MONTANA-DAKOTA UTILITIES CO.

A Division of MDU Resources Group, Inc.

Before the North Dakota Public Service Commission

Case No. PU-17-___

Direct Testimony
of
Travis R. Jacobson

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

A. Yes. My name is Travis R. Jacobson, and my business address is 400 North Fourth Street, Bismarck, North Dakota 58501.

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

A. I am the Regulatory Analysis Manager for Montana-Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc.

Q. Would you please describe your duties as Regulatory Analysis Manager?

A. I am responsible for the preparation of cost of service studies, fuel cost adjustments, purchased gas cost adjustments, and gas tracking adjustments in each of the jurisdictions in which Montana-Dakota operates.

Q. Would you please describe your education and professional background?

A. I graduated from Minot State University with a Bachelor of Science degree in Accounting, and I am a Certified Public Accountant (CPA). I started my career with Montana-Dakota in 1999 as a Financial Analyst in the Financial Reporting and Planning department. During my tenure with the Company I have held positions of increasing responsibility; including, Supervisor of Financial Reporting and Planning, and Manager of Financial Reporting and Planning before attaining my current position.

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

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

Q. Are you familiar with the books and records of Montana-Dakota and the manner in which they are kept?

A. Yes. Montana-Dakota's books and records are kept in accordance with the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts (US of A).

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

A. The purpose of my testimony is to present the North Dakota gas operations per books cost of service for the twelve months ended

December 31, 2016 and the projected cost of service for 2017 and 2018. Based on the results, I have prepared the calculation of the revenue deficiency and the calculation of the interim request. I will discuss proposed changes to Rate 88 – Cost of Gas, proposed changes to Rate 99 – Cost of Gas Propane, present the base revenue requirement, and a projected 2019 revenue requirement in support of the proposed System Safety and Integrity Program Adjustment Mechanism Rate 94.

Q. What statements, schedules, and exhibits are you sponsoring?

A. I am sponsoring Statements A through C, Statements E through L (excluding Statement K, pages 4 and 5), Exhibit No.___(TRJ-1), the interim revenue requirement presented in Exhibit No.___(TRJ-2), and the proposed Rate 88 – Cost of Gas and proposed Rate 99 – Cost of Gas Propane presented in Appendix B of the Application. The revenue requirement supporting the proposed System Safety and Integrity Program Adjustment Mechanism Rate 94 is attached as Exhibit No.____(TRJ-3).

Q. Were these statements and exhibits prepared by you or under your direct supervision?

A. Yes, they were.

<u>Revenue Requirement</u>

Q. What were the results of North Dakota gas operations for 2016?

A. Statement J, pages 1 and 2 show the per books income statement and rate base for the total Company and North Dakota gas operations for 2016. As shown on page 1, North Dakota gas operations produced a return on rate base of 6.341 percent for the twelve months ended December 31, 2016. The details for each line item, i.e. sales revenue, other revenue, etc., are included in the referenced Statements.

Q. How was the per books cost of service allocated to North Dakota?

A. The Company utilizes a jurisdictional accounting system that directly assigns and/or allocates every item of revenue, expense, and rate base to the jurisdictions as part of the regular accounting process on a monthly basis. The allocation methods and procedures are the same as those that have previously been used in Commission proceedings and are based on the principle of assigning and/or allocating costs to the cost causer.

Q. What test period are you using to determine the revenue requirement?

A. The revenue requirement is based on a projected average 2018 test period. As stated by Ms. Kivisto, the primary reason for the increase in rates is the increased investment in distribution facilities to be completed by the end of 2018 to improve system safety and reliability and the depreciation and taxes associated with the increase in investment.

Montana-Dakota is using a future test year in accordance with North Dakota Century Code §49-05-04.1.

Q. **Would you describe the development of the projected cost of service for 2017 and 2018?**

A. The projected 2017 and 2018 cost of service is presented in Statement K, which contains all schedules supporting the income statement as summarized on page 1, and Statement L, which contains all of the schedules supporting the rate base as summarized on page 1. The revenues and expenses reflect the annual level that will be experienced when the new rates become effective. Likewise, the rate base reflects average 2017 and 2018 plant and related balances.

Income Statement

Q. **Would you describe the development of the projected revenues and expenses contained in Statement K?**

A. The projected revenues for 2017 and 2018 are summarized on Statement K, page 2. Mr. Shoemake discusses the development of the projected volumes in his testimony, and Ms. Bosch discusses the development of the sales and transportation revenues in her testimony.

Other operating revenues are projected to decrease from the 2016 level as shown on Statement K, page 6. Rent from Property was reduced to exclude rent from Company owned housing which was sold during 2015 through 2017 and to reflect actual property rental revenue for all other property.

