

Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: **September 7, 2017**Agenda Item #4**

Company: Minnesota Power

Docket Nos. E015/RP-15-690

In the Matter of Minnesota Power’s 2015-2029 Integrated Resource Plan

E015/M/AI-17-568

In the Matter of Minnesota Power’s Petition for Approval of the EnergyForward Resource Package

Issues: Should the Commission grant Minnesota Power’s request for an extension to file its next integrated resource plan?

Is Minnesota Power’s proposed procedural process reasonable?

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Relevant Documents

Docket No. E015/RP-15-690, Minnesota Power’s 2015-2029 Integrated Resource Plan

Commission *Order* Approving Resource Plan with ModificationsJuly 18, 2016
Minnesota Power, *Request for Extension to File its Next Resource Plan*..... June 8, 2017
Clean Energy Organizations, *Comments on Procedural Matters*..... June 30, 2017
Department of Commerce, *Comments on Procedural Matters*..... June 30, 2017
Large Power Intervenors, *Comments on Procedural Matters* June 30, 2017
Minnesota Power, *Reply Comments on Procedural Matters*.....July 12, 2017

Docket No. E015/M/AI-17-568, Minnesota Power’s Petition for Approval of the EnergyForward Resource Package

Minnesota Power, *Petition for Approval of EnergyForward Resource Package*.....July 28, 2017
Department of Commerce, *Supplemental Comments on Procedural Matters* August 16, 2017

Large Power Intervenors, *Supplemental Comments on Procedural Matters* August 16, 2017
Minnesota Power, *Supplemental Comments on Procedural Matters* August 16, 2017

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Table of Contents

Procedural Background	4
Party Comments on Procedure	7
<i>A. Department of Commerce</i>	7
<i>B. Clean Energy Organizations</i>	9
<i>C. Large Power Intervenors</i>	10
<i>D. Minnesota Power Reply</i>	11
<i>E. Staff Discussion</i>	12
i. Prior Resource Plan Proceedings	12
ii. PTC/ITC Risk	18
iii. Timeline for Proposed Gas Facility.....	19
iv. Advantages of a Contested Case.....	20
v. General Staff Comments on Process for Resource Plans and Acquisition Dockets	21
Decision Options	23

Procedural Background

On July 18, 2016, the Commission issued its *Order Approving Resource Plan with Modifications* in Minnesota Power's (MP) 2016-2030 Integrated Resource Plan (IRP).

Among other things, the Commission determined that MP shall procure 100–300 MW of wind by the end of 2017, explore adding up to 100 MW of solar by 2022 (as an economic system resource), and achieve an average annual energy savings goal of 76.5 GWh.

In addition, the modified resource plan would (1) idle Taconite Harbor 1 and 2, ceasing coal operations by 2020; (2) rely on bilateral contracts to meet capacity needs through 2019; and (3) retire Boswell Energy Center Units 1 and 2 when sufficient energy and capacity becomes available, but no later than 2022.

The Commission required MP to file its next resource plan on February 1, 2018. In the meantime, the Commission directed the Company to initiate competitive bidding processes for wind, solar, and demand response resources to consider as alternatives to its proposed (generic) natural gas facility.

On June 8, 2017, MP filed a *Request for an Extension to File Its Next Integrated Resource Plan to Address Wind, Solar, and Gas Resource Package* (Extension). In the coming years, MP hopes to procure a suite of three resources, referred to as the *EnergyForward* Resource Package, to fulfill the need it identified from the 2015 Resource Plan:

- A Power Purchase Agreement (PPA) for the 250 MW Nobles 2 Wind Project in southwestern Minnesota;
- A PPA for the 10 MW Blanchard Solar Project in central Minnesota, on Minnesota Power's distribution system; and
- Affiliated interest agreements dedicating to MP 48% of the 525 MW Nemadji Trail Energy Center (NTEC) natural gas combined cycle facility in Superior, Wisconsin.

The major issues the Commission is being asked to address at this time include: whether the three-resource package is consistent with the Commission's Order in the 2015 IRP; whether to evaluate all or some of the projects now and extend the next IRP; and what procedures and schedules should be put in place for resource acquisition.

To allow adequate time for review and Commission action by fall 2018, the Company's Extension requested a delay of one year or longer to file its next IRP.

Modifying the Commission's Order in accordance with MP's request would set the deadline for MP's next IRP filing at February 1, 2019 or later.

In its June 8, 2017 Extension, MP notified the Commission that its request for approval of the Company's *EnergyForward* Resource Package would include a request that the Commission refer the matter to the Office of Administrative Hearings (OAH) for a contested case.

On June 13, 2017, the Commission issued a *Notice Seeking Comment on Procedural Schedule*. Topics open for comment included:

- Should the Commission grant Minnesota Power's Extension Request? Is the proposed extension of at least one year reasonable, or should the Commission consider an alternative date?
- Is Minnesota Power's proposed process reasonable? Do the parties have sufficient information at this time regarding MP's *EnergyForward* Resource Package to determine whether an IRP extension or a contested case is necessary?
- Given that MP's *EnergyForward* Resource Package includes several types of resources, is it necessary to evaluate the entire package at once, or should the wind, solar, and natural gas resources be evaluated individually as part of separate proceedings?

Possible answers to these questions are included in the parties' comments as well as the Decision Options section of this briefing paper.

On June 30, 2017, the Department of Commerce (the Department), Clean Energy Organizations (CEO), and Large Power Intervenors (LPI) filed procedural comments in response to the Commission's Notice. MP filed a reply on July 12, 2017.

On July 28, 2017, MP filed a Petition for Approval of its *EnergyForward* Resource Acquisition Package.

