

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

January 31, 2023

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

Re: Annual Update to the Renewable Resource Cost Adjustment Rate 55
Tariff
Case No. PU-22-401

Pursuant to discussions with North Dakota Public Service Commission Staff, Montana-Dakota herewith submits revised projected revenue requirement schedules and rate calculations. As per these discussions, the rates to be established will reflect an 11-month recovery period with rates effective March 1, 2023.

In Exhibit 1, the Company provides a summary of the requested revenue requirement, proposed rates, and rate impact to a typical residential customer for three different scenarios. The three different scenarios reflect the following:

- Projected revenue requirement and rates as originally filed;
- Projected revenue requirement as originally filed, updated for a March 1, 2023 implementation; and
- Projected revenue requirement updated for currently approved depreciation rates and the inclusion of 2023 benefits inadvertently omitted in the original filing.

The Original Filing scenario is supported by the November 1, 2022 filing. The updated scenarios are supported by the exhibits in the following appendices:

- Appendix A – Reflects the Rate 55 proposed rate calculation updated for the March 1, 2023 implementation with no changes to the proposed revenue requirement. The appendix includes an updated Exhibit 2 – Derivation of Proposed Rates, and updated Exhibit 4 – Balancing Account summary which has been updated to reflect the estimated February 2023 activity.
- Appendix B – Reflects the Rate 55 proposed rate calculation updated for the March 1, 2023 implementation and the projected 2023 revenue requirement updated to reflect the currently approved depreciation rates and to include

the 2023 benefits expense inadvertently omitted in the original filing. The appendix includes an updated Exhibit 2 – Derivation of Proposed Rates, Exhibit 3 – Projected 2023 Revenue Requirement, Exhibit 4 – Balancing Account Summary which has been updated to reflect the estimated February 2023 activity, and Exhibit 5 – 2023 Revenue Requirement Detail Schedule by Wind Facility.

Only exhibits that were affected by the noted changes were provided in the appendices. The projected billing determinants were updated to reflect the collection of the remaining revenue requirement over an 11-month period. All of the other assumptions included in the November 1, 2022 filing remain the same.

Under the scenario in Appendix A, the average residential customer would see no change in the rate as opposed to the (\$0.04) per month decrease in the original filing due to the reduction in the Over Recovered balance. This change in the Over Recovered balance is outlined in Appendix A, Exhibit 4, page 1.

Upon approval, the Company will file updated tariffs in compliance with the Commission's Order.

Please contact me at (701) 222-7855 or at Travis.Jacobson@mdu.com with any questions regarding this filing.

Sincerely,

/s/ Travis R. Jacobson

Travis R. Jacobson
Director of Regulatory Affairs

Attachments
cc: Allison Waldon
Garret Senger

**Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Summary of 2023 Renewable Rider Rates
March 1, 2023 Implementation**

	Original Filing for Feb. 1 Rates 1/	As Filed Updated for March 1 Rates 2/	As Filed Updated for Current Depr. Rates and March 1 Rates 3/
<u>Requested Recovery:</u>			
Revenue Requirement	\$10,889,845	\$10,889,845	\$10,044,663
Levelization	7,764,537	7,764,537	7,764,537
Over Recovery 4/	(770,904)	(664,359)	(827,829)
Total Cost to be Recovered through RRCA Rates	\$17,883,478	\$17,990,023	\$16,981,371
February Estimated Revenue Collections		(1,622,300)	(1,622,300)
Total Updated Cost to be Recovered through RRCA Rates		<u>\$16,367,723</u>	<u>\$15,359,071</u>

	Feb. 1, 2023	March 1, 2023	March 1, 2023
<u>Proposed Rates: 5/</u>			
Residential & Small General	\$0.00895	\$0.00899	\$0.00844
Large General	\$0.00815	\$0.00819	\$0.00768
Lighting	\$0.01161	\$0.01166	\$0.01094

Rate Impact for Residential Customer:

Monthly:	(\$0.04)	\$0.00	(\$0.49)
Annual:	(\$0.48)	\$0.00	(\$5.88)

1/ As requested in the November 1, 2022 filing in Case No. PU-22-401.

2/ See Appendix A exhibits for changes from original filing.

3/ See Appendix B exhibits for changes from original filing.

4/ Over Recovery updated to estimate February 2023 activity.

5/ Proposed rates for March 1, 2023 reflect an 11 month recovery.

Appendix A

**Montana-Dakota Utilities Co.
 Electric Utility - North Dakota
 Renewable Resource Cost Adjustment
 Proposed 2023 Renewable Rider Rates**

	<u>Total</u>
Revenue Requirement 1/	\$10,889,845
Levelization 1/	7,764,537
Over Recovery 2/	<u>(664,359)</u>
Total Cost to be Recovered through RRCA Rates	\$17,990,023
February Estimated Revenue Collections	<u>(1,622,300)</u>
Total Updated Cost to be Recovered through RRCA Rates	<u><u>\$16,367,723</u></u>

<u>Allocation of Costs & Proposed Rates</u>	<u>Allocated RRCA Costs 3/</u>	<u>Projected Billing Determinants</u>	<u>Proposed RRCA Rates</u>
Residential & Small General	\$7,032,066	782,202,830 Kwh	\$0.00899 per Kwh
Large General	9,151,881	1,117,657,959 Kwh	\$0.00819 per Kwh
Lighting	183,776	15,764,444 Kwh	\$0.01166 per Kwh
	<u>\$16,367,723</u>		

<u>Change in Rates</u>	<u>Proposed RRCA Rates</u>	<u>Current RRCA Rates 4/</u>	<u>Change in RRCA Rates</u>
Residential & Small General	\$0.00899	\$0.00899	\$0.00000
Large General	\$0.00819	\$0.00838	(\$0.00019)
Lighting	\$0.01166	\$0.01161	\$0.00005

1/ Exhibit 3, page 1.

