

Minnesota Public Utilities Commission
Staff Briefing Papers

Meeting Date: December 11, 2014 **Agenda Item # 4

Company: Minnesota Power

Docket No. E-015/D-14-318

In the Matter of Minnesota Power's 2014 Remaining Life Depreciation
Petition and Production Plant Depreciation Study.

Issues: Should the Commission approve Minnesota Power's 2014 proposed remaining lives & salvage rates? What is the appropriate remaining life to be set for Laskin Energy Center? Are the proposed remaining lives for the Company's hydroelectric facilities reasonable?

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Relevant Documents

Minnesota Power – Initial Filing April 15, 2014
Department of Commerce - Comments August 15, 2014
Minnesota Power – Reply Comments September 8, 2014

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Statement of the Issues

Should the Commission approve Minnesota Power's 2014 proposed remaining lives and salvage rates? What is the appropriate remaining life to be set for Laskin Energy Center? Are the proposed remaining lives for the Company's hydroelectric facilities reasonable?

Background

April 15, 2014: Minnesota Power filed its 2014 Remaining Life and Production Plant Depreciation Study. The Company requested the remaining lives of all facilities be adjusted for the passage of one year's time, with the exception of Laskin Energy Center and the Company's hydroelectric production plant facilities.

August 15, 2014: The Department filed comments and recommended the Commission approve Minnesota Power's proposed salvage rates and remaining lives, with the exception of Laskin Energy Center. The Department proposed a remaining life of 11 years for Laskin, to allow for one year's passage of time.

September 8, 2014: Minnesota Power filed reply comments and stated it agrees with the Department's recommendations with the exception of the remaining life of Laskin Energy Center. The Company continues to propose a remaining life of 17 years based on Minnesota Power's plans to convert Laskin Units 1 & 2 to gas peaking generation facilities by the end of 2015.

Minnesota Statutes Section 216B.11 and Minnesota Rules, parts 7825.0500-7825.0900 require public utilities to seek Commission certification of their depreciation rates and methods. Utilities must use straight-line depreciation unless the utility can justify a different method. The utilities must review their depreciation parameters and rates annually to determine if they are generally appropriate. A depreciation study of assets must be filed at least once every five years. Once certified by Order, depreciation parameters remain in effect until the next certification. As required, Minnesota Power uses a straight-line depreciation method and files annual depreciation studies for its generation assets.

The Department estimated that the total effect of the Company's proposed depreciation rates is a decrease in annual depreciation expense of \$3.9 million, or 5.6%, relative to what the depreciation expense would be if the Company retained its current depreciation rates. If the Commission does not extend the life of Laskin from 11 to 17 years, the result is a reduction in the proposed depreciation expense of approximately \$1,232,200, or a decrease of annual depreciation expense to approximately \$2,667,800.

The Department and the Company disagree on the appropriate time to extend the life of Laskin Energy Center. The Parties agree on the proposed life extensions for the Company's hydroelectric facilities and the proposed salvage rates for the Company's generation facilities.

Laskin Energy Center

Minnesota Power

Minnesota Power proposed a life extension through 2030 for the Laskin Energy Center. The request is based on Minnesota Power's plans to convert units 1 and 2 of the Laskin facility from coal fired to gas peaking generation facilities by the end of 2015. Minnesota Power believes a gas peaking generation facility has a useful life of fifteen years and is requesting a life extension through 2030. Stated another way, the Company has proposed a remaining life for Laskin of 17 years, 2 years before the conversion is completed plus 15 years after the conversion.

Laskin Energy Center unit 1 and 2 are considered sister boilers, similar in design and intended operation. Both units provide base load and peaking energy. Laskin is treated as one unit and has one remaining life for depreciation purposes. Ongoing investment in Laskin has maintained the units in good overall condition. The vast majority of the existing assets are expected to be utilized after the conversion to gas. The assets to be retired will be determined by the Company after detailed analysis.

