

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - SOUTH DAKOTA

Allocation of Revenues
Year Ending December 31, 2014

2014 Billing Determinants and Revenues

Rate Class	Bill Determinants	Kwh	KW	Base Rate	Energy	Demand	Fuel Rev	Total
Residential Service								
Rate 10	6,616	67,805,128	0.0	\$476,373	\$4,577,478	\$0	\$1,695,128	\$6,748,979
Rate 53	339	6,184,038	0.0	25,018	173,128		154,601	352,747
Total Residential	6,955	73,989,166	0.0	501,391	4,750,606	0	1,849,729	7,101,726
Small General Service								
Rate 20 Primary	1	5,333	0.0	137	340	0	133	610
Rate 20 Secondary	1,958	32,193,170	97,456.3	281,952	1,816,410	233,636	804,829	3,136,827
Rate 27	2	2,258	1,956.0	0	152	827	56	1,035
Rate 50	8	73,824	0.0	288	5,177	0	1,846	7,311
Subtotal	1,968	32,269,252	99,412.3	282,240	1,821,739	234,463	806,731	3,145,173
Rate 25	5	155,439	420.0	0	2,064	1,575	3,886	7,525
Rate 26	1	25,920	89.2	162	1,088	259	648	2,157
Total Small General	1,975	32,455,944	99,921.5	282,539	1,825,231	236,297	811,398	3,155,465
Large General Service								
Rate 30	112	37,625,195	144,106.8	20,160	1,212,609	720,534	940,630	2,893,933
General Space Heating Service								
Rate 54	103	4,233,440		10,546	101,755		105,836	218,137
Rate 56	32	727,461		1,152	38,414		18,187	57,753
Rate 32	135	4,960,901	0	11,698	140,169	0	124,023	275,890
Municipal Lighting								
Rate 41 Municipal	21	332,891		0	19,948	0	8,322	28,270
Rate 41 Company Owned	33	2,307,221		0	154,090	0	57,681	211,771
Total Municipal Lighting	54	2,640,112	0.0	0	174,038	0	66,003	240,041
Rate 48 Municipal Pumping	50	1,431,970	5,403.0	7,232	30,745	27,026	35,799	100,802
Rate 24 Outdoor Lighting Service	576	818,111	0.0	0	47,832	0	20,453	68,285
Total South Dakota Electric	9,857	153,921,399	249,431.3	823,020	8,181,230	983,857	3,848,035	13,836,142

Total Pro Forma Revenues	\$13,836,142
Requested Revenue Increase	2,655,643
% Increase	19.19%
Overall ROR	7.588%
Inverse of Tax Rate	64.909%

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - SOUTH DAKOTA
Allocation of Revenues
Year Ending December 31, 2014

Rate Class	Embedded						Allocation of Revenue Increase	Percentage Increase	Rate Design Results Revenue Increase			
	Rate Base	Op Inc	ROR	COS	Increase	% Incr			\$	%	ROR	
Residential Service												
Rate 10							\$1,295,129	19.19%	\$1,295,273	19.2%		
Rate 53							67,692	19.19%	67,663	19.2%		
Total Residential	\$20,459,008	\$653,214	3.19%	8,487,078	\$1,385,352	19.5%	1,362,821	19.19%	1,362,936	19.2%	7.5%	
Small General Service												
Rate 20 Primary	2,598	(150)	-5.77%	1,146	536	87.9%	117	19.18%	112	18.4%		
Rate 20 Secondary							601,957	19.19%				
Rate 27							199	19.23%				
Rate 50							1,403	19.19%				
Subtotal	8,707,631	451,030	5.18%	3,470,403	323,073	10.3%	603,559	19.19%	603,491	19.2%	9.7%	
Rate 25	63,459	(4,732)	-7.46%	22,233	14,708	195.5%	1,444	19.19%	1,444	19.2%	-6.0%	
Rate 26							414	19.19%	414	19.2%		
Total Small General	8,773,688	446,148	5.09%	3,493,782	338,317	10.7%	605,534	19.19%	605,461	19.2%	9.6%	
Large General Service												
Rate 30	8,961,536	336,384	3.75%	3,423,316	529,383	18.3%	555,346	19.19%	555,173	19.2%	7.8%	
General Space Heating Service												
Rate 54							41,860	19.19%				
Rate 56							11,083	19.19%				
Rate 32	1,327,732	(51,681)	-3.89%	510,727	234,837	85.1%	52,943	19.19%	52,558	19.1%	-1.3%	
Municipal Lighting												
Rate 41 Municipal	92,927	1,930	2.08%	36,160	7,890	27.9%	5,425	19.19%				
Rate 41 Company Owned	756,194	56,970	7.53%	212,402	631	0.3%	40,639	19.19%				
Total Municipal Lighting	849,121	58,900	6.94%	248,562	8,521	3.5%	46,064	19.19%	46,307	19.3%	10.5%	
Rate 48 Municipal Pumping	385,185	(1,655)	-0.43%	148,379	47,577	47.2%	19,344	19.19%	19,344	19.2%	2.8%	
Rate 24 Outdoor Lighting Service	403,956	(41,823)	-10.35%	179,941	111,656	163.5%	13,104	19.19%	13,101	19.2%	-8.2%	
Total South Dakota Electric	41,160,226	1,399,487	3.40%	16,491,785	2,655,643	19.19%	2,655,156	19.19%	2,654,880	19.2%	7.6%	

