



UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

March 9, 2018

Executive Secretary
North Dakota Public Service Commission
State Capitol Building
Bismarck, ND 58505-0480

Re: Rate Impact and Accounting Treatment Investigation into the Tax Cuts and Job Act 2017 - Montana-Dakota Utilities Co.'s Updated Electric Utility Revenue Requirement and Proposed Rates Reflecting Effects of Tax Act

Case No. PU-18-____

Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. (referred to herein as Montana-Dakota and Company), herewith submits for Commission approval an original and (7) copies of the Company's Application to update its electric retail rates in response to the Tax Cuts and Jobs Bill Act of 2017 (TCJA) and the Commission's Order Initiating an Investigation into the Rate Impact and Accounting Treatment of the TCJA as ordered on January 10, 2018 in Case No. PU-17-490. Montana-Dakota requests Commission approval of the proposed electric rates, included herein as Exhibit 1, to be effective upon Commission approval along with the proposed refund plan, outlined in Section VI of the Company's application, to reflect the effects of the TCJA effective January 1, 2018 on the Company's electric retail rates.

On February 15, 2018, Montana-Dakota filed its Initial Comments with the Commission in which the Company provided a summary of its review of the TCJA and the Company's proposed next steps. In the Initial Comments filed, the Company noted it was currently reviewing its authorized rates to determine the full effect of the TCJA on its electric rates authorized in Case No. PU-16-666 and effective with service rendered on and after August 7, 2017. At that time, the Company was estimating a reduction in its base electric retail rates of approximately \$8-10 million.

The Company has completed its analysis and herewith files an updated electric revenue requirement and proposed rates for Commission approval. The Company's updated revenue requirement reflecting the effects of the TCJA is \$179,610,729. This equates to a decrease in annual revenues of \$7,231,009 or 3.87 percent from the base retail rates

authorized in Case No. PU-16-666. Incorporating the decrease in annual revenues into the rate design authorized in the recent electric general rate case amounts to a decrease of \$3.65 per month for a typical residential customer using 980 Kwh a month.

As further explained in its application, the proposed reduction in the revenue requirement is the reduction associated with the change in the federal tax rate from 35 percent to 21 percent. The Company proposes to retain the annual amount associated with the amortization of excess deferred taxes for investment in electric infrastructure upgrades.

Montana-Dakota also provides a proposed refund plan for the return of dollars collected from customers as of the effective date of the tax rate change through the time new rates are implemented. Finally, the Company proposes to establish a mechanism for further refunds should the actual return earned in 2018 exceed the return authorized in Case No. PU-16-666.

The Renewable Resource Cost Adjustment and Generation Resource Recovery Rider were submitted on February 23, 2018 in Case Nos. PU-18-082 and PU-17-469 respectively reflecting the TCJA changes.

Please refer all inquiries regarding this filing to:

Ms. Tamie A. Aberle
Director of Regulatory Affairs
Montana-Dakota Utilities Co.
400 North Fourth Street
Bismarck, ND 58501
Tamie.Aberle@mdu.com

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

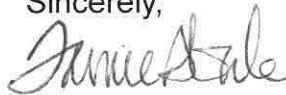
Mr. Karl Liepitz
Assistant General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
Bismarck, ND 58506-5650
Karl.Liepitz@MDUResources.com

Montana-Dakota respectfully requests that this filing be accepted as being in full compliance with the filing requirements of this Commission. A filing fee of \$50.00 is provided in compliance with Section 49-05-05 of the North Dakota Century Code.

Please acknowledge receipt by stamping or initialing the duplicate copy of this letter attached hereto and returning the same in the enclosed self-addressed, stamped envelope.

Please contact me at (701) 222-7856 or at Tamie.Aberle@mdu.com with any questions regarding this filing.

Sincerely,



Tamie Aberle
Director of Regulatory Affairs

Attachments

cc: Karl Liepitz
Garret Senger

II. Description of Applicant

Montana-Dakota is a Division of MDU Resources Group, Inc., a Delaware corporation duly authorized to do business in the State of North Dakota as a foreign corporation, and doing business in the State of North Dakota as a public utility subject to the jurisdiction of and regulation by the North Dakota Public Service Commission (Commission) under NDCC Title 49. Montana-Dakota's Certificate of Incorporation and amendments thereto have been previously filed with the Commission and such Certificate and Amendments are hereby incorporated by reference as though fully set forth herein. Montana-Dakota provides electric service to approximately 92,800 customers in North Dakota as of January 2018.

III. Effect of Tax Cuts and Jobs Act of 2017 on Montana-Dakota's Electric Base Retail Rates

In October 2016, Montana-Dakota filed an application with the North Dakota Public Service Commission to increase the Company's electric retail rates in North Dakota in Case No. PU-16-666. On June 16, 2017, the Commission approved a Settlement Agreement between Montana-Dakota, the Commission Advocacy Staff, and the AARP. The Settlement Agreement provided for an annual revenue increase of \$7.5 million, including a net change to base retail rates of \$8.5 million. The change in base electric rates resulted in an increase of approximately \$4.50 per month for a typical residential customer. On August 7, 2017, Montana-Dakota implemented the approved electric retail rates pursuant to the Settlement Agreement, which was based on a projected 2017 test period. As this most recent rate case was implemented less than

seven months ago and reflects a projected 2017 test period, the Company chose to analyze the effects of the TCJA on the revenue requirement authorized in this most recent rate case. The effects of the TCJA on Montana-Dakota's authorized revenue requirement is provided herein as Exhibit 2. As shown on page 1 of Exhibit 2, the Company's updated revenue requirement of \$179,610,729 reflects a decrease in annual revenues of \$7,232,919 or 3.87 percent from that authorized in June 2017.

The updated revenue requirement was developed based on the revenue, expenses and rate base upon which the Settlement Agreement was based as shown on Exhibit 2, page 1. The income tax expense was adjusted to reflect the 21 percent federal corporate income tax rate resulting in lower income tax expense which is directly offset by lower revenue. No other changes were made to revenue, expenses or rate base from that agreed upon by the parties to the Settlement Agreement.

The effect of the excess deferred taxes (EDITs) and the Company's proposed treatment of the EDITs is provided in ¶ V.

IV. Rate Design and Estimated Customer Impact

Consistent with the development of the revenue requirement to reflect the effects of the TCJA using the Company's most recent electric rate case, the Company is using the rate design authorized in Case No. PU-16-666 for the allocation of the decrease to the Company's various electric rate schedules. The decrease in the revenue requirement of \$7,232,919 was allocated equally to each rate class as shown on Exhibit 3, page 5. The allocated decrease was then applied to the energy charge component of each rate, with the exception of Irrigation Service Rate 25. The summer demand

charge under Rate 25 was also reduced in order to avoid a negative energy charge under the rate schedule that occurs when allocating the entire decrease to the energy component. The derivation of each rate is provided in Exhibit 3, pages 6 through 26. A summary of the resulting charges is provided on page 2 of Exhibit 3.

The revenue decrease reflecting the proposed charges is \$7,231,009 due to rounding in the rate design process. As noted previously, this represents a decrease of 3.87% to each rate class as shown on Exhibit 3, page 1.

Exhibit 3, page 3 includes a bill comparison using a typical residential customer's monthly consumption levels for a given year. As shown in the comparison the proposed rates will result in an average decrease of approximately \$3.65 per month for a typical residential customer using 11,760 Kwh on an annual basis.

V. Excess Accumulated Deferred Income Taxes

In its Initial Comments submitted on February 15, 2018, the Company generally described the effect of the TCJA on deferred taxes. As noted, the reduction in the federal income tax rate results in an excess deferred tax balance as the Company reflected a 35 percent federal tax expense in the year the deferred tax was established. However, when the deferred tax reverses and the actual tax expense is calculated, the Company will pay taxes based on the rate in effect at that time - currently 21 percent. Montana-Dakota proposes to exclude the non-cash amortization of the excess deferred tax expense created by the TCJA and has not included the income tax adjustment in the revenue requirement calculation shown in Exhibit 2.

The elimination of bonus tax depreciation for 2018 and 2019 increases the amount of federal income tax the Company will be required to pay and, if included in the revenue requirement, the 'flow back' of excess deferred income taxes (EDITs) will impact the Company's cash flow as this results in less cash collected from customers. Therefore, although Tax Reform is a benefit to unregulated companies and customers of regulated utilities, it is considered credit negative to the operations of regulated utilities due to the reduced cash flows. This reduction in cash flow has the potential to negatively impact the Company's credit rating. A combination of a lower credit rating and reduced cash flow could affect the Company's ability to fund needed infrastructure upgrades now and into the future potentially causing the need for more frequent rate cases. This impact coupled with the intent of the TCJA - Tax Cuts AND Job Creation (*emphasis added*) supports the Company's proposal to retain the annual amortization of EDITs to improve cash flow for funding electric infrastructure upgrades scheduled for 2018, such as transmission and distribution substation upgrades and continuation of looping systems to minimize outage times along with similar projects in future years. This proposal is in the public interest as it provides an immediate reduction in customers' bills representing approximately 80 percent of the total change identified with the TCJA. The Company's estimated EDIT amortization for 2018 through 2022 is shown on Exhibit 2, page 4. Allowing Montana-Dakota to retain the EDITs for future investments is also in the public interest because this will provide stability in customer

rates, maintain cash flow, provide a longer term funding mechanism for capital expenditures and minimize the impact of future rate increases.

To ensure, however, that Montana-Dakota does not recover more than its authorized rate of return as a result of not including the amortization of the EDITs in the rate reduction proposed herein, the Company would agree to implement a mechanism to ensure that to the extent Montana-Dakota's reported rate of return for 2018 exceeds the authorized return, a refund to customers will be triggered.

The EDITs are separated into two groups - plant and non-plant and are discussed in further detail below:

1. Plant Related Excess Deferred Taxes

Of the total EDITs recorded as a regulatory liability, the plant related EDITs are the most significant. The plant related EDITs established at the end of 2017 are to be amortized over the average remaining life of the assets, referred to as the Average Rate Assumption Method ("ARAM"). Consistent with the Internal Revenue Service's guidelines, ARAM is used because the EDITs may not be returned any faster than over the remaining lives of the underlying assets. The annual amortization begins in the period when tax depreciation for each asset is less than book depreciation for the same asset. With that in mind, the ARAM amortization will vary from year to year.

The Company has identified the annual EDITs that will reverse in 2018 to be approximately \$1,213,000 for North Dakota electric operations for assets recovered under base retail rates. The inclusion of this credit to deferred taxes would reduce the revenue

collected from customers but, as mentioned earlier, does not result in a reduced federal tax payment.

2. Non-Plant Related Excess Deferred Taxes

Non-plant EDITs are associated with a number of assets and liabilities with differing lives, and are not subject to ARAM. The largest item is post-retirement benefits, which have an estimated life of 20 years, and the next largest contributor is customer advances with a five-year life. An analysis of the non-plant deferred tax balance, included as Exhibit 2 pages 5 and 6, shows the estimated average life of the assets and liabilities to which they are associated. Based on that analysis, the Company is proposing to recognize those EDITs over a 10-year period. A 10-year period represents a reasonable time period, based on the weighted average life, in which deferred taxes as of December 31, 2017 will be realized. The annual amortization amounts to \$177,828 in years 2018 through 2027.

VI. Proposed Refund Plan

Upon approval of an updated revenue requirement and issuance of a Commission order for new electric rates, the Company will determine the final amount to be refunded to customers. The amount to be refunded will be determined by applying the applicable percentage decrease in base retail rates (excluding fuel costs) to the revenues collected for service provided beginning January 1, 2018 through the period ending with the implementation of new rates. The Company proposes to issue a bill credit to customers, upon determination of the amount to be refunded, including interest at the three-month Treasury Bill rate as published by the Federal Reserve Board. Sixty days after implementation of new electric rates in North Dakota, the

Company will commence a bill credit on customers' bills to refund the approved total dollars to be refunded over a period of subsequent billing months and shown as a separate line item on the bill, titled "Tax Act Refund" or such description as approved by the Commission in a line length the bill form can accommodate. Upon determination of the refund amount, the Company will work with the Commission Staff to determine the appropriate number of billing periods over which the refund should be returned to customers.

VII. Customer Notice

A customer notice will be included with customer's bills starting thirty days from the date of the filing in accordance with NDCC § 69-09-02-02.1 requiring a notice to be provided to customers, within thirty days after filing, informing customers of the Company's request to update rates.

VIII. Conclusion

Montana-Dakota respectfully requests that the Commission approve:

- the proposed tariffs included herein
- the proposed treatment of excess EDITs, and
- the Company's proposed refund plan to reflect the January 1, 2018 effective date of the TCJA.