The Commission approved the Company's plan to convert Laskin from a coal-fired unit providing base load and peaking energy to a natural gas-fired peaking unit by the end of 2015 at a cost of \$14 million in the Company most recent Integrated Resource Plan ("2013 IRP" Docket No. E015/RP-13-53). Minnesota Power is requesting the life extension for Laskin based on the Commission's approval of the project in the IRP and based on its \$4 million expenditure to date on the project. The Company also noted that the Commission approved a life extension of Boswell Unit 3 based on Commission approval of the project which was not placed in to service until late 2009. (Docket No. E015/D-07-316)

Department

The Department agreed with the Company that the project will result in a life extension for Laskin and that the Company's 15 year life estimate is reasonable, though conservative. The Department disagreed with the Company as to when the proposed life extension should take place. The Department stated its preference for a life extension resulting from the refueling project to be granted when the refueling project is placed in service, or is close to being placed in service.

The Department stated that the depreciation parameters the Commission approves in this Docket will be effective as of January 1, 2014. This is nearly two years before the project is expected to be placed in to service and two years before Minnesota Power's ratepayers receive any operational benefits from the project. If the Commission were to approve the life extension in this docket, Minnesota Power would enjoy the benefits of a lower depreciation expense without a corresponding decrease in rates. Moreover, Minnesota Power's customers will not receive any of the financial benefits of the life extension until the Company files a rate case which would reflect the new, longer life of the facility.

The Department is recommending the Commission approve a remaining life of 11 years for Laskin. This reflects a reduction of one year's passage of time from the most recently approved

remaining life for Laskin. The Department suggested Minnesota Power propose the life extension for Laskin in a future depreciation study when the project is closer to being placed in service. The Department and the Commission could reevaluate the progress of the project and its expected in-service date at that time.

Minnesota Power

In its reply comments, Minnesota Power stated the Commission should approve a remaining life of 17 years in this filing for several reasons.

- 1.) The Commission approved the conversion of Laskin to a gas-fired peaking plant in the Company's 2013 IRP. As a result Minnesota Power proceeded with the plan.
- 2.) Minnesota Power obtained a gas pipeline route permit in order to supply the plant with natural gas. The pipeline is expected to be constructed before the end of 2014. The Company has spent approximately \$4 million year-to-date on the conversion of Laskin.
- 3.) In the past, Minnesota Power has requested, and the Commission has approved, life extensions prior to when the additions were actually made. In the Company's 2007 depreciation petition (Docket No. E015/D-07-316) the Commission approved the Company's request to extend the remaining life of its Boswell Unit 3. The extension was made approximately two and a half years before the project was placed in service.
- 4.) Minnesota Power believes the change in the service life of Laskin is a change in accounting estimate under Generally Accepted Accounting Principles which should be reflected commencing in the period that the change becomes known. The Company provided the FASB Accounting Standard Codification section 250-10-20 which defines a change in accounting estimate as follows:

“A change that has the effect of adjusting the carrying amount of an existing asset or liability or altering the subsequent accounting for existing or future assets or liabilities. A change in accounting estimate is a necessary consequence of the assessment, in conjunction with the periodic presentation of financial statements, of the present status and expected future benefits and obligations associated with assets and liabilities. Changes in accounting estimates result from new information. Examples of items for which estimates are necessary are uncollectible receivables, inventory obsolescence, service lives and salvage values of depreciable assets, and warranty obligations. A change in accounting estimate shall be accounted for in the period of change if the change affects that period only or in the period of change and future periods if the change affects both. A change in accounting estimate shall not be accounted for by restating or retrospectively adjusting amounts reported in financial statements of prior periods or by reporting pro forma amounts for prior periods.” (Emphasis added).

Hydroelectric Facilities

Minnesota Power has proposed life extensions for all of its hydroelectric production facilities based on current and planned capital investments. The Company proposed to set the remaining lives of all of its hydroelectric facilities to 50 years, or through 2063. Currently, Minnesota Power's hydroelectric facilities remaining lives are set to coincide with the expiration of FERC licenses which expire at various dates extending from 2021 through 2036. A summary of the proposed hydroelectric facility life extensions ranging from 27.7 to 42.2 years is provided in the table below.