Other Revenue was adjusted to update the revenue requirement for the Heskett III Pipeline and assign a portion of the revenue to gas operations upon completion of the town border station and pipeline serving Mandan, ND. Late payment and penalty revenues were also adjusted. Late payment revenues were projected for 2017 and 2018 based on the 2016 ratio of late payment revenue to billed sales and transportation revenue of 0.16 percent applied to projected 2017 and 2018 sales and transportation revenue. The 2017 and 2018 penalty revenues were restated to a three-year average for 2014 to 2016 to smooth out any year to year fluctuations. The 2016 per books Penalty Revenue line included collections related to gas extension agreements, which a Letter of Credit was received rather than a contribution. The Company adjusted the projected sales volumes and/or customer advances to match the

Company's investment for the affected customers; therefore, the 2016 revenue associated with gas extension agreements with a minimum bill provision were excluded for projected 2017 and 2018.

Q. Would you describe the development of the operation and maintenance expenses?

A. Yes. The projected 2017 and 2018 operation and maintenance (O&M) expenses are summarized on Statement K, pages 7 through 11, with the detail provided on pages 12 through 27.

The cost of gas, shown on page 12, uses the projected sales volumes, adjusted for losses, and the cost of gas calculated in the May 2017 Purchased Gas Cost Adjustment. The distribution loss factor of 0.45 percent represents the current loss factor.

Q. Would you describe the development of the projected other O&M expense?

A. Yes. O&M expenses were reviewed and projected by resource or cost category, some on a North Dakota only basis and some on a total Company basis. Montana-Dakota developed the O&M expenses for 2017 by reviewing current information, as well as discussions with operations personnel to determine the best information for 2017. The projections for 2018 were based on the projected 2017 data. Projected 2018 expenses are based on the Company's best estimate when changes are known or based on an inflation factor when appropriate. To establish an inflation factor, the Company based its factor on the index published by the Congressional Budget Office, the Organization for Economic Cooperation and Development, International Monetary Fund, PriceWaterhouse-Coopers, Federal Reserve and Economic Intelligence Unit. The rates were relatively consistent ranging from 1.95 to 2.60 percent and an average of 2.22 percent.

Q. Would you describe the development of the labor and benefits expense?

A. Yes. Labor expense is shown on page 13, with actual labor expense for the twelve months ended December 31, 2016 used as the starting point. The overall projected increase of 1.28 percent in 2017 includes an increase of 3.0 percent for bargaining unit employees pursuant to a negotiated union contract and 3.4 percent for non-bargaining unit employees effective in 2017. In addition, bonuses and commissions have been adjusted to reflect the elimination of retention payments and rental subsidies from the 2016 level. Incentive compensation has been adjusted to reflect targeted incentive levels as a percentage of straight time and vacation. The overall increase for projected 2018 is 2.93 percent and includes an increase of 3.0 percent for all employees.

Benefits are shown on page 14. Benefits expense consists of medical/dental insurance, pension, post-retirement, 401K, and workers compensation. Each of these items was adjusted individually. Medical/dental expense for 2017 and 2018 reflect an increase of 7.20 percent and 7.00 percent, respectively, based on premiums in effect for 2017 and projected premiums for 2018. Pension and post-retirement expense for 2017 reflect amounts agreed upon pursuant to the Settlement Agreement in Case No. PU-15-090. Pension and post-retirement expense for 2018 is based on the 2018 Actuarial Estimate adjusted to reflect the recovery of the estimated deferred balance as of December 31, 2017. The estimated deferred balance is proposed to be amortized over a three-year period. Projected 401K and other benefits expense reflect the straight time labor increase of 3.24 percent for 2017 and 3.00 percent for 2018. Workers' compensation is based on the ratio of workers' compensation expense for 2016 to per books North Dakota gas labor expense applied to 2017 and 2018 projected labor expense.

Q. Would you describe the other projected O&M expense items?

A. Yes. The projected subcontract labor expense (Statement K, page 15) for 2017 remains at the 2016 level. Subcontract labor expense for 2018 was adjusted to reflect inflation at 2.22 percent based on an average of six indices. Materials expense (Statement K, page 16) for 2017 is expected to remain at the 2016 level and increase in 2018 based on a policy change to expense computer and mobile communication equipment under $1,000 rather than capitalizing and the application of an inflation rate of 2.22 percent.

. Vehicles and work equipment (Statement K, page 17) reflect all expenses associated with the Company's vehicles and equipment, such as backhoes, skid steers and excavators, including the cost of fuel, insurance, maintenance and depreciation expense. The depreciation expense on these items is charged to a clearing account (rather than to depreciation expense), where it is then recorded in O&M expense or capitalized as part of a project as the vehicle or work equipment is used. The projected expense has been updated based on the projected plant as shown in Statement L and the proposed depreciation rates as supported by Mr. E. Robinson.

Company consumption (Statement K, page 18) is the expense for electric and natural gas consumption in Company buildings. The electric component reflects the projected volumes at rates reflecting the settlement in Case No. PU-16-666. Rates and volumes are projected to remain at the same level for 2018. The natural gas component is increased to reflect normalized volumes at current rates for 2017 and is projected to remain at that same level for 2018.

Uncollectible accounts expense (Statement K, page 19) is based on the ratio of the three-year average of net write-offs to sales and transportation revenue. This ratio was then applied to the projected 2017 and 2018 sales and transportation revenues, which results in an increase in uncollectible accounts.

