BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

In the Matter of the Application of Black Hills Power, Inc. for Authority to Increase its Electric Rates Docket No. EL14-026

EXHIBIT_(SJB-5)

OF

STEPHEN J. BARON

ON BEHALF OF THE BLACK HILLS INDUSTRIAL INTERVENORS

J. KENNEDY AND ASSOCIATES, INC. ROSWELL, GEORGIA

December 2014

BLACK HILLS INDUSTRIAL INTERVENORS CORRECTED PRO FORMA CLASS COST OF SERVICE STUDY FOR THE TEST YEAR ENDED SEPTEMBER 30, 2013

LINE NO.	DESCRIPTION	ALLOCATION Basis	TOTAL SOUTH DAKOTA	RESIDENTIAL SERVICE	GENERAL SERVICE	GS LARGE/ INDUSTRIAL CONTRACT	LIGHTING SERVICE	WATER PUMP IRRIGATION
	(a)	(b)	(c)	(d)	(e)	(h)	(i)	(j)
1 2 3	SUMMARY AT PRESENT RATES DEVELOPMENT OF RETURN							
4	DEVELOPMENT OF RETURN							
5	OPERATING REVENUE	Sched O-1 Reference						
6	Base Sales of Electricity		124,169,353	49,009,989	41,997,396	29,828,727	1,702,416	1,630,824
7	Contract Revenues		19,288,845	7,350,394	5,857,566	5,751,361	106,151	223,374
8	Other Operating Revenue		5,800,779	3,478,253	1,209,889	928,155	131,091	53,392
9	TOTAL OPERATING REVENUE		149,258,977	59,838,635	49,064,851	36,508,243	1,939,658	1,907,590
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11			07.000.500	00 405 055	40.004.005	45 550 040	507 500	704.007
12	Operation and Maintenance Expense		67,628,526	32,165,655	18,601,295	15,552,318	587,592	721,667
13 14	Depreciation Expense Amortization Expense		26,137,533 4,031,631	11,979,102 1,980,627	7,295,360 1,085,427	6,275,606 888,252	291,762 35,436	295,703 41,889
15	Taxes Other Than Income Taxes		4,199,038	1,923,263	1,172,479	1,007,551	47,845	47,902
16	State Income Tax		4,100,000	0	0	0	0	0
17	Federal Income Tax		10,753,377	1,415,317	5,723,640	3,113,140	285,057	216,223
18	TOTAL OPERATING EXPENSES		112,750,105	49,463,963	33,878,201	26,836,866	1,247,691	1,323,385
19			, ,	, ,	, ,	, ,	, ,	, ,
20	OPERATING INCOME (RETURN)		36,508,872	10,374,672	15,186,649	9,671,377	691,968	584,205
21								
22								
24	Electric Plant in Service		901,099,320	412,869,069	251,496,019	216,167,196	10,294,636	10,272,399
25	Less: Accumulated Depreciation		251,710,991	117,394,415	69,368,736	58,651,647	3,415,356	2,880,837
26	Less: Amortization		2,835,303	1,080,448	861,014	845,403	15,603	32,834
27	Plus: Working Capital		13,863,167	5,602,535	3,841,110	4,071,969	155,094	192,459
28 29	Less: Other Rate Base Deductions		117,714,228	54,469,729	32,969,748	27,521,751	1,426,478	1,326,522
30	TOTAL RATE BASE		542,701,964	245,527,012	152,137,631	133,220,364	5,592,293	6,224,664
31	TOTAL NATE BASE		342,701,904	240,027,012	132, 137,031	100,220,004	3,332,233	0,224,004
32								
	RATE OF RETURN (PRESENT)		6.73%	4.23%	9.98%	7.26%	12.37%	9.39%
34	` ,							
35	INDEX RATE OF RETURN (PRESENT)		1.00	0.63	1.48	1.08	1.84	1.40
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BLACK HILLS INDUSTRIAL INTERVENORS CORRECTED PRO FORMA CLASS COST OF SERVICE STUDY FOR THE TEST YEAR ENDED SEPTEMBER 30, 2013