Dated this 9th day of March 2018



Tamie A. Aberle
Director of Regulatory Affairs

Subscribed and sworn to before me this 9th day of March 2018



Caitlin Straabe, Notary Public
Burleigh County, North Dakota
My Commission Expires: 08/28/2019

Of Counsel:
Karl Liepitz
Assistant General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
Bismarck, ND 58506-5650

Exhibit 1



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
9th Revised Sheet No. 3
Canceling 8th Revised Sheet No. 3

RESIDENTIAL ELECTRIC SERVICE Rate 10

Page 1 of 1

Availability:

In all communities served for single-phase residential electric service for domestic purposes only.

Rate:

Basic Service Charge:	\$0.46 per day
Energy Charge:	
October – May:	
First 750 Kwh per month	5.761¢ per Kwh
Over 750 Kwh per month	2.761¢ per Kwh
June – September:	5.761¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-112 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

Date Filed: March 9, 2018

Effective Date:

Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4

3rd Revised Sheet No. 4

Canceling 2nd Revised Sheet No. 4

OPTIONAL RESIDENTIAL ELECTRIC THERMAL ENERGY STORAGE SERVICE Rate 13

Page 1 of 2

Availability:

In all communities served for single-phase residential electric for customers operating Company approved thermal energy storage facilities for the purpose of utilizing off-peak electric energy for space conditioning purposes where electric space heating is the primary heating source. Service under this rate is not available when another energy source provided by the Company is utilized as a back-up heating source.

Rate:

Basic Service Charge: \$0.75 per day

Off-Peak Energy Charge:

For all energy used during the designated hours of 10:00 p.m. to 8:00 a.m. local time.

October – May: 1.100¢ per Kwh

On-Peak Energy Charge:

For all energy not covered by the Off-Peak rating period.

October – May:

First 750 Kwh per month 5.978¢ per Kwh

Over 750 Kwh per month 2.978¢ per Kwh

June – September: 5.978¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Date Filed: March 9, 2018

Effective Date:

Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.:



Montana-Dakota Utilities Co.

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400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
11th Revised Sheet No. 7
Canceling 10th Revised Sheet No. 7

OPTIONAL TIME-OF-DAY RESIDENTIAL ELECTRIC SERVICE Rate 16

Page 1 of 2

Availability:

In all communities served for single-phase residential electric service. The customer's wiring must be so arranged that all service can be measured through one meter.

Rate:

Basic Service Charge: \$0.75 per day

On-Peak Energy:

For all Kwh's used during peak hours designated as 12 p.m. to 8 p.m. local time, Monday through Friday.

October – May 5.789¢ per Kwh

June – September 7.289¢ per Kwh

Off-Peak Energy:

For all energy not covered by the On-Peak rating period.

October – May 2.789¢ per Kwh

June – September 4.289¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

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Director - Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
9th Revised Sheet No. 10
Canceling 8th Revised Sheet No. 10

SMALL GENERAL ELECTRIC SERVICE Rate 20

Page 1 of 2

Availability:

In all communities served for all types of general electric service with billing demands that do not warrant the installation of a demand meter except outside lighting, standby, resale or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be so arranged so that all service can be measured through one meter. If the customer does not connect his wiring into a single system, each meter shall constitute a separate billing unit.

Rate:

Basic Service Charge: \$0.84 per day

Energy Charge:

October – May:

First 750 Kwh per month 6.092¢ per Kwh

Over 750 Kwh per month 3.092¢ per Kwh

June – September: 6.092¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

Date Filed: March 9, 2018

Effective Date:

Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
5th Revised Sheet No. 14
Canceling 4th Revised Sheet No. 14

IRRIGATION POWER SERVICE Rate 25

Page 1 of 2

Availability:

For irrigation power service.

Rate:

Basic Service Charge:	\$1.50 per day
Demand Charge:	
October – May	\$1.25 per Kw
June – September	\$4.25 per Kw
Energy Charge:	0.245¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Power Factor Clause:

The Company reserves the right to require the customer to install adequate equipment so that at all times it can operate its facilities to maintain a power factor between 90% lagging and 90% leading. If the customer operates outside this range, the maximum 15 minute integrated reactive kilovolt amperes in excess of 50% of the maximum 15 minute integrated kilowatt demand for the same month will be billed at \$3.35 per Kvar of such excess demand.

Determination of Billing Demand:

The demand in kilowatts for billing purposes shall be the maximum 15 minute measured demand in the current month. Demands will be determined to the nearest one-tenth kilowatt. Customers whose loads have rapidly fluctuating and/or intermittent demand characteristics shall be subject to special rules and regulations.

Date Filed: March 9, 2018

Effective Date:

Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.:



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Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
11th Revised Sheet No. 15
Canceling 10th Revised Sheet No. 15

OPTIONAL TIME-OF-DAY SMALL GENERAL ELECTRIC SERVICE Rate 26

Page 1 of 2

Availability:

In all communities served for all types of general electric service with billing demands that do not warrant the installation of a demand meter except outside lighting, standby, resale, or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be arranged so that all service can be measured through one meter.

Rate:

Basic Service Charge: \$1.00 per day

On-Peak Energy:

For all Kwh's used during peak hours designated as 12 p.m. to 8 p.m. local time, Monday through Friday.

October – May	4.680¢ per Kwh
June – September	6.180¢ per Kwh

Off-Peak Energy:

For all energy not covered by the On-Peak rating period.

October – May	2.180¢ per Kwh
June – September	3.680¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Date Filed: March 9, 2018

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Case No.:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
5th Revised Sheet No. 18
Canceling 4th Revised Sheet No. 18

GENERAL ELECTRIC SERVICE Rate 30

Page 1 of 2

Availability:

In all communities served for all types of demand metered general electric service except outside lighting, standby, resale or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be arranged so that all service can be measured through one meter. If the customer does not connect his wiring into a single system, each meter shall constitute a separate billing unit.

Rate:

Primary Service:

Basic Service Charge: \$100.00 per month

Demand Charge:

October – May \$11.00 per Kw

June – September \$14.00 per Kw

Energy Charge: 1.475¢ per Kwh

Secondary Service:

Basic Service Charge: \$56.00 per month

Demand Charge:

October – May \$ 9.50 per Kw

June – September \$12.50 per Kw

Energy Charge: 2.408¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

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Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
7th Revised Sheet No. 19
Canceling 6th Revised Sheet No. 19

OPTIONAL TIME-OF-DAY GENERAL ELECTRIC SERVICE Rate 31

Page 1 of 3

Availability:

In all communities served for all types of demand metered general electric service except outside lighting, standby, resale, or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be arranged so that all service can be measured through one meter.

Rate:

Primary Service:

Basic Service Charge: \$97.00 per month

On-Peak Demand:

October - May \$12.25 per Kw
June - September \$15.25 per Kw

On-Peak Energy:

For all Kwh's used during peak
hours designated as 12 p.m.
to 8 p.m. local time, Monday
through Friday. 1.666¢ per Kwh

Off-Peak Energy:

For all energy not covered by
the On-Peak rating period. 1.416¢ per Kwh

Secondary Service:

Basic Service Charge: \$72.00 per month

On-Peak Demand:

October - May \$10.75 per Kw
June - September \$14.75 per Kw

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State of North Dakota Electric Rate Schedule

NDPSC Volume 4
11th Revised Sheet No. 19.1
Canceling 10th Revised Sheet No. 19.1

OPTIONAL TIME-OF-DAY GENERAL ELECTRIC SERVICE Rate 31

Page 2 of 3

On-Peak Energy:

For all Kwh's used during peak
hours designated as 12 p.m.
to 8 p.m. local time, Monday
through Friday. 2.588¢ per Kwh

Off-Peak Energy:

For all energy not covered by
the On-Peak rating period. 2.338¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

Determination of On-Peak Billing Demand:

The demand in kilowatts for billing purposes shall be the maximum 15 minute
measured demand for the on-peak period in the current month defined as 12:00
p.m. to 8:00 p.m. local time, Monday through Friday. Demands will be
determined to the nearest one-tenth kilowatt. Customers whose loads have
rapidly fluctuating and/or intermittent demand characteristics shall be subject to
special rules and regulations.

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Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
6th Revised Sheet No. 20
Canceling 5th Revised Sheet No. 20

GENERAL ELECTRIC SPACE HEATING SERVICE Rate 32

Page 1 of 3

Availability:

In all communities served for space heating service, where the customer also takes service under another general service rate schedule offered by the Company. Space heating equipment, including combination space heating and cooling equipment such as heat pumps and packaged roof-top heating/cooling units where heating use is the principal load may be served under this rate schedule.

Rate:

Basic Service Charge: \$21.00 per month

Primary Service:

Demand Charge:

October – May \$ 1.00 per Kw

June – September \$14.00 per Kw

Energy Charge: 1.482¢ per Kwh

Secondary Service:

Demand Charge:

October – May \$ 1.00 per Kw

June – September \$12.50 per Kw

Energy Charge: 2.482¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
5th Revised Sheet No. 23
Canceling 4th Revised Sheet No. 23

INTERRUPTIBLE LARGE POWER DEMAND RESPONSE Rate 38

Page 1 of 4

Availability:

In all communities served for power to customers having a demand of 500 Kw or more for its interruptible load available for interruption for up to 100 hours annually. Electric energy for the interruptible load shall be supplied through a separately metered circuit at the same voltage and phase utilized to serve the balance of the customer's electrical load so arranged to allow remote operation by the Company.

Type of Service:

Service under this rate shall be taken by the customer at whatever primary voltage is available at the point of delivery but not less than 2,400 volts. In the event that it is necessary to build a substation on the Company's transmission line to serve the customer, the cost of building the substation shall be a matter of negotiation between the Company and the customer.

Rate:

Basic Service Charge:	Specified in the electric service agreement with the Company.
Demand Charge:	
October – May	\$ 8.00 per Kw
June – September	\$11.00 per Kw
Energy Charge:	1.310¢ per Kwh

Minimum Bill:

Basic Service Charge plus the Demand Charge (500 Kw minimum).

Payment:

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

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A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
5th Revised Sheet No. 25
Canceling 4th Revised Sheet No. 25

SMALL MUNICIPAL ELECTRIC SERVICE Rate 40 (CLOSED)

Page 1 of 3

Availability:

For all lighting and power requirements with billing demands of 50 kilowatts or less for public buildings or locations supported by public tax levies, and for which the city is liable for payment, in all municipalities served where the Company is operating under a municipal franchise or permit, and the municipality has a standard contract for operation of a street lighting system and/or a municipal pumping system with the Company.

This rate is restricted to small municipal electric service customers who were served under this rate prior to January 27, 1987. Any new small municipal general electric service customer may take service under another applicable rate.

Rate:

Non-Demand:

Basic Service Charge: \$0.84 per day

Energy Charge:

October – May:

First 750 Kwh per month 3.480¢ per Kwh

Over 750 Kwh per month 2.380¢ per Kwh

June – September: 3.480¢ per Kwh

Demand:

Basic Service Charge: \$1.00 per day

Demand Charge:

October – May:

10 Kw or less No Charge

Over 10 Kw \$ 8.25 per Kw

June – September: \$11.25 per Kw

Energy Charge: 1.380¢ per Kwh

Date Filed: March 9, 2018

Effective Date:

Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
8th Revised Sheet No. 26
Canceling 7th Revised Sheet No. 26

MUNICIPAL LIGHTING SERVICE Rate 41

Page 1 of 2

Availability:

For municipal lighting purposes including streets, alleys and other public grounds. Service will be provided all night, every night in the year with a minimum service requirement of 4,000 hours annually, and must be covered by written contract.

Rate:

Primary Service:
Energy Charge: 5.171¢ per Kwh

Secondary Service:
Energy Charge: 5.671¢ per Kwh

Discount: For contracts of ten years or more 10%

Kwh shall be computed according to the total rated capacity of lamps in use.

Minimum Bill:

As provided in contract.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

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Director - Regulatory Affairs

Case No.:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
5th Revised Sheet No. 32
Canceling 4th Revised Sheet No. 32

MUNICIPAL PUMPING SERVICE Rate 48

Page 1 of 2

Availability:

For municipal pumping purposes provided the municipality uses electricity exclusively for all its pumping requirements and purchases all such electricity from the Company. The municipality must sign a contract for a minimum period of one year.

Rate:

Primary Service:

Basic Service Charge: \$80.00 per month

Demand Charge:

Connected loads of 10 Kw or less will be billed based on connected load. Connected loads in excess of 10 Kw will be billed based upon the greater of the highest 15 minute interval demand as registered upon a demand meter in the current month or 10 Kw.

October – May: \$6.00 per Kw

June – September: \$9.00 per Kw

Energy Charge: 1.864¢ per Kwh

Secondary Service:

Basic Service Charge: \$45.00 per month

Demand Charge:

Connected loads of 10 Kw or less will be billed based on connected load. Connected loads in excess of 10 Kw will be billed based upon the greater of the highest 15 minute interval demand as registered upon a demand meter in the current month or 10 Kw.