Projected postage expense (Statement K, page 20) for 2017 reflects the number of customers receiving their monthly billing via electronic format as of December 2016 level adjusting for the additional postage savings for the entire year. Postage expense for 2018 is projected to increase by the Consumer Price Index of 2.40 percent.

Software maintenance (Statement K, page 21) was adjusted to reflect current levels. Per books 2016 was lower due to a change in the Company's treatment of software maintenance expense. Prior to 2016, the Company expensed software maintenance invoices as received. Generally, the invoices cover an annual period and are received in the third quarter, prior to their effective date. Therefore, invoices received in the third quarter of 2016 were treated as prepaid expenses and were amortized beginning in January 2017. Projected 2018 software maintenance expense reflects an inflation rate of 2.22 percent based on the average of six indices.

Projected building rental expense (Statement K, page 22) for 2017 has been adjusted to reflect the annualized current level of expense. The projected 2018 building rental expense reflects an inflation rate of 2.22 percent based on the average of six indices.

Advertising expense is shown on Statement K, page 23. Promotional advertising expense has been eliminated and informational and institutional advertising are adjusted to exclude advertising that is not applicable to North Dakota gas operations.

Q. Would you please continue with your explanation of adjustments to operation and maintenance expenses?

A. Yes. Industry dues reflect the projected level of industry dues and dues not specifically applicable to North Dakota natural gas operations have been eliminated.

Insurance expense reflects the current insurance level for 2017 and an increase of 5.00 percent for 2018 based on recent trends.

Regulatory commission expense, as shown on page 26, reflects the expenses to be incurred in this filing, amortized over a three-year period, and a three-year average of ongoing regulatory commission expense. In addition, it includes the expenses related to the Common and Gas depreciation studies amortized over five years. The Bismarck manufactured gas plant will be fully amortized at the end of 2017 pursuant to Case No. PU-10-589.

The items adjusted individually above represent approximately 98 percent of total North Dakota gas O&M expenses, as shown on pages 28 and 29. The remaining items, which make up approximately 2 percent of other O&M expense, were adjusted for the effects of inflation for 2017 and 2018. A 2.2 percent inflation factor, based on the average of six published inflation indices, was applied to the expenses not specifically adjusted for 2017 and 2018.

Q. Would you describe the calculation of depreciation expense?

A. Yes. Projected depreciation expense is summarized on Statement K, page 30. The calculation of depreciation expense and associated accumulated reserve for depreciation is shown on pages 31 and 32. Depreciation expense is calculated on projected plant using the average projected plant in service. AUS Consultants prepared a depreciation study, at the Company's request, for Common assets based on the plant balances at December 31, 2014 and for Gas assets based on the plant balances at December 31, 2015. Both studies are supported in the testimony of Mr. E. Robinson. Montana-Dakota is proposing to use depreciation rates that were developed in the Common and Gas depreciation studies with the following exceptions. The Common depreciation rates proposed in this filing are consistent with depreciation rates approved in the most recent electric rate case in Case No. PU-16-666. For Gas assets, the Company is proposing to utilize the rates presented in the study with the exception of FERC Accounts 376, 380 and 381. Mr. E. Robinson has supported the Cost of Removal (COR) component of the depreciation rates to be 50%, 200%, and 20%, each of which is a negative value, respectively. The Company's current COR components are negative, 40%, 140%, and 0%. While Montana-Dakota supports the AUS Consultants' study, the Company is proposing to mitigate the depreciation rate increases and, at the same time, match the COR components approved in the Company's other gas jurisdictions. Therefore, the proposed COR components used in this filing for FERC Accounts 376, 380 and 381 are, negative 30%, 175% and 5%, respectively. The depreciation rates are shown on Statement G page 1, with a summary of composite rates by function on page 2.

Q. How were taxes other than income projected?

A. Projected taxes other than income are shown on pages 33 through 35. Ad valorem taxes were calculated using the projected 2017 and 2018 plant in service balances and applying a projected effective tax rate based on the ratio of 2016 ad valorem taxes to average plant balances, excluding the acquisition adjustment, as of December 31, 2016 by function.

Projected payroll taxes were based on the ratio of payroll taxes to labor expense for 2016 and applied to the projected 2017 and 2018 labor expense to determine the projected payroll taxes.

All other taxes other than income were projected to remain at the 2016 level.

Q. Would you describe the calculation of federal and state income taxes?

A. The projected income tax calculation for North Dakota gas operations is shown on page 36. Interest is deductible for tax purposes and the projected interest expense shown on page 37 is calculated on the projected rate base using the projected debt ratio and weighted cost of debt from Statement D, page 1.

North Dakota federal and state income taxes are fully normalized, so the calculation of income taxes is made on the taxable income after interest, since any tax deductions would be fully offset by deferred income taxes.

Rate Base

Q. Would you describe the development of the projected rate base for 2017 and 2018?

A. The rate base is summarized on Statement L, page 1 and shows the 2016 actual and projected 2017 and 2018 rate base for North Dakota gas operations. Pages 2 through 22 are the supporting components of the projected rate base.

