

Black Hills Power, Inc. d/b/a Black Hills Energy

Corriedale Project Revenue Requirement (Assumptions)

Line No.	Assumptions	
1	Total Project Cost	\$ 56,974,771
2		
3	Production Assumptions	
4	BHP Turbines	8
5	CLFP Turbines	8
6	# of Turbines	16
7	Turbine Nameplate Capacity	2.5
8	Net Capacity Factor	46%
9	Output Degredation	0.10%
10	BHP Installed Capacity (MW)	20
11	CLFP Installed Capacity (MW)	20
12	Installed Capacity (MW)	40
13		
14	O&M Assumptions	
15	\$ / Turbine	45,000
16	Turbine O&M	720,000
17	O&M Escalation Rate	2%
18	Lease Payment Yr 1-10	3.50%
19	Lease Payment Yr 11-20	5.00%
20	Lease Payment Yr 21-25	6.50%
21	BHP Property Tax Rate	0.353%
22	BOP O&M \$ / Watt	0.00352
23	BOP O&M	140,800
24	Corporate Allocations	374,918
25	Wyoming Wind Tax \$ / MWh	1
26		
27	Capital Cost Assumptions	
28	Debt % of Capitalization	47.00%
29	Equity % of Capitalization	
30	Debt Cost	
31	Equity Cost	
32	Long-term Debt Weighted Cost	
33	Common Equity Weighted Cost	
34	Rate of Return	7.760%
35		
36	Combined State and Federal Tax Rate	21%
37	Income Tax Multiplier	1.26582

Black Hills Power Inc. d/b/a Black Hills Energy
 Corriedale Project Revenue Requirement (Summary)

Line						
No.	Levelized Cost	5 Yr	10 Yr	15 Yr	20 Yr	25 Yr
1	PV Revenue	6,320,439	8,677,572	14,833,850	18,646,477	20,939,411
2	Revenue Payment	1,572,998	1,279,255	1,707,729	1,865,407	1,921,539
3	PV Generation	339,621	558,521	708,414	811,055	881,339
4	Generation Payment	84,523	82,338	81,555	81,139	80,877
5	Levelized Cost	\$ 18.61	\$ 15.54	\$ 20.94	\$ 22.99	\$ 23.76

Black Hills Power Inc. d/b/a Black Hills Energy

Corriedale Project Revenue Requirement

Line No.	Revenue Requirement	2020	2021	2022	2023	2024	2025
	Rate Base						
1	Plant in Service	28,487,386	28,537,386	28,587,386	28,637,386	28,687,386	28,737,386
2	Less: Accumulated Depreciation	284,874	1,426,369	2,569,865	3,715,360	4,862,856	6,012,351
3	Tax Depreciation	5,612,015	8,997,770	5,434,900	3,295,582	3,296,955	1,690,671
4	Less: ADIT	1,118,700	2,768,517	3,669,712	4,121,231	4,572,617	4,686,264
5	Total Rate Base	<u>27,083,812</u>	<u>24,342,499</u>	<u>22,347,809</u>	<u>20,800,795</u>	<u>19,251,913</u>	<u>18,038,771</u>
6	Average Rate Base		25,713,155	23,345,154	21,574,302	20,026,354	18,645,342
7							
8	Operating Expenses						
9	Depreciation	284,874	1,141,495	1,143,495	1,145,495	1,147,495	1,149,495
10	Turbines	90,000	367,200	374,544	382,035	389,676	397,469
11	Lease Payment	16,755	66,953	66,886	66,819	66,753	66,686
12	BOP	17,600	71,808	73,244	74,709	76,203	77,727
13	Corporate Allocations	46,865	187,459	187,459	187,459	187,459	187,459
14	Property Taxes	25,140	100,737	100,913	101,090	101,266	101,443
15	Wyoming Wind Tax	19,947	79,706	79,627	79,547	79,467	79,388
16							
17	Interest Expense	196,829	734,779	667,111	616,507	572,273	532,809
18	Return on Equity	337,680	1,260,587.45	1,144,496.16	1,057,680.14	981,792.00	914,087.88
19							
20	Fed/State Income Tax	89,763	335,093	304,233	281,155	260,983	242,985
21							
22							
23	Total Revenue Requirement (lines 24 -33)	1,125,453	4,345,818	4,142,009	3,992,498	3,863,368	3,749,550
24	Less: Tax Credits	<u>631,219</u>	<u>2,522,351</u>	<u>2,519,829</u>	<u>2,618,001</u>	<u>2,615,383</u>	<u>2,713,259</u>
25	Net Operating Revenue Requirement	<u>494,234</u>	<u>1,823,467</u>	<u>1,622,181</u>	<u>1,374,496</u>	<u>1,247,984</u>	<u>1,036,291</u>

