

BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY ENVIRONMENTAL IMPROVEMENT ADJUSTMENT For the Pro Forma Year End May 31, 2018

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BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY COST RECOVERY RATE - ENVIRONMENTAL IMPROVEMENTS Rate Calculation Effective June 1, 2017

Line No.	Description	Reference	S	outh Dakota Forecast	
1	T. 1		Φ.	200 215	
2 3	Environmental Improvement Year 3 Revenue Requirement (June 1, 2017 through May 31, 2018)	Schedule 4-3 line 2	\$	398,317	
4	Production Capacity Allocators by Customer Class				
5	Residential	Docket No. EL14-026		38.072%	
6	Small General Service	Docket No. EL14-026		30.920%	
7	Large General Service and Industrial	Docket No. EL14-026		30.426%	
8 9	Lighting	Docket No. EL14-026		0.582%	
10	Revenue Requirement by Customer Class				
11	Residential				
12	Forecasted 3rd Year EIA Revenue Requirement	line 2 x line 5	\$	151,647	
13	Balancing Account Under/(Over) Recovery	Schedule 4-2 line 10		(24,601)	
14	Net Residential Revenue Requirement	line 12 + line 13	\$	127,046	
15					
16	Small General Service				
17	Forecasted 3rd Year EIA Revenue Requirement	line 2 x line 6	\$	123,160	
18	Balancing Account Under/(Over) Recovery	Schedule 4-2 line 23		(29,578)	
19 20	Net Small General Service Revenue Requirement	line 17 + line 18	\$	93,581	
21	Large General Service and Industrial				
22	Forecasted 3rd Year EIA Revenue Requirement	line 2 x line 7	\$	121,192	
23	Balancing Account Under/(Over) Recovery	Schedule 4-2 line 36		(12,021)	
24	Net Large General Service and Industrial Revenue Requirement	line 22 + line 23	\$	109,171	
25	T1 12				
26	Lighting	1' 2 1' 0	Ф	2 210	
27 28	Forecasted 3rd Year EIA Revenue Requirement	line 2 x line 8 Schedule 4-2 line 49	\$	2,318	
28 29	Balancing Account Under/(Over) Recovery Net Lighting Revenue Requirement	line 27 + line 28	-\$	1.890	
30	Net Lighting Revenue Requirement	IIIIe 27 + IIIIe 28	φ	1,090	
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	Environmental Improvement Adjustment Rate / kWh (June 1, 2017 through May 31, 2018)				
38	Residential	line 14 ÷ line 32	\$	0.00025	
39	Small General Service	line 19 ÷ line 33	\$	0.00022	
40	Large General Service and Industrial	line 24 ÷ line 34	\$	0.00020	
41	Lighting	line 29 ÷ line 35	\$	0.00014	



BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY EIA ANNUAL BALANCING ACCOUNT TRUE-UP