=% Increase 19.19%

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

Rate Class	Basic Service Charge	Energy Charges		Base Fuel	Total Energy		Demand Charges			
		Summer	Winter		Summer	Winter	0-10 Kw		> 10 Kw	
							Summer	Winter	Summer	Winter
Residential										
Rate 10	\$0.35									
1st 750		\$0.09017	\$0.09017	\$0.02500	\$0.11517	\$0.11517				
Over 750		0.09017	0.06017	0.02500	0.11517	0.08517				
Rate 16	0.55									
On Peak		0.11907	0.08907	0.02500	0.14407	0.11407				
Off Peak		0.05500	0.05500	0.02500	0.08000	0.08000				
Rate 53	0.35	0.03598	0.03598	0.02500	0.06098	0.06098				
Small General Service										
Rate 20 - Primary Service	0.51						\$0.00	\$0.00	\$6.00	\$6.00
1st 2,000		0.07572	0.07572	0.02500	0.10072	0.10072				
Over 2,000		0.07572	0.05572	0.02500	0.10072	0.08072				
Rate 20 - Secondary Service	0.54						0.00	0.00	6.00	6.00
1st 2,000		0.07672	0.07672	0.02500	0.10172	0.10172				
Over 2,000		0.07672	0.05672	0.02500	0.10172	0.08172				
Irrigation Rate 25	0.53	0.01747	0.01747	0.02500	0.04247	0.04247	5.00	2.50	5.00	2.50
TOD Rate 26										
Primary	0.60									
Off Peak		0.05089	0.05089	0.02500	0.07589	0.07589	0.00	0.00	0.00	0.00
On Peak		0.08089	0.07089	0.02500	0.10589	0.09589	0.00	0.00	7.00	5.00
Secondary	0.65									
Off Peak		0.05189	0.05189	0.02500	0.07689	0.07689	0.00	0.00	0.00	0.00
On Peak		0.08189	0.07189	0.02500	0.10689	0.09689	0.00	0.00	7.25	5.25
Large General Service										
Rate 30 Primary Service	45.00	0.03560	0.03560	0.02500	0.06060	0.06060	7.25	6.25	7.25	6.25
Rate 30 Secondary Service	30.00	0.03660	0.03660	0.02500	0.06160	0.06160	8.25	7.25	8.25	7.25
Rate 33										
Primary Service	60.00									
On Peak		0.06196	0.05196	0.02500	0.08696	0.07696	7.50	6.00	7.50	6.00
Off Peak		0.03196	0.03196	0.02500	0.05696	0.05696	0.00	0.00	0.00	0.00
Secondary Service	60.00									
On Peak		0.06296	0.05296	0.02500	0.08796	0.07796	8.00	6.50	8.00	6.50
Off Peak		0.03296	0.03296	0.02500	0.05796	0.05796	0.00	0.00	0.00	0.00
Space Heating Rate 32										
Primary Service										
Three Phase	25.00	0.07572	0.03138	0.02500	0.10072	0.05638				
Single Phase	15.00	0.07572	0.03138	0.02500	0.10072	0.05638				
Secondary Service										
Three Phase	25.00	0.07672	0.03238	0.02500	0.10172	0.05738				
Single Phase	15.00	0.07672	0.03238	0.02500	0.10172	0.05738				
Municipal Lighting - Rate 41										
Company Owned		0.09364	0.09364	0.02500	0.11864	0.11864				
Municipal Owned		0.08527	0.08527	0.02500	0.11027	0.11027				
Municipal Pumping - Rate 48	19.00	0.03603	0.03603	0.02500	0.06103	0.06103	7.00	5.00	7.00	5.00
Outdoor Lighting - Rate 24		0.07448	0.07448	0.02500	0.09948	0.09948				

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Residential Electric Service - Rate 10
 Year Ending December 31, 2014

Residential Service	Billing Determinants	Proforma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge 1/	6,616	\$6.00 per month	\$476,373	\$0.35 per day	\$845,194
Energy					
Summer					
First 450	9,610,253	\$0.077396 per Kwh	743,795	\$0.09017 per Kwh	866,557
Next 300	4,210,201	0.070336 per Kwh	296,129	0.09017 per Kwh	379,634
Over 750	5,374,730	0.054936 per Kwh	295,266	0.09017 per Kwh	484,639
	<u>19,195,184</u>		<u>1,335,190</u>		<u>1,730,830</u>
Winter					
First 450	19,323,399	\$0.077396 per Kwh	1,495,553	\$0.09017 per Kwh	1,742,391
Next 300	8,951,245	0.070336 per Kwh	629,595	0.09017 per Kwh	807,134
Over 750	20,335,300	0.054936 per Kwh	1,117,140	0.06017 per Kwh	1,223,575
	<u>48,609,944</u>		<u>3,242,288</u>		<u>3,773,100</u>
Base Fuel	67,805,128	\$0.025000 per Kwh	1,695,128	\$0.02500 per Kwh	1,695,128
Total Rate 10			<u>\$6,748,979</u>		<u>\$8,044,252</u>
Total Revenues Per Design					\$8,044,252
Target Revenues					<u>8,044,108</u>
Difference					<u>\$144</u>

1/ Pro forma Basic Service Charge includes \$21 from Rate 95.

