

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Montana-Dakota Utilities Co.
2022 Electric Rate Increase
Application**

Case No. PU-22-194

AFFIDAVIT OF SERVICE BY CERTIFIED MAIL

STATE OF NORTH DAKOTA
COUNTY OF BURLEIGH

Geralyn R. Schmaltz deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **8th day of June 2023** she deposited in the United States Mail at Bismarck, North Dakota, **12** envelopes with certified postage, return receipt requested, fully prepaid, securely sealed and containing a photocopy of:

- **Findings of Fact, Conclusions of Law and Order**

The envelopes were addressed as follows:

Travis Jacobson
Director Regulatory Affairs
Montana-Dakota Utilities Co.
400 North Fourth Street
Bismarck, ND 58501
Cert. No. 7021 2720 0000 4438 7047

Allison Waldon
Attorney
MDU Resources Group, Inc.
PO Box 5650
Bismarck, ND 58506-5650
Cert. No. 7021 2720 0000 4438 7054

Paul Sanderson
Attorney
MDU Resources Group, Inc.
PO Box 5650
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David Tschider
Attorney for Intervenor AARP
Tschider & Smith
PO Box 754
Bismarck, ND 58502-0754
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John B. Coffman
Attorney for Intervenor AARP
John B. Coffman, LLC
871 Tuxedo Blvd.
St. Louis, MO 63119-2044
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Julie Clark
Attorney for Intervenor Walmart
Clark Energy Law, LLC
3440 Youngfield Street, Suite 276
Wheat Ridge, CO 80033
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Steve Chriss
Director Energy Services
Walmart, Inc.
2608 SE J Street
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Alex Kronauer
Senior Manager, Energy Services
Walmart, Inc.
2608 SE J Street Mail Stop 5530
Bentonville, AR 72716
Cert. No. 7021 2720 0000 4438 7764

Andrew Teague
Utility Rate Analysis Manager
Walmart, Inc.
2608 J Street, Mail Stop 5530
Bentonville, AR 72716
Cert. No. 7021 2720 0000 4438 7771

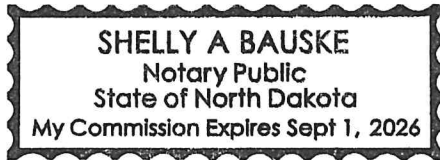
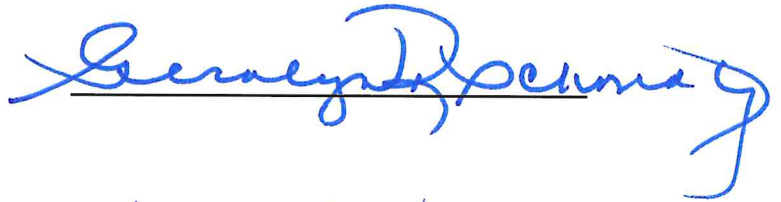
Ross H. Espeseth
Attorney for Intervenor Marathon Petroleum
Bormann, Myerchin, Espeseth & Eddison, LLP
PO Box 995
Bismarck, ND 58502-0995
Cert. No. 7021 2720 0000 4438 7788

Stephen A. Campbell
Attorney for Intervenor Marathon Petroleum
Clark Hill PLC
500 Woodward, Suite 3500
Detroit, MI 48226
Cert. No. 7021 2720 0000 4438 7795

Kavita Maini
KM Energy Consulting LLC
961 North Lost Woods Road
Oconomowoc, WI 53066
Cert. No. 7021 2720 0000 4438 7801

Each address shown is the respective addressee's last reasonably ascertainable post office address.

Subscribed and sworn to before me
this **8th day of June 2023**.



SEAL



Notary Public

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Montana-Dakota Utilities Co.
2022 Electric Rate Increase
Application**

Case No. PU-22-194

Findings of Fact, Conclusions of Law and Order

June 6, 2023

Appearances

Commissioners Randy Christmann, Sheri Haugen-Hoffart, and Julie Fedorchak, Paul R. Sanderson, Evenson Sanderson, PC, 1100 College Drive, Suite 5, Bismarck, ND 58501, appearing on behalf of Montana-Dakota Utilities Co.

Mitchell D. Armstrong, Special Assistant Attorney General, 122 East Broadway Avenue, Bismarck, North Dakota 58502, on behalf of Public Service Commission Advocacy Staff.

John B. Coffman, John B. Coffman, LLC, 871 Tuxedo Blvd., St. Louis, MO 63119- 2044, appearing on behalf of Intervenor AARP.

Julie A. Clark, Clark Energy Law, 3440 Youngfield St., Suite 276, Wheat Ridge, CO 80033, appearing on behalf of Intervenor Walmart Inc.

Stephen A. Campbell, Clark Hill, 500 Woodward Avenue, Suite 3500, Detroit, MI 48226, appearing on behalf of Intervenor Marathon Petroleum Company LP.

John M. Schuh, General Counsel, Public Service Commission, State Capitol, 600 E. Boulevard Avenue, Bismarck, North Dakota 58505, appearing on behalf of the Public Service Commission Advisory Staff.

Hope L. Hogan, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, North Dakota 58503 as Procedural Hearing Officer.

Preliminary Statement

On May 16, 2022, Montana-Dakota Utilities Co. (Montana-Dakota) filed with the Commission an increase in rates for electric service. Montana-Dakota's proposed rates would result in an increase in its annual North Dakota electric service

revenue of \$25,365,558 or 12.3 percent.

Montana-Dakota concurrently submitted an Application and Notice for an interim increase in electric rates in the annual amount of \$11,422,625 to be effective July 16, 2022.

On June 8, 2022, the Commission suspended Montana-Dakota's general rate increase application by motion.

On June 30, 2022, Montana-Dakota submitted a revised interim increase in electric rates in the annual amount of \$10,922,625.

On July 14, 2022, the Commission issued an Order approving an interim rate increase of \$10,922,625 to become effective for service rendered on or after July 15, 2022.

Petitions to intervene were filed by Walmart, Marathon, and AARP. On September 26, 2022, the Administrative Law Judge granted the petitions to intervene.

On December 14, 2022, the Commission issued a Notice of Public Hearing, scheduling the formal hearing to start on May 1, 2023. The notice identified the issues to be considered at the hearing are:

1. What is the value of MDU's property, used and useful, for the service and convenience of the public in North Dakota?
2. What is MDU's rate of return on its property, used and useful, for the service and convenience of the public in North Dakota?
3. What is a just and reasonable rate of return on MDU's property, used and useful, for the service and convenience of the public in North Dakota?
4. What rates and charges are necessary to provide a just and reasonable rate of return on MDU's property, used and useful, for the service and convenience of the public in North Dakota?
5. Are MDU's rate schedules designed in such a manner that they result in a basis of charge to its customers that is just and reasonable without discrimination?

On February 8, 2023, the Commission issued a Notice of Public Input Sessions, scheduling public input sessions for April 5, 2023.

On April 5, 2023, two public input sessions were held as scheduled in the Commission Hearing Room in the State Capitol.

On April 26, 2023, Montana-Dakota, Advocacy Staff, AARP, Walmart, and Marathon filed a Settlement Agreement that would resolve all the issues in this proceeding. A copy of the Settlement Agreement is attached as Exhibit No. 1.

On May 2, 2023, the formal hearing was held as scheduled in the Commission Hearing Room, State Capitol, 600 E. Boulevard Avenue, 12th Floor, Bismarck, North Dakota 58505.

Having allowed all interested persons an opportunity to be heard, and having heard, reviewed, and considered all testimony and evidence presented, the Commission makes its:

Findings of Fact

1. Montana-Dakota is a Delaware corporation, duly authorized to provide electric service to retail customers in North Dakota.

2. The Settlement Agreement provides a net increase in Montana-Dakota's electric rates for retail customers in North Dakota to yield an annual revenue increase of \$15,275,796 effective upon a final order in this proceeding. This represents an overall increase in rates of 7.4%. The change between the Company's request and the amount agreed to in the Settlement Agreement is attributable to the following adjustments:

Original Filing	\$25.366M
ROE – Reduction from 10.5% to 9.75%	(3.083)
Incentive Compensation – 50% Reduction	(1.844)
Depreciation	(4.606)
Software	(0.166)
Advertising	(0.056)
Industry Dues	(0.125)
Insurance	(0.020)
Outage Management System Payroll	(0.150)
Personal Use of Company Vehicles	(0.040)
Total Adjustments	(\$10.090)
Settlement Revenue Requirement	\$15.276M
Settlement Rate Base	\$617.9M

3. The Settlement Agreement results in an annual revenue increase that is approximately 40% less than the requested revenue increase.

4. The Settlement Agreement provides a return on equity of 9.75 percent

effective upon a final order in this proceeding resulting in an overall rate of return of 7.132 percent based on the following capital structure:

	<u>Ratio</u>	<u>Cost</u>	<u>Required Return</u>
Long-Term Debt	44.587%	4.503%	2.008%
Short-Term Debt	4.603%	3.684%	0.170%
Common Equity	50.810%	9.750%	4.954%
Total	<u>100.000%</u>		<u>7.132%</u>

5. The Settlement Agreement provides an earnings-sharing provision, whereby any of the Company's earnings above 10.0 percent will be shared with 70 percent refunded to customers and Montana-Dakota retaining 30 percent. The earnings-sharing will be based on MDU's annual report and earnings shall include any margin the Commission allows MDU to retain as a result of the Applied Blockchain Electric Service Agreement (ESA) (Case No. PU-22-371) or any future ESA/Rate 45 customer.
6. The Settlement Agreement provides the following allocation of revenues resulting in an increase by rate class as described below:

<u>Rate Class</u>	<u>Overall Increase</u>
Residential Service	9.5%
Small General Service	9.7%
General Service	5.5%
Municipal Lighting	7.3%
Municipal Pumping	8.6%
Outdoor Lighting Service	2.5%
Total North Dakota Electric	<u>7.4%</u>

Residential customers will receive an annual revenue increase of \$7,901,896. The average monthly increase will be \$8.27 for a Montana-Dakota residential customer.

7. The average monthly interim increase was \$5.09 for a Montana-Dakota residential customer and was effective July 15, 2022. The final average monthly increase is \$3.18 more, or \$8.27 in total, for a Montana-Dakota residential customer using 800 kWh effective July 1, 2023.