Actual Revenues Monthly Under/(Over) Recovery Days in Current Month Interest Rate Monthly Interest		6,370 5,533 837 30 7.00%	\$	6,370 8,869 (2,499)	9,2	370 \$ 234 364)	6,370 7,302 (932)		- ,	\$	6.370 S		ec-16 6,370		6,370	Feb-			ar-17	\$	pr-17 6.370		6,370		un-17
Expected Recovery Actual Revenues Monthly Under/(Over) Recovery Days in Current Month Interest Rate Monthly Interest	\$	5,533 837 30 7.00%	(8,869 (2,499)	9,2	234	7,302	\$		\$	6 370	ŧ	6 270	¢	c 270	e -	250			Ф	c 270	¢	6 270	\$	
Actual Revenues Monthly Under/(Over) Recovery Days in Current Month Interest Rate Monthly Interest		5,533 837 30 7.00%	(8,869 (2,499)	9,2	234	7,302	-								.h .b.	.370	\$	6,370		0.370				3,185
Monthly Under/(Over) Recovery Days in Current Month Interest Rate Monthly Interest		837 30 7.00%	((2,499)					6,259		6,501	*	9,995		12,735		781	Ψ	8,567	Ψ	8,212	Ψ	7,133	Ψ.	3,600
Days in Current Month Interest Rate Monthly Interest		30 7.00%	`		(2,	,,,)	112		(131)		(3,624)		(6,364)		411)		(2,196)		(1,841)		(763)		(414)
Interest Rate Monthly Interest		7.00%		31			(/				()		(-,,		(-,,	(-	, ,		(=,)		(-,)		(, ,,,		(,
Interest Rate Monthly Interest						31	30)	31		30		31		31		28		31		30		31		30
<u>-</u>		7		7.00%	7.0	00%	7.00%		7.00%		7.00%		7.00%		7.00%	7.	.00%		7.00%		7.00%		7.00%		7.00%
Balancing Account				(8)		(25)	(29))	(30)		(30)		(52)		(90)	((100)		(125)		(132)		(142)		(140)
Balancing Account																									
	\$	1,229	\$ ((1,277)	\$ (4,1	166) \$	(5,127)	\$	(5,045)	\$	(5,205) \$	\$	(8,882)	\$ (1	15,337)	\$ (18,	,848)	\$ (2	21,169)	\$ ((23,142)	\$ ((24,046)	\$	(24,601)
Small General Service																									
Expected Recovery	\$	- , .	\$	5,174	,	174 \$	5,174	\$	- ,	\$	5,174	\$	- /					\$		\$		\$	5,174	\$	2,587
Actual Revenues		6,059	1	0,170	10,8	333	9,386		7,883		7,384		8,474		9,850	\$ 7	,932	\$		\$	7,538	\$	7,226	\$	3,931
Monthly Under/(Over) Recovery		(885)	((4,997)	(5,0	559)	(4,212))	(2,709)		(2,210)		(3,300)	((4,677)	(2,	,758)		(2,566)		(2,364)		(2,052)		(1,344)
Interest:																									
Days in Current Month		30		31		31	30)	31		30		31		31		28		31		30		31		30
Interest Rate		7.00%		7.00%	7.0	00%	7.00%		7.00%		7.00%		7.00%		7.00%	7	.00%		7.00%		7.00%		7.00%		7.00%
Monthly Interest		59		31		(2)	(26)		(43)		(55)		(77)		(105)		(110)		(138)		(147)		(165)		(169)
Balancing Account	\$ 1	10,276	\$	5,310	\$ (3	351) \$	(4,589)	\$	(7,341)	\$	(9,607)	\$ (12,983)	\$ (1	17,764)	\$ (20,	,632)	\$ (2	23,336)	\$ ((25,848)	\$ ((28,066)	\$	(29,578)
Large General Service and Industrial Expected Recovery Actual Revenues Monthly Under/(Over) Recovery	\$	5,091 4,139 952		5,091 7,068 (1,977)	7,0)91 \$ 554 563)	5,091 7,212 (2,121)		5,091 6,831 (1,740)	\$	5,091 5 7,116 (2,025)	\$	5,091 7,104 (2,013)		5,091 6,735 (1,644)	7.	,091 ,902 ,811)	\$	5,091 6,589 (1,498)	\$	5,091 7,372 (2,281)	\$	5,091 7,088 (1,997)	\$	2,545 4,045 (1,499)
*																									
Interest: Days in Current Month		30		31		31	30		31		30		31		31		28		31		30		31		30
Interest Rate		7.00%		7.00%	7.0	00%	7.00%		7.00%		7.00%		7.00%		7.00%	7	.00%		7.00%		7.00%		7.00%		7.00%
Monthly Interest		7.00%		61	7.0	46	33		23		11		(0)		(10)		(24)		(36)		(48)		(62)		(69)
Balancing Account	\$ 1	12,223	\$ 1	0,306	\$ 7	789 \$	5,700	\$	3,984	S	1,970 \$	ŝ	(43)	\$	(1,697)	\$ (4	,532)	\$	(6,066)	\$	(8,395)	\$ ((10,454)	\$	(12,021)
		,		.,	,	-	-,,,,,,	_	-,	_	-,,,,,,		(10)	_	(=,=,-,	÷ (::	,,,,,	_	(0,000)	_	(0,000)		(==, == -)	_	(,)
Lighting																									
Expected Recovery	\$	97	\$	97	\$	97 \$	97	\$	97	\$	97 \$	\$	97	\$	97	\$	97	\$	97	\$	97	\$	97	\$	49
Actual Revenues		66		106	1	132	139		153		164		178		181		144		139		129		114		52
Monthly Under/(Over) Recovery		31		(9)		(35)	(41))	(56)		(66)		(80)		(84)		(47)		(42)		(31)		(16)		(3)
Interest:																									
Days in Current Month		30		31		31	30		31		30		31		31		28		31		30		31		30
Interest Rate		7.00%		7.00%	7.0	00%	7.00%		7.00%		7.00%		7.00%		7.00%	7.	.00%		7.00%		7.00%		7.00%		7.00%
Monthly Interest		1		1		0	0		(0)		(1)		(1)		(2)		(2)		(2)		(2)		(2)		(2)
Balancing Account	\$	97	\$	89	\$	54 \$	13	\$	(43)	\$	(110) 5	\$	(192)	\$	(277)	\$ ((326)	\$	(370)	\$	(403)	\$	(422)	\$	(428)



BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY COST OF SERVICE - ENVIRONMENTAL IMPROVEMENTS Year Three Revenue Requirement Calculation

Line			Sou	th Dakota
No.	Description	Reference	Ju	risdiction
1	Operating Revenue Required			<u> </u>
2	Environmental Improvement Revenue		\$	398,317
3				
4	Operating Expenses			
5	Depreciation	Schedule 4-5, line 10		121,432
6	Assessed Filing Fee	Docket EL15-008		2,997
7	Total Operating Expenses			124,430
8			'	<u> </u>
9	Operating Income Before Tax	(line 2 - line 7)		273,887
10				
11	Federal Income Tax	Schedule 4-5, line 21		88,238
12				
13	Return (Operating Income)	Schedule 4-5, line 18 (line 9 - line 11)	\$	185,649
14				
15	Rate of Return			7.76%
16			-	
17	Rate Base			
18	Plant in Service	Schedule 4-4, line 8		4,252,985
19	Less: Accumulated Depreciation	Schedule 4-4, line 13		164,659
20	Less: Accumulated Deferred Income Taxes	Schedule 4-4, sum of line 23		1,695,946
21				
22	Total Rate Base	(line 18 - line 19 - line 20)	\$	2,392,380



BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY RATE BASE - ENVIRONMENTAL IMPROVEMENTS Year Three Revenue Requirement Calculation

