

**MONTANA-DAKOTA UTILITIES CO.
WORKPAPERS INDEX
GAS UTILITY - MONTANA**

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MONTANA-DAKOTA UTILITIES CO.
STORAGE INVENTORY BALANCES WORKPAPER
TOTAL COMPANY
PRO FORMA 2020

	DK				Amount			
	Beginning Inventory	Injections	Withdrawals	Ending Inventory	Beginning Inventory	Injections	Withdrawals	Ending Inventory
January 2020	9,242,493		3,294,924	5,947,569	11,269,317		5,072,536	6,196,781
February	5,947,569		2,599,507	3,348,062	6,196,781		4,001,941	2,194,840
March	3,348,062		1,296,576	2,051,486	2,194,840		1,996,079	198,761
April	2,051,486	1,463,590		3,515,076	198,761	2,253,197		2,451,958
May	3,515,076	1,894,604		5,409,680	2,451,958	2,916,743		5,368,701
June	5,409,680	2,432,495		7,842,175	5,368,701	3,744,826		9,113,527
July	7,842,175	2,432,495		10,274,670	9,113,527	3,744,826		12,858,353
August	10,274,670	1,756,836		12,031,506	12,858,353	2,765,436		15,623,789
September	12,031,506	1,435,182		13,466,688	15,623,789	2,239,171		17,862,960
October	13,466,688	1,051,308		14,517,996	17,862,960	1,714,158		19,577,118
November	14,517,996		2,079,786	12,438,210	19,577,118		3,293,133	16,283,985
December	12,438,210		3,683,404	8,754,806	16,283,985		5,832,302	10,451,683

MONTANA-DAKOTA UTILITIES CO.
STORAGE INVENTORY BALANCES BY STATE - WORKPAPER
APRIL 2020 PGA

	Total 1/	Montana
January 2020	6,196,781	1,817,559
February	2,194,840	643,090
March	198,761	58,238
April	2,451,958	718,426
May	5,368,701	1,573,033
June	9,113,527	2,670,270
July	12,858,353	3,767,506
August	15,623,789	4,577,781
September	17,862,960	5,233,860
October	19,577,118	5,736,109
November	16,283,985	4,771,219
Decemeber	10,451,683	3,062,350
 Total	 \$118,182,456	 \$34,629,441
 13 month average	 \$2,885,787	 \$2,885,787
 Contracted Capacity	 29.300070%	 29.300070%

1/ Allocated based on percent of Contracted Capacity.

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
PROVISION FOR PENSION AND BENEFITS
WORKPAPER**

<u>Pensions</u>	<u>2018</u>	<u>2019</u>	<u>Acct</u>
Pension Costs	\$96,384,002	\$89,939,460	1.1823.00501
Deferred Pension	(52,637,718)	(30,181,980)	1.2539.31
Additional Minimum- Centennial Energy	5,700,240	0	1.2190.101
Additional Minimum- MDU Energy Capital	1,370,868	0	Provision
Net	<u>\$50,817,392</u>	<u>\$59,757,480</u>	
Allocation to gas	\$28,711,826	\$34,121,521	
Allocation to Montana	<u>\$7,690,465</u>	<u>\$9,828,667</u>	
<u>DIT Pension</u>			
Pension Costs- Federal	(\$20,240,640)	(\$18,887,287)	Provision
Pension Costs- State	(3,270,091)	(3,051,442)	Provision
Deferred Pension- Federal	9,428,934	6,198,162	Provision
Deferred Pension- State	1,523,344	1,001,379	Provision
	<u>(\$12,558,453)</u>	<u>(\$14,739,188)</u>	
Allocation to gas	(\$7,095,526)	(\$8,416,076)	
Allocation to Montana	<u>(\$1,900,537)</u>	<u>(\$2,455,344)</u>	

**MONTANA-DAKOTA UTILITIES CO.
PROVISION FOR INJURIES AND DAMAGES
GAS UTILITY - MONTANA
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2019
WORKPAPER**

	<u>2018</u>	<u>2019</u>	<u>Acct.</u>
<u>Provision for Injuries and Damages</u>			
Liability Balance	(\$190,410)	(\$544,830)	1.2282.0000
Insurance Receivable Balance	<u>0</u>	<u>250,000</u>	90.1432.99006
Total Balance	(\$190,410)	(\$294,830)	
Allocation to Montana	<u>(\$10,279)</u>	<u>(\$16,073)</u>	
<u>DITS</u>			
Liability Balance	\$46,446	\$132,899	Provision
Insurance Receivable Balance	<u>0</u>	<u>(60,982)</u>	Provision
Total Balance	\$46,446	\$71,917	
Allocation to Montana	<u>\$2,507</u>	<u>\$3,921</u>	

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
PROVISION FOR POST RETIREMENT
WORKPAPER**

<u>Postretirement</u>	<u>2018</u>	<u>2019</u>	<u>Acct</u>
Deferred Postretirement	(\$10,020,714)	(\$13,642,023)	1.2540.00502; 1.2540.005021
Postretirement	11,432,592	15,865,049	1.1864.50; 1.2539.335
Additional Minimum-Centennial Energy	(350,634)	0	1.2190.102
Additional Minimum-MDU Energy Capital	(242,153)	0	1.1866.47; 1.1866.48
Net	<u>\$819,091</u>	<u>\$2,223,026</u>	
Allocation to gas 1/	\$462,786	\$1,269,348	
Allocation to Montana 2/	<u>\$123,957</u>	<u>\$365,634</u>	
<u>DIT Postretirement</u>			
Deferred Postretirement Costs - Federal	(\$2,276,359)	(\$3,331,660)	Provision
Deferred Postretirement Costs - State	(367,770)	(538,265)	Provision
Postretirement- Federal	2,104,350	2,864,825	Provision
Postretirement- State	339,980	462,843	Provision
	<u>(\$199,799)</u>	<u>(\$542,257)</u>	
Allocation to gas 1/	(\$112,886)	(\$309,629)	
Allocation to Montana 2/	<u>(\$30,237)</u>	<u>(\$89,188)</u>	

1/ Allocated on utility Factor 24, Gross Plant

2/ Allocated on jurisdictional Factor 89, O&M Exl COG & GP

**MONTANA-DAKOTA UTILITIES CO.
COMPUTATION OF CURRENT GAS COST ADJUSTMENT
MONTANA - RESIDENTIAL AND GENERAL SERVICE
MAY 2020 PGA WITH PRO FORMA 2020 COMMODITY COST OF GAS**

	<u>Amount</u>
Total Gas Costs 1/	\$36,681,990
Dk Requirements - Firm 2/	9,843,912
Average Cost of Gas per dk	\$3.726
Average Cost of Gas as Adjusted for Losses @ 99.28% 3/	3.753
Less: Gas Cost Level in Rates 4/	<u>3.834</u>
Current Gas Cost Adjustment	<u>(\$0.081)</u>

- 1/ Includes all pipeline demand and commodity charges, see Exhibit 3a, page 1. See Exhibit 4 for currently effective pipeline rates.
2/ Normalized dk sales for the twelve months ended December 31, 2019, adjusted for losses at .72%.
3/ Docket No. D2002.5.59.
4/ Gas Cost Level in Current Tariff Rates Docket No. D2019.9.64 effective February 1, 2020:

Cost of Purchased Gas	\$3.806
Adjustment for Distribution Losses	99.28%
Gas Cost Level in Base Tariff Rates	\$3.834

**MONTANA-DAKOTA UTILITIES CO.
COMPUTATION OF CURRENT GAS COST ADJUSTMENT
MONTANA - INTERRUPTIBLE
MAY 2020 PGA WITH PRO FORMA 2020 COMMODITY COST OF GAS**

	<u>Amount</u>
Total Gas Costs 1/	\$8,338,144
Dk Requirements - Interruptible 2/	3,726,315
Average Cost of Gas per dk	\$2.238
Average Cost of Gas as Adjusted for Losses @ 99.28% 3/	2.254
Less: Gas Cost Level in Rates 4/	<u>2.318</u>
Current Gas Cost Adjustment	<u>(\$0.064)</u>

- 1/ Includes all pipeline demand and commodity charges, see Exhibit 3a, page 1. See Exhibit 4 for currently effective pipeline rates.
2/ Reflects level of interruptible dk volumes included in Docket No. D2017.9.79.
3/ Docket No. D2002.5.59.
4/ Gas Cost Level in Current Tariff Rates Docket No. D2019.9.64 effective February 1, 2020:

Cost of Purchased Gas	\$2.301
Adjustment for Distribution Losses	99.28%
Gas Cost Level in Base Tariff Rates	\$2.318

**MONTANA-DAKOTA UTILITIES CO.
LABOR EXPENSE - MONTANA GAS
TWELVE MONTHS ENDING DECEMBER 31, 2019**

BONUSES AND INCENTIVE COMPENSATION WORKPAPER

	Per Books 2019	Pro Forma 2020 1/
5130 Bonuses & Comm.	\$225,848	
Adjustment: 1/ MDUR Incentive	(10,548)	
	\$215,300	\$215,300
5131 Incentive Comp. 2/	\$860,535	11.41%

1/ MDU Resources incentives have been reclassified to Account 5131.

2/ 2020 incentive compensation expense has been adjusted to reflect targeted incentive levels as a percentage of straight time and vacation.

Montanta-Dakota Utilities Co.

		1/1/2020	
Class	Salary	Target	Payout
IBEW	\$29,010,072.00	4.5%	\$1,305,453.24
Non-Exempt			
30	583,421.28	6.0%	35,005.28
31	1,867,611.20	6.0%	112,056.67
32	3,108,389.44	6.0%	186,503.37
33	3,685,283.60	6.0%	221,117.02
34	866,028.80	6.0%	51,961.73
35	1,432,246.40	6.0%	85,934.78
36	1,173,390.40	6.0%	70,403.42
38	389,459.20	10.0%	38,945.92
			-
Exempt			
34	2,984,672.00	8.0%	238,773.76
35	4,900,127.00	8.0%	392,010.16
36	8,731,720.00	8.0%	698,537.60
37	10,064,010.00	8.0%	805,120.80
38	10,061,290.00	10.0%	1,006,129.00
39	8,667,477.50	10.0%	866,747.75
40	3,852,150.00	15.0%	577,822.50
41	1,667,940.00	20.0%	333,588.00
42	5,037,350.00	30.0%	1,511,205.00
Executive			
E	817,900.00	35.0%	286,265.00
F	999,600.00	40.0%	399,840.00
G	574,700.00	45.0%	258,615.00
H	880,000.00	50.0%	440,000.00
I	420,000.00	60.0%	252,000.00
J	927,000.00	75.0%	695,250.00
K	960,000.00	100.0%	960,000.00
Total 5131 Incentive	<u>\$103,661,838.82</u>		<u>\$11,829,286.00</u>

Total 5131 - Incentive at Potential	11.41%
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Montana-Dakota Utilities Co.
Benefits Budget Summary - 2020
09/25/19

	2019		2020		% Increase		Additional	
	MDU	Budget 1/	MDU	Budget 1/	MDU	Budget	Dollar Amount	MDU
K-Plan Employer Contributions (match/special cont.) ^{5/} - 5197	\$8,115,000		\$8,416,000			4%	\$301,000	
Pension Expense (non-service costs) ^{2/} - 5195	361,000		1,670,000			363%	1,309,000	A
Medical ^{3/} - 5194	10,127,000		11,063,000			9%	936,000	B
Dental - 5194	526,000		538,000			2%	12,000	C
LTD - 5192	187,000		198,000			6%	11,000	D
FSA - 5192	9,000		1,800			-80%	(7,200)	E
Life Insurance/BTA - 5194	96,000		104,000			8%	8,000	
EAP - 5192	18,400		18,900			3%	500	
Subtotal	\$19,439,400		\$22,009,700			13%	\$2,570,300	
FAS106 Expense ^{2/} - (service costs) - 5198	\$455,000		\$437,000			-4%	(\$18,000)	
FAS106 Expense ^{4/} - (non-service costs) - 5196	(\$2,288,000)		(\$2,356,000)			3%	(\$68,000)	
K-Plan Trustee/Recordkeeping Fees (Consulting) - 5221	\$5,490		\$5,080			-7%	(\$410)	F
Pension and Actuarial Consulting - 5221	\$9,100		\$9,050			-1%	(\$50)	
FAS106 Actuarial and Disclosure Consulting - 5221	\$4,600		\$4,500			-2%	(\$100)	
Grand Total	\$17,625,590		\$20,109,330			14%	\$2,483,740	

- 1/ Salary assumptions for benefits assume a 4% increase (NBU) and 3% (BU).
2/ Updated forecast received 8/2/2019, which includes John Hancock FAS 87/106 Actuarial Costs.
3/ Healthcare premiums approved by HCT and MPC 9/24/2019
4/ Non Service Costs are made up of Interest Costs, Expected Return on Assets, and Net Amortization.
5/ Profit Sharing not included in estimated cost
6/ Includes 8 Open Positions

Change Explanation:

- A/ Increase due to benefit assumption changes; based on August 2, 2019 forecast
B/ Increase due to higher number of employees enrolled in benefit and increase in premiums
C/ Increase due to higher number of employees enrolled in benefit and higher salaries
D/ Decrease due to increase in forfeitures
E/ Increase due to higher number of employees enrolled in benefit and higher salaries
F/ Decrease due to change in allocation based on participant counts

Plan Allocation		2019 Allocation %	Discount Rate	2020	2021	2022	2023	2024
Qualified Plans								
MDU Bargaining		655	4.04%	810	817	763	797	627
Utilities		724		860	874	826	887	662
MDU Non-Bargaining Plan Total		901		1,071	1,038	1,028	1,104	824
Post Retirement Welfare Plans								
Utilities		(1,859)		(1,919)	(1,922)	(1,929)	(1,908)	(1,935)
Subtotal MDU Group		(2,540)		(2,614)	(2,618)	(2,627)	(2,585)	(2,634)
Grand Total MDU Plan (incl. Cascade & IGC)		(2,796)		(2,753)	(2,826)	(2,899)	(2,924)	(3,015)
Grand Total (Qualified, Non Qualified & Post Retirement Welfare)		(1,721)		(1,614)	(1,688)	(1,760)	(1,785)	(1,874)
Discount Rate for Expense		Various	See Above	Same as 2020	Same as 2020	Same as 2020	Same as 2020	Same as 2020
Expected Return on Assets - Pension		6.25%	See Above	6.25%	6.25%	6.25%	6.25%	6.25%
Actual Return on Assets (prior year) --- Pension		5.75%	See Above	5.00%	6.25%	6.25%	6.25%	6.25%
Expected Return on Assets - PRW			See Above	5.75%	5.75%	5.75%	5.75%	5.75%
Actual Return on Assets (prior year) --- PRW			See Above	4.50%	5.75%	5.75%	5.75%	5.75%
Assumed mortality in accordance with the RP-2014 Mortality Table Adjusted to 2006 with Generational Projection (Scale MP-2018)			See Above					

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
VEHICLE AND WORK EQUIPMENT WORKPAPER

Statement G
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	Per Books	Pro Forma
Total Vehicle Depr. Exp	\$323,742	\$431,207
% of Depr. To Expense	60.17%	56.24% 1/
Amount of Depr. in O&M	<u>\$194,796</u>	<u>\$242,511</u>

	MT Gas 2019 Total Expenses	% of Total	2019 Depr. Expense	Pro Forma Depreciation	Pro Forma
Other Gas Supply	\$271	0.06%	\$117	\$146	\$300
Distribution	427,323	87.27%	169,998	211,639	468,964
Customer Accounting	44,500	9.09%	17,707	22,044	48,837
Customer Service	2,044	0.42%	818	1,019	2,245
Sales	1,445	0.30%	584	728	1,589
A&G	14,056	2.86%	5,572	6,935	15,419
Total Clearing Account	\$489,639	100.00%	\$194,796	\$242,511	\$537,354
Less Depr.	<u>194,796</u>				
Other Expenses	<u>\$294,843</u>				

	Depreciation Expense
General	
392.1 Trans. Equip. Non-Unitized	\$597
392.2 Trans. Equip. Unitized	245,251
396.1 Power Operated Equipment	3,795
396.2 Work Equipment Trailers	<u>123,267</u>
	\$372,910
Common	
392.1 Trans. Equip. Non-Unitized	\$0
392.2 Trans. Equip. Unitized	<u>58,297</u>
	\$58,297
Total	<u>\$431,207</u>

1/ Three year average. (2017 - 2019)

Row Labels	Sum of provision
00001-Montana Dakota Utilities Co.	2,561,529.32
Auto	1,498,389.01
UA- Montana Electric	183,186.89
UB- Montana Gas	271,795.46
UD- North Dakota Electric	489,473.68
UE- North Dakota Gas	392,902.25
UG- South Dakota Electric	56,909.70
UH- South Dakota Gas	20,366.66
UI- Wyoming Electric	69,496.19
UJ- Wyoming Gas	10,938.70
UK- East River Gas	-
UM- Great Plains Gas Minnesota	2,729.48
UN- North Dakota Wahpeton	590.00
UT- FERC Utility Transmission	-
Work	1,063,140.31
UA- Montana Electric	203,527.02
UB- Montana Gas	51,946.45
UD- North Dakota Electric	435,497.58
UE- North Dakota Gas	222,665.47
UG- South Dakota Electric	40,217.48
UH- South Dakota Gas	17,107.21
UI- Wyoming Electric	81,909.56
UJ- Wyoming Gas	9,805.98
UK- East River Gas	-
UM- Great Plains Gas Minnesota	372.36
UN- North Dakota Wahpeton	91.20
UT- FERC Utility Transmission	-
00040-Great Plains Natural Gas Co.	150,005.45
Auto	121,855.92
UM- Great Plains Gas Minnesota	121,855.92
UN- North Dakota Wahpeton	-
Work	28,149.53
UM- Great Plains Gas Minnesota	28,149.53
UN- North Dakota Wahpeton	-
Grand Total	2,711,534.77

Montana-Dakota Utilities Co.
Auto & Work Equipment Usage-Expense/Capital
AA - Total Company
December 31, 2019

	Current Year Only			
	2019 YTD Expense Charges	2019 YTD Capital Additions	2019 YTD Expense & Capital	2019 Avg. % to Expense
Auto - 922	3,445,222.84	1,468,014.45	4,913,237.29	70.12%
Work Equipment - 962	615,941.84	1,220,343.17	1,836,285.01	33.54%
Total	4,061,164.68	2,688,357.62	6,749,522.30	60.17%

Capital/Expense Assets Tabs

Three Year Average

	2017 YTD Expense Charges	2018 YTD Expense Charges	2019 YTD Expense Charges	2017-2019 Expense Charges	2017 YTD Capital Additions	2018 YTD Capital Additions	2019 YTD Capital Additions	2017-2019 Capital Additions	2017-2019 Expense & Capital	2017-2019 Avg. % to Expense
Auto - 922	3,151,130.69	3,320,128.04	3,445,222.84	9,916,481.57	1,182,508.26	1,311,072.59	1,468,014.45	3,961,595.30	13,878,076.87	71.45%
Work Equipment - 962	557,955.87	661,263.51	615,941.84	1,835,161.22	1,194,879.69	2,766,892.15	1,220,343.17	5,182,115.01	7,017,276.23	26.15%
Total	3,709,086.56	3,981,391.55	4,061,164.68	11,751,642.79	2,377,387.95	4,077,964.74	2,688,357.62	9,143,710.31	20,895,353.10	56.24%

* Copied 2017-2018 from last year data

** 2019 Same as Above

MONTANA-DAKOTA UTILITIES CO.

Statement G
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2019 - YTD DECEMBER

Year	(All)
Object	5400

Sum of Amount					Juris				
Business Segm	Func Sor	Function	Ferc Minor	Ferc Minor Description	MT	ND	SD	WY	Grand Total
Natural Gas	3	Other Gas Supply			271	564	196	70	1,101
	5	Distribution			427,323	669,819	273,503	102,285	1,472,931
	6	Cust Acct			44,500	69,129	24,570	13,560	151,759
	7	Cust Svc			2,044	7,352	5,173	347	14,915
	8	Sales			1,445	4,470	2,768	190	8,873
	9	A&G			14,056	26,640	8,361	3,757	52,814
Natural Gas Total					489,639	777,974	314,571	120,208	1,702,392
Grand Total					489,639	777,974	314,571	120,208	1,702,392

Electric Company Consumption Revenues			
	2019	Pro Forma @	
	Per Books	Current Rates	% Increase
Rate 100 3/	\$768	\$0	
Rate 201 - Primary Demand 3/	(35)	0	
Rate 202 - Secondary Demand	10,839	11,699	7.93%
Rate 203 - Secondary Non-Demand	12,658	13,513	6.75%
Rate 30	16,248	16,815	3.49%
	\$40,478	\$42,027	3.83%

Gas Utility - Montana		
Electric Company Consumption Expenses		
	2019	Pro Forma @
	Per Books 1/	Current Rates 2/
	\$48,866	\$50,739
% Increase		3.83%

1/ Income Statement

2/ Pro Forma expense at current rates was calculated using expense/revenue ratio for 2019 per books.

3/ Customers were moved out of these rates early in 2019.

Montana-Dakota Utilities Co.
Company Consumption Workpaper
Gas Utility - Montana

Statement G
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Gas	<u>Per Books</u>	<u>Normalized</u>	<u>Change</u>	<u>% Change</u>
2019 Revenues	\$42,925	\$35,620	(\$7,305)	-17.02%

Current Tariff Rates	
Rate 30 - Large General Electric Service - Secondary	Rate 20 - Small General Electric Service - Secondary
Basic Service Charge: \$100.00 per month	Basic Service Charge: \$0.65 per day
Demand Charge:	Demand Charge:
October - May: \$11.30 per Kw	October - May: No Charge
June - September: \$12.65 per Kw	First 10 Kw or less of billing demand \$12.75 per Kw
Energy Charge: \$0.02897 per Kwh	Over 10 Kw per month of billing demand
Base Fuel and Purchased Power: \$0.02542 per Kwh	June - September: No Charge
	First 10 Kw or less of billing demand \$14.00 per Kw
	Over 10 Kw per month of billing demand
	Energy Charge:
	October - May: \$0.03818 per Kwh
	June - September: \$0.05698 per Kwh
	Base Fuel and Purchased Power: \$0.02542 per Kwh
Tax Tracking Adjustment	
Electric	Rate 56 10.5676%

Rate 20 (Secondary Demand) - Blocked					
	2019 Billed Usage		Energy Charge at Current Rates		
	Summer Kwh	Winter Kwh	Total	Summer	Winter
January		13,160	13,160		\$502.45
February		10,588	10,588		404.25
March		12,142	12,142		463.58
April		11,220	11,220		428.38
May		8,279	8,279		316.09
June	6,143	1,459	7,602	\$350.03	55.70
July	8,631		8,631	491.79	0.00
August	12,457		12,457	709.80	
September	10,451		10,451	595.50	
October	9,138		9,138	520.68	0.00
November	3,178	5,517	8,695	181.08	210.64
December		10,699	10,699		408.49
	49,998	73,064	123,062	\$2,848.88	\$2,789.58
					\$5,638.46

Rate 20 (Secondary Non-Demand) - Blocked

	2019 Billed Usage			Energy Charge at Current Rates		
	Summer Kwh	Winter Kwh	Total	Summer	Winter	Total
January	4,005	36,340	40,345		\$1,387.46	\$1,387.46
February		14,522	14,522		554.45	554.45
March		15,170	15,170		579.19	579.19
April		11,124	11,124		424.71	424.71
May		8,466	8,466		323.23	323.23
June	4,697	653	5,350	267.64	24.93	292.57
July	4,726		4,726	269.29		269.29
August	4,492		4,492	255.95		255.95
September	4,573		4,573	260.57		260.57
October	6,098		6,098	347.46	0.00	347.46
November	1,025	8,044	9,069	58.40	307.12	365.52
December		10,489	10,489		400.47	400.47
	29,616	104,808	134,424	\$1,459.31	\$4,001.56	\$5,460.87

Rate 30 (Secondary) - Blocked

	2019 Billed Usage			Demand Charge at Current Rates		
	Summer Kw	Winter Kw	Total	Summer	Winter	Total
January		50.0	50.0		\$565.00	\$565.00
February		50.0	50.0		565.00	565.00
March		50.0	50.0		565.00	565.00
April		50.0	50.0		565.00	565.00
May		50.0	50.0		565.00	565.00
June	50.0		50.0	\$632.50	0.00	632.50
July	50.0		50.0	632.50		632.50
August	50.0		50.0	632.50		632.50
September	50.0		50.0	632.50		632.50
October	50.0		50.0	632.50		632.50
November		50.0	50.0		0.00	0.00
December		50.0	50.0		565.00	565.00
	250.0	350.0	600.0	\$3,162.50	\$3,955.00	\$7,117.50

Rate 20 Secondary - Demand Workpaper						
	< 10 KW		> 10 KW		Total	
	Summer	Winter	Summer	Winter	Summer	Winter
January	0.0	40.0	0.0	6.9	0.0	46.9
February	0.0	40.0	0.0	3.0	0.0	43.0
March	0.0	39.5	0.0	5.4	0.0	44.9
April	0.0	40.0	0.0	4.5	0.0	44.5
May	0.0	36.8	0.0	1.8	0.0	38.6
June	27.2	8.9	4.7	0.0	31.9	8.9
July	36.4	0.0	5.1	0.0	41.5	0.0
August	38.2	0.0	12.4	0.0	50.6	0.0
September	37.8	0.0	9.3	0.0	47.1	0.0
October	36.2	0.0	5.9	0.0	42.1	0.0
November	19.3	10.0	0.2	9.2	19.5	19.2
December	0.0	20.0	0.0	19.6	0.0	39.6
	195.1	235.2	37.6	50.4	232.7	285.6
						518.3

Rate 20 Secondary - Demand

2019 Per Books							
Days	Billed Kwh	Billed Kw	BSC	Energy	Demand	Fuel	Total
January	13,160	46.9	\$64.50	\$406.33	\$70.31	\$355.05	\$943.14
February	10,588	43.0	57.50	326.85	30.58	297.66	756.76
March	12,142	44.9	58.00	374.85	55.03	341.68	881.76
April	11,220	44.5	62.00	369.71	44.84	318.89	843.94
May	8,279	38.6	62.00	320.86	18.34	234.92	672.06
June	7,602	40.8	60.00	357.89	49.76	201.75	711.24
July	8,631	41.5	61.00	571.39	56.74	221.99	972.78
August	12,457	50.6	63.00	834.69	138.27	308.02	1,436.69
September	10,451	47.1	63.20	669.68	109.78	242.40	1,164.59
October	9,138	42.1	83.25	470.72	77.49	224.21	923.17
November	8,695	38.7	74.75	331.97	22.95	220.85	696.65
December	10,699	39.6	77.35	408.48	24.23	271.79	836.61
1,457	123,062	518.3	\$786.55	\$5,443.42	\$698.32	\$3,239.21	\$10,839.39