8. The Settlement Agreement provides that a portion of the revenue increases for the Residential Class be collected through the fixed basic service charge, which amounts to \$0.501 per day or \$15.24 per month under Montana-Dakota's Residential Rate 10.
9. The base interim rates are approximately \$24,336 more on an annual basis than the rates provided by the Settlement Agreement. This is a de minimis and impractical amount to refund back to ratepayers, so no refund or refund plan is necessary.
10. The Settlement Agreement provides that within nine months of the Commission approving the settlement agreement in this case, Montana-Dakota will file with the Commission an application regarding its fuel and purchased power cost rider that provides an alternative allocation option to the various classes using the E8760 allocation method.

From the foregoing Findings of Fact, the Commission makes the following:

Conclusions of Law

1. The Commission has jurisdiction in these proceedings.
2. The rates proposed by the Settlement Agreement are necessary to provide a just and reasonable rate of return on Montana-Dakota's property, used and useful, for the service and convenience of the public in North Dakota.
3. The rates proposed by the Settlement Agreement are designed in such a manner that they result in a basis of charge to customers that are just and reasonable without discrimination.

From the foregoing Findings of Fact and Conclusions of Law, the Commission makes the following:

Order

The Commission Orders:

1. The Settlement Agreement attached to this Order, is adopted and approved in its entirety and made part of this order.
2. Montana-Dakota shall file, for Commission approval, compliance rate schedules consistent with this Order within thirty (30) days of this Order.
3. Montana-Dakota shall file with the annual report the achieved return on equity for the

prior year and to the extent the return on equity exceeds 10%, a refund plan, including the amount and timing of the refund back to ratepayers.

PUBLIC SERVICE COMMISSION


Sheri Haugen-Hoffart
Sheri Haugen-Hoffart
Commissioner


Randy Christmann
Randy Christmann
Chair


Julie Fedorchak
Julie Fedorchak
Commissioner

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

In the Matter of MONTANA-DAKOTA)
UTILITIES CO. 2022 Application for) Case No. PU-22-194
Increase in Electric Rates) OAH File No. 20220225

SETTLEMENT AGREEMENT

This Settlement Agreement is entered into by and between Montana-Dakota Utilities Co. ("Montana-Dakota" or "Company"), the Advocacy Staff of the North Dakota Public Service Commission ("Advocacy Staff"), and Intervenors AARP, Walmart Inc. ("Walmart"), and Marathon Petroleum Company LP ("Marathon"), collectively the "Settling Parties". The Settling Parties agree this Settlement Agreement, if approved by the Public Service Commission ("Commission"), would resolve all outstanding expense, revenue, rate base, return, and rate design issues in this case between the Settling Parties in a manner consistent with the public interest and will result in just and reasonable rates for the Company's electric service in North Dakota.

PROCEDURAL HISTORY

1. On May 16, 2022, Montana-Dakota filed with the Commission an increase in rates for electric service. Montana-Dakota's proposed rates would result in an increase in its annual North Dakota electric service revenue of \$25,365,558 or 12.3 percent.
2. Montana-Dakota concurrently submitted an Application and Notice for an interim increase in electric rates in the annual amount of \$11,422,625 to be effective July 16, 2022.
3. The Commission suspended Montana-Dakota's general rate increase application by motion on June 8, 2022.
4. On June 30, 2022, Montana-Dakota submitted a revised interim increase in electric rates in the annual amount of \$10,922,625.
5. A Petition to Intervene was filed by AARP on June 30, 2022. On September 26, 2022, the Administrative Law Judge granted the petition to intervene of AARP.
6. A Petition to Intervene was filed by Walmart on July 5, 2022. On September 26, 2022, the Administrative Law Judge granted the petition to intervene of Walmart.
7. On July 14, 2022, the Commission issued an Order approving an interim rate increase of \$10,922,625 to become effective for service rendered on or after July 15, 2022.

8. A Petition to Intervene was filed by Marathon on August 8, 2022. On September 26, 2022, the Administrative Law Judge granted the petition to intervene of Marathon.

9. On December 14, 2022, the Commission issued a Notice of Public Hearing, scheduling the formal hearing for May 1, 2023. The issues to be considered at the hearing are:

1. What is the value of MDU's property, used and useful, for the service and convenience of the public in North Dakota?

2. What is MDU's rate of return on its property, used and useful, for the service and convenience of the public in North Dakota?

3. What is a just and reasonable rate of return on MDU's property, used and useful, for the service and convenience of the public in North Dakota?

4. What rates and charges are necessary to provide a just and reasonable rate of return on MDU's property, used and useful, for the service and convenience of the public in North Dakota?

5. Are MDU's rate schedules designed in such a manner that they result in a basis of charge to its customers that is just and reasonable without discrimination?

10. On February 8, 2023, the Commission issued a Notice of Public Input Sessions, scheduling public input sessions for April 5, 2023.

11. On April 5, 2023, two public input sessions were held as scheduled in the Commission Hearing Room in the State Capitol.

12. Settlement discussions were held between the Settling Parties pursuant to the Commission's Settlement Guidelines dated January 4, 1995. As a result of the settlement discussions, the Settling Parties reached this Settlement Agreement.

13. The Settlement Agreement is supported by the administrative record. Accordingly, the Settling Parties jointly recommend the Commission issue an Order approving this Settlement Agreement in its entirety, without conditions or modifications.

TERMS OF SETTLEMENT AGREEMENT

1. Overall Revenue Increase. The Parties agree to, and recommend the Commission approve, a net increase in Montana-Dakota's electric rates for retail customers in North Dakota to yield an annual revenue increase of \$15,275,796 effective upon a final order in this proceeding. This represents an overall increase in rates of 7.4%.

The change between the Company's request and the amount agreed to herein is attributable to the following adjustments:

Original Filing (in 000s)	\$25,366
ROE - Reduce from 10.5% to 9.75%	(3,083)
Incentive Compensation – 50%	(1,844)
Depreciation (See Exhibit A)	(4,606)
Software	(166)
Advertising	(56)
Industry Dues	(125)
Insurance	(20)
Outage Management System Payroll	(150)
Personal Use of Company Vehicles	<u>(40)</u>
Total adjustments	(\$10,090)
Settlement Revenue Requirement	\$15,276
Settlement Rate Base	\$617.9 M

2. Return on Equity. The Settling Parties agree to, and recommend the Commission approve, a return on equity of 9.75 percent effective upon a final order in this proceeding resulting in an overall rate of return of 7.132 percent based on the following capital structure:

	<u>Ratio</u>	<u>Cost</u>	<u>Required Return</u>
Long-Term Debt	44.587%	4.503%	2.008%
Short-Term Debt	4.603%	3.684%	0.170%
Common Equity	50.810%	9.750%	4.954%
Total	<u>100.000%</u>		<u>7.132%</u>

The Settling Parties agree to an earnings-sharing provision, whereby any of the Company's earnings above 10.0 percent will be shared with 70 percent refunded to customers and Montana-Dakota retaining 30 percent. The earnings-sharing will be based on MDU's annual report and earnings shall include any margin the Commission allows MDU to retain as a result of the Applied Blockchain Electric Service Agreement (ESA) (Case No. PU-22-371) or any future ESA/Rate 45 customer.

3. Revenue Allocation. The Settling Parties agree to the following allocation of revenues resulting in an increase by rate class as described below:

<u>Rate Class</u>	<u>Overall Increase</u>
Residential Service	9.5%
Small General Service	9.7%
General Service	5.5%
Municipal Lighting	7.3%
Municipal Pumping	8.6%
Outdoor Lighting Service	2.5%
Total North Dakota Electric	<u>7.4%</u>

Residential customers will receive an annual revenue increase of \$7,901,896. The average monthly increase will be \$8.27 for a Montana-Dakota residential customer. The allocation of revenue specified above is presented in more detail, along with the resulting rates, in Exhibit B of this Settlement Agreement.

4. Residential Basic Service Charge. The Settling Parties agree to, and recommend the Commission approve, that a portion of the revenue increases for the Residential Class be collected through the fixed basic service charge, which amounts to \$0.501 per day or \$15.24 per month under Montana-Dakota's Residential Rate 60.

5. Energy Allocation Amongst Classes. Within nine months of the Commission approving the settlement agreement in this case, Montana-Dakota will file with the Commission an application regarding its fuel and purchased power cost rider that provides an alternative allocation option of allocating these costs to the various classes using the E8760 allocation method.

OTHER TERMS AND CONDITIONS

A. Basis of Settlement. It is agreed this Settlement Agreement is a negotiated settlement agreement subject to approval by the Commission. This Settlement Agreement does not establish any principle or precedent, nor adopt or recommend any specific type or amount of expense or rate base for this or any future proceeding, nor any principle or precedent regarding rate design methodology.

B. Effect of the Settlement Negotiations. It is understood and agreed that all offers of settlement and discussions related to this Agreement are privileged and may not be used in any manner in connection with proceedings in this case or otherwise, except as provided by law. In the event the Commission does not approve this Settlement Agreement, it shall not constitute part of the record in this proceeding and no part thereof may be used by any party for any purpose in this case or otherwise.

C. Applicability and Scope. This Settlement Agreement shall be binding on the Settling Parties, and their successors, assigns, agents, and representatives. Consistent with the Commission's settlement guidelines, this Settlement Agreement does not set policy or overturn precedent. This Settlement Agreement shall not in any respect constitute an agreement, admission or determination by any of the Settling Parties as to the merits of any specific allegation or contention made by the Settling Parties in this proceeding.

D. Effective Date. This Settlement Agreement shall be effective on the date of the Commission Order approving the Settlement Agreement. The Settling Parties waive the time limit provided in N.D.C.C. § 49-05-06(1), and specifically agree the period of suspension of rates may extend more than six months beyond the time when they would otherwise go into effect.

E. Modification. If the Commission's Order modifies or conditions approval of this Settlement Agreement, it shall be deemed terminated if any Settling Party files a letter with the Commission within three (3) business days of notice of such Order stating that a condition or modification to the Settlement Agreement is unacceptable to such party.

CONCLUSION

The Settling Parties agree the terms of this Settlement Agreement are a result of negotiations between the Settling Parties and are in the public interest. For these reasons, the Settling Parties urge the Commission to approve the Settlement Agreement.

Dated this 25th day of April, 2023.

MONTANA-DAKOTA UTILITIES CO.

By: Garret Senger

Its: Garret Senger
Executive Vice President - Regulatory
Affairs, Customer Service &
Administration

Dated this 26th day of April, 2023.

**NORTH DAKOTA PUBLIC SERVICE
ADVOCACY STAFF**

By: Michael D. Atty
Its: Counsel

Dated this 25th day of April, 2023.

AARP

By: John B Coffman
Its: Attorney for AARP

Dated this 25th day of April, 2023.

WALMART INC.

By: Julie A. Clark
Its: Counsel

Dated this 26 day of April, 2023.