Pages 2 and 3 show the projected plant in service for 2017 and 2018. The projected plant was developed by adding the capital budget items for 2017 to the 2016 plant in service balances. Retirements, based on a three-year average of retirements by function, were deducted and the average 2017 balance was calculated. The process was repeated for 2018. The detailed capital additions by project for 2017 and 2018 are shown on pages 5 through 9. The 2018 plant additions include approximately $5.6 million for System Safety and Integrity Program (SSIP), including $2.9 million of Main Replacements and $2.7 million of Service Line Replacements. The SSIP is discussed in more detail in the testimony of Mr. Patrick Darras.

The projected accumulated reserve for depreciation is summarized on page 10. The projected reserve balances were calculated using the reserve balances at December 31, 2016, adding the calculated depreciation expense and deducting retirements based on a three-year average of retirements, as shown on Statement K, pages 31 and 32. The average 2017 balances were then calculated and the process was repeated for 2018.

Q. How were the working capital items derived?

A. The projected working capital items are shown on pages 11 through 18. Materials and supplies and fuel stocks were restated to a thirteen month average on pages 12 and 13, reflecting actual balances through April 2017 with May through December remaining at the 2016 levels.

Prepayments, which are made up of prepaid insurance, are shown on page 14. Prepayments are restated to a thirteen month average balance. The projected 2017 and 2018 balances are based on the projected 2017 and 2018 insurance expense.

The unamortized loss on debt was calculated using the balances as of December 31, 2016 and adding the calculated change for 2017, which reflects a reallocation of the balance and the annual amortization, to arrive at a balance for 2017. The 2016 and 2017 balances were then averaged to reflect the 2017 average unamortized loss on debt. The process was repeated to calculate the 2018 average unamortized loss on debt, as shown on page 15. The associated accumulated deferred income taxes are also included on page 20.

On April 1, 2017, Montana-Dakota redeemed all outstanding preferred stock. Preferred stock comprised about 1.1 percent of the capital structure during 2016 as shown in Statement D, page 1. Preferred stock has characteristics of both debt and equity. For instance, only $180,000 of the $685,000 in dividends paid each year are deductible on the Company's tax return. The quarterly dividends paid are based on a stated rate of 4.5 and 4.7 percent similar to debt.

$20 million of long-term debt issued in the first quarter of 2017 provided an opportunity to redeem the preferred stock and replace it with long term debt with a stated interest cost of 3.36 percent. At the same time, all of the interest is deductible for tax purposes which further reduces the revenue requirement. The result of the redemption is a lower overall cost of capital.

As discussed in the testimony of Ms. T. Nygard, a call premium of $600,000 was incurred upon redemption of preferred stock. The call premium has been deferred, net of tax, on the Company's books. The Company is now proposing to include this regulatory asset in its rate base and to amortize the balance over the life of the long-term debt of 15 years. An analysis has been prepared which demonstrates the overall net benefit of the redemption, inclusive of the rate base impact, is beneficial to Montana-Dakota's customers. Therefore, this item has been reflected in the revenue requirement in a manner similar to the unamortized loss on debt as shown on page 16.

New office buildings were constructed in Williston and Watford City. The existing office buildings were sold which resulted in a gain. The gain on the sale of both office buildings was deferred and is being amortized as authorized in Case No. PU-15-090 beginning in December 31, 2015 and is shown on page 17. The gain is being amortized over a 20 year period beginning with the month following the in service date of each of the new office buildings. The activity for 2017 is reflected and the 2016 and 2017 balances were then averaged to reflect the 2017 average balance. The process was repeated to calculate the 2018 average balance. The associated accumulated deferred income taxes are included on page 20.

During the recent expansion related to oil development in western North Dakota, the region operations experienced a lack of housing units available to meet the number of workers necessary to fill required jobs. In many cases, Montana-Dakota was able to find an individual to fill an open position but the individual was unable to acquire housing; therefore, was not able to accept the position offered to them. The Company found it was necessary to provide housing options, specifically manufactured homes, in order to be able to attract and retain employees. More recently, the number of housing units in the region has increased and employees have been able to find permanent housing. Therefore, the Company made the decision to dispose of all housing units. A loss was incurred upon disposal and the Company is proposing to amortize the loss over a twenty-year period with the unamortized balance included in the rate base as an addition as shown on page 18. In Case No. PU-16-666, the Commission approved a Settlement Agreement granting the same treatment proposed in this filing. The associated accumulated deferred income taxes are included on page 20.

Customer advances for construction are shown on page 19 and have been restated to a thirteen month average balance for 2017 and 2018, with actuals through April 2017. Several large projects included in the Company's capital additions have been identified as having an associated customer advance. The monthly customer advance balances have been adjusted to include the advance to coincide with the in service date of the project. Also, as previously mentioned, the Company accepted a Letter of Credit in lieu of a customer advance for certain projects. The Projected 2017 and 2018 Customer Advance balance has been adjusted to reflect the collection of the contribution via a Letter of Credit for two large industrial customers which are not likely to meet their volume requirements. Therefore, the total investment for the two extensions are offset by the customer advance.