2/ Exhibit 4, page 1.

3/ Demand/Energy for Wind Allocation Factor 3

Residential & Small General	42.963008%	(Rates 10, 13, 16, 20, 25, 26, and 40)
Large General	55.914195%	(Rates 30, 31, 32, 38, 48 and contracts)
Lighting	1.122797%	(Rates 41, 52)
	<u>100.000000%</u>	

4/ Current RRCA rates effective February 1, 2022.

**Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Balancing Account and Carry Charge Calculation**

	Cumulative								
	Beginning Balance	Revenue Requirement 1/	Revenue Collected 2/	Ending Balance 3/	Carrying Charge Calculation			Carrying Charge 4/	Grand Total (Over)/Under Collection
Deferred Income Tax					Net Balance	Rate 4/			
September 2021								\$1,286,510	5/
October	\$1,286,510	\$826,827	\$1,143,231	970,106	236,753	733,353	0.05%	\$40	970,146
November	970,106	937,759	1,099,273	808,592	197,336	611,256	0.05%	31	808,663
December	808,592	1,599,843	1,406,002	1,002,433	244,643	757,790	0.06%	31	1,002,535
January 2022	1,002,433	500,730	1,557,275	(54,112)	-	(54,112)	0.15%	95	(53,915)
February	(54,112)	680,661	1,234,161	(607,612)	-	(607,612)	0.33%	(15)	(607,430)
March	(607,612)	760,908	1,219,818	(1,066,522)	-	(1,066,522)	0.44%	(223)	(1,066,563)
April	(1,066,522)	778,339	932,633	(1,220,816)	-	(1,220,816)	0.76%	(675)	(1,221,532)
May	(1,220,816)	975,972	844,519	(1,089,363)	-	(1,089,363)	0.98%	(997)	(1,091,076)
June	(1,089,363)	1,311,014	865,089	(643,438)	-	(643,438)	1.49%	(1,353)	(646,504)
July	(643,438)	1,428,276	915,049	(130,211)	-	(130,211)	2.23%	(1,196)	(134,473)
August	(130,211)	1,349,087	1,119,941	98,935	24,145	74,790	2.63%	(285)	94,388
September	98,935	1,226,249	1,005,405	319,779	78,042	241,737	3.13%	195	315,427
October - Est.	319,779	602,911	836,011	86,679	21,154	65,525	3.13%	631	82,958
November - Est.	86,679	688,859	832,916	(57,378)	-	(57,378)	3.13%	171	(60,928)
December - Est.	(57,378)	876,143	1,062,702	(243,937)	-	(243,937)	3.13%	(150)	(247,637)
January 2023 - Est.	(243,937)	456,753	980,749	(767,933)	-	(767,933)	3.13%	(636)	(772,269)
	(767,933)	1,045,824	935,911	(658,020)	-	(658,020)	3.13%	(2,003)	(664,359)
Total		\$15,000,331	\$17,054,774					(\$4,336)	

1/ Monthly revenue requirement, see Exhibit 4, pages 3-4.

2/ Reflects revenues collected at established rates net of additional revenue collected for levelization. Additional revenues for levelization effective February 1, 2021 in Case No. PU-20-440 and effective February 1, 2022 in Case No. PU-21-420.

3/ (Over)/Under collection on revenue requirement not including the carrying charge, for use in calculating the carrying charge.

4/ Carrying charges calculated based on the three-month Treasury Bill rate, based on prior month ending balance.

5/ September 2021 (Over)/Under balance per Case No. PU-21-420, Exhibit 4, page 1.

**North Dakota Renewable Rider
 Revenue Breakdown**

	Total Revenue Collected	Levelizing Adjustment in Rates 1/	Net Revenue Collected
October 2021	\$1,505,127	\$361,896	\$1,143,231
November	1,446,498	347,225	1,099,273
December	1,848,829	442,827	1,406,002
	<u>\$4,800,454</u>	<u>\$1,151,948</u>	<u>\$3,648,506</u>
January 2022	\$2,216,582	\$659,307	\$1,557,275
February	1,790,941	556,780	1,234,161
March	1,859,405	639,587	1,219,818
April	1,424,567	491,934	932,633
May	1,290,164	445,645	844,519
June	1,323,652	458,563	865,089
July	1,397,833	482,784	915,049
August	1,710,315	590,374	1,119,941
September	1,536,572	531,167	1,005,405
October - Est.	1,279,159	443,148	836,011
November - Est.	1,272,571	439,655	832,916
December - Est.	1,622,138	559,436	1,062,702
	<u>\$18,723,899</u>	<u>\$6,298,380</u>	<u>\$12,425,519</u>
January 2023 - Est.	\$1,793,532	\$812,783	\$980,749
February - Est.	1,622,300	686,389	935,911
March - Est.		788,472	
April - Est.		606,447	
May - Est.		549,384	
June - Est.		565,309	
July - Est.		595,168	
August - Est.		727,803	
September - Est.		654,813	
October - Est.		546,305	
November - Est.		541,999	
December - Est.		689,665	
		<u>\$7,764,537</u>	

1/ Levelization adjustment is amount included in established rates.

