



**TRANSMISSION FACILITY ADJUSTMENT  
For the Pro Forma Year Ended May 31, 2017**

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**BLACK HILLS ENERGY**  
**COST RECOVERY RATE - TRANSMISSION FACILITIES**  
**Rate Calculation Effective June 1, 2016**

Line No.	Description	Reference	South Dakota
1			
2	Transmission Facilities Year 3 Revenue Requirement (June 1, 2016 through May 31, 2017)	Schedule 4-3, line 2	\$ 257,437
3			
4	Production Capacity Allocators by Customer Class		
5	Residential	Section No. 3C, Sheet No. 16	34.00%
6	Small General Service	Section No. 3C, Sheet No. 16	34.33%
7	Large General Service and Industrial	Section No. 3C, Sheet No. 16	30.70%
8	Lighting	Section No. 3C, Sheet No. 16	0.97%
9			
10	Revenue Requirement by Customer Class		
11	Residential		
12	Forecasted 3rd Year TFA Revenue Requirement	line 2 x line 5	\$ 87,529
13	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 10	(16,477)
14	Net Residential Revenue Requirement	line 12 + line 13	<u>\$ 71,052</u>
15			
16	Small General Service		
17	Forecasted 3rd Year TFA Revenue Requirement	line 2 x line 6	\$ 88,378
18	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 23	(21,668)
19	Net Small General Service Revenue Requirement	line 17 + line 18	<u>\$ 66,710</u>
20			
21	Large General Service and Industrial		
22	Forecasted 3rd Year TFA Revenue Requirement	line 2 x line 7	\$ 79,033
23	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 36	(26,348)
24	Net Large General Service and Industrial Revenue Requirement	line 22 + line 23	<u>\$ 52,685</u>
25			
26	Lighting		
27	Forecasted 3rd Year TFA Revenue Requirement	line 2 x line 8	\$ 2,497
28	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 49	(651)
29	Net Lighting Revenue Requirement	line 27 + line 28	<u>\$ 1,846</u>
30			
31	Forecasted South Dakota kWh sales		
32	Residential	6/1/16 - 5/31/17 BHP Sales Budget	534,996,818
33	Small General Service	6/1/16 - 5/31/17 BHP Sales Budget	423,681,795
34	Large General Service and Industrial	6/1/16 - 5/31/17 BHP Sales Budget	551,372,025
35	Lighting	6/1/16 - 5/31/17 BHP Sales Budget	14,184,532
36			
37	Transmission Facilities Adjustment Rate / kWh (June 1, 2016 through May 31, 2017)		
38	Residential	line 14 ÷ line 32	\$ 0.00013
39	Small General Service	line 19 ÷ line 33	\$ 0.00016
40	Large General Service and Industrial	line 24 ÷ line 34	\$ 0.00010
41	Lighting	line 29 ÷ line 35	\$ 0.00013



