



**TRANSMISSION FACILITY ADJUSTMENT**  
**For the Pro Forma Year Ended May 31, 2018**

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**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**COST RECOVERY RATE - TRANSMISSION FACILITIES**  
**Rate Calculation Effective June 1, 2017**

Line No.	Description	Reference	South Dakota
1			
2	Transmission Facilities Year 4 Revenue Requirement (June 1, 2017 through May 31, 2018)	Schedule 4-3, line 2	\$ 269,141
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 4th Year TFA Revenue Requirement	line 2 x line 5	\$ 91,508
13	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 10	2,824
14	Net Residential Revenue Requirement	line 12 + line 13	<u>\$ 94,332</u>
15			
16	Small General Service		
17	Forecasted 4th Year TFA Revenue Requirement	line 2 x line 6	\$ 92,396
18	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 23	(4,378)
19	Net Small General Service Revenue Requirement	line 17 + line 18	<u>\$ 88,018</u>
20			
21	Large General Service and Industrial		
22	Forecasted 4th Year TFA Revenue Requirement	line 2 x line 7	\$ 82,626
23	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 36	5,569
24	Net Large General Service and Industrial Revenue Requirement	line 22 + line 23	<u>\$ 88,195</u>
25			
26	Lighting		
27	Forecasted 4th Year TFA Revenue Requirement	line 2 x line 8	\$ 2,611
28	Balancing Account Under/(Over) Recovery	Schedule 4-2, line 49	100
29	Net Lighting Revenue Requirement	line 27 + line 28	<u>\$ 2,711</u>
30			
31	Forecasted South Dakota kWh sales		
32	Residential	6/1/17 - 5/31/18 BHP Sales Budget	510,232,411
33	Small General Service	6/1/17 - 5/31/18 BHP Sales Budget	419,366,619
34	Large General Service and Industrial	6/1/17 - 5/31/18 BHP Sales Budget	553,361,522
35	Lighting	6/1/17 - 5/31/18 BHP Sales Budget	13,833,473
36			
37	Transmission Facilities Adjustment Rate / kWh (June 1, 2017 through May 31, 2018)		
38	Residential	line 14 ÷ line 32	\$ 0.00018
39	Small General Service	line 19 ÷ line 33	\$ 0.00021
40	Large General Service and Industrial	line 24 ÷ line 34	\$ 0.00016
41	Lighting	line 29 ÷ line 35	\$ 0.00020