Hydro Electric Production Plant	Current Remaining Life	Proposed Remaining Life	Proposed Extension
Prairie River HE Station	7.8	50.0	42.2
Thomson HE Station	18.1	50.0	31.9
Fond du Lac HE Station	16.7	50.0	33.3
Winton HE Station	22.3	50.0	27.7
Knife Falls HE Station	16.3	50.0	33.7
Scanlon HE Station	16.1	50.0	33.9
Little Falls HE Station	8.8	50.0	41.2
Blanchard HE Station	17.8	50.0	32.2
Sylvan HE Station	8.0	50.0	42.0
Pillager HE Station	11.8	50.0	38.2
Birch Lake Reservoir	22.3	50.0	27.7
Boulder Lake Reservoir	18.6	50.0	31.4
Fish Lake Reservoir	18.6	50.0	31.4
Island Lake Reservoir	18.6	50.0	31.4
Rice Lake Reservoir	18.6	50.0	31.4
Whiteface Reservoir	18.6	50.0	31.4
Gauging Stations	18.2	50.0	31.8
White Iron Lake Reservoir	22.3	50.0	27.7

Minnesota Power stated that its proposed life extensions are based largely on significant capital investments the Company has made in its hydroelectric facilities, due primarily to the historic rainfall event in 2012. The Company stated an additional reason it is requesting the life extensions is based on current and planned capital investments in its hydroelectric system which based on current engineering estimates will extend the operating life of the units through at least 2063.

In response to the Department's informational requests, the Company explained its reason for setting a single remaining life for all of its hydroelectric facilities is that it manages and operates all of its hydroelectric facilities as a single system and achieves economies of scale by doing so. The system is remotely monitored and operated from the Thomson control room. Minnesota Power's Hydro Operations Department is able to control the generating units at each station and

can remotely operate a limited number of spillway gates at certain dams. The Company also maintains an appropriate level of Hydro Operations Department staff to operate, maintain and respond to operational challenges such as the 2012 flood. Operating the hydroelectric facilities as an overall system leads to operational efficiencies and a lower overall megawatt per hour cost. Minnesota Power intends to continue to operate and manage the hydroelectric system as a whole.

Minnesota Power provided the amount of capital investment it has made in its hydroelectric facilities over the last several years. From 2009 to 2013, the Company has invested \$31 in its hydroelectric facilities. This investment represents a third of the hydroelectric facilities plant balance at the end of 2013. The Company stated that the investments are designed to extend the lives of the hydroelectric facilities well in excess of the current expiration of the FERC licenses.

Due to the historic rainfall in 2012, the Company has begun a \$90 million project to repair and improve the Thomson hydroelectric station. Approximately \$30 million of this project is expected to be placed in service by the end of 2014.

(MP's petition for approval to recover investments, expenditures and costs associated with the restoration of the Thompson hydroelectric facility through the Company's renewable resource rider is pending, in Docket No. E-015/M-14-577.)

Department

The Department agreed that it is appropriate to set remaining lives for Minnesota Power's hydroelectric facilities that extend beyond the current expiration dates of the facilities FERC licenses. The Department stated that the Company's proposed remaining lives are more consistent with the Company's operational plans for these facilities, and are achievable with routine maintenance. Based on the Company's operational plans and the Company's significant planned capital investment over the 2009 to 2014 period, the Department concluded that the proposed life extensions are reasonable.

Salvage Rates

Minnesota Power

The Company proposed to slightly reduce the salvage rates for its Laskin, Boswell and Taconite Harbor Energy Centers. (Salvage rates reflect the estimated future net cost of retiring an asset.) The Company proposed a salvage rate for its Hibbard Renewable Energy Center, which was previously set at 0.00%. The proposed salvage rates are based on a 2013 Decommissioning Study, conducted by the Company for use in its 2014 depreciation filing. A copy of the study was submitted on April 15, 2014 with the Company's Initial Filing of its Depreciation Petition, Part 6 of 6, and is available for viewing through e-Dockets.