Because parties did not have the opportunity to review MP's Petition for Approval prior to the issuance of the initial *Notice Seeking Comments on Procedure*, the Commission issued a second Notice allowing supplemental procedural comments by August 16, 2017.

Pages 7-4 and 7-5 of the Petition outline MP's preferred contested case schedule. Of note, that schedule proposed an August 2017 date for a Commission hearing on procedures and schedule; however, because the Commission's Notice informed MP and parties that the procedural schedule would not be heard until September 2017, MP provided an edited proposed schedule in its August 16, 2017 supplemental comments, shown below:

EnergyForward Resource Package Contested Case Schedule

Milestone/Event	Proposed Target Date
Request for Extension to File Next IRP and to Establish Procedures for Review of EnergyForward Resource Package	June 8, 2017 (filed in Docket No. E015/RP-15-690).
Commission Notice Seeking Comment on Procedure and Schedule	June 13, 2017
Initial Comments on Procedure and Schedule	June 30, 2017
Reply Comments on Procedure and Schedule	July 12, 2017
EnergyForward Resource Package Petition	July 28, 2017
<u>Commission Second Notice for Procedural Comments</u>	<u>August 3, 2017</u>
<u>Second Procedural Comments</u>	<u>August 16, 2017</u>
Commission Hearing on Procedures and Schedule	August <u>September 7, 2017</u>
Commission Referral to Contested Case Proceedings (Requested)	August <u>September 7, 2017</u>
Initial ALJ Prehearing Conference (Requested)	September <u>October 2017</u>
Minnesota Power Direct Testimony	October 6 <u>November 6, 2017</u>
Deadline for Intervention	November 17, 2017
Intervenor Direct Testimony	December 29 ²² , 2017
All Parties' Rebuttal Testimony	February 9, 2018
All Parties' Surrebuttal Testimony	March 2, 2018
Prehearing Conference	March 16, 2018
Evidentiary Hearings	March 19-23, 2018
Initial Briefs	April 27, 2018
Reply Briefs/Proposed Findings of Fact	May 18, 2018
ALJ Report	June 22, 2018
Exceptions to ALJ Report	July 12, 2018
Replies to Exceptions	July 19, 2018
Commission Agenda Meeting	August 30, 2018
Commission Order	September 28, 2018

As mentioned above, one issue before the Commission is whether a contested case is necessary to evaluate the three proposed projects. In MP's July 28, 2017 Resource Acquisition Petition, the Company explained its perspective on why a contested case proceeding, for all three projects, would be beneficial:

A contested case will serve multiple purposes. First, it will ensure that a full and complete record is developed on all aspects of the Petition, and that the

Commission has the benefit of an ALJ recommendation. Second, it will allow the Commission to consider important issues of need for the package in light of Minnesota Power's overall system requirements. This Petition provides an important opportunity for the Commission to review the need and the alternatives available for the resource package. Third, and importantly, a contested case proceeding will help manage the timing of this proceeding.¹

While staff has not comprehensively reviewed MP's Petition, it is clear that the Petition contains a substantial amount of information with both the type and level of analysis similar to that of a resource plan, but with proposed PPAs attached. For example, the Petition includes updated energy and demand forecasts, a description of and assumptions for generic resource alternatives considered, a robust scenario and sensitivity analysis, as well as other information typically included in a resource plan filing. Appendices E-H include negotiated agreements with project developers.

Party Comments on Procedure

As mentioned above, the Commission's June 13, 2017 Notice sought comment on two core issues before the Commission at this time, (1) whether the deadline for the next IRP should be extended and (2) what procedural process should be used for resource acquisition. Therefore, parties' procedural comments were largely focused on these two specific topics.

A. Department of Commerce

The Department recommended that the Commission approve the requested Extension and set an October 1, 2019 filing date for MP's next IRP. According to the Department:

If MP were to submit an IRP in February 2018 the Company would likely assume in that filing that the proposed Package is approved by the Commission. Other parties would then have to either accept that position or explore the consequences of alternatives. This approach would lead to analysis of MP's proposed Package in two dockets; MP's IRP and the filing the Company will make to comply with Minnesota Statutes §§ 216B.48, subd. 3 and 216B.50 subd 1. In addition, the Commission has already determined the size, type, and timing of MP's resource needs in the Order and the Package is MP's attempt to acquire the resources in the Order. Therefore, the Department agrees with MP that a delay in filing the IRP is advisable.²

The Department provided a current schedule for IRPs, not including Minnesota Power, in Table 1 of its procedural comments, which is also shown below.

¹ Petition, p. 7-3.

² Department procedural comments, June 30, 2017, p. 3.

Table 1: Current IRP Schedule⁴

Utility	Next IRP Due
Great River Energy	open docket
SMMPA	01-Dec-17
Interstate Power	01-Feb-18
MMPA	01-Aug-18
Xcel Energy	01-Feb-19
Otter Tail Power	03-Jun-19
Minnkota Power	01-Jul-19
Missouri River Energy	01-Jul-21

One reason the Department recommended an extension of longer than one year for MP to file its next IRP was to avoid significant overlap with other resource-intensive IRP dockets. The Department’s recommendation would schedule MP’s next resource plan after initial and reply comments are likely to be filed on Xcel Energy’s IRP and when Otter Tail Power’s and Minnkota Power’s IRPs are complete or nearly complete.

With regard to the appropriate resource acquisition process, the Department recommended that the Commission not employ a contested case procedure and to evaluate the elements of MP’s *EnergyForward* Package individually.