Q. Would you describe how the accumulated deferred income tax balances were developed?

A. The accumulated deferred income tax balances are summarized on page 20. The projected balances were derived by adding the changes to the deferred income taxes for 2017 and 2018 to the 2016 balances and calculating the average balance.

The changes associated with book/tax depreciation differences (liberalized depreciation) are on page 21 and display the projected changes due to the plant additions as well as existing plant. The Company is required to use the Proration Method of computing deferred taxes for all test period filings in which a forecast has been used to develop the revenue requirement to comply with IRS normalization rules.

The accumulated deferred income taxes associated with the unamortized loss on debt, the preferred stock redemption, the gain on the sale of the Williston and Watford City office buildings and the loss on the sale of employee housing are shown on pages 15, 16, 17, and 18, respectively. The change in accumulated deferred income taxes associated with full normalization and the acquisition adjustment are the same as experienced in 2016.

Q. Are you proposing any changes to Rate 88 – Cost of Gas and Rate 99 – Cost of Gas Propane?

A. Yes. Montana-Dakota is proposing to change the minimum threshold for determining if a monthly adjustment will be made under Rates 88 and 99 from ten (10) cents to twenty five (25) cents. The Company expects the increase in the threshold amount will reduce the number filings by about 50 percent and, many times, the rates increase one month followed by a decrease the following month. The annual surcharge adjustment filing will be maintained; therefore, all variances between the rate charged and the actual cost of gas will continue to be deferred and trued up through the annual surcharge.

Montana-Dakota has also proposed a Firm General Contracted Demand Service Rate 74 as discussed by Ms. Bosch. Rate 88 has been updated to reflect the cost of gas to be charged for Rate 74. The Capacity Charge will be developed on an incremental pipeline capacity basis and applied to the contracted billing demand. The Cost of Gas - Commodity Charge will be based on costs applicable to firm customers, exclusive of pipeline demand charges, and will be applied to the customer's actual measured Dk for the given month.

Q. Will you now describe the revenue requirement supporting the proposed System Safety and Integrity Program Mechanism Rate 94 that is attached as Exhibit No.____(TRJ-3)?

A. Yes. Page 1 of this exhibit is a summary of the projected 2019 revenue requirement that was used by Ms. Bosch in the development of the projected 2019 rates and is based on the revenue requirements developed for 2018 and 2019.

As shown on Statement L, page 8, Montana-Dakota has included two projects related to the SSIP for the projected 2018 rate base, one in mains and one in services. Page 4 and 5 show the revenue requirement for each of these projects. The revenue requirement has been developed based on the seasonal construction close outs to plant in service. The return is based on the proposed return as shown on Statement D, page 1 and the depreciation rates are based on the proposed rates discussed earlier in my testimony. The purpose of the revenue requirement for projected 2018 is to establish a base level of revenue, which is included in the Company's rate request, and provides a base to which the actual 2018 construction spending will be trued up through the proposed SSIP Adjustment Mechanism.

Similarly, based on Mr. Darras' testimony, a revenue requirement was developed for the projected 2019 period. Each of the assumptions mentioned above was used in the development of the 2019 revenue requirement as well.

As noted by Ms. Bosch, the Company proposes to file in early 2019 for the recovery of the projected 2019 revenue requirement. The filing would include a revenue requirement true up to the actual 2018 capital spending compared to the base revenue requirement of $386,787 as established in this proceeding. All future filings will continue to reflect the base until the Company files its next general rate case.

Q. What is the additional revenue requirement calculated on Exhibit No.____(TRJ-1)?

A. Exhibit No.____(TRJ-1), which is identical to Statement J, page 3, shows the calculation of the revenue deficiency of $5,863,197 based on the projected 2018 income and rate base and using the overall rate of return of 7.542 percent from Statement D, page 1 and supported by Ms. Nygard and Dr. Gaske.

Q. Is Montana-Dakota seeking an interim increase in this case?

A. Yes, it is. As stated by Ms. Kivisto, Montana-Dakota is seeking an interim rate relief in this case pursuant to North Dakota §49-05-06.

Q. What amount of interim rate relief is the Company seeking?

A. The Company has identified an interim revenue requirement, presented in Exhibit No. ___ (TRJ-2) of $4,561,074 and Exhibit B of the Interim Application based on the 2018 projected cost of service. The return used in this projection is based on a 9.50 percent return on equity authorized in Case No. PU-15-090. In addition, the interim revenue requirement has been adjusted to remove the proposed preferred stock redemption costs and loss on sales of employee housing from the rate base. The interim revenue requirement is based on depreciation rates currently in effect.