Substitution Sub	Line No. Description 1 Property, Plant, and Equipment	(a) Plant in Service for Rate Base	(b) South Dakota Jurisdictional Allocation	(c) (a) * (b) South Dakota Plant in Service for Rate Base	(d) Date in Service	(e) Note (1) Allocation Based on In-Service Date	(f) (d) * (e) South Dakota Allocation Based on In-Service Date
Nygen III - CO & O2 Grid Install 143,942 89,831% 129,304 11/2016 100,00% 129,304 100,00% 129,304 100,00% 129,304 100,00% 129,304 100,00% 129,304 100,00% 129,304 100,00% 129,304 100,00% 129,304 100,00% 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304 129,304		\$ 1.175.438	80 831%	\$ 1,055,908	4/15/2015	100.00%	\$ 1,055,908
NS Common - Compressed Air 756,377 89,831% 679,461 819/2016 100,00% 679,461 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100,00% 100		, , , , , , , , , , , , , , , , , , , ,					Ψ 1,000,000
NSII - Electrostatic precipitator (ESP) 1,353,880 89,831% 1,216,204 6/15/2017 96,16% 1,169,502 NSC Common - Amended Silicates Silo - Neil Simpson II 490,500 89,831% 78,189 3/31/2017 100,00% 778,189 Total Plant in Service - Environmental Improvements 84,786,418 89,831% 440,621 1/15/2017 100,00% 778,189 Total Plant in Service - Environmental Improvements 84,786,418 89,831% 440,621 1/15/2017 100,00% 34,252,985 Total Plant in Service - Environmental Improvements 84,786,418 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299,687 84,299	• •	,					*
NS Common - Amended Silicates Silo - Neil Simpson II 866,281 89,831% 778,189 3/31/2017 100.00% 778,189 440,621 115/2017 100.00% 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,621 440,6	•	,					· · · · · · · · · · · · · · · · · · ·
NS Common - Amended Silicates Silo - Wygen III 490,500 89.81% 440,621 1/5/2017 100,00% 440,621 1 1 1 1 1 1 1 1 1	1 1	, , , , , , , , , , , , , , , , , , ,					
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Reserve May 2017 Workpaper WP- Plant and Reserve Line 26, column (s) \$103,943 \$12 \$1/2 Year Depreciation Reserve \$10 \$1/2 Year Depreciation Reserve	• • • • • • • • • • • • • • • • • • • •		07.03170		1/13/2017	100.0070	
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Accumulated Deferred Taxes Environmental Improvements - Plant in Service - South Dakota MACRS Table - Depreciation Rate (20 year life) South Dakota Cumulative Tax Depreciation Workpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Workpaper - ADIT Summary, line 19, column (c) Timing Difference Federal Income Tax Rate South Dakota Deferred Tax South Dakota Deferred Tax South Dakota Deferred Tax Morkpaper - ADIT Summary, line 19, column (c) Workpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Workpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 19, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depreciation Morkpaper - ADIT Summary, line 20, column (c) South Dakota Book Depre					(a1)	(b1)	(c1)
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25 26 South Dakota Rate Base (line 8 - Line 12 - line 23) \$\\ 3,344,296\$					Ψ 001,072	Ψ (13,077)	Ψ 071,713
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Note (1) - Allocation is for the time period 6/1/17 through 5/31/18



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BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY OPERATING EXPENSES AND TAXES - ENVIRONMENTAL IMPROVEMENTS Year 3 Revenue Requirement Calculation

Line		D. f.				G 4 D 1 4
No.	Description	Reference			NI. (1)	South Dakota
1			C.	anth Dalanta	Note (1)	Damasiatian
2 3	Depreciation Expense			outh Dakota nt in Service	Depreciation Rate	Depreciation
3 4	Wyodak - Mercury Control System	Schedule 4-4 ln 2	\$	1,055,908	2.86%	Expense \$ 30,199
5	Wygen III - CO & O2 Grid Install	Schedule 4-4 In 3	э \$	1,033,908	2.64%	3,414
6	NS Common - Compressed Air	Schedule 4-4 ln 4	\$ \$	679,461	2.90%	19,704
7	NSII - Electrostatic precipitator (ESP)	Schedule 4-4 ln 5	э \$	1,169,502	2.90%	33,916
8	NS Common - Amended Silicates Silo - Neil Simpson II	Schedule 4-4 ln 6	Ф С	778,189	2.90%	22,567
9	NS Common - Amended Silicates Silo - Wygen III	Schedule 4-4 ln 7	э \$	440,621	2.64%	11,632
10	Depreciation Expense - South Dakota	Schedule 4-4 III /	φ	440,021	2.0470	\$ 121,432
	Depreciation Expense - South Dakota				=	\$ 121, 4 32
11						
12	Federal Tax					
13 14	Rate Base - South Dakota	Schedule 4-4 line 26				¢ 2244206
15	Rate Base - South Dakota	Schedule 4-4 line 20				\$ 3,344,296
16	Interest Expense	calculated				95,647
17	Return on Equity	calculated				163,871
18	Return on Equity Return	line 16 + line 17			-	259,518
19	Keturii	line 10 + line 17				239,310
20	Authorized Return	Docket No. EL14-026				7.76%
21	Federal Tax Expense - South Dakota	((line 17 x line 25) - line 17)			-	\$ 88,238
	rederal Tax Expense - South Dakota	((IIIIe 17 x IIIIe 23) - IIIIe 17)			=	\$ 66,236
22						
23	A					
24	Assumptions	(1//1 25))				1 5205
25	Tax Multiplier - Federal Tax Rate at 35% - tax multiplier	(1/(135))				1.5385
26	Allocation Footon				T-4-1	Cantle Dalasta
27	Allocation Factor	Docket No. El 14 026			<u>Total</u>	South Dakota
28 29	Demand Production (12 CP)	Docket No. EL14-026			100%	89.831%
29						

Note (1) - Depreciation rate is from Docket No. EL14-026.



BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY REVENUE REQUIREMENT BY CUSTOMER CLASS - ENVIRONMENTAL IMPROVEMENTS Year Two Revenue Requirement Calculation

Line	ne S					
No.	Description	Reference	Forecast			
1						
2	Environmental Improvement Year 1 Revenue Requirement	Schedule 4-7 line 2	\$	200,788		
3	(June 1, 2016 through May 31, 2017)					
4						
5	Production Capacity Allocators by Customer Class					
6	Residential	Docket No. EL14-026		38.072%		
7	Small General Service	Docket No. EL14-026		30.920%		
8	Large General Service and Industrial	Docket No. EL14-026		30.426%		
9	Lighting	Docket No. EL14-026		0.582%		
10						
11	Revenue Requirement by Customer Class					
12	Residential	line 2 x line 6	\$	76,444		
13	Small General Service	line 2 x line 7	\$	62,084		
14	Large General Service and Industrial	line 2 x line 8	\$	61,092		
15	Lighting	line 2 x line 9	\$	1,169		
16						



BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY COST OF SERVICE - ENVIRONMENTAL IMPROVEMENTS Year Two Revenue Requirement Calculation

Line				uth Dakota
No.	Description	Reference	J	urisdiction
1	Operating Revenue Required			
2	Environmental Improvement Revenue		\$	200,788
3				
4	Operating Expenses			
5	Depreciation	Schedule 4-9, line 10		57,253
6	Assessed Filing Fee	Docket EL15-008		2,997
7	Total Operating Expenses			60,250
8				
9	Operating Income Before Tax	(line 2 - line 7)		140,538
10				
11	Federal Income Tax	Schedule 4-9, line 21		36,432
12				
13	Return (Operating Income)	Schedule 4-9, line 18 (line 9 - line 11)	\$	104,106
14				
15	Rate of Return			7.76%
16				
17	Rate Base			
18	Plant in Service	Schedule 4-8, line 8	\$	2,015,217
19	Less: Accumulated Depreciation	Schedule 4-8, line 11	,	67,849
20	Less: Accumulated Deferred Income Taxes	Schedule 4-8, sum of line 21		605,797
21	2000. The difference Deferred meeting Tures	Schedule 1 0, sum of fine 21		005,777
22	Total Rate Base	(line 18 - line 19 - line 20)	\$	1,341,571



26 27

BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY RATE BASE - ENVIRONMENTAL IMPROVEMENTS Year Two 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	(d) Date in Service	(e) Note (1) Allocation Based on In-Service Date	(f) (d) * (e) South Dakota Allocation Based on In-Service Date
1 Property, Plant, and Equipment 2 Wyodak - Mercury Control System 3 Wygen III - CO & O2 Grid Install 4 NS Common - Compressed Air 5 NSII - Electrostatic precipitator (ESP) 6 NS Common - Amended Silicates Silo - Neil Simpson II 7 NS Common - Amended Silicates Silo - Wygen III 8 Total Plant in Service - Environmental Improvements	\$ 1,175,438 143,942 756,377 1,353,880 866,281 490,500 \$ 4,786,418	89.831% 89.831% 89.831% 89.831% 89.831%	\$ 1,055,908 129,304 679,461 1,216,204 778,189 440,621 \$ 1,185,212	4/15/2015 1/1/2016 8/19/2016 6/15/2017 3/31/2017 1/15/2017	100.00% 100.00% 78.36% 0.00% 16.99% 37.53%	\$ 1,055,908 129,304 532,426 - 132,214 165,365 \$ 2,015,217
10 11 Book Depreciation Reserve 12		Workpaper WP - Plan	nt and Reserve, line 14 50% (39222.86	, , ,	chedule 4-9 line 6 *	67,849
13 14 Accumulated Deferred Taxes 15 Environmental Improvements - Plant in Service - South Dakota 16 MACRS Table - Depreciation Rate (20 year life) 17 South Dakota Cumulative Tax Depreciation 18 South Dakota Book Depreciation 19 Timing Difference 20 Federal Income Tax Rate 21 South Dakota Deferred Tax 22					line 23, column (c) line 24, column (c)	\$ 4,786,418 1,828,252 97,405 1,730,847 35.00% 605,797
23 24 South Dakota Rate Base 25				(line 8 - 28626.	4 of line 11 - line 21)	\$ 1,380,794