As to why a contested case is not necessary to evaluate MP’s *EnergyForward* Resource Acquisition Package, the Department explained:

the Department does not understand in what circumstances a contested case would be required to analyze a purchased power agreement (PPA) with a 10 MW solar generation facility. Such proposals are typically addressed using the standard comment process. Unless there are extremely unusual circumstances surrounding MP’s proposal, the Department concludes that there is no reason to change this approach.

Also, the Department does not understand in what circumstances a contested case would be required to analyze a PPA with a 250 MW wind generation facility. Such proposals are typically addressed using the standard comment process as well.

Thus, the only element of MP’s Package that, in normal circumstances, might be addressed through a contested case is the combined-cycle natural gas power plant. The Department does not have sufficient information at this time regarding

MP's proposed combined-cycle natural gas power plant to determine whether a contested case is warranted. However, it is not clear that the benefits of a contested case would be greater than the costs unless there are highly disputed facts or legal issues where an ALJ's legal expertise may be of sufficient value to outweigh the added costs.³

In the Department's August 16, 2017 comments—made after MP filed its Petition—the Department essentially strengthened its stance that MP's *EnergyForward* Resource Package should not be sent to a contested case. According to the Department, "there is no evidence of highly disputed facts or legal issues where an ALJ's legal expertise may be of sufficient value to outweigh the added costs imposed by a contested case."⁴

The Department recommended that the Commission issue a single notice of comments on MP's proposal. The Department suggested using MP's proposed due dates of December 22, 2017, February 9, 2018, and March 2, 2018, which are the same dates for Intervenor Direct, Rebuttal, and Surrebuttal testimony in MP's procedural table listed on Pages 7-4 and 7-5 of its Petition.

Of note, in its August 16 comments, MP modified its proposed date for Intervenor Direct from December 22 to December 29. While staff is unaware if the Department is agreeable to this change, staff is concerned about how it might interfere with holiday schedules. Christmas Day and New Year's Day fall on consecutive Mondays, and while staff would not be an Intervenor, there may be scheduling issues facing Intervenor's ability to meet MP's proposed change.

Lastly, in the Department's August 16, 2017 supplemental comments, the Department maintained its recommendation to delay the filing date of MP's next IRP until October 1, 2019.

B. Clean Energy Organizations

The Clean Energy Organizations (CEO) recommended the Commission reject MP's extension request and proposed procedure. CEO prefers the Commission consider the proposed natural gas combined cycle unit alongside alternative resource options in the Company's next resource plan to meet its updated energy and capacity needs.

Much of CEO's dispute with MP's natural gas procurement proposal is that CEO believes that MP continues to veer from the typical evaluation of all available resource options. This is why the thrust of CEO's comments aim to provide historical context to answer a primary question before the Commission, which is whether the next IRP should be delayed. This requires revisiting how MP's natural gas procurement process originally began.

In the last IRP proceeding, CEO objected to the fact that MP issued a natural gas RFP (request for proposals) before the Commission had an opportunity to consider the need in the resource

³ Department procedural comments, June 30, 2017, p. 5.

⁴ Department supplemental procedural comments, August 16, 2017, p. 4.

plan. From CEO's perspective, it is important to recognize that, while the Commission did not stop that RFP process, the Commission did not rely on it either. Instead, the Commission ultimately ordered the Company to initiate competitive bidding processes for wind, solar, and large industrial-targeted demand response. Therefore, according to CEO, "[p]arties have [been] expecting to analyze resource options to replace Minnesota Power's retiring coal units in the next resource plan, and such a proceeding is the proper venue to do so."⁵

CEO also argued that a contested case, as suggested by MP, is neither reasonable nor necessary. According to CEO, "a contested case is not required for approval of the wind and solar PPAs, and it is not clear that a contested case stemming from an affiliate approval filing is the proper procedure to consider the proposed [natural gas combined cycle] unit."⁶ CEO continued:

Affiliate creation is governed by Minn. Stat. § 216B.48, subd. 3. This subdivision states that the Commission "shall approve the contract . . . only if it clearly appears and is established upon investigation that it is reasonable and consistent with the public interest." In contrast to the resource planning statute, there is no guidance specifically prescribing: required considerations as part of the public interest determination, consideration of environmental costs, preference for renewable resources, parameters relative to meeting new energy demands with renewable resources, requirements related to forecasting, and consideration of long-range emission reduction planning, among others. Instead, the investigation related to approval of an affiliate focuses entirely on the cost to the affiliated interest of rendering services to the public utility. In addition to the risk of a narrow analysis resulting in harm to the public interest, analyzing a proposed resource addition under this statutory framework would hamper the Clean Energy Organizations' ability to advocate for our organizations' public interest missions.⁷

C. Large Power Intervenors

The Large Power Intervenors, like CEO, recommended the Commission deny MP's requested extension of the IRP deadline and should instead re-affirm that MP's next IRP be filed February 1, 2018.

Also, like CEO, LPI believes the resources identified in the last resource plan should be evaluated individually in separate proceedings – in compliance filings for wind and solar and in the next IRP for natural gas. According to LPI, "The 2016 IRP Order was clear regarding procurement of wind, solar and natural gas resources and established different standards for evaluation of each of these resources."⁸

⁵ Clean Energy Organizations procedural comments, p. 2.

⁶ *Id.*

⁷ *Id.*, p. 3.

⁸ Large Power Intervenors procedural comments, p. 6.

Lastly, like CEO, LPI contended the Commission was also clear that MP is required to provide a full analysis of broad range of options for energy and capacity to replace retiring generation, including demand response. MP's next IRP in 2018 is, in LPI's view, much better suited to fulfill this requirement than MP's proposed contested case proceeding in the summer of 2017.