MARATHON PETROLEUM COMPANY LP
By: MPC Investment LLC, its general partner

By: 
rdhessling@marathonpetroleum.com rdhessling@marathonpetroleum.com (Apr 26, 2023 16:51 EDT)
Its: SVP, GFVC


MP


JLH


SS

Approved as to form.

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

Acct. No.	Account	Proposed Depreciation Rate	Settlement Deprecation Rate	Rate Change
	<u>Steam Production Plant</u>			
	<u>Heskett Station</u>			
311	Structures & Improvements	0.64%	0.64%	
312	Boiler Plant Equipment	0.92%	0.92%	
314	Turbogenerator Units	0.16%	0.16%	
315	Accessory Equipment	0.00%	0.00%	
316	Miscellaneous Equipment	2.73%	2.73%	
	<u>Lewis & Clark Station</u>			
311	Structures & Improvements	1.42%	1.42%	
312	Boiler Plant Equipment	1.41%	1.41%	
314	Turbogenerator Units	1.39%	1.39%	
315	Accessory Equipment	0.00%	0.00%	
	<u>Coyote</u>			
311	Structures & Improvements	1.30%	1.30%	
312	Boiler Plant Equipment	1.79%	1.79%	
314	Turbogenerator Units	2.53%	2.53%	
315	Accessory Equipment	1.43%	1.43%	
316	Miscellaneous Equipment	3.84%	3.84%	
	<u>Big Stone</u>			
311	Structures & Improvements	3.02%	3.02%	
312	Boiler Plant Equipment	3.55%	3.55%	
314	Turbogenerator Units	1.55%	1.55%	
315	Accessory Equipment	2.82%	2.82%	
316	Miscellaneous Equipment	2.77%	2.77%	
	<u>Other Production Plant</u>			
	<u>Glendive Turbine Unit 1</u>			
341	Structures & Improvements	2.67%	2.67%	
342	Fuel Holders, Producers & Acces.	2.02%	2.02%	
344	Generators	0.27%	0.27%	
345	Accessory Equipment	7.24%	7.24%	
346	Miscellaneous Equipment	2.79%	2.79%	
	<u>Glendive Turbine Unit 2</u>			
344	Generators	2.75%	2.75%	

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

Acct. No.	Account	Proposed Depreciation Rate	Settlement Deprecation Rate	Rate Change
	<u>Miles City Turbine</u>			
341	Structures & Improvements	1.05%	1.05%	
342	Fuel Holders, Producers & Acces.	5.36%	5.36%	
344	Generators	2.24%	2.24%	
345	Accessory Equipment	8.27%	8.27%	
346	Miscellaneous Equipment	4.11%	4.11%	
	<u>Portable Generators</u>			
341	Structures & Improvements	3.03%	3.03%	
342	Fuel Holders, Producers & Acces.	3.01%	3.01%	
344	Generators	3.05%	3.05%	
345	Accessory Equipment	4.20%	4.20%	
	<u>Diamond Willow Wind</u>			
341	Structures & Improvements	3.39%	3.39%	
344	Generators	3.67%	3.67%	
345	Accessory Equipment	5.02%	5.02%	
346	Miscellaneous Equipment	4.29%	4.29%	
	<u>Ormat</u>			
341	Structures & Improvements	3.29%	3.29%	
344	Generators	3.39%	3.39%	
345	Accessory Equipment	4.24%	4.24%	
	<u>Cedar Hills Wind</u>			
341	Structures & Improvements	3.91%	3.91%	
344	Generators	3.86%	3.86%	
345	Accessory Equipment	4.94%	4.94%	
346	Miscellaneous Equipment	5.81%	5.81%	
	<u>Thunder Spirit Wind</u>			
341	Structures & Improvements	4.90%	4.90%	
344	Generators	3.96%	3.96%	
345	Accessory Equipment	6.70%	6.70%	
346	Miscellaneous Equipment	5.11%	5.11%	

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

Acct. No.	Account	Proposed Depreciation Rate	Settlement Deprecation Rate	Rate Change
	<u>Heskett Unit III Gas Turbine</u>			
341	Structures & Improvements	2.97%	2.97%	
342	Fuel Holders, Producers & Acces.	3.10%	3.10%	
344	Generators	2.31%	2.31%	
345	Accessory Equipment	5.48%	5.48%	
346	Miscellaneous Equipment	3.81%	3.81%	
	<u>Heskett Unit IV Gas Turbine</u>			
344	Generators	2.33%	2.33%	
	<u>Lewis & Clark Unit II RICE</u>			
341	Structures	3.78%	3.78%	
342	Fuel Holders, Producers & Acces.	3.66%	3.66%	
344	Generators	3.64%	3.64%	
345	Accessory Equipment	5.07%	5.07%	
346	Miscellaneous Equipment	4.55%	4.55%	
	<u>Transmission Plant</u>			
350.2	Rights of Way	1.29%	1.29%	
352	Structures & Improvements	2.00%	2.00%	
353	Station Equipment	1.47%	0.73%	-0.74%
354	Towers & Fixtures	1.90%	1.90%	
355	Poles & Fixtures	2.06%	1.92%	-0.14%
356	Overhead Conductor & Devices	1.64%	1.45%	-0.19%
357	Underground Conduit	1.99%	1.99%	
358	Underground Conductor & Devices	1.99%	1.99%	
	<u>Distribution Plant</u>			
360.2	Rights of Way	0.83%	0.83%	
362	Station Equipment	2.05%	0.83%	-1.22%
364	Poles, Towers & Fixtures	3.76%	2.71%	-1.05%
365	Overhead Conductors & Devices	3.08%	2.35%	-0.73%
366	Underground Conduit	1.53%	1.53%	
367	Underground Conductor & Devices	4.07%	1.60%	-2.47%
368	Line Transformers	2.16%	1.89%	-0.27%
369	Services	2.29%	2.08%	-0.21%
370	Meters	7.41%	7.41%	
371	Installation on Cust. Premises	9.52%	7.16%	-2.36%
373	Street Lighting & Signal System	4.27%	3.20%	-1.07%

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

Acct. No.	Account	Proposed Depreciation Rate	Settlement Deprecation Rate	Rate Change
	<u>General Plant</u>			
390	Structures & Improvements	1.54%	1.54%	
391.1	Office Furniture & Equipment	8.30%	8.30%	
391.3	Computer Equip. - PC	0.00%	0.00%	
391.4	Computer Equip. - Prime	57.10%	57.10%	
391.5	Computer Equip. - Other	12.10%	12.10%	
392.1	Trans. Equip., Non - Unitized	0.00%	0.00%	
392.2	Trans. Equip., Unitized	9.63%	9.63%	
393	Stores Equipment	1.65%	1.65%	
394.1	Tools, Shop & Garage Equip.	4.82%	4.82%	
395	Laboratory Equipment	10.31%	10.31%	
396.1	Trailers-Work Equipment	2.94%	2.94%	
396.2	Power Operated Equipment	8.22%	8.22%	
397.1	Radio Communication Equip. - Fixed	6.98%	6.98%	
397.2	Radio Communication Equip. - Mobile	6.87%	6.87%	
397.3	General Telephone Comm. Equip.	7.42%	7.42%	
397.4	Carrier Current Comm. Equip.	0.00%	0.00%	
397.5	Supervisory & Telemetering Equip.	14.27%	14.27%	
397.6	Scada System	9.79%	9.79%	
397.8	Network Equipment	22.87%	22.87%	
397.9	Transfer Trip Communication Equip.	0.00%	0.00%	
398	Miscellaneous Equipment	3.83%	3.83%	
	<u>Common Plant - Electric</u>			
390	Structures & Improvements	0.85%	0.85%	
391.1	Office Furniture & Equipment	6.67%	6.67%	
391.3	Computer Equip. - PC	20.00%	20.00%	
391.4	Computer Equip. - Prime	0.00%	0.00%	
391.5	Computer Equip. - Other	20.00%	20.00%	
392.1	Transport Equip. - Trailers	0.00%	0.00%	
392.2	Transport Equip.-Vehicles	6.65%	6.65%	
392.3	Aircraft Equipment	4.00%	4.00%	
393	Stores Equipment	3.33%	3.33%	
394.1	Tools, Shop & Garage Equip.	5.56%	5.56%	
394.3	Vehicle Maintenance Equipment	5.00%	5.00%	
394.4	Vehicle Refueling Equipment	5.00%	5.00%	
397.1	Radio Communication Equip. - Fixed	6.67%	6.67%	
397.2	Radio Communication Equip. - Mobile	6.67%	6.67%	
397.3	General Telephone Comm. Equip.	10.00%	10.00%	

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

Acct. No.	Account	Proposed Depreciation Rate	Settlement Deprecation Rate	Rate Change
397.5	Supervisory & Telemetering Equip.	6.67%	6.67%	
397.8	Network Equipment	20.00%	20.00%	
398	Miscellaneous Equipment	5.00%	5.00%	

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Overall Bill Impact - Settlement
Case No. PU-22-194

Rate Class	Revenue at Current Rates			Rate Design Increase 3/	Generation Resource Recovery Rider (GRRR)			Proposed Increase	Total Proposed Revenue	Overall Bill Impact	Base Rate Bill Impact	GRRR Bill Impact
	Projected 2023 Revenue at Current Rates 1/	Rider Revenue 2/	Total Revenue		Proposed GRRR Revenue	GRRR at Current Rates	Net Increase In GRRR 4/					
Residential Service	\$69,769,528	\$12,977,876	\$82,747,404	\$6,107,895	\$3,221,567	\$1,427,566	\$1,794,001	\$7,901,896	\$90,649,300	9.5%	7.4%	2.2%
Small General Service	10,414,218	1,615,247	12,029,465	943,338	400,961	177,679	223,282	1,166,620	13,196,085	9.7%	7.8%	1.9%
General Service	88,497,679	17,403,425	105,901,104	3,559,567	4,014,827	1,763,008	2,251,819	5,811,386	111,712,490	5.5%	3.4%	2.1%
Municipal Lighting	980,235	183,996	1,164,231	78,471	17,434	11,153	6,281	84,752	1,248,983	7.3%	6.7%	0.5%
Municipal Pumping	2,878,349	613,256	3,491,605	199,587	168,837	67,663	101,174	300,761	3,792,366	8.6%	5.7%	2.9%
Outdoor Lighting Service	362,968	60,721	423,689	8,823	5,230	3,672	1,558	10,381	434,070	2.5%	2.1%	0.4%
Total North Dakota Electric	\$172,902,977	\$32,854,521	\$205,757,498	\$10,897,681	\$7,828,856	\$3,450,741	\$4,378,115	\$15,275,796	\$221,033,294	7.4%	5.3%	2.1%

1/ Statement F, Schedule F-1, Page 1 includes Generation Resource Recovery Rider revenue.