October – May: \$6.00 per Kw

June – September: \$9.00 per Kw

Energy Charge: 1.964¢ per Kwh

Discount: For contracts of ten years or more 10%

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Director - Regulatory Affairs

Case No.:



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
9th Revised Sheet No. 36
Canceling 8th Revised Sheet No. 36

OUTDOOR LIGHTING SERVICE Rate 52

Page 1 of 2

Availability:

For all outdoor lighting including flood lights, billboard lighting, metallic vapor yard lights, and Christmas lights in all communities served. Lighting equipment may be Company-owned or customer-owned.

Rate:

Primary Service:	
Energy Charge:	6.441¢ per Kwh
Secondary Service:	
Energy Charge:	6.847¢ per Kwh

Kwh shall be computed according to the total rated capacity of the units in use.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

General Terms and Conditions:

1. Applicable to Company-owned Facilities:
 - a. The Company will install, own and operate the flood light(s), and yard light(s) including a suitable reflector, bracket for mounting and automatic device to control operating hours set to operate from dusk to dawn.

Date Filed: March 9, 2018

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Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.:

Tariffs Reflecting Proposed Changes



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
8th Revised Sheet No. 3
Canceling 7th Revised Sheet No. 3

RESIDENTIAL ELECTRIC SERVICE Rate 10

Page 1 of 1

Availability:

In all communities served for single-phase residential electric service for domestic purposes only.

Rate:

Basic Service Charge:	\$0.46 per day
Energy Charge:	
October – May:	
First 750 Kwh per month	6.1335.761 ¢ per Kwh
Over 750 Kwh per month	3.1332.761 ¢ per Kwh
June – September:	6.1335.761 ¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

General Terms and Conditions:

The foregoing schedule is subject to Rates 100-112 and any amendments or alterations thereto or additional rules and regulations promulgated by the Company under the laws of the state.

Date Filed: June 26, 2017

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Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.: PU-16-666



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
2nd Revised Sheet No. 4
Canceling 1st Revised Sheet No. 4

OPTIONAL RESIDENTIAL ELECTRIC THERMAL ENERGY STORAGE SERVICE Rate 13

Page 1 of 2

Availability:

In all communities served for single-phase residential electric for customers operating Company approved thermal energy storage facilities for the purpose of utilizing off-peak electric energy for space conditioning purposes where electric space heating is the primary heating source. Service under this rate is not available when another energy source provided by the Company is utilized as a back-up heating source.

Rate:

Basic Service Charge: \$0.75 per day

Off-Peak Energy Charge:

For all energy used during the designated hours of 10:00 p.m. to 8:00 a.m. local time.

October – May: 1.100¢ per Kwh

On-Peak Energy Charge:

For all energy not covered by the Off-Peak rating period.

October – May:

First 750 Kwh per month ~~6.5775.978¢~~ per Kwh

Over 750 Kwh per month ~~3.5772.978¢~~ per Kwh

June – September: ~~6.5775.978¢~~ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
10th Revised Sheet No. 7
Canceling 9th Revised Sheet No. 7

OPTIONAL TIME-OF-DAY RESIDENTIAL ELECTRIC SERVICE Rate 16

Page 1 of 2

Availability:

In all communities served for single-phase residential electric service. The customer's wiring must be so arranged that all service can be measured through one meter.

Rate:

Basic Service Charge: \$0.75 per day

On-Peak Energy:

For all Kwh's used during peak hours designated as 12 p.m. to 8 p.m. local time, Monday through Friday.

October – May ~~6.11~~05.789¢ per Kwh

June – September ~~7.61~~07.289¢ per Kwh

Off-Peak Energy:

For all energy not covered by the On-Peak rating period.

October – May ~~3.11~~02.789¢ per Kwh

June – September ~~4.61~~04.289¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
8th Revised Sheet No. 10
Canceling 7th Revised Sheet No. 10

SMALL GENERAL ELECTRIC SERVICE Rate 20

Page 1 of 2

Availability:

In all communities served for all types of general electric service with billing demands that do not warrant the installation of a demand meter except outside lighting, standby, resale or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be so arranged so that all service can be measured through one meter. If the customer does not connect his wiring into a single system, each meter shall constitute a separate billing unit.

Rate:

Basic Service Charge:	\$0.84 per day
Energy Charge:	
October – May:	
First 750 Kwh per month	6-5206.092¢ per Kwh
Over 750 Kwh per month	3-5203.092¢ per Kwh
June – September:	6-5206.092¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
4th Revised Sheet No. 14
Canceling 3rd Revised Sheet No. 14

IRRIGATION POWER SERVICE Rate 25

Page 1 of 2

Availability:

For irrigation power service.

Rate:

Basic Service Charge:	\$1.50 per day
Demand Charge:	
October – May	\$1.25 per Kw
June – September	\$5.00 <u>4.25</u> per Kw
Energy Charge:	0.2550 <u>0.245</u> ¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Power Factor Clause:

The Company reserves the right to require the customer to install adequate equipment so that at all times it can operate its facilities to maintain a power factor between 90% lagging and 90% leading. If the customer operates outside this range, the maximum 15 minute integrated reactive kilovolt amperes in excess of 50% of the maximum 15 minute integrated kilowatt demand for the same month will be billed at \$3.35 per Kvar of such excess demand.

Determination of Billing Demand:

The demand in kilowatts for billing purposes shall be the maximum 15 minute measured demand in the current month. Demands will be determined to the nearest one-tenth kilowatt. Customers whose loads have rapidly fluctuating and/or intermittent demand characteristics shall be subject to special rules and regulations.

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Case No.: PU-16-666



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
10th Revised Sheet No. 15
Canceling 9th Revised Sheet No. 15

OPTIONAL TIME-OF-DAY SMALL GENERAL ELECTRIC SERVICE Rate 26

Page 1 of 2

Availability:

In all communities served for all types of general electric service with billing demands that do not warrant the installation of a demand meter except outside lighting, standby, resale, or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be arranged so that all service can be measured through one meter.

Rate:

Basic Service Charge: \$1.00 per day

On-Peak Energy:

For all Kwh's used during peak hours designated as 12 p.m. to 8 p.m. local time, Monday through Friday.

October – May ~~5.19~~34.680¢ per Kwh
June – September ~~6.69~~36.180¢ per Kwh

Off-Peak Energy:

For all energy not covered by the On-Peak rating period.

October – May ~~2.69~~32.180¢ per Kwh
June – September ~~4.19~~33.680¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
4th Revised Sheet No. 18
Canceling 3rd Revised Sheet No. 18

GENERAL ELECTRIC SERVICE Rate 30

Page 1 of 2

Availability:

In all communities served for all types of demand metered general electric service except outside lighting, standby, resale or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be arranged so that all service can be measured through one meter. If the customer does not connect his wiring into a single system, each meter shall constitute a separate billing unit.

Rate:

Primary Service:

Basic Service Charge: \$100.00 per month

Demand Charge:

October – May \$11.00 per Kw

June – September \$14.00 per Kw

Energy Charge: ~~1.75~~1.475¢ per Kwh

Secondary Service:

Basic Service Charge: \$56.00 per month

Demand Charge:

October – May \$ 9.50 per Kw

June – September \$12.50 per Kw

Energy Charge: ~~2.75~~2.408¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

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Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.: PU-16-666



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
6th Revised Sheet No. 19
Canceling 5th Revised Sheet No. 19

OPTIONAL TIME-OF-DAY GENERAL ELECTRIC SERVICE Rate 31

Page 1 of 3

Availability:

In all communities served for all types of demand metered general electric service except outside lighting, standby, resale, or other customers covered by special contracts or rate schedules applicable to specific services. The customer's wiring must be arranged so that all service can be measured through one meter.

Rate:

Primary Service:

Basic Service Charge: \$97.00 per month

On-Peak Demand:

October - May \$12.25 per Kw
June - September \$15.25 per Kw

On-Peak Energy:

For all Kwh's used during peak hours designated as 12 p.m. to 8 p.m. local time, Monday through Friday. ~~4.929~~1.666¢ per Kwh

Off-Peak Energy:

For all energy not covered by the On-Peak rating period. ~~4.679~~1.416¢ per Kwh

Secondary Service:

Basic Service Charge: \$72.00 per month

On-Peak Demand:

October - May \$10.75 per Kw
June - September \$14.75 per Kw

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Case No.: PU-16-666



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
10th Revised Sheet No. 19.1
Canceling 9th Revised Sheet No. 19.1

OPTIONAL TIME-OF-DAY GENERAL ELECTRIC SERVICE Rate 31

Page 2 of 3

On-Peak Energy:

For all Kwh's used during peak
hours designated as 12 p.m.
to 8 p.m. local time, Monday
through Friday.

~~2.9292~~ 2.588¢ per Kwh

Off-Peak Energy:

For all energy not covered by
the On-Peak rating period.

~~2.6792~~ 2.338¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

Determination of On-Peak Billing Demand:

The demand in kilowatts for billing purposes shall be the maximum 15 minute
measured demand for the on-peak period in the current month defined as 12:00
p.m. to 8:00 p.m. local time, Monday through Friday. Demands will be
determined to the nearest one-tenth kilowatt. Customers whose loads have
rapidly fluctuating and/or intermittent demand characteristics shall be subject to
special rules and regulations.

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Director - Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
5th Revised Sheet No. 20
Canceling 4th Revised Sheet No. 20

GENERAL ELECTRIC SPACE HEATING SERVICE Rate 32

Page 1 of 3

Availability:

In all communities served for space heating service, where the customer also takes service under another general service rate schedule offered by the Company. Space heating equipment, including combination space heating and cooling equipment such as heat pumps and packaged roof-top heating/cooling units where heating use is the principal load may be served under this rate schedule.

Rate:

Basic Service Charge: \$21.00 per month

Primary Service:

Demand Charge:
October – May \$ 1.00 per Kw
June – September \$14.00 per Kw

Energy Charge: ~~1.75~~1.482¢ per Kwh

Secondary Service:

Demand Charge:
October – May \$ 1.00 per Kw
June – September \$12.50 per Kw

Energy Charge: ~~2.75~~2.482¢ per Kwh

Minimum Bill:

Basic Service Charge.

Payment:

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

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Director - Regulatory Affairs

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
4th Revised Sheet No. 23
Canceling 3rd Revised Sheet No. 23

INTERRUPTIBLE LARGE POWER DEMAND RESPONSE Rate 38

Page 1 of 4

Availability:

In all communities served for power to customers having a demand of 500 Kw or more for its interruptible load available for interruption for up to 100 hours annually. Electric energy for the interruptible load shall be supplied through a separately metered circuit at the same voltage and phase utilized to serve the balance of the customer's electrical load so arranged to allow remote operation by the Company.

Type of Service:

Service under this rate shall be taken by the customer at whatever primary voltage is available at the point of delivery but not less than 2,400 volts. In the event that it is necessary to build a substation on the Company's transmission line to serve the customer, the cost of building the substation shall be a matter of negotiation between the Company and the customer.

Rate:

Basic Service Charge:	Specified in the electric service agreement with the Company.
Demand Charge:	
October – May	\$ 8.00 per Kw
June – September	\$11.00 per Kw
Energy Charge:	1.5741 <u>1.310</u> ¢ per Kwh

Minimum Bill:

Basic Service Charge plus the Demand Charge (500 Kw minimum).

Payment:

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

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
4th Revised Sheet No. 25
Canceling 3rd Revised Sheet No. 25

SMALL MUNICIPAL ELECTRIC SERVICE Rate 40 (CLOSED)

Page 1 of 3

Availability:

For all lighting and power requirements with billing demands of 50 kilowatts or less for public buildings or locations supported by public tax levies, and for which the city is liable for payment, in all municipalities served where the Company is operating under a municipal franchise or permit, and the municipality has a standard contract for operation of a street lighting system and/or a municipal pumping system with the Company.

This rate is restricted to small municipal electric service customers who were served under this rate prior to January 27, 1987. Any new small municipal general electric service customer may take service under another applicable rate.

Rate:

Non-Demand:

Basic Service Charge: \$0.84 per day

Energy Charge:

October – May:

First 750 Kwh per month ~~3.93~~3.480¢ per Kwh

Over 750 Kwh per month ~~2.83~~2.380¢ per Kwh

June – September: ~~3.93~~3.480¢ per Kwh

Demand:

Basic Service Charge: \$1.00 per day

Demand Charge:

October – May:

10 Kw or less No Charge

Over 10 Kw \$ 8.25 per Kw

June – September: \$11.25 per Kw

Energy Charge: ~~1.93~~1.380¢ per Kwh

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Case No.: PU-16-666



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
7th Revised Sheet No. 26
Canceling 6th Revised Sheet No. 26

MUNICIPAL LIGHTING SERVICE Rate 41

Page 1 of 2

Availability:

For municipal lighting purposes including streets, alleys and other public grounds. Service will be provided all night, every night in the year with a minimum service requirement of 4,000 hours annually, and must be covered by written contract.

Rate:

Primary Service:

Energy Charge: 5.5105.171¢ per Kwh

Secondary Service:

Energy Charge: 6.0105.671¢ per Kwh

Discount: For contracts of ten years or more 10%

Kwh shall be computed according to the total rated capacity of lamps in use.

