

**Montana-Dakota Utilities Co.
Electric Utility - South Dakota
Infrastructure Rider
Revenue Requirement
Projected 2022**

	Projected												Average Balance
	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	June 2022	July 2022	Aug 2022	Sept 2022	Oct 2022	Nov 2022	Dec 2022	
Rate Base													
Plant Balance:													
Thunder Spirit	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635	\$10,353,635
Thunder Spirit Expansion	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567	4,238,567
Thunder Spirit Light Mitigation 8/	0	0	0	0	0	0	0	0	0	86,447	86,447	86,447	86,447
Bowdle Substation / Lines	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886	2,943,886
Sidney Transmission Line	38,085	38,085	38,085	38,085	38,085	38,085	38,085	38,085	38,085	38,085	38,085	38,085	38,085
Mandan Substation	255,022	255,022	255,022	255,022	255,022	255,022	255,022	255,022	255,022	255,022	255,022	255,022	255,022
Lewis & Clark Substation	225,682	225,682	225,682	225,682	225,682	225,682	225,682	225,682	225,682	225,682	225,682	225,682	225,682
Total Plant Balance	\$18,054,877	\$18,054,877	\$18,054,877	\$18,054,877	\$18,054,877	\$18,054,877	\$18,054,877	\$18,054,877	\$18,054,877	\$18,141,324	\$18,141,324	\$18,141,324	\$18,076,489
Accumulated Depreciation:													
Thunder Spirit	\$2,195,869	\$2,229,572	\$2,263,275	\$2,296,978	\$2,330,681	\$2,364,384	\$2,398,087	\$2,431,790	\$2,465,493	\$2,499,196	\$2,532,899	\$2,566,602	
Thunder Spirit Expansion	550,498	564,627	578,756	592,885	607,014	621,143	635,272	649,401	663,530	677,659	691,788	705,917	
Thunder Spirit Light Mitigation 8/	0	0	0	0	0	0	0	0	0	0	288	576	
Bowdle Substation / Lines	126,339	130,301	134,263	138,225	142,187	146,149	150,111	154,073	158,035	161,997	165,959	169,921	
Sidney Transmission Line	965	1,014	1,063	1,112	1,161	1,210	1,259	1,308	1,357	1,406	1,455	1,504	
Mandan Substation	617	972	1,327	1,682	2,037	2,392	2,747	3,102	3,457	3,812	4,167	4,522	
Lewis & Clark Substation	1,137	1,425	1,713	2,001	2,289	2,577	2,865	3,153	3,441	3,729	4,017	4,305	
Total Accumulated Reserve	\$2,875,425	\$2,927,911	\$2,980,397	\$3,032,883	\$3,085,369	\$3,137,855	\$3,190,341	\$3,242,827	\$3,295,313	\$3,347,799	\$3,400,573	\$3,453,347	\$3,164,170
Net Plant in Service	\$15,179,452	\$15,126,966	\$15,074,480	\$15,021,994	\$14,969,508	\$14,917,022	\$14,864,536	\$14,812,050	\$14,759,564	\$14,793,525	\$14,740,751	\$14,687,977	\$14,912,319
Additions:													
PTC Carryforward	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Deferred Tax on Invest. Tax Credit 2/	29,985	31,445	32,905	34,365	35,825	37,285	38,745	40,205	41,665	43,125	44,585	46,045	
Reductions:													
Accum Def Income Taxes - Thunder Spirit 1/	2,967,230	2,962,532	2,958,308	2,954,543	2,951,253	2,948,422	2,946,065	2,944,183	2,942,760	2,941,811	2,941,321	2,941,306	
Accum Def Income Taxes - Infrastructure Proj. 1/	90,378	92,805	94,987	96,932	98,632	100,095	101,313	102,286	103,021	103,511	103,764	103,772	
Accumulated Investment Tax Credit 2/	123,835	130,786	137,737	144,688	151,639	158,590	165,541	172,492	179,443	186,394	193,345	200,296	
Total Rate Base	\$12,027,994	\$11,972,288	\$11,916,353	\$11,860,196	\$11,803,809	\$11,747,200	\$11,690,362	\$11,633,294	\$11,576,005	\$11,604,934	\$11,546,906	\$11,488,648	\$11,738,999
