

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

**Allocation of Revenues
Year Ending December 31, 2023**

Rate Class	Pro Forma 2023 Billing Determinants and Revenues								
	Bill Determinants	Kwh	KW	Basic Service			Fuel Revenue	Rider Revenue	Total
				Charge	Energy	Demand			
Residential Service									
Rate 10	6,439	64,451,479	0.0	\$580,534	\$4,546,029	\$0	\$931,324	\$1,609,354	\$7,667,241
Rate 53	258	4,485,727	0.0	23,260	131,701	0	64,819	112,009	331,789
Total Residential	6,697	68,937,206	0.0	603,794	4,677,730	0	996,143	1,721,363	7,999,030
Small General Service									
Rate 20 Primary	1	7,200	0.0	186	432	0	104	180	902
Rate 20 Secondary	1,998	30,095,227	90,321.8	393,806	1,692,905	240,026	434,876	751,478	3,513,091
Rate 25	7	199,200	1,126.5	1,354	2,036	5,019	2,878	4,974	16,261
Rate 26	24	149,941	189.8	5,694	6,791	439	2,167	3,744	18,835
Total Small General	2,030	30,451,568	91,638.1	401,040	1,702,164	245,484	440,025	760,376	3,549,089
Large General Service									
Rate 30	118	34,282,054	144,047.5	42,480	852,595	1,093,351	495,376	856,023	3,339,825
Rate 32	152	6,695,907	0.0	31,200	177,030	0	96,756	167,196	472,182
Total Large General	270	40,977,961	144,047.5	73,680	1,029,625	1,093,351	592,132	1,023,219	3,812,007
Street Lighting									
Rate 41 Municipal	23	461,031	0.0	0	28,994	0	6,662	10,359	46,015
Rate 41 Company Owned	30	746,740	0.0	0	52,585	0	10,790	16,779	80,154
Total Street Lighting	53	1,207,771	0.0	0	81,579	0	17,452	27,138	126,169
Rate 48 Municipal Pumping	51	1,694,394	7,463.1	10,648	36,944	38,454	24,484	38,202	148,732
Rate 24 Outdoor Lighting Service	560	290,735	0.0	0	17,962	0	4,201	7,260	29,423
Total South Dakota Electric	9,661	143,559,635	243,148.7	\$1,089,162	\$7,546,004	\$1,377,289	\$2,074,437	\$3,577,558	\$15,664,450
Overall ROR		7.600%							
Inverse of Tax Rate		78.8815%							

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - SOUTH DAKOTA
Allocation of Revenues - Rate Design Results
Year Ending December 31, 2023

Rate Class	Allocation of Revenue Increase 1/	Percent Increase	Rate Design Results		Infrastructure Rider Revenue 1/	Total Increase	Percent Increase
			Revenue Increase \$	%			
Residential Service							
Rate 10	\$1,298,817	16.94%	\$1,297,853	16.9%	\$175,953	\$1,473,806	19.2%
Rate 53	56,204	16.94%	56,189	16.9%	12,246	68,435	20.6%
Total Residential	1,355,021	16.94%	1,354,042	16.9%	188,199	1,542,241	19.3%
Small General Service							
Rate 20 Primary	304	33.70%	180	20.0%	20	200	22.2%
Rate 20 Secondary	578,511	16.47%	578,491	16.5%	82,160	660,651	18.8%
Rate 25	5,108	31.41%	5,108	31.4%	544	5,652	34.8%
Rate 26	1,292	6.86%	1,653	8.8%	409	2,062	10.9%
Total Small General	585,215	16.49%	585,432	16.5%	83,133	668,565	18.8%
Large General Service							
Rate 30	465,753	13.95%	465,814	13.9%	93,590	559,404	16.7%
Rate 32	143,287	30.35%	142,873	30.3%	18,280	161,153	34.1%
Total Large General	609,040	15.98%	608,687	16.0%	111,870	720,557	18.9%
Street Lighting							
Rate 41 Municipal	4,376	9.51%					
Rate 41 Company Owned	7,714	9.62%					
Total Street Lighting	12,090	9.58%	12,091	9.6%	3,297	15,388	12.2%
Rate 48 Municipal Pumping	22,442	15.09%	22,442	15.1%	4,626	27,068	18.2%
Rate 24 Outdoor Lighting Service	9,626	32.72%	9,625	32.7%	794	10,419	35.4%
Total South Dakota Electric	\$2,593,434	16.56%	\$2,592,318	16.5%	\$391,919	\$2,984,237	19.1%

Proposed Base Rate Increase \$2,593,434

Average Increase w/o Fuel & Other Revenue	19.0834%
Cap of 2x system average (Rates 20P, 25, 32, 24)	38.1668%
Bring to Parity (Rate 10, 53)	\$ 1,355,021
Rate 41 Co-Owned (Remove City Discount)	\$ 7,714
Rate 41 Muni-Owned (Remove City Discount)	\$ 4,376
First bring to parity then spread remainder equally (20S, 26,30,48)	\$ 578,511 Increase to Rate 20S
	\$ 1,292 Increase to Rate 26
	\$ 465,753 Increase to Rate 30S
	\$ 22,442 Increase to Rate 48

