,802)</mark> 3,405,168 1.00	<mark>(269,436)</mark> 332,453 1.00	<mark>(255,536)</mark> 313,503 1.00
Secnario A: Equal Percentage Increase System average increase Revenue Increase excluding tax tracker Total revenue at equalized rates of return (ex. tax tracker) Percent Increase Parity Ratio	0 6,445,096 28,490,857 29.24% 1.00	29.24% 3,906,276 17,267,880 29.24% 0.80	29.24% 796,147 3,519,406 29.24% 1.27	29.24% 1,400,352 6,190,322 29.24% 1.82	29.24% 175,963 777,852 29.24% 2.34	29.24% 166,359 735,398 29.24% 2.35
Secnario B: No Class Increase Above Parity Revenue Increase excluding tax tracker Total revenue at equalized rates of return (ex. tax tracker) Percent Increase Parity Ratio	6,445,096 28,490,857 29.24% 1.00	6,398,398 19,760,002 47.89% 0.91	46,698 2,769,957 1.71% 1.00	0 4,789,970 0.00% 1.41	0 601,889 0.00% 1.81	0 569,039 0.00% 1.82
Proposed Class Revenues 25% of system average increase to non-residential Revenue Increase excluding tax tracker Total revenue at equalized rates of return (ex. tax tracker) Percent Increase Parity Ratio	0 6,445,096 28,490,857 29.24% 1.00	0 5,846,082 19,207,686 43.75% 0.89	7.31% 199,037 2,922,296 7.31% 1.05	7.31% 350,088 5,140,058 7.31% 1.51	7.31% 43,553 645,442 7.24% 1.94	7.31% 6,336 575,375 1.11% 1.84

Source: Statement L

MONTANA-DAKOTA UTILITIES CO. REVENUES UNDER CURRENT AND PROPOSED RATES GAS UTILITY - MONTANA Pro Forma 2020 - 2020.06.__

		Pro Forma				Propose	Proposed Total Revenues	enues
				Property Tax	Distribution	Total	÷	%
Customer Class/Rate	Customers 1/	Dk 1/	Revenue 1/	Increase	Increase	Revenue	Increase	Increase
Residential - Rate 60	76,379	5,912,347	\$38,214,247	\$1,724,952	\$5,846,323	\$45,785,522 \$7,571,275	\$7,571,275	19.81%
Firm General Service - Rates 70 & 72	10,004	3,922,806	23,732,899	344,195	548,749	24,625,843	892,944	3.76%
Small Interruptible Sales - Rate 71	18	118,305	420,437					
Transport - Kates 81 Total Small Interruptible	47	615,207 733,512	508,123 988,560	27,463	43,459	1,059,482	70,922	7.17%
Large Interruptible Sales - Rate 85	~	64,013	187,765					
Transport - Rate 82 Total Large Interruptible	4 വ	2,918,891 2,982,904	639,007 826,772	18,031	6,357	851,160	24,388	2.95%
Total Montana	86,435	13,551,569	\$63,762,478	\$2,114,641	\$6,444,888	\$72,322,007	\$8,559,529	13.42%

1/ Rule 38.5.164, Statement H, Page 10.

MONTANA-DAKOTA UTILITIES CO. GAS UTILITY - MONTANA RATE 60 BILL COMPARISON RESIDENTIAL GAS SERVICE Pro Forma 2020 - 2020.06.__

Month	Dk	Present Rate	Proposed Rate	Amount of Increase	% Increase
January	14	\$79.58	\$92.07	\$12.49	15.69%
February	13	73.64	85.13	11.49	15.60%
March	10	59.60	69.90	10.30	17.28%
April	8	49.30	58.34	9.04	18.34%
May	5	34.64	42.18	7.54	21.77%
June	2	19.33	25.09	5.76	29.80%
July	1	14.67	20.01	5.34	36.40%
August	1	14.67	20.01	5.34	36.40%
September	1	14.35	19.54	5.19	36.17%
October	3	24.65	31.10	6.45	26.17%
November	8	49.30	58.34	9.04	18.34%
December	11	64.60	75.44	10.84	16.78%
Total	77	\$498.33	\$597.15	\$98.82	19.83%