2/ Transmission Cost Adjustment and Renewable Resource Cost Adjustment revenue reflecting current rates.

3/ Includes the \$3,450,741 currently being recovered through the Generation Resource Recovery Rider that will be collected through base rates.

4/ Reflects the net increase for the GRRR as \$3,450,741 is already reflected in the current GRRR rates.

Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Estimated Residential Bill Increases - Settlement
2023

	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	\$49.28	\$18.87	\$22.41	\$104.82	\$15.53	\$55.71	\$21.22	\$22.41	\$114.87
February	1,000	12.88	49.28	18.87	22.41	103.44	14.03	55.71	21.22	22.41	113.37
March	1,000	14.26	49.28	18.87	22.41	104.82	15.53	55.71	21.22	22.41	114.87
April	700	13.80	39.75	13.21	15.69	82.45	15.03	44.25	14.85	15.69	89.82
May	600	14.26	34.07	11.32	13.45	73.10	15.53	37.93	12.73	13.45	79.64
June	700	13.80	39.75	13.21	15.69	82.45	15.03	44.25	14.85	15.69	89.82
July	800	14.26	45.42	15.10	17.93	92.71	15.53	50.57	16.98	17.93	101.01
August	1,000	14.26	56.78	18.87	22.41	112.32	15.53	63.21	21.22	22.41	122.37
September	700	13.80	39.75	13.21	15.69	82.45	15.03	44.25	14.85	15.69	89.82
October	600	14.26	34.07	11.32	13.45	73.10	15.53	37.93	12.73	13.45	79.64
November	600	13.80	34.07	11.32	13.45	72.64	15.03	37.93	12.73	13.45	79.64
December	900	14.26	46.60	16.98	20.17	98.01	15.53	52.39	19.10	20.17	107.19
	<u>9,600</u>	<u>\$167.90</u>	<u>\$518.10</u>	<u>\$181.15</u>	<u>\$215.16</u>	<u>\$1,082.31</u>	<u>\$182.86</u>	<u>579.84</u>	<u>\$203.70</u>	<u>215.16</u>	<u>\$1,181.56</u>
	800										
Change by Component							\$14.96	\$61.74	\$22.55	\$0.00	\$99.25
											9.2%
										Per Month	\$8.27

	Current	Proposed
Basic Service Charge/ Day	\$0.46	\$0.501
Monthly Service Charge	\$13.99	\$15.24
Energy		
1st 750 winter & summer	\$0.05678	\$0.06321
Over 750 winter	0.02678	0.03321
TCA	0.00801	0.00801
ECRR	0.00000	0.00000
GRRR	0.00187	0.00422
Renewable Rider	0.00899	0.00899
Fuel	0.02241	0.02241
Total Riders (excl Fuel)	0.01887	0.02122

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA
Allocation of Revenues - Settlement
Projected 2023

Rate Class	Projected 2023 Billing Determinants and Revenues								
	Bill Determinants	Kwh	KW	Basic Service Charge	Energy	Demand	Generation Rider	Fuel Rev	Total
Residential Service									
Rate 10	80,161	763,201,099		\$13,459,178	\$37,765,785		\$1,427,186	\$17,103,337	\$69,755,486
Rate 13	4	132,692		1,095	4,410		248	2,974	8,727
Rate 16	4	70,679		1,095	2,504		132	1,584	5,315
Total Residential	80,169	763,404,470		13,461,368	37,772,699		1,427,566	17,107,895	69,769,528
Small General Service									
Rate 20	10,410	88,215,802		3,191,779	4,491,252		164,964	1,976,916	9,824,911
Rate 26	270	1,950,557		98,550	62,141		3,648	43,712	208,051
Subtotal	10,680	90,166,359		3,290,329	4,553,393		168,612	2,020,628	10,032,962
Rate 25	49	1,577,312	10,040.6	26,828	2,934	31,943	2,950	35,348	100,003
Rate 40	271	3,270,836	7,220.9	85,308	69,942	46,587	6,117	73,299	281,253
Total Small General	11,000	95,014,507	17,261.5	3,402,465	4,626,269	78,530	177,679	2,129,275	10,414,218
Large General Service									
Rate 30 Primary	40	226,484,074	507,095.6	48,000	3,202,485	6,098,111	279,973	4,935,088	14,563,657
Rate 30 Secondary	4,566	722,746,179	2,202,914.3	3,068,991	16,847,213	23,251,782	1,216,251	16,196,742	60,580,979
Rate 31 Primary	1	2,478,000	4,869.6	1,164	35,258	64,936	2,689	53,996	158,043
Rate 31 Secondary	52	13,853,295	38,840.3	44,928	323,025	474,070	21,444	310,452	1,173,919
Rate 32 Secondary	603	57,227,301	270,437.7	151,956	1,386,045	722,295	65,470	1,282,464	3,608,230
Subtotal	5,262	1,022,788,849	3,024,158	3,315,039	21,794,026	30,611,194	1,585,827	22,778,742	80,084,826
Contract Rate - Tesoro	1	98,750,754	161,517.3	1,200	1,575,291	1,056,761	69,175	2,151,779	4,874,206
Contract Rate - Sabin	1	27,167,840	55,224.9	1,200	447,472	367,729	30,490	591,987	1,438,878
Rate 38	4	31,986,100	104,174.7	7,140	400,466	937,668	57,516	696,977	2,099,767
Rate 39	0	0	0.0	0	0	0	0	0	0
Total Large General	5,268	1,180,693,543	3,345,074	3,324,579	24,217,255	32,973,352	1,763,008	26,219,485	88,497,679
Municipal Lighting									
Rate 41 Primary	44	1,174,555			53,865		975	25,594	80,434
Rate 41 Secondary	598	12,133,777			617,705		10,178	271,918	899,801
Total Municipal Lighting	642	13,308,332			671,570		11,153	297,512	980,235
Municipal Pumping									
Rate 48 Primary	5	23,520,600	50,995.4	4,320	380,563	331,482	25,340	512,514	1,254,219
Rate 48 Secondary	303	22,345,983	83,684.9	152,558	388,173	540,303	42,323	500,773	1,624,130
Total Municipal Pumping	308	45,866,583	134,680.3	156,878	768,736	871,785	67,663	1,013,287	2,878,349
Outdoor Lighting Service									
Rate 52 Primary	13	34,081			2,167		31	743	2,941
Rate 52 Secondary	2,539	3,958,084			267,685		3,641	88,701	360,027
Total Outdoor Lighting	2,552	3,992,165			269,852		3,672	89,444	362,968
Total North Dakota Electric	99,939	2,102,279,600	3,497,016.2	\$20,345,290	\$68,326,381	\$33,923,667	\$3,450,741	\$46,856,898	\$172,902,977
Overall ROR					7.513%				
Inverse of Tax Rate					75.5951%				

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Allocation of Revenues - Settlement
Projected 2023

Rate Class	Allocation of Revenues 1/	Rate Design Results			Generation Rider Revenue \$	Total Revenue Increase \$
		Base Revenue Increase		ROR		
		\$	%			
Residential Service						
Rate 10	\$4,679,447	\$4,679,806	6.7%			
Rate 13	510	192	2.2%			
Rate 16	332	331	6.2%			
Total Residential	\$4,680,289	4,680,329	6.7%	3.7%	\$3,221,567	\$7,901,896
Small General Service						
Rate 20	710,452	710,348	7.2%			
Rate 26	14,755	14,748	7.1%			
Subtotal	725,207	725,096	7.2%	5.6%	\$380,502	\$1,105,598
Rate 25	9,591	9,583	9.6%		6,656	16,239
Rate 40	30,986	30,980	11.0%		13,803	44,783
Total Small General	765,784	765,659	7.4%	5.3%	\$400,961	\$1,166,620
Large General Service						
Rate 30 Primary	538,558	537,171	3.7%		\$635,700	\$1,172,871
Rate 30 Secondary	868,332	872,335	1.4%		2,761,595	3,633,930
Rate 31 Primary	2,213	3,503	2.2%		6,105	9,608
Rate 31 Secondary	16,968	15,725	1.3%		48,691	64,416
Rate 32 Secondary	141,648	141,000	3.9%		160,432	301,432
Subtotal	1,567,719	1,569,734	2.0%	9.7%	\$3,612,523	\$5,182,257
Contract Rate - Tesoro	151,977	152,341	3.1%		202,480	354,821
Contract Rate - Sabln	47,216	47,231	3.3%		69,230	116,461
Rate 38	27,297	27,253	1.3%		130,594	157,847
Rate 39						
Total Large General	1,794,209	1,796,559	2.0%	9.2%	\$4,014,827	\$5,811,386
Municipal Lighting						
Rate 41 Primary	5,990					
Rate 41 Secondary	61,301					
Total Municipal Lighting	67,291	67,318	6.9%	10.5%	\$17,434	\$84,752
Municipal Pumping						
Rate 48 Primary	109,925					
Rate 48 Secondary	22,133					
Total Municipal Pumping	132,058	131,924	4.6%	6.5%	\$168,837	\$300,761
Outdoor Lighting Service						
Rate 52 Primary	42					
Rate 52 Secondary	5,122					
Total Outdoor Lighting	5,164	5,151	1.4%	7.7%	\$5,230	\$10,381
Total North Dakota Electric	\$7,444,795	\$7,446,940	4.3%	6.3%	\$7,828,856	\$15,275,796

1/ Settlement revenues allocated based on allocation of revenues in original filing.

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

**Derivation of Generation Resource Recovery Rider Rates - Settlement
 Proposed 2023**

Total Cost to be Recovered through GRRR Rates \$7,832,580

<u>Allocation of Costs & Proposed Rates</u>	<u>Allocated GRRR Costs 1/</u>	<u>Projected Billing Determinants</u>	<u>Proposed GRRR Rates</u>
Residential & Small General	\$3,626,277	858,418,977 Kwh	\$0.00422 per Kwh
Large General	4,023,231	3,209,317.0 KW	\$1.25361 per KW
Space Heating Rate 32	160,431	270,437.7 KW	\$0.59323 per KW
Lighting	22,641	17,300,497 Kwh	\$0.00131 per Kwh
	<u>\$7,832,580</u>		

<u>Change in Rates</u>	<u>Proposed GRRR Rates</u>	<u>Current GRRR Rates 2/</u>	<u>Change in GRRR Rates</u>
Residential & Small General	\$0.00422	\$0.00185	\$0.00237
Large General	\$1.25361	\$0.54680	\$0.70681
Space Heating Rate 32	\$0.59323	\$0.23976	\$0.35347
Lighting	\$0.00131	\$0.00091	\$0.00040

1/ Demand Allocation Factor 2:

Residential & Small General	46.297343%	(Rates 10, 13, 16, 20, 25, 26, and 40)
Large General	51.365337%	(Rates 30, 31, 38, 48, and contracts)
Space Heating Rate 32	2.048257%	(Rate 32)
Lighting	0.289063%	(Rates 41, 52)
	<u>100.000000%</u>	

2/ Current rates effective February 1, 2022.