Appendix B

**Montana-Dakota Utilities Co.
 Electric Utility - North Dakota
 Renewable Resource Cost Adjustment
 Proposed 2023 Renewable Rider Rates**

	<u>Total</u>
Revenue Requirement 1/	\$10,044,663
Levelization 1/	7,764,537
Over Recovery 2/	<u>(827,829)</u>
Total Cost to be Recovered through RRCA Rates	\$16,981,371
February Estimated Revenue Collections	<u>(1,622,300)</u>
Total Updated Cost to be Recovered through RRCA Rates	<u><u>\$15,359,071</u></u>

<u>Allocation of Costs & Proposed Rates</u>	<u>Allocated RRCA Costs 3/</u>	<u>Projected Billing Determinants</u>	<u>Proposed RRCA Rates</u>
Residential & Small General	\$6,598,719	782,202,830 Kwh	\$0.00844 per Kwh
Large General	8,587,901	1,117,657,959 Kwh	\$0.00768 per Kwh
Lighting	172,451	15,764,444 Kwh	\$0.01094 per Kwh
	<u><u>\$15,359,071</u></u>		

<u>Change in Rates</u>	<u>Proposed RRCA Rates</u>	<u>Current RRCA Rates 4/</u>	<u>Change in RRCA Rates</u>
Residential & Small General	\$0.00844	\$0.00899	(\$0.00055)
Large General	\$0.00768	\$0.00838	(\$0.00070)
Lighting	\$0.01094	\$0.01161	(\$0.00067)

1/ Exhibit 3, page 1.

2/ Exhibit 4, page 1.

3/ Demand/Energy for Wind Allocation Factor 3

Residential & Small General	42.963008%	(Rates 10, 13, 16, 20, 25, 26, and 40)
Large General	55.914195%	(Rates 30, 31, 32, 38, 48 and contracts)
Lighting	1.122797%	(Rates 41, 52)
	<u><u>100.000000%</u></u>	

4/ Current RRCA rates effective February 1, 2022.

**Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Revenue Requirement - Wind Resources
Actual/Projected Year End 2023**