BLACK HILLS ENERGY  
TFA ANNUAL BALANCING ACCOUNT TRUE-UP

Line No.	Actual Jan-15	Actual Feb-15	Actual Mar-15	Actual Apr-15	Actual May-15	Actual Jun-15	Actual Jul-15	Actual Aug-15	Actual Sep-15	Actual Oct-15	Actual Nov-15	Actual Dec-15	Actual Jan-16	Forecast Feb-16	Forecast Mar-16	Forecast Apr-16	Forecast May-16	Forecast Jun-16		
<b>Residential</b>																				
1																				
2	Expected Recovery	\$ 4,670	\$ 4,670	\$ 4,670	\$ 4,670	\$ 4,670	\$ 6,337	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 8,003	\$ 4,002	
3	Actual Revenues	13,151	11,282	11,038	8,244	7,685	5,991	4,083	4,413	4,010	3,252	3,403	4,982	5,550	4,691	4,629	3,819	3,660	1,989	
4	Monthly Under/(Over) Recovery	(8,482)	(6,612)	(6,368)	(3,574)	(3,015)	346	3,920	3,590	3,993	4,751	4,600	3,021	2,454	3,312	3,374	4,184	4,343	2,013	
5																				
6	Days in Current Month	31	28	31	30	31	30	31	31	30	31	30	31	29	31	30	31	31	30	
7	Interest Rate	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	
8	Monthly Interest	(218)	(234)	(298)	(311)	(341)	(330)	(319)	(300)	(269)	(251)	(218)	(209)	(195)	(165)	(158)	(129)	(109)	(94)	
9																				
10	Balancing Account	\$ (36,884)	\$ (43,729)	\$ (50,395)	\$ (54,280)	\$ (57,635)	\$ (57,619)	\$ (54,018)	\$ (50,727)	\$ (47,003)	\$ (42,503)	\$ (38,120)	\$ (35,307)	\$ (33,049)	\$ (29,902)	\$ (26,685)	\$ (22,630)	\$ (18,396)	\$ (16,477)	
11																				
12																				
<b>Small General Service</b>																				
14	Expected Recovery	\$ 5,099	\$ 5,099	\$ 5,099	\$ 5,099	\$ 5,099	\$ 6,591	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 8,081	\$ 4,041	
15	Actual Revenues	10,598	9,808	9,731	8,702	8,385	7,563	5,459	6,051	5,439	4,763	4,249	5,054	5,117	4,289	4,594	4,249	4,347	2,514	
16	Monthly Under/(Over) Recovery	(5,499)	(4,709)	(4,632)	(3,603)	(3,286)	(973)	2,622	2,030	2,642	3,318	3,832	3,027	2,964	3,792	3,487	3,832	3,734	1,527	
17																				
18	Interest:																			
19	Days in Current Month	31	28	31	30	31	30	31	31	30	31	30	31	31	29	31	30	31	30	
20	Interest Rate	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	
21	Monthly Interest	(220)	(225)	(278)	(291)	(322)	(319)	(316)	(306)	(283)	(274)	(245)	(236)	(220)	(186)	(179)	(153)	(136)	(124)	
22																				
23	Balancing Account	\$ (37,177)	\$ (42,111)	\$ (47,021)	\$ (50,916)	\$ (54,524)	\$ (55,816)	\$ (53,510)	\$ (51,787)	\$ (49,427)	\$ (46,383)	\$ (42,796)	\$ (40,005)	\$ (37,261)	\$ (33,656)	\$ (30,348)	\$ (26,668)	\$ (23,070)	\$ (21,668)	
24																				
25																				
<b>Large General Service and Industrial</b>																				
27	Expected Recovery	\$ 8,229	\$ 8,229	\$ 8,229	\$ 8,229	\$ 8,229	\$ 7,727	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 7,227	\$ 3,613	
28	Actual Revenues	12,903	12,369	11,017	11,234	12,671	10,660	5,823	5,519	5,507	5,482	5,387	4,709	3,965	3,904	3,478	3,688	4,103	2,104	
29	Monthly Under/(Over) Recovery	(4,674)	(4,140)	(2,788)	(3,005)	(4,442)	(2,933)	1,404	1,708	1,720	1,745	1,840	2,518	3,261	3,323	3,749	3,539	3,124	1,509	
30																				
31	Interest:																			
32	Days in Current Month	31	28	31	30	31	30	31	31	30	31	30	31	31	29	31	30	31	30	
33	Interest Rate	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	
34	Monthly Interest	(203)	(207)	(247)	(257)	(294)	(303)	(307)	(298)	(280)	(281)	(263)	(258)	(240)	(208)	(201)	(175)	(164)	(151)	
35																				
36	Balancing Account	\$ (34,343)	\$ (38,689)	\$ (41,724)	\$ (44,986)	\$ (49,723)	\$ (52,959)	\$ (51,861)	\$ (50,451)	\$ (49,012)	\$ (47,549)	\$ (45,972)	\$ (43,713)	\$ (40,692)	\$ (37,577)	\$ (34,030)	\$ (30,667)	\$ (27,707)	\$ (26,348)	
37																				
38																				
<b>Lighting</b>																				
40	Expected Recovery	\$ 473	\$ 473	\$ 473	\$ 473	\$ 473	\$ 350	\$ 228	\$ 228	\$ 228	\$ 228	\$ 228	\$ 228	\$ 228	\$ 228	\$ 228	\$ 228	\$ 228	\$ 114	
41	Actual Revenues	672	569	562	460	281	472	178	201	216	244	264	282	282	241	230	216	186	83	
42	Monthly Under/(Over) Recovery	(199)	(96)	(89)	13	192	(122)	50	28	13	(16)	(36)	(54)	(54)	(13)	(2)	12	42	31	
43																				
44	Interest:																			
45	Days in Current Month	31	28	31	30	31	30	31	31	30	31	30	31	31	29	31	30	31	30	
46	Interest Rate	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	
47	Monthly Interest	(3)	(3)	(4)	(4)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	
48																				
49	Balancing Account	\$ (491)	\$ (590)	\$ (683)	\$ (674)	\$ (485)	\$ (610)	\$ (563)	\$ (539)	\$ (529)	\$ (548)	\$ (587)	\$ (644)	\$ (702)	\$ (719)	\$ (725)	\$ (717)	\$ (678)	\$ (651)	



