



North Dakota Gas Rate Case Filing

*In the Community
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Case No. PU-20-379

Exhibit No. MDU-26

ND PSC Hearing
March 17, 2021
Ron Amen



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PU-20-379

Filed: 3/24/2021

Pages: 10

Late-filed Exhibit MDU 26 - Electronic Presentation
of Ronald J. Amen

Montana-Dakota Utilities Co.

Cost of Service

Purpose of an Allocated Class Cost of Service Study

- It is a practical requirement of regulation since rates must be set based on the cost of service for the utility under cost-based regulatory models.
- Cost of service studies analyze which customer or group of customers cause the utility to incur the costs to provide service.
- Provides cost information to help determine the allocation of Montana-Dakota's revenue requirement among its customer classes.
- A useful tool for rate design - identifies the important cost drivers associated with serving customers and satisfying their design day demands.

Cost of Service

Cost Drivers for the Company's class Cost of Service Study

- Utility costs may be fixed or variable in nature:
 - Fixed costs do not change with the level of throughput.
 - Variable costs change directly with changes in throughput.
- Most non-gas related utility costs are fixed and do not vary with changes in customers' loads, including the cost of distribution mains, service lines, meters, and regulators.
- The distribution assets of a gas utility do not vary with the level of annual throughput.
- Over time, distribution main costs vary with either growing design day demand or a growing number of customers.

Cost of Service

Results at Current Rates and Settlement Revenue Allocation by Class

	Total North Dakota	Total Residential	Total Small Firm General	Total Large Firm General	Total Air Force Delivery	Total Small Interruptible	Total Large Interruptible	Total MAFB Distribution
Revenue to Cost Ratio Under Current Rates	0.86	0.77	0.88	0.98	0.81	1.02	1.74	2.19
Revenues at Equalized Rates of Return								
Revenue Increase	6,886,090	7,082,253	599,140	224,963	26,407	(38,962)	(759,786)	(247,924)
Parity Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Equal Percentage Increase								
Revenue Increase	6,886,090	3,999,055	742,679	1,471,011	18,146	286,523	293,708	74,968
Parity Ratio	1.00	0.90	1.03	1.14	0.94	1.19	2.03	2.55
Settlement Increase: Min. 25% of System Avg								
Revenue Increase	6,886,090	5,934,144	599,140	224,963	26,407	74,499	26,938	0
Parity Ratio	1.00	0.96	1.00	1.00	1.00	1.07	1.77	2.19

Effect on Customer

	Revenue Increase
Residential - MDU	10.1%
Residential - GPNG	9.2%
Firm General Service - MDU	1.7%
Firm General Service - GPNG	3.6%
Air Force Delivery	2.0%
Small Interruptible	1.9%
Large Interruptible	0.7%
Overall Increase	6.0%

Average Residential Customer Increase:
MDU: +\$5.06/mo GPNG: +\$3.36/mo

Updated Residential Prices

MDU

GPNG

	Current	Settlement	Current	Settlement
Basic Service Charge (Per Day)	\$0.6860	\$0.8523	\$3.50/mo	\$0.250
Basic Service Charge (Ave Mo.)	\$20.87	\$25.93	\$3.50	\$7.60
Distribution Chg (First 10 Dk)			\$1.072	\$0.917
Distribution Chg (Over 10 Dk)			\$0.822	\$0.917
Cost of Gas (Per Dk)	\$3.984	\$3.984	\$4.3408	\$4.3408

Residential Bill Comparison - MDU

Typical Users (88 Dk)

MDU

AARP

Month	DK	Mo. Price	Change	Mo. Price	Change
January	15	\$86.18	\$5.15	\$91.38	\$10.35
February	15	83.62	4.65	89.32	10.35
March	12	74.23	5.16	77.36	8.29
April	9	61.43	4.99	62.65	6.21
May	5	46.34	5.15	44.64	3.45
June	2	33.54	4.99	29.93	1.38
July	1	30.41	5.16	25.94	0.69
August	1	30.41	5.16	25.94	0.69
September	2	33.54	4.99	29.93	1.38
October	4	42.36	5.16	39.96	2.76
November	9	61.43	4.99	62.65	6.21
December	13	78.21	5.15	82.03	8.97
Total	88	\$661.70	\$60.70	\$661.73	\$60.73