Average Increase per Month

\$8.24

RATE 60	Current	Proposed
Basic Delivery Charge	\$0.26	\$0.38
Distribution Delivery	\$1.034	\$1.457
Tax Tracker Adjustment 1/	19.9336%	22.8468%
Cost of Gas	\$3.753	\$3.753

1/ Docket No. 2019.09.069, effective January 1, 2020.

MONTANA-DAKOTA UTILITIES CO. GAS UTILITY - MONTANA RATE 70 BILL COMPARISON FIRM GENERAL GAS SERVICE (< 500 Cubic Feet Per Hour Meters) Pro Forma 2020 - 2020.06.__

Month	Dk	Present Rate	Proposed Rate	Amount of Increase	% Increase
January	30	\$179.33	\$179.48	\$0.15	0.08%
February	28	166.87	166.82	(0.05)	-0.03%
March	18	114.29	116.82	2.53	2.21%
April	15	97.50	100.43	2.93	3.01%
May	10	70.93	75.06	4.13	5.82%
June	4	37.87	42.99	5.12	13.52%
July	1	22.15	28.07	5.92	26.73%
August	1	22.15	28.07	5.92	26.73%
September	2	27.03	32.56	5.53	20.46%
October	7	54.67	59.40	4.73	8.65%
November	14	92.07	95.20	3.13	3.40%
December	25	152.24	153.38	1.14	0.75%
Total	155	\$1,037.10	\$1,078.28	\$41.18	3.97%

Average Increase per Month

\$3.43

RATE 70	Current	Proposed
Basic Delivery Charge	\$0.45	\$0.60
Distribution Delivery	\$1.390	\$1.195
Tax Tracker Adjustment 1/	19.9336%	22.8468%
Cost of Gas	\$3.753	\$3.753

1/ Docket No. 2019.09.069, effective January 1, 2020.

MONTANA-DAKOTA UTILITIES CO. GAS UTILITY - MONTANA RATE 70 BILL COMPARISON FIRM GENERAL GAS SERVICE (> 500 Cubic Feet Per Hour Meters) Settlement

Month	Dk	Present Rate	Proposed Rate	Amount of Increase	% Increase
January	202	\$1,128.32	\$1,131.71	\$3.39	0.30%
February	191	1,065.45	1,067.26	1.81	0.17%
March	136	770.59	783.72	13.13	1.70%
April	113	644.85	660.30	15.45	2.40%
May	71	418.28	441.00	22.72	5.43%
June	39	243.77	270.12	26.35	10.81%
July	26	174.38	203.73	29.35	16.83%
August	25	168.97	198.46	29.49	17.45%
September	32	205.83	233.21	27.38	13.30%
October	58	347.82	372.45	24.63	7.08%
November	103	590.65	607.57	16.92	2.86%
December	169	949.46	957.71	8.25	0.87%
Total	1165	\$6,708.37	\$6,927.24	\$218.87	3.26%

Average Increase per Month

\$18.24

RATE 70	Current	Proposed
Basic Delivery Charge	\$0.90	\$1.75
Distribution Delivery	\$1.390	\$1.237
Tax Tracker Adjustment 1/	19.9336%	22.8468%
Cost of Gas	\$3.753	\$3.753

1/ Docket No. 2019.09.069, effective January 1, 2020.

MONTANA-DAKOTA UTILITIES CO.