Pro Forma @ Current Rates

Days	Billed Kwh	Billed Kw	BSC	Energy	Demand	Fuel	Total
January	13,160	46.9	\$83.85	\$502.45	\$87.98	\$334.54	\$1,080.08
February	10,588	43.0	74.75	404.25	38.25	269.16	841.07
March	12,142	44.9	75.40	463.58	68.85	308.66	980.72
April	11,220	44.5	80.60	428.38	57.38	285.22	911.43
May	8,279	38.6	80.60	316.09	22.95	210.46	674.45
June	7,602	40.8	78.00	405.73	65.80	193.25	800.85
July	8,631	41.5	79.30	491.79	71.40	219.41	929.80
August	12,457	50.6	81.90	709.80	173.60	316.67	1,383.98
September	10,451	47.1	76.70	595.50	130.20	265.67	1,152.86
October	9,138	42.1	83.85	520.68	82.60	232.30	992.04
November	8,695	38.7	74.75	391.72	117.30	221.04	866.50
December	10,699	39.6	77.35	408.49	249.90	271.98	1,085.47
1,457	123,062	518.3	\$947.05	\$5,638.46	\$1,166.21	\$3,128.36	\$11,699.25

% Increase

7.93%

Rate 20 Secondary - Non-Demand

2019 Per Books						
Days	Billed Kwh	BSC	Energy	Fuel	Tax Track. Adj.	Total
905	40,345	\$452.50	\$1,291.87	\$1,040.86	\$146.92	\$2,932.15
383	14,522	191.50	448.53	408.34	68.21	1,116.58
371	15,170	185.50	468.48	427.12	69.96	1,151.06
395	11,124	197.50	385.04	317.41	57.89	957.84
620	8,466	310.00	356.07	237.34	59.90	963.31
412	5,350	206.00	299.03	141.04	45.18	691.25
438	4,726	219.00	344.44	121.58	50.43	735.45
443	4,492	221.50	330.71	108.73	49.41	710.35
408	4,573	225.75	302.91	107.25	51.23	687.14
454	6,098	293.30	294.38	150.85	62.90	801.43
405	9,069	263.25	346.26	230.79	65.42	905.72
412	10,489	267.80	400.46	265.64	71.72	1,005.62
5,646	134,424	\$3,033.60	\$5,268.18	\$3,556.95	\$799.17	#####

Pro Forma @ Current Rates

Days	Billed Kwh	BSC	Energy	Fuel	Tax Track. Adj.	Total
905	40,345	\$588.25	\$1,387.46	\$1,025.61	\$208.79	\$3,210.11
383	14,522	248.95	554.45	369.16	84.90	1,257.46
371	15,170	241.15	579.19	385.64	86.69	1,292.67
395	11,124	256.75	424.71	282.78	72.01	1,036.25
620	8,466	403.00	323.23	215.21	76.75	1,018.19
412	5,350	267.80	292.57	136.00	59.22	755.59
438	4,726	284.70	269.29	120.14	58.54	732.67
443	4,492	287.95	255.95	114.19	57.48	715.57
408	4,573	265.20	260.57	116.25	55.56	697.58
454	6,098	295.10	347.46	155.02	67.90	865.48
405	9,069	263.25	365.52	230.54	66.45	925.76
412	10,489	267.80	400.47	266.64	70.62	1,005.53
5,646	134,424	\$3,669.90	\$5,460.87	\$3,417.18	\$964.91	#####

% Increase

6.75%

Rate 30 - Secondary

2019 Per Books						
Billed Kwh	Billed Kw	BSC	Energy	Demand	Fuel	Tax Track. Adj.
January	12,660	\$86.08	\$259.75	\$526.50	\$340.34	\$74.09
February	11,640	86.08	238.99	526.50	327.68	91.11
March	12,180	86.08	249.98	526.50	342.63	92.29
April	12,780	86.08	291.19	526.50	362.23	93.59
May	9,900	86.08	365.32	526.50	282.50	87.32
June	8,580	86.08	333.26	537.36	228.59	85.61
July	11,100	86.08	405.00	589.50	285.32	96.70
August	12,120	86.08	429.82	589.50	303.47	98.92
September	10,800	88.48	383.07	596.91	248.04	98.83
October	11,040	100.00	319.83	616.14	270.56	111.21
November	9,480	100.00	274.64	565.00	240.37	100.87
December	10,320	100.00	298.97	565.00	263.25	103.48
	132,600	\$1,077.12	\$3,849.82	\$6,691.91	\$3,494.98	\$1,134.02
						\$16,247.85

Pro Forma @ Current Rates

Billed Kwh	Billed Kw	BSC	Energy	Demand	Fuel	Tax Track. Adj.	Total
January	12,660	\$100.00	\$366.76	\$565.00	\$321.83	\$109.03	\$1,462.62
February	11,640	100.00	337.21	565.00	295.90	105.91	1,404.02
March	12,180	100.00	352.85	565.00	309.63	107.56	1,435.04
April	12,780	100.00	370.24	565.00	324.88	109.40	1,469.52
May	9,900	100.00	286.80	565.00	251.67	100.58	1,304.05
June	8,580	100.00	248.56	632.50	218.11	103.67	1,302.84
July	11,100	100.00	321.57	632.50	282.17	111.39	1,447.63
August	12,120	100.00	351.12	632.50	308.10	114.51	1,506.23
September	10,800	100.00	312.88	632.50	274.55	110.47	1,430.40
October	11,040	100.00	319.83	632.50	280.65	111.21	1,444.19
November	9,480	100.00	274.64	565.00	240.99	99.30	1,279.93
December	10,320	100.00	298.97	565.00	262.34	101.87	1,328.18
	132,600	\$1,200.00	\$3,841.43	\$7,117.50	\$3,370.82	\$1,284.90	\$16,814.65

% Increase 3.49%

**MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - MONTANA**

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**Revenue Analysis
Company Consumption Revenue
Twelve Months Ended December 31, 2019**

Small Firm General Rate 700	Rate	Current Rates	
		Billing Units	Revenue
Basic Service Charge 1/ 2/	\$0.45 per day	16	\$3,152
Distribution Delivery Charge 2/	\$1.390 per Dk	3,037.4	5,064
Cost of Gas 3/	\$3.726 per Dk	3,037.4	11,317
Total Revenue			<u>\$19,533</u>

Large Firm General Rate 701	Rate	Current Rates	
		Billing Units	Revenue
Basic Service Charge 1/ 2/	\$0.90 per day	5	\$1,970
Distribution Delivery Charge 2/	\$1.390 per Dk	3,674.5	6,126
Cost of Gas 3/	\$3.726 per Dk	3,674.5	13,691
Total Revenue			<u>\$21,787</u>

Total Company Consumption @ Current Rates

\$41,320

1/ Basic Service Charge = average billing units x 365 x monthly rate.

2/ Includes Gas Tax Tracking Adjustment - 19.9336%

3/ February 2020 cost of gas.

**MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - MONTANA**

Statement G
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**Revenue Analysis
Company Consumption Revenue
Twelve Months Ended December 31, 2019**

Small Firm General Rate 700	Rate	Normalized	
		Billing Units	Revenue
Basic Service Charge 1/ 2/	\$0.45 per day	16	\$3,152
Distribution Delivery Charge 2/	\$1.390 per Dk	2,557.0	4,263
Cost of Gas 3/	\$3.726 per Dk	2,557.0	9,527
Total Revenue			<u>\$16,942</u>

Large Firm General Rate 701	Rate	Normalized	
		Billing Units	Revenue
Basic Service Charge 1/ 2/	\$0.90 per day	5	\$1,970
Distribution Delivery Charge 2/	\$1.390 per Dk	3,098.0	5,165
Cost of Gas 3/	\$3.726 per Dk	3,098.0	11,543
Total Revenue			<u>\$18,678</u>
Total Normalized Company Consumption			\$35,620

1/ Basic Service Charge = average billing units x 365 x monthly rate.

2/ Includes Gas Tax Tracking Adjustment - 19.9336%

3/ February 2020 cost of gas.

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
WEATHER NORMALIZATION
TWELVE MONTHS ENDED DECEMBER 31, 2019

Sales		Customers	Baseload 1/ Dk 2/	Actual Heating Use Dk 2/	Actual Heating Degree Days 3/	Normal Heating Degree Days 3/	Degree Day Factor	Normalized Heating Use Dk 4/	Normalized Total Use Dk 5/	Average use/month	Normalized Use per Customer
Dk											
Rate 700											
Small Meters											
January	488.5	16	8	481	932	1,112		402	410	30.531250	25.6
February	604.1	16	8	596	1,296	1,066		499	507	37.756250	31.7
March	668.8	16	8	661	1,351	807		553	561	41.800000	35.1
April	332.4	16	8	324	580	569		271	279	20.775000	17.4
May	148.5	16	8	141	376	331		118	126	9.281250	7.9
June	56.0	16	8	48	158	67		40	48	3.500000	3.0
July 6/	11.3	16	8	3	14	0		3	11	0.706250	0.7
August 6/	9.1	16	8	1	2	0		1	9	0.568750	0.6
September 6/	8.2	16	8	0	21	7		0	8	0.512500	0.5
October	65.3	16	8	57	305	153		48	56	4.081250	3.5
November	246.0	16	8	238	797	598		199	207	15.375000	12.9
December	399.2	16	8	391	827	861		327	335	24.950000	20.9
Total	3,037.4	192	96	2,941	6,659	5,571	0.836612	2,461	2,557		159.8

1/ Lowest average use per month times customers.
2/ Sales Dk minus baseload.
3/ Degree Day Report based on 60 degrees for Montana.
4/ Actual heating use times degree day factor.
5/ Normalized heating use plus baseload.
6/ Volumes are not normalized.

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
WEATHER NORMALIZATION
TWELVE MONTHS ENDED DECEMBER 31, 2019

Rates 701												
Large Meters												
Sales Dk	Customers	Base load 1/	Actual Heating Use Dk 2/	Actual Heating Degree Days 3/	Normal Heating Degree Days 3/	Degree Day Factor	Normalized Heating Use Dk 4/	Normalized Total Use Dk 5/	Average use/month	Normalized Use per Customer		
524.1	5	12	512	932	1,112		428	440	104.820000	88.0		
632.4	5	12	620	1,296	1,066		519	531	126.480000	106.2		
897.5	5	12	886	1,351	807		741	753	179.500000	150.6		
362.6	5	12	351	580	569		294	306	72.520000	61.2		
161.6	5	12	150	376	331		125	137	32.320000	27.4		
74.2	5	12	62	158	67		52	64	14.840000	12.8		
19.3	5	12	7	14	0		6	18	3.860000	3.6		
12.4	5	12	0	2	0		0	12	2.480000	2.4		
11.8	5	12	0	21	7		0	12	2.360000	2.4		
125.5	5	12	114	305	153		95	107	25.100000	21.4		
359.6	5	12	348	797	598		291	303	71.920000	60.6		
493.5	5	12	482	827	861		403	415	98.700000	83.0		
3,674.5	60	144	3,532	6,659	5,571	0.836612	2,954	3,098		619.6		

1/ Lowest average use per month times customers.
2/ Sales Dk minus baseload.
3/ Degree Day Report based on 60 degrees for Montana.
4/ Actual heating use times degree day factor.
5/ Normalized heating use plus baseload.
6/ Volumes are not normalized.

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ADVERTISING
TWELVE MONTHS ENDING DECEMBER 31, 2019
WORK PAPER

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	Per Books			Pro Forma
	Gas Utility	Montana		Adjustment
Customer Service	\$159,629	\$44,256	\$42,764	(\$1,492)
Sales	78,348	30,913	0	(30,913)
A&G	99,891	14,365	0	(14,365)
Total Advertising	\$337,868	\$89,534	\$42,764	(\$46,770)

	Per Books			Pro Forma
	Gas Utility	Montana		Adjustment
Informational	\$159,629	\$44,256	\$42,764	(\$1,492)
Promotional	78,348	30,913	0	(30,913)
Institutional	99,891	14,365	0	(14,365)
Total Advertising	\$337,868	\$89,534	\$42,764	(\$46,770)

	Per Books				
	Gas Utility	Montana	Add	Eliminate	Total
<u>Informational - Account 909</u>					
5711 Radio	\$35,980	\$8,035			\$8,035
5712 Newspaper	6,757	2,864			2,864
5715 Other	116,892	33,357		\$1,492	31,865
Total	\$159,629	\$44,256	\$0	\$1,492	\$42,764
<u>Promotional - Account 913</u>					
5711 Radio	\$330				
5712 Newspaper	5,233	\$2,892		\$2,892	\$0
5715 Other	72,785	28,021	\$1,424	29,445	0
Total	\$78,348	\$30,913	\$1,424	\$32,337	\$0
<u>Institutional - Account 930.1</u>					
5711 Radio	\$7,872	\$35		\$35	\$0
5712 Newspaper	8,794	655		655	0
5713 Television	270	0		0	0
5715 Other	82,955	13,675	\$68	13,743	0
Total	\$99,891	\$14,365	\$68	\$14,433	\$0

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ADVERTISING - RADIO
WORKPAPER
OBJECT 5711

2019					
Account Number	Account Description	Ferc Minor	Montana Gas Balance	Doc. Number	Address Name
71002.5711.29090	Inform. & Instr. Adv.	Customer Service	\$4,017.60	2066152	MG MEDIA STRATEGIES
	Inform. & Instr. Adv.	Customer Service	4,017.60	2091124	MG MEDIA STRATEGIES
250.5711.29301	Institutional Advertising	A&G	34.50		
	Total Object Account 5711		\$8,069.70		
					Notes
					RADIO: CALL BEFORE YOU DIG SPRING 2019
					RADIO: CALL BEFORE YOU DIG FALL 2019
					Transfer

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ADVERTISING - NEWSPAPER
WORKPAPER
OBJECT 5712

Account Number	Account Description	Ferc Minor	Montana Gas Balance	2019		
				Doc. Number	Address Name	Notes
71002.5712.29090	Inform. & Instr. Adv-MT Gas	Customer Service	\$428.00	2047987	BILLINGS GAZETTE	ONLINE ACCOUNT SERVICES
	Inform. & Instr. Adv-MT Gas	Customer Service	846.00	2059865	BILLINGS GAZETTE	CALL BEFORE YOU DIG
	Inform. & Instr. Adv-MT Gas	Customer Service	428.00	2080587	BILLINGS GAZETTE	ONLINE ACCOUNT SERVICES
	Inform. & Instr. Adv-MT Gas	Customer Service	428.00	2085615	BILLINGS GAZETTE	CALL BEFORE YOU DIG
	Inform. & Instr. Adv-MT Gas	Customer Service	428.00	2095457	BILLINGS GAZETTE	ONLINE ACCOUNT SERVICES
	Inform. & Instr. Adv-MT Gas	Customer Service	306.20	2086681	LEE AGRI MEDIA	PUBLIC AWARENESS-PIPELINE UTILITY MARKERS & CALL 811 BEFORE YOU DIG
95802.5712.29090	Promotional Advertising	Sales	224.00			
160.5712.29130	Promotional Advertising-ND	Sales	2,668.00			
71002.5712.29130	Institutional Advertising	A&G	655.15			
160.5712.29301	Total Object Account 5712		\$6,411.35			

Transfer

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ADVERTISING - OTHER
WORKPAPER
OBJECT 5715

Account Number	Account Description	Ferc Minor	Montana Gas Balance	Doc. Number	Address Name	Notes	Transfer
250.5715.28740	Mails & Services		\$49.97	1317234	CREDIT CARD	WALLEYES UNLIMITED BANQUET	TRANSFER
71300.5715.29030	Customer Records & Collect.		17.96	1311574	CREDIT CARD	JOB POSTINGS	TRANSFER
160.5715.29090	Inform. & Instr. Adv	Customer Service	60.28	2089179	GLENDIVE RANGER-REVIEW	NEWSPAPER-IN THE COMMUNITY TO SERVE	TRANSFER
	Inform. & Instr. Adv	Customer Service	286.12	2086185	CREDIT CARD	INFORMATIONAL PUBLIC MEETING AT SIDNEY	
250.5715.29090	Inform. & Instr. Adv	Customer Service	30.00	2086328	WOLF POINT HIGH	IN THE COMMUNITY TO SERVE-WOLF POINT HIGH SCHOOL YEAR BOOK	TRANSFER
71000.5715.29090	Inform. & Instr. Adv	Customer Service	2,229.79	2047536	VERNON COMPANY	JUMBO MAGNETIC CLIP 811 LOGO/LIL CHIZLER 811 LOGO/MAGNETIC BOTTLE OPENER 811 LOGO	
	Inform. & Instr. Adv	Customer Service	(4.72)	1312745	ND SALES TAX	ND SALES TAX	
	Inform. & Instr. Adv	Customer Service	244.63	2066023	VERNON COMPANY	JUMBO MAGNETIC CLIP 811 LOGO	
	Inform. & Instr. Adv	Customer Service	1,333.89	1318989	CREDIT CARD	GOLF BALLS	
	Inform. & Instr. Adv	Customer Service	51.19	1320715	CREDIT CARD	SNIFFY AND LOUIE SAFETY TATTOOS	TRANSFER
	Inform. & Instr. Adv	Customer Service	2,303.52	2085764	CULVER COMPANY	SCHOOL PROGRAM: NATURAL GAS 2019 SAFETY AWARENESS COMMUNICATIONS	
	Inform. & Instr. Adv	Customer Service	2,471.83	2094239	CULVER COMPANY	SCHOOL PROGRAM: E-SMARTKIDS WEBSITES	
	Inform. & Instr. Adv	Customer Service	675.00	2046023	MONTANA ASSOCIATION OF CHIEFS-	SAFETY IS OUR TOP PRIORITY: CALL 811 BEFORE YOU DIG	
	Inform. & Instr. Adv	Customer Service	3,338.45	2047645	CULVER COMPANY	NATURAL GAS SAFETY MATERIALS: 811 LOGO	
	Inform. & Instr. Adv	Customer Service	552.81	2047988	VERNON COMPANY	CARPENTER PENCILS: 811 LOGO	
	Inform. & Instr. Adv	Customer Service	475.00	2057321	LAMAR COMPANIES	POSTER PRODUCTION	
	Inform. & Instr. Adv	Customer Service	1,431.00	2057322	LAMAR COMPANIES	BILLBOARD: MARCH 2019: CALL BEFORE YOU DIG	
	Inform. & Instr. Adv	Customer Service	2,088.00	2061785	LAMAR COMPANIES	BILLBOARD: APRIL 2019: CALL BEFORE YOU DIG	
	Inform. & Instr. Adv	Customer Service	1,945.00	2077159	LAMAR COMPANIES	BILLBOARD: JULY 2019: CALL BEFORE YOU DIG	
	Inform. & Instr. Adv	Customer Service	1,474.00	2080570	LAMAR COMPANIES	BILLBOARD: AUGUST 2019: CALL BEFORE YOU DIG	
	Inform. & Instr. Adv	Customer Service	189.00	2088974	LAMAR COMPANIES	BILLBOARD: NOVEMBER 2019: BILL PAY THE EASY WAY	
	Inform. & Instr. Adv	Customer Service	190.00	2089464	LAMAR COMPANIES	POSTER PRODUCTION	
	Inform. & Instr. Adv	Customer Service	887.00	2101924	LAMAR COMPANIES	BILLBOARD: DECEMBER 2019 BILL PAY THE EASY WAY	
71100.5715.29090	Inform. & Instr. Adv	Customer Service	9,802.56	2041199	CENTURY LINK	PHONE LISTINGS	EXCLUDE: CTA TRACKER
71300.5715.29090	Inform. & Instr. Adv	Customer Service	18.21	2037633	CENTURY LINK	PHONE LISTINGS	EXCLUDE: CTA TRACKER
73102.5715.29090	Inform. & Instr. Adv	Customer Service	475.00	2091180	LAMAR COMPANIES	POSTER PRODUCTION: CONSERVATION PROGRAM	EXCLUDE: CTA TRACKER
	Inform. & Instr. Adv	Customer Service	1,474.00	2091206	LAMAR COMPANIES	BILLBOARD: CONSERVATION PROGRAM	EXCLUDE: CTA TRACKER
	Inform. & Instr. Adv	Customer Service	787.00	2083294	LAMAR COMPANIES	BILLBOARD: CONSERVATION PROGRAM	EXCLUDE: CTA TRACKER
	Inform. & Instr. Adv	Customer Service	687.00	2083459	LAMAR COMPANIES	BILLBOARD: CONSERVATION PROGRAM	EXCLUDE: CTA TRACKER
	Inform. & Instr. Adv	Customer Service	787.00	2088464	LAMAR COMPANIES	BILLBOARD: CONSERVATION PROGRAM	EXCLUDE: CTA TRACKER
	Inform. & Instr. Adv	Customer Service	975.08	2101934	LAMAR COMPANIES	BILLBOARD: CONSERVATION PROGRAM	EXCLUDE: CTA TRACKER
95300.5715.29090	Inform. & Instr. Adv	Customer Service	(3.01)	2069911	VERNON COMPANY	VISORS: 811 LOGO	
	Inform. & Instr. Adv	Customer Service	4,876.38	1321782	ND SALES TAX	ND SALES TAX	
110.5715.29130	Promotional Advertising	Sales	70.00				
112.5715.29130	Promotional Advertising	Sales	750.00				
160.5715.29130	Promotional Advertising	Sales	200.19				
250.5715.29130	Promotional Advertising	Sales	1,863.11				
71000.5715.29130	Promotional Advertising	Sales	20,261.32				
71002.5715.29130	Promotional Advertising	Sales	3,075.00				
110.5715.29301	Institutional Advertising	A&G	500.00				
112.5715.29301	Institutional Advertising	A&G	413.00				
160.5715.29301	Institutional Advertising	A&G	475.00				
250.5715.29301	Institutional Advertising	A&G	571.82				
71000.5715.29301	Institutional Advertising	A&G	1,304.75				
71002.5715.29301	Institutional Advertising	A&G	7,267.74				
99400.5715.29301	Total Object Account 5715		\$80,049.87				



Online Account Services

Manage your account and pay your bill online ... at your convenience.

To enroll, visit www.montana-dakota.com



1-800-638-3278
Montana-Dakota.com
In the Community to Serve®

***In the Community
to Serve®***

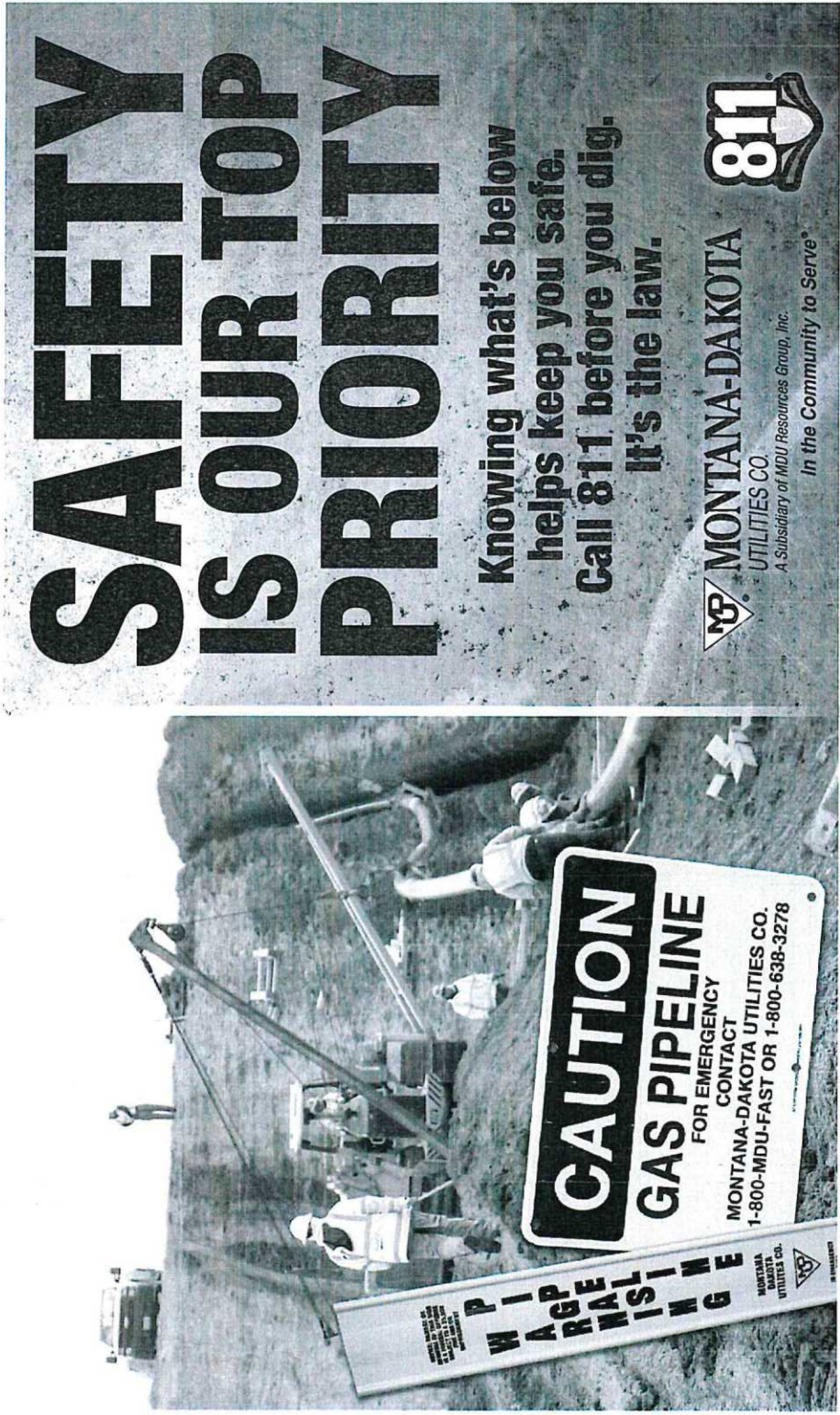


www.call811.com



A Subsidiary of MDU Resources Group, Inc.

In the Community to Serve®



SAFETY IS OUR TOP PRIORITY

Knowing what's below
helps keep you safe.
Call 811 before you dig.
It's the law.