Department

The Department provided the following summary of MP's proposed salvage rates:

Summary of Salvage Rates

Production Plant	Proposed in 2013 Depreciation Docket Based on 2009 Decomm. Study	Calculated in 2013 Depreciation Docket Based on 2011 Decomm. Study	Proposed in 2014 Depreciation Docket Based on 2013 Decomm Study
	[a]	[b]	[c]
Hibbard Energy Center	n/a	n/a	-2.42%
Laskin Energy Center	-10.87%	-33.95%	-14.5%*
Boswell Energy Center:			
Unit 1	-1.82%	-6.92%*	-6.09%
Unit 2	-2.27%	-9.13%*	-7.90%
Unit 3	-4.19%	-4.93%*	-4.50%
Unit 4	-3.84%	-4.88%*	-4.62%
Common	-1.77%	-2.89%*	-2.06%
Taconite Harbor Energy Center	-3.60%	-5.91%*	-4.16%

*Salvage rate as approved and ordered by the Commission in the 2013 Depreciation Docket

Minnesota Power's salvage rates were a source of controversy in the 2013 Depreciation Docket. The Company proposed salvage rates that were calculated based on a 2009 Decommissioning Study. The Department objected to the use of the 2009 study because the Company completed an additional Decommissioning Study in 2011 and argued that the most-recent study should be used to calculate salvage rates. In between the time the 2013 Depreciation Docket was filed and heard by the Commission, the Company completed an additional 2013 Decommissioning Study.

As can be seen in the Summary of Salvage Rates table above, the Commission determined the salvage rates from the 2011 study were the most appropriate, except for Laskin Energy Center. The Commission used the salvage rate from the 2013 Decommissioning Study for Laskin in order to keep the depreciation expense more level. As shown in the table above the salvage rate for Laskin would have more than tripled from the 2009 Decommissioning Study to the 2011 Decommissioning Study and then reduced itself by half based on the 2013 Decommissioning Study.

As part of the Order in the 2013 Depreciation Study, the Company was required to submit a compliance filing explain the differences between the Decommissioning Studies. Most of the differences between the 2011 Decommissioning Study and the 2013 Decommissioning Study can be attributed to updated labor hours and rates, current scrap values, the project contingency percentage (20% in 2011 Study, 10 % in 2013 Study) and revised landfill and pond closure estimates.

The Department recommended that the Commission approve all of the salvage rates proposed in the 2014 Depreciation petition.

Staff Analysis

Minnesota Power is proposing a life extension of 17 years for its Laskin Energy Center units 1 and 2 in this filing. The Company has offered several reasons as to why the life extension should be approved in this filing, rather than in a future depreciation filing.

- 1.) *The Commission approved the conversion of Laskin to a gas-fired peaking plant in the Company's 2013 IRP. As a result Minnesota Power proceeded with the plan.*

Staff reviewed the language in the IRP order dated November 12, 2013 which states in part:

“Minnesota Rule 7843.0300, subpart 2 generally requires electric utilities to submit proposed resource plans to the Commission every two years. The resource planning statute and rules basically require the IRP to address (1) the energy needs of the utility's service area over the next 15 years; (2) the utility's plan for meeting projected need; (3) the analytical process the utility used to develop its plan for meeting projected need; and (4) the utility's reasons for adopting the specific resource mix proposed to meet the projected need.¹

Although the Commission must approve, reject, or modify the resource plans of investor-owned utilities, the resource planning process is largely collaborative and iterative.

The process is collaborative because there are few hard facts dictating resource choices or deployment timetables. The facts on which resource decisions depend—such as how quickly an area and its need for electricity will grow, or how much conservation potential the service area holds and at what cost—all require the kind of careful judgment that sharpens with exposure to the views of engaged and knowledgeable stakeholders.

The process is iterative because analyzing future energy needs and preparing to meet them is not a static process; strategies for meeting future needs are always evolving in response to changes in conditions in the service area. When demographics, economics, technologies, or environmental regulations change, a utility may need to adapt its resource strategy.”

The first two Order points of the Commission's November 12, 2013 Order in the IRP docket state that:

¹ Minn. Stat. § 216B.2422 and Minn. Rules Ch. 7843.

- The Commission approves Minnesota Power's 2013 – 2027 resource plan. This approval does not extend to particular projects that are currently under review in other proceedings or will be subject to review in future proceedings, but is a general finding that the plans filed by Minnesota Power appear to be reasonable in light of the entire record.
- The Commission finds that Minnesota Power's proposal to refuel Laskin units 1 and 2 to operate on natural gas by 2015 is reasonable.