Minimum Bill:

As provided in contract.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
4th Revised Sheet No. 32
Canceling 3rd Revised Sheet No. 32

MUNICIPAL PUMPING SERVICE Rate 48

Page 1 of 2

Availability:

For municipal pumping purposes provided the municipality uses electricity exclusively for all its pumping requirements and purchases all such electricity from the Company. The municipality must sign a contract for a minimum period of one year.

Rate:

Primary Service:

Basic Service Charge: \$80.00 per month

Demand Charge:

Connected loads of 10 Kw or less will be billed based on connected load. Connected loads in excess of 10 Kw will be billed based upon the greater of the highest 15 minute interval demand as registered upon a demand meter in the current month or 10 Kw.

October – May: \$6.00 per Kw

June – September: \$9.00 per Kw

Energy Charge: ~~2.1631~~ 2.864¢ per Kwh

Secondary Service:

Basic Service Charge: \$45.00 per month

Demand Charge:

Connected loads of 10 Kw or less will be billed based on connected load. Connected loads in excess of 10 Kw will be billed based upon the greater of the highest 15 minute interval demand as registered upon a demand meter in the current month or 10 Kw.

October – May: \$6.00 per Kw

June – September: \$9.00 per Kw

Energy Charge: ~~2.2631~~ 2.964¢ per Kwh

Discount: For contracts of ten years or more 10%

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Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.

400 N 4th Street

Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
8th Revised Sheet No. 36
Canceling 7th Revised Sheet No. 36

OUTDOOR LIGHTING SERVICE Rate 52

Page 1 of 2

Availability:

For all outdoor lighting including flood lights, billboard lighting, metallic vapor yard lights, and Christmas lights in all communities served. Lighting equipment may be Company-owned or customer-owned.

Rate:

Primary Service:

Energy Charge: ~~6.8196~~ 4.41¢ per Kwh

Secondary Service:

Energy Charge: ~~7.2256~~ 6.847¢ per Kwh

Kwh shall be computed according to the total rated capacity of the units in use.

Payment:

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

Adjustment Clauses:

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

1. Renewable Resource Cost Adjustment Rate 55
2. Generation Resource Recovery Rider Rate 56
3. Environmental Cost Recovery Rider Rate 57
4. Fuel and Purchased Power Adjustment Rate 58
5. Transmission Cost Adjustment Rate 59

General Terms and Conditions:

1. Applicable to Company-owned Facilities:
 - a. The Company will install, own and operate the flood light(s), and yard light(s) including a suitable reflector, bracket for mounting and automatic device to control operating hours set to operate from dusk to dawn.

Date Filed: June 26, 2017

Effective Date: Service rendered on and after August 7, 2017

Issued By: Tamie A. Aberle
Director - Regulatory Affairs

Case No.: PU-16-666

Exhibit 2

**MONTANA-DAKOTA UTILITIES CO.
 INCOME STATEMENT
 ELECTRIC UTILITY - NORTH DAKOTA
 PROJECTED 2017 - BASE RETAIL RATES**

ADJUSTED FOR TCJA VS. AUTHORIZED

	TCJA Adjusted	PU-16-666 Authorized	Change
Operating Revenues			
Retail Sales (Base Only) 1/	\$179,610,729	\$186,843,648	(\$7,232,919)
Other	3,671,067	3,671,067	0
Total Revenues	<u>\$183,281,796</u>	<u>\$190,514,715</u>	<u>(\$7,232,919)</u>
Operating Expenses			
Operation and Maintenance			
Fuel & Purchased Power	\$54,243,161	\$54,243,161	\$0
Other O&M	53,324,432	53,324,432	0
Total O&M	<u>\$107,567,593</u>	<u>\$107,567,593</u>	<u>\$0</u>
Depreciation and Amortization	24,736,626	24,736,626	0
Taxes Other Than Income	5,934,298	5,934,298	0
Income Taxes	7,938,060	15,170,979	(7,232,919)
Total Expenses	<u>\$146,176,577</u>	<u>\$153,409,496</u>	<u>(\$7,232,919)</u>
Operating Income	<u>\$37,105,219</u>	<u>\$37,105,219</u>	<u>\$0</u>
Rate Base	<u>\$503,873,151</u>	<u>\$503,873,151</u>	<u>\$0</u>
Rate of Return	<u>7.364%</u>	<u>7.364%</u>	<u>0.000%</u>
Return on Equity	<u>9.650%</u>	<u>9.650%</u>	<u>0.000%</u>

1/ Revenue calculated prior to rate design.

**MONTANA-DAKOTA UTILITIES CO.
 REVENUE INCREASE CALCULATION
 ELECTRIC UTILITY - NORTH DAKOTA**

CALCULATION OF REVENUE REQUIREMENT INCREASE

	<u>Projected 2017</u>
<u>Authorized - PU-16-666</u>	
Net Pro Forma Rate Base	\$ 503,873,151
Overall Rate of Return	7.364%
Calculated Return on Rate Base	<u>\$ 37,105,219</u>
Total Pro Forma Operating Expenses	\$ 150,201,851
Total Pro Forma Revenue Requirement 1/ (less) Total Pro Forma Revenue Estimates	<u>\$ 187,307,070</u> 182,029,218
Unadjusted Revenue Increase Estimate	<u>\$ 5,277,852</u>
Gross Up Factor 2/	1.607756
Authorized Revenue Increase	<u><u>\$ 8,485,497</u></u>
<u>Reflecting TCJA for 21% Tax Rate</u>	
Total Pro Forma Operating Expenses (Above)	\$ 150,201,851
Less: Reduction in Income Tax Expense (Page 3)	<u>4,330,964</u>
Total Pro Forma Operating Expenses	<u>\$ 145,870,887</u>
Total Pro Forma Revenue Requirement 1/ (less) Total Pro Forma Revenue Estimates	<u>\$ 182,976,106</u> 182,029,218
Unadjusted Revenue Increase Estimate	<u>\$ 946,888</u>
Gross Up Factor 2/	1.322837
Adjusted Revenue Increase	<u><u>\$ 1,252,578</u></u>
Change in Revenue Increase	\$ 7,232,919

1/ Calculated Return on Rate Base plus Pro Forma Expenses.

2/ Calculated as 1 divided by the inverse of the tax rate.

**MONTANA-DAKOTA UTILITIES CO.
PRO FORMA INCOME STATEMENT
ELECTRIC UTILITY - NORTH DAKOTA**

**CALCULATION OF OPERATING INCOME - PRIOR
TO REVENUE INCREASE**

	Montana-Dakota Authorized Op. Income
<u>Authorized - PU-16-666</u>	
Revenue:	
Retail Sales Revenue	\$ 178,358,151
Other Revenue	3,671,067
Total Operating Revenue	\$182,029,218
Operating Expenses:	
Fuel & Purchased Power	\$ 54,243,161
Other O&M	53,324,432
Total Operating Expenses	\$ 107,567,593
Depreciation	24,736,626
Taxes Other Than Income	5,934,298
Current Income Taxes 1/	\$ 12,220,782
Deferred Income Taxes (So. Georgia)	(257,448)
Total Income Tax	\$ 11,963,334
Total Expenses	150,201,851
Net Operating Income	\$ 31,827,367
<u>Calculation of Income Tax (TCJA - 21% Tax Rate)</u>	
Pre-Tax Operating Income	\$43,790,701
Perms - AFUDC / Other	\$399,300
Interest Expense	(11,861,174)
Utility Operating Income - Pre-Tax	\$32,328,827
Income Tax Expense 2/	\$7,889,818
Deferred Income Taxes (So. Georgia)	(257,448)
Total Income Tax	\$ 7,632,370
Net Operating Income (21% Rate)	\$ 36,158,331
Reduction in Income Tax Expense	\$ 4,330,964

1/ Calculated at 37.8015 percent effective rate.

2/ Calculated at 24.4049 percent effective rate.

**MONTANA-DAKOTA UTILITIES CO.
ESTIMATED EXCESS DEFERRED INCOME TAXES
ELECTRIC UTILITY - NORTH DAKOTA**

	<u>ARAM Reversal</u>		<u>Total</u>
	<u>Federal</u>	<u>State</u>	
<u>2018</u>			
Common Plant	(\$233,459)	\$8,338	(\$225,121)
Electric Plant	(486,117)	17,361	(468,756)
Power Production Plant	(537,969)	19,213	(518,756)
Grand Total	(\$1,257,545)	\$44,912	(\$1,212,633)
<u>2019</u>			
Common Plant	(\$253,690)	\$9,061	(\$244,629)
Electric Plant	(647,587)	23,128	(624,459)
Power Production Plant	(567,574)	20,270	(547,304)
Grand Total	(\$1,468,851)	\$52,459	(\$1,416,392)
<u>2020</u>			
Common Plant	(\$306,975)	\$10,963	(\$296,012)
Electric Plant	(927,433)	33,123	(894,310)
Power Production Plant	(619,145)	22,113	(597,032)
Grand Total	(\$1,853,553)	\$66,199	(\$1,787,354)
<u>2021</u>			
Common Plant	(\$346,720)	\$12,383	(\$334,337)
Electric Plant	(985,954)	35,212	(950,742)
Power Production Plant	(584,803)	20,886	(563,917)
Grand Total	(\$1,917,477)	\$68,481	(\$1,848,996)
<u>2022</u>			
Common Plant	(\$359,649)	\$12,844	(\$346,805)
Electric Plant	(1,058,090)	37,789	(1,020,301)
Power Production Plant	(635,827)	22,708	(613,119)
Grand Total	(\$2,053,566)	\$73,341	(\$1,980,225)

MONTANA-DAKOTA UTILITIES CO.
ANALYSIS OF NON-PLANT DEFERRED INCOME TAXES
FOR THE PERIOD ENDING DECEMBER 31, 2017

Description	Total	Life (in years)	DIT %	Weighted Life
ABANDONED POWER PLANT COST RECOVERY	\$392,198	10	2.21%	0.22
BAD DEBTS EXPENSE	75,502	1	0.42%	0.00
BOARD OF DIRECTORS RETIREMENT BENEFITS	214,361	10	1.21%	0.12
BONUS & 401K PROFIT SHARING	274,608	1	1.54%	0.02
CONTINGENCY RESERVE-BEULAH, ND LAND	959	10	0.01%	0.00
CONTINGENCY RESERVE-RAPID CITY, SD LAND	65,181	10	0.37%	0.04
CUSTOMER ADVANCES	3,217,151	5	18.10%	0.91
DEFERRED COMPENSATION - DIRECTORS	321,319	10	1.81%	0.18
DEFERRED MEDICARE PART D	107,703	10	0.61%	0.06
DEFERRED PENSION / POST RETIREMENT EXPENSE	5,974,895	20	33.61%	6.72
GAIN ON BUILDING SALE-REG LIABILITY	155,054	20	0.87%	0.17
LOSS ON BUILDINGS-REG ASSET	380,282	20	2.14%	0.43
MANAGEMENT INCENTIVE	574,771	10	3.23%	0.32
MANUFACTURED GAS PLANT SITE - BILLINGS	63,175	10	0.36%	0.04
MISO MVP RESERVE	55,995	1	0.31%	0.00
MN DECOUPLING REG ASSET	68,931	1	0.39%	0.00
MN INFRASTRUCTURE RIDER	50,360	1	0.28%	0.00
MOR-GRAN-SOU CAPACITY REVENUE	201,343	18	1.13%	0.20
MT AD VALOREM TAX TRACKER	158,558	1	0.89%	0.01
MT DECOMMISSIONING	603,585	4	3.40%	0.14
MT PSC/MCC TAX DEFERRAL - CURRENT	9,696	1	0.05%	0.00
MT PSC/MCC TAX DEFERRAL - NONCURRENT	45,330	1	0.25%	0.00
ND ENVIRONMENTAL COST RECOVERY RIDER	333,267	1	1.87%	0.02
ND GENERATION RESOURCE RECOVERY RIDER	206,167	1	1.16%	0.01
ND TRANSMISSION TRACKER	461,842	1	2.60%	0.03
PCB RELATED INCOME	13,074	10	0.07%	0.01
PERFORMANCE SHARE PROGRAM	390,894	2	2.20%	0.04
PREF STK REDEMPTION AMORT-REG ASSET	80,431	10	0.45%	0.05
PREPAID DEMAND CHARGE	485,989	1	2.73%	0.03
PREPAID EXPENSES	74,300	1	0.42%	0.00
PROPERTY INSURANCE RECOVERY	2,959	1	0.02%	0.00
PROPERTY INSURANCE RESERVE	38,227	1	0.22%	0.00
PURCHASED GAS ADJUSTMENT	368,545	1	2.07%	0.02
REGULATORY COMMISSION EXPENSE - RATE BASE	38,746	4	0.22%	0.01
REGULATORY COMMISSION EXPENSE	157,327	5	0.88%	0.04
RETIRED POWER PLANT	33,544	9	0.19%	0.02
SD INFRASTRUCTURE RIDER	9,217	1	0.05%	0.00
SD TRANSMISSION COST RECOVERY RIDER	8,616	1	0.05%	0.00
SUNDRY RESERVES	48,369	1	0.27%	0.00