Derivation of Rate:

Pro Forma Revenues		\$6,748,979
Pro Forma Revenue Increase		<u>1,295,129</u>
Total Revenue Requirement		\$8,044,108
Less:		
Proposed Basic Service Charge Revenues		845,194
Projected Base Fuel		1,695,128
Winter >750 differential	(\$0.03000) 20,335,300 Kwh	<u>(610,059)</u>
Subtotal		1,930,263
Net to be Collected Through Energy		\$6,113,845
Total Kwh		67,805,128
Summer Rate Per Kwh		\$0.09017
Winter Rate Per Kwh - 1st 750		\$0.09017
Winter Over 750 Kwh		\$0.06017

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Residential Electric TOD Service Rate 16
 Year Ending December 31, 2014

Residential Service	Billing Determinants	Based on a Sample of Rate 10 Billing Units			
		Pro Forma @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	286	\$13.00 per month	\$44,616	\$0.55 per day	\$57,415
Energy					
Summer					
On-Peak Kwh	507,507	0.124046 per Kwh	62,954	0.11907 per Kwh	60,429
Off Peak Kwh	655,646	0.016796 per Kwh	11,012	0.05500 per Kwh	36,061
Subtotal	1,163,153				
Winter					
On-Peak Kwh	775,025	0.124046 per Kwh	96,139	0.08907 per Kwh	69,031
Off Peak Kwh	1,400,956	0.016796 per Kwh	23,530	0.05500 per Kwh	77,053
Subtotal	2,175,981				
Total Energy	3,339,134				
Base Fuel	3,339,134	0.02500 per Kwh	83,478	0.02500 per Kwh	83,478
Total Rate 16 Revenues			<u>\$321,729</u>		<u>\$383,467</u>
Total Revenues Per Design					\$383,467
Target Revenues					<u>383,469</u>
Difference					<u>(\$2)</u>

Derivation of Rate:

Pro Forma Revenues		Projected
Pro Forma Revenue Increase		\$321,729
Total Revenue Requirement		<u>61,740</u>
		\$383,469
Less:		
Basic Service Charge		\$57,415
Base Fuel		83,478
Off Peak set equal to	\$0.055 2,056,602 Kwh	113,113
Summer On-Peak Differ	\$0.030 507,507 Kwh	<u>15,225</u>
		269,231
Net to be Collected Through Energy		\$114,238
Total On-Peak Kwh		1,282,532
Winter On-Peak Rate		\$0.08907
Summer On-Peak		\$0.11907

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Small General Electric Service Rate 20
 Year Ending December 31, 2014

Small General Service	Billing Determinants	Proforma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary	1	\$11.40 per month	\$137	\$0.51 per day	\$186
Secondary	1,958	12.00 per month	281,952	0.54 per day	385,922
Rate 27	2	0.00 per month	0	0.54 per day	394
Rate 50	8	3.00 per month	288	0.54 per day	1,577
Total Base Rate	1,959		282,377		388,079
Energy					
Primary					
Summer					
First 2000	2,791	\$0.063676 per Kwh	178	\$0.07572 per Kwh	211
Over 2000	0	\$0.063676 per Kwh	0	\$0.07572 per Kwh	0
	2,791		178		211
Winter					
First 2000	2,542	0.063676 per Kwh	162	0.07572 per Kwh	192
Over 2000	0	0.063676 per Kwh	0	0.05572 per Kwh	0
	2,542		162		192
Subtotal	5,333		340		403
Secondary - Summer					
First 2000	5,261,368	0.067026 per Kwh	352,650	0.07672 per Kwh	403,654
Next 8000	4,036,071	0.045356 per Kwh	183,060	0.07672 per Kwh	309,647
Over 10000	967,116	0.039706 per Kwh	38,400	0.07672 per Kwh	74,197
Subtotal	10,264,575		574,110		787,498
Secondary - Winter					
First 2000	11,873,512	0.067026 per Kwh	795,834	0.07672 per Kwh	910,936
Next 8000	8,357,235	0.045356 per Kwh	379,051	0.05672 per Kwh	474,022
Over 10000	1,697,848	0.039706 per Kwh	67,415	0.05672 per Kwh	96,302
Subtotal	21,928,595		1,242,300		1,481,260
Rate 27					
Summer					
First 2000	411	0.067306 per Kwh	28	0.07672 per Kwh	32
Winter					
First 2000	1,847	0.067306 per Kwh	124	0.07672 per Kwh	142
Over 2000	0	0.067306 per Kwh	0	0.05672 per Kwh	0
	2,258		152		174
Rate 50					
Summer					
First 2000	4,960	0.070126 per Kwh	348	0.07672 per Kwh	381
Winter					
First 2000	22,917	0.070126 per Kwh	1,607	0.07672 per Kwh	1,758
Over 2000	45,947	0.070126 per Kwh	3,222	0.05672 per Kwh	2,606
	73,824		5,177		4,745
Secondary Total Energy	32,269,252		1,821,739		2,273,677
Total Energy	32,274,585		1,822,079		2,274,080