Return on Rate Base 3/	\$72,328	\$71,993	\$71,657	\$71,319	\$70,980	\$70,640	\$70,298	\$69,955	\$69,610	\$69,784	\$69,435	\$69,085	\$847,084
Expenses													
Operating Expenses													Total
O&M 4/	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$14,468	\$47,186
Commission Expense	11,427	0	0	0	3,456	0	0	0	0	0	0	0	0
Insurance - Property	910	910	910	910	910	910	910	910	910	910	910	910	910
Total Operating Expenses	26,805	15,378	15,378	15,378	18,834	15,378	15,378	15,378	15,378	15,378	15,378	48,096	232,137
Depreciation - Thunder Spirit	33,703	33,703	33,703	33,703	33,703	33,703	33,703	33,703	33,703	33,703	33,703	33,703	404,436
Depreciation - Thunder Spirit Expansion	14,129	14,129	14,129	14,129	14,129	14,129	14,129	14,129	14,129	14,129	14,129	14,129	169,548
Depreciation - Thunder Spirit Light Mitigation 8/	0	0	0	0	0	0	0	0	0	0	288	288	576
Depreciation - Bowdle Substation / Lines	3,962	3,962	3,962	3,962	3,962	3,962	3,962	3,962	3,962	3,962	3,962	3,962	47,544
Depreciation - Sidney Transmission Line	49	49	49	49	49	49	49	49	49	49	49	49	588
Depreciation - Mandan Substation	355	355	355	355	355	355	355	355	355	355	355	355	4,260
Depreciation - Lewis & Clark Substation	288	288	288	288	288	288	288	288	288	288	288	288	3,456
Payroll Taxes - Thunder Spirit	55	45	40	41	67	84	52	56	67	30	34	36	607
Taxes Other Than Income 5/	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,449	41,355
Total Expenses	\$82,792	\$71,355	\$71,350	\$71,351	\$74,833	\$71,394	\$71,362	\$71,366	\$71,377	\$71,340	\$71,632	\$104,355	\$904,507
Income before Taxes	(\$82,792)	(\$71,355)	(\$71,350)	(\$71,351)	(\$74,833)	(\$71,394)	(\$71,362)	(\$71,366)	(\$71,377)	(\$71,340)	(\$71,632)	(\$104,355)	
Interest Expense	25,850	25,730	25,610	25,490	25,368	25,247	25,125	25,002	24,879	24,941	24,816	24,691	302,749
AFUDC Equity Add Back	577	577	577	577	577	577	577	577	577	577	577	572	6,919
Taxable income	(\$108,065)	(\$96,508)	(\$96,383)	(\$96,264)	(\$99,624)	(\$96,064)	(\$95,910)	(\$95,791)	(\$95,679)	(\$95,704)	(\$95,871)	(\$128,474)	(\$1,200,337)
Income Taxes 6/	(\$22,694)	(\$20,267)	(\$20,240)	(\$20,215)	(\$20,921)	(\$20,173)	(\$20,141)	(\$20,116)	(\$20,093)	(\$20,098)	(\$20,133)	(\$26,980)	(\$252,071)
Less: Production Tax Credit 7/	80,635	52,486	57,790	47,751	55,984	49,580	49,768	39,473	48,864	77,483	65,591	84,726	710,131
ARAM Amortization	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,874	34,499
Net Income Taxes	(\$106,204)	(\$75,628)	(\$80,905)	(\$70,841)	(\$79,780)	(\$72,628)	(\$72,784)	(\$62,464)	(\$71,832)	(\$100,456)	(\$88,599)	(\$114,580)	(\$996,701)
Operating Income	\$23,412	\$4,273	\$9,555	(\$510)	\$4,947	\$1,234	\$1,422	(\$8,902)	\$455	\$29,116	\$16,967	\$10,225	\$92,194
Increase in Operating Income Required	\$48,916	\$67,720	\$62,102	\$71,829	\$66,033	\$69,406	\$68,876	\$78,857	\$69,155	\$40,668	\$52,468	\$58,860	\$754,890
Gross Revenue Conversion Factor 6/	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582	1.26582
Revenue Increase	\$61,919	\$85,721	\$78,610	\$90,923	\$83,586	\$87,856	\$87,185	\$99,819	\$87,538	\$51,478	\$66,415	\$74,506	\$955,556
Gross Receipts Tax (.0015)	93	129	118	136	125	132	131	150	131	77	100	112	1,434
Total Revenue Requirement	\$62,012	\$85,850	\$78,728	\$91,059	\$83,711	\$87,988	\$87,316	\$99,969	\$87,669	\$51,555	\$66,515	\$74,618	\$956,990