**MONTANA-DAKOTA UTILITIES CO.
 ANALYSIS OF NON-PLANT DEFERRED INCOME TAXES
 FOR THE PERIOD ENDING DECEMBER 31, 2017**

Description	Total	Life (in years)	DIT %	Weighted Life
UNAMORTIZED LOSS ON REACQUIRED DEBT	642,565	9	3.61%	0.32
UNIFORM CAPITALIZATION	129,082	1	0.73%	0.01
UNIFORM CAPITALIZATION-PROPANE	219	1	0.00%	-
VACATION PAY	1,169,182	1	6.58%	0.07
WAPA FIBER DEMAND REVENUE	73,809	11	0.42%	0.05
Total (Absolute Value)	<u>\$17,777,328</u>		100.00%	10.32

Exhibit 3

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA
Allocation of Revenues - PU-16-666
Reflecting TCJA

Customer Class	Authorized 2017 Billing Determinants and Revenues									PU-16-666 Increase			TCJA Change		
	Customers	Kwh	KW	Base Rate	Energy	Demand	Fuel Rev	RICE Adjustment	Total	\$	%	% of Total	\$	%	% of Total
Residential Service	80,003	770,939,000		\$10,220,839	\$41,677,379	\$0	\$19,551,014	(\$1,934,496)	\$69,514,736	\$4,630,309	6.7%	39.7%	-\$2,867,675	-3.9%	39.7%
Small General Service	11,867	117,869,000	17,553	3,035,761	6,306,203	65,680	2,989,157	(273,283)	12,123,518	807,224	6.7%	6.9%	-500,383	-3.9%	6.9%
General Service	5,329	1,166,724,000	3,429,484	2,701,865	30,217,026	31,654,522	29,311,695	(1,992,733)	91,892,375	2,806,250	3.1%	50.7%	-3,666,785	-3.9%	50.7%
Municipal Lighting	561	19,846,000			1,031,383		501,885	0	1,533,268	44,668	2.9%	0.8%	-61,132	-3.9%	0.8%
Municipal Pumping	323	39,062,000	126,924	37,936	876,976	773,479	979,219	(78,692)	2,588,918	172,521	6.7%	1.5%	-106,922	-3.9%	1.5%
Outdoor Lighting Service	2,604	7,437,000			516,744		188,592	0	705,336	20,526	2.9%	0.4%	-28,112	-3.9%	0.4%
Total North Dakota Electric	100,687	2,121,877,000	3,573,961	\$15,996,401	\$80,625,711	\$32,493,681	\$53,521,562	(\$4,279,204)	\$178,358,151	\$8,481,498	4.8%	100%	(\$7,231,009)	-3.9%	100%

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA
Summary of Proposed Charges
PU-16-666 Reflecting TCJA

Rate Class	Base Rate	Energy Charges		Base Fuel	Total Energy		Demand Charges			
		Summer	Winter		Summer	Winter	0-10 Kw		> 10 Kw	
							Summer	Winter	Summer	Winter
Residential										
Rate 10	\$0.46									
1st 750		\$0.05761	\$0.05761	\$0.02536	\$0.08297	\$0.08297				
Over 750		0.05761	0.02761	0.02536	0.08297	0.05297				
Rate 13	0.75									
Off Peak		0.05978	0.01100	0.02536	0.08514	0.03636				
On Peak										
1st 750		0.05978	0.05978	0.02536	0.08514	0.08514				
Over 750		0.05978	0.02978	0.02536	0.08514	0.05514				
TOD Rate 16	0.75									
Off Peak		0.04289	0.02789	0.02536	0.06825	0.05325				
On Peak		0.07289	0.05789	0.02536	0.09825	0.08325				
Small General Service										
Rate 20	0.84									
1st 750		0.06092	0.06092	0.02536	0.08628	0.08628				
Over 750		0.06092	0.03092	0.02536	0.08628	0.05628				
Irrigation Rate 25	1.50	0.00245	0.00245	0.02536	0.02781	0.02781	4.25	1.25	4.25	1.25
TOD Rate 26	1.00									
Off Peak		0.03680	0.02180	0.02536	0.06216	0.04716				
On Peak		0.06180	0.04680	0.02536	0.08716	0.07216				
Municipal Rate 40										
Non- Demand	0.84									
1st 750		0.03480	0.03480	0.02536	0.06016	0.06016				
Over 750		0.03480	0.02380	0.02536	0.06016	0.04916				
Demand	1.00						11.25	0.00	11.25	8.25
1st 750		0.01380	0.01380	0.02536	0.03916	0.03916				
Over 750		0.01380	0.01380	0.02536	0.03916	0.03916				
Large General Service										
Rate 30 Primary Service	100.00	0.01475	0.01475	0.02454	0.03929	0.03929	14.00	11.00	14.00	11.00
Rate 30 Secondary Service	56.00	0.02408	0.02408	0.02536	0.04944	0.04944	12.50	9.50	12.50	9.50
TOD Rate 31										
Primary Service	97.00									
Off Peak		0.01416	0.01416	0.02454	0.03870	0.03870	0.00	0.00	0.00	0.00
On Peak		0.01666	0.01666	0.02454	0.04120	0.04120	15.25	12.25	15.25	12.25
Secondary Service	72.00									
Off Peak		0.02338	0.02338	0.02536	0.04874	0.04874	0.00	0.00	0.00	0.00
On Peak		0.02588	0.02588	0.02536	0.05124	0.05124	14.75	10.75	14.75	10.75
Space Heating Rate 32										
Primary Service	21.00	0.01482	0.01482	0.02454	0.03936	0.03936	14.00	1.00	14.00	1.00
Secondary Service	21.00	0.02482	0.02482	0.02536	0.05018	0.05018	12.50	1.00	12.50	1.00
Demand Resp Rate 38	Contract	0.01310	0.01310	0.02454	0.03764	0.03764	11.00	8.00	11.00	8.00
Municipal Lighting - Rate 41										
Primary Service		0.05171	0.05171	0.02454	0.07625	0.07625				
Secondary Service		0.05671	0.05671	0.02536	0.08207	0.08207				
Municipal Pumping - Rate 48										
Primary Service	80.00	0.01864	0.01864	0.02454	0.04318	0.04318	9.00	6.00	9.00	6.00
Secondary Service	45.00	0.01964	0.01964	0.02536	0.04500	0.04500	9.00	6.00	9.00	6.00
Outdoor Lighting - Rate 52										
Primary Service		0.06441	0.06441	0.02454	0.08895	0.08895				
Secondary Service		0.06847	0.06847	0.02536	0.09383	0.09383				

Montana-Dakota Utilities Co.
 Electric Utility - North Dakota
 Estimated Residential Bill Increases
 PU-16-666 Reflecting TCJA Change

	Kwh	Current Rates					Proposed Rates				
		Base Rate	Energy	Riders	FPP Charge	Total Current Bill	Base Rate	Energy	Riders	FPP Charge	Total Proposed Bill
January	1,000	\$14.26	\$53.83	\$14.23	\$25.36	\$107.68	\$14.26	\$50.11	\$14.23	\$25.36	\$103.96
February	900	12.88	50.70	12.81	22.82	99.21	12.88	47.35	12.81	22.82	95.86
March	900	14.26	50.70	12.81	22.82	100.59	14.26	47.35	12.81	22.82	97.24
April	900	13.80	50.70	12.81	22.82	100.13	13.80	47.35	12.81	22.82	96.78
May	850	14.26	49.13	12.10	21.56	97.05	14.26	45.97	12.10	21.56	93.89
June	1,000	13.80	61.33	14.23	25.36	114.72	13.80	57.61	14.23	25.36	111.00
July	1,100	14.26	67.46	15.65	27.90	125.27	14.26	63.37	15.65	27.90	121.18
August	1,200	14.26	73.60	17.08	30.43	135.37	14.26	69.13	17.08	30.43	130.90
September	1,000	13.80	61.33	14.23	25.36	114.72	13.80	57.61	14.23	25.36	111.00
October	910	14.26	51.01	12.95	23.08	101.30	14.26	47.63	12.95	23.08	97.92
November	1,100	13.80	56.96	15.65	27.90	114.31	13.80	52.87	15.65	27.90	110.22
December	900	14.26	50.70	12.81	22.82	100.59	14.26	47.35	12.81	22.82	97.24
	<u>11,760</u>	<u>\$167.90</u>	<u>\$677.45</u>	<u>\$167.36</u>	<u>\$298.23</u>	<u>\$1,310.94</u>	<u>\$167.90</u>	<u>633.70</u>	<u>\$167.36</u>	<u>298.23</u>	<u>\$1,267.19</u>
	980										
Change by Component							\$0.00	(\$43.75)	\$0.00	\$0.00	(\$43.75)
											Monthly Change (\$3.65)
											% Change including riders -3.3%
											% Change excluding riders -3.8%
		<u>Current</u>	<u>Proposed</u>								
Basic Service Charge/ Day		\$0.46	\$0.46								
Energy											
1st 750 winter & summer		\$0.06133	0.05761								
Over 750 winter		0.03133	0.02761								
TCA		0.00413	0.00413	1/							
ECRR		0.00084	0.00084	1/							
GRRR		0.00284	0.00284	1/							
Renewable Rider		0.00642	0.00642	1/							
Fuel		0.02536	0.02536								
Total Riders (excl Fuel)		0.01423	0.01423								

1/ Include rider true-ups.

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

**Allocation of Revenues
PU-16-666 Reflecting TCJA**

Authorized 2017 Billing Determinants and Revenues

Rate Class	Bill									
	Determinants	Kwh	KW	Base Rate	Energy	RICE	Demand	Fuel Rev	Total	
Residential Service										
Rate 10	79,991	770,685,000		\$10,218,868	\$41,667,604	(\$1,933,860)		\$19,544,572	\$69,497,184	
Rate 13	4	127,000		657	4,114	(318)		3,221	7,674	
Rate 16	8	127,000		1,314	5,661	(318)		3,221	9,878	
Total Residential	80,003	770,939,000		10,220,839	41,677,379	(1,934,496)		19,551,014	69,514,736	
Small General Service										
Rate 20	11,272	111,247,327		2,880,033	6,096,565	(261,431)		2,821,232	11,536,399	
Rate 26	240	1,278,673		70,080	59,337	(3,005)		32,427	158,839	
Subtotal	11,512	112,526,000		2,950,113	6,155,902	(264,436)		2,853,659	11,695,238	
Rate 25	46	1,267,000	8,085	10,914	24,757	(2,977)	16,573	32,131	81,398	
Rate 40	309	4,076,000	9,468	74,734	125,544	(5,870)	49,107	103,367	346,882	
Total Small General	11,867	117,869,000	17,552.7	3,035,761	6,306,203	(273,283)	65,680	2,989,157	12,123,518	
Large General Service										
Rate 30 Primary	43	195,765,000	468,864.3	49,020	5,127,085	(290,696)	4,104,729	4,804,073	13,794,211	
Rate 30 Secondary	4,587	755,983,226	2,281,943.8	2,477,440	20,403,987	(1,414,805)	24,456,948	19,171,735	65,095,305	
Rate 31 Primary	1	2,081,000	7,835.7	1,164	36,745	(4,858)	39,920	51,068	124,039	
Rate 31 Secondary	68	17,694,774	96,323.7	38,352	312,567	(59,721)	575,746	448,739	1,315,683	
Rate 32 Secondary	623	55,941,000	273,550.0	112,140	1,789,552	(169,601)	556,623	1,418,664	3,707,378	
Subtotal	5,322	1,027,465,000	3,128,518	2,678,116	27,669,936	(1,939,681)	29,733,966	25,894,279	84,036,616	
Rate 30 Contract Rates	3	102,241,000	203,896	2,460	1,817,615		1,267,428	2,508,994	5,596,497	
Rate 38	3	31,911,000	85,568	17,689	682,542	(53,052)	586,991	783,096	2,017,266	
Rate 39	1	5,107,000	11,502.0	3,600	46,933		66,137	125,326	241,996	
Total Large General	5,329	1,166,724,000	3,429,484	2,701,865	30,217,026	(1,992,733)	31,654,522	29,311,695	91,892,375	
Municipal Lighting										
Rate 41 Primary	49	1,719,000			81,412			42,184	123,596	
Rate 41 Secondary	512	18,127,000			949,971			459,701	1,409,672	
Total Municipal Lighting	561	19,846,000			1,031,383	0		501,885	1,533,268	
Municipal Pumping										
Rate 48 Primary	4	13,894,000	35,805.3	518	298,166	(22,199)	176,945	340,959	794,389	
Rate 48 Secondary	319	25,168,000	91,118.4	37,418	578,810	(56,493)	596,534	638,260	1,794,529	
Total Municipal Pumping	323	39,062,000	126,923.7	37,936	876,976	(78,692)	773,479	979,219	2,588,918	
Outdoor Lighting Service										
Rate 52 Primary	2	13,000			850			319	1,169	
Rate 52 Secondary	2,602	7,424,000			515,894			188,273	704,167	
Total Outdoor Lighting	2,604	7,437,000			516,744	0		188,592	705,336	
Total North Dakota Electric	100,687	2,121,877,000	3,573,960.7	\$15,996,401	\$80,625,711	(\$4,279,204)	\$32,493,681	\$53,521,562	\$178,358,151	