Q. Does this complete your direct testimony?

A. Yes, it does.

MONTANA-DAKOTA UTILITIES CO.
PROJECTED OPERATING INCOME AND RATE OF RETURN
REFLECTING ADDITIONAL REVENUE REQUIREMENTS
PROJECTED 2018

	Before Additional Revenue Requirements 1/	**Additional Revenue Requirements**	Reflecting Additional Revenue Requirements
Operating Revenues			
Sales	$106,410,946	**$5,863,197**	$112,274,143
Transportation	2,197,896		2,197,896
Other	3,527,788		3,527,788
Total Revenues	112,136,630	5,863,197	117,999,827
Operating Expenses			
Operation and Maintenance			
Cost of Gas	70,913,006		70,913,006
Other O&M	21,532,698		21,532,698
Total O&M	92,445,704		92,445,704
Depreciation	9,206,297		9,206,297
Taxes Other Than Income	2,039,599		2,039,599
Income Taxes	1,876,170	2,216,376 2/	4,092,546
Total Expenses	105,567,770	2,216,376	107,784,146
Operating Income	$6,568,860	$3,646,821	$10,215,681
Rate Base	$135,450,558		$135,450,558
Rate of Return	**4.850%**		**7.542%**

1/ Statement K, Page 1.
2/ Reflects state and federal taxes at 37.8015%.

Case No. PU -17-___
Exhibit No. ______ (TRJ-2)

MONTANA-DAKOTA UTILITIES CO.
PROJECTED OPERATING INCOME AND RATE OF RETURN
REFLECTING ADDITIONAL REVENUE REQUIREMENTS
PROJECTED 2018
- INTERIM -

	Before Additional Revenue Requirements 1/	**Additional Revenue Requirements**		Reflecting Additional Revenue Requirements
Operating Revenues				
Sales	$106,410,946	**$4,561,074**		$110,972,020
Transportation	2,197,896			2,197,896
Other	3,527,788			3,527,788
Total Revenues	112,136,630	4,561,074		116,697,704
Operating Expenses				
Operation and Maintenance				
Cost of Gas	70,913,006			70,913,006
Other O&M	21,532,698			21,532,698
Total O&M	92,445,704			92,445,704
Depreciation	8,365,365			8,365,365
Taxes Other Than Income	2,039,599			2,039,599
Income Taxes	2,185,562	1,724,154	2/	3,909,716
Total Expenses	105,036,230	1,724,154		106,760,384
Operating Income	$7,100,400	$2,836,920		$9,937,320
Rate Base	$136,370,517			$136,370,517
Rate of Return	**5.207%**			**7.287%**

Projected 2018			
Long Term Debt	43.036%	5.282%	2.273%
Short Term Debt	5.968%	2.831%	0.169%
Preferred Stock	0.000%	0.000%	0.000%
Common Equity	50.996%	9.500%	4.845%
Total	100.000%		7.287%

1/ Page 2
2/ Reflects state and federal taxes at 37.8015%.

MONTANA-DAKOTA UTILITIES CO.
SSIP REVENUE REQUIREMENT
PROJECTED 2019

	Total	Mains	Services
Depreciation Expense	$338,983	$101,811	$237,172
Ad valorem taxes	52,782	27,438	25,344
Return	603,348	316,749	286,599
Income Taxes	(221,939)	(87,626)	(134,313)
Gross up for Taxes	469,902	217,804	252,098
Less: Base	(386,787)	(178,930)	(207,857)
Total	$856,289	$397,246	$459,043

MONTANA-DAKOTA UTILITIES CO.
SSIP PLANT ADDITIONS- MAINS
2019 REVENUE REQUIREMENT

		2019 Projected											
	Total	January	February	March	April	May	June	July	August	September	October	November	December
Plant in Service		$2,886,799	$2,886,799	$2,886,799	$3,042,739	$3,354,619	$3,822,439	$4,446,199	$5,069,959	$5,537,779	$5,849,659	$6,005,599	$6,005,599
Accumulated Reserve		33,209	39,247	45,285	51,323	57,687	64,704	72,699	81,999	92,603	104,186	116,421	128,982
ADIT 1/		20,660	26,583	31,908	36,654	40,802	44,371	47,342	49,715	51,509	52,706	53,324	53,343
Rate Base		$2,832,930	$2,820,969	$2,809,606	$2,954,762	$3,256,130	$3,713,364	$4,326,158	$4,938,245	$5,393,667	$5,692,767	$5,835,854	$5,823,274
Return @ 7.542% 2/	$316,749	$17,805	$17,730	$17,658	$18,571	$20,465	$23,338	$27,190	$31,037	$33,899	$35,779	$36,678	$36,599
Expenses													
Depreciation	101,811	6,038	6,038	6,038	6,038	6,364	7,017	7,995	9,300	10,604	11,583	12,235	12,561
Ad Valorem Taxes	27,438	1,099	1,099	1,099	1,158	1,277	1,455	1,693	1,930	2,108	2,227	2,286	10,007
Total Expenses	$129,249	$7,137	$7,137	$7,137	$7,196	$7,641	$8,472	$9,688	$11,230	$12,712	$13,810	$14,521	$22,568
Income before taxes	($129,249)	($7,137)	($7,137)	($7,137)	($7,196)	($7,641)	($8,472)	($9,688)	($11,230)	($12,712)	($13,810)	($14,521)	($22,568)
Interest expense	102,560	5,765	5,741	5,718	6,013	6,626	7,557	8,804	10,049	10,976	11,585	11,876	11,850
	($231,809)	($12,902)	($12,878)	($12,855)	($13,209)	($14,267)	($16,029)	($18,492)	($21,279)	($23,688)	($25,395)	($26,397)	($34,418)
Income Taxes	$87,626	$4,877	$4,868	$4,859	$4,993	$5,393	$6,059	$6,990	$8,044	$8,954	$9,600	$9,978	$13,011
Operating Income	($41,623)	(2,260)	(2,269)	(2,278)	(2,203)	(2,248)	(2,413)	(2,698)	(3,186)	(3,758)	(4,210)	(4,543)	(9,557)
Revenue Requirement	$576,176	$32,260	$32,154	$32,052	$33,400	$36,517	$41,401	$48,053	$55,022	$60,543	$64,293	$66,273	$74,208
Less: Base 3/	$178,930	($21)	($40)	($56)	$1,262	$4,219	$8,809	$15,028	$21,541	$26,710	$30,235	$32,123	$39,120
SSIP Revenue	$397,246	$32,281	$32,194	$32,108	$32,138	$32,298	$32,592	$33,025	$33,481	$33,833	$34,058	$34,150	$35,088