 **MONTANA-DAKOTA
UTILITIES CO.**
A Subsidiary of MDU Resources Group, Inc.
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**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
SOFTWARE MAINTENANCE
SUMMARY
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A&G			
Responsibility	Pro Forma 2020	2019	2018
721	\$204,742	\$190,267	\$99,869
888	357	357	0
926	147,310	99,686	104,422
951	8,481	8,481	25,250
964	28,154	24,013	12,288
994	61,157	59,070	63,244
Total	\$450,201	\$381,874	\$305,073

Customer Accounting			
Responsibility	Pro Forma 2020	2019	2018
926	\$1,926	\$1,692	\$0
964	19,592	14,940	11,383
Total	\$21,518	\$16,632	\$11,383

Distribution			
Responsibility	Pro Forma 2020	2019	2018
888	\$3,054	\$3,054	(\$67)
926	3,531	3,482	0
951	26,063	26,063	14,699
Total	\$32,648	\$32,599	\$14,632

Other Gas Supply			
Responsibility	Pro Forma 2020	2019	2018
721	\$11,201	\$10,754	\$3,778
Total	\$11,201	\$10,754	\$3,778

Allocation Factors			
	2020	2019	2018
Factor 27	25.425542%	25.071002%	23.888633%
Factor 87	28.408910%	28.438118%	28.442677%
Factor 119	23.261288%	22.726833%	21.576904%
Factor 123	23.805143%	23.856899%	23.900764%

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
SOFTWARE MAINTENANCE
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721 - Responsibility (Other Gas Supply)				
	Allocated			
Software	Pro Forma	Pro Forma		
	2020	2020	2019	2018
ABB ENTERPRISE SOFTWARE F-123	\$3,829	\$16,083	\$15,945	\$15,808
FIS ENERGY SYSTEMS F-27	7,372	28,994	28,088	0
Total	\$11,201	\$45,077	\$44,033	\$15,808

926 - Responsibility (Customer Accounting)				
	Allocated			
Software	Pro Forma	Pro Forma		
	2020	2020	2019	2018
MARCO TECHNOLOGIES F-27	\$1,926	\$7,577	\$6,749	\$0
Total	\$1,926	\$7,577	\$6,749	\$0

926 - Responsibility (Distribution)				
	Allocated			
Software	Pro Forma	Pro Forma		
	2020	2020	2019	2018
INDUSTRIAL SOFTWARE SOLUTIONS F-27	\$3,187	\$12,536	\$12,536	\$0
AUTOSOL F-27	344	1,353	1,353	0
Total	\$3,531	\$13,889	\$13,889	\$0

964 - Responsibility (A&G)				
	Allocated			
Software	Pro Forma	Pro Forma		
	2020	2020	2019	2018
INSIGHT F-27	\$1,802	\$7,086	\$7,711	\$0
FUSEFORWARD CLOUD SERVICES F-27	7,836	30,819	30,500	0
CGI TECHNOLOGIES AND SOLUTIONS F-119	18,516	79,599	63,506	56,948
Total	\$28,154	\$117,504	\$101,717	\$56,948

964 - Responsibility (Customer Accounting)				
	Allocated			
Software	Pro Forma	Pro Forma		
	2020	2020	2019	2018
ITRON F-87	\$19,592	\$68,964	\$52,536	\$40,020
Total	\$19,592	\$68,964	\$52,536	\$40,020

994 - Responsibility (A&G)				
	Allocated			
Software	Pro Forma	Pro Forma		
	2020	2020	2019	2018
MDUR Cross Charges	\$61,157	\$61,157	\$59,070	\$63,244
Total	\$61,157	\$61,157	\$59,070	\$63,244

Allocation Factors			
	2020	2019	2018
Factor 27	25.425542%	25.071002%	23.888633%
Factor 87	28.408910%	28.438118%	28.442677%
Factor 119	23.261288%	22.726833%	21.576904%
Factor 123	23.805143%	23.856899%	23.900764%

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
SOFTWARE MAINTENANCE
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721 - Responsibility (A&G)				
Software	2018	2019	2020	Pro Forma 2020
BOTTOMLINE TECHNOLOGIES	\$0.00	\$2,962.47	\$0.00	\$2,962.47
CA	0.00	17,136.93	0.00	17,136.93
CITRIX SYSTEMS	0.00	7,940.87	13,211.47	7,940.87
DTN	5,674.23	8,197.33	2,249.49	11,842.35
EDIGIN	0.00	258.41	0.00	258.41
ENERGY ECONOMICS	0.00	9,638.47	0.00	9,638.47
ENERGY WORLDNET	8,937.68	75,164.51	34,496.04	42,051.10
GLOBAL SOFTWARE	0.00	2,364.11	5,389.01	2,364.11
GOOGLE	2,734.88	721.45	194.11	1,728.17
HELPSYSTEMS	0.00	268.50	0.00	268.50
INDUSTRYSAFE	647.76	19,627.64	0.00	10,137.70
INDUSTRIAL SOFTWARE SOLUTIONS	0.00	0.00	15,239.59	15,239.59
INSIGHT	44,748.95	74,315.76	10,195.21	62,296.86
LANDWORKS	0.00	10,794.42	0.00	10,794.42
MARCO TECHNOLOGIES	24,774.31	2,276.54	0.00	13,525.43
MAVRO IMAGING	9,870.59	10,578.92	0.00	10,224.76
MICROSOFT	182,294.32	294,481.02	15,953.60	303,315.45
OPEN TEXT	20,352.48	20,976.15	0.00	21,618.93
OPEX	15,610.01	16,454.75	4,612.93	17,345.20
OPTIV SECURITY	2,913.56	20,641.98	17,482.87	20,641.98
ORACLE AMERICA	51,692.73	51,384.92	62,107.76	51,538.83
ORACLE	28,945.80	61,284.12	31,907.97	45,114.96
PPI GROUP	0.00	16,096.33	0.00	16,096.33
QUEST SOFTWARE	0.00	2,569.17	0.00	2,569.17
RANOREX	0.00	3,116.29	0.00	3,116.29
REPORTS NOW	0.00	1,596.24	0.00	1,596.24
RISKWATCH INTERNATIONAL	0.00	3,248.64	0.00	3,248.64
SITE SAFETY	0.00	1,919.71	0.00	1,919.71
TECHNICAL TOOLBOXES	18,435.53	6,466.35	0.00	12,450.94
TUNGSTEN NETWORK	428.14	206.59	0.00	317.37
US CAD	0.00	6,567.21	714.00	6,567.21
UTILITIES INTERNATIONAL	0.00	9,656.56	5,916.00	9,656.56
CRAWFORD TECHNOLOGIES USA	0.00	0.00	\$2,584.60	\$2,584.60
CYBER ADVISORS	0.00	0.00	137.82	137.82
FME US	0.00	0.00	1,160.59	1,160.59
PANDELL TECH USA	0.00	0.00	14,928.01	14,928.01
REDVECTOR.COM	0.00	0.00	19,627.64	19,627.64
TOPCON SOLUTIONS	0.00	0.00	27,984.14	27,984.14
WBI ENERGY TRANSMISSION	0.00	0.00	3,315.37	3,315.37
Total	\$418,060.97	\$758,912.36	\$289,408.22	\$805,262.12
Allocated Pro Forma 2020 F-27				\$204,742

Allocation Factors			
	2020	2019	2018
Factor 27	25.425542%	25.071002%	23.888633%
Factor 87	28.408910%	28.438118%	28.442677%
Factor 119	23.261288%	22.726833%	21.576904%
Factor 123	23.805143%	23.856899%	23.900764%

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
SOFTWARE MAINTENANCE
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926 - Responsibility (A&G)				
Software	2018	2019	2020	Pro Forma 2020
AUTOSOL	\$0.00	\$3,613.03	(\$52.49)	\$3,613.03
BOTTOMLINE TECHNOLOGIES	565.74	931.60	0.00	1,534.06
CCH	108.30	140.57	0.00	182.46
DTN	0.00	1,211.86	0.00	1,211.86
FIS	0.00	28,088.14	28,994.06	28,994.06
GENUS TECHNOLOGIES	1,397.30	2,167.33	0.00	3,361.71
IBM	4,033.13	4,081.99	0.00	4,131.44
INSIGHT	1,110.86	3,729.91	25,056.55	37,580.39
KISCO INFO SYSTEMS	113.88	240.98	0.00	509.93
OPEN TEXT	44,535.65	14,613.82	40,613.13	40,613.13
ORACLE AMERICA	139,737.25	48,232.05	0.00	93,984.65
ORACLE CORP	113,984.52	154,112.45	174,337.02	174,337.02
RANOREX	0.00	3,317.45	0.00	3,317.45
SAP AMERICA	4,769.86	2,372.08	0.00	3,570.97
TUNGSTEN NETWORK	698.83	452.85	1,883.83	1,883.83
VERTEX	2,621.46	2,892.34	0.00	3,191.21
WORKIVA	28,560.70	28,560.70	21,210.65	28,560.70
ANCHOR SOFTWARE	\$11,065.44	\$0.00	\$1,634.04	\$1,634.04
FUSEFORWARD CLOUD SERVICES	0.00	0.00	11,790.04	0.00
ONTRACKS CONSULTING	0.00	0.00	40,422.96	40,422.96
POWERPLAN	83,816.14	98,856.14	106,744.79	106,744.79
Total	\$437,119.06	\$397,615.29	\$452,634.58	\$579,379.69
Allocated Pro Forma 2020 F-27				\$147,310

Allocation Factors			
	2020	2019	2018
Factor 27	25.425542%	25.071002%	23.888633%
Factor 87	28.408910%	28.438118%	28.442677%
Factor 119	23.261288%	22.726833%	21.576904%
Factor 123	23.805143%	23.856899%	23.900764%

**MONTANA-DAKOTA UTILITIES CO.
INSURANCE EXPENSE
GAS UTILITY - MONTANA
PRO FORMA 2020**

Description	Expiration	Annual Premium	Quarterly Admin Fee	Total	% Gas 1/ Utility	Gas Utility	Montana Gas 2/ Utility
Directors & Officer's Liability Insurance	10/31/2020	\$318,273	\$10,930	\$329,203	41.50%	\$136,619	\$34,736
General Liability							
Fiduciary Liability	10/31/2020	45,365	3,167	48,532	58.10%	28,197	7,169
Employment Liability	12/31/2020	15,303		15,303	58.10%	8,891	2,261
Excess Liability	12/31/2020	2,142,592	69,897	2,212,489	41.50%	918,183	233,453
Property - All Risk	12/31/2020	1,294,980	44,520	1,339,500	41.50%	555,893	141,339
Blanket Crime	10/31/2020	16,587	571	17,158	41.50%	7,121	1,811
Special Contingency	5/1/2021	1,885		1,885	41.50%	782	199
Self Insurance	N.A.	539,524		539,524	41.50%	223,902	56,928
		\$4,374,509	\$129,085	\$4,503,594		\$1,879,588	\$477,896

1/ Fiduciary Liability and Employment liability allocated to Gas Utility based on Number of Employees, remaining policies are allocated based on the Corporate Overhead.

2/ Allocated to Montana on Factor No. 27 - O&M Excluding
Cost of Gas and A&G - 2020: 25.425542%

MONTANA-DAKOTA UTILITIES CO.
INSURANCE EXPENSE - SELF INSURANCE
GAS UTILITY
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Self Insurance	Electric	Gas	Total
2015	\$203,918	\$151,960	\$355,878
2016	45,639	31,324	76,963
2017	350,622	232,776	583,398
2018	276,787	185,295	462,082
2019	721,826	497,475	1,219,301
	<u>\$1,598,792</u>	<u>\$1,098,830</u>	<u>\$2,697,622</u>
	\$319,758	\$219,766	\$539,524

	<u>Fees</u>	<u>Included</u>
Chamber of Commerce-Baker	88	53
Chamber of Commerce-Billings	\$3,899	2,339
Chamber of Commerce-Glasgow	160	96
Chamber of Commerce-Hardin	250	150
Chamber of Commerce-Laurel	\$510	306
Chamber of Commerce-Miles City	\$500	300
Chamber of Commerce-Poplar	37	22
Chamber of Commerce-Sidney	250	150
Chamber of Commerce-Wolf Point	\$300	180

% allowable for recovery 60.00%



Post Office Box 79226
Baltimore, Maryland 21279-0226
Telephone (202)824-7256
Fax (202)824-9156/ Email: jpierce@aga.org

Montana-Dakota Utilities Co.

2020 DUES

Year ending December 31, 2020

Full Member Company X Limited Member Company

A.G.A. Dues Rules are attached. Dues are based upon the following operating income information (\$000):

2016 49,526 2017 61,620 2018 64,421 Average 58,522

YOUR 2019 DUES WERE \$ 303,189

YOUR 2020 DUES ARE \$ 311,896

2020 Payment Schedule

 Full amount enclosed Semi-annually (Jan.1, July 1)
 Quarterly (Jan.1, Apr.1, July 1, Oct.1) Other (Please state)

Please return this completed form to the A.G.A. Treasurer at the above address. Payments may also be directed to the address noted above.

Invoice to: Approved: Mike Morris
..... Title
..... Date: 11/26/19
.....

Phone: () - Fax () -

IMPORTANT IRS REQUIRED NOTICE

Dues payments, contributions or gifts to the American Gas Association are not tax deductible as charitable contributions for federal income tax purposes. However, they may be deductible as ordinary and necessary business expenses subject to restrictions imposed as a result of AGA's lobbying activities as defined by the Budget Reconciliation Act of 1993 AGA estimates that the nondeductible portion of your 2020 dues -- **the portion that is allocable to lobbying is 6.2%.**

AMERICAN GAS ASSOCIATION 2020 DUES RULES

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FULL MEMBERS

1. AGA Dues for U.S. Gas Utility members are based on the average of 2016, 2017 and 2018 gas operating income* and the following income blocks and rates:

Block 1	First	\$ 10,000,000	1.0468%
Block 2	Next	\$ 7,500,000	.6710%
Block 3	Next	\$ 20,000,000	.4481%
Block 4	Next	\$ 40,000,000	.3200%
Block 5	Next	\$ 80,000,000	.2550%
Block 6	Over	\$ 157,500,000	.1500%

In applying the above formula, the maximum annual increase for any company equals 3.75%, and the maximum decrease equals 3.75%.

2. For companies that merge or are acquired whose dues would have decreased, the dues of the resulting company will equal the combined dues of the merging companies immediately prior to the merger for 4 years with no dues increases for increased operating income. After 4 years, the company's dues will be assessed via the formula structure, and any reduction in dues will be phased-in over a 4-year period or until the phased-in amount equals the formula dues, whichever comes first.
3. If necessary, the Board may approve the redistribution of any remaining AGA budget deficit to the members based on each company's share of total dues revenue.
4. For distribution companies with less than 75,000 meters, the maximum distribution company dues are equal to \$0.90/meter**. When dues are capped at \$0.90/meter, the maximum annual increase/decrease provision does not apply.
5. No company, whose full company or subsidiary meets the eligibility standards of full membership, will be allowed to join as a Limited Member. All regulated U.S. gas distribution subsidiaries of a parent organization must be included in the dues calculations.
6. Minimum Gas Company 2020 dues are \$2,135.

*Gas operating income is defined as Line 11, Schedule II of the Uniform Statistical Report.

**Meters are defined as Line 17 (total), Schedule XX of the Uniform Statistical Report.

Please contact Kevin Hardardt, Chief Financial and Administrative Officer at (202) 824-7250 regarding any questions about the invoice or rules.



INVOICE

908 King Street, Ste. 330
Alexandria, VA 22314
703-836-1709

Bill To:

Myrlene Wallander
MDU Resources
400 N. 4th St
Bismark, ND 58501
USA

Invoice # INV-19779-X2G3Z2
Invoice Date 12/4/2019

Qty	Description	Unit Price	Amount
1	12/31/2020 CGA Membership - Company, Corporation	\$2,500.00	\$2,500.00

95800.5912.293077 - \$1450.00
48558.5912.293077 - \$420.00
4765800.5912.293077 - \$630.00

12-10-19
Please pay
Teresa Hendricks

Invoice Note: Member renewal invoices are due January 31st.

Subtotal	\$2,500.00
VA State Tax	\$0.00
Invoice Total	\$2,500.00
Amount Paid	\$0.00
Total Due	\$2,500.00

The CGA is a Washington, D.C., nonprofit organization
under 501(c)(3) Internal Revenue Code.
Federal ID # 41-1984081

Date	Invoice #
10/31/2019	11215

Bill To

Montana Dakota Utilities Co.
Attn: John Delvo
5181 Southgate Drive
Billings, MT 59101

Terms

Due Date

12/31/2019

Description	Qty	Rate	Amount
Builder/Associate Membership Dues - Local (HBA)		99.00	99.00
Builder/Associate Membership Dues - National (NAHB)		198.00	198.00
Builder/Associate Membership Dues - State (MBIA)		160.00	160.00
Builder/Associate Membership Dues - Issues Management Fund (MBIA)		30.00	30.00
112.5912.29120 			

Please send payments to:

HBA of Billings
PO Box 20461
Billings, MT 59104

If you have questions regarding this invoice, please feel free to contact Valary at 406.252.7533.

Total

\$487.00

Payments/Credits

\$0.00

Balance Due

\$487.00

Hello,

Your annual HBA membership is currently up for renewal in the amount of \$ 487. Here are a couple of ways you can renew your membership:

- Visit www.BillHighway.com and pay by credit card or electronic check. This is a great option because it gives you the ability to make yearly, quarterly, or monthly payments. It also gives you the choice for automatic renewals to streamline the process in the future. You will need to use the email address that the HBA has on file to log in to this program.

The email address we have on file for you is: john.delva@mdu.com

Please contact Valary at the HBA office if this email address needs to be updated.

- Mail annual payment of \$ 487 to:
Home Builders Association of Billings
Accounts Receivable
1645 Avenue D, Suite F
Billings, MT 59102

On the other hand, if you're considering letting your membership lapse, allow us to remind you some of the benefits our HBA members enjoy:

- **Government relations/advocacy** - Along with the Montana Building Industry Association & National Association of Home Builders, the HBA of Billings represents the interests of our members at the federal, state, and local levels, fighting for beneficial legislation. We demand a seat at the table and take pride in delivering results on behalf of our members.
- **Networking Opportunities** - From HBA's member socials, to our tournaments, HBA brings members together to learn, recharge, and make vital industry connections. By nurturing a sense of community among our members, HBA helps build a stronger industry.
- **Training** - The HBA of Billings offers quality, up-to-date technical training programs such as SWPPP Administrator Certification. We also offer multiple safety training opportunities such as CPR/First Aid, Fork Lift, and top OSHA violations.
- **Industry Information** - We're serious about keeping our members informed about what's happening in the building industry. Our weekly E-Blasts, legislative updates, and quarterly newsletters keep you on top of the news that affects your business.
- **Workforce development** - We know it's tough to find reliable skilled workers to fill your open construction jobs. So, the HBA is working hard to attract positive attention to the industry and providing students with the tools they need to pursue jobs in construction by facilitating and funding the Billings Career Center construction/student-built home program.



Montana
Water Resources
Association

Statement G

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P.O. Box 4927 • Helena, Montana 59604 • (406) 253-4335

Email: mwra_h2o@msn.com

98502.5912.193077

98502.5912.29307

98502.5912.4264000

MDU Resources Group, Inc.

P.O. Box 5650

Bismark, MT 58506

MEMBERSHIP DUES FOR 2019 \$ 400.00

due to pay
Michele A. Bero
5/29/19

Dues statements are mailed each year. Membership support is the primary source of income for the Montana Water Resources Association (MWRA). With your support, the Association will continue its work to protect water and related property rights. Please support MWRA by paying your membership dues. It's a small price to pay for the returns you receive. Thank you.

Note: Dues/Contributions to MWRA are not tax deductible as charitable contributions. They may be deductible as a business expense; however, 20% of these dues are allocable to lobbying activity which is not deductible.

MONTANA WATER RESOURCES ASSOCIATION

Please mail this copy to MWRA and retain the duplicate copy for your records.

Thank you!

Miche



*Montana
Water Resources
Association*

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P.O. Box 4927 • Helena, Montana 59604 • (406) 235-4555
Email: mwra_h2o@msn.com

May 2019

Dear MWRA Member:

We sincerely thank you for your participation and support for the efforts of Montana Water Resources Association (MWRA). A billing statement for 2019 MWRA membership dues, is enclosed.

MWRA's strength and ability to represent Montana water users in legislative, regulatory, administrative and policy matters at state and national levels is dependent upon your participation and support and the combined strength of our membership. In addition to MWRA efforts within Montana, a significant portion of dues paid to MWRA go to pay for our participation as a member state of the National Water Resources Association (NWRA) in order to assist with representation regarding legislative, regulatory, and legal issues at the national level. MWRA works together with the NWRA and other agricultural organizations to provide a collective strength to protect and enhance interests of Montana water users at both state and national levels.

The extent to which MWRA involvement is necessary to protect water and other private property rights continues to increase. Issues such as states' rights vs federal control, protecting the prior appropriation doctrine, financing for aging infrastructure, endangered species issues, water right adjudication, water quantity and quality concerns, instream flow demands, taxation, and over reach in government regulation, are a few of the challenges that impact water and other private property rights and Montana water users. The 2019 legislative session, like previous sessions, involved an increased number of bills that impact water and other private property rights. While resources are extremely limited, MWRA engages at all levels to represent and protect Montana water users. Support from our members allows us to prioritize efforts and provide an effective influence on those issues that are of most importance.

Again, thank you for your participation and support! For additional information or if you have any questions, concerns, or issues that you feel should be addressed by the Association, please don't hesitate to call, visit our web site at mtwra.org, or e-mail: mwra_h2o@msn.com.

Sincerely,

Michael E. Murphy
Executive Director

Enclosure

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
RATE CASE EXPENSE WORKPAPER**

Statement G
Page 46 of 48

	MT Gas D2017.9.79	Projected D2020.9.
Concentric Energy Advisors Inc. (ROE)	\$167,518	\$187,960
AUS Consultants, Inc.	18,000	0
CCOSS/Rate Design Consultant	0	100,000
<u>Legal</u>		
Stinson Leonard Street LLP	2,644	0
Crowley Fleck PLLP	45,904	49,500
Total	48,548	49,500
MT PSC Expense	396	3,500
<u>Montana-Dakota Staff Hearing Expense (8 people)</u>		
Aircraft (Bismarck, ND to Helena, MT \$550/person)	2,400	4,400
Car Rental (2 cars @ \$270/car)	0	540
Hotel (Assumes \$175/night for 3 nights each)	1,127	4,200
Meals (Assumes \$50/day for 3 days each)	334	1,200
Total	3,861	10,340
<u>Montana-Dakota Staff Public Input Meeting Expense (5 people)</u>		
Vehicles (1 vehicles @ \$0.30/mile) 1/		\$240
Hotel (Assumes \$125/night for 1 night each)		625
Meals (Assumes \$50/day for 1 day each)		250
Meeting Room		1,500
Total		2,615
<u>Other</u>		
Federal Express		2,000
Total Rate Case Expense	<u>\$238,323</u>	<u>\$355,915</u>
3 year amortization		\$118,638
Recurring Level of Expense 2/		18,764
Projected Regulatory Commission Expense		<u>\$137,402</u>

1/ Policy AD101.1

	Montana Gas	2017	2018	2019
<u>2/ Recurring Level of Regulatory Expense</u>				
Subcontract Labor (5211)	\$8,547	\$5,260	\$2,520	\$767
Legal Fees (5222)	33,512	28,574	(4,372)	9,310
Corporate Aircraft (5512)	10,384	600	5,344	4,440
Meals (5521)	73	0	0	73
Office Supplies (5630)	3,624	893	1,056	1,675
Postage (5651)	152	0	0	152
Deferred Charge Amortization (5983)	138,429	5,162	60,142	73,125
Total	\$194,721	\$40,489	\$64,690	\$89,542
Less: Deferred Charge	138,429			
Total	\$56,292			
3 year average	<u>\$18,764</u>			

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
RATE CASE EXPENSE WORKPAPER**

Statement G
Page 47 of 48

<u>Estimate for Concentric</u>	<u>Estimated Hours</u>	<u>Rate/hr</u>	<u>Total</u>
Senior VP	225	\$635	\$142,875
Senior Project Manager	65	425	27,625
Consultant	10	345	3,450
Assistant Consultant	10	320	3,200
Analyst	35	275	9,625
Project Assistant	15	79	1,185
	<u>360</u>		<u>\$187,960</u>
 Legal - Crowley Fleck PLLP	 180	 \$275	 \$49,500
 Depreciation Study General & Common Cost	 \$91,708		
MT Factor 40 - Gas Plant Excl Common GO	<u>0.22071036</u>		
Allocated to MT Gas	20,241		
5 year avg	4,048		
 Total Depreciation Study Expense	 <u><u>\$4,048</u></u>		

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
MATERIALS
WORK PAPER**

2019		2018		2017	
Responsibility	Per Books	Responsibility	Per Books	Responsibility	Per Books
112	\$127,246.21	112	\$0.00	112	\$0.00
115	154,496.61	115	333,431.62	115	186,728.15
125	4.36	125	7.66	125	0.00
155	6.45	155	3.15	155	28.96
165	55,267.80	165	108,927.14	165	75,696.39
255	42,071.62	255	44,207.16	255	49,504.09
720	65.23	720	3.52	720	0.00
721	0.00	721	0.00	721	1,690.00
863	18.31	863	0.00	863	0.00
865	2.73	865	0.00	865	0.00
887	31,193.15	887	33,653.82	887	41,150.44
888	10,876.55	888	13,802.23	888	8,733.25
920	339.47	920	1,345.10	920	960.08
941	0.00	941	25.34	941	0.00
951	16.47	951	(17.01)	951	301.11
953	0.00	953	2,887.53	953	2,481.40
954	1,380.76	954	0.00	954	0.00
955	4,671.07	955	0.00	955	0.00
962	2,073.97	962	1,772.67	962	2,102.97
964	12.64	964	0.00	964	(6.86)
\$429,743.40		\$540,049.93		\$369,369.98	

2019				Projected 2020			
Responsibility	Distribution	Customer Accounting	A&G	Responsibility	Distribution	Customer Accounting	A&G
112	\$126,943	\$7	\$297	112	144,654	8	338
115	152,639	1,857	0	115	143,257	1,743	0
125	3	0	1	125	3	0	1
155	6	0	0	155	6	0	0
165	53,442	6	1,820	165	53,442	6	1,820
255	41,532	84	456	255	41,532	84	456
720	0	0	65	720	0	0	65
863	18	0	0	863	18	0	0
865	3	0	0	865	3	0	0
887	31,193	0	0	887	31,193	0	0
888	2,776	0	8,101	888	2,776	0	8,101
920	0	0	339	920	0	0	339
951	16	0	0	951	16	0	0
954	923	0	458	954	923	0	458
955	4,671	0	0	955	4,671	0	0
962	0	0	2,074	962	0	0	2,074
964	12	1	0	964	12	1	0
Total	\$414,177	\$1,955	\$13,611	Total	\$422,506	\$1,842	\$13,652

2020		
Responsibility	Projected	Change
112	\$145,000	13.95%
115	\$145,000	-6.15%

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
PRO FORMA OPERATING INCOME AND RATE OF RETURN
REFLECTING ADDITIONAL REVENUE REQUIREMENTS**

	Before Additional Revenue Requirements 1/	Tax Tracker Filing Effective January 1, 2021	Tax Tracker True-Up	Additional Revenue Requirements	Reflecting Additional Revenue Requirements
Operating Revenues					
Sales	\$62,555,348	\$847,791	\$1,266,847	\$6,445,063	\$71,115,049
Transportation	1,207,130				1,207,130
Other	732,285				732,285
Total Revenues	<u>\$64,494,763</u>			<u>\$6,445,063</u>	<u>\$73,054,464</u>
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	<u>52,732,864</u>				<u>52,732,864</u>
Depreciation	6,120,527				6,120,527
Taxes Other Than Income	7,537,355			\$36,479 2/	7,573,834
Current Income Taxes	(1,690,380)			1,687,540 2/	(2,840)
Deferred Income Taxes	183,533				183,533
Total Expenses	<u>\$64,883,899</u>			<u>\$1,724,019</u>	<u>\$66,607,918</u>
Operating Income	<u>(\$389,136)</u>			<u>\$6,270,024</u>	<u>\$5,880,888</u>
Rate Base	<u>\$79,903,363</u>				<u>\$79,903,363</u>
Rate of Return	<u>-0.487%</u>				<u>7.360%</u>

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 Gas Normalization Summary

	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	700	1,109,554	1,277,484.0	1,277,484.0	1,068,573	1,076,027
Large Gas	701	2,815,399	3,217,853.4	3,217,853.4	2,798,599	2,833,750
Total Firm General		3,924,953	4,495,337.4	4,495,337.4	3,867,172	3,909,777
Optional Seasonal	721	12,909	13,433.5	13,433.5	13,029	13,029
Interruptible						
Small Interruptible	710	142,548	124,243.5	110,247.0	118,305	118,305
Large Interruptible	850	57,372	85,465.0	81,536.6	64,013	64,013
Total Interruptible		199,920	209,708.5	191,783.6	182,318	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	579,787	598,865.1	612,861.6	582,626	582,626
	811		38,524.0	38,524.0	32,581	32,581
Total Small Interruptible		579,787	637,389.1	651,385.6	615,207	615,207
Large Interruptible						
	820	52,815	104,023.7	104,023.7	94,888	94,888
	821	643,118	582,056.1	582,056.1	679,749	679,749
	822	100,412	212,563.4	212,563.4	184,888	184,888
	823	2,150,263	1,640,038.4	1,643,966.8	1,959,366	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

Montana Gas Normalization Summary

Sales

	Rate	Authorized Customers	Per Books Customers	Restated Customers	Normalized Customers	Annualized Customers
Residential	600	74,574	76,034	76,034	76,034	76,379
Firm General						
Small Gas	700	7,172	7,432	7,432	7,432	7,474
Large Gas	701	2,419	2,515	2,515	2,514	2,525
Total Firm General		9,591	9,947	9,947	9,946	9,999
Optional Seasonal	721	6	5	5	5	5
Interruptible						
Small Interruptible	710	18	20	18	18	18
Large Interruptible	850	2	1	1	1	1
Total Interruptible		20	21	19	19	19
Total Sales		84,191	86,007	86,005	86,004	86,402

Transportation

Small Interruptible	810	28	26	28	28	28
	811	0	1	1	1	1
Total Small Interruptible		28	27	29	29	29
Large Interruptible						
2/	820	3	1	1	1	1
	821	1	1	1	1	1
	822	0	1	1	1	1
	823	0	1	1	1	1
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

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ANNUALIZATION SUMMARY
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2019**

Rate	Customers				Volumes			
	Per Books	Normalized	Annualized	Difference 1/	Per Books	Normalized	Annualized	Difference 1/
600	76,034	76,034	76,379	345	6,860,061.9	5,880,470	5,912,347	31,877
700	7,432	7,432	7,474	42	1,277,484.0	1,068,573	1,076,027	7,454
701	2,499	2,499	2,525	26	3,217,853.4	2,798,599	2,833,750	35,151

1/ Difference between annualized and normalized.