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA
 Summary of Proposed Charges - Settlement
 Projected 2023

Rate Class	Basic Service Charge	Energy Charges		Base Fuel	Total Energy		Demand Charges			
		Summer	Winter		Summer	Winter	1st Block		2nd Block	
							Summer	Winter	Summer	Winter
Residential										
Rate 10	\$0.501									
1st 750		\$0.06321	\$0.06321	\$0.02241	\$0.08562	\$0.08562				
Over 750		0.06321	0.03321	0.02241	0.08562	0.05562				
Rate 13	0.791									
Off Peak		0.06321	0.01100	0.02241	0.08562	0.03341				
On Peak										
1st 750		0.06321	0.06321	0.02241	0.08562	0.08562				
Over 750		0.06321	0.03321	0.02241	0.08562	0.05562				
TOD Rate 16	0.791									
Off Peak		0.04789	0.03289	0.02241	0.07030	0.05530				
On Peak		0.07789	0.06289	0.02241	0.10030	0.08530				
Small General Service										
Rate 20	1.15									
1st 750		0.05654	0.05654	0.02241	0.07895	0.07895				
Over 750		0.05654	0.02654	0.02241	0.07895	0.04895				
Irrigation Rate 25	1.90	0.00126	0.00126	0.02241	0.02367	0.02367	4.88	1.88	4.88	1.88
TOD Rate 26	1.25									
Off Peak		0.03246	0.01746	0.02241	0.05487	0.03987				
On Peak		0.05746	0.04246	0.02241	0.07987	0.06487				
Municipal Rate 40										
Non- Demand	1.15									
1st 750		0.03365	0.03365	0.02241	0.05606	0.05606				
Over 750		0.03365	0.02265	0.02241	0.05606	0.04506				
Demand	1.30						12.93	0.00	12.93	9.93
1st 750		0.01265	0.01265	0.02241	0.03506	0.03506				
Over 750		0.01265	0.01265	0.02241	0.03506	0.03506				
Large General Service										
Rate 30 Primary Service	108.03	0.01538	0.01538	0.02179	0.03717	0.03717	15.05	12.05	15.05	12.05
Rate 30 Secondary Service	58.72	0.02444	0.02444	0.02241	0.04685	0.04685	13.01	10.01	13.01	10.01
TOD Rate 31										
Primary Service	97.00									
Off Peak		0.01544	0.01544	0.02179	0.03723	0.03723	0.00	0.00	0.00	0.00
On Peak		0.01794	0.01794	0.02179	0.03973	0.03973	15.57	12.57	15.57	12.57
Secondary Service	72.00									
Off Peak		0.02449	0.02449	0.02241	0.04690	0.04690	0.00	0.00	0.00	0.00
On Peak		0.02699	0.02699	0.02241	0.04940	0.04940	15.04	11.04	15.04	11.04
Space Heating Rate 32										
Primary Service	23.00	0.01569	0.01569	0.02179	0.03748	0.03748	15.05	1.38	15.05	1.38
Secondary Service	23.00	0.02569	0.02569	0.02241	0.04810	0.04810	13.01	1.38	13.01	1.38
Contract Rate 304	108.03									
1st 2.3 million Kwh		0.01879	0.01879	0.02179	0.04058	0.05937	\$9.06	\$6.04	\$6.04	\$6.04
Over 2.3 million Kwh		0.01354	0.01354	0.02179	0.03533	0.04887	9.06	6.04	6.04	6.04

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA
 Summary of Proposed Charges - Settlement
 Projected 2023

Rate Class	Basic Service Charge	Energy Charges		Base Fuel	Total Energy		Demand Charges			
		Summer	Winter		Summer	Winter	1st Block		2nd Block	
							Summer	Winter	Summer	Winter
Contact Rate 303	\$108.03									
1st 1.5 million Kwh		\$0.02333	\$0.02333	\$0.02179	\$0.04512	\$0.04512	\$9.04	\$5.74	\$9.04	\$5.74
Over 1.5 million Kwh		0.01657	0.01657	0.02179	0.03836	0.03836	9.04	5.74	9.04	5.74
Demand Resp Rate 38	108.03	0.01344	0.01344	0.02179	0.03523	0.03523	11.55	8.55	11.55	8.55
Municipal Lighting - Rate 41										
Primary Service		0.05180	0.05180	0.02179	0.07359	0.07359				
Secondary Service		0.05680	0.05680	0.02241	0.07921	0.07921				
Municipal Pumping - Rate 48										
Primary Service	80.00	0.01394	0.01394	0.02179	0.03573	0.03573	12.00	9.00	12.00	9.00
Secondary Service	45.00	0.01494	0.01494	0.02241	0.03735	0.03735	12.00	9.00	12.00	9.00
Outdoor Lighting - Rate 52										
Primary Service		0.06578	0.06578	0.02179	0.08757	0.08757				
Secondary Service		0.06984	0.06984	0.02241	0.09225	0.09225				

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

**Derivation of Rate and Reconciliation
 Residential Electric Service Rate 10 - Settlement
 Projected 2023**

Residential Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge - Rate 10	80,161	\$0.46 per day	\$13,459,032	\$0.501 per day	\$14,658,641
Rate 95	8	0.05 per day	146	0.05 per day	146
Energy Summer	255,122,863	\$0.05678 per Kwh	14,485,876	\$0.06321 per Kwh	16,126,316
Winter					
First 750	322,452,465	\$0.05678 per Kwh	18,308,851	\$0.06321 per Kwh	20,382,220
Over 750	185,625,771	0.02678 per Kwh	4,971,058	0.03321 per Kwh	6,164,632
Subtotal	508,078,236		23,279,909		26,546,852
Generation Rider			1,427,186		
Total Energy	763,201,099		39,192,971		42,673,168
Base Fuel	763,201,099	\$0.02241 per Kwh	17,103,337	\$0.02241 per Kwh	17,103,337
Total Rate 10			<u>\$69,755,486</u>		<u>\$74,435,292</u>
Total Revenues Per Design					\$74,435,292
Target Revenues					<u>74,434,933</u>
Difference					<u>\$359</u>

Derivation of Rate:

Projected Revenues Before Increase			<u>Projected</u>
Proposed Revenue Increase			\$69,755,486
Total Revenue Requirement			<u>4,679,447</u>
			74,434,933
Less:			
Proposed Basic Service Charge Revenues			14,658,787
Projected Base Fuel			17,103,337
Winter Rate >750 differential	(\$0.03000)	185,625,771 Kwh	<u>(5,568,773)</u>
Subtotal			26,193,351
Net to be Collected Through Energy			\$48,241,582
Total Kwh			763,201,099
Summer Rate per Kwh			\$0.06321
Winter Rate Per Kwh - 1st 750 Kwh			\$0.06321
Winter Rate - Over 750 Kwh			\$0.03321

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Residential Electric Service Rate 13 - Settlement
 Projected 2023

Residential Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge - Rate 13	4	\$0.75 per day	\$1,095	\$0.791 per day	\$1,155
Energy					
Summer	28,963	\$0.05846 per Kwh	1,693	\$0.06321 per Kwh	1,831
Winter					
On-Peak First 750	22,786	\$0.05846 per Kwh	1,332	\$0.06321 per Kwh	1,440
On-Peak Over 750	28,310	0.02846 per Kwh	806	0.03321 per Kwh	940
Off Peak	52,633	0.01100 per Kwh	579	0.01100 per Kwh	579
Subtotal	103,729		2,717		2,959
Generation Rider			248		
Total Energy	132,692		4,658		4,790
Base Fuel	132,692	\$0.02241 per Kwh	2,974	\$0.02241 per Kwh	2,974
Total Rate 13			<u>\$8,727</u>		<u>\$8,919</u>
Total Revenues Per Design					\$8,919
Target Revenues					9,237
Difference					<u>(\$318)</u>

Derivation of Rate:

Projected Revenues Before Increase			<u>Projected</u>
Projected Revenue Increase			\$8,727
Total Revenue Requirement			<u>510</u>
			9,237
Less:			
Proposed Basic Service Charge Revenues			1,155
Projected Base Fuel			2,974
Winter Off-Peak			579
Winter >750 differential	(\$0.03000)	28,310 kwh	(849)
Subtotal			<u>3,859</u>
Net to be Collected Through Energy			<u>\$5,378</u>
Total Kwh (excluding Winter Off-Peak)			80,059
Summer rate			\$0.06718
Winter On-Peak First 750			\$0.06718
Winter On-Peak > 750			\$0.03718
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 - Settlement
 Projected 2023**

Residential Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	4	\$0.75 per day	\$1,095	\$0.791 per day	\$1,155
Energy					
Summer					
On-Peak Kwh	3,277	\$0.07218 per Kwh	237	\$0.07789 per Kwh	255
Off Peak Kwh	8,734	0.04218 per Kwh	368	0.04789 per Kwh	418
Subtotal	12,011		605		673
Winter					
On-Peak Kwh	10,152	\$0.05718 per Kwh	580	\$0.06289 per Kwh	638
Off Peak Kwh	48,516	0.02718 per Kwh	1,319	0.03289 per Kwh	1,596
Subtotal	58,668		1,899		2,234
Generation Rider			132		
Total Energy	70,679		2,636		2,907
Base Fuel	70,679	\$0.02241 per Kwh	1,584	\$0.02241 per Kwh	1,584
Total Rate 16 Revenues			<u>\$5,315</u>		<u>\$5,646</u>
Total Revenues Per Design					\$5,646
Target Revenues					<u>5,647</u>
Difference					<u>(\$1)</u>

Derivation of Rate:

			<u>Projected</u>
Projected Revenues Before Increase			\$5,315
Proposed Revenue Increase			332
Total Revenue Requirement			<u>5,647</u>
Less:			
Proposed Basic Service Charge Revenues			1,155
Projected Base Fuel			1,584
Winter Differential	(\$0.01500)	58,668 Kwh	(880)
On-Peak Differential	\$0.03000	13,429 Kwh	403
			<u>2,262</u>
Net to be Collected Through Energy			\$3,385
Total On-Peak Kwh			70,679
Summer Off-Peak Rate			\$0.04789
Summer On-Peak Rate			\$0.07789
Winter Off-Peak Rate			\$0.03289
Winter On-Peak Rate			\$0.06289