1/ Infrastructure Rider (scenario = 3 yr amortization)

\$392,292
143,559,635 Projected Kwh
\$0.00273 IR Rate/Kwh

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - SOUTH DAKOTA
Summary of Proposed Charges

Rate Class	Basic Service Charge	Energy Charges		Fuel & PP	Total Energy		Demand Charges			
		Summer	Winter		Summer	Winter	0-10 Kw		> 10 Kw	
							Summer	Winter	Summer	Winter
Residential										
Rate 10	\$0.494									
1st 750		\$0.11472	\$0.11472	\$0.01445	\$0.12917	\$0.12917				
Over 750		0.11472	0.08472	0.01445	0.12917	0.09917				
Rate 16	\$1.100									
On Peak		0.17138	0.13479	0.01445	0.18583	0.14924				
Off Peak		0.08315	0.08315	0.01445	0.09760	0.09760				
Rate 53	\$0.247	0.11472	0.06376	0.01445	0.12917	0.07821				
Small General Service										
Rate 20 - Primary Service	\$0.850						\$0.00	\$0.00	\$8.00	\$8.00
1st 2,000		0.09368	0.09368	0.01445	0.10813	0.10813				
Over 2,000		0.09368	0.07368	0.01445	0.10813	0.08813				
Rate 20 - Secondary Service	\$0.900						0.00	0.00	8.00	8.00
1st 2,000		0.09468	0.09468	0.01445	0.10913	0.10913				
Over 2,000		0.09368	0.07468	0.01445	0.10813	0.08913				
Irrigation Rate 25	\$1.050	0.04229	0.04229	0.01445	0.05674	0.05674	7.10	4.60	7.10	4.60
TOD Rate 26										
Primary	\$0.850									
Off Peak		0.04901	0.04901	0.01445	0.06346	0.06346	0.00	0.00	0.00	0.00
On Peak		0.08901	0.06901	0.01445	0.10346	0.08346	0.00	0.00	9.00	7.00
Secondary	\$0.900									
Off Peak		0.06001	0.06001	0.01445	0.07446	0.07446	0.00	0.00	0.00	0.00
On Peak		0.09001	0.08001	0.01445	0.10446	0.09446	0.00	0.00	9.25	7.25
Large General Service										
Rate 30 Primary Service	85.00	0.04817	0.04817	0.01445	0.06262	0.06262	10.25	9.25	10.25	9.25
Rate 30 Secondary Service	70.00	0.04917	0.04917	0.01445	0.06362	0.06362	11.25	10.25	11.25	10.25
Space Heating Rate 32										
Primary Service										
Three Phase	32.50	0.09368	0.06708	0.01445	0.10813	0.08153				
Single Phase	27.50	0.09368	0.06708	0.01445	0.10813	0.08153				
Secondary Service										
Three Phase	32.50	0.09468	0.06808	0.01445	0.10913	0.08253				
Single Phase	27.50	0.09468	0.06808	0.01445	0.10913	0.08253				
TOD Rate 33										
Rate 33 Primary Service	113.00						10.60	8.88	10.60	8.88
On-Peak		0.12382	0.10364	0.01445	0.13827	0.11809				
Off-Peak		0.06328	0.06328	0.01445	0.07773	0.07773				
Rate 33 Secondary Service	113.00						10.91	9.19	10.91	9.19
On -Peak		0.12329	0.10352	0.01445	0.13774	0.11797				
Off-Peak		0.06398	0.06398	0.01445	0.07843	0.07843				
Public Lighting - Rate 41										
Company Owned		0.10322	0.10322	0.01445	0.11767	0.11767				
Municipal Owned		0.09485	0.09485	0.01445	0.10930	0.10930				
Municipal Pumping - Rate 48	35.00	0.04902	0.04902	0.01445	0.06347	0.06347	9.00	7.00	9.00	7.00
Outdoor Lighting - Rate 24		0.11986	0.11986	0.01445	0.13431	0.13431				

