

Staff Briefing Papers

Meeting Date	March 8, 2018	Agenda Item #6	
Company	Minnesota Power		
Docket No.	E-015/D-17-118		
	In the Matter of Minnesota Power's 2017 Remaining Life Depreciation Petition		
Issue	Should the Commission approve Minnesota Power's 2017 remaining lives depreciation petition to reflect the decisions made in the Company's recent general rate case?		
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 Relevant Documents	<i>Date</i>
Minnesota Power – Initial Filing	February 1, 2017
MN OAG – Comments	March 2, 2017
Minnesota Power – Letter	March 13, 2017
Minnesota Power – Letter	June 29, 2017
Department of Commerce – Comments	December 18, 2017
Minnesota Power - Letter	December 22, 2017

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I. Statement of the Issue

Should the Commission approve Minnesota Power's 2017 remaining lives depreciation petition to reflect the decisions made in the Company's recent general rate case?

II. Background

The Commission needs to approve Minnesota Power's 2017 remaining lives depreciation petition to reflect the decisions made in the Company's recent general rate case, Docket No. E-015/GR-16-664. All interested parties agreed that the decisions made in the Company's rate case would be reflected in the Company's 2017 remaining lives depreciation petition. The petition has been updated to reflect the Commission's decision to extend the life of Hibbard Energy Center to 2029 to match the economic life approved by the Commission in Minnesota Power's most recent IRP.

The filing has also been updated to reflect the decision to shorten the remaining lives of Boswell Energy Center Units 1 & 2 by two years, to 2022. The Commission set the remaining accounting life of Units 3 and 4 and the common facilities at 2050. The Commission also granted a variance to the rules that require Unit 3 and Unit 4's accounting lives to match their probable service lives. The variance will remain in effect until terminated by the Commission. The extension of the accounting life of Units 3 & 4 was used as a rate mitigation tool and does not extend the service or operational life of these facilities.

February 1, 2017: Minnesota Power filed its 2017 remaining lives depreciation petition and requested that the remaining lives of all facilities be adjusted for one year's passage of time except for Boswell Energy Center. Minnesota Power requested that the remaining life of all portions of the Boswell Energy Center be consolidated into one remaining life and the life extended to 2050.

Minnesota Power stated Boswell should be treated as one unit for depreciation purposes because the units share critical infrastructure which makes it difficult to separate the units and the entire facility has been well maintained to extend the operations to 2050. The Company argued that treating BEC as one unit for depreciation purposes would create certainty with regard to cost recovery while reducing the annual cost to its customers.

The Company stated that the primary driver behind its request was the recently completed retrofit of BEC Units 3 & 4. The retrofit justifies an extended life for the length of time the equipment may operate. In support of its position, the Company obtained an opinion from Burns & McDonnell which concluded that:

"Industry experience has shown that with proper maintenance and investments into replacements and upgrades (environmental, performance, and otherwise), that similar coal fired facilities have achieved physical lives well past their originally planned lives. From our knowledge of the BEC facilities, we don't see any reason that the BEC facility is an outlier. Therefore, based upon industry experience, we see no technical reasons that Boswell Energy Center could not physically be operated until

2050, with appropriate maintenance and investments into replacements and upgrades.”

March 2, 2017: The OAG submitted comments and stated that because of the factual and procedural complexity of the issue, the Commission should decline to make a decision on the remaining lives of the BEC investments in this proceeding, and instead reserve the issue for the rate case.

March 13, 2017: Minnesota Power submitted reply comments and stated that a deferral of a decision to its rate case, rather than in this depreciation filing would prevent the Company from being able to properly account for the depreciation rates in the current financial year. The Company argued there would be both procedural and real financial impacts if the decision in this petition was deferred to the rate case.

June 29, 2017: Minnesota Power submitted an updated filing based on the testimony of the Department in the rate case. The Company stated it agreed with the Department’s position that the life of the Hibbard Renewable Energy Center (HREC) be extended to 2029 to match the life approved by the Commission in Minnesota Power’s most recent IRP.

December 18, 2017: The Department submitted Comments and made the following recommendations:

- Approve the proposed remaining lives and salvage rates (including the proposed life extension for the Hibbard Renewable Energy Center) for all of Minnesota Power’s production plants and general plant accounts, except for the remaining lives proposed for the Boswell Energy Center;
- Approve remaining lives of six years as of January 1, 2017, for Boswell Units 1 and 2, based on a retirement year of 2022;
- Approve remaining lives of 34 years for Boswell Units 3 and 4 and the Common facilities, based on a retirement year of 2050;
- Require Minnesota Power to include in future depreciation filings a comparison of the remaining lives used in its depreciation filing to the operating lives used in the Company’s most recent integrated resource plan and explain any differences;
- Require Minnesota Power to make a compliance filing to report either (a) the journal entries associated with the sale of its aircraft and the Company’s proposed treatment of any associated gain or loss, or (b) Minnesota Power’s plans if it decides not to sell its aircraft;
- Require Minnesota Power to make its next depreciation filing on or before September 3, 2018 to establish depreciation parameters and rates to be effective January 1, 2018.