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Small General Electric Service Rate 20 - Settlement
 Projected 2023

Small General Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	10,410	\$0.84 per day	\$3,191,706	\$1.15 per day	\$4,369,598
Rate 95	4	0.05 per day	73	0.05 per day	73
Energy					
Summer	28,079,972	\$0.05997 per Kwh	1,683,956	\$0.05654 per Kwh	1,587,642
Winter					
First 750 Kwh	33,500,833	\$0.05997 per Kwh	2,009,045	\$0.05654 per Kwh	1,894,137
Over 750 Kwh	26,634,997	0.02997 per Kwh	798,251	0.02654 per Kwh	706,893
Subtotal	60,135,830		2,807,296		2,601,030
Generation Rider			164,964		
Total Energy	88,215,802		4,656,216		
Base Fuel	88,215,802	\$0.02241 per Kwh	1,976,916	\$0.02241 per Kwh	1,976,916
Total Rate 20 Revenues			<u>\$9,824,911</u>		<u>\$10,535,259</u>
Total Revenues Per Design					\$10,535,259
Target Revenues					<u>10,535,363</u>
Difference					<u>(\$104)</u>

Derivation of Rate:

Projected Revenues Before Increase			Projected
Proposed Revenue Increase			\$9,824,911
Total Revenue Requirement			<u>710,452</u>
			10,535,363
Less:			
Proposed Basic Service Charge Revenues			4,369,671
Projected Base Fuel			1,976,916
Winter Rate > 750 - differential (\$0.03000)	26,634,997	Kwh	<u>(799,050)</u>
Subtotal			5,547,537
Net to be Collected Through Energy			<u>\$4,987,826</u>
Total Kwh			88,215,802
Summer Rate per Kwh			\$0.05654
Winter Rate Per Kwh - 1st 750 Kwh			\$0.05654
Winter Rate - Over 750 Kwh			\$0.02654

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Irrigation Power Service Rate 25 - Settlement
 Projected 2023

Irrigation Power Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	49	\$1.50 per day	\$26,828	\$1.90 per day	\$33,982
Energy	1,577,312	\$0.00186 per Kwh	2,934	\$0.00126 per Kwh	1,987
Generation Rider			2,950		
Total Energy			5,884		1,987
Demand					
Summer	6,464.3	\$4.25 per KW	27,473	\$4.88 per KW	31,546
Winter	3,576.3	1.25 per KW	4,470	1.88 per KW	6,723
Total Demand			31,943		38,269
Base Fuel	1,577,312	\$0.02241 per Kwh	\$35,348	\$0.02241 per Kwh	\$35,348
Total Revenue			<u>\$100,003</u>		<u>\$109,586</u>
Total Revenues Per Design					\$109,586
Target Revenues					109,594
Difference					<u>\$8</u>

Derivation of Rate:

Projected Revenues Before Increase	\$100,003
Proposed Revenue Increase	9,591
Total Revenue Requirement	<u>109,594</u>
Less:	
Proposed Basic Service Charge Revenues	33,982
Proposed Demand Charge Revenues	38,269
Projected Base Fuel	35,348
Subtotal	<u>107,599</u>
Net to be Collected Through Energy	<u>1,995</u>
Total Kwh Sales	1,577,312
Proposed Energy Charge	\$0.00126

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Small General Optional Time-of-Day Electric Service Rate 26 - Settlement
 Projected 2023

Small General Optional TOD Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	270	\$1.00 per day	\$98,550	\$1.25 per day	\$123,188
Energy					
Summer					
On-Peak Kwh	164,452	\$0.06066 per Kwh	9,976	\$0.05746 per Kwh	9,449
Off Peak Kwh	495,677	0.03566 per Kwh	17,676	0.03246 per Kwh	16,090
Subtotal	660,129		27,652		25,539
Winter					
On-Peak Kwh	313,159	\$0.04566 per Kwh	14,299	\$0.04246 per Kwh	13,297
Off Peak Kwh	977,269	0.02066 per Kwh	20,190	0.01746 per Kwh	17,063
Subtotal	1,290,428		34,489		30,360
Generation Rider			3,648		
Total Energy	1,950,557		65,789		55,899
Base Fuel	1,950,557	\$0.02241 per Kwh	43,712	\$0.02241 per Kwh	43,712
Total Rate 26 Revenues			<u>\$208,051</u>		<u>\$222,799</u>
Total Revenues Per Design					\$222,799
Target Revenues					222,806
Difference					<u>(\$7)</u>

Derivation of Rate:

Projected Revenues Before Increase		\$208,051
Proposed Revenue Increase		14,755
Total Revenue Requirement		<u>222,806</u>
Proposed Basic Service Charge Revenues		123,188
Projected Base Fuel		43,712
Winter Differential	(\$0.01500) 1,290,428 Kwh	(19,356)
On-Peak Differential	\$0.02500 477,611 Kwh	11,940
		<u>159,484</u>
Net to be Collected Through Energy		<u>\$63,322</u>
Total On-Peak Kwh		1,950,557
Summer Off-Peak Rate		\$0.03246
Summer On-Peak Rate		\$0.05746
Winter Off-Peak Rate		\$0.01746
Winter On-Peak Rate		\$0.04246

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA
 Derivation of Rate and Reconciliation
 Large General Electric Service Rate 30 - Settlement
 Projected 2023

Large General Service 30	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary Service Rate 30	40	\$100.00 per month	\$48,000	\$108.03 per month	\$51,854
Secondary Service Rate 30	4,566	56.00 per month	3,068,352	58.72 per month	3,217,386
Rate 95 - single phase, no instrument	1	0.05 per day	18	0.05 per day	18
Rate 95 - single phase, instrument	2	0.19 per day	139	0.19 per day	139
Rate 95 - three phase, instrument	4	0.33 per day	482	0.33 per day	482
Total Customers	4,613		3,116,991		3,269,879
Energy					
Primary Service - Rate 30	226,484,074	\$0.01414 per Kwh	3,202,485	\$0.01538 per Kwh	3,483,325
Subtotal	226,484,074		3,202,485		3,483,325
Secondary Service - Rate 30	722,746,179	\$0.02331 per Kwh	16,847,213	\$0.02444 per Kwh	17,663,917
Subtotal	722,746,179		16,847,213		17,663,917
Total Energy	949,230,253		20,049,698		21,147,242
Demand					
Primary Service - Summer	173,353.0	\$14.00 per Kw	2,426,942	\$15.05 per Kw	2,608,963
Primary Service - Winter	333,742.6	11.00 per Kw	3,671,169	12.05 per Kw	4,021,598
Generation Rider			279,973		
Subtotal	507,095.6		6,378,084		6,630,561
Secondary Service - Summer	774,698.9	\$12.50 per Kw	9,683,736	\$13.01 per Kw	10,078,833
Secondary Service - Winter	1,428,215.4	9.50 per Kw	13,568,046	10.01 per Kw	14,296,436
Generation Rider			1,216,251		
Subtotal	2,202,914.3		24,468,033		24,375,269
Total Demand	2,710,009.9		30,846,117		31,005,830
Base Fuel					
Primary Service- Rate 30	226,484,074	\$0.02179 per Kwh	4,935,088	\$0.02179 per Kwh	4,935,088
Secondary Service- Rate 30	722,746,179	0.02241 per Kwh	16,196,742	0.02241 per Kwh	16,196,742
Total Base Fuel	949,230,253		21,131,830		21,131,830
Total Rate 30 Revenue			<u>\$75,144,636</u>		<u>\$76,554,781</u>
Total Revenues Per Design					
Primary- Rate 30					\$15,100,828
Secondary - Rate 30					61,453,314
Total					76,554,142
Target Revenues					76,551,526
Difference					<u>\$2,616</u>

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA
 Derivation of Rate and Reconciliation
 Large General Electric Service Rate 30 - Settlement
 Projected 2023

Large General Service 30	Current Rates Allocation	Proposed Settlement	Proposed Rates	Secondary				
				Customer	Demand	Energy	Total	
Basic Service Charge								
Primary Service Rate 30	0.51%	51,852	108.03	3,068,352	7.11%	3,217,386	7.11%	
Secondary Service Rate 30	7.11%	3,217,412	58.72	23,251,782	53.86%	24,375,269	53.86%	
Rate 95 - single phase, no Instrument	0.00%	0		16,847,213	39.03%	17,663,917	39.03%	
Rate 95 - single phase, instrument	0.00%	0		43,167,347	100.00%	45,256,572	100.00%	
Rate 95 - three phase, instrument	0.00%	0						
Total Customers								
Energy				Primary				
Primary Service - Rate 30	34.26%	3,483,258	0.01538	Customer	48,000	0.51%	51,854	0.51%
Subtotal				Demand	6,098,111	65.23%	6,630,561	65.22%
Secondary Service - Rate 30	39.03%	17,661,830	0.02444	Energy	3,202,485	34.26%	3,483,325	34.27%
Subtotal					9,348,596	100.00%	10,165,740	100.00%
Total Energy								
Demand								
Primary Service - Summer				Summer Differential	3.00	173,353	520,059	
Primary Service - Winter				Remaining to be collected			6,111,958	
Generation Rider				Winter Demand		507,096	12.05	
Subtotal	65.23%	6,632,017		Summer Demand			15.05	
Secondary Service - Summer				Summer Differential	3.00	774,699	2,324,097	
Secondary Service - Winter				Remaining to be collected			22,048,591	
Generation Rider				Winter Demand		2,202,914	10.01	
Subtotal	53.86%	24,372,688		Summer Demand			13.01	
Total Demand								
Base Fuel								
Primary Service- Rate 30				Primary				
Secondary Service- Rate 30				Secondary				
Total Base Fuel	100.00%	10,167,127						
	100.00%	45,251,930						
Total Rate 30 Revenue		55,419,057						
Total Revenues Per Design								
Primary- Rate 30	\$52,515,943	55,419,057						
Secondary - Rate 30								
Total								
Target Revenues Difference								
		<u>Rev per Design</u>	<u>Proj Revenues</u>					
Primary		15,100,828	15,102,215					
Secondary		61,453,953	61,449,311					
		76,554,781	76,551,526					
		<u>Current Rate</u>	<u>Total Rev Req</u>					
Primary		9,348,596	10,167,127					
Secondary		43,167,347	45,251,930					
		52,515,943	55,419,057					

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Large Time-of-Day Electric Service Rate 31 - Settlement
 Projected 2023