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

**Derivation of Rate and Reconciliation
Residential Electric Service - Rate 10
Year Ending December 31, 2023**

Residential Service Rate 10	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge						
Rate 10	6,439	\$0.247 per day	\$580,508	\$0.494 per day	\$1,161,016	\$580,508
Rate 95	1	\$0.070 per day	26	0.07 per day	26	0
Total Energy			580,534		1,161,042	580,508
Energy						
Summer	20,746,058	\$0.07862 per Kwh	\$1,631,055	\$0.11472 per Kwh	\$2,379,988	\$748,933
Winter - First 750	26,333,890	0.07862 per Kwh	2,070,370	0.11472 per Kwh	3,021,024	950,654
Winter - Over 750	17,371,531	0.04862 per Kwh	844,604	0.08472 per Kwh	1,471,716	627,112
Total Energy	64,451,479		4,546,029		6,872,728	2,326,699
Fuel & Purchased Power	64,451,479	\$0.01445 per Kwh	\$931,324	\$0.01445 per Kwh	\$931,324	\$0
Rider Revenue						
Infrastructure Rider	64,451,479	\$0.01235 per Kwh	\$795,976	\$0.00000 per Kwh	\$0	(\$795,976)
Transmission Rider	64,451,479	0.01262 per Kwh	813,378	0.00000 per Kwh	0	(813,378)
Total Rider Revenue			1,609,354		0	(1,609,354)
Total Rate 10			<u>\$7,667,241</u>		<u>\$8,965,094</u>	<u>\$1,297,853</u>
Total Revenues Per Design					\$8,965,094	
Target Revenues					<u>8,966,058</u>	
Difference					<u>(\$964)</u>	
Derivation of Rate:						
Pro Forma Revenues			\$7,667,241			
Pro Forma Revenue Increase			1,298,817			
Total Revenue Requirement			<u>\$8,966,058</u>			
Less:						
Proposed Basic Service Charge Revenues			1,161,042			
Projected Fuel & Purchased Power			931,324			
Projected Rider Revenue			0			
Winter >750 differential	(\$0.03000)	17,371,531 Kwh	(521,146)			
Subtotal			<u>1,571,220</u>			
Net to be Collected Through Energy			\$7,394,838			
Total Kwh			64,451,479			
Summer Rate Per Kwh			\$0.11472			
Winter Rate Per Kwh - 1st 750			\$0.11472			
Winter Over 750 Kwh			\$0.08472			

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

**Derivation of Rate and Reconciliation
 Residential Electric TOD Service Rate 16
 Year Ending December 31, 2023**

Residential Service Time of Day Rate 16	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge	0	\$0.55 per day	\$0	\$1.10 per day	\$0	\$0
Energy						
Summer						
On-Peak Kwh	0	\$0.11745 per Kwh	0	\$0.17138 per Kwh	0	0
Off Peak Kwh	0	0.05500 per Kwh	0	0.08315 per Kwh	0	0
Subtotal	0		0		0	0
Winter						
On-Peak Kwh	0	\$0.08745 per Kwh	0	\$0.13479 per Kwh	0	0
Off Peak Kwh	0	0.05500 per Kwh	0	0.08315 per Kwh	0	0
Subtotal	0		0		0	0
Total Energy	0		0		0	0
Fuel & Purchased Power	0	\$0.01445 per Kwh	0	\$0.01445 per Kwh	0	0
Rider Revenue						
Infrastructure Rider	0	\$0.01235 per Kwh	0	\$0.00000 per Kwh	0	0
Transmission Rider	0	0.01262 per Kwh	0	0.00000 per Kwh	0	0
Total Rider Revenue			0		0	0
Total Rate 16 Revenues			<u>\$0</u>		<u>\$0</u>	<u>\$0</u>
Total Revenues Per Design					\$0	
Target Revenues					0	
Difference					<u>\$0</u>	

Derivation of Rate:

Pro Forma Revenues		<u>Projected</u>
Pro Forma Revenue Increase		\$0
Total Revenue Requirement		<u>0</u>
		\$0
Less:		
Basic Service Charge		\$0
Projected Fuel & Purchased Power		0
Projected Rider Revenue		0
Off Peak set equal to	\$0.055	0 Kwh
Summer On-Peak Differential	\$0.030	0 Kwh
		<u>0</u>
Net to be Collected Through Energy		\$0
Total On-Peak Kwh		0
Winter On-Peak Rate		#DIV/0!
Summer On-Peak		#DIV/0!

MONTANA-DAKOTA UTILITIES CO.
Year Ending December 31, 2023

Derivation of Rate and Reconciliation
Small General Electric Service Rate 20
Year Ending December 31, 2023

Small General Service Rate 20	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge						
Primary	1	\$0.51 per day	\$186	\$0.85 per day	\$310	\$124
Secondary	1,998	0.54 per day	393,806	0.90 per day	656,343	262,537
Total Basic Service Charge	1,999		393,992		656,653	262,661
Energy						
Primary						
Summer	5,449	\$0.06087 per Kwh	\$332	\$0.09368 per Kwh	\$510	\$178
Winter						
First 2,000 Kwh	1,416	0.06087 per Kwh	86	0.09368 per Kwh	133	47
Over 2,000 Kwh	335	0.04087 per Kwh	14	0.07368 per Kwh	25	11
	7,200		432		668	58
Secondary						
Summer	10,199,598	\$0.06187 per Kwh	631,049	\$0.09468 per Kwh	965,698	334,649
Winter						
First 2,000	11,441,312	0.06187 per Kwh	707,874	0.09468 per Kwh	1,083,263	375,389
Over 2,000	8,454,317	0.04187 per Kwh	353,982	0.07468 per Kwh	631,368	277,386
	30,095,227		1,692,905		2,680,329	652,775
Total Energy	30,102,427		\$1,693,337		\$2,680,997	\$652,833
Demand						
Primary Service						
First 10 KW	0.0	\$0.00 per KW	\$0	\$0.00 per KW	\$0	\$0
Over 10 KW	0.0	6.00 per KW	0	8.00 per KW	0	0
Total	0.0		0		0	0
Secondary Service						
First 10 KW	50,317.5	0.00 per KW	0	0.00 per KW	0	0
Over 10 KW	40,004.3	6.00 per KW	240,026	8.00 per KW	320,034	80,008
Total	90,321.8		240,026		320,034	80,008
Total Demand	90,321.8		\$240,026		\$320,034	\$80,008
Fuel & Purchased Power						
Primary	7,200	\$0.01445 per Kwh	\$104	\$0.01445 per Kwh	\$104	\$0
Secondary	30,095,227	0.01445 per Kwh	434,876	0.01445 per Kwh	434,876	0
Rider Revenue						
Infrastructure Rider						
Primary	7,200	\$0.01235 per Kwh	\$89	\$0.00000 per Kwh	\$0	(\$89)
Secondary	30,095,227	0.01235 per Kwh	371,676	0.00000 per Kwh	\$0	(371,676)
Transmission Rider						
Primary	7,200	\$0.01262 per Kwh	91	\$0.00000 per Kwh	0	(\$91)
Secondary	30,095,227	0.01262 per Kwh	379,802	0.00000 per Kwh	0	(379,802)
Total Rider Revenue			751,658		0	(751,658)
Total Rate 20 Revenues			<u>\$3,513,993</u>		<u>\$4,092,664</u>	<u>\$243,844</u>
Total Revenues Per Design					\$4,092,664	
Target Revenues					4,092,808	
Difference					<u>(144)</u>	