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Small General Electric Service Rate 20
 Year Ending December 31, 2014

Small General Service	Billing Determinants	Proforma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Demand					
Rate 20					
Primary					
Summer					
First 10 KW	0.0	\$0.00 per KW	0	\$0.00 per KW	0
Over 10 KW	0.0	5.00 per KW	0	6.00 per KW	0
Total	0.0		0		0
Winter					
First 10 KW	0.0	0.00 per KW	0	0.00 per KW	0
Over 10 KW	0.0	5.00 per KW	0	6.00 per KW	0
Total	0.0		0		0
Secondary					
Summer					
First 10 KW	17,092.5	0.00 per KW	0	0.00 per KW	0
Over 10 KW	17,027.8	5.00 per KW	85,139	6.00 per KW	102,167
Total	34,120.3		85,139		102,167
Winter					
First 10 KW	33,636.6	0.00 per KW	0	0.00 per KW	0
Over 10 KW	29,699.4	5.00 per KW	148,497	6.00 per KW	178,196
Total	63,336.0		148,497		178,196
Rate 27					
First 5 HP	120	1.53 per HP	184	0.00 per KW	0
Over 5 HP	1,836	0.35 per HP	643	0.00 per KW	0
Total	1,956		827		0
Base Fuel	32,274,585	\$0.02500 per Kwh	806,864	\$0.02500 per Kwh	806,864
Total Rate 20 Revenues			<u>\$3,145,783</u>		<u>\$3,749,386</u>
Total Revenues Per Design					\$3,749,386
Target Revenues					<u>3,749,459</u>
Difference					<u>(\$73)</u>

Derivation of Rate:

Pro Forma Revenues		\$3,145,783
Pro Forma Revenue Increase		603,676
Total Revenue Requirement		<u>\$3,749,459</u>
Less:		
Proposed Basic Service Charge Revenues		388,079
Proposed Demand Charge Revenues		280,363
Projected Base Fuel		806,864
Over 2,00 Winter differential	(0.02000)	10,101,030
Secondary Rate Differential	0.00100	32,269,252
Subtotal		<u>1,305,554</u>
Net to be Collected Through Energy		\$2,443,905
Total Kwh		32,274,585
Summer Primary Rate per Kwh		0.07572
Winter Primary Rate 1st 2000 Kwh		0.07572
Winter Primary over 2000 Kwh		0.05572
Summer Secondary Rate per Kwh		0.07672
Winter Secondary Rate 1st 2000 kwh		0.07672
Winter Secondary over 2000 kwh		0.05672

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Outdoor Lighting Service Rate 24
 Year Ending December 31, 2014

Outdoor Lighting	Billing Determinants	Pro Forma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Energy	818,111	\$0.058466 per Kwh	47,832	\$0.07448 per Kwh	60,933
Base Fuel	818,111	0.02500 per Kwh	20,453	0.02500 per Kwh	20,453
Total Revenue			<u>\$68,285</u>		<u>\$81,386</u>
Total Revenues Per Design					\$81,386
Target Revenues					<u>81,389</u>
Difference					<u>(\$3)</u>

Derivation of Rate:

Pro Forma Revenues	\$68,285
Pro Forma Revenue Increase	<u>13,104</u>
Total Revenue Requirement	\$81,389
Less:	
Projected Base Fuel	<u>20,453</u>
Subtotal	20,453
Net to be Collected Through Energy	60,936
Total Kwh Sales	818,111
Proposed Energy Charge	\$0.07448

MONTANA-DAKOTA UTILITIES CO.
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Derivation of Rate and Reconciliation
 Irrigation Power Service Rate 25
 Year Ending December 31, 2014

Irrigation Power Service	Billing Determinants	Proforma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	5			\$0.53 per day	\$967
Energy	155,439	\$0.013276 per Kwh	2,064	\$0.01747 per Kwh	2,716
Demand					
Summer	140.0	\$3.75 per KW	525	\$5.00 per KW	700
Winter	280.0	3.75 per KW	1,050	2.50 per KW	700
Base Fuel	155,439	\$0.02500 per Kwh	3,886	\$0.02500 per Kwh	3,886
Total Revenue			<u>\$7,525</u>		<u>\$8,969</u>
Total Revenues Per Design					\$8,969
Target Revenues					<u>8,969</u>
Difference					<u>\$0</u>