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ANNUALIZATION
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2019**

Rate 600	Customers	Normalized Use per Customer	Average Customer Increase 1/	Customers Reflecting Avg. Incr. 2/	Difference from December 2019	Annualized Customers	Dk Adjustment 3/
December 2018	75,678						
January 2019	75,902	13.48	62.8	75,741	690	76,592	9,301
February	75,869	12.84	125.6	75,804	627	76,496	8,051
March	75,989	10.18	188.4	75,866	565	76,554	5,752
April	76,039	7.56	251.2	75,929	502	76,541	3,795
May	76,137	5.03	314.0	75,992	439	76,576	2,208
June	75,896	2.12	376.8	76,055	376	76,272	797
July	75,978	1.45	439.6	76,118	313	76,291	454
August	75,901	1.45	502.4	76,180	251	76,152	364
September	75,758	1.48	565.2	76,243	188	75,946	278
October	76,227	3.11	628.0	76,306	125	76,352	389
November	76,282	7.87	690.8	76,369	62	76,344	488
December	76,431	10.77	753.6	76,431	0	76,431	0
Total	912,409	77.34				76,379	31,877
Increase in Customers							5,880,470
							5,912,347

- 1/ Increase in customers divided by 12 plus previous month average customer increase.
2/ Previous year customers plus average customer increase.
3/ Use per customers times difference from most recent month.

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ANNUALIZATION
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2019**

Rate 700	Customers	Normalized Use per Customer	Average Customer Increase 1/	Customers Reflecting Avg. Incr. 2/	Difference from December 2019	Annualized Customers	Dk Adjustment 3/
December 2018	7,413						
January 2019	7,446	27.54	7.7	7,421	84	7,530	2,313
February	7,448	26.35	15.4	7,428	77	7,525	2,029
March	7,442	20.22	23.1	7,436	69	7,511	1,395
April	7,438	14.48	30.8	7,444	61	7,499	883
May	7,415	8.80	38.5	7,452	53	7,468	466
June	7,412	2.44	46.2	7,459	46	7,458	112
July	7,413	0.86	53.9	7,467	38	7,451	33
August	7,397	0.86	61.6	7,475	30	7,427	26
September	7,377	1.00	69.3	7,482	23	7,400	23
October	7,425	4.53	77.0	7,490	15	7,440	68
November	7,467	15.18	84.7	7,498	7	7,474	106
December	7,505	21.52	92.4	7,505	0	7,505	0
Total	89,185	143.78				7,474	7,454
	Increase in Customers	92	1.24%			Normalized Dk	1,068,573
						Annualized Dk	1,076,027

1/ Increase in customers divided by 12 plus previous month average customer increase.

2/ Previous year customers plus average customer increase.

3/ Use per customers times difference from most recent month.

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
ANNUALIZATION
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2019**

Rate 701	Customers	Normalized Use per Customer	Average Customer Increase 1/	Customers Reflecting Avg. Incr. 2/	Difference from December 2019	Annualized Customers	Dk Adjustment 3/
December 2018	2,466						
January 2019	2,481	180.73	5.0	2,471	55	2,536	9,940
February	2,485	171.78	10.0	2,476	50	2,535	8,589
March	2,489	138.46	15.0	2,481	45	2,534	6,231
April	2,488	104.61	20.0	2,486	40	2,528	4,184
May	2,496	72.49	25.0	2,491	35	2,531	2,537
June	2,495	35.04	30.0	2,496	30	2,525	1,051
July	2,495	26.61	35.0	2,501	25	2,520	665
August	2,496	26.61	40.0	2,506	20	2,516	532
September	2,496	26.72	45.0	2,511	15	2,511	401
October	2,506	47.82	50.0	2,516	10	2,516	478
November	2,517	108.63	55.0	2,521	5	2,522	543
December	2,526	145.94	60.0	2,526	0	2,526	0
Total	29,970	1,085.44				2,525	35,151
						Normalized Dk	2,798,599
						Annualized Dk	2,833,750

Increase in Customers 60 2.43%

- 1/ Increase in customers divided by 12 plus previous month average customer increase.
2/ Previous year customers plus average customer increase.
3/ Use per customers times difference from most recent month.

MONTANA-DAKOTA UTILITIES CO.
MONTANA GAS UTILITY

Residential Gas Weather Normalization
Twelve Months Ended December 31, 2019

Rate 600 - Residential Gas	Days in Month	Customers	Baseload/ Customer 1/	Normal Degree Days	Normalized Heating Use/ Customer 2/	Normalized Total Use/ Customer
January	31	75,902	1.45	1,112	12.03	13.48
February	28	75,869	1.31	1,066	11.53	12.84
March	31	75,989	1.45	807	8.73	10.18
April	30	76,039	1.40	569	6.16	7.56
May	31	76,137	1.45	331	3.58	5.03
June	30	75,896	1.40	67	0.72	2.12
July	31	75,978	1.45	0	0.00	1.45
August	31	75,901	1.45	0	0.00	1.45
September	30	75,758	1.40	7	0.08	1.48
October	31	76,227	1.45	153	1.66	3.11
November	30	76,282	1.40	598	6.47	7.87
December	31	76,431	1.45	861	9.32	10.77
Total	365	912,409	17.06	5,571	60.28	77.34
1/ Daily baseload per customer		0.04680	* number of days in month.			
2/ Use per degree day per customer		0.01082	* normal degree days.			
12 months ended December 31, 2019 average customers				76,034		
12 months ended December 31, 2019 normalized total use/customer				77.34		
12 months ended December 31, 2019 normalized use				5,880,470		
12 months ended December 31, 2019 per books use				6,860,062		
Difference				(979,592)		

600 - Residential

Statement H

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Month	Customers	Dth 1/	BPDD60 2/	Days	Dth/cust	DD/Day	Dth/Day/Cust
Jan-17	74,681	1,293,800.6	1,450	31	17.3	46.77419	0.55885
Feb-17	74,653	1,026,252.2	1,095	28	13.7	39.10714	0.49096
Mar-17	74,964	866,596.7	737	31	11.6	23.77419	0.37291
Apr-17	74,813	475,840.0	493	30	6.4	16.43333	0.21201
May-17	75,000	361,660.4	289	31	4.8	9.32258	0.15555
Jun-17	75,020	196,137.5	81	30	2.6	2.70000	0.08715
Jul-17	74,618	108,510.0	4	31	1.5	0.12903	0.04691
Aug-17	74,906	110,336.6	0	31	1.5	0.00000	0.04752
Sep-17	74,626	106,523.9	46	30	1.4	1.53333	0.04758
Oct-17	75,036	271,186.9	267	31	3.6	8.61290	0.11658
Nov-17	74,970	488,719.4	641	30	6.5	21.36667	0.2173
Dec-17	75,212	732,574.3	735	31	9.7	23.70968	0.3142
Jan-18	75,397	1,215,483.7	1,286	31	16.1	41.48387	0.52004
Feb-18	75,298	1,012,591.9	1,239	28	13.4	44.25000	0.48028
Mar-18	75,458	1,125,665.2	1,101	31	14.9	35.51613	0.48122
Apr-18	75,413	717,104.8	808	30	9.5	26.93333	0.31697
May-18	75,617	425,061.5	292	31	5.6	9.41935	0.18133
Jun-18	75,469	180,374.5	63	30	2.4	2.10000	0.07967
Jul-18	75,312	122,982.2	15	31	1.6	0.48387	0.05268
Aug-18	75,460	111,834.2	3	31	1.5	0.09677	0.04781
Sep-18	75,173	117,733.3	48	30	1.6	1.60000	0.05221
Oct-18	75,654	309,789.8	336	31	4.1	10.83871	0.13209
Nov-18	75,641	509,577.6	632	30	6.7	21.06667	0.22456
Dec-18	75,678	786,385.6	826	31	10.4	26.64516	0.3352
Jan-19	75,902	974,719.9	932	31	12.8	30.06452	0.41425
Feb-19	75,869	1,033,276.7	1,296	28	13.6	46.28571	0.4864
Mar-19	75,989	1,287,184.7	1,351	31	16.9	43.58065	0.54642
Apr-19	76,039	702,948.4	580	30	9.2	19.33333	0.30815
May-19	76,137	449,311.3	376	31	5.9	12.12903	0.19037
Jun-19	75,896	283,386.8	158	30	3.7	5.26667	0.12446
Jul-19	75,978	139,085.2	14	31	1.8	0.45161	0.05905
Aug-19	75,901	113,089.9	2	31	1.5	0.06452	0.04806
Sep-19	75,758	109,873.3	21	30	1.5	0.70000	0.04834
Oct-19	76,227	314,964.3	305	31	4.1	9.83871	0.13329
Nov-19	76,282	624,320.6	797	30	8.2	26.56667	0.27281
Dec-19	76,431	827,900.8	827	31	10.8	26.67742	0.34942

Slope	Intercept	R2
0.01082	0.04680	0.96663

1/ Reflects billed dk per month.

2/ Reflects billing period degree days.

MONTANA-DAKOTA UTILITIES CO.
MONTANA GAS UTILITY

Small Firm General Gas Weather Normalization
Twelve Months Ended December 31, 2019

Rate 700 - Small Firm General Gas	Days in Month	Customers	Baseload/ Customer 1/	Normal Degree Days	Normalized Heating Use/ Customer 2/	Normalized Total Use/ Customer
January	31	7,446	0.86	1,112	26.68	27.54
February	28	7,448	0.78	1,066	25.57	26.35
March	31	7,442	0.86	807	19.36	20.22
April	30	7,438	0.83	569	13.65	14.48
May	31	7,415	0.86	331	7.94	8.80
June	30	7,412	0.83	67	1.61	2.44
July	31	7,413	0.86	0	0.00	0.86
August	31	7,397	0.86	0	0.00	0.86
September	30	7,377	0.83	7	0.17	1.00
October	31	7,425	0.86	153	3.67	4.53
November	30	7,467	0.83	598	14.35	15.18
December	31	7,505	0.86	861	20.66	21.52
Total	365	89,185	10.12	5,571	133.66	143.78
1/ Daily baseload per customer		0.02777	* number of days in month.			
2/ Use per degree day per customer		0.02399	* normal degree days.			
12 months ended December 31, 2019 average customers				7,432		
12 months ended December 31, 2019 normalized total use/customer				143.78		
12 months ended December 31, 2019 normalized use				1,068,573		
12 months ended December 31, 2019 per books use				1,277,484		
Difference				(208,911)		

700 - Small Firm General

Month	Customers	Dth 1/	BPDD60 2/	Days	Dth/cust	DD/Day	Dth/Day/Cust
Jan-17	7,257	272,016.6	1,450	31	37.5	46.77419	1.20914
Feb-17	7,230	200,544.0	1,095	28	27.7	39.10714	0.99063
Mar-17	7,253	161,036.0	737	31	22.2	23.77419	0.71622
Apr-17	7,207	79,249.9	493	30	11	16.43333	0.36654
May-17	7,246	52,785.6	289	31	7.3	9.32258	0.23499
Jun-17	7,249	23,825.9	81	30	3.3	2.70000	0.10956
Jul-17	7,225	13,300.6	4	31	1.8	0.12903	0.05938
Aug-17	7,252	14,112.3	0	31	1.9	0.00000	0.06277
Sep-17	7,219	12,331.0	46	30	1.7	1.53333	0.05694
Oct-17	7,242	38,200.3	267	31	5.3	8.61290	0.17016
Nov-17	7,210	88,491.5	641	30	12.3	21.36667	0.40911
Dec-17	7,288	133,344.1	735	31	18.3	23.70968	0.59021
Jan-18	7,318	250,630.6	1,286	31	34.2	41.48387	1.10479
Feb-18	7,311	211,047.5	1,239	28	28.9	44.25000	1.03097
Mar-18	7,329	223,091.2	1,101	31	30.4	35.51613	0.98192
Apr-18	7,324	135,366.1	808	30	18.5	26.93333	0.61608
May-18	7,336	64,159.7	292	31	8.7	9.41935	0.28212
Jun-18	7,334	20,781.6	63	30	2.8	2.10000	0.09445
Jul-18	7,326	14,355.8	15	31	2	0.48387	0.06321
Aug-18	7,323	13,840.6	3	31	1.9	0.09677	0.06097
Sep-18	7,290	14,063.0	48	30	1.9	1.60000	0.0643
Oct-18	7,341	49,318.6	336	31	6.7	10.83871	0.21672
Nov-18	7,378	90,503.6	632	30	12.3	21.06667	0.40889
Dec-18	7,413	150,606.3	826	31	20.3	26.64516	0.65537
Jan-19	7,446	191,016.0	932	31	25.7	30.06452	0.82753
Feb-19	7,448	217,140.4	1,296	28	29.2	46.28571	1.04122
Mar-19	7,442	260,575.7	1,351	31	35	43.58065	1.12949
Apr-19	7,438	124,460.7	580	30	16.7	19.33333	0.55777
May-19	7,415	68,598.1	376	31	9.3	12.12903	0.29843
Jun-19	7,412	38,717.0	158	30	5.2	5.26667	0.17412
Jul-19	7,413	16,362.1	14	31	2.2	0.45161	0.0712
Aug-19	7,397	13,634.3	2	31	1.8	0.06452	0.05946
Sep-19	7,377	13,255.7	21	30	1.8	0.70000	0.0599
Oct-19	7,425	50,244.9	305	31	6.8	9.83871	0.21829
Nov-19	7,467	119,550.5	797	30	16	26.56667	0.53368
Dec-19	7,505	163,928.6	827	31	21.8	26.67742	0.7046

Slope	Intercept	R2
0.02399	0.02777	0.97263

1/ Reflects billed dk per month.

2/ Reflects billing period degree days.

MONTANA-DAKOTA UTILITIES CO.
MONTANA GAS UTILITY

Large Firm General Gas Weather Normalization
Twelve Months Ended December 31, 2019

Rate 701 - Large Firm General Gas	Days in Month	Customers	Baseload/ Customer 1/	Normal Degree Days	Normalized Heating Use/ Customer 2/	Normalized Total Use/ Customer
January	31	2,481	26.61	1,112	154.12	180.73
February	28	2,485	24.03	1,066	147.75	171.78
March	31	2,489	26.61	807	111.85	138.46
April	30	2,488	25.75	569	78.86	104.61
May	31	2,496	26.61	331	45.88	72.49
June	30	2,495	25.75	67	9.29	35.04
July	31	2,495	26.61	0	0.00	26.61
August	31	2,496	26.61	0	0.00	26.61
September	30	2,496	25.75	7	0.97	26.72
October	31	2,506	26.61	153	21.21	47.82
November	30	2,517	25.75	598	82.88	108.63
December	31	2,526	26.61	861	119.33	145.94
Total	365	29,970	313.30	5,571	772.14	1,085.44
1/ Daily baseload per customer		0.85835	* number of days in month.			
2/ Use per degree day per customer		0.13860	* normal degree days.			
12 months ended December 31, 2019 average customers				Heat Sensitive	Non-Heat Sensitive	Total
12 months ended December 31, 2019 normalized total use/customer				2,498	16	2,514
12 months ended December 31, 2019 normalized use				1,085.44		
				2,711,429	87,170	2,798,599
12 months ended December 31, 2019 per books use				3,107,078	84,703	3,191,781
Difference				(395,649)	2,467	(393,182)

701 - Large Firm General

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Month	Customers	Dth 1/	BPDD60 2/	Days	Dth/cust	DD/Day	Dth/Day/Cust
Jan-17	2,401	562,850.0	1,450	31	234.4	46.77419	7.56204
Feb-17	2,395	428,397.5	1,095	28	178.9	39.10714	6.38827
Mar-17	2,413	374,966.0	737	31	155.4	23.77419	5.01271
Apr-17	2,407	209,503.5	493	30	87	16.43333	2.90131
May-17	2,414	165,318.0	289	31	68.5	9.32258	2.20913
Jun-17	2,421	101,388.4	81	30	41.9	2.70000	1.39596
Jul-17	2,411	66,249.1	4	31	27.5	0.12903	0.88638
Aug-17	2,412	68,472.4	0	31	28.4	0.00000	0.91575
Sep-17	2,408	65,888.2	46	30	27.4	1.53333	0.91207
Oct-17	2,416	131,287.0	267	31	54.3	8.61290	1.75292
Nov-17	2,422	230,734.8	641	30	95.3	21.36667	3.17554
Dec-17	2,441	313,239.3	735	31	128.3	23.70968	4.13949
Jan-18	2,440	533,357.7	1,286	31	218.6	41.48387	7.05127
Feb-18	2,445	447,549.3	1,239	28	183	44.25000	6.53738
Mar-18	2,447	477,009.4	1,101	31	194.9	35.51613	6.28827
Apr-18	2,441	321,464.0	808	30	131.7	26.93333	4.38979
May-18	2,450	186,747.9	292	31	76.2	9.41935	2.45883
Jun-18	2,451	91,612.4	63	30	37.4	2.10000	1.24592
Jul-18	2,445	73,116.7	15	31	29.9	0.48387	0.96466
Aug-18	2,447	73,499.6	3	31	30	0.09677	0.96892
Sep-18	2,445	70,856.3	48	30	29	1.60000	0.966
Oct-18	2,453	154,815.2	336	31	63.1	10.83871	2.03589
Nov-18	2,463	232,299.5	632	30	94.3	21.06667	3.14386
Dec-18	2,466	340,249.0	826	31	138	26.64516	4.45084
Jan-19	2,481	421,949.2	932	31	170.1	30.06452	5.4862
Feb-19	2,485	462,428.7	1,296	28	186.1	46.28571	6.646
Mar-19	2,489	548,559.5	1,351	31	220.4	43.58065	7.10947
Apr-19	2,488	302,451.6	580	30	121.6	19.33333	4.05214
May-19	2,496	196,324.2	376	31	78.7	12.12903	2.53728
Jun-19	2,495	129,468.5	158	30	51.9	5.26667	1.72971
Jul-19	2,495	82,922.1	14	31	33.2	0.45161	1.07211
Aug-19	2,496	69,476.6	2	31	27.8	0.06452	0.89791
Sep-19	2,496	69,282.1	21	30	27.8	0.70000	0.92524
Oct-19	2,506	160,885.9	305	31	64.2	9.83871	2.07098
Nov-19	2,517	291,606.1	797	30	115.9	26.56667	3.86182
Dec-19	2,526	371,723.6	827	31	147.2	26.67742	4.74706

Slope	Intercept	R2
0.13860	0.85835	0.97496

1/ Reflects billed dk per month.

2/ Reflects billing period degree days.

Montana Gas 2019
Optional Seasonal Firm General
Rate 721
Normalized Volumes

Statement H
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	Per Books 2019	Restated 2019	Normalized	Difference
Total Optional Seasonal	<u>13,433.5</u>	<u>13,433.5</u>	<u>13,029</u>	<u>(404.5)</u>
Customers	<u>5</u>	<u>5</u>	<u>5</u>	<u>0</u>

Normalized Volumes
Rate 721
Optional Seasonal

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	1,462.2	1,267.9	1,124.2
February	1,153.6	1,012.4	970.9
March	1,009.7	1,141.7	1,272.1
April	741.7	1,013.5	953.9
May	826.9	867.3	776.8
June	1,273.7	997.8	1,486.9
July	1,571.6	1,485.3	1,776.0
August	1,170.5	1,123.0	1,333.5
September	1,124.0	1,078.1	1,043.7
October	784.2	973.8	890.3
November	823.8	896.9	891.1
December	828.1	1,026.4	914.1
Total	12,770.0	12,884.1	13,433.5
3 year average (normalized)			13,029

Montana Gas 2019
Small Interruptible Sales
Rate 710
Normalized Volumes

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Non-Heat Sensitive Customers	SA ID	Per Books 2019	Restated 2019	Normalized	Difference
	0246431957	19,949.1	19,949.1	14,902	(5,047.1)
	0751631180	23.1	23.1	28	4.9
	3603731802	1,518.6	1,518.6	1,675	156.4
	3768755224	4.7	4.7	13	8.3
	4037821134	32.2	32.2	35	2.8
	4156921013	75.4	75.4	67	(8.4)
	4242406841	6,461.4	6,461.4	5,809	(652.4)
	4610901376	23,298.9	23,298.9	23,178	(120.9)
	5311631681	10,100.9	10,100.9	16,637	6,536.1
	5963862455	88.3	88.3	36	(52.3)
	6331443113	28.3	28.3	26	(2.3)
	7278101317	22,457.6	22,457.6	23,066	608.4
	7279902775	8,932.3	8,932.3	11,122	2,189.7
	9126831921	37.1	37.1	35	(2.1)
	9172785848	2,158.4	2,158.4	7,728	5,569.6
	3050337726	0.0	0.0	0	0.0
Total		95,166.3	95,166.3	104,357	9,190.7
Heat Sensitive Customers					
	4331901219	8,641.2	8,641.2		
	9835036619	6,439.5	6,439.5		
Total		15,080.7	15,080.7	13,948	(1,132.7)
Volumes Moved to Rate 810					
	9340087317	10,723.9	0.0	0	(10,723.9)
	0217675078	2,887.6	0.0	0	(2,887.6)
1/	2110799456	228.1	0.0	0	(228.1)
1/	2434821992	156.9	0.0	0	(156.9)
		13,996.5	0.0	0	(13,996.5)
Total Small Int. Sales		<u>124,243.5</u>	<u>110,247.0</u>	<u>118,305</u>	<u>(5,938.5)</u>
Customers		<u>20</u>	<u>18</u>	<u>18</u>	<u>(2)</u>

1/ Customers took primary service under transportation rate 810. Sales volumes under this rate were moved to their respective transportation detail.