MONTANA-DAKOTA UTILITIES CO.
Year Ending December 31, 2023

Derivation of Rate and Reconciliation
Small General Electric Service Rate 20
Year Ending December 31, 2023

Derivation of Rate:

Pro Forma Revenues			\$3,513,993
Pro Forma Revenue Increase			<u>578,815</u>
Total Revenue Requirement			\$4,092,808
Less:			
Proposed Basic Service Charge Revenues			656,653
Proposed Demand Charge Revenues			320,034
Projected Fuel & Purchased Power			434,980
Projected Rider Revenue			0
Over 2,000 Winter differential	(0.02000)	8,454,652	(169,093)
Secondary Rate Differential	0.00100	30,095,227	<u>30,095</u>
Subtotal			1,272,669
Net to be Collected Through Energy			\$2,820,139
Total Kwh			30,102,427
Summer Primary Rate per Kwh			0.09368
Winter Primary Rate 1st 2,000 Kwh			0.09368
Winter Primary > 2,000 Kwh			0.07368
Summer Secondary Rate per Kwh			0.09468
Winter Secondary Rate 1st 2,000 kwh			0.09468
Winter Secondary > 2,000 kwh			0.07468

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

**Derivation of Rate and Reconciliation
 Outdoor Lighting Service Rate 24
 Year Ending December 31, 2023**

Outdoor Lighting Rate 24	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Energy	290,735	\$0.06178 per Kwh	\$17,962	\$0.11986 per Kwh	\$34,847	\$16,885
Fuel & Purchased Power	290,735	\$0.01445 per Kwh	4,201	\$0.01445 per Kwh	4,201	0
Rider Revenue						
Infrastructure Rider	290,735	\$0.01235 per Kwh	\$3,591	\$0.00000 per Kwh	\$0	(\$3,591)
Transmission Rider	290,735	0.01262 per Kwh	3,669	0.00000 per Kwh	0	(3,669)
Total Rider Revenue			7,260		0	(7,260)
Total Revenue			<u>\$29,423</u>		<u>\$39,048</u>	<u>\$9,625</u>
Total Revenues Per Design					\$39,048	
Target Revenues					<u>39,049</u>	
Difference					<u>(\$1)</u>	

Derivation of Rate:

Pro Forma Revenues	\$29,423
Pro Forma Revenue Increase	9,626
Total Revenue Requirement	<u>\$39,049</u>
Less:	
Projected Fuel & Purchased Power	4,201
Projected Rider Revenue	0
Subtotal	<u>4,201</u>
Net to be Collected Through Energy	\$34,848
Total Kwh Sales	290,735
Proposed Energy Charge	\$0.11986

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

**Derivation of Rate and Reconciliation
Irrigation Power Service Rate 25
Year Ending December 31, 2023**

Irrigation Power Service Rate 25	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge	7	\$0.53 per day	\$1,354	\$1.05 per day	\$2,683	\$1,329
Energy	199,200	\$0.01022 per Kwh	2,036	\$0.04229 per Kwh	8,424	6,388
Demand						
Summer	880.9	\$5.00 per KW	\$4,405	\$7.10 per KW	\$6,254	\$1,849
Winter	245.6	2.50 per KW	614	4.60 per KW	1,130	516
Total Demand			5,019		7,384	2,365
Fuel & Purchased Power	199,200	\$0.01445 per Kwh	\$2,878	\$0.01445 per Kwh	\$2,878	\$0
Rider Revenue						
Infrastructure Rider	199,200	\$0.01235 per Kwh	\$2,460	\$0.00000 per Kwh	\$0	(\$2,460)
Transmission Rider	199,200	\$0.01262 per Kwh	2,514	\$0.00000 per Kwh	0	(2,514)
Total Rider Revenue			4,974		0	(4,974)
Total Revenue			<u>\$16,261</u>		<u>\$21,369</u>	<u>\$5,108</u>
Total Revenues Per Design					\$21,369	
Target Revenues					<u>21,369</u>	
Difference					<u>\$0</u>	