**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**TFA ANNUAL BALANCING ACCOUNT TRUE-UP**

Line No.		Actual Jan-16	Actual Feb-16	Actual Mar-16	Actual Apr-16	Actual May-16	Actual Jun-16	Actual Jul-16	Actual Aug-16	Actual Sep-16	Actual Oct-16	Actual Nov-16	Actual Dec-16	Actual Jan-17	Forecast Feb-17	Forecast Mar-17	Forecast Apr-17	Forecast May-17	Forecast Jun-17
1	<b>Residential</b>																		
2	Expected Recovery	\$ 8,176	\$ 8,176	\$ 8,176	\$ 8,176	\$ 8,176	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 7,792	\$ 3,896
3	Actual Revenues	5,550	4,825	4,275	4,077	3,544	4,339	6,649	6,924	5,476	4,692	4,872	7,493	9,547	7,336	6,425	6,159	5,350	2,700
4	Monthly Under/(Over) Recovery	2,627	3,352	3,902	4,099	4,632	3,452	1,143	868	2,316	3,100	2,920	299	(1,755)	456	1,367	1,633	2,442	1,196
5																			
6	Days in Current Month	31	29	31	30	31	30	31	31	30	31	30	31	31	28	31	30	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	(187)	(157)	(146)	(119)	(96)	(73)	(70)	(65)	(50)	(33)	(16)	(15)	(25)	(20)	(15)	(5)	10	16
9																			
10	Balancing Account	\$ (31,719)	\$ (28,525)	\$ (24,769)	\$ (20,789)	\$ (16,253)	\$ (12,874)	\$ (11,801)	\$ (10,997)	\$ (8,731)	\$ (5,664)	\$ (2,760)	\$ (2,476)	\$ (4,256)	\$ (3,821)	\$ (2,468)	\$ (840)	\$ 1,612	\$ 2,824
11																			
12																			
13	<b>Small General Service</b>																		
14	Expected Recovery	\$ 8,256	\$ 8,256	\$ 8,256	\$ 8,256	\$ 8,256	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 7,867	\$ 3,934
15	Actual Revenues	5,433	5,148	4,956	4,954	4,737	5,742	7,442	7,927	6,866	5,771	5,398	6,193	7,223	5,863	5,721	5,572	5,341	2,905
16	Monthly Under/(Over) Recovery	2,823	3,108	3,300	3,302	3,519	2,125	426	(60)	1,002	2,097	2,470	1,674	644	2,005	2,147	2,296	2,526	1,029
17																			
18	Interest:																		
19	Days in Current Month	31	29	31	30	31	30	31	31	30	31	30	31	31	28	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	(214)	(184)	(178)	(154)	(139)	(124)	(126)	(127)	(118)	(110)	(93)	(87)	(84)	(65)	(60)	(45)	(32)	(25)
22																			
23	Balancing Account	\$ (36,236)	\$ (33,311)	\$ (30,189)	\$ (27,042)	\$ (23,663)	\$ (21,661)	\$ (21,361)	\$ (21,548)	\$ (20,664)	\$ (18,677)	\$ (16,301)	\$ (14,713)	\$ (14,153)	\$ (12,213)	\$ (10,126)	\$ (7,876)	\$ (5,381)	\$ (4,378)
24																			
25																			
26	<b>Large General Service and Industrial</b>																		
27	Expected Recovery	\$ 7,383	\$ 7,383	\$ 7,383	\$ 7,383	\$ 7,383	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 7,036	\$ 3,518
28	Actual Revenues	3,651	3,527	3,475	3,716	3,014	3,996	4,807	4,953	4,666	4,420	4,604	4,597	4,358	5,113	4,263	4,770	4,587	2,617
29	Monthly Under/(Over) Recovery	3,732	3,856	3,908	3,666	4,369	3,040	2,229	2,083	2,369	2,616	2,431	2,439	2,677	1,923	2,772	2,265	2,449	901
30																			
31	Interest:																		
32	Days in Current Month	31	29	31	30	31	30	31	31	30	31	30	31	31	28	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	(231)	(196)	(187)	(161)	(142)	(121)	(112)	(100)	(84)	(72)	(56)	(44)	(28)	(15)	(1)	12	27	32
35																			
36	Balancing Account	\$ (39,174)	\$ (35,515)	\$ (31,794)	\$ (28,289)	\$ (24,062)	\$ (21,143)	\$ (19,026)	\$ (17,044)	\$ (14,759)	\$ (12,215)	\$ (9,840)	\$ (7,445)	\$ (4,796)	\$ (2,889)	\$ (118)	\$ 2,160	\$ 4,637	\$ 5,569
37																			
38																			
39	<b>Lighting</b>																		
40	Expected Recovery	\$ 233	\$ 233	\$ 233	\$ 233	\$ 233	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 222	\$ 111
41	Actual Revenues	282	242	244	208	180	145	131	150	157	179	189	204	209	168	163	150	133	61
42	Monthly Under/(Over) Recovery	(49)	(9)	(10)	25	54	77	91	72	65	44	34	18	14	54	60	72	90	51
43																			
44	Interest:																		
45	Days in Current Month	31	29	31	30	31	30	31	31	30	31	30	31	31	28	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	(4)	(4)	(4)	(4)	(4)	(3)	(3)	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(0)	0	(3)
48																			
49	Balancing Account	\$ (664)	\$ (677)	\$ (692)	\$ (670)	\$ (620)	\$ (546)	\$ (458)	\$ (388)	\$ (324)	\$ (282)	\$ (250)	\$ (233)	\$ (221)	\$ (168)	\$ (109)	\$ (37)	\$ 53	\$ 100



**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**COST OF SERVICE - TRANSMISSION FACILITIES**  
**Year Four Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Jurisdiction
1	Operating Revenue Required		
2	Transmission Facilities Revenue		\$ 269,141
3			
4	Operating Expenses		
5	Depreciation	Schedule 4-5, line 3	52,608
6	Assessed Filing Fee	Docket EL 15-007, July 2016 Invoice	4,367
7	Total Operating Expenses		<u>56,975</u>
8			
9	Other Operating Revenues	Schedule 4-10, (line 6)	(62,215)
10			
11	Operating Income Before Tax	(line 2 - line 7 + line 9)	149,950
12			
13	Federal Income Tax	Schedule 4-5, line 14	38,048
14			
15	Return (Operating Income)	Schedule 4-5, line 11 (line 11 - line 13)	<u>\$ 111,902</u>
16			
17	Rate of Return		<u>7.76%</u>
18			
19	Rate Base		
20	Plant in Service	Schedule 4-4, line 2	\$ 1,948,427
21	Less: Accumulated Depreciation	Schedule 4-4, line 5	162,913
22	Less: Accumulated Deferred Income Taxes	Schedule 4-4, sum of line 15	343,472
23			
24	Total Rate Base	(line 20 - line 21 - line 22)	<u>\$ 1,442,042</u>



**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**RATE BASE - TRANSMISSION FACILITIES**  
**Year Four Revenue Requirement Calculation**

Line No.	Description	(a) South Dakota Plant in Service for Rate Base	(b) Allocation Based on Contribution Base	(c) (a) * (b) South Dakota Plant in Service for Rate Base
1	Property, Plant, and Equipment			
2	Lookout to Sundance Hill 69 kV Rebuild	\$ 1,948,427	100.00%	\$ 1,948,427
3				
4		Workpaper WP - Plant and Reserve, line 27, Column (l) +		
5	Book Depreciation Reserve	Schedule 4-5 line 3 * 50% ( 136608.92 + 26303.76 )		162,913
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	1,948,427	1,948,427	1,948,427
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>1,010,746</u>	<u>70,328</u>	<u>65,048</u>
12	South Dakota Book Depreciation	<u>62,082</u>	<u>52,608</u>	<u>52,608</u>
13	Timing Difference	<u>948,665</u>	<u>17,720</u>	<u>12,440</u>
14	Federal Income Tax Rate	<u>35.00%</u>	<u>35.00%</u>	<u>35.00%</u>
15	South Dakota Deferred Tax	<u>332,033</u>	<u>6,202</u>	<u>4,354</u>
16				
17				
18	South Dakota Rate Base	(line 2 - line 5 - (sum of line 15))		\$ 1,442,042
19				



**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**OPERATING EXPENSES AND TAXES - TRANSMISSION FACILITIES**  
**Year Four Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Plant in Service	Depreciation Rate	South Dakota Depreciation Expense
1			South Dakota	Depreciation	Depreciation
2	Depreciation Expense		Plant in Service	Rate	Expense
3	Lookout to Sundance Hill 69 kV Rebuild	Schedule 4-4 line 2	\$ 1,948,427	2.70%	\$ 52,608
4					
5					
6	Federal Tax				
7	Rate Base - South Dakota	Schedule 4-4 Column (c), line 18			\$ 1,442,042
8					
9	Interest Expense	calculated			41,242
10	Return on Equity	calculated			70,660
11	Return	line 9 + line 10			111,902
12					
13	Authorized Return - 7.76%	Docket EL14-026			7.76%
14	Federal Tax Expense - South Dakota	((line 10 x line 18) - line 10)			\$ 38,048
15					
16					
17	Assumptions				
18	Tax Multiplier - Federal Tax Rate at 35% - tax multiplier	(1/(1-.35))			1.5385
19					



**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**REVENUE REQUIREMENT BY CUSTOMER CLASS - TRANSMISSION FACILITIES**  
**Year Three Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Forecast
1			
2	Transmission Facilities Annual Revenue Requirement (June 1, 2016 through May 31, 2017)	Schedule 4-7 line 2	\$ 275,005
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	line 2 x line 5	\$ 93,502
12	Small General Service	line 2 x line 6	\$ 94,409
13	Large General Service and Industrial	line 2 x line 7	\$ 84,426
14	Lighting	line 2 x line 8	\$ 2,668



**BLACK HILLS POWER, INC. D/B/A 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		\$ 275,005
3			
4	Operating Expenses		
5	Depreciation	Schedule 4-9, line 4	52,608
6	Assessed Filing Fee	Docket EL 15-007, July 2016 Invoice	4,367
7	Total Operating Expenses		<u>56,975</u>
8			
9	Other Operating Revenues	Schedule 4-10, line 6	(62,215)
10			
11	Operating Income Before Tax	(line 2 - line 7 + line 9)	155,815
12			
13	Federal Income Tax	Schedule 4-9, line 15	39,536
14			
15	Return (Operating Income)	Schedule 4-9, line 12 (line 11 - line 13)	<u>\$ 116,279</u>
16			
17	Rate of Return		<u>7.76%</u>
18			
19	Rate Base		
20	Plant in Service	Schedule 4-8, line 5	\$ 1,948,427
21	Less: Accumulated Depreciation	Schedule 4-8, line 8	110,305
22	Less: Accumulated Deferred Income Taxes	Schedule 4-8, sum of line 18	339,686
23			
24	Total Rate Base	(line 20 - line 21 - line 22)	<u>\$ 1,498,435</u>





**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**RATE BASE - TRANSMISSION FACILITIES**  
**Year Three 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	\$ 1,948,427	100.00%	\$ 1,948,427
3				
4				
5	Total Plant in Service			<u>\$ 1,948,427</u>
6				
7		Workpaper WP- Plant and Reserve, line 15, Column (I) +		
8	Book Depreciation Reserve	Schedule 4-9 line 4 * 50% ( \$84001.4 + 26303.76 )		110,305
9				
10				
11	Accumulated Deferred Taxes	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
12	Transmission Facilities - Plant in Service - South Dakota	1,948,427	1,948,427	649,476
13	MACRS Table - Depreciation Rate (20 year life)	<u>51.875%</u>	<u>3.6095%</u>	<u>3.3385%</u>
14	South Dakota Tax Depreciation	<u>1,010,746</u>	<u>70,328</u>	<u>21,683</u>
15	South Dakota Book Depreciation	<u>62,082</u>	<u>52,608</u>	<u>17,536</u>
16	Timing Difference	<u>948,664</u>	<u>17,720</u>	<u>4,147</u>
17	Federal Income Tax Rate	<u>35.00%</u>	<u>35.00%</u>	<u>35.00%</u>
18	South Dakota Deferred Tax	<u>332,033</u>	<u>6,202</u>	<u>1,451</u>
19				
20				
21	South Dakota Rate Base		(line 5 - line 8 - (sum of line 18))	<u>\$ 1,498,435</u>
22				



**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**OPERATING EXPENSES AND TAXES - TRANSMISSION FACILITIES**  
**Year Three Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota
1			
2			South Dakota
3	Depreciation Expense		Plant in Service      Depreciation      Depreciation Rate      Expense
4	Lookout to Sundance Hill 69 kV Rebuild	Schedule 4-8 line 5	\$ 1,948,427      2.70%      \$ 52,608
5			
6			
7	Federal Tax		
8	Rate Base - South Dakota	Schedule 4-8 line 21	1,498,435
9			
10	Interest Expense	calculated	42,855
11	Return on Equity	calculated	73,423
12	Return	line 10 + line 11	116,279
13			
14	Authorized Return - 7.76%	Docket EL14-026	7.76%
15	Federal Tax Expense - South Dakota	((line 11 x line 19) - line 11)	39,536
16			
17			
18	Assumptions		
19	Tax Multiplier - Federal Tax Rate at 35% - tax multiplier	(1/(1-.35))	1.5385
20			



**BLACK HILLS POWER, INC. D/B/A BLACK HILLS ENERGY**  
**OTHER OPERATING REVENUE - TRANSMISSION FACILITIES**  
**Year Three and Four 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 Monthly	\$ 2,941	12	\$ 35,296
4	Investment - (Note 1)	\$ (8,126)	12	\$ (97,512)
5				
6	Other Operating Revenues Year 2	<u>\$ (5,185)</u>		<u>\$ (62,215)</u>
7				
8	Note (1) - Investment in new addition, made by Coop on November 16, 2015.			
9	Credit will be applied beginning November 2015			