LINE		ALLOCATION	TOTAL SOUTH	RESIDENTIAL	GENERAL	GS LARGE/ INDUSTRIAL	LIGHTING	WATER PUMP
NO.	DESCRIPTION	BASIS	DAKOTA	SERVICE	SERVICE	CONTRACT	SERVICE	IRRIGATION
44 45 46	(a)	(b)	(c)	(d)	(e)	(h)	(i)	(j)
47 48	EQUALIZED RETURN AT PROPOSED ROR							
49 50	DEVELOPMENT OF RETURN (EQUALIZED RATE LEVE	LS)						
51 52	RATE BASE		542,701,964	245,527,012	152,137,631	133,220,364	5,592,293	6,224,664
53 54	RATE OF RETURN		8.48%	8.48%	8.48%	8.48%	8.48%	8.48%
56	RETURN (RATE BASE * ROR)		46,021,127	20,820,691	12,901,271	11,297,087	474,226	527,852
	LESS:							
58	OPERATING EXPENSES	Sched O-1 Reference						
59	Operation and Maintenance Expense		67,628,526	32,165,655	18,601,295	15,552,318	587,592	721,667
60	Depreciation Expense		26,137,533	11,979,102	7,295,360	6,275,606	291,762	295,703
61	Amortization Expense		4,031,631	1,980,627	1,085,427	888,252	35,436	41,889
62	Taxes Other Than Income Taxes	CALCUL ATER	4,199,038	1,923,263	1,172,479	1,007,551	47,845	47,902
63	State Income Tax	CALCULATED	0	7 040 006	0	0	167.014	105.070
64 65	Federal Income Tax TOTAL OPERATING EXPENSES	CALCULATED	15,875,361	7,040,096 55,088,742	4,493,052	3,988,522 27,712,248	167,811	185,879 1,293,041
	TOTAL OPERATING EXPENSES		117,872,089	55,000,742	32,647,613	21,112,240	1,130,445	1,293,041
66 67 68	EQUALS TOTAL COST OF SERVICE		163,893,215	75,909,432	45,548,884	39,009,335	1,604,672	1,820,892
69 70 71	LESS: OTHER OPERATING REVENUES		25,089,624	10,828,647	7,067,454	6,679,516	237,242	276,765
72 73 74	EQUALS: PROPOSED BASE RATE SALES @ EQUALIZED ROR		138,803,591	65,080,786	38,481,430	32,329,819	1,367,430	1,544,127
75 76 77	TOTAL COST OF SERVICE INCREASE/DECREASE		14,634,238	16,070,797	(3,515,966)	2,501,091	(334,987)	(86,697)
78	BASE SALES OF ELECTRICITY		124,169,353	49,009,989	41,997,396	29,828,727	1,702,416	1,630,824
79	SALES OF ELECTRICITY FOR BASE ENERGY COSTS	ENERGY2	33,682,213	11,594,018	9,158,128	12,053,051	323,929	553,088
80 81	TOTAL CURRENT RETAIL REVENUES		157,851,566	60,604,006	51,155,524	41,881,778	2,026,346	2,183,912
82 83	REVENUE INCREASE TO RETAIL REVENUES (%)		9.27%	26.52%	-6.87%	5.97%	-16.53%	-3.97%
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BLACK HILLS INDUSTRIAL INTERVENORS CORRECTED PRO FORMA CLASS COST OF SERVICE STUDY FOR THE TEST YEAR ENDED SEPTEMBER 30, 2013

		TOTAL GS LARGE/						
LINE		ALLOCATION	SOUTH	RESIDENTIAL	GENERAL	INDUSTRIAL	LIGHTING	WATER PUMP
NO.	DESCRIPTION	BASIS	DAKOTA	SERVICE	SERVICE	CONTRACT	SERVICE	IRRIGATION
	(a)	(b)	(c)	(d)	(e)	(h)	(i)	(j)
92								
93	RETURN AT PROPOSED RATES							
94								
95	DEVELOPMENT OF RETURN AT PROPOSED RAT	E LEVELS						
96								
97								
98	Sales of Electricity		138,803,636	55,546,653	45,733,753	33,896,966	1,851,073	1,775,191
99	Contract Revenues		19,288,845	7,350,394	5,857,566	5,751,361	106,151	223,374
100	Other Operating Revenue		5,800,779	3,478,253	1,209,889	928,155	131,091	53,392
101	TOTAL OPERATING REVENUE		163,893,260	66,375,300	52,801,207	40,576,482	2,088,315	2,051,956
102								
103								
104	Operation and Maintenance Expense		67,628,526	32,165,655	18,601,295	15,552,318	587,592	721,667
105	Depreciation Expense		26,137,533	11,979,102	7,295,360	6,275,606	291,762	295,703
106	Amortization Expense		4,031,631	1,980,627	1,085,427	888,252	35,436	41,889
107	Taxes Other Than Income Taxes		4,199,038	1,923,263	1,172,479	1,007,551	47,845	47,902
108	State Income Tax	CALCULATED	0	0	0	0	0	0
109	Federal Income Tax	CALCULATED	15,875,376	3,703,150	7,031,365	4,537,023	337,087	266,752
110	TOTAL OPERATING EXPENSES		117,872,104	51,751,795	35,185,926	28,260,749	1,299,720	1,373,913
111								
	2 OPERATING INCOME (RETURN) AT PROPOSED RATES		46,021,156	14,623,504	17,615,281	12,315,733	788,595	678,043
113								
114	DATE DAGE		540 704 004	0.45 507 0.40	450 407 004	100 000 001	5 500 000	0.004.004
	RATE BASE		542,701,964	245,527,012	152,137,631	133,220,364	5,592,293	6,224,664
116 117								
	RATE OF RETURN		8.48%	5.96%	11.58%	9.24%	14.10%	10.89%
118 119	RATE OF RETURN		8.48%	5.96%	11.56%	9.24%	14.10%	10.89%
120	INDEX RATE OF RETURN		1.00	0.70	1.37	1.09	1.66	1.28
121	INDEX RATE OF RETURN		1.00	0.70	1.37	1.09	1.00	1.20
122								
123	PROPOSED TOTAL REVENUE INCREASE (\$)		14,634,283	6,536,664	3,736,357	4,068,239	148,657	144,367
123	PROPOSED TOTAL REVENUE INCREASE (\$)		14,034,203	0,550,004	3,730,337	4,000,239	140,007	144,307
125	BASE SALES OF ELECTRICITY		124,169,353	49,009,989	41,997,396	29,828,727	1,702,416	1,630,824
126	SALES OF ELECTRICITY SALES OF ELECTRICITY FOR BASE ENERGY OF	COSTS ENERGY2	33,682,213	11,594,018	9,158,128	12,053,051	323,929	553,088
127	TOTAL CURRENT RETAIL REVENUES	JOS DENEMOTE	157,851,566	60,604,006	51,155,524	41,881,778	2,026,346	2,183,912
128	TOTAL COMMENT RETAIL REVEROES		107,001,000	00,007,000	01,100,024	71,001,770	2,020,040	2,100,012
	PROPOSED TOTAL REVENUE INCREASE (%)		9.27%	10.79%	7.30%	9.71%	7.34%	6.61%
123	. NO. GOLD TOTAL NEVEROL MONEAUL (///)		5.21 /0	10.7370	7.5070	3.7 170	7.5470	0.0170