Derivation of Rate:

Pro Forma Revenues	\$16,261
Pro Forma Revenue Increase	5,108
Total Revenue Requirement	<u>\$21,369</u>
Less:	
Proposed Basic Service Charge Revenues	2,683
Proposed Demand Charge Revenues	7,384
Projected Fuel & Purchased Power	2,878
Projected Rider Revenue	0
Subtotal	<u>12,945</u>
Net to be Collected Through Energy	\$8,424
Total Kwh Sales	199,200
Proposed Energy Charge	\$0.04229

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

**Derivation of Rate and Reconciliation
Small General Optional Time-of-Day Electric Service Rate 26
Year Ending December 31, 2023**

Small General Service Time of Day Rate 26	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge						
Primary	0	\$0.60 per day	\$0	\$0.85 per day	\$0	\$0
Secondary	24	0.65 per day	5,694	0.90 per day	7,884	2,190
Total Basic Service Charge	24		5,694		7,884	2,190
Energy						
Summer Primary Service						
Off-Peak	0	\$0.02859 per kwh	\$0	\$0.04901 per day	\$0	\$0
On-Peak	0	0.06859 per kwh	0	0.08901 per day	0	0
Winter Primary Service						
Off-Peak	0	0.03859 per kwh	0	0.04901 per day	0	0
On-Peak	0	0.05859 per kwh	0	0.06901 per day	0	0
Total Primary Energy	0		0		0	0
Summer Secondary Service						
Off-Peak	38,746	\$0.03959 per kwh	1,534	\$0.06001 per kwh	2,325	791
On-Peak	13,525	0.06959 per kwh	941	0.09001 per kwh	1,217	276
Winter Secondary Service						
Off Peak	75,181	0.03959 per kwh	2,976	0.06001 per kwh	4,512	1,536
On Peak	22,489	0.05959 per kwh	1,340	0.08001 per kwh	1,799	459
Total Secondary Energy	149,941		6,791		9,854	3,062
Total Energy	149,941		\$6,791		\$9,854	\$3,062
Demand (On Peak)						
Primary Service						
First 10 KW	0.0	\$0.00 per KW	\$0	\$0.00 per KW	\$0	\$0
Over 10 KW - Winter	0.0	5.00 per KW	0	7.00 per KW	0	0
Over 10 KW - Summer	0.0	7.00 per KW	0	9.00 per KW	0	0
Total Primary Demand	0.0		0		0	0
Secondary Service						
First 10 KW	118.0	\$0.00 per KW	0	\$0.00 per KW	0	0
Over 10 KW - Winter	40.7	5.25 per KW	214	7.25 per KW	295	81
Over 10 KW - Summer	31.1	7.25 per KW	225	9.25 per KW	288	63
Total Secondary Demand	189.8		439		583	144
Total Demand	190		\$439		\$583	\$144
Fuel & Purchased Power						
Primary	0	\$0.01445 per Kwh	\$0	\$0.01445 per Kwh	\$0	\$0
Secondary	149,941	0.01445 per Kwh	2,167	0.01445 per Kwh	2,167	0
Total Fuel & Purchased Power	149,941		2,167		2,167	0
Rider Revenue						
Infrastructure Rider	149,941	\$0.01235 per Kwh	\$1,852	\$0.00000 per Kwh	\$0	(\$1,852)
Transmission Rider	149,941	0.01262 per Kwh	1,892	0.00000 per Kwh	0	(1,892)
Total Rider Revenue			3,744		0	(3,744)
Total Rate 26 Revenues			<u>\$18,835</u>		<u>\$20,488</u>	<u>\$1,652</u>
Total Revenues Per Design					\$20,488	
Target Revenues					20,127	
Difference					<u>361</u>	

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

**Derivation of Rate and Reconciliation
 Small General Optional Time-of-Day Electric Service Rate 26
 Year Ending December 31, 2023**

Derivation of Rate:

Pro Forma Revenues				\$18,835
Pro Forma Revenue Increase				<u>1,292</u>
Total Revenue Requirement				\$20,127
Less:				
Proposed Basic Service Charge Revenues				\$7,884
Proposed Demand Revenues				583
Proposed Fuel & Purchased Power				2,167
Proposed Rider Revenue				0
Secondary Energy Differential	\$0.01100	149,941 Kwh		1,649
On-Peak Summer Energy Differential	0.03000	13,525 Kwh		406
On-Peak Winter Energy	0.02000	22,489 Kwh		450
Off-Peak Differential	0.01000	113,927 Kwh		<u>1,139</u>
Subtotal				14,278
Net to be Collected Through Energy				\$5,849
Total Kwh Sales				149,941
Proposed Energy Charges:				
Winter Primay Off-Peak				\$0.04901
Winter Primary On-Peak				0.06901
Summer Primary Off-Peak				\$0.04901
Summer Primary On-Peak				0.07901
Winter Secondary Off-Peak				\$0.06001
Winter Secondary On-Peak				0.08001
Summer Secondary Off-Peak				0.06001
Summer Secondary On-Peak				0.09001

**MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - SOUTH DAKOTA**
Derivation of Rate and Reconciliation
Large General Electric Service Rate 30
Year Ending December 31, 2023

Large General Service Rate 30	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge						
Primary Service	0	\$45.00 per month	\$0	\$85.00 per month	\$0	\$0
Secondary Service	118	30.00 per month	42,480	70.00 per month	99,120	56,640
Total Basic Service Charge	118		42,480		99,120	56,640
Energy						
Primary Service	0	\$0.02387 per kwh	\$0	\$0.04817 per kwh	\$0	\$0
Secondary Service	34,282,054	0.02487 per kwh	852,595	0.04917 per kwh	1,685,649	833,054
Total Energy	34,282,054		852,595		1,685,649	833,054
Demand						
Primary Service - Summer	0.0	7.25 per Kw	\$0	10.25 per Kw	\$0	\$0
Primary Service - Winter	0.0	6.25 per Kw	0	9.25 per Kw	0	0
Subtotal	0.0		0		0	0
Secondary Service - Summer	49,006.8	8.25 per Kw	404,306	11.25 per Kw	551,327	147,021
Secondary Service - Winter	95,040.7	7.25 per Kw	689,045	10.25 per Kw	974,167	285,122
Subtotal	144,047.5		1,093,351		1,525,494	432,143
Total Demand	144,047.5		\$1,093,351		\$1,525,494	\$432,143
Fuel & Purchased Power	34,282,054	\$0.01445 per kwh	\$495,376	0.01445 per kwh	\$495,376	\$0
Rider Revenue						
Infrastructure Rider	34,282,054	\$0.01235 per kwh	\$423,383	\$0.00000 per kwh	\$0	(\$423,383)
Transmission Rider	34,282,054	0.01262 per kwh	432,640	0.00000 per kwh	0	(432,640)
Total Rider Revenue			856,023		0	(856,023)
Total Rate 30 Revenues			<u>\$3,339,825</u>		<u>\$3,805,639</u>	<u>\$465,814</u>
Total Revenues Per Design					\$3,805,639	
Target Revenues					<u>3,805,578</u>	
Difference					<u>\$61</u>	
Derivation of Rate:						
Pro Forma Revenues			\$3,339,825			
Pro Forma Revenue Increase			465,753			
Total Revenue Requirement			<u>\$3,805,578</u>			
Less:						
Proposed Basic Service Charge Revenues			99,120			
Proposed Demand Revenues			1,525,494			
Projected Fuel & Purchased Power			495,376			
Projected Rider Revenue			0			
Secondary Energy Differential	\$0.00100	34,282,054 Kwh	34,282			
Subtotal			<u>2,154,272</u>			
Net to be Collected Through Energy			\$1,651,306			
Total Kwh Sales			34,282,054			
Proposed Energy Charges:						
Rate 30- Primary			\$0.04817			
Rate 30- Secondary			\$0.04917			

**MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - SOUTH DAKOTA**
**Derivation of Rate and Reconciliation
General Space Heating Service Rate 32
Year Ending December 31, 2023**

General Space Heating Service Rate 32	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge						
Primary Service						
Single Phase	0	\$15.00 per month	\$0	\$27.50 per month	\$0	\$0
Three Phase	0	25.00 per month	0	32.50 per month	0	0
	<u>0</u>		<u>0</u>		<u>0</u>	<u>0</u>
Secondary Service						
Single Phase	120	15.00 per month	21,600	27.50 per month	39,600	18,000
Three Phase	32	25.00 per month	9,600	32.50 per month	12,480	2,880
	<u>152</u>		<u>31,200</u>		<u>52,080</u>	<u>20,880</u>
Total Basic Service Charge	152		\$31,200		\$52,080	\$20,880
Energy						
Primary Service						
Summer	0	0.06087 per Kwh	\$0	0.09368 per Kwh	\$0	\$0
Winter	0	0.02325 per Kwh	0	0.06708 per Kwh	0	0
Total	<u>0</u>		<u>0</u>		<u>0</u>	<u>0</u>
Secondary Service						
Summer	389,520	0.06187 per Kwh	24,100	0.09468 per Kwh	36,880	12,780
Winter	6,306,387	0.02425 per Kwh	152,930	0.06808 per Kwh	429,339	276,409
Total	<u>6,695,907</u>		<u>177,030</u>		<u>466,219</u>	<u>289,189</u>
Total Energy	6,695,907		\$177,030		\$466,219	\$289,189
Fuel & Purchased Power	6,695,907	\$0.01445 per kwh	\$96,756	0.01445 per kwh	\$96,756	\$0
Rider Revenue						
Infrastructure Rider	6,695,907	\$0.01235 per Kwh	\$82,694	\$0.00000 per Kwh	\$0	(\$82,694)
Transmission Rider	6,695,907	0.01262 per Kwh	84,502	0.00000 per Kwh	0	(84,502)
Total Rider Revenue			<u>167,196</u>		<u>0</u>	<u>(167,196)</u>
Total Rate 32			<u>\$472,182</u>		<u>\$615,055</u>	<u>\$142,873</u>
Target Revenues					<u>615,469</u>	
Difference					<u>(\$414)</u>	