Total Authorized Revenues (Based on Rate Design) \$186,839,649
 TCJA Revenue Change (7,232,919)
 % Change -3.8712%

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

**Allocation of Revenues
PU-16-666 Reflecting TCJA**

Rate Class	PU-16-666				TCJA		Rate Design Results	
	Authorized	Total	Allocation of	Total	Design	Revenue Increase		
	Increase	Revenues	Decrease 1/			Results	\$	%
Residential Service								
Rate 10	\$4,629,140	\$74,126,324	(\$2,869,578)	\$71,256,746	\$71,259,375	(\$2,866,949)	-3.9%	
Rate 13	511	8,185	(317)	7,868	7,867	(318)	-3.9%	
Rate 16	658	10,536	(408)	10,128	10,128	(408)	-3.9%	
Total Residential	\$4,630,309	\$74,145,045	(\$2,870,303)	\$71,274,742	\$71,277,370	(2,867,675)	-3.9%	
Small General Service								
Rate 20	768,118	12,304,517	(476,332)	11,828,185	11,828,378	(476,139)	-3.9%	
Rate 26	10,580	169,419	(6,559)	162,860	162,859	(6,560)	-3.9%	
Subtotal	778,698	12,473,936	(482,891)	11,991,045	11,991,237	(482,699)	-3.9%	
Rate 25	5,422	86,820	(3,361)	83,459	83,459	(3,361)	-3.9%	
Rate 40	23,104	369,986	(14,323)	355,663	355,663	(14,323)	-3.9%	
Total Small General	807,224	12,930,742	(500,575)	12,430,167	12,430,359	(500,383)	-3.9%	
Large General Service								
Rate 30 Primary	146,907	13,941,118	(539,689)	13,401,429	13,399,877	(541,241)	-3.9%	
Rate 30 Secondary	1,982,962	67,078,267	(2,596,734)	64,481,533	64,482,113	(2,596,154)	-3.9%	
Rate 31 Primary	17,559	141,598	(5,482)	136,116	136,125	(5,473)	-3.9%	
Rate 31 Secondary	244,959	1,560,642	(60,416)	1,500,226	1,500,302	(60,340)	-3.9%	
Rate 32 Secondary	185,195	3,892,573	(150,689)	3,741,884	3,742,092	(150,481)	-3.9%	
Subtotal	2,577,582	86,614,198	(3,353,010)	83,261,188	83,260,509	(3,353,689)	-3.9%	
Rate 30 Contract Rates	162,890	5,759,387	(222,957)	5,536,430	5,536,264	(223,123)	-3.9%	
Rate 38	58,841	2,076,107	(80,370)	1,995,737	1,995,611	(80,496)	-3.9%	
Rate 39	6,937	248,933	(9,637)	239,296	239,456	(9,477)	-3.8%	
Total Large General	2,806,250	94,698,625	(3,665,974)	91,032,651	91,031,840	(3,666,785)	-3.9%	
Municipal Lighting								
Rate 41 Primary								
Rate 41 Secondary								
Total Municipal Lighting	44,668	1,577,936	(61,085)	1,516,851	1,516,804	(61,132)	-3.9%	
Municipal Pumping								
Rate 48 Primary								
Rate 48 Secondary								
Total Municipal Pumping	172,521	2,761,439	(106,901)	2,654,538	2,654,517	(106,922)	-3.9%	
Outdoor Lighting Service								
Rate 52 Primary								
Rate 52 Secondary								
Total Outdoor Lighting	20,526	725,862	(28,100)	697,762	697,750	(28,112)	-3.9%	
Total North Dakota Electric	\$8,481,498	\$186,839,649	(\$7,232,938)	\$179,606,711	\$179,608,640	(\$7,231,009)	-3.9%	

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Residential Electric Service Rate 10
PU-16-666 Reflecting TCJA

Residential Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate - Rate 10	79,991	\$0.46 per day	\$13,430,489	\$0.46 per day	\$13,430,489
Rate 95	1	0.05 per day	18	0.05 per month	18
Energy					
Summer	246,394,175	\$0.06133 per Kwh	15,111,355	\$0.05761 per Kwh	14,194,768
Winter					
First 750	320,461,951	\$0.06133 per Kwh	19,653,931	0.05761 per Kwh	18,461,813
Over 750	203,828,874	0.03133 per Kwh	6,385,959	0.02761 per Kwh	5,627,715
Subtotal	524,290,825		26,039,890		24,089,528
Total Energy	770,685,000		41,151,245		38,284,296
Base Fuel	770,685,000	\$0.02536 per Kwh	19,544,572	\$0.02536 per Kwh	19,544,572
Total Rate 10			<u>\$74,126,324</u>		<u>\$71,259,375</u>
Total Revenues Per Design					\$71,259,375
Target Revenues					71,256,746
Difference					<u>\$2,629</u>

Derivation of Rate:

	Projected
Authorized Revenues	\$74,126,324
Proposed Revenue Change	(2,869,578)
Total Revenue Requirement	\$71,256,746
Less:	
Authorized Base Rate Revenues	13,430,507
Base Fuel	19,544,572
Winter Rate >750 differential (\$0.03000) 203,828,874 Kwh	(6,114,866)
Subtotal	26,860,213
Net to be Collected Through Energy	\$44,396,533
Total Kwh	770,685,000
Summer Rate per Kwh	\$0.05761
Winter Rate Per Kwh - 1st 750 Kwh	\$0.05761
Winter Rate - Over 750 Kwh	\$0.02761

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

**Derivation of Rate and Reconciliation
Residential Electric Service Rate 13
PU-16-666 Reflecting TCJA**

Residential Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate - Rate 13	4	\$0.75 per day	\$1,095	\$0.75 per day	\$1,095
Energy					
Summer	20,490	\$0.06577 per Kwh	1,348	\$0.05978 per Kwh	1,225
Winter					
On-Peak First 750	18,154	\$0.06577 per Kwh	1,194	0.05978 per Kwh	1,085
On-Peak Over 750	14,346	0.03577 per Kwh	513	0.02978 per Kwh	427
Off Peak	74,010	0.01100 per Kwh	814	0.01100 per Kwh	814
Subtotal	106,510		2,521		2,326
Total Energy	127,000		3,869		3,551
Base Fuel	127,000	\$0.02536 per Kwh	3,221	\$0.02536 per Kwh	3,221
Total Rate 13			<u>\$8,185</u>		<u>\$7,867</u>
Total Revenues Per Design					\$7,867
Target Revenues					7,868
Difference					<u>(\$1)</u>

Derivation of Rate:

	Projected
Authorized Revenues	\$8,185
Proposed Revenue Change	(317)
Total Revenue Requirement	<u>\$7,868</u>
Less:	
Authorized Base Rate Revenues	1,095
Base Fuel	3,221
Winter Off-Peak	814
Winter >750 differential (\$0.03000) 14,346 kwh	(430)
Subtotal	<u>4,700</u>
Net to be Collected Through Energy	\$3,168
Total Kwh (excluding Winter Off-Peak)	52,990
Summer rate	\$0.05978
Winter On-Peak First 750	\$0.05978
Winter On-Peak > 750	\$0.02978
Winter Off-Peak Rate	\$0.01100

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Residential Electric TOD Service Rate 16
PU-16-666 Reflecting TCJA

Residential Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate	8	\$0.75 per day	\$2,190	\$0.75 per day	\$2,190
Energy					
Summer					
On-Peak Kwh	5,951	\$0.07610 per Kwh	453	\$0.07289 per Kwh	434
Off Peak Kwh	16,702	0.04610 per Kwh	770	0.04289 per Kwh	716
Subtotal	22,653		1,223		1,150
Winter					
On-Peak Kwh	21,891	\$0.06110 per Kwh	1,338	\$0.05789 per Kwh	1,267
Off Peak Kwh	82,456	0.03110 per Kwh	2,564	0.02789 per Kwh	2,300
Subtotal	104,347		3,902		3,567
Total Energy	127,000		5,125		4,717
Base Fuel	127,000	\$0.02536 per Kwh	3,221	\$0.02536 per Kwh	3,221
Total Rate 16 Revenues			<u>\$10,536</u>		<u>\$10,128</u>
Total Revenues Per Design					\$10,128
Target Revenues					<u>10,128</u>
Difference					<u>\$0</u>

Derivation of Rate:

	Projected
Authorized Revenues	\$10,536
Proposed Revenue Change	(408)
Total Revenue Requirement	<u>\$10,128</u>
Less:	
Authorized Base Rate Revenues	2,190
Base Fuel	3,221
Winter Differential (\$0.01500) 104,347 Kwh	(1,565)
On-Peak Differential \$0.03000 27,842 Kwh	835
	<u>4,681</u>
Net to be Collected Through Energy	\$5,447
Total On-Peak Kwh	127,000
Summer Off-Peak Rate	\$0.04289
Summer On-Peak Rate	\$0.07289
Winter Off-Peak Rate	\$0.02789
Winter On-Peak Rate	\$0.05789

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Small General Electric Service Rate 20
PU-16-666 Reflecting TCJA

Small General Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate	11,272	\$0.84 per day	\$3,455,995	\$0.84 per day	\$3,455,995
Non-Metered Charges	2	0.05 per day	37	0.05 per day	37
Energy					
Summer	32,506,967	\$0.06520 per Kwh	2,119,454	\$0.06092 per Kwh	1,980,324
Winter					
First 750 Kwh	37,871,251	\$0.06520 per Kwh	2,469,206	0.06092 per Kwh	2,307,117
Over 750 Kwh	40,869,109	0.03520 per Kwh	1,438,593	0.03092 per Kwh	1,263,673
Subtotal	78,740,360		3,907,799		3,570,790
Total Energy	111,247,327		6,027,253		
Base Fuel	111,247,327	\$0.02536 per Kwh	2,821,232	\$0.02536 per Kwh	2,821,232
Total Rate 20 Revenues			<u>\$12,304,517</u>		<u>\$11,828,378</u>
Total Revenues Per Design					\$11,828,378
Target Revenues					11,828,185
Difference					<u>\$193</u>

Derivation of Rate:

	Projected
Authorized Revenues	\$12,304,517
Proposed Revenue Change	(476,332)
Total Revenue Requirement	\$11,828,185
Less:	
Authorized Base Rate Revenues	3,456,032
Base Fuel	2,821,232
Winter Rate > 750 - differential (\$0.03000) 40,869,109 Kwh	(1,226,073)
Subtotal	5,051,191
Net to be Collected Through Energy	\$6,776,994
Total Kwh	111,247,327
Summer Rate per Kwh	\$0.06092
Winter Rate Per Kwh - 1st 750 Kwh	\$0.06092
Winter Rate - Over 750 Kwh	\$0.03092

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Irrigation Power Service Rate 25
PU-16-666 Reflecting TCJA

Irrigation Power Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate	46	\$1.50 per day	\$25,185	\$1.50 per day	\$25,185
Energy	1,267,000	\$0.00255 per Kwh	3,231	\$0.00245 per Kwh	3,104
Total Energy			<u>3,231</u>		
Demand					
Summer	4,311.1	\$5.00 per KW	21,556	\$4.25 per KW	18,322
Winter	3,773.5	1.25 per KW	<u>4,717</u>	1.25 per KW	<u>4,717</u>
Total Demand			26,273		23,039
Base Fuel	1,267,000	\$0.02536 per Kwh	\$32,131	\$0.02536 per Kwh	\$32,131
Total Revenue			<u>\$86,820</u>		<u>\$83,459</u>
Total Revenues Per Design					\$83,459
Target Revenues					<u>83,459</u>
Difference					<u>\$0</u>

Derivation of Rate:

Authorized Revenues	\$86,820
Proposed Revenue Change	<u>(3,361)</u>
Total Revenue Requirement	\$83,459
Less:	
Authorized Base Rate Revenues	25,185
Authorized Demand Charge Revenues	23,039
Base Fuel	<u>32,131</u>
Subtotal	80,355
Net to be Collected Through Energy	3,104
Total Kwh Sales	1,267,000
Proposed Energy Charge	\$0.00245

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Municipal Service Rate 40
PU-16-666 Reflecting TCJA