Residential Bill Comparison - MDU

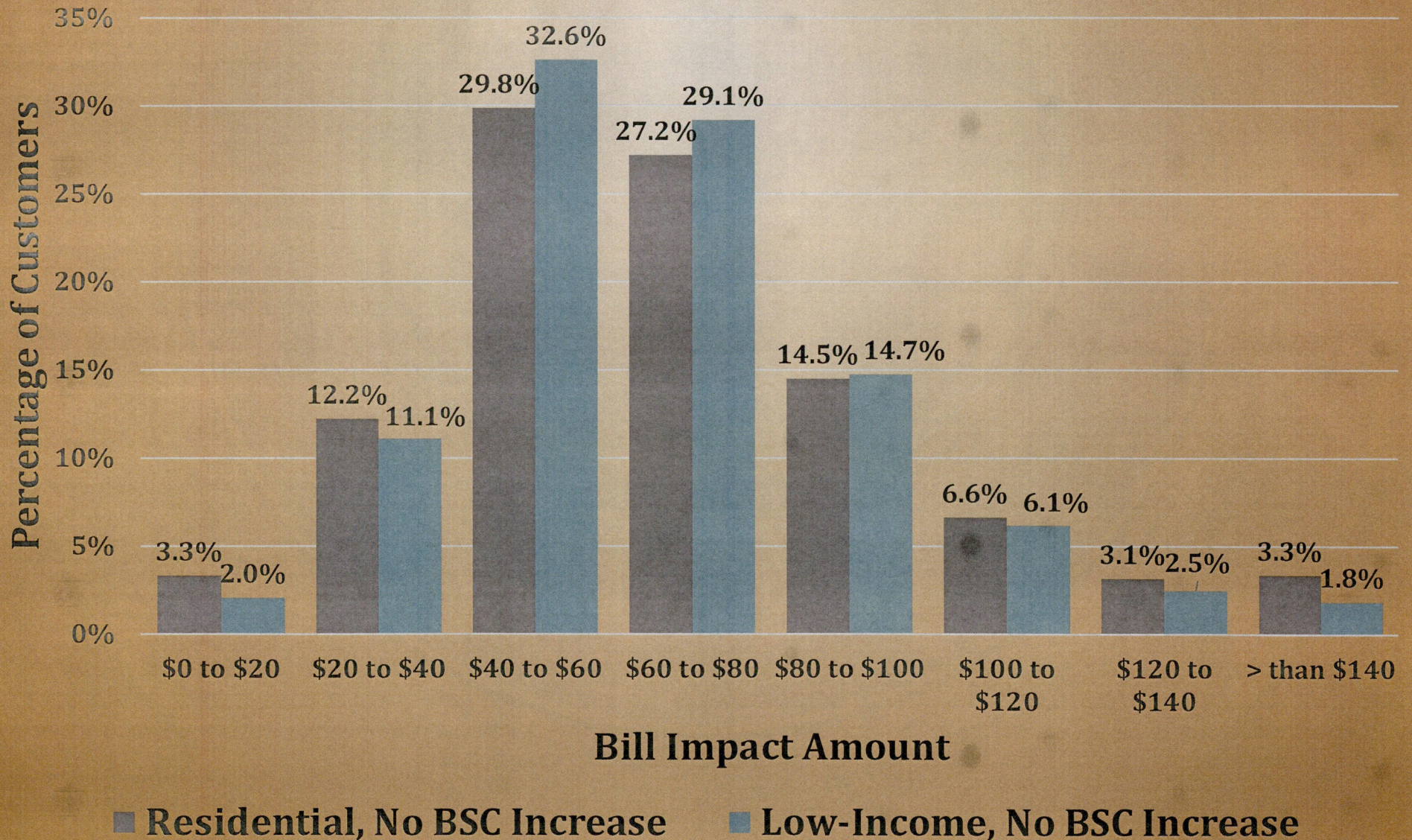
High Users (200 Dk)

MDU

AARP

Month	DK	Mo. Price	Change	Mo. Price	Change
January	30	\$145.94	\$5.15	\$161.49	\$20.70
February	37	171.27	4.65	192.15	25.53
March	34	161.88	5.16	180.19	23.47
April	18	97.28	4.99	104.72	12.43
May	11	70.25	5.16	72.68	7.59
June	6	49.47	4.99	48.63	4.15
July	5	46.34	5.15	44.64	3.45
August	5	46.34	5.15	44.64	3.45
September	5	45.49	4.99	43.95	3.45
October	9	62.28	5.16	63.33	6.21
November	18	97.28	4.99	104.72	12.43
December	22	114.07	5.16	124.10	15.19
Total	200	\$1,107.89	\$60.07	\$1,185.24	\$138.05

Annual Bill Impact By Customer





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