Derivation of Rate:

Pro Forma Revenues	\$7,525
Pro Forma Revenue Increase	<u>1,444</u>
Total Revenue Requirement	\$8,969
Less:	
Proposed Basic Service Charge Revenues	967
Proposed Demand Charge Revenues	1,400
Projected Base Fuel	<u>3,886</u>
Subtotal	6,253
Net to be Collected Through Energy	2,716
Total Kwh Sales	155,439
Proposed Energy Charge	\$0.01747

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, 2014

Small General Optional TOD Service	Billing Determinants	Proforma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary	0	\$13.50 per month	\$0	\$0.60 per day	\$0
Secondary	1	13.50 per month	162	0.65 per day	237
	1		162		237
Energy					
Summer Primary Service					
Off-Peak	0	0.03284 per kwh	0	0.05089 per kwh	0
On-Peak	0	0.10052 per kwh	0	0.08089 per kwh	0
Total Summer	0		0		0
Winter Primary Service					
Off Peak	0	0.03284 per kwh	0	0.05089 per kwh	0
On Peak	0	0.10052 per kwh	0	0.07089 per kwh	0
Total Winter	0		0		0
Summer Secondary Service					
Off-Peak	8,880	0.021896 per kwh	194	0.05189 per kwh	461
On-Peak	3,080	0.097096 per kwh	299	0.08189 per kwh	252
Total Summer	11,960		493		713
Winter Secondary Service					
Off-Peak	10,120	0.021896 per kwh	222	0.05189 per kwh	525
On-Peak	3,840	0.097096 per kwh	373	0.07189 per kwh	276
Total Winter	13,960		595		801
Total Energy	25,920		1,088		1,514
Demand					
Summer Primary Service					
Off-Peak Over 10 KW	0.0	1.80 per KW	0	0.00 Per KW	0
On-Peak Over 10 KW	0.0	4.75 per KW	0	7.00 Per KW	0
Total Summer Demand	0.0		0		0
Winter Primary Service					
Off-Peak Over 10 KW	0.0	1.80 per KW	0	0.00 Per KW	0
On-Peak Over 10 KW	0.0	4.75 per KW	0	5.00 Per KW	0
Total Winter Demand	0.0		0		0
Summer Secondary Service					
Off-Peak First 10 KW	0.0	0.00 per KW	0	0.00 per KW	0
Off-Peak Over 10 KW	23.4	1.90 per KW	44	0.00 per KW	0
On-Peak First 10 KW	0.0	0.00 per KW	0	0.00 per KW	0
On-Peak Over 10 KW	10.2	5.00 per KW	51	7.25 per KW	74
Total Summer Demand	33.6		95		74.0
Winter Secondary Service					
Off-Peak First 10 KW	0.0	0.00 per KW	0	0.00 per KW	0
Off-Peak Over 10 KW	37.0	1.90 per KW	70	0.00 per KW	0
On-Peak First 10 KW	0.0	0.00 per KW	0	0.00 per KW	0
On-Peak Over 10 KW	18.6	5.00 per KW	94	5.25 per KW	98
Total Winter Demand	55.6		164		98
Total Demand	89.2		259		172
Base Fuel	25,920	0.025000 per Kwh	648	0.025000 per Kwh	648
Total Rate 26 Revenues			<u>\$2,157</u>		<u>\$2,571</u>
Total Revenues Per Design					\$2,571
Target Revenues					<u>2,571</u>
Difference					<u>(\$0)</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, 2014

Derivation of Rate:

Pro Forma Revenues			\$2,157
Pro Forma Revenue Increase			414
Total Revenue Requirement			<u>\$2,571</u>
Less:			
Proposed Basic Service Charge Revenues			\$237
Proposed Demand Revenues			172
Secondary Energy Differential	\$0.00100	25,920 Kwh	26
On-Peak Summer Energy Differential	0.03000	3,080 Kwh	92
On-Peak Winter Energy	0.02000	3,840 Kwh	77
Off-Peak Differential	0.00000	19,000 Kwh	0
Base Fuel			<u>648</u>
Subtotal			1,252
Net to be Collected Through Energy			1,319
Total Kwh Sales			25,920
Proposed Energy Charges:			
Winter Primary Off-Peak			\$0.05089
Winter Primary On-Peak			0.07089
Summer Primary Off-Peak			0.05089
Summer Primary On-Peak			0.08089
Winter Secondary Off-Peak			0.05189
Winter Secondary On-Peak			0.07189
Summer Secondary Off-Peak			0.05189
Summer Secondary On-Peak			0.08189

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA
 Derivation of Rate and Reconciliation
 Large General Electric Service Rate 30
 Year Ending December 31, 2014