Before the Montana Public Service Commission

Docket No. 2020.06.____

Direct Testimony of Stephanie Bosch

1	Q.	Would you please state your name and business address?
2	Α.	Yes. My name is Stephanie Bosch, 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	Α.	I am the Regulatory Affairs Manager for Montana-Dakota Utilities
6		Co. (Montana-Dakota).
7	Q.	Would you please describe your duties as Regulatory Affairs
8		Manager?
9	Α.	I am responsible for the proper application of the Company's gas
10		and electric rates in the Customer Care and Billing System (CC&B), the
11		application of tariffs, and the preparation of miscellaneous rate filings.
12	Q.	Would you please describe your education and professional
13		background?
14	Α.	I graduated from the University of North Dakota in 1995 with a
15		Bachelor of Business and Public Administration degree in Banking and
16		Financial Economics. I joined Montana-Dakota in June 1997 as a Rate
17		Clerk in the Regulatory Affairs Department and realized positions of
18		increasing responsibility within the Regulatory Affairs Department until

2011 when I left the Company. In 2013 I returned to the Company as a
 Regulatory Analyst before attaining my current position in August of 2015.

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

A. The purpose of my testimony is to present the gas revenues at
current rates, included in Statement H of this Application, the proposed
rate schedules provided in Appendix B to the Application and introduce
one new rate schedule and other proposed changes to the Company's
tariffs.

9 I am also presenting the apportionment of the interim increase to
10 the various rate classes and the proposed interim rate schedules provided

11 in Appendix A to the Application for Interim Increase in Natural Gas Rates.

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

A. Yes. I have previously presented testimony before this Commission
and the Public Service Commissions in North Dakota and Wyoming and
the Public Utilities Commission of Minnesota.

16 Q. What statements and exhibits are you sponsoring in this

17 proceeding?

18 A. I am sponsoring the proposed rate schedules provided in Appendix19 B to the Application.

I am also sponsoring the proposed interim rate schedules provided
in Appendix A and Statement M to the Interim Application.

Q. Would you please explain the calculation of the revenue at current
 rates included in Statement H?

1	A.	Yes. The Company applied the Basic Service Charges and
2		Distribution Delivery Charges applicable under each rate schedule, as
3		authorized in Docket No. D2017.9.79, to the number of customers and
4		level of usage identified by Mr. Shoemake. Interruptible sales and
5		transportation customers were priced at the applicable rate schedules'
6		maximum rate per Dk, unless service is being provided for under a
7		contract rate. The current tax tracking adjustment rate of 19.9336% was
8		then applied to the revenue as shown on Statement H pages 12 through
9		19. The Cost of Gas rates are reflective of the 2020 commodity gas rate
10		and demand costs as of April 2020, excluding the surcharge.
11	Q.	Please describe the proposed new rate schedule, Firm General
12		Contracted Demand Service Rate 74, provided as Exhibit No.
13		(SB-1).
14	A.	Montana-Dakota is proposing a new rate schedule, Firm General
15		Contracted Demand Service Rate 74. The rate is applicable to non-
16		residential customers with standby natural gas generators or customers
17		who qualify under the Company's interruptible service tariffs, but have
18		requested, and received Company approval, for firm gas service under the
19		proposed tariff.
20		The purpose of the tariff is to recover capacity related costs from (1)
21		customers with standby natural gas generators who do not, at this time,
22		provide adequate recovery of these costs and (2) customers who
23		otherwise qualify for service under the Company's interruptible service

rates due to their natural gas requirements but who want the option of
reserving capacity for firm service. Interruptible customers requesting firm
gas service under Rate 74 will need approval from the Company prior to
the commencement of service under this rate in order to determine that
adequate capacity is available for firm service for the requesting customer.

6 The proposed rate consists of four components: a Basic Service 7 Charge, a Distribution Demand Charge, a Capacity Charge, and a Cost of 8 Gas Commodity Charge. The Basic Service Charge reflects the same 9 level of Basic Service Charges applicable under the Company's Firm 10 General Service Rate 70 tariff. The Distribution Demand Charge is a new 11 billing component for Montana-Dakota and is designed to recover the 12 distribution demand-related costs from these customers. Customers will 13 consult with the Company, prior to service under this rate, to determine the 14 connected load (or demand Dk) applicable to their service that the 15 Distribution Demand Charge will then be applied to each month.