Large General TOD Service (Rate 31)	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary Service	1	\$97.00 per month	\$1,164	\$97.00 per month	\$1,164
Secondary Service	52	72.00 per month	44,928	72.00 per month	44,928
Total Base Rate	53		46,092		46,092
Energy					
Primary Service					
Off-Peak	1,825,200	\$0.01357 per Kwh	24,768	\$0.01544 per Kwh	28,181
On-Peak	652,800	0.01607 per Kwh	10,490	0.01794 per Kwh	11,711
Total Energy	2,478,000		35,258		39,892
Primary Subtotal	2,478,000		35,258		39,892
Secondary Service					
Off-Peak	9,987,672	\$0.02262 per Kwh	225,921	\$0.02449 per Kwh	244,598
On-Peak	3,865,623	0.02512 per Kwh	97,104	0.02699 per Kwh	104,333
Total Energy	13,853,295		323,025		348,931
Secondary Subtotal	13,853,295		323,025		348,931
Total Energy	16,331,295		358,283		388,823
Demand					
Summer Primary Service					
Off-Peak	0.0	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	1,761.1	15.25 per KW	26,857	15.57 per Kw	27,420
Total Summer Demand	1,761.1		26,857		27,420
Winter Primary Service					
Off-Peak	0.0	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	3,108.5	12.25 per KW	38,079	12.57 per Kw	39,074
	3,108.5		38,079		39,074
Generation Rider			2,689		
Primary Subtotal	4,869.6		67,625		66,494
Summer Secondary Service					
Off-Peak	0.0	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	14,134.0	14.75 per KW	208,477	15.04 per Kw	212,575
Total Summer Demand	14,134.0		208,477		212,575
Winter Secondary Service					
Off-Peak	0.0	\$0.00 per KW	0	\$0.00 per Kw	0
On-Peak	24,706.3	10.75 per KW	265,593	11.04 per Kw	272,758
	24,706.3		265,593		272,758
Generation Rider			21,444		
Secondary Subtotal	38,840.3		495,514		485,333
Total Demand	43,709.9		563,139		551,827
Base Fuel					
Primary	2,478,000	\$0.02179 per Kwh	53,996	\$0.02179 per Kwh	53,996
Secondary	13,853,295	0.02241 per Kwh	310,452	0.02241 per Kwh	310,452
Total Rate 31 Revenue			\$1,331,962		\$1,351,190
Total Revenues Per Design					
Primary- Rate 31					\$161,546
Secondary - Rate 31					1,189,644
					1,351,190
Target Revenues					
Difference					1,351,143
					\$47

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Large Time-of-Day Electric Service Rate 31 - Settlement
 Projected 2023

Derivation of Rate:

Projected Revenues Before Increase				\$1,331,962
Proposed Revenue Increase				19,181
Total Revenue Requirement				<u>1,351,143</u>
Less:				
Proposed Basic Service Charge Revenues				46,092
Proposed Demand Revenues				551,827
Secondary Energy Differential	\$0.00905	13,853,295	Kwh	125,372
On-Peak Energy Differential	0.00250	4,518,423	Kwh	11,296
Projected Base Fuel				<u>364,448</u>
Subtotal				<u>1,099,035</u>
Net to be Collected Through Energy				<u>\$252,108</u>
Total Kwh Sales				16,331,295
Proposed Energy Charges:				
Primary Off-Peak				\$0.01544
Primary On-Peak				\$0.01794
Secondary Off-Peak				\$0.02449
Secondary On-Peak				\$0.02699

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

**Derivation of Rate and Reconciliation
General Space Heating Electric Service Rate 32 - Settlement
Projected 2023**

General Space Heating Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary Service	0	\$21.00 per month	\$0	\$23.00 per month	\$0
Secondary Service	603	21.00 per month	151,956	23.00 per month	166,428
Total Base Rate	603		151,956		166,428
Energy					
Primary Service	0	\$0.01422 per Kwh	0	\$0.01569 per Kwh	0
Riders			0		0
Subtotal	0		0		0
Secondary Service	57,227,301	\$0.02422 per Kwh	1,386,045	\$0.02569 per Kwh	1,470,169
Generation Rider					
Subtotal	57,227,301		1,386,045		1,470,169
Total Energy	57,227,301		1,386,045		1,470,169
Demand					
Primary Service - Summer	0.0	\$14.00 per Kw	0	\$15.05 per Kw	0
Primary Service - Winter	0.0	1.00 per Kw	0	1.38 per Kw	0
Riders			0		0
Subtotal	0.0		0		0
Secondary Service - Summer	39,291.9	\$12.50 per Kw	491,149	\$13.01 per Kw	511,188
Secondary Service - Winter	231,145.8	1.00 per Kw	231,146	1.38 per Kw	318,981
Generation Rider			65,470		
Subtotal	270,437.7		787,765		830,169
Total Demand	270,437.7		787,765		830,169
Base Fuel					
Primary Service	0	\$0.02179 per Kwh	0	\$0.02179 per Kwh	0
Secondary Service	57,227,301	0.02241 per Kwh	1,282,464	0.02241 per Kwh	1,282,464
Total Base Fuel	57,227,301		1,282,464		1,282,464
Total Rate 32 Revenue			<u>\$3,608,230</u>		<u>\$3,749,230</u>
Total Revenues Per Design					
Secondary					3,749,230
Total					3,749,230
Target Revenue					3,749,878
Difference					(\$648)

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
General Space Heating Electric Service Rate 32 - Settlement
Projected 2023

Derivation of Rate:

Projected Revenues Before Increase	\$3,608,230
Proposed Revenue Increase	141,648
Total Revenue Requirement	<u>3,749,878</u>
Less:	
Proposed Basic Service Charge Revenues	
Secondary Service	166,428
Proposed Summer Demand Revenues	
Secondary Service	511,188
Secondary Energy	1,470,169
Projected Base Fuel	<u>1,282,464</u>
Subtotal	<u>3,430,249</u>
Net to be Collected Through Secondary Deman	<u>\$319,629</u>
Total Winter Demand	231,146
Proposed Energy Charges:	
Winter - Primary & Secondary	\$1.38

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Interruptible Large Power Demand Response Rate 38 - Settlement
 Projected 2023

Large Demand Response	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	4	Per Contract	\$7,140	\$108.03 per month	\$5,185
Energy	31,986,100	\$0.01252 per Kwh	400,466	\$0.01344 per Kwh	429,893
Demand					
Summer	34,757.1	\$11.00 per KW	382,328	\$11.55 per KW	401,445
Winter	69,417.6	8.00 per KW	555,340	8.55 per KW	593,520
Generation Rider			57,516		
Total Demand	104,174.7		995,184		994,965
Base Fuel	31,986,100	\$0.02179 per Kwh	696,977	\$0.02179 per Kwh	696,977
Total Rate 38 Revenue			<u>\$2,099,767</u>		<u>\$2,127,020</u>
Total Revenues Per Design					\$2,127,020
Target Revenues					<u>2,127,064</u>
Difference					<u>(\$44)</u>

Derivation of Rate:

Projected Revenues Before Increase	\$2,099,767
Proposed Revenue Increase	27,297
Total Revenue Requirement	<u>2,127,064</u>
Less:	
Proposed Basic Service Charge Revenues	5,185
Proposed Demand Revenues	994,965
Projected Base Fuel	696,977
Subtotal	<u>1,697,127</u>
Net to be Collected Through Energy	<u>\$429,937</u>
Total Kwh Sales	31,986,100
Proposed Energy Charge	\$0.01344

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Municipal Service Rate 40 - Settlement
 Projected 2023

Small Municipal Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Non-Demand	233	\$0.84 per day	\$71,438	\$1.15 per day	\$97,748
Demand	38	1.00 per day	13,870	1.30 per day	18,031
Total Base Rate	271		85,308		115,779
Energy					
Non-Demand Service					
Summer	393,049	\$0.03402 per Kwh	13,372	\$0.03365 per Kwh	13,226
Winter					
First 750 Kwh	629,155	\$0.03402 per Kwh	21,404	\$0.03365 per Kwh	21,171
Over 750 Kwh	588,879	0.02302 per Kwh	13,556	0.02265 per Kwh	13,338
Subtotal	1,218,034		34,960		34,509
Demand Service	1,659,753	\$0.01302 per Kwh	21,610	\$0.01265 per Kwh	20,996
Generation Rider			6,117		
Total Energy	3,270,836		76,059		68,731
Demand					
Summer	2,700.6	\$11.25 per Kw	30,382	\$12.93 per Kw	34,919
Winter					
1st 10 Kw	2,556.1	\$0.00 per Kw	\$0	\$0.00 per Kw	0
Over 10 Kw	1,964.2	8.25 per Kw	16,205	9.93 per Kw	19,505
	4,520.3		16,205		19,505
Total Demand	7,220.9		46,587		54,424
Base Fuel					
Non-Demand Service	1,611,083	\$0.02241 per Kwh	36,104	\$0.02241 per Kwh	36,104
Demand Service	1,659,753	0.02241 per Kwh	37,195	0.02241 per Kwh	37,195
Total Base Fuel	3,270,836		73,299		73,299
Total Rate 40 Revenue	3,270,836		\$281,253		\$312,233
Total Revenues Per Design					
Non-Demand Service					\$181,587
Demand Service					130,646
Total					312,233
Target Revenues					312,239
Difference					(\$6)

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

**Derivation of Rate and Reconciliation
 Municipal Service Rate 40 - Settlement
 Projected 2023**

Derivation of Rate:

Projected Revenues Before Increase				\$281,253
Proposed Revenue Increase				30,986
Total Revenue Requirement				<u>\$312,239</u>
Less:				
Proposed Basic Service Charge Revenues				115,779
Proposed Demand Revenues				54,424
Summer- 1st 750 Winter Differential	(\$0.01100)	588,879 Kwh		(6,478)
Non-Demand Energy Differential	\$0.02100	1,611,083 Kwh		33,833
Projected Base Fuel				73,299
Subtotal				<u>270,857</u>
Net to be Collected Through Energy				<u>\$41,382</u>
Total Kwh Sales				3,270,836
Proposed Energy Charges:				
Demand Service				\$0.01265
Non-Demand Rate:				
Winter - 1st 750				\$0.03365
Winter - Over 750				0.02265
Summer				\$0.03365

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Municipal Lighting Service Rate 41 - Settlement
 Projected 2023