Large General Service 30	Billing Determinants	Pro Forma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary Service	0	\$15.00 per month	0	\$45.00 per month	0
Secondary Service	112	15.00 per month	20,160	30.00 per month	40,320
Total Basic Service Charge	112		20,160		40,320
Energy					
Primary Service					
Summer					
First 2000	0	\$0.04792 per kwh	0	\$0.03560 per kwh	0
Next 8000	0	0.03467 per kwh	0	0.03560 per kwh	0
Over 10000	0	0.02997 per kwh	0	0.03560 per kwh	0
Subtotal	0		0		0
Winter					
First 2000	0	0.04792 per kwh	0	0.03560 per kwh	0
Next 8000	0	0.03467 per kwh	0	0.03560 per kwh	0
Over 10000	0	0.02997 per kwh	0	0.03560 per kwh	0
Subtotal	0		0		0
Secondary Service					
Summer					
First 2000	822,299	0.047916 per kwh	39,401	0.03660 per kwh	30,096
Next 8000	2,695,463	0.034666 per kwh	93,441	0.03660 per kwh	98,654
Over 10000	8,287,282	0.029966 per kwh	248,337	0.03660 per kwh	303,315
Subtotal	11,805,044		381,179		432,065
Winter					
First 2000	1,678,715	0.047916 per kwh	80,437	0.03660 per kwh	61,441
Next 8000	5,866,044	0.034666 per kwh	203,352	0.03660 per kwh	214,697
Over 10000	18,275,392	0.029966 per kwh	547,641	0.03660 per kwh	668,879
Subtotal	25,820,151		831,430		945,018
Total Energy	37,625,195		1,212,609		1,377,082
Demand					
Primary Service - Summer	0.0	\$5.00 per Kw	0	\$7.25 per Kw	0
Primary Service - Winter	0.0	5.00 per Kw	0	6.25 per Kw	0
Subtotal	0.0		0		0
Secondary Service - Summer	46,300.4	5.00 per Kw	231,502	8.25 per Kw	381,978
Secondary Service - Winter	97,806.4	5.00 per Kw	489,032	7.25 per Kw	709,096
Subtotal	144,106.8		720,534		1,091,074
Total Demand	144,106.8		720,534		1,091,074
Base Fuel					
Total Base Fuel	37,625,195	\$0.02500 per kwh	940,630	0.02500 per kwh	940,630
Total Rate 30			\$2,893,933		\$3,449,106
Target Revenues					3,449,279
Difference					(\$173)

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA
 Derivation of Rate and Reconciliation
 Large General Electric Service Rate 30
 Year Ending December 31, 2014

Derivation of Rate:

Pro Forma Revenues				\$2,893,933
Pro Forma Revenue Increase				555,346
Total Revenue Requirement				<u>\$3,449,279</u>
Less:				
Proposed Basic Service Charge Revenues				40,320
Proposed Demand Revenues				1,091,074
Secondary Energy Differential	\$0.00100	37,625,195	Kwh	37,625
Projected Base Fuel				940,630
Subtotal				<u>2,109,649</u>
Net to be Collected Through Energy				<u>\$1,339,630</u>
Total Kwh Sales				37,625,195
Proposed Energy Charges:				
Rate 30- Primary				\$0.03560
Rate 30- Secondary				\$0.03660

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA
 Derivation of Rate and Reconciliation
 General Space Heating Service Rate 32
 Year Ending December 31, 2014

Space Heating Rate 32	Billing Determinants	Pro Forma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary Service					
Rate 54 - Single Phase	0	\$7.65 per month	0	\$15.00 per month	0
Rate 54 - Three Phase	0	12.70 per month	0	25.00 per month	0
Rate 56	0	3.00 per month	0	1/ per month	0
	<u>0</u>		<u>0</u>		<u>0</u>
Secondary Service					
Rate 54 - Single Phase	85	7.65 per month	7,803	15.00 per month	15,300
Rate 54 - Three Phase	18	12.70 per month	2,743	25.00 per month	5,400
Rate 56	32	3.00 per month	1,152	1/ per month	6,000
	<u>135</u>		<u>11,698</u>		<u>26,700</u>
Total Basic Service Charge	135		11,698		26,700
Energy					
Primary Service					
Summer	0	0.024036 per Kwh	0	0.07572 per Kwh	0
Winter	0	0.024036 per Kwh	0	0.03138 per Kwh	0
	<u>0</u>		<u>0</u>		<u>0</u>
Secondary Service					
Rate 54					
Summer	259,087	0.024036 per Kwh	6,227	0.07672 per Kwh	19,877
Winter	3,974,353	0.024036 per Kwh	95,528	0.03238 per Kwh	128,690
	<u>4,233,440</u>		<u>101,755</u>		<u>148,567</u>
Rate 56					
Summer	126,138	0.052806 per Kwh	6,661	0.07672 per Kwh	9,677
Winter	601,323	0.052806 per Kwh	31,753	0.03238 per Kwh	19,471
	<u>727,461</u>		<u>38,414</u>		<u>29,148</u>
Secondary Total	4,960,901		140,169		177,715
Total Energy	4,960,901		140,169		177,715
Base Fuel	4,960,901	0.025000 per kwh	124,023	0.02500 per kwh	124,023
Total Rate 32			<u>\$275,890</u>		<u>\$328,438</u>
Target Revenues					<u>328,833</u>
Difference					<u>(\$395)</u>