Black Hills Power Inc. d/b/a Black Hills Energy

Corriedale Project Revenue Requirement

Line No.	Revenue Requirement	2026	2027	2028	2029	2030	2031
	Rate Base						
1	Plant in Service	28,788,386	28,840,406	28,893,466	28,947,588	29,002,792	29,059,100
2	Less: Accumulated Depreciation	7,163,886	8,317,503	9,473,241	10,631,145	11,791,256	12,953,620
3	Tax Depreciation	83,815	84,339	85,123	85,922	86,967	87,976
4	Less: ADIT	4,462,043	4,237,495	4,012,665	3,787,549	3,562,189	3,336,567
5	Total Rate Base	17,162,456	16,285,408	15,407,559	14,528,894	13,649,346	12,768,912
6	Average Rate Base	17,600,613	16,723,932	15,846,484	14,968,227	14,089,120	13,209,129
7							
8	Operating Expenses						
9	Depreciation	1,151,535	1,153,616	1,155,739	1,157,904	1,160,112	1,162,364
10	Turbines	405,418	413,527	421,797	430,233	438,838	447,615
11	Lease Payment	66,619	66,553	66,486	66,420	94,790	94,695
12	BOP	79,282	80,867	82,485	84,135	85,817	87,534
13	Corporate Allocations	187,459	187,459	187,459	187,459	187,459	187,459
14	Property Taxes	101,623	101,807	101,994	102,185	102,380	102,579
15	Wyoming Wind Tax	79,309	79,229	79,150	79,071	78,992	78,913
16							
17	Interest Expense	502,955	477,903	452,829	427,732	402,611	377,464
18	Return on Equity	862,870.07	819,890.78	776,873.87	733,817.31	690,719.11	647,577.56
19							
20	Fed/State Income Tax	229,371	217,946	206,511	195,065	183,609	172,141
21							
22							
23	Total Revenue Requirement (lines 24 -33)	3,666,441	3,598,798	3,531,324	3,464,020	3,425,326	3,358,341
24	Less: Tax Credits	2,710,546	2,808,125	2,805,317	2,902,602	2,174,774	-
25	Net Operating Revenue Requirement	955,896	790,672	726,006	561,419	1,250,552	3,358,341

Black Hills Power Inc. d/b/a Black Hills Energy

Corriedale Project Revenue Requirement

Line No.	Revenue Requirement	2032	2033	2034	2035	2036	2037
	Rate Base						
1	Plant in Service	29,116,534	29,175,117	29,234,872	29,295,821	29,357,990	29,421,402
2	Less: Accumulated Depreciation	14,118,282	15,285,286	16,454,681	17,626,514	18,800,834	19,977,690
3	Tax Depreciation	89,120	90,172	91,361	75,650	60,019	61,219
4	Less: ADIT	3,110,704	2,884,569	2,658,182	2,427,983	2,193,980	1,959,697
5	Total Rate Base	11,887,548	11,005,262	10,122,009	9,241,324	8,363,176	7,484,016
6	Average Rate Base	12,328,230	11,446,405	10,563,635	9,681,666	8,802,250	7,923,596
7							
8	Operating Expenses						
9	Depreciation	1,164,661	1,167,005	1,169,395	1,171,833	1,174,320	1,176,856
10	Turbines	456,567	465,698	475,012	484,513	494,203	504,087
11	Lease Payment	94,601	94,506	94,412	94,317	94,223	94,129
12	BOP	89,284	91,070	92,891	94,749	96,644	98,577
13	Corporate Allocations	187,459	187,459	187,459	187,459	187,459	187,459
14	Property Taxes	102,781	102,988	103,199	103,414	103,634	103,858
15	Wyoming Wind Tax	78,834	78,755	78,676	78,598	78,519	78,441
16							
17	Interest Expense	352,292	327,092	301,866	276,663	251,533	226,425
18	Return on Equity	604,391.49	561,160.01	517,882.21	474,643.68	431,530.30	388,454.29
19							
20	Fed/State Income Tax	160,661	149,169	137,665	126,171	114,711	103,260
21							
22							
23	Total Revenue Requirement (lines 24 -33)	3,291,532	3,224,903	3,158,458	3,092,361	3,026,775	2,961,545
24	Less: Tax Credits	-	-	-	-	-	-
25	Net Operating Revenue Requirement	3,291,532	3,224,903	3,158,458	3,092,361	3,026,775	2,961,545