Normalized Volumes
SA ID
0246431957

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	51.0	524.4	145.5
February	1,550.8	0.0	400.7
March	0.0	0.0	6,086.9
April	0.0	0.0	0.0
May	0.0	1.0	0.0
June	1.0	0.0	0.0
July	0.0	0.0	1,076.0
August	0.0	3,238.1	3,715.0
September	0.0	1,221.7	904.8
October	0.0	1,016.1	3,156.1
November	1,252.7	795.1	1,125.1
December	908.2	3,058.2	3,339.0
Total	3,763.7	9,854.6	19,949.1
2 year average (normalized)			14,902

Normalized Volumes
SA ID
0751631180

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	2.3	0.0	1.9
February	0.0	0.0	0.0
March	3.8	7.5	0.0
April	0.0	0.0	2.2
May	1.9	1.5	1.2
June	0.0	0.0	1.9
July	0.0	22.4	1.5
August	0.0	0.0	1.4
September	9.7	0.0	1.2
October	0.0	0.0	2.5
November	6.7	1.2	6.9
December	0.7	2.1	2.4
Total	25.1	34.7	23.1
3 year average (normalized)			28

Normalized Volumes
SA ID
3603731802

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	701.8	154.7	54.4
February	922.9	466.0	110.2
March	616.0	251.2	626.1
April	39.2	272.1	720.9
May	0.0	57.1	7.0
June	0.0	0.0	0.0
July	0.0	0.0	0.0
August	0.0	0.0	0.0
September	0.0	0.0	0.0
October	0.0	0.0	0.0
November		0.0	0.0
December	24.7	0.0	0.0
Total	2,304.6	1,201.1	1,518.6
3 year average (normalized)			1,675

Normalized Volumes
SA ID
3768755224

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	4.1	1.3	1.3
February	1.2	1.3	1.2
March	1.1	1.0	1.2
April	1.0	1.0	1.0
May	3.6	1.0	0.0
June	1.0	1.1	0.0
July	1.7	0.9	0.0
August	2.0	1.2	0.0
September	1.0	1.0	0.0
October	1.0	1.1	0.0
November	2.4	1.0	0.0
December	1.2	1.2	0.0
Total	21.3	13.1	4.7
3 year average (normalized)			13

Normalized Volumes
SA ID
4037821134

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	1.7	2.9	7.1
February	1.2	1.7	2.2
March	2.2	1.7	0.5
April	2.0	1.9	1.7
May	1.7	1.7	4.3
June	2.2	3.3	2.3
July	4.5	1.7	1.7
August	13.9	3.7	4.6
September	3.4	1.9	2.0
October	5.9	1.7	1.7
November	6.3	1.7	1.9
December	2.6	2.2	2.2
Total	47.6	26.1	32.2
3 year average (normalized)			35

Normalized Volumes
SA ID
4156921013

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	0.0	0.0
February	0.0	0.0	0.0
March	162.4	0.0	0.0
April	154.8	22.8	1.1
May	0.0	1.0	5.3
June	0.0	0.0	0.0
July	(105.6)	0.0	10.7
August	0.0	0.0	0.0
September	0.0	0.0	0.0
October	0.0	34.0	25.4
November	0.0	0.0	28.7
December	0.0	1.0	4.2
Total	211.6	58.8	75.4
2 year average (normalized)			67

Normalized Volumes
SA ID
4242406841

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	0.0	15.7
February	0.0	372.3	5,789.1
March	691.1	529.7	0.0
April	30.0	0.0	0.0
May	33.0	147.1	0.0
June	0.0	0.0	0.0
July	1,169.5	1,192.5	658.4
August	2,464.1	531.3	(1.8)
September	0.0	0.0	0.0
October	0.0	918.4	0.0
November	0.0	0.0	0.0
December	769.2	0.0	0.0
Total	5,156.9	3,691.3	6,461.4
2 year average (2017 - 2019 normalized)			5,809

Normalized Volumes
SA ID
4610901376

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	0.0	0.0
February	0.0	35.3	0.0
March	2,781.4	1,945.6	1,138.7
April	2,837.5	2,518.6	2,463.4
May	3,119.6	2,676.8	2,820.4
June	2,946.9	3,017.3	3,025.2
July	2,966.8	3,231.2	3,228.1
August	2,982.1	3,051.5	2,956.5
September	2,022.8	2,362.2	2,502.7
October	1,769.0	1,868.3	2,165.7
November	1,382.0	1,711.5	2,068.1
December	281.5	728.1	930.1
Total	23,089.6	23,146.4	23,298.9
3 year average (normalized)			23,178

Normalized Volumes
SA ID
5311631681

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	0.0	31.3
February	0.0	0.0	0.0
March	81.3	0.0	1.0
April	575.1	162.6	382.4
May	2,481.6	1,007.7	1,959.9
June	2,387.9	1,521.9	2,662.1
July	1,295.1	1,703.4	2,451.5
August	1,692.9	3,810.2	707.5
September	2,746.5	3,749.6	0.0
October	1,658.5	4,663.1	0.0
November	2,790.8	4,362.2	0.0
December	897.3	2,221.0	1,905.2
Total	16,607.0	23,201.7	10,100.9
3 year average (normalized)			16,637

Normalized Volumes
SA ID
5963862455

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January		0.9	0.8
February		0.6	0.7
March		0.6	1.0
April		0.7	0.8
May		0.6	0.8
June		0.6	1.0
July		2.0	0.8
August	0.0	0.5	1.0
September	0.0	0.7	79.1
October	8.0	2.4	0.7
November	1.2	0.5	0.8
December	1.0	0.5	0.8
Total	10.2	10.6	88.3
3 year average (normalized)			36

Normalized Volumes
SA ID
6331443113

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	2.2	2.1	2.9
February	1.6	1.7	1.8
March	2.8	1.7	1.7
April	1.6	2.2	2.5
May	6.3	1.6	2.9
June	1.7	1.6	1.6
July	2.0	2.0	4.9
August	1.6	1.7	1.7
September	1.9	2.0	2.5
October	3.2	1.6	2.0
November	2.9	1.6	1.7
December	1.6	1.7	2.1
Total	29.4	21.5	28.3
3 year average (normalized)			26

Normalized Volumes
SA ID
7278101317

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	3,095.5	0.0	233.5
February	0.0	5,062.3	7,842.7
March	4.0	3,623.0	3.4
April	691.9	1,730.6	68.9
May	582.9	0.0	288.3
June	0.0	1,905.9	0.0
July	1,674.0	1,639.2	596.5
August	9,773.1	2,731.4	948.0
September	2,754.4	5.8	0.0
October	7,827.6	288.2	2,190.0
November	8.0	12.4	0.0
December	3,327.4	3.4	10,286.3
Total	29,738.8	17,002.2	22,457.6
3 year average (normalized)			23,066

Normalized Volumes
SA ID
7279902775

	12 months ending <u>12/31/2017</u>	12 months ending <u>12/31/2018</u>	12 months ending <u>12/31/2019</u>
January		0.0	187.1
February		8,556.2	7,007.5
March		401.2	0.0
April		206.0	0.0
May		294.6	0.0
June		0.0	411.9
July		1,031.1	959.4
August		2,025.5	0.0
September		0.0	0.0
October		796.1	366.4
November		0.0	0.0
December	502.8	0.0	0.0
Total	<u>502.8</u>	<u>13,310.7</u>	<u>8,932.3</u>
2 year average (normalized)			<u><u>11,122</u></u>

Normalized Volumes
SA ID
9126831921

	12 months ending <u>12/31/2017</u>	12 months ending <u>12/31/2018</u>	12 months ending <u>12/31/2019</u>
January	4.4	3.1	3.0
February	2.7	2.4	3.0
March	2.5	2.5	1.8
April	2.5	2.8	3.1
May	3.0	2.5	2.3
June	2.5	2.2	9.2
July	2.9	2.9	2.9
August	2.3	2.3	2.2
September	2.3	2.9	3.9
October	3.0	2.1	1.4
November	2.3	8.7	1.4
December	2.4	1.9	2.9
Total	<u>32.8</u>	<u>36.3</u>	<u>37.1</u>
3 year average (normalized)			<u><u>35</u></u>

Normalized Volumes
SA ID
9172785848

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	24.4	88.9	267.8
February	153.8	99.2	142.6
March	5.0	150.1	174.2
April	20.8	147.8	47.8
May	6.7	55.6	0.0
June	1,242.4	431.8	0.0
July	2,423.8	462.6	303.4
August	2,328.7	2,611.6	108.2
September	1,078.2	2,603.3	899.2
October	978.7	480.0	102.5
November	27.2	3.0	45.8
December	1.9	30.3	66.9
Total	8,291.6	7,164.2	2,158.4
2 year average (2017 - 2018 normalized)	7,728		

Normalized Volumes
SA ID
3050337726

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	0.0	0.0
February	0.0	0.0	0.0
March	0.0	0.0	0.0
April	0.0	0.0	0.0
May	0.0	0.0	0.0
June	0.0	0.0	0.0
July	0.0	0.0	0.0
August	0.0	0.0	0.0
September	0.0	0.0	0.0
October	0.0	0.0	0.0
November	0.0	0.0	0.0
December	0.0	0.0	0.0
Total	0.0	0.0	0.0
3 year average (normalized)	0		

MONTANA-DAKOTA UTILITIES CO.
MONTANA GAS UTILITY

Twelve Months Ended December 31, 2019

10 - Small Interruptible Sales	Days in Month	Customers	Baseload/ Customer 1/	Normal Degree Days	Normalized Heating Use/ Customer 2/	Normalized Total Use/ Customer
January	31	2	84.56	1,112	1,193.29	1,277.85
February	28	2	76.38	1,066	1,143.92	1,220.30
March	31	2	84.56	807	865.99	950.55
April	30	2	81.83	569	610.59	692.42
May	31	2	84.56	331	355.20	439.76
June	30	2	81.83	67	71.90	153.73
July	31	2	84.56	0	0.00	84.56
August	31	2	84.56	0	0.00	84.56
September	30	2	81.83	7	7.51	89.34
October	31	2	84.56	153	164.18	248.74
November	30	2	81.83	598	641.71	723.54
December	31	2	84.56	861	923.94	1,008.50
Total	365	24	995.62	5,571	5,978.23	6,973.85

1/ Daily baseload per customer 2.72768 * number of days in month.
2/ Use per degree day per customer 1.07310 * normal degree days.

12 months ended December 31, 2019 average customers 2
12 months ended December 31, 2019 normalized total use/customer 6,973.85
12 months ended December 31, 2019 normalized use 13,948

12 months ended December 31, 2019 per books use 15,081
Difference (1,133)

710 - Small Interruptible Sales

Month	Customers	Dth 1/	BPDD60 2/	Days	Dth/cust	DD/Day	Dth/Day/Cust
Jan-17	2	3,380.5	1,450	31	1,690.3	46.77419	54.52419
Feb-17	2	2,785.0	1,095	28	1,392.5	39.10714	49.73214
Mar-17	2	2,116.6	737	31	1,058.3	23.77419	34.13871
Apr-17	2	1,296.6	493	30	648.3	16.43333	21.61000
May-17	2	1,077.9	289	31	539.0	9.32258	17.38548
Jun-17	2	459.1	81	30	229.6	2.70000	7.65167
Jul-17	2	29.3	4	31	14.7	0.12903	0.47258
Aug-17	2	29.1	0	31	14.6	0.00000	0.46935
Sep-17	2	209.4	46	30	104.7	1.53333	3.49000
Oct-17	2	856.2	267	31	428.1	8.61290	13.80968
Nov-17	2	1,291.8	641	30	645.9	21.36667	21.53000
Dec-17	2	2,244.6	735	31	1,122.3	23.70968	36.20323
Jan-18	2	3,205.9	1,286	31	1,603.0	41.48387	51.70806
Feb-18	2	3,483.6	1,239	28	1,741.8	44.25000	62.20714
Mar-18	2	2,753.4	1,101	31	1,376.7	35.51613	44.40968
Apr-18	2	1,676.6	808	30	838.3	26.93333	27.94333
May-18	2	967.8	292	31	483.9	9.41935	15.60968
Jun-18	2	520.3	63	30	260.2	2.10000	8.67167
Jul-18	2	78.3	15	31	39.2	0.48387	1.26290
Aug-18	2	29.0	3	31	14.5	0.09677	0.46774
Sep-18	2	86.4	48	30	43.2	1.60000	1.44000
Oct-18	2	761.3	336	31	380.7	10.83871	12.27903
Nov-18	2	1,056.7	632	30	528.4	21.06667	17.61167
Dec-18	2	1,585.1	826	31	792.6	26.64516	25.56613
Jan-19	2	2,096.2	932	31	1,048.1	30.06452	33.80968
Feb-19	2	2,349.6	1,296	28	1,174.8	46.28571	41.95714
Mar-19	2	2,949.8	1,351	31	1,474.9	43.58065	47.57742
Apr-19	2	1,350.2	580	30	675.1	19.33333	22.50333
May-19	2	844.2	376	31	422.1	12.12903	13.61613
Jun-19	2	688.6	158	30	344.3	5.26667	11.47667
Jul-19	2	486.4	14	31	243.2	0.45161	7.84516
Aug-19	2	380.4	2	31	190.2	0.06452	6.13548
Sep-19	2	306.7	21	30	153.4	0.70000	5.11167
Oct-19	2	679.5	305	31	339.8	9.83871	10.95968
Nov-19	2	1,321.3	797	30	660.7	26.56667	22.02167
Dec-19	2	1,627.8	827	31	813.9	26.67742	26.25484

Slope	Intercept	R2
1.07310	2.72768	0.92565

1/ Reflects billed dk per month.

2/ Reflects billing period degree days.

**Montana Gas 2019
Large Interruptible Sales
Rate 850
Normalized Volumes**

Statement H
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<u>Non-Heat Sensitive Customers</u>	<u>SA ID</u>	<u>Per Books 2019</u>	<u>Restated 2019</u>	<u>Normalized</u>	<u>Difference</u>
	8278310214	81,536.6	81,536.6	64,013	(17,523.6)
<u>Volumes Moved to Rate 823</u>					
	9609360633	3,928.4	0.0	0	(3,928.4)
Total Large Int. Sales		<u><u>85,465.0</u></u>	<u><u>81,536.6</u></u>	<u><u>64,013</u></u>	<u><u>(21,452.0)</u></u>
Customers		<u><u>1</u></u>	<u><u>1</u></u>	<u><u>1</u></u>	<u><u>0</u></u>

Normalized Volumes
SA ID
8278310214

	12 months ending <u>12/31/2017</u>	12 months ending <u>12/31/2018</u>	12 months ending <u>12/31/2019</u>
January	5,346.7	3,585.2	7,701.1
February	5,391.7	6,223.9	7,624.8
March	4,523.3	7,050.5	8,612.8
April	4,551.0	4,518.1	6,547.1
May	4,371.4	5,483.6	5,997.6
June	2,963.6	4,243.7	6,909.7
July	3,306.0	4,712.2	6,697.7
August	4,676.0	4,665.7	5,239.8
September	3,942.6	3,943.4	6,139.1
October	4,203.3	5,499.2	6,087.8
November	4,591.3	4,626.4	6,743.3
December	<u>2,348.0</u>	<u>5,734.7</u>	<u>7,235.8</u>
Total	50,214.9	60,286.6	81,536.6
3 year average (normalized)			<u><u>64,013</u></u>

Montana Gas 2019
Small Interruptible Transportation
Rate 810
Normalized Volumes

Statement H
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Non-Heat Sensitive Customers	SA ID	Per Books 2019	Restated 2019	Normalized	Difference
	5524881094	18,595.8	18,595.8	20,677	2,081.2
	9469436072	50,795.4	50,795.4	49,057	(1,738.4)
	4971446605	14,134.5	14,134.5	14,121	(13.5)
	9051913862	9,319.4	9,319.4	8,955	(364.4)
	6377881434	20,291.5	20,291.5	21,736	1,444.5
	8800296709	17,712.9	17,712.9	20,725	3,012.1
	0867497196	28,110.2	28,110.2	28,841	730.8
	9351456126	3,529.0	3,529.0	3,258	(271.0)
	2461377071	14,465.8	14,465.8	14,836	370.2
	9335550284	6,653.1	6,653.1	6,893	239.9
	1344768275	0.0	0.0	0	0.0
Total		183,607.6	183,607.6	189,099	5,491.4
Heat Sensitive Customers					
	0210720132	1,206.1	4,093.7		
	2115206316	121,351.8	121,579.9		
	3535709104	4,695.5	4,695.5		
	3038844048	1,185.9	11,909.8		
	3858678813	9,508.2	9,508.2		
	6434707886	19,088.8	19,088.8		
	9673420257	11,294.6	11,294.6		
	3427966171	4,738.8	4,738.8		
	2436710158	65,947.3	66,104.2		
	9401861059	11,823.0	11,823.0		
	6647564317	84,628.1	84,628.1		
	8397517549	26,245.6	26,245.6		
	2814001180	24,676.2	24,676.2		
	8545562753	4,577.5	4,577.5		
	3757725644	15,295.1	15,295.1		
	3204718059	5,010.1	5,010.1		
	7718669689	3,984.9	3,984.9		
Total		415,257.5	429,254.0	393,527	(21,730.5)
Total Small Int. Transportation		<u>598,865.1</u>	<u>612,861.6</u>	<u>582,626</u>	<u>(16,239.1)</u>
Customers		<u>26</u>	<u>28</u>	<u>28</u>	<u>2</u>
Volumes Moved from Rate 710 1/					
	3038844048	10,723.9	0.0	0	(10,723.9)
	0210720132	2,887.6	0.0	0	(2,887.6)
	2115206316	228.1	0.0	0	(228.1)
	2436710158	156.9	0.0	0	(156.9)
	5524881094	0.0	0.0	0	0.0
		13,996.5	0.0	0	(13,996.5)

1/ Sales volumes billed for this customer were moved to their transportation service.

Normalized Volumes
SA ID
5524881094

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	1,852.6	1,796.8	1,656.9
February	1,819.0	2,039.8	1,822.4
March	1,703.7	1,689.5	1,648.8
April	1,931.7	1,850.7	1,706.5
May	1,603.2	1,865.2	1,580.7
June	1,814.9	1,993.8	1,429.7
July	1,814.3	1,903.1	1,380.0
August	1,572.0	1,804.7	1,492.9
September	1,860.5	1,977.5	1,433.9
October	1,680.0	1,685.8	1,426.1
November	1,795.0	1,895.0	1,609.0
December	1,886.2	1,598.7	1,408.9
Total	21,333.1	22,100.6	18,595.8
3 year average (normalized)			20,677

Normalized Volumes
SA ID
9469436072

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	0.0	0.0
February	0.0	0.0	0.0
March	0.0	3,422.1	0.0
April	3,832.5	3,908.0	2,162.7
May	5,643.9	5,290.5	6,643.2
June	5,856.0	5,819.4	6,685.0
July	5,518.3	5,480.7	6,022.0
August	5,929.6	5,646.4	6,206.6
September	5,582.0	5,916.9	6,607.0
October	4,989.0	5,753.9	6,630.0
November	5,308.2	6,027.1	5,474.1
December	2,835.8	3,614.4	4,364.8
Total	45,495.3	50,879.4	50,795.4
3 year average (normalized)			49,057

Normalized Volumes
SA ID
4971446605

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	1,872.0	1,516.1	1,154.7
February	2,149.7	1,865.6	1,639.1
March	2,265.1	2,065.3	1,842.4
April	1,624.3	1,475.0	1,697.5
May	954.5	1,377.8	1,200.6
June	885.1	789.3	1,292.3
July	416.9	776.4	942.2
August	263.3	103.2	532.7
September	565.4	391.2	186.6
October	825.3	675.6	758.7
November	1,144.9	1,005.1	1,465.6
December	1,773.2	1,448.2	1,422.1
Total	14,739.7	13,488.8	14,134.5
3 year average (normalized)			14,121

Normalized Volumes
SA ID
9051913862

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	885.9	830.7	838.3
February	861.6	825.9	899.8
March	750.5	767.5	982.4
April	754.5	766.7	888.1
May	684.9	715.7	752.8
June	696.9	693.9	731.3
July	686.4	661.7	647.1
August	632.9	625.5	644.9
September	679.5	659.5	671.6
October	659.1	638.6	642.8
November	738.9	755.9	833.3
December	779.8	792.4	787.0
Total	8,810.9	8,734.0	9,319.4
3 year average (normalized)			8,955

Normalized Volumes
SA ID
6377881434

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	17.1	0.0
February	0.0	0.0	0.0
March	0.0	0.0	0.0
April	11.3	0.0	0.0
May	904.9	248.4	793.4
June	3,388.7	1,573.3	2,621.1
July	2,787.7	1,097.2	1,368.8
August	2,515.8	3,800.6	2,861.3
September	2,894.8	5,155.6	4,960.0
October	2,420.6	6,204.6	4,000.1
November	3,385.9	5,520.1	2,241.7
December	966.8	2,022.6	1,445.1
Total	19,276.5	25,639.5	20,291.5
3 year average (normalized)			21,736

Normalized Volumes
SA ID
8800296709

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	0.0	173.1	353.6
February	0.0	0.0	0.0
March	0.0	0.0	0.0
April	0.0	47.3	0.0
May	120.2	709.0	2,129.1
June	1,508.4	5,197.7	2,427.3
July	1,458.3	1,872.3	2,392.0
August	1,412.1	3,230.2	2,136.9
September	1,655.9	3,641.4	2,140.1
October	839.0	2,533.2	2,213.4
November	645.1	3,039.5	2,384.2
December	0.0	3,294.3	1,536.3
Total	7,639.0	23,738.0	17,712.9
2 year average (normalized)			20,725

Normalized Volumes
SA ID
0867497196

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	3,268.4	2,838.8	3,354.9
February	3,788.8	3,181.6	3,753.5
March	3,030.2	3,083.4	3,560.2
April	3,024.6	3,003.4	3,435.8
May	2,301.8	2,304.5	2,380.9
June	1,925.8	1,873.3	2,008.5
July	1,729.7	1,606.2	1,557.6
August	1,640.3	1,718.7	1,148.5
September	1,772.0	1,705.4	981.5
October	1,735.8	1,724.0	1,209.1
November	2,602.0	2,719.7	2,410.3
December	2,818.3	3,016.1	2,309.4
Total	29,637.7	28,775.1	28,110.2
3 year average (normalized)			28,841

Normalized Volumes
SA ID
9351456126

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	302.2	290.7	328.5
February	289.0	345.9	318.8
March	263.1	365.8	325.5
April	253.8	331.8	348.4
May	253.6	239.8	298.9
June	246.0	239.8	269.1
July	234.0	222.2	248.4
August	208.8	209.6	237.4
September	244.7	232.2	238.2
October	236.6	215.5	260.5
November	246.0	225.4	317.3
December	268.0	281.9	338.0
Total	3,045.8	3,200.6	3,529.0
3 year average (normalized)			3,258

Normalized Volumes
SA ID
2461377071

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	2,563.0	1,208.7	1,463.8
February	2,423.4	1,579.4	1,476.6
March	1,689.4	1,477.7	2,196.1
April	1,349.5	1,780.7	1,919.0
May	1,028.5	1,468.6	1,333.1
June	1,323.1	1,274.5	1,335.7
July	908.5	934.2	1,142.1
August	704.5	1,028.8	1,109.3
September	517.5	745.2	478.3
October	703.9	829.2	213.2
November	895.8	1,327.5	903.6
December	952.5	1,327.2	895.0
Total	15,059.6	14,981.7	14,465.8
3 year average (normalized)			14,836

Normalized Volumes
SA ID
9335550284

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	369.5	488.4	447.6
February	466.1	691.7	500.4
March	610.4	624.8	255.5
April	947.4	739.0	644.1
May	797.2	407.1	797.3
June	752.8	523.1	741.0
July	689.3	578.7	648.2
August	491.5	522.7	403.6
September	492.7	557.8	594.5
October	614.1	340.0	519.3
November	605.6	563.2	687.3
December	757.6	394.1	414.3
Total	7,594.2	6,430.6	6,653.1
3 year average (normalized)			6,893

Normalized Volumes
SA ID
1344768275

	12 months ending <u>12/31/2017</u>	12 months ending <u>12/31/2018</u>	12 months ending <u>12/31/2019</u>
January	0.0	0.0	0.0
February	0.0	0.0	0.0
March	0.0	0.0	0.0
April	0.0	0.0	0.0
May	0.0	0.0	0.0
June	0.0	0.0	0.0
July	0.0	0.0	0.0
August	0.0	0.0	0.0
September	0.0	0.0	0.0
October	0.0	0.0	0.0
November	0.0	0.0	0.0
December	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total	0.0	0.0	0.0
3 year average (normalized)			<u><u>0</u></u>

MONTANA-DAKOTA UTILITIES CO.
MONTANA GAS UTILITY

Small Transportation Weather Normalization
Twelve Months Ended December 31, 2019

Rate 810 - Small Transport	Days in Month	Customers	Baseload/ Customer 1/	Normal Degree Days	Normalized Heating Use/ Customer 2/	Normalized Total Use/ Customer
January	31	17	1,155.65	1,112	1,904.59	3,060.24
February	28	17	1,043.81	1,066	1,825.80	2,869.61
March	31	17	1,155.65	807	1,382.20	2,537.85
April	30	17	1,118.37	569	974.56	2,092.93
May	31	17	1,155.65	331	566.92	1,722.57
June	30	17	1,118.37	67	114.75	1,233.12
July	31	17	1,155.65	0	0.00	1,155.65
August	31	17	1,155.65	0	0.00	1,155.65
September	30	17	1,118.37	7	11.99	1,130.36
October	31	17	1,155.65	153	262.05	1,417.70
November	30	17	1,118.37	598	1,024.23	2,142.60
December	31	17	1,155.65	861	1,474.69	2,630.34
Total	365	204	13,606.84	5,571	9,541.78	23,148.62
1/ Daily baseload per customer 37.27895 * number of days in month.						
2/ Use per degree day per customer 1.71276 * normal degree days.						
12 months ended December 31, 2019 average customers 17						
12 months ended December 31, 2019 normalized total use/customer				23,148.62		
12 months ended December 31, 2019 normalized use				<u>393,527</u>		
12 months ended December 31, 2019 per books use				333,462		
Difference				<u>60,065</u>		

810 - Small Transportation

Month	Customers	Dth 1/	BPDD60 2/	Days	Dth/cust	DD/Day	Dth/Day/Cust
Jan-17	17	57,974.1	1,450	31	3,410.2	46.77419	110.00778
Feb-17	17	59,043.1	1,095	28	3,473.1	39.10714	124.04013
Mar-17	17	44,275.0	737	31	2,604.4	23.77419	84.01328
Apr-17	17	39,483.9	493	30	2,322.6	16.43333	77.41941
May-17	17	31,170.6	289	31	1,833.6	9.32258	59.14725
Jun-17	17	24,341.1	81	30	1,431.8	2.70000	47.72765
Jul-17	17	18,609.3	4	31	1,094.7	0.12903	35.31176
Aug-17	17	15,962.6	0	31	939.0	0.00000	30.28956
Sep-17	17	17,964.2	46	30	1,056.7	1.53333	35.22392
Oct-17	17	22,909.5	267	31	1,347.6	8.61290	43.47154
Nov-17	17	31,366.5	641	30	1,845.1	21.36667	61.50294
Dec-17	17	41,745.8	735	31	2,455.6	23.70968	79.21404
Jan-18	17	52,382.4	1,286	31	3,081.3	41.48387	99.39734
Feb-18	17	53,236.8	1,239	28	3,131.6	44.25000	111.84202
Mar-18	17	55,404.6	1,101	31	3,259.1	35.51613	105.13207
Apr-18	17	43,660.5	808	30	2,568.3	26.93333	85.60882
May-18	17	34,848.0	292	31	2,049.9	9.41935	66.12524
Jun-18	17	22,547.8	63	30	1,326.3	2.10000	44.21137
Jul-18	17	18,956.6	15	31	1,115.1	0.48387	35.97078
Aug-18	17	16,386.2	3	31	963.9	0.09677	31.09336
Sep-18	17	19,296.6	48	30	1,135.1	1.60000	37.83647
Oct-18	17	24,154.3	336	31	1,420.8	10.83871	45.83359
Nov-18	17	34,091.3	632	30	2,005.4	21.06667	66.84569
Dec-18	17	41,721.7	826	31	2,454.2	26.64516	79.16831
Jan-19	17	47,307.4	932	31	2,782.8	30.06452	89.76736
Feb-19	17	48,484.6	1,296	28	2,852.0	46.28571	101.85840
Mar-19	17	60,716.0	1,351	31	3,571.5	43.58065	115.21063
Apr-19	17	47,756.3	580	30	2,809.2	19.33333	93.63980
May-19	17	30,276.0	376	31	1,780.9	12.12903	57.44972
Jun-19	17	29,590.1	158	30	1,740.6	5.26667	58.01980
Jul-19	17	20,450.9	14	31	1,203.0	0.45161	38.80626
Aug-19	17	18,154.3	2	31	1,067.9	0.06452	34.44839
Sep-19	17	18,488.7	21	30	1,087.6	0.70000	36.25235
Oct-19	17	23,850.9	305	31	1,403.0	9.83871	45.25787
Nov-19	17	39,851.3	797	30	2,344.2	26.56667	78.13980
Dec-19	17	44,327.5	827	31	2,607.5	26.67742	84.11290

Slope	Intercept	R2
1.71276	37.27895	0.90860

1/ Reflects billed dk per month.