The Commission's 2016 IRP Order required MP to initiate a demand-response competitive-bidding process "to promote state policy favoring energy savings and to benefit large customers competing in global markets."⁹ LPI argued that, while the terms MP offered did not allow for meaningful participation by LPI members, its demand response proposal is an example of the options that should be part of the "full analysis of alternatives" required in the 2016 IRP Order.

Regarding whether a contested case is necessary, LPI noted, "even if a contested case proceeding would be the appropriate process for the gas proposal, MP has not explained why it would be necessary to complicate that proceeding by incorporating its wind and solar proposals which, in contrast to the gas proposal, appear to be in line with the Commission's direction in the 2016 IRP Order."¹⁰

D. Minnesota Power Reply

In its reply comments on procedure, MP supported the Department's recommendation to delay the submittal of the Company's next IRP to October 1, 2019.

MP further provided context explaining the overall timing of the turnover of its coal-fired generation; in the coming years, MP will be significantly reducing its output from coal-fired generation by retiring the Boswell 1 & 2 units in 2018 and phasing out its Young 2 contract in North Dakota by 2026. This transition, according to MP, requires moving forward with its *EnergyForward* Resource Package acquisition at this time.

In addition, there are time-sensitive concerns regarding the acquisition of additional renewable energy. MP explained, "included as a condition precedent in the wind, solar, and natural gas agreements is receipt of Commission approval of the full *EnergyForward* Resource Package by October 31, 2018, to allow the competitive resource package to be available and in service for customers. Delaying regulatory action on the *EnergyForward* Resource Package until after the 2018 IRP regulatory review process is complete is unnecessary and likely would result in triggering these conditions precedent."¹¹

Regarding the need for a contested case, in addition to benefits listed previously in this briefing paper, MP believes "the interrelated nature of the various agreements, coupled with the

⁹ Commission Order, Docket No. 13-53, *In the Matter of Minnesota Power's 2013–2027 Integrated Resource Plan*, Resource Plan, July 18, 2016, p. 13.

¹⁰ Large Power Intervenors comments, p. 5.

¹¹ MP reply to procedural comments, July 12, 2017, p. 7.

intricacies of entering into a partnership agreement to jointly own a generation facility that will be owned by an affiliate and dedicated to Minnesota Power on the same basis as if the asset was directly owned by the utility, substantiates the need for a contested case proceeding.”¹²

MP also believes there are certain factual questions that would benefit from an administrative hearing record. These include MP’s unique customer profile and the impact of a combination of resources on that customer profile. For instance, MP’s large industrial customers make up 60% of total energy sales and 72% of retail sales, and many of these large industrial customers operate on a 24/7 basis. In the Company’s view, a contested case proceeding will best ensure full consideration of its unique situation as one of the highest load factor utilities in the nation.

E. Staff Discussion

i. Prior Resource Plan Proceedings

Currently, MP generates very little electricity from natural gas. For several consecutive resource plans, MP has expressed a desire to expand and diversify its resource portfolio to include more natural gas generation.

For instance, in its 2013 resource plan, MP introduced its “*EnergyForward*” strategy, a long-term changeover aimed to generate one-third of its electricity from coal, one-third from renewables, and one-third from natural gas/market/other. A long-term component of MP’s *EnergyForward* strategy, as explained in the Company’s 2013 IRP, would:

Begin investigation, for inclusion in its next resource plan, of an intermediate natural gas generation resource for Minnesota Power’s generation fleet to meet expected capacity and energy needs in the 2020 timeframe and beyond.¹³

Then, in its 2015 resource plan, MP was more specific with regard to the size, type, and timing of the natural gas generation the Company would pursue:

The 2015 Plan evaluation determined that the timing is right to begin development of an additional natural gas resource. Presently, Minnesota Power plans to add 200 – 300 MW of natural gas CC generation by 2024. This timing fits well with the transition of its small coal generation fleet that is expected to no longer be included in the resource portfolio by this same time period.¹⁴

Importantly, the Commission has not yet approved a natural gas facility as part of MP’s two previous resource plans (for a variety of reasons), but rather allowed the continued

¹² *Id.*

¹³ Docket No. 13-53, *In the Matter of Minnesota Power’s 2013–2027 Integrated Resource Plan*, Petition, p. 15.

¹⁴ Docket 15-690, *In the Matter of Minnesota Power’s 2016–2030 Integrated Resource Plan*, Minnesota Power, Resource Plan, p. 10.

investigation of a natural gas resource as a possibly reasonable component of MP's long-term strategy. For example, listed below are ordering paragraphs 2 and 6-13 of the Commission's July 2016 Order, which largely capture MP's approved, modified 2015 resource plan:

2. Minnesota Power's range of load forecasting used for its 2015 resource plan is reasonable for planning purposes; however, in light of updated information, Minnesota Power's load forecast scenarios used in its 2015 resource plan may overstate the size or timing of future needs.

...

6. Minnesota Power shall retire Boswell Energy Center Units 1 and 2 when sufficient energy and capacity are available, but no later than 2022.

7. Minnesota Power may pursue an RFP to investigate the possible procurement of combined-cycle natural gas generation to meet its energy and capacity needs in the absence of Boswell Units 1 and 2 and Taconite Harbor Units 1 and 2, with no presumption that any or all of the generation identified in that bidding process will be approved by the Commission.

8. Minnesota Power's next resource plan shall include a full analysis of all alternatives, including renewables, energy efficiency, distributed generation, and demand response, for providing energy and capacity sufficient to meet its needs.

9. By the end of 2017, Minnesota Power shall initiate a competitive-bidding process to procure 100–300 MW of installed wind capacity.

10. Minnesota Power shall acquire solar units of 11 MW by 2016, 12 MW by 2020, and 10 MW by 2025 to meet its SES obligations.