16 The Cost of Gas is separated into two billing components: a 17 Capacity Charge and a Cost of Gas Commodity Charge, as discussed by 18 Ms. Vesey. The Capacity Charge will be applied to the contracted monthly 19 billing demand Dk and the Cost of Gas Commodity Charge will be applied 20 to the customer's actual measured Dk.

Q. Please explain the calculation of the proposed Distribution Demand Charge.

1	A.	The Company calculated the proposed Distribution Demand
2		Charge rate of \$4.89 per monthly demand Dk utilizing the results of the
3		Company's embedded class cost of service study. As identified in Rule
4		38.5.176, Statement L, Schedule L-1 (Cost by Component), the
5		Company's total distribution demand-related costs, net of gas costs, are
6		\$7,498,108. In dividing those costs by the Company's peak day deliveries
7		of 127,800 Dk, an annual demand cost per Dk of \$58.67 is calculated.
8		This equates to a monthly rate of \$4.89 per demand Dk.
9	Q.	Would you briefly describe any additional changes the Company is
10		proposing to its gas tariffs?
11	A.	Yes. Montana-Dakota is proposing the following changes to the
12		Company's gas tariffs as clearly identified in the legislative copy of the
13		tariffs provided in Appendix B of the Application:
14		The Company is proposing an entirely new volume of its gas rate
15		book, designated herein as Volume No. 7, to supersede the current
16		Volume No. 6, in order to reflect the removal of "A Division of MDU
17		Resources Group, Inc." in the tariff header of all rate schedules.
18		The rates described by Mr. Amen have been incorporated into the
19		proposed tariffs.
20		 Clarify that the charges included in the determination of a penalty
21		payment as provided for under the Penalty for Failure to Curtail or
22		Interrupt provision applicable under the Company's Interruptible
23		Service Rates 71 and 85 and Transportation Rates 81 and 82

1	tariffs. The proposed tariff language clarifies that all charges billed
2	under the Company's Firm General Service Rate 70, excluding the
3	Basic Service Charge, are billed on any gas taken in the event of a
4	penalty situation.
5	 Revise the following provisions included in the General Provisions
6	Rate 100 tariff to:
7	Revise the Utility Customer Services provisions under
8	paragraph 17 to include the re-lighting of pilot lights only
9	when the interruption of gas service is deemed to be the
10	Company's responsibility. The ceasing of this non-
11	chargeable service would provide a consistency across all of
12	Montana-Dakota's service territory where the Company has
13	stopped the provision of services on the customer's side of
14	the meter, including appliance repairs and the selling of
15	appliances to customers.
16	 Update the annual authorized usage by rate used in the
17	determination of the Non-Residential Reconnection Fee for
18	Seasonal or Temporary Customers to reflect each respective
19	rate class' average annual use from this docket.
20	Revise the Gas Meter Testing Program Rate 101 tariff to
21	incorporate Montana gas meters into the Montana-Dakota's
22	company-wide gas meter testing program. The proposed revisions
23	will continue to meet the requirements of the Administrative Rules

1	of Montana (ARM) 38.5.2513 but provide for one gas meter testing
2	program applicable across all four states in which Montana-Dakota
3	provides natural gas service. A single gas meter testing program
4	provides uniformity throughout the Company's service territory in
5	the testing and analyzing of meter data as well as shared
6	knowledge of meter-related issues.
7	A company-wide gas meter testing program would also be
8	consistent with Montana-Dakota's long-standing company-wide
9	electric meter test program.
10	Revise the Maximum Allowable Investment (MAI) formula included
11	on the Firm Gas Service Extension Policy Rate 120 tariff to include
12	the Gas Tax Tracking Adjustment (GTTA) and proposed Rate 74's
13	Demand Charge. The MAI formula is used in the determination of a
14	customer's cost participation for gas main and service line
15	extensions.
16	The inclusion of the GTTA revenue in the formula is
17	appropriate as the Company's GTTA is designed to recover taxes
18	paid on state assessed properties and is part of a utility's cost of
19	providing service in Montana. Prior to the establishment of the
20	Company's Gas Tax Tracking Adjustment Rate 87 tariff, these taxes
21	were recovered through the Company's gas rates.
22	As proposed Rate 74 does not have a Distribution Delivery
23	Charge like the Company's other gas rate schedules, it is