1/ Balances based on monthly proration methodology.
2/ Based on projected 2018 return per Case No. PU-17-___, Statement D pg. 1.
3/ See page 4.

MONTANA-DAKOTA UTILITIES CO.
SSIP PLANT ADDITIONS- SERVICES
2019 REVENUE REQUIREMENT

		2019 Projected											
		January	February	March	April	May	June	July	August	September	October	November	December
Plant in Service		$2,666,355	$2,666,355	$2,666,355	$2,810,415	$3,098,535	$3,530,715	$4,106,955	$4,683,195	$5,115,375	$5,403,495	$5,547,555	$5,547,555
Accumulated Reserve		77,359	91,424	105,489	119,554	134,379	150,724	169,348	191,012	215,716	242,700	271,203	300,466
ADIT 1/		8,258	9,937	11,446	12,791	13,967	14,979	15,821	16,494	17,002	17,341	17,517	17,522
Rate Base		$2,580,738	$2,564,994	$2,549,420	$2,678,070	$2,950,189	$3,365,012	$3,921,786	$4,475,689	$4,882,657	$5,143,454	$5,258,835	$5,229,567
	Total												
Return @ 7.542% 2/	$286,599	$16,220	$16,121	$16,023	$16,832	$18,542	$21,149	$24,648	$28,130	$30,687	$32,327	$33,052	$32,868
Expenses													
Depreciation	237,172	14,065	14,065	14,065	14,065	14,825	16,345	18,624	21,664	24,704	26,984	28,503	29,263
Ad Valorem Taxes	25,344	1,015	1,015	1,015	1,070	1,180	1,344	1,564	1,783	1,947	2,057	2,112	9,242
Total Expenses	$262,516	$15,080	$15,080	$15,080	$15,135	$16,005	$17,689	$20,188	$23,447	$26,651	$29,041	$30,615	$38,505
Income before taxes	($262,516)	($15,080)	($15,080)	($15,080)	($15,135)	($16,005)	($17,689)	($20,188)	($23,447)	($26,651)	($29,041)	($30,615)	($38,505)
Interest expense	92,798	5,252	5,220	5,188	5,450	6,004	6,848	7,981	9,108	9,936	10,467	10,702	10,642
	($355,314)	($20,332)	($20,300)	($20,268)	($20,585)	($22,009)	($24,537)	($28,169)	($32,555)	($36,587)	($39,508)	($41,317)	($49,147)
Income Taxes	$134,313	$7,686	$7,674	$7,662	$7,781	$8,320	$9,275	$10,648	$12,306	$13,830	$14,935	$15,618	$18,578
Operating Income	($128,203)	(7,394)	(7,406)	(7,418)	(7,354)	(7,685)	(8,414)	(9,540)	(11,141)	(12,821)	(14,106)	(14,997)	(19,927)
Revenue Requirement	$666,900	$37,966	$37,826	$37,687	$38,885	$42,167	$47,530	$54,966	$63,138	$69,950	$74,653	$77,251	$84,881
Less: Base 3/	$207,857	($10)	($18)	($26)	$1,201	$4,357	$9,441	$16,441	$24,120	$30,541	$35,007	$37,528	$49,275
SSIP Revenue	$459,043	$37,976	$37,844	$37,713	$37,684	$37,810	$38,089	$38,525	$39,018	$39,409	$39,646	$39,723	$35,606

1/ Balances based on monthly proration methodology.
2/ Based on projected 2018 return per Case No. PU-17-___, Statement D pg. 1.
3/ See page 5.