**BLACK HILLS ENERGY**  
**COST OF SERVICE - TRANSMISSION FACILITIES**  
**Year Three Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Jurisdiction
1	Operating Revenue Required		
2	Transmission Facilities Revenue		\$ 257,437
3			
4	Operating Expenses		
5	Depreciation	Schedule 4-5, line 3	54,331
6	Assessed Filing Fee	Docket EL 15-007	3,689
7	Total Operating Expenses		<u>58,020</u>
8			
9	Other Operating Revenues	Schedule 4-10, line 5 * 12	(39,120)
10			
11	Operating Income Before Tax	(line 2 - line 7 + line 9)	160,297
12			
13	Federal Income Tax	Schedule 4-5, line 14	40,673
14			
15	Return (Operating Income)	Schedule 4-5, line 11 (line 11 - line 13)	<u>\$ 119,624</u>
16			
17	Rate of Return		<u>7.76%</u>
18			
19	Rate Base		
20	Plant in Service	Schedule 4-4, line 2	2,012,253
21	Less: Accumulated Depreciation	Schedule 4-4, line 5	120,791
22	Less: Accumulated Deferred Income Taxes	Schedule 4-4, line 15	349,915
23			
24	Total Rate Base	(line 20 - line 21 - line 22)	<u>\$ 1,541,548</u>



**BLACK HILLS ENERGY**  
**RATE BASE - TRANSMISSION FACILITIES**  
**Year Three Revenue Requirement Calculation**

Line No.	Description	(a) Plant in Service for Rate Base	(b) South Dakota Jurisdictional Allocation	(c) (a) * (b) South Dakota Plant in Service for Rate Base
1	Property, Plant, and Equipment			
2	Lookout to Sundance Hill 69 kV Rebuild	\$ 2,012,253	100.00%	\$ 2,012,253
3				
4				
5	Book Depreciation Reserve	Docket EL15-007 Year 1 + Schedule 4-9 line 6 + Schedule 4-5 line 3 * 50%		120,791
6				
7				
8	Accumulated Deferred Taxes	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
9	Transmission Facilities - Plant in Service - South Dakota	2,012,253	2,012,253	670,751
10	MACRS Table - Depreciation Rate (20 year life)	<u>51.875%</u>	<u>3.6095%</u>	<u>3.3385%</u>
11	South Dakota Tax Depreciation	<u>1,043,856</u>	<u>72,632</u>	<u>22,393</u>
12	South Dakota Book Depreciation	<u>66,683</u>	<u>54,331</u>	<u>18,110</u>
13	Timing Difference	<u>977,173</u>	<u>18,301</u>	<u>4,283</u>
14	Federal Income Tax Rate	<u>35.00%</u>	<u>35.00%</u>	<u>35.00%</u>
15	South Dakota Deferred Tax	<u>342,011</u>	<u>6,405</u>	<u>1,499</u>
16				
17				
18	South Dakota Rate Base	(line 2 - line 5 - line 15)		<u>\$ 1,541,548</u>
19				