	Projected											Average Balance		
	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	June 2023	July 2023	Aug 2023	Sept 2023	Oct 2023	Nov 2023		Dec 2023	
Rate Base														
Total Plant Balance	\$279,172,480	\$279,172,480	\$279,172,480	\$279,172,480	\$279,172,480	\$279,172,480	\$279,764,543	\$279,764,543	\$279,764,543	\$280,072,899	\$280,072,899	\$280,072,899	\$279,545,601	
Total Accumulated Reserve	76,837,381	77,803,406	78,769,431	79,735,456	80,701,481	81,667,506	82,633,531	83,601,518	84,569,505	85,537,492	86,506,561	87,475,630		
Net Plant in Service	\$202,335,099	\$201,369,074	\$200,403,049	\$199,437,024	\$198,470,999	\$197,504,974	\$197,131,012	\$196,163,025	\$195,195,038	\$194,535,407	\$193,566,338	\$192,597,269	197,392,359	
Less: Deferred Taxes	\$48,864,160	\$48,581,411	\$48,281,844	\$48,034,539	\$47,809,265	\$47,587,944	\$47,367,432	\$47,122,647	\$46,903,514	\$46,718,959	\$46,543,294	\$46,339,696		
Less: Investment Tax Credit	7,762,952	7,857,793	7,952,634	8,047,475	8,142,316	8,237,157	8,331,998	8,426,839	8,521,680	8,616,521	8,711,362	8,806,203		
Less: Levelization Reg Liability	14,836,405	15,522,794	16,311,266	16,917,713	17,467,097	18,032,406	18,627,574	19,355,377	20,010,190	20,556,495	21,098,494	21,788,159		
Total Rate Base	\$130,871,582	\$129,407,076	\$127,857,305	\$126,437,297	\$125,052,321	\$123,647,467	\$122,804,008	\$121,258,162	\$119,759,654	\$118,643,432	\$117,213,188	\$115,663,211	123,217,892	
Return on Rate Base 1/	\$772,251	\$763,610	\$754,465	\$746,085	\$737,913	\$729,623	\$724,646	\$715,524	\$706,682	\$700,095	\$691,655	\$682,509	\$8,725,058	
Expenses														
Operating Expenses												Total		
Total O&M	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$275,316	\$980,142	\$4,008,618
Total Depreciation	966,025	966,025	966,025	966,025	966,025	966,025	966,025	967,987	967,987	967,987	969,069	969,069	969,069	11,604,274
Property taxes	64,112	64,112	64,112	64,112	64,112	64,112	64,112	64,112	64,112	64,112	64,112	64,112	64,112	769,344
Payroll taxes	3,265	3,265	3,265	3,265	3,265	3,265	3,265	3,265	3,265	3,265	3,265	3,265	3,265	39,180
Total Expenses	\$1,308,718	\$1,308,718	\$1,308,718	\$1,308,718	\$1,308,718	\$1,308,718	\$1,308,718	\$1,310,680	\$1,310,680	\$1,310,680	\$1,311,762	\$2,016,588	\$16,421,416	
Income before Taxes (EBIT)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,310,680)	(\$1,310,680)	(\$1,310,680)	(\$1,311,762)	(\$2,016,588)	(\$16,421,416)	
Interest Expense	237,532	234,874	232,061	229,484	226,970	224,420	222,889	220,084	217,364	215,338	212,742	209,929	2,683,687	
AFUDC Equity Add Back	25,034	25,034	25,034	25,034	25,034	25,034	25,034	25,034	25,034	25,034	25,034	25,031	300,405	
Taxable income	(\$1,521,216)	(\$1,518,558)	(\$1,515,745)	(\$1,513,168)	(\$1,510,654)	(\$1,508,104)	(\$1,506,573)	(\$1,505,730)	(\$1,503,010)	(\$1,500,984)	(\$1,499,470)	(\$2,201,486)	(\$18,804,698)	
Income Taxes 2/	(\$371,251)	(\$370,603)	(\$369,916)	(\$369,287)	(\$368,674)	(\$368,051)	(\$367,678)	(\$367,472)	(\$366,808)	(\$366,314)	(\$365,944)	(\$537,270)	(\$4,589,268)	
Less: ARAM Amortization	68,876	68,876	68,876	68,876	68,876	68,876	68,876	68,876	68,876	68,876	68,876	68,870	826,506	
Production Tax Credit	1,357,491	903,739	991,333	821,445	949,454	855,759	846,148	672,990	824,442	1,334,469	1,114,902	1,465,255	12,137,427	
Net Income Taxes	(\$1,797,618)	(\$1,343,218)	(\$1,430,125)	(\$1,259,608)	(\$1,387,004)	(\$1,292,686)	(\$1,282,702)	(\$1,109,338)	(\$1,260,126)	(\$1,769,659)	(\$1,549,722)	(\$2,071,395)	(\$17,553,201)	
Operating Income	\$488,900	\$34,500	\$121,407	(\$49,110)	\$78,286	(\$16,032)	(\$26,016)	(\$201,342)	(\$50,554)	\$458,979	\$237,960	\$54,807	\$1,131,785	
Revenue Requirement	\$374,827	\$964,494	\$837,433	\$1,051,913	\$872,579	\$986,380	\$993,004	\$1,212,864	\$1,001,700	\$318,957	\$600,165	\$830,347	\$10,044,663	
														Thunder Spirit PTC Levelization, grossed up: 7,337,347 3/
														Diamond Willow PTC Levelization, grossed up: 427,190 3/
														Total Projected 2023: \$17,809,200

1/ Projected Capital Structure with Authorized Return on Equity

	Ratio	Cost	
Long Term Debt:	44.587%	4.503%	2.008%
Short Term Debt:	4.603%	3.684%	0.170%
Common Equity:	50.810%	9.650%	4.903%
	100.000%		7.081%

2/ Tax Rate 24.4049% (Federal Tax Rate = 21%, Tax Rate = 4.31%)
1- tax rate 75.5951%

3/ Exhibit 5, page 10.

**Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Balancing Account and Carry Charge Calculation**

	Cumulative								Grand Total (Over)/Under Collection
	Beginning Balance	Revenue Requirement 1/	Revenue Collected 2/	Ending Balance 3/	Carrying Charge Calculation			Carrying Charge 4/	
					Deferred Income Tax	Net Balance	Rate 4/		
September 2021									\$1,286,510 5/
October	\$1,286,510	\$826,827	\$1,143,231	970,106	236,753	733,353	0.05%	\$40	970,146
November	970,106	937,759	1,099,273	808,592	197,336	611,256	0.05%	31	808,663
December	808,592	1,599,843	1,406,002	1,002,433	244,643	757,790	0.06%	31	1,002,535
January 2022	1,002,433	500,730	1,557,275	(54,112)	-	(54,112)	0.15%	95	(53,915)
February	(54,112)	680,661	1,234,161	(607,612)	-	(607,612)	0.33%	(15)	(607,430)
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April	(1,066,522)	778,339	932,633	(1,220,816)	-	(1,220,816)	0.76%	(675)	(1,221,532)
May	(1,220,816)	975,972	844,519	(1,089,363)	-	(1,089,363)	0.98%	(997)	(1,091,076)
June	(1,089,363)	1,311,014	865,089	(643,438)	-	(643,438)	1.49%	(1,353)	(646,504)
July	(643,438)	1,428,276	915,049	(130,211)	-	(130,211)	2.23%	(1,196)	(134,473)
August	(130,211)	1,349,087	1,119,941	98,935	24,145	74,790	2.63%	(285)	94,388
September	98,935	1,226,249	1,005,405	319,779	78,042	241,737	3.13%	195	315,427
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November - Est.	86,679	688,859	832,916	(57,378)	-	(57,378)	3.13%	171	(60,928)
December - Est.	(57,378)	876,143	1,062,702	(243,937)	-	(243,937)	3.13%	(150)	(247,637)
January 2023 - Est.	(243,937)	374,827	980,749	(849,859)	-	(849,859)	3.13%	(636)	(854,195)
February 2023 - Est	(849,859)	964,494	935,911	(821,276)		(821,276)	3.13%	(2,217)	(827,829)
Total		\$15,882,899	\$17,990,685					(\$6,553)	

1/ Monthly revenue requirement, see Exhibit 4, pages 3-4.