11. The Commission finds that up to 100 MW of solar by 2022 is likely an economic resource for Minnesota Power's system; the Company shall account for this finding in its request for proposals in any competitive acquisition process.

12. Minnesota Power's average annual energy savings goal is set at 76.5 GWh.

13. Minnesota Power shall propose a demand-response competitive-bidding process within six months of the date of this order.

A primary disagreement between MP and CEO/LPI appears to stem from the interpretation of ordering paragraph 7, listed above, regarding the investigation of combined cycle natural gas generation. MP seems to interpret the Commission's July 2016 Order to mean that a natural gas unit was, if not approved for planning purposes, encouraged to move forward, as the Company stated in its July 12, 2017 procedural comments:

On June 7, 2017, the Company announced that it had developed the *EnergyForward* Resource Package in compliance with the July 2016 IRP Order and based on additional exploration of resource options since the Order was issued.¹⁵

...

The July 2016 IRP Order granted approval for Minnesota Power to continue moving forward with the Request for Proposal (“RFP”) process to identify potential combined cycle natural gas projects available to the Company in the mid-2020 timeframe.¹⁶

LPI, on the other hand, did not read the Commission’s order in the same way:

Instead of complying with the clear and unambiguous July 18, 2016 order approving Minnesota Power’s 2016-2030 IRP with modifications (the “Order”), Minnesota Power is seeking to combine review of solar and wind resources (which the Commission specifically approved in the Order) with a gas resource (which the Commission declined to approve in the Order). Second, it is unclear how Minnesota Power can be found in compliance with the Order, which specifically requires Minnesota Power’s gas plant proposal to “include a full analysis of all alternatives to natural gas, including renewables, energy efficiency, distributed generation and demand response.”¹⁷

Staff agrees with CEO and LPI that the expectation was that the Company’s next resource plan would evaluate any future natural gas facility alongside other alternatives. While staff believes the July 2016 Order was clear in this regard, the June 9, 2016 hearing transcript¹⁸ of the 2015 IRP leaves no doubt, in staff’s view, that the Commission’s deliberations considered the natural gas RFP to be a source of information that could be used to compare alternatives in the next resource plan proceeding. Whether that is, as of now, an impracticable procedural path is a separate question, and one which will be discussed later in this briefing paper. But at the very least, it may be an important procedural point to recognize that, with regard to the gas facility, a proceeding separate from the next scheduled IRP deviates from what was previously envisioned.

With this being said, MP’s Petition is not particularly surprising, either, since the Company has been promoting its “one-third, one-third, one-third” *EnergyForward* generation strategy for multiple resource plan iterations. This is probably why MP did not file with the Commission a Notice of Changed Circumstances, pursuant to Minn. Rule. 7843.0500, subpart 5; it is clear that MP considers its pursuit of a natural gas facility consistent with the Company’s plans that have been ongoing for several years, and reflects a strategy which has never been ceased or declared

¹⁵ Minnesota Power, July 12, 2017 reply to procedural comments, p. 1.

¹⁶ *Id.*, p. 6.

¹⁷ Large Power Intervenors, August 16, 2017, supplemental procedural comments, p. 1.

¹⁸ Docket 15-690, *In the Matter of Minnesota Power’s 2016–2030 Integrated Resource Plan*, Hearing Transcript (June 9, 2016), pp. 218-223, filed in e-dockets on July 22, 2016.

imprudent by the Commission. Furthermore, MP’s Petition is reflective of the Company’s Preferred Plan, as well as the Department’s Preferred Plan, shown below by Table 9 of the Department’s January 4, 2016 comments, in the 2015 resource plan:

**Table 9: Department’s Preferred Expansion Plan
(2016-2030, nameplate capacity)**

Year	CC	CT	Solar Options	Solar Standard Compliance	Wind Options
2016	-	-	-	11	-
2017	-	-	-	-	-
2018	-	-	-	-	300
2019	-	-	-	-	-
2020	-	-	-	12	-
2021	-	-	-	-	-
2022	200 to 400	-	Up to 50	-	Up to 200
2023	-	-	-	-	-
2024	-	-	-	-	-
2025	-	-	-	10	-
2026	-	-	-	-	-
2027	-	-	-	-	-
2028	-	-	-	-	-
2029	-	-	-	-	-
2030	-	-	-	-	-

In addition to the interpretation of ordering paragraph 7, there are also some long-term uncertainties still lingering from MP’s last IRP proceeding, which could additionally underlie CEO’s and LPI’s preference for another planning phase. Two include MP’s long-term energy and demand forecasts (ordering paragraph 2) and the price assumptions for renewable energy resources (ordering paragraph 11). The former is directly stated in Commission ordering paragraph 2 (forecasting), and the latter is more quietly embedded within ordering paragraph 11 (price assumptions).

For example, with regard to ordering paragraph 11, the Commission determined in its July 2016 IRP Order that up to 100 MW of solar is likely a cost-effective system resource, stating further:

The market for solar generation is still evolving; however, under the Department’s modeling, when solar was priced at the median or lower levels—a range of \$80 to \$100 per megawatt hour (MWh)—the model tended to select 100 MW or more of solar in addition to the amount needed for SES compliance. ... the Commission finds that up to 100 MW of solar by 2022 is likely an economic resource for Minnesota Power’s system and will require that the Company account for this finding in any competitive acquisition process.¹⁹

¹⁹ Commission Order, Docket 15-690, *In the Matter of Minnesota Power’s 2016–2030 Integrated Resource Plan*, July 16, 2016, pp. 10-11.