- 1 appropriate to revise the Rate 120 MAI formula to include Rate 74's 2 Distribution Demand Charge in the calculation used to determine a 3 customer's cost participation whose service will be provided under Rate 74. 4 Other minor self-explanatory changes are included throughout the 5 6 Company's tariffs to improve the readability of the rate without 7 modifying any conditions or to update rate and/or page references. 8 These changes are clearly denoted on the tariff sheets in the 9 legislative format. 10 How was the proposed interim revenue requirement apportioned Q. 11 among the customer classes? 12 Α. The interim revenue increase of \$4,884,024, identified by Ms. 13 Vesey, is proposed to be billed as a separate line item on the bill based on 14 22.658 percent of the amounts billed under the Basic Service Charge and Distribution Delivery Charge applicable under all rate schedules, excluding 15 16 flexible contract rate customers. 17 The calculations supporting the application of the interim increase 18 to each rate class are provided in Statement M attached to the Application 19 for Interim Increase in Natural Gas Rates. The proposed tariff sheets
- 21 Application for Interim Increase in Natural Gas Rates. As shown, the

- tariffs prescribe the interim increase of 22.658 percent to be applied to the
- amount billed under the Basic Service Charge and Distribution Delivery

8

reflecting the proposed interim increase are provided in Appendix A of the

1	Charge. The interim rate will not be applied to any amounts billed under
2	the Gas Tax Tracking Adjustment Rate 87 or the Gas Cost Tracking
3	Procedure Rate 88 tariffs. The interim increase represents an average
4	increase of 7.66 percent over total pro forma revenues including the cost
5	of gas revenues. Page 2 of Exhibit No(SB-2) shows a typical
6	residential bill reflecting the proposed interim increase that results in an
7	average monthly increase of \$3.29 from current rates.

8 Q. Does this conclude your testimony?

9 A. Yes.

Public Service Commission of Montana



Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

Natural Gas Service

Volume 7 Original Sheet No. 27

FIRM GENERAL CONTRACTED DEMAND SERVICE Rate 74

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Availability:

In all communities served applicable to non-residential customers with standby natural gas generators and, available on an optional basis to, customers qualifying for service under the interruptible service tariffs that have requested, and received approval from the Company, for gas service under this rate.

Rate:

Basic Service Charge: For customers with meters rated	under	
500 cubic feet per hour For customers with meters rated		per day
500 cubic feet per hour		per day
Distribution Demand Charge:	\$4.89 per Dk per month of billing	g demand
Capacity Charge per Monthly Demand Dk:	Determined Monthly – See Rate Sheet for Current Rate	e Summary
Cost of Gas – Commodity per Dk:	Determined Monthly – See Rate Sheet for Current Rate	Summary

Minimum Bill:

Basic Service Charge, Distribution Demand Charge, and Capacity Charge.

Payment:

Billed amounts will be considered past due if not paid by the due date shown on the bill. Past due bills are subject to a late payment charge in accordance with the provisions of Rate 100, §V.13, or any amendments or alterations thereto.

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By: Travis R. Jacobson Director - Regulatory Affairs

Public Service Commission of Montana



Montana-Dakota Utilities Co.

400 N 4th Street Bismarck, ND 58501

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Adjustment Clauses:

Bills are subject to the following adjustments or any amendments or alterations thereto:

- 1. Gas Tax Tracking Adjustment Rate 87
- 2. Gas Cost Tracking Adjustment Procedure Rate 88
- 3. Universal System Benefits Charge Rate 89

Determination of Monthly Billing Demand:

Customer's billing demand will be determined in consultation with the Company. Customer's actual demand will be reviewed annually and, if warranted, a new monthly billing demand established.