2022 Footnotes:

Factor #15 - Int. System 12 Month Peak Demand: 4.974126%
 Factor #271 - Integrated Peak and Energy: 4.749539%

1/ Monthly Deferred Income Tax activity is 1/12 of projected 2022 DIT activity. Monthly activity prorated based on DIT proration methodology.

	<u>Thunder Spirit</u>		<u>Infrastructure Projects</u>									
DIT Balance - 12/31/2021:	\$62,582,006		DIT activity 2022:	\$696,263								
DIT Balance - 12/31/2022:	61,170,781		SD Factor. #15:	4.974126%								
DIT activity 2021:	(1,411,225)		SD projected activity:	34,633								
SD Factor. #271:	4.749539%		Monthly:	\$2,886								
SD projected activity:	(67,027)											
Monthly:	(\$5,586)											
	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Thunder Spirit:	91.78%	84.11%	75.62%	67.40%	58.90%	50.68%	42.19%	33.70%	25.48%	16.99%	8.77%	0.27%
Transmission Assets:	(5,127)	(4,698)	(4,224)	(3,765)	(3,290)	(2,831)	(2,357)	(1,882)	(1,423)	(949)	(490)	(15)
	2,649	2,427	2,182	1,945	1,700	1,463	1,218	973	735	490	253	8

2/ Investment tax credit: Thunder Spirit

	<u>Investment Tax Credit</u>		<u>Deferred Tax</u>
Estimated 2022 Activity:	\$1,756,083	Estimated 2022 Activity:	\$368,777
SD Factor #271:	4.749539%	SD Factor #271:	4.749539%
SD projected activity:	83,406	SD projected activity:	17,515
Monthly:	\$6,951	Monthly:	\$1,460

3/ Authorized ROR per Docket No. EL15-024. 7.216%

4/ Projected O&M:

Budgeted O&M Labor:	\$89,920	Budgeted Annual Easement:	\$688,875
Budgeted O&M Maintenance:	3,536,454	SD Factor #271:	4.749539%
Budgeted O&M Other Costs:	28,981	Budgeted SD O&M:	\$32,718
Total Budgeted O&M:	3,655,355		
SD Factor #271:	4.749539%		
Budgeted SD O&M:	173,613		
Monthly Budgeted O&M:	\$14,468		

5/ Taxes Other Than Income:

Thunder Spirit:

Rated Capacity:	155,500	Capacity and Generation Tax:	\$667,038
Capacity Tax Rate:	2.5	Thunder Spirit Est. Property Taxes:	7,918
Capacity Tax:	\$388,750	Total:	674,956
2021 Generation:	556,575,000	SD Factor. #271:	4.749539%
Generation Tax Rate:	0.0005	South Dakota:	32,057
Generation Tax:	\$278,288	Monthly:	2,671

Infrastructure Projects:

Estimated 2022 Property Tax:	\$166,570
SD Fac. #15:	4.974126%
Estimated SD Property Tax:	\$8,285
Direct SD Property Tax:	1,013
Total South Dakota Property Tax:	9,298
Monthly:	\$775

6/ Tax Rate 21.0000% (Federal Tax Rate = 21%, SD State Tax Rate = 0%)

1- tax rate 79.0000%
 Gross Revenue Conversion Factor 1.26582

7/ Production Tax Credit.

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Thunder Spirit:	67,910,000	44,203,000	48,670,000	40,215,000	47,149,000	41,756,000	41,914,000	33,244,000	41,153,000	65,255,000	55,240,000	71,355,000
Projected PTC (rate \$.025/Kwh):	\$1,697,750	\$1,105,075	\$1,216,750	\$1,005,375	\$1,178,725	\$1,043,900	\$1,047,850	\$831,100	\$1,028,825	\$1,631,375	\$1,381,000	\$1,783,875
Projected SD PTC (Factor #271):	\$80,635	\$52,486	\$57,790	\$47,751	\$55,984	\$49,580	\$49,768	\$39,473	\$48,864	\$77,483	\$65,591	\$84,726

8/ Projected addition to Plant in Service. See Attachment B, page 3 for details.

Increase to Plant in Service:	\$86,447	(Estimated in service date October 2022)
Increase to Depreciation:	\$288	(effective November 2022)

**MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - SOUTH DAKOTA
INFRASTRUCTURE RIDER
PLANT AND DEPRECIATION ADDITIONS
PROJECTED YEAR 2022**

Thunder Spirit Additions:

Thunder Spirit Light Mitigation

Plant:	\$1,820,116
SD Fac. #271:	4.749539%
SD Plant:	\$86,447 1/
Depreciation rate:	4.00%
Annual ND Depreciation:	\$3,458
Monthly Depreciation:	\$288 1/

1/ Plant balance estimated in service October 2022. Depreciation expense begins November 2022.

Project Description: The Company is required under North Dakota Administrative Rules 69-06-11-02.2 to install light mitigation technology at the Thunder Spirit wind facility. The Company is going to install Aircraft Detection Lighting System (ADLS) technology at the wind facility which will detect incoming aircraft and activate a lighting system to prevent collision with the towers. The ADLS technology also complies with nighttime lighting impact to surrounding areas.

Alternatives: The Company also considered Lighting Intensity Dimming Solutions (LIDS) technology to comply with the North Dakota Administrative Rules and received an extension of the deadline to install the technology to explore this option, as the Federal Aviation Administration was reviewing LIDS to consider it an approved technology. In August of 2021, the Company determined to go with ADLS technology as the FAA had not made a determination on LIDS technology at that point and the Company needed to order the equipment in order to meet the deadline.

Thunder Spirit Wind Farm:

