

**BLACK HILLS POWER  
ENVIRONMENTAL IMPROVEMENTS**

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**BLACK HILLS POWER**  
**COST RECOVERY RATE - ENVIRONMENTAL IMPROVEMENTS**

Line No.	Description	Reference	South Dakota Forecast
1			
2	Year 3 Revenue Requirement	Schedule 4-6 line 2	\$ 593,921
3			
4	Production Capacity Allocators by Customer Class		
5	Residential	Docket No. EL09-018	35.31%
6	Small General Service	Docket No. EL09-018	35.27%
7	Large General Service and Industrial	Docket No. EL09-018	28.53%
8	Lighting	Docket No. EL09-018	0.89%
9			
10	Revenue Requirement by Customer Class		
11	Residential	line 2 x line 5	\$ 209,714
12	Annual True Up Over Recovery	Schedule 4-1.2 line 10	30,479
13	Net Residential Revenue Requirement	line 11 + line 12	\$ 240,193
14			
15	Small General Service	line 2 x line 6	\$ 209,476
16	Annual True Up Over Recovery	Schedule 4-1.2 line 23	(12,153)
17	Net Small General Service Revenue Requirement	line 15 + line 16	\$ 197,323
18			
19	Large General Service and Industrial	line 2 x line 7	\$ 169,446
20	Annual True Up Under Recovery	Schedule 4-1.2 line 38	(33,619)
21	Net Large General Service and Industrial Revenue Requirement	line 19 + line 20	\$ 135,827
22			
23	Lighting	line 2 x line 8	\$ 5,286
24	Annual True Up Under Recovery	Schedule 4-1.2 line 51	(1,910)
25	Net Large General Service and Industrial Revenue Requirement	line 23 + line 24	\$ 3,376
26			
27	Forecasted South Dakota kWh sales (June 1, 2013 through May 31, 2014)		
28	Residential	BHP 2013 Budget	522,093,897
29	Small General Service	BHP 2013 Budget	424,088,428
30	Large General Service and Industrial	BHP 2013 Budget	534,518,094
31	Lighting	BHP 2013 Budget	14,092,317
32			
33	Environmental Improvement Adjustment Rate / kWh		
34	Residential	line 13 + line 28	\$ 0.0005
35	Small General Service	line 17 + line 29	\$ 0.0005
36	Large General Service and Industrial	line 21 + line 30	\$ 0.0003
37	Lighting	line 25 + line 31	\$ 0.0002
38			
39	Residential Monthly Bill Impact - (current rate - prior rate) x ave. monthly kWh usage	(line 34 - .0019) x 673 kWh	\$ (0.94)
40	Residential % Bill Impact	(line 39 + \$83.87)	-1.12%

**BLACK HILLS POWER**  
**COST RECOVERY - ANNUAL BALANCING ACCOUNT TRUE-UP**

Line No.	Actual Mar-12	Actual Apr-12	Actual May-12	Actual Jun-12	Actual Jul-12	Actual Aug-12	Actual Sep-12	Actual Oct-12	Actual Nov-12	Actual Dec-12	Actual Jan-13	Actual Feb-13	Actual Mar-13	Forecasted Apr-13	Forecasted May-13	Forecasted Jun-13	
1	<b>Residential</b>																
2	Expected Recovery	\$ 86,148	\$ 86,148	\$ 86,148	\$ 86,204	\$ 86,261	\$ 86,261	\$ 86,261	\$ 86,261	\$ 86,261	\$ 86,261	\$ 86,261	\$ 86,261	\$ 86,261	\$ 86,261	\$ 43,131	
3	Actual Revenues	100,375	73,928	69,863	66,030	88,007	95,347	80,514	62,232	75,917	87,856	107,205	96,253	94,060	77,790	33,107	
4	Monthly Under/(Over) Recovery	(14,227)	12,220	16,284	20,174	(1,746)	(9,086)	5,747	24,029	10,344	(1,595)	(20,944)	(9,992)	(7,799)	8,471	10,023	
5	Interest:																
6	Days in Current Month	31	30	31	30	31	31	30	31	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%	
8	Monthly Interest	(263)	(186)	(96)	22	13	(41)	(7)	136	191	190	66	(39)	11	120	174	
9	Balancing Account																
10		\$ (44,527)	\$ (32,493)	\$ (16,305)	\$ 3,892	\$ 2,158	\$ (6,969)	\$ (1,228)	\$ 22,936	\$ 33,472	\$ 32,066	\$ 11,188	\$ 1,203	\$ (6,635)	\$ 1,847	\$ 20,281	\$ 30,479
11	<b>Commercial</b>																
12	Expected Recovery																
13	Expected Recovery	\$ 86,050	\$ 86,050	\$ 86,050	\$ 86,107	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 86,163	\$ 43,082
14	Actual Revenues	90,187	81,014	83,491	82,109	97,285	107,315	95,787	76,921	73,839	76,958	85,986	81,103	79,380	70,389	38,940	
15	Monthly Under/(Over) Recovery	(4,136)	5,036	2,559	3,998	(11,122)	(21,152)	(9,624)	9,243	12,324	9,205	178	5,061	6,783	15,774	4,141	
16	Interest:																
17	Days in Current Month	31	30	31	30	31	31	30	31	31	31	28	31	30	31	30	
18	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%	
19	Monthly Interest	(318)	(280)	(276)	(246)	(322)	(449)	(493)	(457)	(374)	(334)	(335)	(277)	(268)	(170)	(70)	
20	Balancing Account																
21		\$ (53,759)	\$ (49,003)	\$ (46,720)	\$ (42,968)	\$ (54,411)	\$ (76,012)	\$ (86,129)	\$ (77,343)	\$ (65,393)	\$ (56,522)	\$ (56,679)	\$ (51,895)	\$ (45,381)	\$ (29,777)	\$ (16,225)	\$ (12,153)
22	<b>Industrial</b>																
23	Expected Recovery																
24	Expected Recovery	\$ 43,119	\$ 43,119	\$ 43,119	\$ 41,206	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 39,293	\$ 19,646
25	Actual Revenues	43,705	42,468	42,932	40,971	42,984	45,281	45,376	39,262	38,331	38,573	40,874	35,912	38,601	38,606	21,045	
26	Monthly Under/(Over) Recovery	(585)	652	188	235	(3,691)	(5,988)	(6,084)	30	961	720	(1,581)	3,381	691	686	(1,399)	
27	Interest:																
28	Days in Current Month	31	30	31	30	31	31	30	31	31	31	28	31	30	31	30	
29	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%	
30	Monthly Interest	(118)	(112)	(115)	(110)	(137)	(173)	(204)	(211)	(200)	(204)	(214)	(177)	(193)	(183)	(192)	
31	Balancing Account																
32		\$ (20,038)	\$ (19,498)	\$ (19,425)	\$ (19,301)	\$ (23,128)	\$ (29,289)	\$ (35,576)	\$ (35,757)	\$ (34,996)	\$ (34,480)	\$ (36,275)	\$ (33,071)	\$ (32,572)	\$ (32,069)	\$ (32,028)	\$ (33,619)
33	<b>Lighting</b>																
34	Expected Recovery																
35	Expected Recovery	\$ 2,171	\$ 2,171	\$ 2,171	\$ 2,173	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 2,174	\$ 1,087
36	Actual Revenues	2,331	2,105	1,830	1,658	1,675	1,883	1,968	2,365	2,394	2,687	2,793	2,408	2,115	2,607	1,128	
37	Monthly Under/(Over) Recovery	(160)	66	341	515	499	291	206	(191)	(219)	(513)	(619)	(233)	59	(432)	(41)	
38	Interest:																
39	Days in Current Month	31	30	31	30	31	31	30	31	31	31	28	31	30	31	30	
40	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%	
41	Monthly Interest	(8)	(7)	(6)	(3)	0	2	3	2	1	(2)	(6)	(7)	(7)	(9)	(11)	
42	Balancing Account																
43		\$ (1,361)	\$ (1,302)	\$ (967)	\$ (455)	\$ 45	\$ 338	\$ 547	\$ 358	\$ 140	\$ (375)	\$ (999)	\$ (1,239)	\$ (1,187)	\$ (1,629)	\$ (1,858)	\$ (1,910)

**BLACK HILLS POWER**  
**COST OF SERVICE - ENVIRONMENTAL IMPROVEMENTS**  
**Year Two Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Only
1	Operating Revenue Required		
2	Environmental Improvement Revenue - Year 2		\$ 2,931,558
3			
4	Operating Expenses		
5	Depreciation	Schedule 4-4, line 6	766,863
5a	EL12-029 Assessed Filing Fee	Company Records	2,136
6	Property Taxes	Schedule 4-4, line 23	189,042
7	Total Operating Expenses	line 5 + line 5a + line 6	<u>958,040</u>
8			
9	Operating Income Before Tax	(line 2 - line 7)	1,973,518
10			
11	Federal Income Tax	Schedule 4-4, line 17	510,941
12			
13	Return (Operating Income)	Schedule 4-4, line 14 or (line 9 - line 11)	<u>\$ 1,462,576</u>
14			
15	Rate of Return		<u>8.20%</u>
16			
17	Rate Base		
18	Plant in Service	Schedule 4-3, line 5	25,225,746
19	Less: Accumulated Depreciation	Schedule 4-3, line 8	1,150,294
20	Less: Accumulated Deferred Income Taxes	Schedule 4-3, line 22	(283,859)
21	Less: Accumulated Deferred Adjustment	Schedule 4-3, line 25	6,523,016
22			
23	Total Rate Base	(line 18 - line 19 - line 20 - line 21)	<u>\$ 17,836,296</u>

**BLACK HILLS POWER**  
**RATE BASE - ENVIRONMENTAL IMPROVEMENTS**  
**Year Two Revenue Requirement Calculation**

Line No.	Description	Reference	Plant in Service for Rate Base	(Schedule 4-4) South Dakota Allocation	South Dakota Plant in Service for Rate Base
1	Property, Plant, and Equipment				
2	SO2 and PM Emission Control Upgrade	Docket EL12-029	\$ 25,007,134	91.53%	\$ 22,889,060
3	NOX Clean Air Initiative	Docket EL12-029	2,552,915	91.53%	2,336,686
4					
5	Total Plant in Service - Environmental Improvements		<u>\$ 27,560,049</u>		<u>25,225,746</u>
6					
7					
8	Book Depreciation Reserve	Schedule 4-4 line 6 x 150%			<u>1,150,294</u>
9					
10					
11	Accumulated Deferred Taxes				
12	Environmental Improvements - Plant in Service - South Dakota	line 5			25,225,746
13	Less: Bonus Depreciation	Docket EL12-029			<u>18,637,187</u>
14					6,588,559
15					
16	MACRS Table - Depreciation Rate (20 year life)			Year 1 3.75%	7.219%
17					
18	South Dakota Tax Depreciation	line 14 x line 16		247,071	475,628
19	South Dakota Book Depreciation	Schedule 4-4 line 6		<u>766,863</u>	<u>766,863</u>
20	Timing Difference	line 18 - line 19		(519,792)	(291,235)
21					
22	South Dakota Deferred Tax	line 20 x 35%		<u>(181,927)</u>	<u>(101,932)</u>
23					
24					
25	Accumulated Deferred Taxes Adjustment	Docket EL12-029			<u>6,523,016</u>
26					
27					
28	South Dakota Rate Base	(line 5 - line 8 - line 22 - line 25)			<u>\$ 17,836,295</u>

**BLACK HILLS POWER**  
**OPERATING EXPENSES AND TAXES - ENVIRONMENTAL IMPROVEMENTS**  
**Year Two Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota	
1				
2			South Dakota	Depreciation
3	Depreciation Expense		Plant in Service	Rate
4	SO2 and PM Emission Control Upgrade	Schedule 4-3 line 2	22,889,060	3.04%
5	NOX Clean Air Initiative	Schedule 4-3 line 3	2,336,686	3.04%
6	Depreciation Expense - South Dakota	line 4 + line 5		<u>766,863</u>
7				
8				
9	Federal Tax			
10	Rate Base - South Dakota	Schedule 4-3 line 28		17,836,295
11				
12	Interest Expense	calculated		513,685
13	Return on Equity	calculated		948,891
14	Return	line 12 + line 13		<u>1,462,576</u>
15				
16	Authorized Return			<u>8.20%</u>
17	Federal Tax Expense - South Dakota	((line 13 x line 27) - line 13)		<u>510,941</u>
18				
19				
20	Property Taxes			
21	SD Plant in Service - Environmental Improvements	Schedule 4-3 line 5		\$ 25,225,746
22	Effective Blended Tax Rate	Docket No. EL09-018		<u>0.7494%</u>
23	Property Tax - South Dakota	line 21 x line 22		<u>\$ 189,042</u>
24				
25				
26	Assumptions			
27	Tax Multiplier - Federal Tax Rate at 35% - tax multiplier	(1/(1-.35))		1.5385
28				
29	Allocation Factor		<u>Total</u>	<u>South Dakota</u>
30	Production Capacity (kW 1CP)	Docket No. EL09-018	332,000	303,880
31	Production Capacity (kW 1CP)	Docket No. EL09-018	100%	91.53%

**BLACK HILLS POWER**  
**COST OF SERVICE - ENVIRONMENTAL IMPROVEMENTS**  
**Year Three Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota Only
1	Operating Revenue Required		
2	Environmental Improvement Revenue - Year 2		\$ 593,921
3			
4	Operating Expenses		
5	Depreciation	Schedule 4-8, line 6b	159,676
5a	Assessed Filing Fee (EL13-0XX)	Estimate based on EL12-029	2,136
6	Property Taxes	Schedule 4-8, line 23	39,362
7	Total Operating Expenses	line 5 + line 5a + line 6	<u>201,174</u>
8			
9	Operating Income Before Tax	(line 2 - line 7)	392,747
10			
11	Federal Income Tax	Schedule 4-8, line 17	100,061
12			
13	Return (Operating Income)	Schedule 4-4, line 14 or (line 9 - line 11)	<u>\$ 292,686</u>
14			
15	Rate of Return		<u>8.08%</u>
16			
17	Rate Base		
18	Plant in Service	Schedule 4-7, line 5	25,225,746
19	Less: Accumulated Depreciation	Schedule 4-7, line 8b	1,613,563
20	Less: Accumulated Deferred Income Taxes	Schedule 4-7, line 22	(307,686)
21	Less: Accumulated Deferred Adjustment	Schedule 4-7, line 25	6,523,016
22			
23	Total Rate Base	(line 18 - line 19 - line 20 - line 21)	<u>\$ 17,396,853</u>

**BLACK HILLS POWER  
RATE BASE - ENVIRONMENTAL IMPROVEMENTS  
Year Three Revenue Requirement Calculation**

Line No.	Description	Reference	Plant in Service for Rate Base	(Schedule 4-8) South Dakota Allocation	South Dakota Plant in Service for Rate Base
1	Property, Plant, and Equipment				
2	SO2 and PM Emission Control Upgrade	Docket EL12-029	\$ 25,007,134	91.53%	\$ 22,889,060
3	NOX Clean Air Initiative	Docket EL12-029	2,552,915	91.53%	2,336,686
4					
5	Total Plant in Service - Environmental Improvements		<u>\$ 27,560,049</u>		<u>25,225,746</u>
6					
7					
8	Book Depreciation Reserve Yr 2 Year End	Schedule 4-4 line 6 x 200%			1,533,725
8a	1/2 2013 EIA Depreciation Expense	Schedule 4-8, line 6b			79,838
8b	Total Book Depreciation Reserve	line 8 + line 8a			<u>1,613,563</u>
9					
10					
11	Accumulated Deferred Taxes				
12	Environmental Improvements - Plant in Service - South Dakota	line 5			25,225,746
13	Less: Bonus Depreciation	Docket EL12-029			18,637,187
14					6,588,558
15					
16	MACRS Table - Depreciation Rate (20 year life)		<u>Year 1</u> 3.75%	<u>Year 2</u> 7.219%	6.677%
17					
18	South Dakota Tax Depreciation	line 14 x line 16 x 76/365	247,071	475,628	91,599
19	South Dakota Book Depreciation	Schedule 4-8 line 6	766,863	766,863	159,676
20	Timing Difference	line 18 - line 19	(519,792)	(291,235)	(68,077)
21					
22	South Dakota Deferred Tax	line 20 x 35%	<u>(181,927)</u>	<u>(101,932)</u>	<u>(23,827)</u>
23					
24					
25	Accumulated Deferred Taxes Adjustment	Docket EL12-029			6,523,016
26					
27					
28	South Dakota Rate Base	(line 5 - line 8 - line 22 - line 25)			<u>\$ 17,396,853</u>



**BLACK HILLS POWER**  
**OPERATING EXPENSES AND TAXES - ENVIRONMENTAL IMPROVEMENTS**  
**Year Three Revenue Requirement Calculation**

Line No.	Description	Reference	South Dakota	
1				
2			South Dakota	Depreciation
3	Depreciation Expense		Plant in Service	Rate
4	SO2 and PM Emission Control Upgrade	Schedule 4-7 line 2	22,889,060	3.04%
5	NOX Clean Air Initiative	Schedule 4-7 line 3	2,336,686	3.04%
6	Annual Depreciation Expense - South Dakota	line 4 + line 5		766,863
6a	Year 3 EIA Cost Recovery Period (Apr 1 - June 15)	76 days / 365 days		0.2082
6b	Year 3 Depreciation Expense	line 6 * line 6a		159,676
7				
8				
9	Federal Tax			
10	Rate Base - South Dakota	Schedule 4-7 line 28		17,396,853
11				
12	Interest Expense	calculated * (76/365)		106,860
13	Return on Equity	calculated * (76/365)		185,827
14	Return	line 12 + line 13		292,687
15				
16	Authorized Return			8.08%
17	Federal Tax Expense - South Dakota	((line 13 x line 27) - line 13)		100,061
18				
19				
20	Property Taxes			
21	SD Plant in Service - Environmental Improvements	Schedule 4-3 line 5		\$ 25,225,746
22	Effective Blended Tax Rate	Docket No. EL09-018		0.7494%
22a	Year 3 EIA Cost Recovery Period (Apr 1 - June 15)	76 days / 365 days		0.2082
23	Property Tax - South Dakota	line 21 x line 22		\$ 39,362
24				
25				
26	Assumptions			
27	Tax Multiplier - Federal Tax Rate at 35% - tax multiplier	(1/(1-.35))		1.5385
28				
29	Allocation Factor		Total	South Dakota
30	Production Capacity (kW 1CP)	Docket No. EL09-018	332,000	303,880
31	Production Capacity (kW 1CP)	Docket No. EL09-018	100%	91.53%