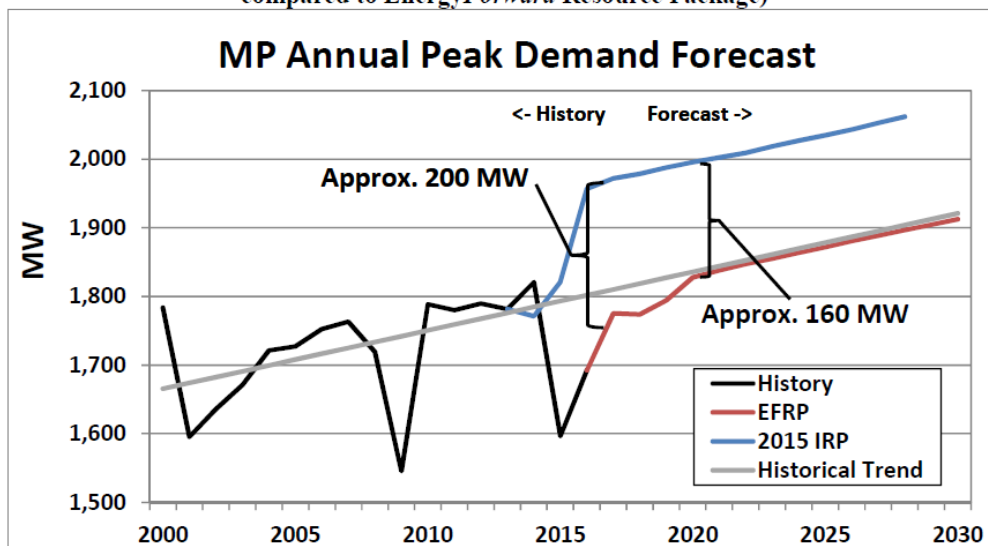
MP’s EnergyForward Resource Package Petition includes both an updated IRP solar price range for generic units (Appendix I) as well as levelized cost values for actual solar projects (Appendix R). In light of these updated price points, the Commission may or may not determine whether such new information is pertinent to the most reasonable procedural path forward. Notably, though, the Commission previously found that up to 100 MW of new solar is likely cost-effective (and at price points much higher than the new, updated ones), yet MP only proposed one 10 MW solar PPA in its Petition. This outcome could cut two ways: As MP suggested, a robust evidentiary record and ALJ Report may be necessary to include but go beyond price to consider important, operational aspects of MP’s system; alternatively, one could say updated information on solar prices demonstrates why a refreshed evaluation of all resource options is warranted, using actual solar market prices to inform what is least-cost.

With regard to need, the Commission's July 2016 Order determined:

Minnesota Power’s range of load forecasting used for its 2015 resource plan is reasonable for planning purposes; however, in light of updated information, Minnesota Power’s load forecast scenarios used in its 2015 resource plan may overstate the size or timing of future needs.²⁰

In its July 28, 2017 EnergyForward Petition, MP used energy and demand forecasts from its 2017 Advance Forecast Report (AFR). Figure 3 of the Petition, shown below, compares the current annual peak demand outlook (“EFRP,” or Energy Forward Resource Package, in red) to the 2015 IRP forecast.

Figure 3: Minnesota Power’s Annual Peak Demand Forecast Comparison (2015 Plan compared to EnergyForward Resource Package)



²⁰ Commission Order, ordering paragraph 2, Docket 15-690, *In the Matter of Minnesota Power’s 2016–2030 Integrated Resource Plan*, July 16, 2016.

The Department noted in its procedural comments that, while obviously things will change, the scope of the contested case is to determine whether the project(s) fit(s) the previously identified need, not to revisit whether there is a need in the first place. The Department discussed this distinction as follows:

If the Commission desires to reanalyze the need that one component of MP's package is intended to fulfill, then the Department recommends that all of the elements be re-analyzed simultaneously; most likely as part of a combined IRP and resource acquisition proceeding. This approach is necessary because changes in resources can have unanticipated effects on other resources. If, for example, the need for a combined cycle plant changes due to the results of a re-analysis, that might trigger changes in the need for wind.²¹

Moreover, the Department (and the Commission, to some extent²²) previously addressed the concern about fluctuations of need over time, arguing that it is important to consider the least-cost expansion plans that occur under a broad range of forecasts:

[F]or resource planning it is important to develop an expansion plan that is cost-effective over a wide range of potential futures, including a range of forecasts. If Minnesota Power planned its system around a point estimate or one particular forecast in time, it could potentially lead to MP procuring inadequate or excessive supplies of electricity. As explained in the Department's comments, the Department modeled reasonable forecast bands for evaluating and selecting its recommended plan for the Company.²³

To be clear, staff does not raise the issues of price assumptions and forecasting to re-litigate MP's previous IRP or to judge it in hindsight. But the fact is that the Commission, in its July 2016 Order, specifically identified these two areas as those in which more information, such as RFP-derived market prices and the materialization (or not) of uncertain industrial load, could be useful to know for future resource acquisition processes. As such, these issues might be germane to the Commission's preference for one procedural path over another.

CEO and LPI both concluded that a resource plan proceeding in 2018 that considers a full set of resource alternatives is a superior procedural path than a contested case in 2017 that would be focused on three projects. The Department recommended that it is best to analyze each element of MP's *EnergyForward* Resource Package separately and to delay the Company's next IRP to October 2019. However, if the Commission wishes to revisit need entirely, then the Department recommends that *all* of the elements should be re-analyzed simultaneously.

²¹ Department procedural comments, p. 6.

²² In its July 2016 Order, the Commission concluded that MP's forecast was reasonable for planning purposes.