The Order specifically states that the approval of the IRP does not extend to particular projects that are currently under review in other proceedings or will be subject to review in future proceedings. Additionally, the Commission only determined the IRP and the proposal to refuel Laskin unit 1 and 2 to be reasonable. It did not determine that by approving the project to be reasonable, it was eligible for immediate cost recovery of the Company's investment in the conversion or immediately lower depreciation rates.

2.) Minnesota Power obtained a gas pipeline route permit in order to fire the plant with natural gas. Construction of the pipeline began on August 26, 2014 and is expected to be completed by the end of 2014.

The Commission issued a Route Permit for the Laskin Energy Center Natural Gas Pipeline Project. The Pipeline Route Permit issued on May 12, 2014 (Docket No. E015/GP-13-978) states that:

“Minnesota Power is authorized by this pipeline route permit to construct an approximate 5,900-foot-long, up to 10.75-inch-outside-diameter, high pressure natural gas pipeline and associated facilities from the Northern Natural Gas Pipeline to Minnesota Power's Laskin Energy Center in Hoyt Lakes, Minnesota referred to as the Laskin Energy Center Natural Gas Pipeline Project.”

The Order authorized the Company to build the Laskin Energy Center Natural Gas Pipeline Project along its proposed route. The Commission's May 12, 2014 Order does not authorize cost recovery of the Laskin Project.

3.) In the past, Minnesota Power has requested, and the Commission has approved, life extensions prior to when the additions were actually made. In the Company's 2007 depreciation petition (Docket No. E015/D-07-316) the Commission approved the Company's request to extend the remaining life of its Boswell unit 3. The extension was made approximately two and a half years before the project was placed in service.

Minnesota Power submitted its Boswell 3 Environmental Improvement Plan (Boswell EIP) on October 27, 2006. The Boswell EIP addressed the Mercury Reduction Act of 2006, as well as new state and federal emission control regulations. On January 26, 2007, Minnesota Power petitioned the Commission for approval of the Boswell EIP and associated cost recovery under the Boswell 3 Environmental Improvement Rider (Docket No. E015/M-06-1501).

The Commission approved the Company's plan and associated emissions-reduction rider in its Order dated October 26, 2007. In reviewing Minnesota Power's emissions-reduction plan, the Commission considered the environmental and health benefits of the Company's plan, the MPCA's determination of technical feasibility of the plan, reasonableness of customer rates, and the cost effectiveness of the Company's proposal as required by Minn. Stat. § 216B.6851. The Commission concluded that the Company's plan will come closest to achieving total mercury reduction of 90 percent at targeted and supplemental units owned by the utility by December 31, 2014, in a manner that provides for increased environmental and public health benefits without imposing excessive costs on the utility's customers.

The Commission also reviewed and evaluated Minnesota Power's plan and associated emissions-reduction riders pursuant to Minn. Stat. § 216B.686, subd. 4. After consideration of the overall environmental and health benefits, total cost of the project on a stand-alone basis, and reasonableness of Customer rates, the Commission found that the Company's rider will provide for increased environmental and public health benefits, does not impose excessive costs on the utility's customers, and will achieve at least the pollution control required by applicable federal and/or state regulations.

The Commission found that the Company's proposed rider meets the requirements of Minn. Stat. § 216B.1692, subd. 5(b) in that it (1) allows the utility to recover costs of qualifying emissions-reduction projects net of revenues attributable to the project; (2) allows an appropriate return on investment associated with qualifying emissions-reduction projects at the level established in the public utility's last general rate case; (3) allocates project costs appropriately between wholesale and retail customers; (4) provides a mechanism for recovery above cost, if necessary to improve the overall economics of the qualifying projects to insure implementation; (5) recovers costs from retail customer classes in proportion to class energy consumption; and (6) terminates recovery once the costs of qualifying projects have been fully recovered.

The Company proposed a life extension of Boswell 3 from 8 to 28 years in its 2007 Remaining Life Depreciation Petition. The Company proposed the life extension to reflect the environmental retrofits and other upgrades as approved in the Boswell EIP and recoverable under the emissions reduction rider. The Commission approved the life extension based on the Department's recommendation because the investment costs associated with the project were previously approved for recovery through the rider. The costs and expenses, including depreciation expense, associated with the project were being recovered from customers through a line item on the customer's bill.