MONTANA-DAKOTA UTILITIES CO.
SSIP PLANT ADDITIONS- MAINS
2018 BASE REVENUE REQUIREMENT

		2018 Projected											
	Total	January	February	March	April	May	June	July	August	September	October	November	December
Plant in Service		$0	$0	$0	$144,340	$433,020	$866,040	$1,443,400	$2,020,760	$2,453,780	$2,742,460	$2,886,799	$2,886,799
Accumulated Reserve		0	0	0	0	302	1,208	3,019	6,038	10,265	15,397	21,133	27,171
ADIT 1/		2,344	4,492	6,423	8,144	9,648	10,942	12,020	12,881	13,532	13,966	14,190	14,197
Rate Base		($2,344)	($4,492)	($6,423)	$136,196	$423,070	$853,890	$1,428,361	$2,001,841	$2,429,983	$2,713,097	$2,851,476	$2,845,431
Return @ 7.542% 2/	$98,488	($15)	($28)	($40)	$856	$2,659	$5,367	$8,977	$12,582	$15,272	$17,052	$17,922	$17,884
Expenses													
Depreciation	27,171	0	0	0	0	302	906	1,811	3,019	4,227	5,132	5,736	6,038
Ad Valorem Taxes	12,794	0	0	0	55	165	330	550	769	934	1,044	1,099	7,848
Total Expenses	$39,965	$0	$0	$0	$55	$467	$1,236	$2,361	$3,788	$5,161	$6,176	$6,835	$13,886
Income before taxes	($39,965)	$0	$0	$0	($55)	($467)	($1,236)	($2,361)	($3,788)	($5,161)	($6,176)	($6,835)	($13,886)
Interest expense	31,889	(5)	(9)	(13)	277	861	1,738	2,907	4,074	4,945	5,521	5,803	5,790
	($71,854)	$5	$9	$13	($332)	($1,328)	($2,974)	($5,268)	($7,862)	($10,106)	($11,697)	($12,638)	($19,676)
Income Taxes	$27,162	($2)	($3)	($5)	$126	$502	$1,124	$1,991	$2,972	$3,820	$4,422	$4,777	$7,438
Operating Income	(12,803)	(2)	(3)	(5)	71	35	(112)	(370)	(816)	(1,341)	(1,754)	(2,058)	(6,448)
Revenue Requirement	$178,930	($21)	($40)	($56)	$1,262	$4,219	$8,809	$15,028	$21,541	$26,710	$30,235	$32,123	$39,120

1/ Balances based on monthly proration methodology.
2/ Based on projected 2018 return per Case No. PU-17-___, Statement D pg. 1.

MONTANA-DAKOTA UTILITIES CO.
SSIP PLANT ADDITIONS- SERVICES
2018 BASE REVENUE REQUIREMENT

		2018 Projected											
	Total	January	February	March	April	May	June	July	August	September	October	November	December
Plant in Service		$0	$0	$0	$133,318	$399,954	$799,907	$1,333,178	$1,866,449	$2,266,402	$2,533,038	$2,666,355	$2,666,355
Accumulated Reserve		0	0	0	0	703	2,813	7,033	14,066	23,912	35,867	49,229	63,294
ADIT 1/		1,061	2,033	2,907	3,686	4,367	4,953	5,441	5,831	6,126	6,322	6,423	6,426
Rate Base		($1,061)	($2,033)	($2,907)	$129,632	$394,884	$792,141	$1,320,704	$1,846,552	$2,236,364	$2,490,849	$2,610,703	$2,596,635
Return @ 7.542% 2/	$90,584	($7)	($13)	($18)	$815	$2,482	$4,979	$8,301	$11,606	$14,056	$15,655	$16,408	$16,320
Expenses													
Depreciation	63,294	0	0	0	0	703	2,110	4,220	7,033	9,846	11,955	13,362	14,065
Ad Valorem Taxes	16,752	0	0	0	51	152	305	508	711	863	964	1,015	12,183
Total Expenses	$80,046	$0	$0	$0	$51	$855	$2,415	$4,728	$7,744	$10,709	$12,919	$14,377	$26,248
Income before taxes	($80,046)	$0	$0	$0	($51)	($855)	($2,415)	($4,728)	($7,744)	($10,709)	($12,919)	($14,377)	($26,248)
Interest expense	29,331	(2)	(4)	(6)	264	804	1,612	2,688	3,758	4,551	5,069	5,313	5,284
	($109,377)	$2	$4	$6	($315)	($1,659)	($4,027)	($7,416)	($11,502)	($15,260)	($17,988)	($19,690)	($31,532)
Income Taxes	$41,346	($1)	($2)	($2)	$119	$627	$1,522	$2,803	$4,348	$5,769	$6,800	$7,443	$11,920
Operating Income	(38,700)	(1)	(2)	(2)	68	(228)	(893)	(1,925)	(3,396)	(4,940)	(6,119)	(6,934)	(14,328)
Revenue Requirement	$207,857	($10)	($18)	($26)	$1,201	$4,357	$9,441	$16,441	$24,120	$30,541	$35,007	$37,528	$49,275

1/ Balances based on monthly proration methodology.
2/ Based on projected 2018 return per Case No. PU-17-___, Statement D pg. 1.