2/ Reflects revenues collected at established rates net of additional revenue collected for levelization. Additional revenues for levelization effective February 1, 2021 in Case No. PU-20-440 and effective February 1, 2022 in Case No. PU-21-420.

3/ (Over)/Under collection on revenue requirement not including the carrying charge, for use in calculating the carrying charge.

4/ Carrying charges calculated based on the three-month Treasury Bill rate, based on prior month ending balance.

5/ September 2021 (Over)/Under balance per Case No. PU-21-420, Exhibit 4, page 1.

**North Dakota Renewable Rider
 Revenue Breakdown**

	Total Revenue Collected	Levelizing Adjustment in Rates 1/	Net Revenue Collected
October 2021	\$1,505,127	\$361,896	\$1,143,231
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December	1,848,829	442,827	1,406,002
	<u>\$4,800,454</u>	<u>\$1,151,948</u>	<u>\$3,648,506</u>
January 2022	\$2,216,582	\$659,307	\$1,557,275
February	1,790,941	556,780	1,234,161
March	1,859,405	639,587	1,219,818
April	1,424,567	491,934	932,633
May	1,290,164	445,645	844,519
June	1,323,652	458,563	865,089
July	1,397,833	482,784	915,049
August	1,710,315	590,374	1,119,941
September	1,536,572	531,167	1,005,405
October - Est.	1,279,159	443,148	836,011
November - Est.	1,272,571	439,655	832,916
December - Est.	1,622,138	559,436	1,062,702
	<u>\$18,723,899</u>	<u>\$6,298,380</u>	<u>\$12,425,519</u>
January 2023 - Est.	\$1,793,532	\$812,783	\$980,749
February - Est.	1,622,300	686,389	935,911
March - Est.		788,472	
April - Est.		606,447	
May - Est.		549,384	
June - Est.		565,309	
July - Est.		595,168	
August - Est.		727,803	
September - Est.		654,813	
October - Est.		546,305	
November - Est.		541,999	
December - Est.		689,665	
		<u>\$7,764,537</u>	

1/ Levelization adjustment is amount included in established rates.

Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Revenue Requirement - Wind Resources
Projected Year End 2023