December 22, 2017: Minnesota Power submitted reply comments and stated it agreed with the Department's recommendation that the life of Hibbard Energy Center should be extended to 2029 to match the life approved by the Commission in Minnesota Power's most recent IRP.

Minnesota Power continued to support its proposal to consolidate all of the Boswell Units into one Unit and extend that life to 2050. The Company stated that whatever decision the Commission makes in the rate case should be reflected in this Docket and be made effective as of January 1, 2017.

January 18, 2018: Minnesota Power's rate case, in Docket No. E015/GR-16-664, was heard by the Commission. Determinations in the rate case were made with the understanding that this depreciation docket would be updated to reflect the Commission's decisions.

Hibbard Generator

Commissioner Lipschultz moved that the Commission:

- Extend the depreciation life of the Hibbard Renewable Energy Center to 2029 to match the economic life currently approved by the Commission in the IRP.

The motion passed 5–0.

Boswell Energy Center

Commissioner Lipschultz moved that the Commission:

- Set the remaining accounting lives for Boswell Units 1 and 2 at 2022. Set the remaining accounting life of Units 3 and 4 and the common facilities at 2050. Vary the rules that require Unit 3 and Unit 4's accounting lives to match their probable service lives. The variance shall remain in effect until terminated by the Commission. The extension of the accounting life of Units 3 & 4 does not extend the service or operational life of these facilities.

The motion passed 5–0.

In the rate case, MP and the Department supported the Commission's decisions. OAG did not support the Commission's BEC decision.

An order reflecting the Commission's decision in the rate case is expected to be issued no later than March 12, 2018.

III. Staff Analysis

The Commission's decision results in an approximately \$21.2 million reduction in the Company's 2017 depreciation expense. The overall effect is shown in the attached schedule. On the schedule, it is interesting to note that prior to Minnesota Power filing its rate case, the Company had been accruing only fifty percent of the estimated salvage rate for Boswell, Hibbard and Taconite Harbor. The Company had been using probabilities to calculate salvage value based on the probability of the unit being decommissioned at the end of its projected life.

In E,G-999/CI-13-626, the Commission ordered a generic docket to investigate this practice and determined Minnesota Power shall quit using probabilities in its next rate case.

IV. Decision Alternatives

The following decision alternatives are based on the Department's recommendation which Minnesota Power has agreed to and is consistent with the Commission's decision in the rate case:

- Approve the proposed remaining lives and salvage rates (including the proposed life extension for the Hibbard Renewable Energy Center) for all of Minnesota Power's production plants and general plant accounts, except for the remaining lives proposed for the Boswell Energy Center;
- Approve remaining lives of six years as of January 1, 2017, for Boswell Units 1 and 2, based on a retirement year of 2022;
- Approve remaining lives of 34 years for Boswell Units 3 and 4 and the Common facilities, based on a retirement year of 2050;
- Require Minnesota Power to include in future depreciation filings a comparison of the remaining lives used in its depreciation filing to the operating lives used in the Company's most recent integrated resource plan and explain any differences;
- Require Minnesota Power to make a compliance filing to report either (a) the journal entries associated with the sale of its aircraft and the Company's proposed treatment of any associated gain or loss, or (b) Minnesota Power's plans if it decides not to sell its aircraft;
- Require Minnesota Power to make its next depreciation filing on or before September 3, 2018 to establish depreciation parameters and rates to be effective January 1, 2018.