2/ Reflects billing period degree days.

Montana Gas 2019
Lewis & Clark Transportation
Rate 811
Normalized Volumes

Statement H
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	Per Books 2019 1/	Restated 2019 2/	Normalized 3/	Difference
Total Lewis & Clark Transport	<u>38,524.00</u>	<u>38,524.00</u>	<u>32,581</u>	<u>(5,943.0)</u>
Customers	<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>

1/ Represents billing period volumes.

2/ Represents calendar month volumes.

3/ Normalized volumes exclude any consumption related to Lewis & Clark Unit #1 as well as gas utilized to provide heating to Lewis & Clark Unit #2. Normalized volumes represent gas utilized to generate power at Lewis & Clark Unit #2.

Normalized Volumes
Lewis & Clark
Unit #2
Natural Gas Used for Power Generation

	12 months ending <u>12/31/2017</u>	12 months ending <u>12/31/2018</u>	12 months ending <u>12/31/2019</u>
January	638.1	6,726.6	3,550.6
February	734.7	1,037.0	3,211.2
March	722.9	1,283.9	1,030.3
April	957.6	1,123.9	290.0
May	1,101.7	11,099.8	0.0
June	4,142.6	6,230.3	1,922.9
July	14,840.5	9,718.5	9,019.4
August	6,767.0	11,723.4	2,473.9
September	6,769.8	7,555.1	1,255.4
October	3,006.8	14,201.8	1,479.1
November	1,400.4	4,372.3	7,962.4
December	<u>6,915.4</u>	<u>188.7</u>	<u>385.6</u>
Total	47,997.5	75,261.4	32,580.7
2019 actuals (normalized)			<u><u>32,581</u></u>

Montana Gas 2019
Large Interruptible Transportation
Rate 820
Normalized Volumes

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Non-Heat Sensitive Customers	Rate	SA ID	Per Books 2019	Restated 2019	Normalized	Difference
	820	0987596348	104,023.7	104,023.7	94,888	(9,135.7)
	821	2924492286	582,056.1	582,056.1	679,749	97,692.9
	822	8842718514	212,563.4	212,563.4	184,888	(27,675.4)
	823	9608405602	1,640,038.4	1,643,966.8	1,959,366	319,327.6
Total			2,538,681.6	2,542,610.0	2,918,891	380,209.4
Total Large Int. Transport			<u>2,538,681.6</u>	<u>2,542,610.0</u>	<u>2,918,891.0</u>	<u>380,209.4</u>
Customers			<u>4</u>	<u>4</u>	<u>4</u>	<u>0</u>
<u>Volumes Moved from Rate 850 1/</u>						
	823	9608405602	3,928.4	0.0	0	(3,928.4)

1/ Sales volumes billed for this customer were moved to their transportation service.

Normalized Volumes
SA ID
0987596348

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	7,002.7	20,754.6	3,889.3
February	4,187.2	14,286.3	4,154.0
March	3,770.9	11,714.9	6,257.2
April	4,287.2	7,815.5	33,088.9
May	3,366.7	9,080.1	15,379.4
June	2,445.7	5,512.5	6,770.5
July	2,926.4	19,827.3	3,935.8
August	2,491.6	4,842.6	3,374.5
September	2,485.9	4,384.3	3,460.2
October	3,756.1	5,418.0	5,211.9
November	8,525.3	6,862.7	12,715.2
December	23,550.3	1,344.5	5,786.8
Total	68,796.0	111,843.3	104,023.7
3 year average (normalized)			94,888

Normalized Volumes
SA ID
2924492286

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	142,290.3	101,310.9	149,212.4
February	134,739.7	108,246.2	126,000.7
March	123,639.9	78,850.3	70,027.0
April	87,501.1	10,338.2	8,155.7
May	1,657.6	4,402.0	1,540.7
June	2,447.2	1,216.1	2,801.3
July	1,534.2	0.0	456.3
August	921.4	95.0	0.0
September	6.8	68.5	0.0
October	71,764.6	84,145.3	563.5
November	126,667.1	143,657.4	107,476.2
December	79,230.2	152,461.0	115,822.3
Total	772,400.1	684,790.9	582,056.1
3 year average (normalized)			679,749

Normalized Volumes
SA ID
8842718514

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	20,855.2	87,665.8	56,928.4
February	7,936.2	30,928.6	30,281.6
March	2,689.8	5,823.0	13,507.1
April	114.3	17,865.6	0.0
May	0.0	0.0	0.0
June	0.0	0.0	0.0
July	0.0	0.0	0.0
August	0.0	0.0	0.0
September	2,919.1	0.0	0.0
October	12,336.6	25,573.9	49,262.0
November	20,948.3	16,919.8	32,496.4
December	45,318.4	44,204.8	30,087.9
Total	113,117.9	228,981.5	212,563.4
3 year average (normalized)			184,888

Normalized Volumes
SA ID
9608405602

	12 months ending 12/31/2017	12 months ending 12/31/2018	12 months ending 12/31/2019
January	212,775.2	215,959.0	52,597.6
February	172,965.4	252,545.6	69,371.9
March	222,814.5	191,756.5	54,452.4
April	239,152.7	233,880.8	182,410.7
May	180,274.4	161,991.3	156,687.2
June	154,831.6	205,334.2	223,268.4
July	117,961.9	277,776.8	195,971.2
August	117,673.9	177,469.9	151,932.5
September	87,015.3	182,635.7	141,712.6
October	170,783.0	175,986.4	159,009.3
November	208,688.9	70,564.8	119,428.8
December	151,183.3	52,110.3	137,124.2
Total	2,036,120.1	2,198,011.3	1,643,966.8
3 year average (normalized)			1,959,366

WORKPAPER FOR OTHER REVENUES
MONTANA GAS

		Pro Forma						
		2017	2018	2019	2020			
Late Payment Calculation								
Late Payment Revenue		\$78,900	\$79,515	\$64,202	\$66,313			
Sales & Transportation Revenue		68,310,443	71,914,302	73,771,813	63,762,478	(Excludes Unbilled Revenue)		
% Late Payment Revenue		0.116%	0.111%	0.087%	0.104%			
<u>Penalty Revenue</u>								
2017		29,846						
2018		(13,910)						
2019		111,904						
Average		42,613						
<u>Gain/(Loss) on Disposal of Property</u>		Total	2015	2016	2017	2018	2019	2020
Gain on Disposal of Property (Acct 1.4211)								
2015		\$0	0	0	0	0	0	0
2016		0	0	0	0	0	0	0
2017		14,935			2,987	2,987	2,987	2,987
2018		3,532			706	706	706	706
2019		32,086			6,417	6,417	6,417	6,417
Total Gain on Disposal		\$50,553	\$0	\$0	\$2,987	\$3,693	\$10,110	\$10,110
Loss on Disposal of Property (Acct 1.4212)								
2015		(\$27,721)	(5,544)	(5,544)	(5,544)	(5,544)	(5,544)	
2016		(39,563)	(7,913)	(7,913)	(7,913)	(7,913)	(7,913)	(7,913)
2017		(7,272)	(1,454)	(1,454)	(1,454)	(1,454)	(1,454)	(1,454)
2018		0	0	0	0	0	0	0
2019		0	0	0	0	0	0	0
Total Loss on Disposal		(\$74,556)	(\$5,544)	(\$13,457)	(\$14,911)	(\$14,911)	(\$14,911)	(\$9,367)
Net Gain/(Loss) on Disposal of Property			(\$5,544)	(\$13,457)	(\$11,924)	(\$11,218)	(\$4,801)	\$743
Pro Forma Amount								\$743

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
OTHER OPERATING REVENUE
WORKPAPER**

	Per Books		Pro Forma		
	2017	2018	2019	2020	
<u>Miscellaneous Service Revenue</u>					Account 4880
Seasonal Reconnect Fee	\$6,912	\$5,548	\$4,968	\$5,258	New tariff in 2017 - use 2 year ave
Reconnect Fee - Nonpayment	9,933	15,360	16,222	15,791	New tariff in 2017 - use 2 year ave
NSF Check fees	23,260	34,155	44,870	39,513	New tariff in 2017 - use 2 year ave
Work for others	176,067	(16,624)	0	0	no longer doing - remove
Energy diversion	701	1,952	1,026	1,026	2019 is reasonable
Total	\$216,873	\$40,391	\$67,086	\$61,588	
<u>Rent from Property</u>					Account 4930
Buildings	\$2,448	\$4,827	\$3,060	\$2,700	Annualize Jan - Mar 2020 - \$225/month
General Office COS	316,149	333,993	314,977	340,284	(28357 * 12 - Cost of Service) + (0 - Home Serve)
Parking Lots	221	794	(6)	0	Annualize Jan - Mar 2020 - \$0/month
Miscellaneous	2,320	1,182	0	0	Annualize Jan - Mar 2020 - \$0/month
Total	\$321,138	\$340,796	\$318,031	\$342,984	
<u>Other Revenue</u>					Account 4950 - Late Pymt 4870
Sale of Sundry Junk Material	\$1,294	\$1,110	\$1,787	\$1,787	2019 is reasonable
Patronage Dividends	839	25,288	4,538	4,538	2018 was anomaly pymt to Yellowstone
Meter Reading for Others	0	60,039	60,935	60,935	2019 is reasonable
Late Payment Revenue 1/	78,900	79,515	64,202	66,313	Based on three year average of ration of late pymt rev to sales &
Miscellaneous	22,706	19,009	7,338	7,338	2019 is reasonable
Transport & Sales Penalty Rev. 1/	29,846	(13,910)	111,904	42,613	Based on three year average
Conservation Tracking Adj	320	134,222	143,461	143,446	JDE has \$15 fee from MN posted erroneously to MT
	\$133,905	\$305,273	\$394,165	\$326,970	
Total	\$671,916	\$686,460	\$779,282	\$731,542	

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
INTANGIBLE PLANT AMORTIZATION RATES
GENERAL AND COMMON
TWELVE MONTHS ENDING DECEMBER 31, 2019

	Plant	Amortization	%
General Intangible Balance @ 12/31/2019	\$790,531	\$64,537 ^{1/}	8.16%
Pro Forma General Intangible Additions	52,280	4,049	
General Intangible Balance - Pro Forma	<u>\$842,811</u>	<u>\$68,586</u>	
Average General Intangible Balance - Pro Forma	<u>\$816,671</u>		

Common Intangible Balance @ 12/31/2019	\$9,868,782	\$627,710	6.36%
Pro Forma Common Intangible Additions	894,631	42,291	
Common Intangible Balance - Pro Forma	<u>\$10,763,413</u>	<u>\$670,001</u>	
Average Common Intangible Balance - Pro Forma	<u>\$10,316,098</u>		

	Amount	Expected Life	Amortization	Average
<u>Pro Forma General Intangible Additions</u>				
FP-316359 UG-PCAD Annual Enhancements-MDU	\$13,330	7	\$1,904	
FP-316450 UG-GAS SCADA Implement DR System	27,934	7	3,991	
FP-318453 Build Synergi Gas Data Model - MDU	11,016	5	2,203	
	<u>\$52,280</u>		<u>\$8,098</u>	<u>\$4,049</u>

	Amount	Expected Life	Amortization	Average
<u>Pro Forma Common Intangible Additions</u>				
FP-100550 Maximo	\$730,778	12	\$60,898	
FP-100575 UG-Customer Self Service Web/IVR	22,939	7	3,277	
FP-200714 UG-GIS Enhancements	16,856	7	2,408	
FP-316021 UG-GIS ESRI System Upgrade	82,367	7	11,767	
FP-316104 UG-GIS Pipeline Inspection System	14,382	7	2,055	
FP-317095 UG-JDEdwards AS400 to Oracle DB	8,596	12	716	
FP-318360 Purchase Sierra AirLink Manager-MDU	5,393	5	1,079	
FP-318407 Upgrade FDM Software-MDU	4,944	7	706	
FP-318844 UG-Impl 2Ring Dashboard for CSC-MDU	3,865	5	773	
FP-318890 UG-Impl GIS Offline Mobile Maps-MDU	3,686	5	737	
FP-319008 UG-LV Customer Website-MDU	825	5	165	
	<u>\$894,631</u>		<u>\$84,581</u>	<u>\$42,291</u>

1/ Amortization of assets in service as of December 2019

Montana-Dakota Utilities Co.
Gas Utility – Montana
Description of Allocation Factors & Embedded Class Cost of Service Study - Details

Factor	Title	Classification	Description	Work Paper Reference
1	Dk Throughput	Energy	Pro Forma Dk throughput by class as recorded at the meter.	Statement L, Page 20
2	Peak Day Design @ Distribution	Demand	Factor 5-(Peak Day Design) less Transmission level peak.	Statement L, Page 23-24
3	Dk Sales	Energy	Proforma Dk sales by class as recorded at the meter excluding transportation volumes.	Statement L, Page 20
5	Peak Day Design	Demand	Heating use per Degree Day per customer times the peak design degree days (peak is defined as the coldest day in the past 30 years) to equal the heating use per day per customer. The daily baseload per customer is added to heating use per degree day for the total peak day use/customer. The Large Interruptible customer's demand is based on a 100% load factor.	Statement L, Page 23
8	Average Customers	Customer	Residential & Firm-Billing units reflect average days billed for the twelve months ending December 31, 2016. Interruptible and Transportation billing units reflect average active customer for 2016.	Statement L, Page 25
9	Average Customers @ Distribution	Customer	Factor 8 Average Customers less Transmission level Customers	Statement L, Page 25
10	Total Weighted Customers	Customer	Factor 8 –(Average Customers) multiplied by weighting factor (based on average installed meter costs as of 2016), weighted to represent relative costs, with the residential cost weight set equal to 1.0	Statement L, Page 25
11	Average Residential and Firm General Customers	Customer	Includes Factor 8 (Average Customers) excluding Small and Large Interruptible customers.	Statement L, Page 25

Factor	Title	Classification	Description	Work Paper Reference
12	Weighted Customers @ Distribution	Customer	Factor 10 (Total Weighted Customers) excluding weighted transmission level customers.	Statement L, Pages 25-28
13	Distribution Mains	Demand	Distribution mains as shown on Statement C, Page 3 are assigned to the demand component of the rate and allocated to each class based on Factor 5. Factor 13 is based on the results of the allocations and is used to allocate distribution mains related costs.	Statement L, Page 31
15	Distribution Plant	Demand and customer	Distribution Plant as shown on Statement C, Page 1, as allocated to each class. This factor is based on the results of the allocations and is used to allocate distribution plant related items.	Statement L, Page 31
16	Meters & Regulators	Customer	Meters and Regulators as shown on Statement C, Page 3 costs are assigned to the customer component and allocated to each class base on Factor 10 or directly assigned. Factor 16 is based on the results of the allocations and is used to allocate meters & regulators related costs.	Statement L, Page 31
17	Structures & Improvements	Demand	Structures and Improvements as shown on Statement C, Page 3, are assigned to the demand component and allocated to each class based on Factor 13 or directly assigned. This factor is based on the results of the allocations and is used to allocate structures & improvement related costs or by direct assignment to a customer class.	Statement L, Page 31
18	Meas. & Reg., Equip. General	Demand	Measurement and Regulator Equipment-General as shown on Statement C, Page 3 is assigned to the demand component to each class base on Factor 13. Factor 18 is based on the results of the allocations and is used to allocate measurement and regulator equipment-general related costs.	Statement L, Page 31
19	Meas. & Reg., Equip. City Gate	Demand	Measurement and Regulator Equipment-City Gate as shown on Statement C, Page 3 is assigned to the demand component and allocated to each class base on Factor 13 or directly assigned. Factor 19 is based on the results of the allocations and is used to allocate measurement and regulator equipment-city related costs.	Statement L, Page 31

Factor	Title	Classification	Description	Work Paper Reference
20	Service Regulators	Customer	Service Regulators as shown on Statement C, Page 3 are allocated to the customer component to each class based on the CCOSS-detail. This factor is based on the results of the allocations and is used to allocate service regulator related costs or by direct assignment to a customer class or by direct assignment to a customer class.	Statement L, Page 31
21	Ind. Meas. & Regulator Station Equipment	Demand	Ind. Meas. & Regulator Station Equipment as shown on Statement C, Page 3 is assigned to the demand component and allocated to each class based on Factor 10. Factor 20 is based on the results of the allocations and is used to allocate Ind. Meas. & Regulator Station Equipment related costs.	Statement L, Page 31
22	Main & Services	Demand & Customer	Factor is based on the results of the allocation of the mains and services accounts and is used to allocate Mains & Services related costs	Statement L, Page 31
23	Pro Forma Distribution Plant	Demand & Customer	Factor is based on the results of the allocations and is used to allocate Pro Forma Distribution plant related costs.	CCOSS-Detail as allocated.
24	Net Gas Plant in Service	Demand & Customer	Total gas plant in service Statement C, Page 1 less the Accumulated Reserve for Depreciation shown on Statement D, Page 1 as allocated to each class based on the factors identified in the CCOS-Detail report. This factor is based on the results of the allocations and is used to allocate Net Gas Plant in Service related costs.	CCOSS-Detail as allocated.
25	Total Gas Plant in Service	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate Total Gas Plant in Service related costs.	CCOSS-Detail as allocated.
26	Pro Forma Operating Revenue	Demand, Energy & Customer	Pro Forma Operating Revenue as shown on Statement H, Page 1 assigned and allocated to Demand, Energy and customer costs as applicable.	CCOSS-Detail as allocated.
27	All Other Distribution Operation Expense	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate All Other Distribution Operation Expense related costs.	CCOSS-Detail as allocated.

Factor	Title	Classification	Description	Work Paper Reference
28	All Other Distribution Maintenance Expense	Demand & Customer	Factor is based on the results of the allocations and is used to allocate All Other Distribution Maintenance Expense related costs.	CCOSS-Detail as allocated.
29	Distribution O&M	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate Distribution O&M related costs.	CCOSS-Detail as allocated.
30	O&M Excluding Cost of Gas and A&G	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate O&M Excluding Cost of Gas and A&G related costs.	CCOSS-Detail as allocated.
31	O&M Excluding Cost of Gas	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate O&M Excluding Cost of Gas related costs.	CCOSS-Detail as allocated.
33	Cost of Gas	Demand & Energy	Factor is based on the results of the allocations and is used to allocate the Cost of Gas related costs.	Statement L, Pages 16-19
35	Taxable Income	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate Taxable Income related costs.	CCOSS-Detail as allocated.
37	Weighted Services @ Distribution	Customer	Factor 8 –(Average Customers less transmission level customers) multiplied by weighting factor (weighting for gas service lines is based on a ~90% model representation of the actual service lines. Service lines are not fully represented in the company's GIS because not all premise ID's are present), weighted to represent relative costs, with the residential cost weight set equal to 1.0	Statement L, Page 25
40	Total Tax Deductions & Adjustments	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate income tax credits and adjustment related costs.	CCOSS-Detail as allocated.
41	Total Pro Forma Plant	Demand, Energy & Customer	Factor is based on the results of the allocations and is used to allocate the Total Pro Forma Plant related costs.	CCOSS-Detail as allocated.
42	Per Books Ad Valorem Tax	Demand & Customer	Factor is based on the results of the allocations and is used to allocate Pro Forma Ad Valorem Taxes.	CCOSS-Detail as allocated.
43	Customer Records and Collections	Customer	Factor is used to allocate Pro Forma Customer Records & Collections (FERC Acct 903) based on the average number of customers, aged accounts receivables, call center volumes and service orders by rate class.	Statement L, Page 30

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	Allocation Factor	Total Montana	Total Residential	Total		Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
				Small Firm General	Large Firm General				
Rate Base									
Gas Plant in Service									
Production Plant									
Distribution Plant									
Land	3	0	0	0	0	0	0	0	0
Rights of Way	13	15,675	10,565	1,662	2,643	316	489		
Structures & Improvements	13	25,056	16,888	2,657	4,224	505	782		
Direct to Small IT	13	223,905	150,909	23,743	37,750	4,512	6,991		
Direct to Large IT	Direct	12,419	0	0	0	12,419	0		
	Direct	4,722	0	0	0	0	4,722		
Mains - Demand Related 75%	2	29,926,865	16,781,525	3,493,809	7,295,083	919,818	1,436,630		
Customer Related 35%	9	16,114,466	14,249,799	1,388,401	467,435	8,079	752		
Meas. & Reg. Equip. - General	13	784,907	529,018	83,231	132,335	15,819	24,504		
Meas. & Reg. Equip. - City Gate	13	65,410	44,086	6,936	11,028	1,318	2,042		
Direct to Small IT	Direct	83,476	0	0	0	83,476	0		
Direct to Large IT	Direct	16,066	0	0	0	0	16,066		
Services	37	39,943,635	34,359,780	4,050,854	1,442,851	82,449	7,701		
Meters	10	24,382,447	17,325,236	2,034,460	4,591,089	368,603	63,059		
Service Regulators	10	3,445,634	2,448,336	287,502	648,795	52,090	8,911		
Direct to Small Firm General	Direct	13,718	0	13,718	0	0	0		
Direct to Small IT	Direct	12,521	0	0	0	12,521	0		
Ind. Meas. & Reg. Station Equipment	13	406,963	274,289	43,154	68,614	8,201	12,705		
Direct to Small IT	Direct	9,705	0	0	0	9,705	0		
Direct to Large IT	Direct	14,432	0	0	0	0	14,432		
Cathodic Protection & Other Equipment	13	2,299,503	1,549,837	243,839	387,694	46,343	71,790		
Distribution Plant		117,815,706	87,740,268	11,673,966	15,103,722	1,626,174	1,671,576		
General Plant	15	14,239,327	10,604,380	1,410,927	1,825,451	196,541	202,028		
Intangible Plant - General	15	701,495	522,421	69,508	89,930	9,683	9,953		
Common Plant	15	6,221,961	4,633,647	616,514	797,642	85,880	88,278		
Intangible Plant - Common Excluding CC&B	15	2,845,510	2,119,122	281,952	364,788	39,275	40,373		
Intangible Plant - Common (CC&B)	8	6,646,600	5,873,322	574,729	194,550	3,614	385		
Total Gas Plant in Service		148,470,599	111,493,160	14,627,596	18,376,083	1,961,167	2,012,593		

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	Allocation Factor	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
Less: Accumulated Depreciation	3	0	0	0	0	0	0
Production Plant	13	26,746	18,025	2,837	4,510	539	835
Distribution Plant	17	208,932	130,805	20,579	32,720	14,676	10,152
Rights of Way	13	23,196,308	15,634,043	2,459,730	3,910,872	467,488	724,175
Structures & Improvements	18	585,906	394,893	62,129	98,784	11,808	18,292
Mains	19	171,949	45,952	7,231	11,496	88,393	18,877
Meas. & Reg. Equip. - General	37	27,503,367	23,658,579	2,789,234	993,481	56,770	5,303
Meas. & Reg. Equip. - City Gate Services	10	8,968,128	6,372,410	748,296	1,688,652	135,576	23,194
Meters	20	1,084,570	761,718	93,715	206,263	20,102	2,772
Service Regulators	21	133,630	85,022	13,377	21,269	5,550	8,412
Ind. Meas. & Reg. Station Equipment	13	1,078,016	726,570	114,312	181,753	21,726	33,655
Cathodic Protection & Other Equipment		62,957,552	47,828,017	6,311,440	7,149,800	822,628	845,667
Distribution Plant							
General Plant	15	3,357,847	2,500,671	332,718	430,469	46,348	47,641
Intangible Plant - General	15	229,755	171,104	22,766	29,454	3,171	3,260
Common Plant	15	2,430,679	1,810,186	240,848	311,608	33,550	34,487
Intangible Plant - Common Excluding CC&B	15	1,884,553	1,403,472	186,734	241,596	26,012	26,739
Intangible Plant - Common (CC&B)	8	2,636,707	2,329,947	227,995	77,178	1,434	153
Gas Plant Leased to Others	15	0	0	0	0	0	0
Less: Total Accumulated Reserve for Depreciation		73,497,093	56,043,397	7,322,501	8,240,105	933,143	957,947
Net Gas Plant in Service		74,973,506	55,449,763	7,305,095	10,135,978	1,028,024	1,054,646
CWIP in Service	15	0	0	0	0	0	0
Total Gas Plant in Service		74,973,506	55,449,763	7,305,095	10,135,978	1,028,024	1,054,646
Additions							
Materials & Supplies	15	1,050,264	782,159	104,067	134,641	14,496	14,901
Prepaid Insurance	24	27,918	20,648	2,720	3,775	383	392
Gas in Underground Storage	33	3,042,264	1,808,702	329,177	870,884	21,738	11,763
Prepaid Demand/Commodity	33	1,210,269	719,535	130,953	346,454	8,648	4,679
Provision for Injuries & Damages	24	(13,176)	(9,746)	(1,284)	(1,781)	(180)	(185)
Provision for Pension & Benefits	31	8,759,566	6,723,910	837,819	1,014,542	98,992	84,303
Unamortized Loss on Debt	24	151,623	112,139	14,773	20,499	2,079	2,133
Unamortized Redemption of Pref. Stock	24	18,627	13,777	1,815	2,518	255	262
Total Additions		14,247,355	10,171,124	1,420,040	2,391,532	146,411	118,248
Total Before Deductions		89,220,861	65,620,887	8,725,135	12,527,510	1,174,435	1,172,894