Derivation of Rate:

Pro Forma Revenues		\$472,182
Pro Forma Revenue Increase		143,287
Total Revenue Requirement		<u>\$615,469</u>
Less:		
Proposed Basic Service Charge Revenues		52,080
Proposed Fuel & Purchased Power		96,756
Proposed Rider Revenue		0
Secondary Energy Differential	\$0.00100	6,695,907 Kwh
Proposed Summer Energy Charges		6,696
Subtotal		<u>36,880</u>
		<u>192,412</u>
Net to be Collected Through Energy		\$423,057
Total Kwh Sales - Winter		6,306,387
Proposed Energy Charges - Winter:		
Primary		\$0.06708
Secondary		\$0.06808

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

**Derivation of Rate and Reconciliation
 Large General Optional Time-of-Day Electric Service Rate 33
 Year Ending December 31, 2023**

Large General Service Time of Day Rate 33	Billing Determinants	Pro Forma		Proposed Rates 1/		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge						
Primary	0	\$60.00 per month	\$0	\$113.00 per month	\$0	\$0
Secondary	0	60.00 per month	0	113.00 per month	0	0
Total Basic Service Charge	0		0		0	0
Energy						
Summer Primary Service						
Off-Peak	0	\$0.03136 per kwh	\$0	\$0.06328 per day	\$0	\$0
On-Peak	0	0.06136 per kwh	0	\$0.12382 per day	0	0
Winter Primary Service						
Off-Peak	0	0.03136 per kwh	0	0.06328 per day	0	0
On-Peak	0	0.05136 per kwh	0	0.10364 per day	0	0
Total Primary Energy	0		0		0	0
Summer Secondary Service						
Off-Peak	0	\$0.03236 per kwh	0	\$0.06398 per kwh	0	0
On-Peak	0	0.06236 per kwh	0	0.12329 per kwh	0	0
Winter Secondary Service						
Off Peak	0	0.03236 per kwh	0	0.06398 per kwh	0	0
On Peak	0	0.05236 per kwh	0	0.10352 per kwh	0	0
Total Secondary Energy	0		0		0	0
Total Energy	0		\$0		\$0	\$0
Demand (On Peak)						
Primary Service						
Winter	0.0	6.00 per KW	0	8.88 per KW	0	0
Summer	0.0	7.50 per KW	0	10.60 per KW	0	0
Total Primary Demand	0.0		0		0	0
Secondary Service						
Winter	0.0	6.50 per KW	0	9.19 per KW	0	0
Summer	0.0	8.00 per KW	0	10.91 per KW	0	0
Total Secondary Demand	0.0		0		0	0
Total Demand	0		\$0		\$0	\$0
Fuel & Purchased Power						
Primary	0	\$0.01445 per Kwh	\$0	\$0.01445 per Kwh	\$0	\$0
Secondary	0	0.01445 per Kwh	0	0.01445 per Kwh	0	0
Total Fuel & Purchased Power	0		0		0	0
Rider Revenue						
Infrastructure Rider	0	\$0.01235 per Kwh	\$0	\$0.00000 per Kwh	\$0	\$0
Transmission Rider	0	0.01262 per Kwh	0	0.00000 per Kwh	0	0
Total Rider Revenue			0		0	0
Total Rate 33 Revenues			<u>\$0</u>		<u>\$0</u>	<u>\$0</u>
Total Revenues Per Design					\$0	
Target Revenues					0	
Difference					<u>0</u>	

1/ Proposed rates were determined by applying the applicable Rate 30 increase to the current Rate 33 rate components.

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

**Derivation of Rate and Reconciliation
Municipal Lighting Service Rate 41
Year Ending December 31, 2023**

Public Lighting Service Rate 41	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Energy						
Company	746,740	\$0.07825 per Kwh	\$58,432	\$0.10322 per Kwh	\$77,079	\$18,647
Municipal	461,031	0.06988 per Kwh	32,217	0.09485 per Kwh	43,729	11,512
Total Energy	1,207,771		90,649		120,808	30,159
Fuel & Purchased Power	1,207,771	\$0.01445 per Kwh	17,452	\$0.01445 per Kwh	17,452	0
Rider Revenue						
Infrastructure Rider						
Company	746,740	\$0.01235 per Kwh	\$9,222	\$0.00000 per Kwh	\$0	(\$9,222)
Municipal	461,031	0.01235 per Kwh	5,694	0.00000 per Kwh	0	(5,694)
Transmission Rider						
Company	746,740	\$0.01262 per Kwh	9,424	\$0.00000 per Kwh	0	(9,424)
Municipal	461,031	0.01262 per Kwh	5,818	0.00000 per Kwh	0	(5,818)
Total Rider Revenue			30,158		0	(30,158)
Discount @ 10% - Excluding Fuel						
Company	746,740		(\$7,714)		\$0	\$7,714
Municipal	461,031		(4,376)		0	4,376
Total Discount	1,207,771		(12,090)		0	12,090
Total Rate 41 Revenue			<u>\$126,169</u>		<u>\$138,260</u>	<u>\$12,091</u>
Total Revenues Per Design					\$138,260	
Target Revenues					<u>138,259</u>	
Difference					<u>\$1</u>	