1/ Rate 56 Basic Service Charge
 Primary Customers - 0 single phase and 0 three phase
 Secondary Customers - 30 single phase and 2 three phase

Derivation of Rate:

Pro Forma Revenues		\$275,890
Pro Forma Revenue Increase		52,943
Total Revenue Requirement		<u>\$328,833</u>
Less:		
Proposed Basic Service Charge Revenues		26,700
Secondary Energy Differential	\$0.00100	4,960,901 Kwh
Winter Differential	\$0.00000	4,575,676 Kwh
Summer at Rate 20		29,554
Projected Base Fuel		<u>124,023</u>
Subtotal		<u>185,238</u>
Net to be Collected Through Energy		<u>\$143,595</u>
Total Winter Kwh Sales		4,575,676
Proposed Energy Charges:		
Primary Winter		\$0.03138
Secondary Winter		\$0.03238

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Large General Time-of-Day Electric Service Rate 33
 Year Ending December 31, 2014

Large General TOD Service (Rate 33)	Billing Determinants	Based on a Sample of Rate 30 Billing Units			
		Pro Forma @ Current Rates		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge					
Primary Service	0	\$17.00 per month	\$0	\$60.00 per month	\$0
Secondary Service	7	17.00 per month	1,428	60.00 per month	5,040
Total Base Rate	7		1,428		5,040
Energy					
Summer Primary Service					
Off-Peak	0	0.005616 per Kwh	0	0.03196 per Kwh	0
On-Peak	0	0.048256 per Kwh	0	0.06196 per Kwh	0
Total Summer	0		0		0
Winter Primary Service					
Off-Peak	0	0.005616 per Kwh	0	0.03196 per Kwh	0
On-Peak	0	0.048256 per Kwh	0	0.05196 per Kwh	0
Total Winter	0		0		0
Summer Secondary Service					
Off-Peak	75,031	0.007986 per Kwh	599	0.03296 per Kwh	2,473
On-Peak	23,784	0.055366 per Kwh	1,317	0.06296 per Kwh	1,497
Total Summer	98,815		1,916		3,970
Winter Secondary Service					
Off-Peak	325,153	0.007986 per Kwh	2,597	0.03296 per Kwh	10,717
On-Peak	186,492	0.055366 per Kwh	10,325	0.05296 per Kwh	9,877
Total Winter	511,645		12,922		20,594
Total Energy	610,460		14,838		24,564
Demand					
Summer Primary Service					
Off-Peak	0.0	1.80 per KW	0	0.00 per KW	0
On-Peak	0.0	4.75 per KW	0	7.50 per KW	0
Total Summer Demar	0.0		0		0
Winter Primary Service					
Off-Peak	0.0	1.80 per KW	0	0.00 per KW	0
On-Peak	0.0	4.75 per KW	0	6.00 per KW	0
Total Winter	0.0		0		0
Summer Secondary Service					
Off-Peak	575.6	1.90 per KW	1,094	0.00 per KW	0
On-Peak	425.5	5.00 per KW	2,128	8.00 per KW	3,404
Total Summer Demar	1,001.1		3,222		3,404
Winter Secondary Service					
Off-Peak	3,901.4	1.90 per KW	7,413	0.00 per KW	0
On-Peak	3,673.8	5.00 per KW	18,369	6.50 per KW	23,880
Total Winter	7,575.2		25,782		23,880
Total Demand	8,576.3		29,004		27,284
Base Fuel					
Secondary	610,460	0.02500 per Kwh	15,262	0.02500 per Kwh	15,262
Total Rate 33 Revenue			<u>\$60,532</u>		<u>\$72,150</u>
Total Revenues Per Design					\$72,150
Target Revenues					<u>72,148</u>
Difference					<u>\$2</u>

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Large General Time-of-Day Electric Service Rate 33
 Year Ending December 31, 2014

Based on a Sample of Rate 30 Billing Units

Derivation of Rate:

Pro Forma Revenues				\$60,532
Pro Forma Revenue Increase				11,616
Total Revenue Requirement				<u>\$72,148</u>
Less:				
Proposed Basic Service Charge Revenues				5,040
Proposed Demand Revenues				27,284
Secondary Energy Differential	\$0.00100	610,460	Kwh	610
On-Peak Summer Energy Differential	0.03000	23,784	Kwh	714
On-Peak Winter Energy Differential	0.02000	186,492	Kwh	3,730
Base Fuel				<u>15,262</u>
Subtotal				52,640
Net to be Collected Through Energy				\$19,508
Total Kwh Sales				610,460
Proposed Energy Charges:				
Winter Primary Off-Peak				\$0.03196
Winter Primary On-Peak				0.05196
Summer Primary Off-Peak				\$0.03196
Summer Primary On-Peak				0.06196
Winter Secondary Off-Peak				\$0.03296
Winter Secondary On-Peak				\$0.05296
Summer Secondary Off-Peak				\$0.03296
Summer Secondary On-Peak				\$0.06296