	Projected					
	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	June 2023
Rate Base						
Plant Balance						
Thunder Spirit Production	\$140,914,262	\$140,914,262	\$140,914,262	\$140,914,262	\$140,914,262	\$140,914,262
Thunder Spirit Transmission	5,609,797	5,609,797	5,609,797	5,609,797	5,609,797	5,609,797
Thunder Spirit Expansion	59,939,188	59,939,188	59,939,188	59,939,188	59,939,188	59,939,188
Cedar Hills Production	31,017,765	31,017,765	31,017,765	31,017,765	31,017,765	31,017,765
Diamond Willow Production	39,331,079	39,331,079	39,331,079	39,331,079	39,331,079	39,331,079
Diamond Willow Transmission	2,360,389	2,360,389	2,360,389	2,360,389	2,360,389	2,360,389
Total Plant Balance	279,172,480	279,172,480	279,172,480	279,172,480	279,172,480	279,172,480
Accumulated Reserve						
Thunder Spirit Production	\$36,030,027	\$36,499,736	\$36,969,445	\$37,439,154	\$37,908,863	\$38,378,572
Thunder Spirit Transmission	610,441	617,849	625,257	632,665	640,073	647,481
Thunder Spirit Expansion	10,141,530	10,341,328	10,541,126	10,740,924	10,940,722	11,140,520
Cedar Hills Production	16,371,189	16,470,720	16,570,251	16,669,782	16,769,313	16,868,844
Diamond Willow Production	10,180,798	10,318,584	10,456,370	10,594,156	10,731,942	10,869,728
Diamond Willow Transmission	600,147	603,253	606,359	609,465	612,571	615,677
Decommissioning Balance	2,903,249	2,951,936	3,000,623	3,049,310	3,097,997	3,146,684
Total Accumulated Reserve	76,837,381	77,803,406	78,769,431	79,735,456	80,701,481	81,667,506
Net Plant in Service	\$202,335,099	\$201,369,074	\$200,403,049	\$199,437,024	\$198,470,999	\$197,504,974
<u>Adds:</u>						
Def. Tax on ND Invest. Tax Credit 1/	\$2,064,870	\$2,088,016	\$2,111,162	\$2,134,308	\$2,157,454	\$2,180,600
Def. Tax on Wind Decommissioning	730,572	742,454	754,336	766,218	778,100	789,982
Deferred Tax on Levelization Reg Liability	3,620,810	3,788,322	3,980,748	4,128,751	4,262,828	4,400,791
<u>Less:</u>						
Accum DIT - Thunder Spirit 2/	\$42,895,416	\$42,811,018	\$42,735,139	\$42,667,508	\$42,608,406	\$42,557,552
Accum DIT - Cedar/Diamond 2/	12,384,996	12,389,185	12,392,951	12,396,308	12,399,241	12,401,765
Levelization Regulatory Liability	14,836,405	15,522,794	16,311,266	16,917,713	17,467,097	18,032,406
Accum. Def. Invest. Tax Credit 1/	7,762,952	7,857,793	7,952,634	8,047,475	8,142,316	8,237,157
Total Rate Base	\$130,871,582	\$129,407,076	\$127,857,305	\$126,437,297	\$125,052,321	\$123,647,467
Return on Rate Base 3/	\$772,251	\$763,610	\$754,465	\$746,085	\$737,913	\$729,623
Expenses						
Operating Expenses 4/						
O&M - Thunder Spirit	\$221,090	\$221,090	\$221,090	\$221,090	\$221,090	\$221,090
O&M - Cedar Hills	24,675	24,675	24,675	24,675	24,675	24,675
O&M - Diamond Willow	29,551	29,551	29,551	29,551	29,551	29,551
Total O&M	275,316	275,316	275,316	275,316	275,316	275,316
Depreciation Expense						
Thunder Spirit Production	\$469,709	\$469,709	\$469,709	\$469,709	\$469,709	\$469,709
Thunder Spirit Transmission	7,408	7,408	7,408	7,408	7,408	7,408
Thunder Spirit Expansion	199,798	199,798	199,798	199,798	199,798	199,798
Cedar Hills Production	99,531	99,531	99,531	99,531	99,531	99,531
Diamond Willow Production	137,786	137,786	137,786	137,786	137,786	137,786
Diamond Willow Transmission	3,106	3,106	3,106	3,106	3,106	3,106
Wind Decommissioning	48,687	48,687	48,687	48,687	48,687	48,687
Total Depreciation	966,025	966,025	966,025	966,025	966,025	966,025
Property taxes	64,112	64,112	64,112	64,112	64,112	64,112
Payroll taxes	3,265	3,265	3,265	3,265	3,265	3,265
Total Expenses	\$1,308,718	\$1,308,718	\$1,308,718	\$1,308,718	\$1,308,718	\$1,308,718
Income before Taxes (EBIT)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)	(\$1,308,718)
Interest Expense 3/	237,532	234,874	232,061	229,484	226,970	224,420
AFUDC Equity Add Back	25,034	25,034	25,034	25,034	25,034	25,034
Taxable income	(\$1,521,216)	(\$1,518,558)	(\$1,515,745)	(\$1,513,168)	(\$1,510,654)	(\$1,508,104)
Income Taxes 5/	(\$371,251)	(\$370,603)	(\$369,916)	(\$369,287)	(\$368,674)	(\$368,051)
Less: ARAM Amortization	68,876	68,876	68,876	68,876	68,876	68,876
Production Tax Credit 6/	1,357,491	903,739	991,333	821,445	949,454	855,759
Net Income Taxes	(\$1,797,618)	(\$1,343,218)	(\$1,430,125)	(\$1,259,608)	(\$1,387,004)	(\$1,292,686)
Operating Income	\$488,900	\$34,500	\$121,407	(\$49,110)	\$78,286	(\$16,032)
Revenue Requirement	\$374,827	\$964,494	\$837,433	\$1,051,913	\$872,579	\$986,380

Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Revenue Requirement - Wind Resources
Projected Year End 2023