Derivation of Rate:	Company
Pro Forma Revenues	\$126,169
Pro Forma Revenue Increase	12,090
Total Revenue Requirement	<u>\$138,259</u>
Less:	
Projected Fuel & Purchased Power	17,452
Projected Rider Revenue	0
Projected Discount on Rider Revenue	0
Municipal Owned Discount (\$0.00837) 461,031 Kwh	<u>(3,859)</u>
Subtotal	13,593
Net to be Collected Through Energy	124,666
Total Kwh Sales	1,207,771
Proposed Energy Charges:	
Company	\$0.10322
Municipal	0.09485

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

**Derivation of Rate and Reconciliation
Municipal Pumping Service Rate 48
Year Ending December 31, 2023**

Municipal Pumping Service Rate 48	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge	51	\$19.00 per month	\$11,628	\$35.00 per month	\$21,420	\$9,792
Energy	1,694,394	\$0.02415 per Kwh	\$40,920	\$0.04902 per Kwh	\$83,065	\$42,145
Demand						
Summer	2,423.8	7.00 per KW	\$16,967	9.00 per KW	\$21,814	\$4,847
Winter	5,039.3	5.00 per KW	25,197	7.00 per KW	35,275	10,078
Total Demand	7,463.1		\$42,164		\$57,089	\$14,925
Fuel & Purchased Power	1,694,394	\$0.01445 per Kwh	\$24,484	\$0.01445 per Kwh	\$24,484	\$0
Rider Revenue						
Infrastructure Rider	1,694,394	\$0.01235 per Kwh	\$20,926	\$0.00000 per Kwh	\$0	(\$20,926)
Transmission Rider	1,694,394	0.01262 per Kwh	21,383	0.00000 per Kwh	0	(21,383)
Total Rider Revenue			42,309		0	(\$42,309)
Discounts						
Bills	43		(980)		(1,806)	(826)
Energy	1,642,537		(3,976)		(8,052)	(4,076)
Demand - Summer	2,103.5		(1,472)		(1,893)	(421)
Demand - Winter	4,475.9		(2,238)		(3,133)	(895)
Infrastructure Rider	1,642,537		(2,037)		0	2,037
Transmission Rider	1,642,537		(2,070)		0	2,070
Total Discounted			(12,773)		(14,884)	(2,111)
Total Rate 48 Revenue			<u>\$148,732</u>		<u>\$171,174</u>	<u>\$22,442</u>
Total Revenues Per Design					171,174	
Target Revenues					171,174	
Difference					<u>\$0</u>	

Derivation of Rate:

Pro Forma Revenues	\$148,732
Pro Forma Revenue Increase	22,442
Total Revenue Requirement	<u>\$171,174</u>
Less:	
Proposed Basic Service Charge Revenues	19,614
Proposed Demand Revenues	52,063
Projected Fuel & Purchased Power	24,484
Projected Rider Revenue	0
Subtotal	<u>96,161</u>
Net to be Collected Through Energy	75,013
Total Kwh Sales	1,530,140
Secondary Energy Rate	\$0.04902

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

**Derivation of Rate and Reconciliation
Residential Electric Service Rate 53
Year Ending December 31, 2023**

Residential Service Dual Fuel Rate 53	Billing Determinants	Pro Forma		Proposed Rates		Change
		Rate	Revenue	Rate	Revenue	
Basic Service Charge	258	\$0.247 per day	\$23,260	\$0.247 per day	\$23,260	\$0
Energy						
Summer	272,554			\$0.11472 per Kwh	\$31,267	
Winter	4,213,173			\$0.06376 per Kwh	268,632	
Total	4,485,727	\$0.02936 per Kwh	131,701		299,899	168,198
Fuel & Purchased Power	4,485,727	\$0.01445 per Kwh	64,819	\$0.01445 per Kwh	64,819	0
Rider Revenue						
Infrastructure Rider	4,485,727	\$0.01235 per Kwh	\$55,399	\$0.00000 per Kwh	\$0	(55,399)
Transmission Rider	4,485,727	\$0.01262 per Kwh	56,610	\$0.00000 per Kwh	0	(56,610)
Total Rider Revenue			112,009		0	(112,009)
Total Rate 53			\$331,789		\$387,978	\$56,189

Total Revenues Per Design	\$387,978
Target Revenues	387,993
Difference	(\$15)

Derivation of Rate:

Pro Forma Revenues	\$331,789
Pro Forma Revenue Increase	56,204
Total Revenue Requirement	\$387,993
Less:	
Proposed Basic Service Charge Revenues	23,260
Proposed Energy - Winter	31,267
Projected Fuel & Purchased Power	64,819
Projected Rider Revenue	0
Subtotal	119,346
Net to be Collected Through Energy	\$268,647
Total Kwh	4,213,173
Energy Rate per Kwh - Winter	\$0.06376