In the case of Laskin, staff is not aware of any cost recovery through means of a rider. If the Commission were to approve the life extension in this docket, Minnesota Power would enjoy the benefits of a lower depreciation expense without a corresponding decrease in its rates. Minnesota Power's customers would not see any benefit of the life extension until the Company files a rate case which would reflect the new, longer life of the facility. Additionally, if the life of the plant is extended in this filing, two years before the expected in-service date, it would be two years before ratepayers receive any benefit associated with operation of the plant.

- 4.) *Minnesota Power believes the change in the service life of Laskin is a change in accounting estimate under Generally Accepted Accounting Principles which should be reflected commencing in the period that the change becomes known.*

According to Minn. Rule 7825.0600, Depreciation Certification, Subpart 1, Depreciation practices applicable to all utilities, states in part:

All electric and gas utilities shall maintain, and have available for inspection by the commission upon request, adequate accounts and records related to depreciation practices as defined herein. Each utility has the prime responsibility for proposing the depreciation rates and methods that will be used. ***The commission shall certify by order to the utility the depreciation rates and methods which it considers reasonable and proper.*** (Emphasis added)

Utilities need accounts specifically crafted for the purpose of ratemaking, as opposed to taxation or SEC reporting. The Commission has direct accounting jurisdiction over regulated public utilities doing business in Minnesota. The control over the accounting function is accomplished by a combination of a uniform system of accounting and interpretive orders issued by the Commission.

According to the Regulated Utilities Manual:

“Many differences between the regulated and unregulated approach to accounting for transactions result from the recognition of operating expenses in rate proceedings at a time different from that when they would be recognized by an unregulated business. It is a common practice in the ratemaking process to defer recognition of costs considered abnormal or as having benefits applicable to future rates. In such cases, when it is probable that deferred costs will be recoverable out of future revenues, accounting that follows the timing of the costs used for rate purposes is considered to conform with GAAP. This is in accord with the matching concept, because the deferred costs are being matched against future revenues.”²

It is up to the Commission to decide at which point to recognize the life extension of Laskin.

² From: Regulated Utilities Manual, A Service for Regulated utilities, Page 25, 2005 Deloitte Development LLC.

Decision Alternatives

Continuation of filing requirements from prior Commission Orders

- 1a.) Require the Company to provide a comparison of the remaining lives used in its depreciation filing to the Company's most recent integrated resource plan and explain any differences. (Department, Company) or
- 1b.) Do not require the Company to provide a comparison of the remaining lives used in its depreciation filing to the Company's most recent integrated resource plan and explain any differences.
- 2a.) Require the Company to provide an analysis comparing its depreciation expense using its current decommissioning probabilities to its depreciation expense using 100% decommissioning probabilities. (Department, Company) or
- 2b.) Do not require the Company to provide an analysis comparing its depreciation expense using its current decommissioning probabilities to its depreciation expense using 100% decommissioning probabilities.
- 3a.) As part of its annual depreciation filing, require the Company to provide a schedule of its supplemental depreciation expense recorded in the prior year as well as the supplemental expense to be recorded in the future. (Department, Company) or
- 3b.) Do not require the Company to provide a schedule of its supplemental depreciation expense recorded in the prior year as well as the supplemental expense to be recorded in the future.

Laskin Energy Center

- 4a.) Approve a remaining life for Laskin Energy Center of 11 years to allow for one-year's passage of time. (Department) or
- 4b.) Approve a remaining life of 17 years for Laskin Energy Center to reflect the life extension of the facilities due to Minnesota Power's plans to convert the facilities to gas peaking generation by the end of 2015. (Company)

Hydroelectric Facilities

- 5a.) Approve Minnesota Power's proposal to set the remaining lives of all of its hydroelectric facilities to 50 years. (Department, Company) or
- 5b.) Approve the current remaining lives of the hydroelectric facilities to reflect one-year's passage of time.

Salvage Rates

- 6a.) Approve Minnesota Power's salvage rates as proposed. or
- 6b.) Do not approve Minnesota Power's salvage rates as proposed.

Staff Recommendation

1a, 2a, 3a, 4b, 5a, 6a