	Projected						Average Balance
	July 2023	Aug 2023	Sept 2023	Oct 2023	Nov 2023	Dec 2023	
Rate Base							
Plant Balance							
Thunder Spirit Production	\$140,914,262	\$140,914,262	\$140,914,262	\$140,914,262	\$140,914,262	\$140,914,262	
Thunder Spirit Transmission	5,609,797	5,609,797	5,609,797	5,609,797	5,609,797	5,609,797	
Thunder Spirit Expansion	59,939,188	59,939,188	59,939,188	59,939,188	59,939,188	59,939,188	
Cedar Hills Production	31,363,867	31,363,867	31,363,867	31,363,867	31,363,867	31,363,867	
Diamond Willow Production	39,577,040	39,577,040	39,577,040	39,885,396	39,885,396	39,885,396	
Diamond Willow Transmission	2,360,389	2,360,389	2,360,389	2,360,389	2,360,389	2,360,389	
Total Plant Balance	279,764,543	279,764,543	279,764,543	280,072,899	280,072,899	280,072,899	279,545,601
Accumulated Reserve							
Thunder Spirit Production	\$38,848,281	\$39,317,990	\$39,787,699	\$40,257,408	\$40,727,117	\$41,196,826	
Thunder Spirit Transmission	654,889	662,297	669,705	677,113	684,521	691,929	
Thunder Spirit Expansion	11,340,318	11,540,116	11,739,914	11,939,712	12,139,510	12,339,308	
Cedar Hills Production	16,968,375	17,069,005	17,169,635	17,270,265	17,370,895	17,471,525	
Diamond Willow Production	11,007,514	11,146,163	11,284,812	11,423,461	11,563,192	11,702,923	
Diamond Willow Transmission	618,783	621,889	624,995	628,101	631,207	634,313	
Decommissioning Balance	3,195,371	3,244,058	3,292,745	3,341,432	3,390,119	3,438,806	
Total Accumulated Reserve	82,633,531	83,601,518	84,569,505	85,537,492	86,506,561	87,475,630	
Net Plant in Service	\$197,131,012	\$196,163,025	\$195,195,038	\$194,535,407	\$193,566,338	\$192,597,269	197,392,359
<u>Adds:</u>							
Def. Tax on ND Invest. Tax Credit 1/	\$2,203,746	\$2,226,892	\$2,250,038	\$2,273,184	\$2,296,330	\$2,319,476	
Def. Tax on Wind Decommissioning	801,864	813,746	825,628	837,510	849,392	861,274	
Deferred Tax on Levelization Reg Liability	4,546,041	4,723,660	4,883,467	5,016,792	5,149,066	5,317,378	
<u>Less:</u>							
Accum DIT - Thunder Spirit 2/	\$42,515,217	\$42,481,401	\$42,455,834	\$42,438,786	\$42,429,986	\$42,429,715	
Accum DIT - Cedar/Diamond 2/	12,403,866	12,405,544	12,406,813	12,407,659	12,408,096	12,408,109	
Levelization Regulatory Liability	18,627,574	19,355,377	20,010,190	20,556,495	21,098,494	21,788,159	
Accum. Def. Invest. Tax Credit 1/	8,331,998	8,426,839	8,521,680	8,616,521	8,711,362	8,806,203	
Total Rate Base	\$122,804,008	\$121,258,162	\$119,759,654	\$118,643,432	\$117,213,188	\$115,663,211	123,217,892
Return on Rate Base 3/	\$724,646	\$715,524	\$706,682	\$700,095	\$691,655	\$682,509	\$8,725,058
Expenses							
Operating Expenses 4/							Total
O&M - Thunder Spirit	\$221,090	\$221,090	\$221,090	\$221,090	\$221,090	\$796,821	
O&M - Cedar Hills	24,675	24,675	24,675	24,675	24,675	79,890	
O&M - Diamond Willow	29,551	29,551	29,551	29,551	29,551	103,431	
Total O&M	275,316	275,316	275,316	275,316	275,316	980,142	4,008,618
Depreciation Expense							
Thunder Spirit Production	\$469,709	\$469,709	\$469,709	\$469,709	\$469,709	\$469,709	
Thunder Spirit Transmission	7,408	7,408	7,408	7,408	7,408	7,408	
Thunder Spirit Expansion	199,798	199,798	199,798	199,798	199,798	199,798	
Cedar Hills Production	99,531	100,630	100,630	100,630	100,630	100,630	
Diamond Willow Production	137,786	138,649	138,649	138,649	139,731	139,731	
Diamond Willow Transmission	3,106	3,106	3,106	3,106	3,106	3,106	
Wind Decommissioning	48,687	48,687	48,687	48,687	48,687	48,687	
Total Depreciation	966,025	967,987	967,987	967,987	969,069	969,069	11,604,274
Property taxes	64,112	64,112	64,112	64,112	64,112	64,112	769,344
Payroll taxes	3,265	3,265	3,265	3,265	3,265	3,265	39,180
Total Expenses	\$1,308,718	\$1,310,680	\$1,310,680	\$1,310,680	\$1,311,762	\$2,016,588	\$16,421,416
Income before Taxes (EBIT)	(\$1,308,718)	(\$1,310,680)	(\$1,310,680)	(\$1,310,680)	(\$1,311,762)	(\$2,016,588)	(\$16,421,416)
Interest Expense 3/	222,889	220,084	217,364	215,338	212,742	209,929	2,683,687
AFUDC Equity Add Back	25,034	25,034	25,034	25,034	25,034	25,031	300,405
Taxable income	(\$1,506,573)	(\$1,505,730)	(\$1,503,010)	(\$1,500,984)	(\$1,499,470)	(\$2,201,486)	(\$18,804,698)
Income Taxes 5/	(\$367,678)	(\$367,472)	(\$366,808)	(\$366,314)	(\$365,944)	(\$537,270)	(\$4,589,268)
Less: ARAM Amortization	68,876	68,876	68,876	68,876	68,876	68,870	826,506
Production Tax Credit 6/	846,148	672,990	824,442	1,334,469	1,114,902	1,465,255	12,137,427
Net Income Taxes	(\$1,282,702)	(\$1,109,338)	(\$1,260,126)	(\$1,769,659)	(\$1,549,722)	(\$2,071,395)	(\$17,553,201)
Operating Income	(\$26,016)	(\$201,342)	(\$50,554)	\$458,979	\$237,960	\$54,807	\$1,131,785
Revenue Requirement	\$993,004	\$1,212,864	\$1,001,700	\$318,957	\$600,165	\$830,347	\$10,044,663

2023 Footnotes:

Factor 271 - Integrated Peak and Energy

2022: 70.274582%

1/ Investment Tax Credit:

Projected 2023 Activity: 1,138,089
Monthly Amortization: 94,841

Monthly Deferred Tax Amortization: 23,146

2/ Monthly Deferred Income Tax activity is 1/12 of projected 2023 DIT activity.