Note (1) - Allocation is for the time period 6/1/16 through 5/31/17



30

31

BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY OPERATING EXPENSES AND TAXES - ENVIRONMENTAL IMPROVEMENTS Year Two Revenue Requirement Calculation

No. Description Reference South Dakota Note (1) Depreciation South Dakota Note (1) Depreciation Depreciation 3 Depreciation Expense Plant in Service Rate Expense 4 Wyodak - Mercury Control System Schedule 4-8 ln 2 \$ 1,055,908 2.86% \$ 30,1 5 Wygen III - CO & O2 Grid Install Schedule 4-8 ln 3 \$ 129,304 2.64% 3,4 6 NS Common - Compressed Air Schedule 4-8 ln 4 \$ 532,426 2.90% 15,4 7 NSII - Electrostatic precipitator (ESP) Schedule 4-8 ln 5 \$ - 2.90% - 8 NS Common - Amended Silicates Silo - Neil Simpson II Schedule 4-8 ln 6 \$ 132,214 2.90% 3,8 9 NS Common - Amended Silicates Silo - Wygen III Schedule 4-8 ln 7 \$ 165,365 2.64% 4,3 10 Depreciation Expense - South Dakota \$ 57,2 \$ 57,2	
South Dakota Depreciation Depr	<u>ta</u>
Depreciation Expense Plant in Service Rate Expense	
4 Wyodak - Mercury Control System 5 Wygen III - CO & O2 Grid Install 6 NS Common - Compressed Air 7 NSII - Electrostatic precipitator (ESP) 8 NS Common - Amended Silicates Silo - Neil Simpson II 9 NS Common - Amended Silicates Silo - Wygen III 12 Schedule 4-8 ln 2 1,055,908 2.86% 30,1 3,4 3,4 5 129,304 2.64% 3,4 5 532,426 2.90% 15,4 7 NSII - Electrostatic precipitator (ESP) 8 NS Common - Amended Silicates Silo - Neil Simpson II 9 NS Common - Amended Silicates Silo - Wygen III 12 Schedule 4-8 ln 7 165,365 2.64% 4,3 17 Schedule 4-8 ln 7 18 165,365 2.64% 3.4 3.5 3.7 3.7 4.7 5 165,365 3.7 5 165,365 3.7 5 165,365 3.8 5 7,2 3.8 5 7,2 3.8 5 165,365 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,304 3.8 5 129,	on
5 Wygen III - CO & O2 Grid Install Schedule 4-8 ln 3 \$ 129,304 2.64% 3,4 6 NS Common - Compressed Air Schedule 4-8 ln 4 \$ 532,426 2.90% 15,4 7 NSII - Electrostatic precipitator (ESP) Schedule 4-8 ln 5 \$ - 2.90% - 8 NS Common - Amended Silicates Silo - Neil Simpson II Schedule 4-8 ln 6 \$ 132,214 2.90% 3,8 9 NS Common - Amended Silicates Silo - Wygen III Schedule 4-8 ln 7 \$ 165,365 2.64% 4,3 10 Depreciation Expense - South Dakota \$ 57,2	
6 NS Common - Compressed Air 7 NSII - Electrostatic precipitator (ESP) 8 NS Common - Amended Silicates Silo - Neil Simpson II 9 NS Common - Amended Silicates Silo - Wygen III 12 Schedule 4-8 ln 4 \$ 532,426 \$ 2.90% 15,4 \$ 2.90% - 2.90% 3,8 \$ NS Common - Amended Silicates Silo - Neil Simpson II Schedule 4-8 ln 6 \$ 132,214 2.90% 3,8 4,3 Depreciation Expense - South Dakota \$ 57,2 11 12 13 Federal Tax	
7 NSII - Electrostatic precipitator (ESP) Schedule 4-8 ln 5 \$ - 2.90% - 8 NS Common - Amended Silicates Silo - Neil Simpson II Schedule 4-8 ln 6 \$ 132,214 2.90% 3,8 9 NS Common - Amended Silicates Silo - Wygen III Schedule 4-8 ln 7 \$ 165,365 2.64% 4,3 10 Depreciation Expense - South Dakota \$ 57,2 11 Federal Tax	
8 NS Common - Amended Silicates Silo - Neil Simpson II Schedule 4-8 ln 6 \$ 132,214 2.90% 3,8 9 NS Common - Amended Silicates Silo - Wygen III Schedule 4-8 ln 7 \$ 165,365 2.64% 4,3 10 Depreciation Expense - South Dakota \$ 57,2 11 12 13 Federal Tax	40
9 NS Common - Amended Silicates Silo - Wygen III Schedule 4-8 ln 7 \$ 165,365 2.64% 4,3 10 Depreciation Expense - South Dakota \$ 57,2 11 12 13 Federal Tax	
Depreciation Expense - South Dakota 11 12 13 Federal Tax	
11 12 13 Federal Tax	
12 13 Federal Tax	53
13 Federal Tax	
14 D. G. D. G. A. D. L. G. A. D. L. G. D. D. D. G. G. D. D. D. G.	
14 Rate Base - South Dakota Schedule 4-8 line 24 \$ 1,380,7	94
15	
16 Interest Expense calculated 39,4	91
17 Return on Equity calculated 67,6	59
18 Return line 16 + line 17 107,1	50
19	
20 Authorized Return Docket No. EL14-026 7.7	6%
21 Federal Tax Expense - South Dakota ((line 17 x line 25) - line 17) \$ 36,4	32
22	
23 Assumptions	
24	
Tax Multiplier - Federal Tax Rate at 35% - tax multiplier (1/(135)) 1.53	85
26	50
27 Allocation Factor <u>Total</u> <u>South Dake</u>	ota
28 Demand Production (12 CP) Docket No. EL14-026 100% 89.83	
29 Bernand Froduction (12 er) Bocket (10. EE) 4 020 100% 05.05	1 /0