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	Allocation Factor	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
Deductions							
Accumulated Deferred Income Tax	24	(16,679,641)	(12,336,121)	(1,625,192)	(2,254,989)	(228,708)	(234,631)
Accumulated Investment Tax Credit	24	0	0	0	0	0	0
Customer Advances For Construction	Direct	(2,337,286)	(1,345,911)	(141,745)	(769,508)	(64,284)	(15,838)
Total Deductions		(19,016,927)	(13,682,032)	(1,766,937)	(3,024,497)	(292,992)	(250,469)
Total Rate Base		70,203,934	51,938,855	6,958,198	9,503,013	881,443	922,425
Retail Sales & Transportation							
Residential	Direct	44,160,599	44,160,599	0	0	0	0
Firm General	Direct	27,647,434	0	8,656,666	18,990,768	0	0
Small Interruptible	Direct	1,108,031	0	0	0	1,108,031	0
Large Interruptible	Direct	855,749	0	0	0	0	855,749
Total Sales & Transportation Revenues		73,771,813	44,160,599	8,656,666	18,990,768	1,108,031	855,749
Other Operating Revenue							
Miscellaneous							
Reconnect Fees	11	21,190	18,736	1,833	621	0	0
NSF Check Fees	11	44,870	39,674	3,882	1,314	0	0
Miscellaneous	24	1,026	758	100	139	14	15
Rent From Gas Property	24	318,031	235,213	30,988	42,996	4,360	4,474
Other Gas Revenues							
Miscellaneous	31	228,059	175,059	21,813	26,414	2,578	2,195
Late Payment and Penalty Revenues	31	166,106	127,506	15,887	19,238	1,877	1,598
Total Other Operating Revenue		779,282	596,946	74,503	90,722	8,829	8,282
Unbilled Revenue	26	(1,462,841)	(876,713)	(167,580)	(376,901)	(22,679)	(18,968)
Total Operating Revenues		73,088,254	43,880,832	8,563,589	18,704,589	1,094,181	845,063
Operation & Maintenance Expenses							
Cost of Purchased Gas	Direct	43,700,214	26,102,440	5,126,650	11,924,548	337,970	208,606
Production Expense	3	0	0	0	0	0	0
Other Gas Supply Expenses	3	181,270	106,986	19,471	51,514	2,141	1,158
Total Production Expense		181,270	106,986	19,471	51,514	2,141	1,158

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	Allocation Factor	Total	Total Residential	Total		Total Large Firm General	Total Small Interruptible	Total Large Interruptible
		Montana		Small Firm General	Large Firm General			
Distribution Expenses								
Operation								
Distribution Load Dispatching	1	9,172	4,002	728	1,927	496	2,019	
Mains and Services	22	1,700,342	1,293,101	176,651	182,035	19,979	28,576	
Measuring Stations - General	18	61,353	41,351	6,506	10,344	1,237	1,915	
Measuring Stations - Industrial	21	5,405	3,440	541	860	224	340	
Measuring Stations - City Gate	19	845	226	35	56	435	93	
Meters & House Regulators	16	446,651	316,914	37,434	84,207	6,943	1,153	
Customer Installations	10	587,873	417,721	49,052	110,693	8,887	1,520	
Other Gas Distribution	27	1,323,898	977,866	127,579	183,694	17,988	16,771	
Rents	27	34,412	25,417	3,317	4,775	467	436	
Supervision & Engineering	27	1,179,958	871,549	113,709	163,722	16,031	14,947	
Total Operation Expense		5,349,909	3,951,587	515,552	742,313	72,687	67,770	
Maintenance								
Structures & Improvements	17	7,864	4,925	774	1,231	552	382	
Mains	13	142,908	96,320	15,153	24,094	2,880	4,461	
Measuring Stations - General	18	90,740	61,158	9,622	15,298	1,829	2,833	
Measuring Stations - Industrial	21	42,503	27,043	4,255	6,764	1,765	2,676	
Measuring Stations - City Gate	19	7,273	1,944	306	486	3,739	798	
Services	37	345,410	297,123	35,030	12,477	713	67	
Meters & House Regulators	16	223,072	158,276	18,696	42,056	3,468	576	
Other Equipment	28	175,498	132,023	17,112	20,904	3,051	2,408	
Supervision & Engineering	28	303,097	228,014	29,555	36,102	5,269	4,157	
Total Maintenance Expense		1,338,365	1,006,826	130,503	159,412	23,266	18,358	
Total Distribution Expenses		6,688,274	4,958,413	646,055	901,725	95,953	86,128	
Customer Accounts								
Customer Accounts	8	67,999	60,088	5,880	1,990	37	4	
Meter Reading	10	231,261	164,326	19,296	43,545	3,496	598	
Customer Records & Collection	43	1,291,056	1,118,669	125,174	44,602	2,039	572	
Uncollectible Accounts	11	296,544	262,202	25,657	8,685	0	0	
Miscellaneous Customer Accounts	8	90,564	80,028	7,831	2,651	49	5	
Customer Service & Information	8	242,589	214,365	20,977	7,101	132	14	
Sales Expenses	8	104,579	92,412	9,043	3,061	57	6	
Administration & General Expenses	30	5,879,967	4,513,507	562,396	681,024	66,450	56,590	
Total Gas O&M Expenses		58,774,317	37,673,436	6,568,430	13,670,446	508,324	353,681	

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	Allocation Factor	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Firm Interruptible	Total Large Firm Interruptible
O&M Excl. Cost of Gas and A&G							
O&M Excl. Cost of Gas		9,194,136	7,057,489	879,384	1,064,874	103,904	88,485
Depreciation Expense		15,074,103	11,570,996	1,441,780	1,745,898	170,354	145,075
Production Plant	3	0	0	0	0	0	0
Distribution Plant							
Rights of Way	13	318	215	34	53	6	10
Structures & Improvements	17	5,915	3,701	583	927	416	288
Mains	13	1,097,725	739,854	116,402	185,076	22,123	34,270
Meas. & Reg. Equip. - General	18	18,923	12,755	2,007	3,190	381	590
Meas. & Reg. Equip. - City Gate	19	4,204	1,125	177	281	2,160	461
Services	37	2,176,630	1,872,351	220,741	78,625	4,493	420
Meters	10	1,012,201	719,231	84,458	190,592	15,302	2,618
Service Regulators	20	51,263	36,004	4,429	9,749	950	131
Ind. Meas. & Reg. Station Equipment	21	11,597	7,379	1,161	1,846	481	730
Cathodic Protection & Other Equipment	13	29,002	19,548	3,076	4,889	584	905
Total Distribution Plant		4,407,778	3,412,163	433,068	475,228	46,896	40,423
Amort. of Intangible Plant - General	15	58,563	43,614	5,803	7,507	808	831
Common Plant							
Amort. of Intangible Plant - Common (less CC&B)	15	182,838	136,164	18,117	23,440	2,523	2,594
Amort. of Intangible Plant - CC&B	8	145,042	108,016	14,372	18,594	2,002	2,058
		461,652	407,942	39,919	13,513	251	27
Preferred Stock Redemption Amortization	15	1,339	997	133	172	18	19
Total Depreciation Expense		5,499,732	4,289,506	535,443	569,544	55,846	49,393
Taxes Other Than Income							
Ad Valorem Taxes-Production	3	0	0	0	0	0	0
Ad Valorem Taxes-Other	15	5,747,650	4,280,417	569,516	736,836	79,333	81,548
Other Taxes - Payroll, Franchise, Other	31	588,745	451,925	56,312	68,189	6,653	5,666
Other Taxes - Revenue	26	214,127	128,330	24,531	55,170	3,320	2,776
Total Taxes Other Than Income Taxes		6,550,522	4,860,672	650,359	860,195	89,306	89,990
Total Operating Expense		70,824,571	46,823,614	7,754,232	15,100,185	653,476	493,064
Interest Expense							
Interest Expense	24	1,453,914	1,075,303	141,663	196,560	19,936	20,452
Taxable Income Before Adjustments		809,769	(4,018,085)	667,694	3,407,844	420,769	331,547

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	Allocation Factor	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
Deductions							
Purchased Gas Adjustment	33	0	0	0	0	0	0
Other Income Tax Charges	24	2,728,434	2,017,928	265,846	368,868	37,412	38,380
Preferred Stock Dividends Paid	24	0	0	0	0	0	0
Total Deductions		2,728,434	2,017,928	265,846	368,868	37,412	38,380
Taxable Income (Before State Income Tax)		(1,918,665)	(6,036,013)	401,848	3,038,976	383,357	293,167
Less: State Income Tax & Misc. Adjustment	35	(101,577)	(319,555)	21,275	160,888	20,295	15,520
Federal Taxable Income		(1,817,088)	(5,716,458)	380,573	2,878,088	363,062	277,647
Federal Income Tax							
@ Current Rate of 21%	35	(381,588)	(1,200,457)	79,921	604,399	76,243	58,306
State Income Taxes	40	(101,577)	(319,555)	21,275	160,888	20,295	15,520
Credits and Adjustments	24	(21,414)	(15,836)	(2,087)	(2,895)	(294)	(302)
Rounding & Prior Year's Adjustments - Federal		(226,468)	(167,494)	(22,066)	(30,617)	(3,105)	(3,186)
Federal and State Income Taxes		(731,047)	(1,703,342)	77,043	731,775	93,139	70,338
Rounding & Prior Year's Adjustment - State	24	0	0	0	0	0	0
Federal & State Income Taxes		(731,047)	(1,703,342)	77,043	731,775	93,139	70,338
Deferred Income Taxes							
Purchased Gas Adjustment	33	0	0	0	0	0	0
Other Deferred Income Tax Chgs	24	399,692	295,609	38,944	54,036	5,480	5,623
Closing/Filing & Out of Period	24	0	0	0	0	0	0
Total Deferred Income Taxes		399,692	295,609	38,944	54,036	5,480	5,623
Total Operating Expenses		70,493,216	45,415,881	7,870,219	15,885,996	752,095	589,025
Total Operating Income		2,595,038	(1,535,049)	693,370	2,818,593	342,086	276,038

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Summary of Pro Forma Rate Base Adjustments

	Allocation Factor	Total Montana	Total Residential	Total Small General	Total Large General	Total Small Interruptible	Total Large Interruptible
Production	3	0	0	0	0	0	0
Plant Additions - Adj. A							
Land	13	42	29	4	7	1	1
Right of Way	13	(2,210)	(1,490)	(235)	(372)	(44)	(69)
Distribution- Mains Demand Related	2	2,839,774	1,592,407	331,529	692,234	87,282	136,322
Distribution- Mains Customer Related	9	1,529,109	1,352,170	131,746	44,355	767	71
Meas. & Reg. Equip. General	13	91,116	61,412	9,662	15,362	1,836	2,844
Meas. & Reg. Equip. City Gate	13	134,522	90,666	14,265	22,681	2,711	4,199
Services	37	3,575,816	3,075,941	362,639	129,166	7,381	689
Meters	10	1,152,864	819,182	96,194	217,078	17,428	2,982
Service Regulators	10	289,833	205,943	24,184	54,574	4,382	750
Cathodic Protection & Other Equip	13	364,641	245,764	38,666	61,478	7,349	11,384
Structures & Improvements	13	(7,251)	(4,887)	(769)	(1,223)	(146)	(226)
Total Distribution Plant Additions		9,968,256	7,437,137	1,007,885	1,235,340	128,947	158,947
General	15	1,739,185	1,295,213	172,330	222,960	24,006	24,676
Common Plant	15	568,982	423,735	56,379	72,942	7,853	8,073
Common Intangible - Excluding CC&B	15	816,322	607,935	80,886	104,651	11,268	11,582
Common Intangible - CC&B	8	7,665	6,774	663	224	4	0
Total Plant Additions - Adj. A		13,100,410	9,770,794	1,318,143	1,636,117	172,078	203,278
Accumulated Reserve for Depreciation							
Plant Additions - Adj. B							
Production	3	0	0	0	0	0	0
Distribution	23	3,713,615	2,766,014	368,556	474,840	51,007	53,198
General	15	226,246	168,491	22,418	29,004	3,123	3,210
Common	15	170,759	127,168	16,920	21,891	2,357	2,423
Common Intangible - Excluding CC&B	15	644,691	480,117	63,880	82,648	8,899	9,147
Common Intangible - CC&B	8	6,111	5,401	528	179	3	0
Total Accumulated Reserve - Adj. B		4,761,422	3,547,191	472,302	608,562	65,389	67,978
Net Adjustment to Plant		8,338,988	6,223,603	845,841	1,027,555	106,689	135,300
Additions							
Materials and Supplies - Adj. C	15	188,481	140,367	18,676	24,163	2,601	2,674
Gas in Underground Storage - Adj. D	33	(148,663)	(88,384)	(16,086)	(42,556)	(1,062)	(575)
Prepaid Insurance - Adj. E	24	141,452	104,617	13,782	19,124	1,939	1,990
Prepaid Demand and Commodity - Adj. F	33	(466,103)	(277,109)	(50,433)	(133,428)	(3,330)	(1,803)
Unamortized Loss on Debt - Adj. G	24	(16,042)	(11,864)	(1,563)	(2,169)	(220)	(226)
Provision for Pensions & Benefits - Adj. H	31	1,445,093	1,109,265	138,217	167,372	16,331	13,908
Provision for Injuries & Damages - Adj. I	24	(2,897)	(2,143)	(282)	(391)	(40)	(41)
Provision for Postretirement - Adj. J	31	365,634	280,664	34,971	42,348	4,132	3,519
Unamort. Redemption Cost of Pref. Stk. - Adj. K	24	(1,339)	(990)	(131)	(181)	(18)	(19)
Total		1,505,616	1,254,423	137,151	74,282	20,333	19,427

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		Allocation Factor	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
Deductions								
Accumulated Def. Inc. Tax		41	264,821	198,756	26,136	32,801	3,496	3,632
Liberalized Depreciation - Adj. L		41	(297,859)	(223,553)	(29,396)	(36,893)	(3,932)	(4,085)
Excess Plant Deferred Income Taxes - Adj. M		41	(57,659)	(43,276)	(5,690)	(7,142)	(761)	(790)
Full Normalization - Adj. M		31	25,007	19,196	2,392	2,896	282	241
Excess Deferreds - Non-Plant - Adj. M		31	(187,326)	(143,792)	(17,917)	(21,696)	(2,118)	(1,803)
Excess Deferreds - Non-Plant Pension - Adj. M		31	366	281	35	43	4	3
Excess Deferreds - Non-Plant Insurance - Adj. M		33	26,597	15,812	2,878	7,614	190	103
Prepaid Demand Charges - Adj. N		41	17,239	12,938	1,702	2,135	227	237
Customer Advances - Adj. N		41	(4,389)	(3,295)	(433)	(543)	(58)	(60)
Unamortized Loss on Debt - Adj. G		31	353,594	271,422	33,820	40,953	3,997	3,402
Pensions & Benefits - Adj. H		24	(707)	(523)	(68)	(96)	(10)	(10)
Injuries and Damages - Adj. I		41	89,188	66,939	8,802	11,046	1,178	1,223
Postretirement - Adj. J			(83,697)	(48,201)	(5,072)	(27,553)	(2,302)	(569)
Customer Advances for Construction - Adj. O			145,175	122,704	17,189	3,565	193	1,524
Total			9,699,429	7,355,322	965,803	1,098,272	126,829	153,203
Total Pro Forma Adjustments - Rate Base						0		

Pro Forma Adjustments - Operating Income

Pro Forma Revenue Adjustments
Revenue Adjustments - Adj. No. 1-3 to Proforma

Residential	Direct	(5,946,352)	(5,946,352)	0	0	0	0	0
Firm General	Direct	(3,914,535)	0	(1,352,206)	(2,562,329)	0	0	0
Small Interruptible	Direct	(119,471)	0	0	0	(119,471)	0	0
Large Interruptible	Direct	(28,977)	0	0	0	0	0	(28,977)
Total Retail Sales Adjustment	Direct	(10,009,335)	(5,946,352)	(1,352,206)	(2,562,329)	(119,471)	(28,977)	(28,977)
Tax Tracker Revenue	26	1,462,841	876,713	167,580	376,901	22,679	18,968	18,968
Unbilled Revenue		(8,546,494)	(5,069,639)	(1,184,626)	(2,185,428)	(96,792)	(10,009)	(10,009)
Total								
Other Revenue - Adj. No. 4	26	(46,997)	(28,164)	(5,385)	(12,109)	(729)	(610)	(610)
Total Pro Forma Revenue Adjustments		(8,593,491)	(5,097,803)	(1,190,011)	(2,197,537)	(97,521)	(10,619)	(10,619)

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
Embedded Class Cost of Service Study
Summary Report
Twelve Months Ended December 31, 2016
Pro Forma Average Plant

		Allocation Factor	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
OPERATION & MAINTENANCE EXPENSES								
Cost of Gas - Adj. No. 5		Direct	(6,377,663)	(3,913,272)	(1,088,297)	(1,240,525)	(71,283)	(64,306)
Production Adj.		3	0	0	0	0	0	0
Labor Expense - Adj. No. 6								
Other Gas Supply		30	2,751	2,112	263	319	31	26
Production		3	0	0	0	0	0	0
Distribution		29	80,655	59,795	7,791	10,874	1,157	1,038
Customer Accounting		8	20,521	18,134	1,774	601	11	1
Customer Service		8	865	765	75	25	0	0
Sales		8	1,037	916	90	30	1	0
A&G		30	32,379	24,855	3,096	3,750	366	312
Total -Labor Expense - Adj. No. 6			138,208	106,577	13,089	15,599	1,566	1,377
Benefits Expense - Adj. No. 7		30	140,957	108,198	13,483	16,326	1,593	1,357
Vehicles & Work Equipment - Adj. No. 8		30	47,715	36,627	4,563	5,526	540	459
Company Consumption - Adj. No. 9		30	(4,015)	(3,082)	(384)	(465)	(45)	(39)
Uncollectible Accounts - Adj. No. 10		11	(47,870)	(42,326)	(4,142)	(1,402)	0	0
Advertising - Adj. No. 11		8	(46,770)	(41,329)	(4,044)	(1,369)	(25)	(3)
Software Maintenance - Adj. No. 12		30	108,751	83,478	10,402	12,596	1,228	1,047
Insurance - Adj. No. 13		30	(75,062)	(57,617)	(7,179)	(8,694)	(849)	(723)
Industry Dues - Adj. No. 14		30	14,150	10,859	1,354	1,639	161	137
Regulatory Commission Expense - Adj. No. 15		30	51,908	39,845	4,965	6,013	586	499
Materials - Adj. No. 16		30	8,258	6,339	790	957	93	79
Total (Adjustments 8-16)			336,230	247,569	32,897	46,726	4,848	4,190
Total Adjustments to O&M			(6,041,453)	(3,665,703)	(1,055,400)	(1,193,799)	(66,435)	(60,116)
DEPRECIATION EXPENSE								
Average Annual Depreciation - Adj. No. 17		23	454,328	338,399	45,089	58,092	6,240	6,508
Distribution Plant		41	51,170	38,405	5,050	6,338	675	702
General Plant		41	115,296	86,533	11,379	14,281	1,522	1,581
Common			620,794	463,337	61,518	78,711	8,437	8,791
Total Average Annual Depreciation Adj. 17								
TAXES OTHER THAN INCOME								
Ad Valorem Taxes - Adj. No. 18		3	0	0	0	0	0	0
Production Plant		42	748,523	557,443	74,169	95,959	10,332	10,620
Distribution Plant		42	59,232	44,112	5,869	7,593	817	841
General Plant		42	21,534	16,035	2,134	2,761	298	306
Common Plant			829,289	617,590	82,172	106,313	11,447	11,767
Total Ad Valorem Taxes								
Payroll Taxes - Adj. No. 19		31	10,058	7,721	962	1,165	114	96
MCC & PSC Tax - Adj. 20		26	147,486	88,390	16,896	38,000	2,287	1,913
Total Adjustments to Taxes Other than Income			986,833	713,701	100,030	145,478	13,848	13,776

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
Embedded Class Cost of Service Study
Summary Report
Twelve Months Ended December 31, 2016
Pro Forma Average Plant

		Allocation Factor	Total Montana	Total Residential	Total Small Firm General	Total Large Firm General	Total Small Interruptible	Total Large Interruptible
CURRENT INCOME TAXES								
Interest Annualization - Adj. No. 21	41		335,122	251,519	33,074	41,509	4,424	4,596
Tax Depreciation on Plant Additions - Adj. No. 22	41		8,393	6,299	828	1,040	111	115
0	0		0	0	0	0	0	0
			343,515	257,818	33,902	42,549	4,535	4,711
Net Adjustments to Operating Income			(4,503,180)	(2,866,956)	(330,061)	(1,270,476)	(57,906)	22,219
Income Taxes on Pro Forma Adj. - Adj. No. 24	(Calculated)		(1,185,800)	(754,942)	(86,913)	(334,548)	(15,248)	5,851
0.263325	41		226,468	169,971	22,350	28,051	2,990	3,106
Elimination of Closing/Filing&Res. - Adj. No. 25			(959,332)	(584,971)	(64,563)	(306,497)	(12,258)	8,957
Total Adjustments to Current Income Taxes								
DEFERRED INCOME TAXES								
Plant Additions - Adj. No. 22	41		3,877	2,910	383	480	51	53
Elimination of Closing/Filing - Adj. No. 25	41		(220,036)	(165,144)	(21,716)	(27,253)	(2,905)	(3,018)
Other Tax Deductions	24		0	0	0	0	0	0
Total Adjustments to Deferred Income Taxes			(216,159)	(162,234)	(21,333)	(26,773)	(2,854)	(2,965)
Total Adjustments:			(2,984,174)	(1,861,937)	(210,262)	(894,657)	(38,258)	20,938

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
CUSTOMER ADVANCES FOR CONSTRUCTION
WORKPAPER - 2019**

	2018	2019	Average	Demand Component 1/	Customer Component 1/	% of Total
<u>Allocated to:</u>						
<i>Direct to Residential Customers</i>	\$ (1,381,001)	\$ (1,310,821)	\$ (1,345,911)	\$ (874,842)	\$ (471,069)	57.59%
<i>Direct to Small Firm General Customers</i>	(130,764)	(152,726)	(141,745)	(92,134)	(49,611)	6.06%
<i>Direct to Large Firm General Customers</i>	(792,330)	(746,686)	(769,508)	(500,180)	(269,328)	32.92%
<i>Direct to Small Interruptible Customers</i>	(64,284)	(64,284)	(64,284)	(41,785)	(22,499)	2.75%
<i>Direct to Large Interruptible Customers</i>	(15,838)	(15,838)	(15,838)	(10,295)	(5,543)	0.68%
	\$ (2,384,217)	\$ (2,290,355)	\$ (2,337,286)	\$ (1,519,236)	\$ (818,050)	100.00%

1/ Allocated 35% as customer related and 65% as demand related.

**CUSTOMER ADVANCES FOR CONSTRUCTION - Adjustment
(\$83,697)**

	Amount	Demand Component 1/	Customer Component 1/
<u>Allocated to:</u>			
<i>Direct to Residential Customers</i>	\$ (48,201)	\$ (31,331)	\$ (16,870)
<i>Direct to Small Firm General Customers</i>	(5,072)	(3,297)	(1,775)
<i>Direct to Large Firm General Customers</i>	(27,553)	(17,909)	(9,644)
<i>Direct to Small Interruptible Customers</i>	(2,302)	(1,496)	(806)
<i>Direct to Large Interruptible Customers</i>	(569)	(370)	(199)
	\$ (83,697)	\$ (54,403)	\$ (29,294)

1/ Allocated 35% as customer related and 65% as demand related.

**MONTANA-DAKOTA UTILITIES CO.
EMBEDDED COST OF SERVICE STUDY
ALLOCATION OF PER BOOKS REVENUES
GAS UTILITY - MONTANA
TWELVE MONTHS ENDING DECEMBER 31, 2019**

	Total	Residential	Firm		Small Interruptible		Large Interruptible	
			General-Small	General-Large	Sales	Transport	Sales	Transport
Billing Units	86,038	76,034	7,432	2,520	20	27	1	4
Dk	14,754,612	6,860,062	1,277,484	3,231,287	124,243	637,389	85,465	2,538,682
Total Revenue	\$73,771,813	\$44,160,599	\$8,656,666	18,990,768	\$504,575	\$603,456	\$285,029	\$570,720
Commodity 1/	45,145,407	25,372,939	5,012,579	13,062,484	375,573	529,431	248,909	543,492
Customer 2/	9,369,960	7,167,680	1,214,368	825,392	53,325	74,025	7,942	27,228
Demand 3/	19,256,446	11,619,980	2,429,719	5,102,892	75,677	0	28,178	0

1/ Residual after deducting customer and demand revenues.

2/ Per 'MT Revenue Analysis 2019' file.

3/ Average cost of gas demand component by class.

MONTANA-DAKOTA UTILITIES CO.
EMBEDDED COST OF SERVICE STUDY
ALLOCATION OF ANNUALIZED 2019 REVENUES
GAS UTILITY - MONTANA
TWELVE MONTHS ENDING DECEMBER 31, 2019

	Total	Residential	Firm		General-Large	Small Interruptible		Large Interruptible	
			General-Small			Sales	Transport	Sales	Transport
Billing Units	86,435	76,379	7,474		2,530	18	29	1	4
Dk	13,551,569	5,912,347	1,076,027		2,846,779	118,305	615,207	64,013	2,918,891
Total Revenue	\$63,762,478	\$38,214,247	\$7,304,460		\$16,428,439	\$420,437	\$568,123	187,765	\$639,007
Commodity 1/ Adjustment	37,848,335	21,041,738	4,001,733		11,239,165	307,204	489,823	156,893	611,779
		(4,331,201)	(1,010,846)		(1,823,319)	(68,369)	(39,608)	(92,016)	68,287
Customer 2/ Adjustment	9,468,013	7,248,367	1,227,605		831,106	48,600	78,300	6,807	27,228
		80,687	13,237		5,714	(4,725)	4,275	(1,135)	0
Demand 3/ Adjustment	16,446,130	9,924,142	2,075,122		4,358,168	64,633	0	24,065	0
		(1,695,838)	(354,597)		(744,724)	(11,044)	0	(4,113)	0
Total Pro Forma Adjustment		(5,946,352)	(1,352,206)		(2,562,329)	(84,138)	(35,333)	(97,264)	68,287

1/ Residual after deducting customer and demand revenues.

2/ Per 'MT Revenue Analysis 2019 file.

3/ Average cost of gas demand component by class.

Gas Loss Factor	0.72%
Inverse	99.28%
Cost of Gas - Pro Forma 2020 (Before Losses)	
Firm	3.726
Interruptible	2.238

**MONTANA-DAKOTA UTILITIES CO.
PRO FORMA COST OF GAS
BASED ON PRO FORMA 2020 DELIVERIES
GAS UTILITY - MONTANA**

	Pro Forma 2020			
	Dk Sales 1/	Dk Adjusted for Distribution Losses 2/	Commodity Charge 3/	Cost of Gas
Residential	5,912,347	5,955,225	\$3.726	\$22,189,168
Firm General Small	1,076,027	1,083,830	3.726	4,038,353
Firm General Large	2,846,779	2,867,424	3.726	10,684,023
Small Interruptible	118,305	119,163	2.238	266,687
Large Interruptible	64,013	64,477	2.238	144,300
Total	<u>10,017,471</u>	<u>10,090,119</u>		<u>\$37,322,531</u>

1/ Rule 38.5.164, Statement H, page 2.