Small Municipal Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate					
Non-Demand	270	\$0.84 per day	\$82,782	\$0.84 per day	\$82,782
Demand	39	1.00 per day	14,235	1.00 per day	14,235
Total Base Rate	309		97,017		97,017
Energy					
Non-Demand Service					
Summer	491,761	\$0.03930 per Kwh	19,326	\$0.03480 per Kwh	17,114
Winter					
First 750 Kwh	749,652	\$0.03930 per Kwh	29,461	0.03480 per Kwh	26,089
Over 750 Kwh	683,587	0.02830 per Kwh	19,346	0.02380 per Kwh	16,271
Subtotal	1,433,239		48,807		42,360
Demand Service	2,151,000	0.01930 per Kwh	41,514	\$0.01380 per Kwh	29,688
Riders					
Total Energy	4,076,000		109,647		89,162
Demand					
Summer	3,600.7	\$11.25 per Kw	\$40,508	\$11.25 per Kw	40,508
Winter					
1st 10 Kw	2,763.3	\$0.00 per Kw	\$0	\$0.00 per Kw	0
Over 10 Kw	3,104.1	\$8.25 per Kw	\$25,609	\$8.25 per Kw	25,609
	5,867.4		25,609		25,609
Total Demand	9,468.1		66,117		66,117
Base Fuel					
Non-Demand Service	1,925,000	\$0.02536 per Kwh	48,818	\$0.02536 per Kwh	48,818
Demand Service	2,151,000	\$0.02536 per Kwh	54,549	0.02536 per Kwh	54,549
Total Base Fuel	4,076,000		103,367		103,367
Total Rate 40 Revenue	4,076,000		\$376,148		\$355,663
Total Revenues Per Design					
Non-Demand Service					\$191,074
Demand Service					164,589
Total					355,663
Target Revenues					355,663
Difference					\$0

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Municipal Service Rate 40
PU-16-666 Reflecting TCJA

Derivation of Rate:

Authorized Revenues				\$369,986
Proposed Revenue Change				(14,323)
Total Revenue Requirement				<u>\$355,663</u>
Less:				
Authorized Base Rate Revenues				97,017
Authorized Demand Revenues				66,117
Summer- 1st 750 Winter Differential	\$0.01100	1,241,413	Kwh	13,656
Non-Demand Energy Differential	\$0.01000	1,925,000	Kwh	19,250
Base Fuel				<u>103,367</u>
Subtotal				299,407
Net to be Collected Through Energy				<u>\$56,256</u>
Total Kwh Sales				4,076,000
Proposed Energy Charges:				
Demand Service				\$0.01380
Non-Demand Rate:				
Winter - 1st 750				\$0.03480
Winter - Over 750				0.02380
Summer				\$0.03480

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Small General Optional Time-of-Day Electric Service Rate 26
PU-16-666 Reflecting TCJA

Small General Optional TOD Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate	240	\$1.00 per day	\$87,600	\$1.00 per day	\$87,600
Energy					
Summer					
On-Peak Kwh	122,753	\$0.06693 per Kwh	8,216	\$0.06180 per Kwh	7,586
Off Peak Kwh	367,918	0.04193 per Kwh	15,427	\$0.03680 per Kwh	13,539
Subtotal	490,671		23,643		21,125
Winter					
On-Peak Kwh	181,123	\$0.05193 per Kwh	9,406	\$0.04680 per Kwh	8,477
Off Peak Kwh	606,879	0.02693 per Kwh	16,343	\$0.02180 per Kwh	13,230
Subtotal	788,002		25,749		21,707
<hr/>					
Total Energy	1,278,673		49,392		42,832
Base Fuel	1,278,673	0.02536 per Kwh	32,427	0.02536 per Kwh	32,427
Total Rate 26 Revenues			<u>\$169,419</u>		<u>\$162,859</u>
Total Revenues Per Design					\$162,859
Target Revenues					162,860
Difference					<u>(\$1)</u>

Derivation of Rate:

Authorized Revenues		\$169,419
Proposed Revenue Change		(6,559)
Total Revenue Requirement		<u>\$162,860</u>
Authorized Base Rate Revenues		87,600
Base Fuel		32,427
Winter Differential	(\$0.01500) 788,002 Kwh	(11,820)
On-Peak Differential	\$0.02500 303,876 Kwh	7,597
		<u>115,804</u>
Net to be Collected Through Energy		\$47,056
Total On-Peak Kwh		1,278,673
Summer Off-Peak Rate		\$0.03680
Summer On-Peak Rate		\$0.06180
Winter Off-Peak Rate		\$0.02180
Winter On-Peak Rate		\$0.04680

**MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA**
**Derivation of Rate and Reconciliation
Large General Electric Service Rate 30
PU-16-666 Reflecting TCJA**

Large General Service 30	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate					
* Primary Service Rate 30	43	\$100.00 per month	\$51,600	\$100.00 per month	\$51,600
* Secondary Service Rate 30	4,587	56.00 per month	3,082,464	56.00 per month	3,082,464
Excess Facilities Charges	1		460		460
Total Customers	4,630		3,134,524		3,134,524
Energy					
* Primary Service - Rate 30	195,765,000	\$0.01751 per Kwh	3,427,845	\$0.01475 per Kwh	2,887,534
Subtotal	195,765,000		3,427,845		2,887,534
* Secondary Service - Rate 30	755,983,226	\$0.02751 per Kwh	20,797,099	\$0.02408 per Kwh	18,204,076
Subtotal	755,983,226		20,797,099		18,204,076
Total Energy	951,748,226		24,224,944		21,091,610
Demand					
* Primary Service - Summer	166,387.5	\$14.00 per Kw	2,329,425	\$14.00 per Kw	2,329,425
* Primary Service - Winter	302,476.8	\$11.00 per Kw	3,327,245	\$11.00 per Kw	3,327,245
Subtotal	468,864.3		5,656,670		5,656,670
* Secondary Service - Summer	781,637.3	\$12.50 per Kw	9,770,466	\$12.50 per Kw	9,770,466
* Secondary Service - Winter	1,500,306.5	\$9.50 per Kw	14,252,912	9.50 per Kw	14,252,912
Subtotal	2,281,943.8		24,023,378		24,023,378
Total Demand	2,750,808.1		29,680,048		29,680,048
Base Fuel					
* Primary Service- Rate 30	195,765,000	\$0.02454 per Kwh	4,804,073	\$0.02454 per Kwh	4,804,073
* Secondary Service- Rate 30	755,983,226	0.02536 per Kwh	19,171,735	0.02536 per Kwh	19,171,735
Total Base Fuel	951,748,226		23,975,808		23,975,808
Total Rate 30 Revenue			<u>\$81,015,324</u>		<u>\$77,881,990</u>
Total Revenues Per Design					
Primary- Rate 30					\$13,399,877
Secondary - Rate 30					64,482,113
Total					<u>77,881,990</u>
Target Revenues					<u>77,882,962</u>
Difference					<u>(\$972)</u>

Derivation of Rate:	Energy	
	Primary	Secondary
Authorized Revenues	\$81,019,385	20,797,099
Proposed Revenue Change	(3,136,423)	-2,596,734
Total Revenue Requirement	<u>\$77,882,962</u>	<u>\$18,200,365</u>
	195,765,000	755,983,226
	\$0.01475	\$0.02408

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Large Time-of-Day Electric Service Rate 31
PU-16-666 Reflecting TCJA

Large General TOD Service (Rate 31)	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate					
Primary Service	1	\$97.00 per month	\$1,164	\$97.00 per month	\$1,164
Secondary Service	68	72.00 per month	58,752	72.00 per month	58,752
Total Base Rate	69		59,916		59,916
Energy					
Summer Primary Service					
Off-Peak	563,406	\$0.01679 per Kwh	9,460	\$0.01416 per Kwh	7,978
On-Peak	216,917	0.01929 per Kwh	4,184	0.01666 per Kwh	3,614
Total Summer	780,323		13,644		11,592
Winter Primary Service					
Off-Peak	950,049	\$0.01679 per Kwh	15,951	\$0.01416 per Kwh	13,453
On-Peak	350,628	0.01929 per Kwh	6,764	0.01666 per Kwh	5,841
Total Winter	1,300,677		22,715		19,294
Primary Subtotal	2,081,000		36,359		30,886
Summer Secondary Service					
Off-Peak	4,221,507	\$0.02679 per Kwh	113,094	\$0.02338 per Kwh	98,699
On-Peak	1,759,979	0.02929 per Kwh	51,550	0.02588 per Kwh	45,548
Total Summer	5,981,486		164,644		144,247
Winter Secondary Service					
Off-Peak	8,598,607	\$0.02679 per Kwh	230,357	\$0.02338 per Kwh	201,035
On-Peak	3,114,681	0.02929 per Kwh	91,229	0.02588 per Kwh	80,608
Total Winter	11,713,288		321,586		281,643
Secondary Subtotal	17,694,774		486,230		425,890
Total Energy	19,775,774		522,589		456,776
Demand					
Summer Primary Service					
Off-Peak (In excess of on-peak)	0.0	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	1,523.8	15.25 per KW	23,238	15.25 per Kw	23,238
Total Summer Demand	1,523.8		23,238		23,238
Winter Primary Service					
Off-Peak (In excess of on-peak)	0.0	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	2,430.1	12.25 per KW	29,769	12.25 per Kw	29,769
	2,430.1		29,769		29,769
Primary Subtotal	3,953.9		53,007		53,007
Summer Secondary Service					
Off-Peak (In excess of on-peak)	855.8	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	16,906.9	14.75 per KW	249,377	14.75 per Kw	249,377
Total Summer Demand	17,762.7		249,377		249,377
Winter Secondary Service					
Off-Peak (In excess of on-peak)	2,576.1	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	29,539.0	10.75 per KW	317,544	10.75 per Kw	317,544
	32,115.1		317,544		317,544
Secondary Subtotal	49,877.8		566,921		566,921
Total Demand	53,831.7		619,928		619,928

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Large Time-of-Day Electric Service Rate 31
PU-16-666 Reflecting TCJA

Base Fuel							
Primary	2,081,000	\$0.02454	per Kwh	51,068	0.02454	per Kwh	51,068
Secondary	17,694,774	\$0.02536	per Kwh	448,739	0.02536	per Kwh	448,739
Total Rate 31 Revenue				<u>\$1,702,240</u>			<u>\$1,636,427</u>
Total Revenues Per Design							
Primary- Rate 31							\$136,125
Secondary - Rate 31							<u>1,500,302</u>
							1,636,427
Target Revenues							<u>1,636,342</u>
Difference							<u>\$85</u>

Derivation of Rate:

Authorized Revenues			\$1,702,240
Proposed Revenue Change			<u>(65,898)</u>
Total Revenue Requirement			\$1,636,342
		Primary	Secondary
Authorized Energy		36,359	486,230
Proposed Revenue Change		<u>-5,482</u>	<u>-60,416</u>
Net		30,877	425,814
Less On-Peak Differential		<u>1,419</u>	<u>12,187</u>
		29,458	413,627
Billing Determinants		2,081,000	17,694,774
Off-Peak Energy		\$0.01416	\$0.02338
On-Peak Energy		\$0.01666	\$0.02588
On-peak energy differential	\$0.0025		

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
General Space Heating Electric Service Rate 32
PU-16-666 Reflecting TCJA

General Space Heating Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate					
Primary Service	0	\$21.00 per month	\$0	\$21.00 per month	\$0
Secondary Service	623	21.00 per month	156,996	21.00 per month	156,996
Total Base Rate	623		156,996		156,996
Energy					
Primary Service	0	\$0.01751 per Kwh	0	\$0.01482 per Kwh	0
Riders					
Subtotal	0		0		0
Secondary Service	55,941,000	\$0.02751 per Kwh	1,538,937	\$0.02482 per Kwh	1,388,456
Riders					
Subtotal	55,941,000		1,538,937		1,388,456
Total Energy	55,941,000		1,538,937		1,388,456
Demand					
Primary Service - Summer	0.0	\$14.00 per Kw	0	\$14.00 per Kw	0
Primary Service - Winter	0.0	\$1.00 per Kw	0	\$1.00 per Kw	0
Subtotal	0.0		0		0
Secondary Service - Summer	43,863.1	\$12.50 per Kw	548,289	\$12.50 per Kw	548,289
Secondary Service - Winter	229,686.9	\$1.00 per Kw	229,687	\$1.00 per Kw	229,687
Subtotal	273,550.0		777,976		777,976
Total Demand	273,550.0		777,976		777,976
Base Fuel					
Primary Service	0	\$0.02454 per Kwh	0	\$0.02454 per Kwh	0
Secondary Service	55,941,000	\$0.02536 per Kwh	1,418,664	0.02536 per Kwh	1,418,664
Total Base Fuel	55,941,000		1,418,664		1,418,664
Total Rate 32 Revenue			<u>\$3,892,573</u>	<u>\$3,742,092</u>	
			0.053	\$0.054	
Total Revenues Per Design					
Primary					\$0
Secondary					3,742,092
Total					<u>3,742,092</u>
Target Revenue					<u>3,741,884</u>
Difference					\$208