²³ Docket 15-690, *In the Matter of Minnesota Power's 2016–2030 Integrated Resource Plan*, Department of Commerce, reply comments (March 4, 2016), pp. 2-3.

In the following sections, staff will discuss a few time-sensitive issues which may inform how quickly and in what manner the Commission may wish to proceed.

ii. PTC/ITC Risk

The federal wind production tax credit (PTC) was extended on December 18, 2015. The full credit amount is available for a 10-year period to wind facilities that commence construction prior to January 1, 2017, and there will be a phased reduction in the available credit for wind facilities that commence construction by December 31, 2019.

The PTC phase-down will reduce the amount in the following increments:

- reduced by 20 percent for wind facilities commencing construction in 2017;
- reduced by 40 percent for wind facilities commencing construction in 2018;
- reduced by 60 percent for wind facilities commencing construction in 2019; and
- unavailable after 2019 unless reauthorized by Congress.

According to MP's Petition, Tenaska, the developer of the proposed 250 MW Nobles 2 Wind Project, "took the necessary action to qualify the Nobles 2 Wind Project for the full amount of the PTC."²⁴ And, in MP's July 12, 2017 procedural comments, the Company noted that "a condition precedent in the wind, solar, and natural gas agreements is receipt of Commission approval of the full *EnergyForward* Resource Package by October 31, 2018."²⁵

The solar Investment Tax Credit (ITC) is currently a 30% federal tax credit claimed against the tax liability of solar systems. The ITC steps down to 26% in 2020 and 22% in 2021. After 2021, the credit will drop to 10%. Utility projects which have commenced construction before December 31, 2021 may qualify for the 30, 26 or 22% ITC if they are placed in-service before December 31, 2023.

It is ideal, in staff's view, to ensure the proposed renewable energy projects have sufficient time to capture the incentives that are important drivers of the favorable economics of the projects. Due to the timelines of the respective step-downs, wind has more urgency than solar, and to accommodate the implementation timelines for Nobles 2, it would likewise be ideal to be procedurally efficient with regard to the evaluation. Therefore, the Commission might find it is unreasonable, unnecessary, and impractical to wait a year to review PPAs for renewable energy projects that were already determined to be least-cost in the resource plan.

Moreover, if something unexpectedly falls through, or if there is some reason the proposed PPAs turn out to be unreasonable, considering the robust responses to the wind and solar RFPs, there are other projects that can otherwise be considered. However, the window of available tax incentives and opportunities to consider renewable energy resources for which they qualify

²⁴ MP Resource Acquisition Petition, p. 4-13.

²⁵ MP procedural comments, July 12, 2017, p. 7.

will start to close if the Commission's examination of PPAs is scheduled for fall 2018 and another planning phase does not begin until October 2019.

iii. Timeline for Proposed Gas Facility

Various combinations of procedural paths might include: moving forward with MP's proposed process, separately analyzing each element of MP's *EnergyForward* Package, or referring the gas facility proposal to OAH for a contested case but considering the renewable projects using the standard comment process. Under any combination, the Commission might determine that an extension to the IRP is warranted because, in some fashion, the Company and parties are likely to be engaged in resource acquisition dockets in the near-term. However, as noted above, the counterargument to this would be that prolonging the date whereby additional renewable energy could be considered may forfeit opportunities to procure attractively priced, ready-to-go wind and solar projects.

Whether or not the renewable energy projects are referred to a contested case, there may still be a need for MP's natural gas plant proposal to be expeditiously reviewed, and avoiding a potentially extended and elongated process is clearly a primary concern for the Company.

For example, as mentioned previously, the Commission's July 2016 IRP Order required that "Minnesota Power shall retire Boswell Energy Center Units 1 and 2 when sufficient energy and capacity are available, but no later than 2022."²⁶ MP proposes to retire Boswell 1 and 2 in 2018, thereby eliminating approximately 135 MW from MP's system. In addition, Taconite Harbor Units 1 and 2 were idled in 2016, and the Company is exploring whether to convert or retire those units, which collectively amount to another 150 MW. In total, MP noted that "nearly 700 MW of baseload coal-fired generation has been or will be retired, removed, refueled, or idled from Minnesota Power's supply by 2025."²⁷ As a result, there might be a concern over an undersupply of resources by not moving forward with acquiring additional resources at this time. After all, together, the 250 MW wind project and 10 MW solar project can be expected to amount to somewhere around 50 MW of MISO-accredited capacity.

Second, MP appears to be facing substantial transmission and timeline risk in MISO, which might become increasingly problematic if the uncertainty of adding a natural gas unit continues. As MP noted in its Resource Acquisition Petition:

Recent queue sizes have been significantly larger than prior queues, which has led to complexities in MISO's study work and delays in the study schedules. MISO is working closely with its stakeholders to navigate these issues, but there is a considerable amount of uncertainty regarding the cost of network upgrades and schedule for completion of studies for any given interconnection customer.²⁸

²⁶ Commission Order, Docket No. 15-690, ordering paragraph 6, July 18, 2016.

²⁷ MP supplemental comments, August 16, 2017, p. 3.

²⁸ MP Resource Acquisition Petition, p. 6-47.

MP continued:

There are two main timeline-related risks associated with the MISO interconnection process: (1) the uncertainty of [MISO's Definitive Planning Phase] timelines and (2) the uncertainty of time necessary to complete required network upgrades. The Company is mitigating the risk of a longer MISO interconnection process timeline impacting [Nemadji Trail Energy Center, or NTEC] by filing for interconnection now instead of waiting until the project is further developed and closer to the in-service date of 2024.