**BLACK HILLS ENERGY**  
**OPERATING EXPENSES AND TAXES - TRANSMISSION FACILITIES**  
**Year Three Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Plant in Service	Depreciation Rate	South Dakota Depreciation Expense
1					
2	Depreciation Expense				
3	Lookout to Sundance Hill 69 kV Rebuild	Schedule 4-4 line 2	\$ 2,012,253	2.70%	\$ 54,331
4					
5					
6	Federal Tax				
7	Rate Base - South Dakota	Schedule 4-4 line 18			1,541,548
8					
9	Interest Expense	calculated			44,088
10	Return on Equity	calculated			75,536
11	Return	line 9 + line 10			119,624
12					
13	Authorized Return - 7.76%	Docket EL14-026			7.76%
14	Federal Tax Expense - South Dakota	((line 10 x line 18) - line 10)			40,673
15					
16					
17	Assumptions				
18	Tax Multiplier - Federal Tax Rate at 35% - tax multiplier	(1/(1-.35))			1.5385
19					



**BLACK HILLS ENERGY**  
**REVENUE REQUIREMENT BY CUSTOMER CLASS - TRANSMISSION FACILITIES**  
**Year Two Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Forecast
1			
2	Transmission Facilities Annual Revenue Requirement	Schedule 4-7 line 2	\$ 282,474
3	(June 1, 2015 through May 31, 2016)		
4	Production Capacity Allocators by Customer Class		
5	Residential	Section No. 3C, Sheet No. 16	34.00%
6	Small General Service	Section No. 3C, Sheet No. 16	34.33%
7	Large General Service and Industrial	Section No. 3C, Sheet No. 16	30.70%
8	Lighting	Section No. 3C, Sheet No. 16	0.97%
9			
10	Revenue Requirement by Customer Class		
11	Residential	line 2 x line 5	\$ 96,041
12	Small General Service	line 2 x line 6	\$ 96,973
13	Large General Service and Industrial	line 2 x line 7	\$ 86,720
14	Lighting	line 2 x line 8	\$ 2,740



**BLACK HILLS ENERGY**  
**COST OF SERVICE - TRANSMISSION FACILITIES**  
**Year Two Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Jurisdiction
1	Operating Revenue Required		
2	Transmission Facilities Revenue		\$ 282,474
3			
4	Operating Expenses		
5	Depreciation	Schedule 4-9, line 4	66,683
6	Assessed Filing Fee	Docket EL15-007	3,689
7	Total Operating Expenses		<u>70,372</u>
8			
9	Other Operating Revenues	Schedule 4-10, line 5	2,810
10			
11	Operating Income Before Tax	(line 2 - line 7 + line 9)	214,912
12			
13	Federal Income Tax	Schedule 4-9, line 15	54,531
14			
15	Return (Operating Income)	Schedule 4-9, line 12 (line 11 - line 13)	<u>\$ 160,381</u>
16			
17	Rate of Return		<u>7.76%</u>
18			
19	Rate Base		
20	Plant in Service	Schedule 4-8, line 5	2,469,753
21	Less: Accumulated Depreciation	Schedule 4-8, line 8	60,284
22	Less: Accumulated Deferred Income Taxes	Schedule 4-8, line 18	342,704
23			
24	Total Rate Base	(line 20 - line 21 - line 22)	<u>\$ 2,066,765</u>



**BLACK HILLS ENERGY**  
**RATE BASE - TRANSMISSION FACILITIES**  
**Year Two Revenue Requirement Calculation**

Line No.	Description	(a) South Dakota Plant in Service for Rate Base	(b) Allocation Based on Contribution Date	(c) (a) * (b) South Dakota Plant in Service Based on Contribution Date
1	Property, Plant, and Equipment			
2	Lookout to Sundance Hill 69 kV Rebuild	\$ 3,012,253	45.75%	\$ 1,378,106
3	Lookout to Sundance Hill 69 kV Rebuild, net of contribution	2,012,253	54.25%	1,091,647
4				
5	Total Plant in Service			<u>\$ 2,469,753</u>
6				
7				
8	Book Depreciation Reserve	Docket EL15-007 Year 1 + Schedule 4-9 line 4 * 50%		60,284
9				
10				
11	Accumulated Deferred Taxes		<u>Year 1</u>	<u>Year 2</u>
12	Transmission Facilities - Plant in Service - South Dakota		2,012,253	670,751
13	MACRS Table - Depreciation Rate (20 year life)		51.875%	3.6095%
14	South Dakota Tax Depreciation		1,043,856	24,211
15	South Dakota Book Depreciation		66,683	22,228
16	Timing Difference		977,173	1,983
17	Federal Income Tax Rate		35.00%	35.00%
18	South Dakota Deferred Tax		342,010	694
19				
20				
21	South Dakota Rate Base		(line 5 - line 8 - line 18)	<u>\$ 2,066,765</u>
22				
23				