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
General Space Heating Electric Service Rate 32
PU-16-666 Reflecting TCJA

Derivation of Rate:

Authorized Revenues		\$3,892,573
Proposed Revenue Change		(150,689)
Total Revenue Requirement		<u>\$3,741,884</u>
Less:		
Authorized Base Rate Revenues		
Primary Service		0
Secondary Service		156,996
Authorized Summer Demand Revenues		
Primary Service		0
Secondary Service		548,289
Winter		229,687
Primary Service Differential	\$0.01000	0
Base Fuel		<u>1,418,664</u>
Subtotal		2,353,636
Net to be Collected Secondary Energy		\$1,388,248
Total Secondary Energy		55,941,000
Secondary Energy Charge		0.02482
Primary Energy Charge		0.01482

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Contract Rate 304
PU-16-666 Reflecting TCJA

Contract Rate 304	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate	1	\$15.00 per month	\$180	\$15.00 per month	\$180
Energy	26,681,000	\$0.02087 per Kwh	556,832	\$0.01911 per Kwh	509,874
Demand	65,685.4	5.71 per KW	375,064	5.49 per KW	360,613
Base Fuel	26,681,000	0.02454 per Kwh	<u>654,752</u>	0.02454 per Kwh	<u>654,752</u>
Total Contract Revenues			<u>\$1,586,828</u>		<u>\$1,525,419</u>
Calucation of Energy Charge:					<u>(\$61,409)</u>
Energy	Rate 304				
Current	\$0.04541				
Proposed	\$0.04365				
Net Increase to Contracts	-3.87%				

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Contract Rate 303 & 30T
PU-16-666 Reflecting TCJA

Contract Rate 303 & 302	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate	2	\$95.00 per month	\$2,280	\$95.00 per month	\$2,280
Energy					
First 1.5 Million Kwh	18,000,000	\$0.02376 per Kwh	427,680	\$0.02189 per Kwh	394,020
Over 1.5 Million Kwh	56,171,000	0.01667 per Kwh	936,371	0.01507 per Kwh	846,497
Rate 303 T - All Kwh	<u>1,389,000</u>	0.01667 per Kwh	<u>23,155</u>	0.01507 per Kwh	<u>20,932</u>
Total Energy	75,560,000		1,387,206		1,261,449
Demand					
Summer	42,705.4	8.98 per KW	383,494	8.63 per KW	368,548
Winter	<u>95,505.6</u>	5.71 per KW	<u>545,337</u>	5.49 per KW	<u>524,326</u>
Total Demand	138,211.0		928,831		892,874
Base Fuel	75,560,000	0.02454 per Kwh	<u>1,854,242</u>	0.02454 per Kwh	<u>1,854,242</u>
Total Contract Revenues			<u>\$4,172,559</u>		<u>\$4,010,845</u>
Increase in Revenue					<u>(\$161,714)</u>

Calucation of Energy Charge:	Rate 303/303T	
	Current	Proposed
First 1.5 Million Kwh	\$0.04830	\$0.04643
Over 1.5 Million Kwh	\$0.04121	0.03961
Rate 303 T - All Kwh	\$0.04121	0.03961
Net Increase to Contracts	-3.87%	

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Interruptible Large Power Demand Response Rate 38
PU-16-666 Reflecting TCJA

Large Demand Response	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate					
Customer 1 - Discounted		Per Contract	\$11,892	Per Contract	\$11,892
Customer 2		Per Contract	5,797	Per Contract	5,797
Total Base Rate			17,689		17,689
Energy					
Customer 1 - Discounted	14,200,000	\$0.01574 per Kwh	223,508	\$0.01310 per Kwh	186,020
Riders- Discounted					
Customer 2	17,711,000	\$0.01574 per Kwh	278,771	\$0.01310 per Kwh	232,014
Total Energy	31,911,000		502,279		418,034
Demand					
Summer					
Customer 1 - Discounted	11,377.2	\$14.00 per KW	159,281	\$14.00 per KW	159,281
Customer 2	18,351.4	\$11.00 per KW	201,865	11.00 per KW	201,865
Winter					
Customer 1 - Discounted	20,786.2	\$11.00 per KW	228,648	\$11.00 per KW	228,648
Customer 2	35,053.6	\$8.00 per KW	280,429	8.00 per KW	280,429
Riders- Discounted					
Total Demand	85,568.4		870,223		870,223
Base Fuel					
Customer 1 - Discounted	14,200,000	\$0.02454 per Kwh	348,468	\$0.02454 per Kwh	348,468
Customer 2	17,711,000	\$0.02454 per Kwh	434,628	\$0.02454 per Kwh	434,628
Total Base Fuel	31,911,000		783,096		783,096
Less: 10% Discount Applicable to Customer 1			(97,180)		(93,431)
Total Rate 38 Revenue			<u>\$2,076,107</u>		<u>\$1,995,611</u>
Total Revenues Per Design					\$1,995,611
Target Revenues					<u>1,995,737</u>
Difference					<u>(\$126)</u>

Derivation of Rate:

Authorized Revenues	\$2,076,107
Proposed Revenue Change	(80,370)
Total Revenue Requirement	\$1,995,737
Less: (Reflecting 10% Discount)	
Authorized Base Rate Revenues	16,500
Proposed Demand Revenues	831,430
Base Fuel	748,249
Subtotal	1,596,179
Net to be Collected Through Energy	\$399,558
Total Kwh Sales (Adjusted for 10% Discount)	30,491,000
Proposed Energy Charge:	\$0.01310

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Interruptible Large Power Rate 39
PU-16-666 Reflecting TCJA

Large Interruptible	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate		Per Contract	\$3,600	Per Contract	\$3,600
Energy	5,107,000	\$0.01017 per Kwh	51,938	\$0.00883 per Kwh	45,095
Demand	11,502.0	\$5.918 per KW	68,069	\$5.689 per KW	65,435
Base Fuel	5,107,000	\$0.02454 per Kwh	125,326	\$0.02454 per Kwh	125,326
Total Rate 39 Revenue			<u>\$248,933</u>		<u>\$239,456</u>
Increase					<u>(\$9,477)</u>

Calucation of Energy Charge:

Energy	Rate 39
Current	\$0.03471
Proposed	\$0.03337
Net Increase to Contracts	-3.87%

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Municipal Lighting Service Rate 41
PU-16-666 Reflecting TCJA

Municipal Lighting Service	Billing Determinants	Authorized		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Base Rate					
Primary	0	\$0.00 per month	\$0	per month	\$0
Secondary	0	\$0.00 per month	0	per month	0
Energy					
Primary Riders	1,719,000	\$0.05510 per Kwh	94,717	\$0.05171 per Kwh	88,889
Secondary Riders	18,127,000	0.06010 per Kwh	1,089,433	0.05671 per Kwh	1,027,982
Total Energy	<u>19,846,000</u>		<u>1,184,150</u>		<u>1,116,871</u>
Base Fuel					
Primary	1,719,000	\$0.02454 per Kwh	42,184	\$0.02454 per Kwh	42,184
Secondary	18,127,000	0.02536 per Kwh	459,701	\$0.02536 per Kwh	459,701
Total Base Fuel	<u>19,846,000</u>		<u>501,885</u>		<u>501,885</u>
Discount @ 10% - Excluding Base Fuel					
Primary	1,719,000		(9,472)		(8,889)
Secondary	16,410,409		(98,628)		(93,063)
Total Discount	<u>18,129,409</u>		<u>(108,100)</u>		<u>(101,952)</u>
Total Rate 41 Revenue			<u>\$1,577,935</u>		<u>\$1,516,804</u>
Total Revenues Per Design					\$1,516,804
Target Revenues					<u>1,516,851</u>
Difference					<u>(\$47)</u>

Derivation of Rate:

Authorized Revenues		\$1,577,936
Proposed Revenue Change		(61,085)
Total Revenue Requirement		<u>\$1,516,851</u>
Less:		
Authorized Base Rate Revenues		0
Secondary Differential	\$0.0050	16,485,959 Kwh 1/
Base Fuel		<u>501,885</u>
Subtotal		584,315
Net to be Collected Through Energy		\$932,536
Total Kwh Sales (Discounted at 90% of actual)		18,033,059
Proposed Energy Charges:		
Primary		\$0.05171
Secondary		0.05671

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Municipal Pumping Service Rate 48
PU-16-666 Reflecting TCJA

Municipal Pumping Service	Billing	Authorized		Proposed Rates	
	Determinants	Rate	Revenue	Rate	Revenue
Base Rate					
Primary	4	\$80.00 per month	\$3,840	\$80.00 per month	\$3,840
Secondary	319	45.00 per month	172,260	45.00 per month	172,260
Excess Facilities Charge	1		2,330		2,330
Total Basic Service Charge			178,430		178,430
Energy					
Primary	13,894,000	\$0.02163 per Kwh	300,527	\$0.01864 per Kwh	258,984
Riders					
Secondary	25,168,000	0.02263 per Kwh	569,552	0.01964 per Kwh	494,300
Riders					
Total Energy	39,062,000		870,079		753,284
Demand					
Summer					
Primary	15,052.2	\$9.00 per KW	135,470	\$9.00 per KW	135,470
Secondary	30,578.0	\$9.00 per KW	275,202	\$9.00 per KW	275,202
Subtotal	45,630.2		410,672		410,672
Winter					
Primary	20,753.1	\$6.00 per KW	124,519	\$6.00 per KW	124,519
Secondary	60,540.4	\$6.00 per KW	363,242	\$6.00 per KW	363,242
Subtotal	81,293.5		487,761		487,761
Riders- Primary					
Riders- Secondary					
Total Demand	126,923.7		898,433		898,433
Base Fuel					
Primary	13,894,000	\$0.02454 per Kwh	340,959	\$0.02454 per Kwh	340,959
Secondary	25,168,000	0.02536 per Kwh	638,260	0.02536 per Kwh	638,260
Subtotal	39,062,000		979,219		979,219
Primary Discounted (all accounts)			(56,423)		(52,281)
Secondary Discounted					
Bills	266		(14,364)		(14,364)
Energy	19,125,058		(43,356)		(37,562)
Demand - Summer	24,023.1		(21,621)		(21,621)
Demand - Winter	48,368.6		(29,021)		(29,021)
Total Discounted			(164,785)		(154,849)
Total Rate 48 Revenue			<u>\$2,761,376</u>		<u>\$2,654,517</u>
Total Revenues Per Design					
Primary					\$863,772
Secondary					1,790,745
					<u>\$2,654,517</u>
Target Revenues					
					<u>2,654,538</u>
Difference					<u>(\$21)</u>

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Municipal Pumping Service Rate 48
PU-16-666 Reflecting TCJA

Derivation of Rate:

Authorized Revenues				\$2,761,439
Proposed Revenue Change				(106,901)
Total Revenue Requirement				<u>\$2,654,538</u>
Less:				
Authorized Base Rate Revenues				163,682
Authorized Demand Revenues				821,792
Secondary Differential	\$0.00100	23,255,494	Kwh	23,255
Base Fuel				<u>979,219</u>
Subtotal				1,987,948
Net to be Collected Through Energy				666,590
Total Kwh Sales				35,760,094
Primary Energy Rate				\$0.01864
Secondary Energy Rate				\$0.01964

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
Outdoor Lighting Service Rate 52
PU-16-666 Reflecting TCJA

Outdoor Lighting	Billing Determinants	Authorized		Proposed Settlement Rates	
		Rate	Revenue	Rate	Revenue
Base Rate	0	\$0.00 per month	\$0	per month	\$0
Energy					
Primary Service Riders	13,000	\$0.06819 per Kwh	886	\$0.06441 per Kwh	837
Secondary Service Riders	7,424,000	\$0.07225 per Kwh	536,384	\$0.06847 per Kwh	508,321
Total Energy	<u>7,437,000</u>		<u>537,270</u>		<u>509,158</u>
Base Fuel					
Primary Service	13,000	\$0.02454 per Kwh	319	\$0.02454 per Kwh	319
Secondary Service	7,424,000	\$0.02536 per Kwh	188,273	\$0.02536 per Kwh	188,273
Total Base Fuel	<u>7,437,000</u>		<u>188,592</u>		<u>188,592</u>
Total Revenue			<u>\$725,862</u>		<u>\$697,750</u>
Total Revenues Per Design					\$697,750
Target Revenues					<u>697,762</u>
Difference					<u>(\$12)</u>

Derivation of Rate:

Authorized Revenues		\$725,862
Proposed Revenue Change		(28,100)
Total Revenue Requirement		<u>\$697,762</u>
Less:		
Secondary Energy Differential	\$0.00406 7,424,000 Kwh	30,141
Base Fuel		<u>188,592</u>
Subtotal		218,733
Net to be Collected Through Energy		479,029
Total Kwh Sales		7,437,000
Proposed Energy Charge		
Primary		\$0.06441
Secondary		\$0.06847