Municipal Lighting Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary	0	\$0.00 per month	\$0	\$0.00 per month	\$0
Secondary	0	0.00 per month	0	0.00 per month	0
Energy					
Primary	1,174,555	\$0.05096 per Kwh	59,855	\$0.05180 per Kwh	60,842
Generation Rider			975		0
Secondary	12,133,777	0.05596 per Kwh	679,006	0.05680 per Kwh	689,199
Generation Rider			10,178		0
Total Energy	13,308,332		750,014		750,041
Base Fuel					
Primary	1,174,555	\$0.02179 per Kwh	25,594	\$0.02179 per Kwh	25,594
Secondary	12,133,777	0.02241 per Kwh	271,918	0.02241 per Kwh	271,918
Total Base Fuel	13,308,332		297,512		297,512
Discount @ 10% - Excluding Base Fuel					
Primary	1,174,555		(5,990)		
Secondary	10,946,620		(61,301)		
Total Discount	12,121,175		(67,291)		0
Total Rate 41 Revenue			<u>\$980,235</u>		<u>\$1,047,553</u>
Total Revenues Per Design					\$1,047,553
Target Revenues					<u>1,047,526</u>
Difference					<u>\$27</u>

Derivation of Rate:

Projected Revenues Before Increase		\$980,235
Proposed Revenue Increase		67,291
Total Revenue Requirement		<u>1,047,526</u>
Less:		
Proposed Basic Service Charge Revenues		0
Secondary Differential	\$0.0050	12,133,777 Kwh
Projected Base Fuel		<u>297,512</u>
Subtotal		358,181
Net to be Collected Through Energy		\$689,345
Total Kwh Sales		13,308,332
Proposed Energy Charges:		
Primary		\$0.05180
Secondary		0.05680

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Municipal Pumping Service Rate 48 - Settlement
 Projected 2023

Municipal Pumping Service	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary	5	\$80.00 per month	\$4,800	\$80.00 per month	\$4,800
Secondary	303	45.00 per month	163,620	45.00 per month	163,620
Excess Facilities Charge	1		2,330		2,330
Total Basic Service Charge			<u>170,750</u>		<u>170,750</u>
Energy					
Primary	23,520,600	\$0.01798 per Kwh	422,900	\$0.01394 per Kwh	327,877
Riders			0		
Secondary	22,345,983	0.01898 per Kwh	424,127	0.01494 per Kwh	333,849
Riders			0		
Total Energy	<u>45,866,583</u>		<u>847,027</u>		<u>661,726</u>
Demand					
Summer					
Primary	20,780.4	\$9.00 per KW	187,024	\$12.00 per KW	249,365
Secondary	<u>29,257.8</u>	9.00 per KW	<u>263,320</u>	12.00 per KW	<u>351,094</u>
Subtotal	50,038.2		<u>450,344</u>		<u>600,459</u>
Winter					
Primary	30,215.0	\$6.00 per KW	181,290	\$9.00 per KW	271,935
Secondary	<u>54,427.1</u>	6.00 per KW	<u>326,563</u>	9.00 per KW	<u>489,844</u>
Subtotal	84,642.1		<u>507,853</u>		<u>761,779</u>
Generation Rider- Primary			25,340		
Generation Rider- Secondary			<u>42,323</u>		
Total Demand	134,680.3		1,025,860		1,362,238
Base Fuel					
Primary	23,520,600	\$0.02179 per Kwh	512,514	\$0.02179 per Kwh	512,514
Secondary	<u>22,345,983</u>	0.02241 per Kwh	<u>500,773</u>	0.02241 per Kwh	<u>500,773</u>
Subtotal	45,866,583		<u>1,013,287</u>		<u>1,013,287</u>
Primary Discounted (all accounts)			(79,649)		(85,398)
Secondary Discounted					
Bills	248		(13,392)		(13,392)
Energy	18,922,797		(35,954)		(28,271)
Demand - Summer	24,690.2		(22,220)		(29,628)
Demand - Winter	45,599.2		(27,360)		(41,039)
Total Discounted			<u>(178,575)</u>		<u>(197,728)</u>
Total Rate 48 Revenue			<u>\$2,878,349</u>		<u>\$3,010,273</u>
Total Revenues Per Design					
Primary					\$1,366,491
Secondary					<u>1,643,782</u>
					\$3,010,273
Target Revenues					<u>3,010,407</u>
Difference					<u>(\$134)</u>

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Municipal Pumping Service Rate 48 - Settlement
Projected 2023

Derivation of Rate:

Projected Revenues Before Increase				\$2,878,349
Proposed Revenue Increase				<u>132,058</u>
Total Revenue Requirement				3,010,407
Less:				
Proposed Basic Service Charge Revenues				156,878
Proposed Demand Revenues				1,239,441
Secondary Differential	\$0.00100	20,453,703	Kwh	20,454
Projected Base Fuel				<u>1,013,287</u>
Subtotal				2,430,060
Net to be Collected Through Energy				<u>\$580,347</u>
Total Kwh Sales				41,622,243
Primary Energy Rate				\$0.01394
Secondary Energy Rate				\$0.01494

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Outdoor Lighting Service Rate 52 - Settlement
 Projected 2023

Outdoor Lighting	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	0	\$0.00 per month	\$0	\$0.00 per month	\$0
Energy					
Primary Service	34,081	\$0.06357 per Kwh	2,167	\$0.06578 per Kwh	2,242
Generation Rider			31		0
Secondary Service	3,958,084	0.06763 per Kwh	267,685	0.06984 per Kwh	276,433
Generation Rider			3,641		0
Total Energy	3,992,165		273,524		278,675
Base Fuel					
Primary Service	34,081	\$0.02179 per Kwh	743	\$0.02179 per Kwh	743
Secondary Service	3,958,084	0.02241 per Kwh	88,701	0.02241 per Kwh	88,701
Total Base Fuel	3,992,165		89,444		89,444
Total Revenue			<u>\$362,968</u>		<u>\$368,119</u>
Total Revenues Per Design					\$368,119
Target Revenues					<u>368,132</u>
Difference					<u>(\$13)</u>

Derivation of Rate:

Projected Revenues Before Increase			\$362,968
Proposed Revenue Increase			5,164
Total Revenue Requirement			<u>\$368,132</u>
Less:			
Secondary Energy Differential	\$0.00406	3,958,084 Kwh	16,070
Projected Base Fuel			<u>89,444</u>
Subtotal			105,514
Net to be Collected Through Energy			262,618
Total Kwh Sales			3,992,165
Proposed Energy Charge			
Primary			\$0.06578
Secondary			\$0.06984

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Contract Rate 304 - Settlement
 Projected 2023

Contract Rate 304	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	1	\$100.00 per month	\$1,200	\$108.03 per month	\$1,296
Energy					
First 2.3 Million Kwh	26,032,640	\$0.01669 per Kwh	434,485	\$0.01879 per Kwh	489,153
Over 2.3 Million Kwh	1,135,200	0.01144 per Kwh	12,987	0.01354 per Kwh	15,371
	<u>27,167,840</u>		<u>447,472</u>		<u>504,524</u>
Demand					
Summer					
First 5,000 Kw	18,126.8	\$8.58 per KW	155,528	\$9.06 per KW	164,229
Over 5,000 Kw	0.0	5.72 per KW	0	6.04 per KW	0
Winter					
First 5,000 Kw	37,098.1	\$5.72 per KW	212,201	\$6.04 per KW	224,073
Over 5,000 Kw	0.0	5.72 per KW	0	6.04 per KW	0
Generation Rider			<u>30,490</u>		<u>0</u>
			<u>398,219</u>		<u>388,302</u>
Base Fuel	27,167,840	0.02179 per Kwh	<u>591,987</u>	0.02179 per Kwh	<u>591,987</u>
Total Contract Revenues			<u>\$1,438,878</u>		<u>\$1,486,109</u>
Total Revenues Per Design					\$1,486,109
Target Revenues					<u>1,486,094</u>
					<u>15</u>
<u>Derivation of Rate:</u>					
Net Increase to Contracts	5.59%				
Projected Revenues Before Increase			\$1,438,878		
Proposed Revenue Increase			<u>47,216</u>		
Total Revenue Requirement			<u>1,486,094</u>		
Less:					
Proposed Basic Service Charge Revenues			\$1,296		
Proposed Demand Revenues			388,302		
Over 2.3 Million Energy Differential	(\$0.00525)	1,135,200	(5,960)		
Proposed Base Fuel			<u>591,987</u>		
			<u>975,625</u>		
Net to be Collected Through Energy Charge			<u>\$510,469</u>		
Total Kwh Sales	27,167,840				
Proposed Energy Charges					
First 2.3 million			\$0.01879		
Over 2.3 million			\$0.01354		

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - NORTH DAKOTA

Derivation of Rate and Reconciliation
 Contract Rate 303 - Settlement
 Projected 2023

Contract Rate 303 & 302	Billing Determinants	Projected @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	1	\$100.00 per month	\$1,200	\$108.03 per month	\$1,296
Energy					
First 1.5 Million Kwh	18,000,000	\$0.02148 per Kwh	386,640	\$0.02333 per Kwh	419,940
Over 1.5 Million Kwh	<u>80,750,754</u>	0.01472 per Kwh	<u>1,188,651</u>	0.01657 per Kwh	<u>1,338,040</u>
Total Energy	98,750,754		1,575,291		1,757,980
Demand					
Summer	57,085.5	\$8.56 per KW	488,652	\$9.04 per KW	516,053
Winter	104,431.8	5.44 per KW	568,109	5.74 per KW	599,439
Generation Rider			<u>89,175</u>		<u>0</u>
Total Demand	161,517.3		1,145,936		1,115,492
Base Fuel	98,750,754	\$0.02179 per Kwh	<u>2,151,779</u>	\$0.02179 per Kwh	<u>2,151,779</u>
Total Contract Revenues			<u>\$4,874,206</u>		<u>\$5,026,547</u>
Target Revenues Per Design					\$5,026,547
Target Revenues					<u>5,026,183</u>
					<u>\$364</u>
Derivation of Rate:					
Net Increase to Contracts	5.59%				
Projected Revenues Before Increase			\$4,874,206		
Proposed Revenue Increase			<u>151,977</u>		
Total Revenue Requirement			5,026,183		
Less:					
Proposed Basic Service Charge Revenues			1,296		
Proposed Demand Revenues			1,115,492		
Over 1.5 Million Kwh Energy Differential	(\$0.00676)	80,750,754	(545,875)		
Proposed Base Fuel			<u>2,151,779</u>		
			2,722,692		
Net to be Collected Through Energy Charge			<u>\$2,303,491</u>		
Total Kwh Sales	98,750,754				
Proposed Energy Charges					
First 1.5 Million Kwh			\$0.02333		
Over 1.5 Million Kwh			\$0.01657		