24 Note (1) - Allocation % is for the time period from June 1, 2015 through November 15, 2015. The Company received a \$1 million investment to the  
25 addition from Butte Electric on November 16, 2015.

26 Note (2) - Allocation % is for the time period of November 16, 2015 through May 31, 2016.



**BLACK HILLS ENERGY**  
**OPERATING EXPENSES AND TAXES - TRANSMISSION FACILITIES**  
**Year Two Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota		
1					
2			South Dakota	Depreciation	Depreciation
3	Depreciation Expense		Plant in Service	Rate	Expense
4	Lookout to Sundance Hill 69 kV Rebuild	Schedule 4-8 line 5	2,469,753	2.70%	66,683
5					
6					
7	Federal Tax				
8	Rate Base - South Dakota	Schedule 4-8 line 21			2,066,765
9					
10	Interest Expense	calculated			59,109
11	Return on Equity	calculated			101,271
12	Return	line 10 + line 11			160,381
13					
14	Authorized Return - 7.76%	Docket EL14-026			7.76%
15	Federal Tax Expense - South Dakota	((line 11 x line 19) - line 11)			54,531
16					
17					
18	Assumptions				
19	Tax Multiplier - Federal Tax Rate at 35% - tax multiplier	(1/(1-.35))			1.5385
20					



**BLACK HILLS ENERGY**  
**OTHER OPERATING REVENUE - TRANSMISSION FACILITIES**  
**Year Two Revenue Requirement Calculation**

<u>Line No.</u>	<u>Description</u>	<u>Monthly Joint Ownership Agreement Revenue</u>	<u>Number of Months</u>	<u>Total Revenue</u>
1	Rent from Electric Property			
2	Lookout to Sundance Hill 69 kV Rebuild			
3	System Additions	\$ 5,126	12	\$ 61,512
4	Investment - (Note 1)	\$ (8,386)	7	\$ (58,702)
5	Total	<u>\$ (3,260)</u>		<u>\$ 2,810</u>
6				
7	Note (1) - Investment in new addition, made by Coop on November 16, 2015.			
8	Credit will be applied beginning November 2015			



**BLACK HILLS ENERGY**  
**RESIDENTIAL CUSTOMER IMPACT**  
**TFA Rate Change**

<u>LINE NO.</u>	<u>CUSTOMER IMPACT</u>	<u>CURRENT RATES</u>	<u>PROPOSED TFA RATE</u>	<u>INCREASE OR (DECREASE)</u>
1				
2	<b><u>Residential Service</u></b>			
3	<b>TRANSMISSION FACILITY ADJUSTMENT RATE</b>			
4	TFA Rate	\$ / kWh \$ 0.00010	\$ 0.00013	\$ 0.00003
5				
6				
7				
8	Monthly Customer Charge	\$ 9.25		\$ 9.25
9	Energy Charge - Base Rate at average monthly kWh	\$ 0.09989 x	650 kWh	64.93
10	Base Costs	\$ 0.02270 x	650 kWh	14.76
11	Energy Cost Adjustment at average monthly kWh	\$ 0.00960 x	650 kWh	6.24
12	Transmission Facility at average monthly kWh	\$ 0.00010 x	650 kWh	0.07
13	Environmental Improvement Adjustment at average monthly kWh	\$ 0.00012 x	650 kWh	0.08
14	Energy Efficiency at average monthly kWh	\$ 0.00040 x	650 kWh	0.26
15	Current Total Bill at monthly average			\$ 95.59
16	TFA Rate Change at monthly average kWh	\$ 0.00003 x	650 kWh	0.02
17	Proposed Total Residential Bill			\$ 95.61
18	Percent Change			0.02%