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Municipal Lighting Service Rate 41
 Year Ending December 31, 2014

Municipal Lighting Service	Billing Determinants	Pro Forma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Energy					
Company	2,307,221	\$0.074186 per Kwh	171,160	\$0.09364 per Kwh	216,048
Municipal	<u>332,891</u>	0.065816 per Kwh	<u>21,910</u>	0.08527 per Kwh	<u>28,386</u>
Total Energy	2,640,112		193,070		244,434
Base Fuel					
Primary	2,640,112	\$0.02500 per Kwh	66,003	\$0.02500 per Kwh	66,003
Discount @ 10% - Excluding Base Fuel					
Company	2,301,016		(17,070)		(21,547)
Municipal	<u>298,138</u>		<u>(1,962)</u>		<u>(2,542)</u>
Total Discount	2,599,154		(19,032)		(24,089)
Total Rate 41 Revenue			<u>\$240,041</u>		<u>\$286,348</u>
Total Revenues Per Design					\$286,348
Target Revenues					<u>286,105</u>
Difference					<u>\$243</u>

Derivation of Rate:

Pro Forma Revenues		\$240,041
Pro Forma Revenue Increase		<u>46,064</u>
Total Revenue Requirement		\$286,105
Less:		
Municipal Owned Discount	(\$0.00837)	332,891 Kwh
Projected Base Fuel		<u>66,003</u>
Subtotal		63,217
Net to be Collected Through Energy		\$222,888
Total Kwh Sales (Discounted at 90% of actual)		2,380,197
Proposed Energy Charges:		
Company		\$0.09364
Municipal		0.08527

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Municipal Pumping Service Rate 48
 Year Ending December 31, 2014

Municipal Pumping Service	Billing Determinants	Pro Forma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	50	13.33 per month	7,998	19.00 per month	11,400
Energy	1,431,970	0.023836 per Kwh	34,132	0.03603 per Kwh	51,594
Demand					
Summer	1,806.0	5.56 per KW	10,041	7.00 per KW	12,642
Winter	<u>3,597.0</u>	5.56 per KW	<u>19,999</u>	5.00 per KW	<u>17,985</u>
Total Demand	5,403.0		30,040		30,627.0
Base Fuel	1,431,970	0.02500 per Kwh	35,799	0.02500 per Kwh	35,799
Discounts					
Bills	48		(768)		(1,094)
Energy	1,423,294		(3,405)		(5,128)
Demand - Summer	1,801.6		(1,002)		(1,261)
Demand - Winter	3,582.0		(1,992)		(1,791)
Total Discounted			<u>(7,167)</u>		<u>(9,274)</u>
Total Rate 48 Revenue			<u>\$100,802</u>		<u>\$120,146</u>
Total Revenues Per Design					
Secondary					<u>120,146</u>
Target Revenues					<u>\$120,146</u>
Difference					<u>\$0</u>

Derivation of Rate:

Pro Forma Revenues	\$100,802
Pro Forma Revenue Increase	19,344
Total Revenue Requirement	<u>\$120,146</u>
Less:	
Proposed Basic Service Charge Revenues	10,306
Proposed Demand Revenues	27,575
Projected Base Fuel	<u>35,799</u>
Subtotal	<u>73,680</u>
Net to be Collected Through Energy	46,466
Total Kwh Sales	1,289,641
Secondary Energy Rate	\$0.03603

MONTANA-DAKOTA UTILITIES CO.
 ELECTRIC UTILITY - SOUTH DAKOTA

Derivation of Rate and Reconciliation
 Residential Electric Service Rate 53
 Year Ending December 31, 2014

Residential Service	Billing Determinants	Proforma		Proposed Rates	
		Rate	Revenue	Rate	Revenue
Basic Service Charge	339	\$6.15 per month	\$25,018	\$0.35 per day	\$43,307
Energy	6,184,038	\$0.027996 per Kwh	173,128	\$0.03598 per Kwh	222,502
Base Fuel	6,184,038	\$0.025000 per Kwh	154,601	\$0.02500 per Kwh	154,601
Total Rate 53			<u>\$352,747</u>		<u>\$420,410</u>
Total Revenues Per Design					\$420,410
Target Revenues					<u>420,439</u>
Difference					<u>(\$29)</u>

Derivation of Rate:

Pro Forma Revenues	\$352,747
Pro Forma Revenue Increase	67,692
Total Revenue Requirement	<u>\$420,439</u>
Less:	
Proposed Basic Service Charge Revenues	43,307
Projected Base Fuel	154,601
Subtotal	<u>197,908</u>
Net to be Collected Through Energy	\$222,531
Total Kwh	6,184,038
Energy Rate per KW	\$0.03598