2/ Distribution loss factor of .72%.

3/ April 2020 gas cost tracking adjustment adjusted to reflect annual commodity costs.

**MONTANA-DAKOTA UTILITIES CO.
EMBEDDED COST OF SERVICE STUDY
ALLOCATION OF COST OF GAS TO THE CLASSES
GAS UTILITY - MONTANA
TWELVE MONTHS ENDING DECEMBER 31, 2019**

	Per Books 1/	Pro Forma Per Unit Cost	Pro Forma 2019 4/		
Residential					
Energy	\$14,482,460	\$1.748	\$12,265,026	32.862258%	(2,217,434)
Demand	11,619,980	2.005	9,924,142	26.590217%	(1,695,838)
Total Residential	\$26,102,440	\$3.753	\$22,189,168		
Firm General Small					
Energy	\$2,696,931	\$1.748	1,963,231	5.260176%	(733,700)
Demand	2,429,719	2.005	2,075,122	5.559971%	(354,597)
Total Small Firm General	\$5,126,650	\$3.753	\$4,038,353		
Firm General Large					
Energy	\$6,821,656	\$1.748	6,325,855	16.949159%	(495,801)
Demand	5,102,892	2.005	4,358,168	11.677043%	(744,724)
Total Large Firm General	\$11,924,548	\$3.753	\$10,684,023		
Small Interruptible					
Energy	\$262,293	\$1.748	202,054	0.541373%	(60,239)
Demand	75,677	0.506	64,633	0.173174%	(11,044)
Total Small Inter.	\$337,970	\$2.254	\$266,687		
Large Interruptible					
Energy	\$180,428	\$1.748	120,235	0.322151%	(60,193)
Demand	28,178	0.506	24,065	0.064478%	(4,113)
Total Large Inter.	\$208,606	\$2.254	\$144,300		
Total Cost of Gas	\$43,700,214		\$37,322,531	100.000000%	(6,377,683)

Customer Class	Dk Per Books 2019 Sales	Peak Day Design - Firm Interruptible - 100% LF	Income Statement	
Residential	6,860,062	59.248069%	72,167	60.343329%
Firm General Small	1,277,484	11.033204%	15,090	12.617690%
Firm General Large	3,231,287	27.907549%	31,692	26.499657%
Small Interruptible - Sales	124,243	1.073045%	470	0.392996%
Small Interruptible - Transport	0	0.000000%	0	0.000000%
Large Interruptible - Sales	85,465	0.738133%	175	0.146328%
Large Interruptible - Transport	0	0.000000%	0	0.000000%
Total	11,578,541	100.000000%	119,594	100.000000%

Customer Class	Dk ProForma Sales	Peak Day Design - Firm Interruptible - 100% LF		
Residential	5,912,347	59.020355%	72,167	60.343329%
Firm General Small	1,076,027	10.741504%	15,090	12.617690%
Firm General Large	2,846,779	28.418141%	31,692	26.499657%
Small Interruptible - Sales	118,305	1.180987%	470	0.392996%
Small Interruptible - Transport	0	0.000000%	0	0.000000%
Large Interruptible - Sales	64,013	0.639014%	175	0.146328%
Large Interruptible - Transport	0	0.000000%	0	0.000000%
Total	10,017,471	100.000001%	119,594	100.000000%

1/ Allocation of Per Books Cost of Gas based on Normalized 2019 volumes and April 2020 Gas Cost.

Total Cost of Gas	Energy 2/	Demand 3/	Reallocated Demand Costs
\$43,700,214	\$24,443,767	\$19,256,447	16,446,129

2/ Allocated on Pro Forma Dk Sales.

3/ Allocated on Factor 2 excluding transportation. Demand costs from April 2020 Purchased Gas Adjustment Residential & General Service, reflecting weighted seasonal demand.

4/ Statement G, Rule 38.5.157 Page 3 Pro Forma 2019 Cost of Gas \$37,322,531

CALCULATION OF PRO FORMA 2019 PER UNIT COST

	Firm	Interruptible
Pro Forma 2019 Commodity Charge	\$3.726	\$2.238
Inverse of Loss Factor	0.9928	0.9928
Total Cost of Gas Per Unit	\$3.753	\$2.254
Total Commodity Charges 1/	\$17,079,187	\$6,465,157
Dk Requirements	9,843,912	3,726,315
Inverse of Loss Factor	1.735	1.735
Total Energy Per Unit Cost	\$1.748	\$1.748
Total Cost of Gas Per Unit	\$3.753	\$2.254
Total Energy Per Unit Cost	1.748	1.748
Total Demand Per Unit Cost	\$2.005	\$0.506

1/ PGA Confidential pages, April 2020 Gas Costs.

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
CLASS COST OF SERVICE STUDY
12 MONTHS ENDING DECEMBER 31, 2019
ALLOCATION FACTORS - ANNUALIZED 2019

Rate	Customer Class	Factor No. 1	Factor No. 2	Factor No. 3	Factor No. 5	Factor No. 8	Factor No. 9	Factor No. 10	Factor No. 11	Factor No. 12
		DK Throughput	Design Day Peak @ Distribution	DK Sales	Design Day Peak	Average Customers	Average Customers @ Distribution	Total Weighted Customers	Average Res & Firm Gen Customers	Weighted Customers @ Distribution
60	Residential Gas Service	5,912,347	71,664	5,912,347	72,167	76,379	75,847	76,379	76,379	75,847
70	Firm General Service									
	Firm General-Small	1,076,027	14,920	1,076,027	15,090	7,474	7,390	8,969	7,474	8,868
	Firm General-Large	2,846,779	31,153	2,846,779	31,692	2,530	2,488	20,240	2,530	19,904
	Subtotal Firm	3,922,806	46,073	3,922,806	46,782	10,004	9,878	29,209	10,004	28,772
71	Small Interruptible	118,305	360	118,305	470	18	14	622		484
81	Small Interruptible Transport	615,207	3,568	615,207	3,568	29	29	1,003		1,003
	Subtotal Small IT	733,512	3,928	733,512	4,038	47	43	1,625	0	1,487
85	Large Interruptible	64,013	0	64,013	175	1	0	56		0
82	Large Interruptible Transport	2,918,891	6,135	2,918,891	7,997	4	4	222		222
	Subtotal Large IT	2,982,904	6,135	2,982,904	8,172	5	4	278	0	222
	TOTAL MONTANA GAS	13,551,569	127,800	13,551,569	131,159	86,435	85,772	107,491	86,383	106,328

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
EMBEDDED COST OF SERVICE STUDY
PRO FORMA 2019
DK THROUGHPUT - FACTOR NOS. 1 & 3**

	<u>Pro Forma Dk</u>	<u>Transmission Throughput</u>	<u>Distribution Throughput</u>
Residential	5,912,347	58,958	5,853,389
Firm General-Small	1,076,027	17,840	1,058,187
Firm General-Large	2,846,779	59,687	2,787,092
Small Interruptible Sales	118,305	39,997	78,308
Small Interruptible Transport	615,207	0	615,207
Large Interruptible Sales	64,013	64,013	0
Large Interruptible Transport	<u>2,918,891</u>	<u>679,749</u>	<u>2,239,142</u>
 Total Throughput	 <u><u>13,551,570</u></u>	 <u><u>920,244</u></u>	 <u><u>12,631,325</u></u>

Transmission level customers

SI Sales = 71-7
 71-8

LI Transport= 82-4

LI Sales= 85-1

**Montana Transmission Level Customers
Normalized Design Day**

	Res	Small Firm General	Large Firm General	
Use per Degree Day per customer 1/	0.01082	0.02399	0.14027	
Multiplied by: Peak Day Degree Days	83	83	83	
Heating use per day per customer	0.89806	1.99117	11.64241	
Daily Baseload per customer 1/	0.04680	0.02777	0.88416	
Total Peak Day Use/Customer	0.94486	2.01894	12.52657	
Pro Forma Transmission Level Customers	532	84	43	
Total Peak Day Use (Calculated)	503	170	539	1,212

**Montana Transmission Level Customers
Normalized Annual Sales**

	Res	Small Firm General	Large Firm General	
Use per Degree Day per customer 1/	0.01082	0.02399	0.14027	
Multiplied by: Annual Degree Days	5,571	5,571	5,571	
Annual heating use customer	60.2782	133.6483	781.4442	
Annual baseload per customer 1/	17.0820	10.1361	322.7184	
Annual Use/Customer	77.36022	143.78439	1104.1626	
Pro Forma Transmission Level Customers	532	84	43	
Annualized Use (Calculated)	41,156	12,078	47,479	100,713

1/ Regression Analysis supporting weather normalized volumes

1 DAY DESIGN DAY DELIVERIES - FACTOR NOS. 2 & 5

		Total Firm	Small IT		Large IT		Total
			Sales	Transport	Sales	Transport	
Use per Degree Day per customer 1/ Multiplied by: Design Day Degree Days	Res 0.01082	83					
Heating use per day per customer	0.89806	1.99117					
Daily Baseload per customer 1/ Total Design Day Use/Customer	0.04680	0.02777					
Pro Forma Customers	0.94486	2.01894					
Total Design Day Use	76.379	7.474					
	72.167	15.090					
Class Ratio	60.67%	12.69%					
2/ Total Peak Day Use			470	3.568	175	7.997	12,210
	72.167	15.090					
			470	3.568	175	7.997	131,159
Less: Peak Transmission Dk 100% load factor	503	170	110	0	175	1,862	3,359
Distribution Level Peak Dk	71,664	14,920	360	3,568	0	6,135	127,800

1/Regression Analysis supporting weather normalized volumes.

2/ Small Interruptible as calculated below, Large Interruptible assigned on 100% load factor.

	Heat Sensitive	Non-Heat Sensitive
Use per Degree Day per customer 1/	1,0731	
Multiplied by: Design Day Degree Days	83	
Heating use per day per customer	89,06730	
Daily Baseload per customer 1/	2,72768	
Total Design Day Use/Customer	91,79498	
Projected Customers	2	
Total Design Day Use	184	286

1/Per 'Normalization - Rate 71' spreadsheet.

	Heat Sensitive	Non-Heat Sensitive
Use per Degree Day per customer 1/ Multiplied by: Design Day Degree Days	1.71276	83
Heating use per day per customer	142.15908	
Daily Baseload per customer 1/	37.27895	
Total Design Day Use/Customer	179.43803	
Projected Customers	17	
Total Design Day Use	3,050	518

1/Per 'Normalization - Rate 81' spreadsheet.

MONTANA DAKOTA UTILITIES COMPANY Design Degree Days (HD60)			
LOCATION	Design	* Customers	Weight of HD
BILLINGS, MONT.	81	64,416	5,217,696
BISMARCK, N.D.	87	44,736	3,892,032
DEVILS LAKE, N.D.	93	8,063	749,859
DICKINSON, N.D.	88	13,961	1,228,568
GLASGOW, MONT.	90	6,755	607,950
GLENDIVE, MONT.	88	9,307	819,016
JAMESTOWN, N.D.	88	10,255	902,440
MILES CITY, MONT.	86	5,789	497,854
MINOT, N.D.	87	20,712	1,801,944
MOBRIDGE, S.D.	82	4,340	355,880
PIERRE, S.D.	82	4,340	355,880
POWELL, WY.	92	6,247	574,724
RAPID CITY, S.D.	82	53,010	4,346,820
SHERIDAN, WY.	85	12,886	1,095,310
WILLISTON, N.D.	87	13,079	1,137,873
SYSTEM WEIGHTED DEGREE DAYS	85	277,896	23,583,846
WEIGHTED BY STATE			
NORTH DAKOTA	88	110,806	9,712,716
SOUTH DAKOTA	82	61,690	5,058,580
MONTANA	83	86,267	7,142,516
WYOMING	87	19,133	1,670,034

**MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
EMBEDDED COST OF SERVICE STUDY
PRO FORMA 2019
CUSTOMERS - FACTORS NO. 8, 9, 10, 12, 17 & 37**

	Total	Residential	Small Firm		Large Firm General	Small IT		Large IT		
			General			Sales	Transport	Sales	Transport	
Total Customers 1/ Less: Transmission Customers Average Customers at Distribution	86,435 663 85,772	76,379 532 75,847	7,474 84 7,390	2,530 42 2,488	18 4 14	29 0 29	4 0 4	1 1 0	4 0 4	Factor #8 Factor #9
Multipled by: Meter Weighting Factor 2/ Weighted Customers at Distribution Weighted Transmission Customers Total Weighted Customers	106,328 107,491	75,847 76,379	8,868 101 8,969	19,904 336 20,240	484 138 622	1,003 0 1,003	34.6 0 34.6	55.5 0 56 56	55.5 222 222	Factor #12 Factor #10

Services:

Multipled by: Service Weighting Factor Total Weighted Services	88,881	76,379	9,044	1,28	3,238	4.24	4.24	4.24	4.24	17
Total Customers 1/ Less: Transmission Customers Average Customers at Distribution Multipled by: Service Weighting Factor Distribution Service Weighted Customers	86,435 663 85,772 88,173	76,379 532 75,847 75,847	7,474 84 7,390 8,942	2,530 42 2,488 3,185	18 4 14 59	29 0 29 123	4 1 0 0	1 1 0 0	4 0 4 4.24	Factor 37 Weighted Services Excluding Transmission Customers

1/ Per the MT Revenue Analysis 2019 file.
2/ Based on average installed meter costs as of 2019.

MONTANA-DAKOTA UTILITIES CO.
AVERAGE INSTALLED METER COSTS
2020

Residential - Rate 60									
Group 1 meters - 250 size	75,113	\$275	\$20,623,776						
Group 1 meters - 425 size	982	\$490	\$481,651						
Group 2 meters - 630/AC800	161	\$815	\$131,191						
Group 2 meters - 750/800	11	\$1,160	\$12,755						
Group 2 meters - >1000	7	\$1,412	\$9,884						
Group 3 meters - Sm Rot CD	2	\$6,435	\$12,870						
Group 3 meters - Sm Rot TC	1	\$4,306	\$4,306						
Total	76,277		\$21,276,434	\$279	1.0				
Firm General - Rate 70 (<500 cf)									
Group 1 meters - 250 size	5,430	\$275	\$1,490,915		5,430	\$275	\$1,490,915		
Group 1 meters - 425 size	2,049	\$490	\$1,004,994		2,049	\$490	\$1,004,994		
Group 2 meters - >1000	1	\$1,412	\$1,412				\$2,495,909	\$334	1.2
Group 2 meters - 630/AC800	3	\$815	\$2,445						
Group 3 meters - Lrg Rot TC	1	\$5,114	\$5,114						
Group 3 meters - Sm Rot TC	1	\$6,435	\$6,435						
Total	7,485		\$2,511,314	\$336	1.2				
Firm General - Rate 70 (>500 cf)									
Group 1 Meters - Size 425	2	\$490	\$981						
Group 2 Meters - Size >1000	539	\$1,412	\$761,084						
Group 2 Meters - Size 630/AC800	567	\$815	\$462,020						
Group 2 Meters - Size 750/800	688	\$1,160	\$797,798						
Group 2 Meters - Sm Rot Cor 8C/15C	28	\$6,321	\$176,982						
Group 2 Meters - Sm Rot TC 8C/15C	80	\$4,192	\$335,397						
Group 3 Meters - Lg Rot Cor > 3M	25	\$7,973	\$199,325						
Group 3 Meters - Lg Rot TC > 3M	194	\$5,317	\$1,031,444						
Group 3 Meters - Size >1000	1	\$1,412	\$1,412						
Group 3 Meters - Sm Rot Cor 2M/3M	46	\$6,402	\$294,505						
Group 3 Meters - Sm Rot TC 2M/3M	372	\$4,297	\$1,598,584						
Total	2,542		\$5,659,532	\$2,226	8.0				
Total Firm	10,027		\$8,170,846						
Small IT Sales & Transport - Rate 71									
Group 2 Meters - Size >1000	1	\$1,412	\$1,412						
Group 3 Meters - Lg Rot Cor > 3M	3	\$7,974	\$23,922						
Group 3 Meters - Lg Rot TC > 3M	6	\$5,259	\$31,554						
Group 3 Meters - Sm Rot Cor 2M/3M	1	\$6,435	\$6,435						
Group 3 Meters - Sm Rot TC 2M/3M	1	\$4,306	\$4,306						
Group 3 Meters - Turbine	1	\$23,905	\$23,905						
Group 4 Meters - Turbine	1	\$19,921	\$19,921						
Total	14		\$111,456	\$7,961	28.5				
Small IT Sales & Transport - Rate 71 (Billable Charge)									
Group 3 Meters - Lg Rot Cor > 3M	2	\$7,819	\$15,638						
Group 4 Meters - Turbine	2	\$20,305	\$40,610						
IT Sales & Transport - Rates 71 & 81									
Group 2 Meters - Size >1000	1	\$1,412	\$1,412						
Group 3 Meters - Lg Rot Cor > 3M	3	\$7,974	\$23,922						
Group 3 Meters - Lg Rot TC > 3M	6	\$5,259	\$31,554						
Group 3 Meters - Sm Rot Cor 2M/3M	1	\$6,435	\$6,435						
Group 3 Meters - Sm Rot TC 2M/3M	1	\$4,306	\$4,306						
Group 3 Meters - Turbine	1	\$23,905	\$23,905						
Group 4 Meters - Turbine	3	\$20,049	\$60,146						
Total	45		\$434,556	\$9,657	34.6				
IT Sales & Transport - Rates 82 & 85									
Group 3 Meters - Sm Rot Cor 2M/3M	1	\$6,435	\$6,435						

MONTANA-DAKOTA UTILITIES CO.
AVERAGE INSTALLED METER COSTS
2020

	MT Number of Meters	Average Meter Cost	Total	Average Weighted Cost	Class Weighting		
Total	4		\$56,248	\$14,062	50.4		
Large IT Sales & Transportation -							
Rate 85							
Group 3 Meters - Sm Rot Cor 2M/3M	1	\$6,435	\$6,435			Group 3 Meters - Sm Rot Cor 2M/3M	\$6,435
Total	1		\$6,435	\$6,435	23.1	Group 3 Meters - Sm Rot Cor 2M/3M	\$24,793
						Group 3 Meters - Sm Rot TC 2M/3M	\$4,306
						Group 4 Meters - Coriolis	\$38,741
						Group 3 Meters - Lg Rot Cor > 3M	\$7,819
						Group 4 Meters - Turbine	\$19,921
						7	\$108,450
							\$15,493
							55.5

Seasonal Firm							
Rate 72							
Group 2 meters-Large Dia.	1	\$1,412	\$1,412				
Group 2 meters-Sm. Rot. TC	1	\$1,160	\$1,160				
Group 3 meters-Lg. Rot. Corr	1	\$7,819	\$7,819				
Group 3 meters-Lg. Rot. TC	1	\$4,306	\$4,306				
Total	4		\$14,697	\$3,674	13.2		

Rate 98							
Group 1 Meters - Size 250	1	\$275	\$275				
Group 1 Meters - Size 425	3	\$490	\$1,471				
Group 2 Meters - Size >1000	16	\$1,412	\$22,592				
Group 2 Meters - Size 630/AC800	19	\$815	\$15,482				
Group 2 Meters - Size 750/800	6	\$1,160	\$6,958				
Group 2 Meters - Sm Rot Cor 8C/15C	1	\$6,321	\$6,321				
Group 2 Meters - Sm Rot TC 8C/15C	1	\$4,192	\$4,192				
Group 3 Meters - Lg Rot TC > 3M	2	\$5,331	\$10,663				
Group 3 Meters - Sm Rot TC 2M/3M	2	\$4,306	\$8,613				
Total	51		\$76,567	\$1,501	5.4		

Small IT - Rate 81							
Group 3 Meters - Lg Rot TC > 3M	2	\$6,006	\$12,013				
Group 3 Meters - Sm Rot TC 2M/3M	1	\$4,306	\$4,306				
Group 4 Meters - Turbine	1	\$21,433	\$21,433				
Total	4		\$37,752	\$9,438	33.8		

Small IT Transportation - Rate 81							
Group 3 Meters - Lg Rot Cor > 3M	15	\$8,254	\$123,805				
Group 3 Meters - Sm Rot Cor 2M/3M	4	\$6,419	\$25,674				
Group 3 Meters - Turbine	1	\$19,476	\$19,476				
Group 4 Meters - Turbine	3	\$20,049	\$60,146				
Total	23		\$229,101	\$9,961	35.7		

Large IT Transportation Rate 82							
Group 3 Meters - Sm Rot Cor 2M/3M	1	\$6,435	\$6,435				
Total	1		\$6,435	\$6,435	23.1		

MONTANA-DAKOTA UTILITIES CO.
AVERAGE INSTALLED METER COSTS
2020

	MT Number of Meters	Average Meter Cost	Total	Average Weighted Cost	Class Weighting
Large IT Transportation Rate 82 (Exxon Mobile)					
Group 3 Meters - Sm Rot Cor 2M/3M	1	\$24,793	\$24,793		
Total	1		\$24,793	\$24,793	88.9
Large IT Transportation Rate 82 (Sidney Sugars)					
Group 3 Meters - Sm Rot TC 2M/3M	1	\$4,306	\$4,306		
Group 4 Meters - Corfolis	1	\$38,741	\$38,741		
Total	2		\$43,047	\$21,524	77.1
Large IT Transportation Rate 82 (Western Sugar)					
Group 3 Meters - Lg Rot Cor > 3M	1	\$7,819	\$7,819		
Group 4 Meters - Turbine	1	\$19,921	\$19,921		
Total	2		\$27,740	\$13,870	49.7
Total Meters	86,411				

Gas Service Weights

RATE AND DESCRIPTION	Modeled Service Value	Modelled Service Average	Count of Customers	Cost per Service per Customer	Weights
Rate 600	\$83,697,699	\$1,158	72,282	\$1,158	1.00
	\$83,697,699	Weighted Average	72,282	\$1,158	1.00
Rate 700	\$8,443,369	\$1,399	6,034	\$1,399	1.21
Rate 701	\$3,824,135	\$1,482	2,581	\$1,482	1.28
Rate 721	\$9,360	\$2,340	4	\$2,340	2.02
	\$12,276,863	Weighted Average	8,619	\$1,424	1.23
Rate 710	\$63,816	\$4,909	13	\$4,909	4.24
	\$63,816	Weighted Average	13	\$4,909	4.24

MONTANA-DAKOTA UTILITIES CO.
O&M BY FERC ACCOUNT
Year 2019
Month (All)

Business Segment	FERC Account	FERC Description	Allocation Basis	Charging Responsibility	Charging Responsibility Description	Jurisdiction	Residential Rate 60	Small Firm General Rate 70	Large Firm General Rate 70	Small Interruptible Rate 71, 81	Large Interruptible Rate 85,72
Natural Gas	903	Cust Records & Collections		112	Billings Operations	Montana	52,067				
				115	Rocky Mountain Region		15,957				
				165	Glendive District Manager		2,369				
				255	Wolf Point District Manager		14,468				
Subtotal -1	903		Customers - Average		District / Regional Offices		84,861				
			Aged Accts 30-60-90	129	Credit Collections		118,440				
			Customers - Average	711	Customer Services, Dir		63,252				
			Call Center Stats	712	Meridian - Cust Service Center		343,817				
			Customers - Average	713	Customer Development/Programs		120,091				
			Service Orders	714	Scheduling		63,498				
			Customers - Average	920	Office Services (Bill print, Postage)		277,340				
Subtotal -2	903						986,438				
				721	Enterprise Network & Telecommunications		1,917				
				752	Treas Serv Montana-Dakota Only		20,528				
				926	Enterprise Development & APP Integration		31,926				
				941	UG Controller		165,385				
			903-Other				219,756				
Total	903						1,291,055				
Class Allocation	903						100.00%				
							190,413	21,306	7,592	347	97
							1,118,668	125,174	44,602	2,039	572
							86.65%	9.70%	3.45%	0.16%	0.04%

Accocation Basis	Description of Allocation Basis	Totals	Res.	Sm. Firm Gen	Lrg Firm Gen	Sm Int.	Lrg Int.
Customers - Average	Average Number of Customers in Test Year	86,435	76,379	7,474	2,530	47	5
Aged Accts 30-60-90	Aged Accounts Receivable Data by Class	5,427,852	4,449,702	720,067	243,747	12,724	1,612
Call Center Stats	Call Center Call Volume by Class	64,136	55,490	6,415	2,172	15	44
Service Orders	Field Service Orders by Class	27,973	22,739	2,904	1,798	456	76
903 Other	Sum of Results of Subtotals 1 and 2	1,071,299	928,255	103,867	37,010	1,692	475

MONTANA-DAKOTA UTILITIES CO.
GAS UTILITY - MONTANA
Embedded Class Cost of Service Study
12 Months Ending December 31, 2019
Allocation of Avg. Plant in Service

	Total	Allocation		
333 Production	\$0	Factor No. 3 - DK Sales		
374.1 Land	15,675	Factor No. 13 - Distribution Mains		
374.2 Rights of Way	25,056	Factor No. 13 - Distribution Mains	Allocated to Demand/Customer by Main Customer/Demand Split	
375 Structures & Improvements	241,046			
	223,905	Factor No. 13 - Distribution Mains		
	12,419	Direct to Small Sales & Interruptible Customers	Demand	Small IT Large IT
	4,722	Direct to Large IT Customers	Customer	8,072 3,069
				4,347 1,653
				12,419 4,722
376 Mains	46,041,330			
65% Demand Related	29,926,865	Factor No. 5 - 1-Day Peak @ Distribution		
35% Customer Related	16,114,466	Factor 8 - Avg. Distribution Customers		
378 Meas. & Reg. Equip. - General	784,907	Factor No. 13 - Distribution Mains		
379 Meas. & Reg. Equip. - City Gate	164,952			
	65,410	Factor No. 13 - Distribution Mains		
	83,476	Direct to Small IT Customers	Demand	Small IT Large IT
	16,066	Direct to Large IT Customers	Customer	54,259 10,443
				29,217 5,623
				83,476 16,066
380 Services	39,943,635	Factor No. 10 - Total Weighted Customers		
381 Meters	24,382,447	Factor No. 10 - Total Weighted Customers		
383 Service Regulators	3,486,054			
	3,445,634	Factor No. 10 - Total Weighted Customers		
	13,718	Direct to Firm General - Small Customers		
	14,181	Direct to Firm General - Large Customers		
	12,521	Direct to Small Sales & IT Customers		
385 Ind. Meas. & Reg. Station Equipment	431,100			
	406,963	Factor No. 13 - Distribution Mains		
	9,705	Direct to Small IT Customers	Demand	Small IT Large IT
	14,432	Direct to Large IT Customers	Customer	6,308 9,381
				3,397 5,051
				9,705 14,432
387 Cathodic Protection & Other Equipment	2,299,503	Factor No. 13 - Distribution Mains		
Distribution Plant	\$117,815,705			
Total Plant	<u>\$117,801,524</u>			