Metering Requirements:

- 1. Service provided for under tariff must be separately metered from customer's other gas services.
- 2. Remote data acquisition equipment (telemetering equipment) may be required by the Company for a single customer installation for daily measurement.
- 3. Customer may be required, upon consultation with the Company, to contribute towards any additional metering equipment necessary for daily measurement by the Company, depending on the location of the customer to the Company's network facilities. Enhancements and/or modifications to these services may be required to ensure equipment functionality. Such enhancements or modifications shall be completed at the direction of the Company with all associated costs the Customer's responsibility. Any interruption in such services must be promptly remedied or service under this tariff will be suspended until satisfactory corrections have been made.
- 4. Consultation between the customer and the Company regarding telemetering requirements shall occur prior to meter installation.

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General Terms and Conditions:

- 1. Customers with standby gas generators required to take service under this schedule are not required to execute a contract. Other customers choosing to take service under this schedule will be required to execute a contract applicable for a minimum period of one year.
- 2. The foregoing schedule is subject to Rates 100 through 124 and any amendments or alterations therefore or additional rules and regulations promulgated by the Company under the laws of the state.

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MONTANA-DAKOTA UTILITIES CO.	GAS UTILITY - MONTANA
REVENUES UNDER CURRENT AND PROPOSED RATES - INTERIM	PRO FORMA 2020

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Customer Class/Rate	Customers	č	Revenue	Proposed Revenue Increase	Total Proposed Revenue	Percent
	CONTINUES	5				
Residential - Rate 60	76,379	5,912,347	\$38,214,247	\$3,027,502	\$41,241,749	7.92%
Firm General Service - Rates 70 & 72	10,004	3,922,806	23,732,899	1,701,935	25,434,834	7.17%
Small Interruptible						
Sales - Rate 71	18	118,305	420,437			
Transport - Rates 81	29	615,207	568,123			
Total Small Interruptible	47	733,512	988,560	135,025	1,123,585	13.66%
Large Interruptible						
Sales - Rate 85	~	64,013	187,765			
Transport - Rate 82	4	2,918,891	639,007			
Total Large Interruptible	5	2,982,904	826,772	19,646	846,418	2.38%
Total Montana	86,435	13,551,569	\$63,762,478	\$4,884,108	\$68,646,586	7.66%

1/ Rule 38.5.177, Statement M, Page 1.

MONTANA-DAKOTA UTILITIES CO. GAS UTILITY - MONTANA RATE 60 BILL COMPARISON - INTERIM RESIDENTIAL GAS SERVICE

Month	Dk	Present Rate	Proposed Rate	Amount of Increase	% Increase
January	14	\$79.58	\$84.69	\$5.11	6.42%
February	13	73.64	78.33	4.69	6.37%
March	10	59.60	63.77	4.17	7.00%
April	8	49.30	52.94	3.64	7.38%
May	5	34.64	37.64	3.00	8.66%
June	2	19.33	21.56	2.23	11.54%
July	1	14.67	16.73	2.06	14.04%
August	1	14.67	16.73	2.06	14.04%
September	1	14.35	16.35	2.00	13.94%
October	3	24.65	27.18	2.53	10.26%
November	8	49.30	52.94	3.64	7.38%
December	11	64.60	69.00	4.40	6.81%
Total	77	\$498.33	\$537.86	\$39.53	7.93%

Average Increase per Month

\$3.29

RATE 60	Current	Proposed
Basic Delivery Charge	\$0.26	\$0.26
Distribution Delivery	\$1.034	\$1.034
Tax Tracker Adjustment 1/	19.9336%	19.9336%
Interim Rate 2/		22.658%
Cost of Gas	\$3.753	\$3.753

1/ Docket No. 2019.09.069, effective January 1, 2020.

2/ Rule 38.5.177, Statement M, page 1, Interim.