The second time delay risk is the time necessary to build required network upgrades. If the MISO generator interconnection study process identifies that one or more large new transmission projects are needed in order for the August 2017 [Definitive Planning Phase] group (of which NTEC is a part) to interconnect, then the time required to build the necessary network upgrades could extend past 2024.²⁹

iv. Advantages of a Contested Case

MP refers to its gas/wind/solar package as a “synergistic combination” of resources that necessitates all three projects being referred to OAH for a contested case. While staff does not find the “synergy” argument to be particularly persuasive—especially since the gas plant would be located in Wisconsin, the wind project would be located in southwest Minnesota, and the relatively small solar project would be located in central Minnesota—there are certainly valid reasons for a contested case that MP identifies. Some advantages MP provided for the Commission's consideration include:

- There are several technical aspects to consider that will benefit from an evidentiary record and ALJ recommendation;
- A contested case will review the need and alternatives, but with a specific emphasis on technical details unique to the Minnesota Power system;
- An evidentiary record and Commission decision will provide regulatory certainty;
- A contested case will help manage the timing of the proceeding to ensure complete evaluation by stakeholders and the Commission; and
- Extensions that might result in a process that is longer than MP's proposed contested case schedule should not be necessary.

If the Commission decides to proceed without a contested case proceeding, MP proposed an alternative schedule, shown below and on pages 7-8 of its supplemental comments, that would also allow for a decision by the end of August 2018. Of note, MP proposes a possible date of October 20, 2017 for initial comments. It is a question better-suited for the Department, but if

²⁹ *Id.*, p. 6-48.

the Department has to conduct IRP-level modeling, with a new look at fresh forecasts and generation alternatives, an October 20, 2017 deadline would presumably be unworkable.

EnergyForward Resource Package Alternative Notice and Comment Schedule

Milestone/Event	Proposed Target Date
Request for Extension to File Next IRP and to Establish Procedures for Review of EnergyForward Resource Package	June 8, 2017 (filed in Docket No. E015/RP-15-690).
Commission Notice Seeking Comment on Procedure and Schedule	June 13, 2017
Initial Comments on Procedure and Schedule	June 30, 2017
Reply Comments on Procedure and Schedule	July 12, 2017
EnergyForward Resource Package Petition	July 28, 2017
Second Round of Comments on Procedure and Schedule	August 16, 2017
Commission Hearing on Procedures and Schedule	September 7, 2017
Discovery Period	Ongoing
Initial Comments on Petition Due	October 20, 2017
Reply Comments Due	December 4, 2017
Supplemental Comments Due	January 23, 2018
Commission Staff Review/Briefing Papers	February/March 2018
Commission Agenda Meeting(s)	May/June 2018
Commission Order	August 2018 (on or before August 31, 2018)

Overall, what is quite clear from the Company's comments is that, with whatever the procedural path the Commission might prefer, MP strongly urges the Commission to issue an order by fall 2018. Another resource planning proceeding, if started at the currently scheduled February 1, 2018 deadline, is very unlikely to achieve this end, even if the comment periods are truncated. A contested case will additionally create firm deadlines, extensions that might disrupt MP's aim for a fall 2018 Commission order will be far less probable.

v. General Staff Comments on Process for Resource Plans and Acquisition Dockets

Regardless of the decision the Commission makes in this particular instance, the arguments raised by both sides raise an important question: what are the appropriate procedures for

Commission dockets given the number of specific resource decisions now being made in resource plans and other acquisition dockets?

One might suggest that the threshold for sending a matter to contested case is whether the filing presents significant legal or factual disputes. Staff believes this is a legitimate point. However, rate cases and other filings that routinely are sent to the OAH are not screened for legal and factual disputes; rather, OAH provides the benefit of record development, docket management, and certainty on timing.

In two recent dockets,³⁰ the Commission set a hybrid type of proceeding, where the standard comment and reply process is used but an ALJ is appointed for discovery disputes and other record development. This hybrid approach could be beneficial because it potentially balances the need for structure and timeliness that a contested case offers with the flexibility and accessibility that a comment process provides. Staff offers this as an alternative below but leaves it to the Commission for the ultimate decision on how it wishes to conduct its dockets.

³⁰ Docket Nos. 16-496 (CenturyLink Petition to be Regulated Pursuant to Minn. Stat. §237.025: Competitive Market Regulation) and 16-512 (Commission Investigation into Fees Charged to Qualifying Facilities by Cooperative Electric Associations)

Decision Options

1. Approve Minnesota Power's request for an extension to file the Company's next Integrated Resource Plan on October 1, 2019. *(MP, Department)*
2. Allow Minnesota Power's *EnergyForward* Resource Package to be reviewed as a single package and refer its review to the Office of Administrative Hearing for a contested case. *(MP)*
3. Do not employ a contested case procedure and evaluate the elements of the package individually. *(Department)*
4. Issue a single notice of comments on MP's proposal, perhaps using MP's proposed due dates of December 22, 2017, February 9, 2018, and March 2, 2018. *(Department)*

(Staff note: the Commission may wish to ask the Department if, given that the elements of the package are to be evaluated individually, the proposed dates are specific to a particular project.)

5. Reject Minnesota Power's extension request and retain the current filing date of February 1, 2018 for the Company's next Integrated Resource Plan. *(Clean Energy Organizations, Large Power Intervenors)*
6. The Commission hereby refers disputes regarding discovery, intervention, record development and interlocutory matters to the Office of Administrative Hearings. The Commission delegates to the Executive Secretary the authority to set other procedures as necessary and establish comment periods in anticipation of a Commission decision by August 31, 2018. *(Staff option; staff has written Decision Option 6 to be most compatible with Decision Option 4. However, Decision Option 6 offers slightly more flexibility to set comment periods.)*