	Thunder Spirit I & Expand	Cedar Hills / Diamond Willow				
Projected DIT activity 2023:	(\$1,713,440)	\$85,039				
ND Fac. #271:	70.274582%	70.274582%				
ND projected activity:	(\$1,204,113)	\$59,761				
Monthly:	(\$100,343)	\$4,980				
	January	February	March	April	May	June
Thunder Spirit:	91.78%	84.11%	75.62%	67.40%	58.90%	50.68%
Cedar/Diamond:	(\$92,095)	(\$84,398)	(\$75,879)	(\$67,631)	(\$59,102)	(\$50,854)
	\$4,571	\$4,189	\$3,766	\$3,357	\$2,933	\$2,524
	July	August	September	October	November	December
Thunder Spirit:	42.19%	33.70%	25.48%	16.99%	8.77%	0.27%
Cedar/Diamond:	(\$42,335)	(\$33,816)	(\$25,567)	(\$17,048)	(\$8,800)	(\$271)
	\$2,101	\$1,678	\$1,269	\$846	\$437	\$13

3/ Projected Capital Structure with Authorized Return on Equity

	Ratio	Cost		
Long Term Debt:	44.587%	4.503%	2.008%	
Short Term Debt:	4.603%	3.684%	0.170%	2.178%
Common Equity:	50.810%	9.650%	4.903%	
	100.000%		7.081%	

4/ Projected O&M - 2023

	Thunder Spirit	Cedar Hills	Diamond Willow
Projected O&M:	\$3,775,300	\$421,351	\$504,610
ND Factor #271:	70.274582%	70.274582%	70.274582%
Budgeted ND O&M:	\$2,653,076	\$296,103	\$354,613
Monthly Budgeted O&M:	\$221,090	\$24,675	\$29,551
O&M Benefits:	79,497	8,870	10,633
Annual Easement (ND Allocated):	496,234	46,345	63,247
December O&M:	\$796,821	\$79,890	\$103,431

5/ Tax Rate

1- tax rate

24.4049% (Federal Tax Rate = 21%, Tax Rate = 4.31%)

75.5951%

6/ Production Tax Credit. For 2023, Thunder Spirit is eligible for PTCs at full rate. Diamond Willow Phase 1 turbines eligible for PTCs at full full rate. See Exhibit 7 for levelization adjustment.

	January	February	March	April	May	June
Thunder Spirit:	67,910,000	44,200,000	48,670,000	40,220,000	47,150,000	41,760,000
Projected PTC (rate \$.026/Kwh):	\$1,765,660	\$1,149,200	\$1,265,420	\$1,045,720	\$1,225,900	\$1,085,760
Projected ND PTC (Fac. #271):	\$1,240,810	\$807,595	\$889,269	\$734,875	\$861,496	\$763,013
	July	August	September	October	November	December
Thunder Spirit:	41,910,000	33,240,000	41,150,000	65,250,000	55,240,000	71,360,000
Projected PTC (rate \$.026/Kwh):	\$1,089,660	\$864,240	\$1,069,900	\$1,696,500	\$1,436,240	\$1,855,360
Projected ND PTC (Fac. #271):	\$765,754	\$607,341	\$751,868	\$1,192,208	\$1,009,312	\$1,303,846
	January	February	March	April	May	June
Diamond Willow (Eligible for PTC):	6,386,000	5,262,000	5,586,000	4,738,000	4,814,000	5,076,000
Projected PTC (rate \$.026/Kwh):	\$166,036	\$136,812	\$145,236	\$123,188	\$125,164	\$131,976
Projected ND PTC (Fac. #271):	\$116,681	\$96,144	\$102,064	\$86,570	\$87,958	\$92,746
	July	August	September	October	November	December
Diamond Willow (Eligible for PTC):	4,400,000	3,593,000	3,972,000	7,786,000	5,779,000	8,834,000
Projected PTC (rate \$.026/Kwh):	\$114,400	\$93,418	\$103,272	\$202,436	\$150,254	\$229,684
Projected ND PTC (Fac. #271):	\$80,394	\$65,649	\$72,574	\$142,261	\$105,590	\$161,409

**MONTANA-DAKOTA UTILITIES CO.
 PLANT / DEPRECIATION ADDITIONS - 2023
 NORTH DAKOTA RENEWABLE RIDER
 PROJECTED YEAR 2023**

Cedar Hills:

FP-317085 Gearbox Replacements:

Plant:	\$492,500
ND Fac. #271:	<u>70.274582%</u>
ND Plant:	\$346,102 1/
Depreciation rate:	<u>3.81%</u>
Annual ND Depreciation:	\$13,186
Monthly Depreciation:	\$1,099 1/

1/ Plant balance estimated in service July 2023.
 Depreciation expense begins August 2023.

Diamond Willow:

FP-317088 Gearbox Replacements:

Plant:	\$350,000
ND Fac. #271:	<u>70.274582%</u>
ND Plant:	\$245,961 2/
Depreciation rate:	<u>4.21%</u>
Annual ND Depreciation:	\$10,355
Monthly Depreciation:	\$863 2/

2/ Plant balance estimated in service July 2023.
 Depreciation expense begins August 2023.

FP-323026 Upgrade Pitch System:

Plant:	\$438,787
ND Fac. #271:	<u>70.274582%</u>
ND Plant:	\$308,356 3/
Depreciation rate:	<u>4.21%</u>
Annual ND Depreciation:	\$12,982
Monthly Depreciation:	\$1,082 3/

3/ Plant balance estimated in service October 2023.
 Depreciation expense begins November 2023.