Black Hills Power Inc. d/b/a Black Hills Energy

Corriedale Project Revenue Requirement

Line No.	Revenue Requirement	2038	2039	2040	2041	2042	2043
	Rate Base						
1	Plant in Service	29,486,082	29,552,056	29,619,350	29,619,350	29,619,350	29,619,350
2	Less: Accumulated Depreciation	21,157,133	22,339,215	23,523,989	24,708,763	25,893,537	27,078,311
3	Tax Depreciation	62,444	63,693	64,967	52,538	31,624	19,078
4	Less: ADIT	1,725,127	1,490,265	1,255,105	1,017,336	775,174	530,378
5	Total Rate Base	6,603,823	5,722,576	4,840,255	3,893,251	2,950,638	2,010,660
6	Average Rate Base	7,043,919	6,163,199	5,281,416	4,366,753	3,421,944	2,480,649
7							
8	Operating Expenses						
9	Depreciation	1,179,443	1,182,082	1,184,774	1,184,774	1,184,774	1,184,774
10	Turbines	514,169	524,452	534,941	545,640	556,553	567,684
11	Lease Payment	94,034	93,940	122,000	121,878	121,757	121,635
12	BOP	100,549	102,560	104,611	106,703	108,837	111,014
13	Corporate Allocations	187,459	187,459	187,459	187,459	187,459	187,459
14	Property Taxes	104,086	104,319	104,556	104,556	104,556	104,556
15	Wyoming Wind Tax	78,362	78,284	78,205	78,127	78,049	77,971
16							
17	Interest Expense	201,287	176,120	150,922	124,784	97,785	70,887
18	Return on Equity	345,328.14	302,150.85	258,921.40	214,080.06	167,760.83	121,613.83
19							
20	Fed/State Income Tax	91,796	80,319	68,827	56,907	44,595	32,328
21							
22							
23	Total Revenue Requirement (lines 24 -33)	2,896,513	2,831,685	2,795,217	2,724,910	2,652,126	2,579,921
24	Less: Tax Credits	-	-	-	-	-	-
25	Net Operating Revenue Requirement	2,896,513	2,831,685	2,795,217	2,724,910	2,652,126	2,579,921

Black Hills Power Inc. d/b/a Black Hills Energy

Corriedale Project Revenue Requirement

Line No.	Revenue Requirement	2044	2045
	Rate Base		
1	Plant in Service	29,619,350	29,619,350
2	Less: Accumulated Depreciation	28,263,085	29,162,985
3	Tax Depreciation	11,552	3,876
4	Less: ADIT	284,002	95,837
5	Total Rate Base	<u>1,072,263</u>	<u>360,528</u>
6	Average Rate Base	1,541,462	716,395
7			
8	Operating Expenses		
9	Depreciation	1,184,774	899,900
10	Turbines	579,037	590,618
11	Lease Payment	121,513	121,392
12	BOP	113,234	115,499
13	Corporate Allocations	187,459	187,459
14	Property Taxes	104,556	104,556
15	Wyoming Wind Tax	77,893	77,815
16			
17	Interest Expense	44,049	20,472
18	Return on Equity	75,570.16	35,121.28
19			
20	Fed/State Income Tax	20,088	9,336
21			
22			
23	Total Revenue Requirement (lines 24 -33)	2,508,174	2,162,168
24	Less: Tax Credits	-	-
25	Net Operating Revenue Requirement	<u>2,508,174</u>	<u>2,162,168</u>