Note (1) - Depreciation rate is from Docket No. EL14-026.



BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY RESIDENTIAL CUSTOMER IMPACT EIA Rate Change

LINE <u>NO.</u>	CUSTOMER IMPACT		URRENT RATES		OPOSED IA RATE	-	CREASE OR CREASE)
1							
2	Residential Service						
3	ENVIRONMENTAL IMPROVEMENT ADJUSTMENT RATE						
4	EIA Rate	\$ / kWh	\$ 0.00020		\$ 0.00025		\$ 0.00005
5							
6							
7							
8	Monthly Customer Charge		\$ 9.25				\$ 9.25
9	Energy Charge - Base Rate at average monthly kWh		\$ 0.09989	Χ	650	kWh	64.93
10	Base Costs		\$ 0.02270	Χ	650	kWh	14.76
11	Energy Cost Adjustment at average monthly kWh		\$ 0.01350	Χ	650	kWh	8.78
12	Transmission Facility Adjustment at average monthly kWh		\$ 0.00015	Х	650	kWh	0.10
13	Environmental Improvement Adjustment at average monthly kWh		\$ 0.00020	Χ	650	kWh	0.13
14	Energy Efficiency at average monthly kWh		\$ 0.00040	Х	650	kWh	0.26
15	Current Total Bill at monthly average						\$ 98.21
16	EIA Rate Change at monthly average kWh		\$ 0.00005	Х	650	kWh	0.03
17	Proposed Total Residential Bill						\$ 98.24
18	Percent Change						 0.03%
	-						