**MINNESOTA POWER
PRODUCTION PLANT
COMPARISON OF PRESENT AND PROPOSED REMAINING LIVES
2017**

	Depreciable Plant Balance 12/31/16	Depreciation Reserve 12/31/16	Current Rates			Proposed Rates			Effect of Rate Changes to 2017 Accrual
			Remaining Life (01/01/17)	Salvage Value (01/01/17)	2017 Annual Accrual	Remaining Life (01/01/17)	Salvage Value (01/01/17)	2017 Annual Accrual	
Steam Generation									
<u>Hibbard SE Station:</u>	93,461,883	53,764,885	8	-1.10%	5,090,635	13	-2.11%	3,205,311	(1,885,324)
<u>Laskin Energy Center</u>	86,433,501	57,409,356	14	-24.00%	3,554,870	14	-24.12%	3,562,279	7,409
<u>Boswell Energy Center:</u>	1,331,403,558	492,059,792			53,271,033			33,751,798	(19,519,235)
Unit No. 1	45,101,081	28,621,210	8	-7.90%	2,505,357	6	-16.08%	3,955,354	1,449,997
Unit No. 2	40,144,937	27,024,581	8	-9.99%	2,141,354	6	-18.06%	3,395,089	1,253,735
Unit No. 3	450,258,763	160,642,947	18	-5.85%	17,553,109	34	-7.92%	9,566,950	(7,986,159)
Unit No. 4	599,540,549	170,825,337	19	-3.69%	23,728,329	34	-7.42%	13,917,680	(9,810,649)
Common	196,358,228	104,945,717	13	-2.06%	7,342,884	34	-3.95%	2,916,725	(4,426,159)
<u>Taconite Harbor Energy Center</u>	141,989,417	58,135,869			9,174,365			9,375,727	201,362
Structure/Unit	136,980,992	53,127,444	10	-5.76%	9,174,365	10	-7.23%	9,375,727	201,362
Ash Ponds*	5,008,425	5,008,425	-	-5.76%	-	-	-7.23%	-	-
Total Steam Generation	1,653,288,359	661,369,902			71,090,903			49,895,115	(21,195,788)
Wind Generation									
Bison 1A	76,533,973	13,973,718	28	-0.95%	2,260,262	28	-0.95%	2,260,262	-
Bison 1B	73,258,168	8,603,654	29	-0.93%	2,252,959	29	-0.93%	2,252,959	-
Bison 2	150,269,187	18,712,866	30	-0.35%	4,402,742	30	-0.35%	4,402,742	-
Bison 3	149,415,160	17,326,319	30	-0.42%	4,423,879	30	-0.42%	4,423,879	-
Bison 4	325,257,649	19,188,481	32	0.03%	9,561,612	32	0.03%	9,561,612	-
Subtotal Bison	774,734,137	77,805,038			22,901,454			22,901,454	-
Taconite Ridge I Energy Center	47,824,453	5,289,179	26	-0.32%	1,641,858	26	-0.31%	1,641,674	(184)
Total Wind Generation	822,558,590	83,094,217			24,543,312			24,543,128	(184)
Hydroelectric Production Plants									
Birch Lake Reservoir	3,588,177	3,591	47	0.00%	76,268	47	0.00%	76,268	-
Blanchard HE Station	11,920,919	5,329,552	47	0.00%	140,242	47	0.00%	140,242	-
Boulder Lake Reservoir	519,530	323,837	47	0.00%	4,164	47	0.00%	4,164	-
Fish Lake Reservoir	945,803	245,397	47	0.00%	14,902	47	0.00%	14,902	-
Fond du Lac HE Station	18,094,873	3,732,563	47	0.00%	305,581	47	0.00%	305,581	-
Gauging Stations	125,451	63,673	47	0.00%	1,314	47	0.00%	1,314	-
Island Lake Reservoir	12,522,498	1,090,295	47	0.00%	243,238	47	0.00%	243,238	-
Knife Falls HE Station	3,556,172	1,832,171	47	0.00%	36,681	47	0.00%	36,681	-
Little Falls HE Station	8,947,421	4,249,205	47	0.00%	99,962	47	0.00%	99,962	-
Pillager HE Station	2,320,626	1,296,654	47	0.00%	21,787	47	0.00%	21,787	-
Prairie River HE Station	4,664,659	957,656	47	0.00%	78,872	47	0.00%	78,872	-
Rice Lake Reservoir	219,176	56,653	47	0.00%	3,458	47	0.00%	3,458	-
Scanlon HE Station	3,570,519	1,453,623	47	0.00%	45,040	47	0.00%	45,040	-
Sylvan HE Station	2,252,289	1,525,518	47	0.00%	15,463	47	0.00%	15,463	-
Thomson HE Station	100,189,337	4,298,901	47	0.00%	2,040,222	47	0.00%	2,040,222	-
White Iron Lake Reservoir	28,934	14,327	47	0.00%	311	47	0.00%	311	-
Whiteface Reservoir	1,295,371	605,391	47	0.00%	14,680	47	0.00%	14,680	-
Winton HE Station	5,161,797	2,548,327	47	0.00%	55,606	47	0.00%	55,606	-
Total Hydroelectric Production Plants	179,923,552	29,627,334			3,197,791			3,197,791	-
Total Generation	2,655,770,501	774,091,453			98,832,006			77,636,034	(21,195,972)

* The ash ponds have a 5 year life, as they are built and filled in on a 5-year cycle. New Ash Ponds with 5 year life added in 2010.