

Revised Decision Options

June 9, 2016

Approval (Minn. Stat. 216B.2422)

1. Approve Minnesota Power's 2015-2029 Integrated Resource Plan; OR
2. Approve Minnesota Power's Integrated Resource Plan with Modifications; OR
3. Reject Minnesota Power's 2015-2029 Integrated Resource Plan.

Commission Findings/Conclusions (Minn. Rule. 7843.0500, Minn. Stat. 216B.2422, Subd. 2.)

(Staff note: The Commission can choose not to make findings and conclusions and instead skip to modifications of the plan.)

Load Forecasting

4. Minnesota Power's load forecast scenarios used in its 2015 resource plan fails to account for the possibility that sales growth will approximate recent trends, thus leading to a potential overstatement of future needs. (CEO)
5. Minnesota Power's range of load forecasting used for its 2015 resource plan is reasonable for planning purposes (Department)

Capacity Need

6. The current resource plan demonstrates Minnesota Power's need for an additional 300 MW of capacity by 2023. (Minnesota Power) OR

6.a. Based on the record evidence for this Resource Plan, Minnesota Power has sufficient capacity to meet its minimum planning reserve requirements in its five-year action plan (covering years 2015-2019). The Company's resource need in the 2020s depends on several uncertain or unknown factors, including but not limited to: economic conditions, additions of new industrial load, increased production from existing customers, and the retirement and/or re-missioning of existing facilities. (Staff alternative) OR

6.b. Due to significant uncertainty in the load forecast, the current resource plan does not demonstrate a need for an additional 300 MW of capacity by 2023. (Staff alternative)

Modifications / Proposed alternative resource plans (Minn. Stat. 216B.2422, Minn. Rule. 7843.0300, Subpart 11)

Taconite Harbor Energy Center

7. Minnesota Power shall shut down the Taconite Harbor 1 and 2 units in 2017 (Department); OR
8. Minnesota Power shall shut down the Taconite Harbor 1 and 2 units as early as practicable. (CEO)

9. Taconite Harbor Energy Center Units 1 and 2 will be idled in 2016, but retain the ability to restart to address reliability or emergency needs on the transmission system, and cease coal-fired operation by the end of 2020. Future refueling and remission opportunities will be considered in planning and optimization of the facility for the next Resource Plan. (Minnesota Power) **OR**

9.a. Minnesota Power may idle Taconite Harbor Energy Center Units 1 and 2. Minnesota Power shall, by 2020, remedy the local transmission system issues identified in the Company's analysis of a THEC 1 & 2 closure and may recover reasonable costs of the upgrades consistent with the Company's estimate of the cost of the local system upgrades required for the near-term THEC 1&2 shutdown scenario as listed on page 16 of Appendix F of its IRP. (Staff) **AND/OR**

9.b. Minnesota Power may idle Taconite Harbor Energy Center Units 1 and 2, but the record does not demonstrate that continued operation of Units 1 and 2 beyond 2020 is economic, with or without remissioning the facility. (Staff)

Taconite Harbor Energy Center, MISO filings

(Staff note: if the Commission selects Decision Option 7 or 8, it may also want to require MP to submit an Attachment Y or Attachment Y-2 with MISO.)

10. Minnesota Power shall submit an Attachment Y Notice to the Midcontinent Independent System Operator (MISO) of MP's intent to retire or suspend operation of Taconite Harbor 1 & 2. (CEO); **OR**
11. Minnesota Power shall submit an Attachment Y-2 with the Midcontinent Independent System Operator (MISO) as a request for a non-binding study of the transmission reliability impacts of a potential future status change at Taconite Harbor 1 & 2 (CEO).

Boswell Energy Center

(Staff note: The Commission might wish to address the Boswell Energy Center and natural gas acquisition concurrently, since the Department's recommendations depend on one another.)

12. Minnesota Power shall shut down Boswell units 1 and 2 once natural gas combined cycle generation is online (Department); **OR**
13. Minnesota Power shall shut down Boswell units 1 and 2 when sufficient energy and capacity is available (CEO).
14. If Boswell 1 and 2 are not shut down in this resource plan, Minnesota Power shall conduct a full analysis of ceasing operations at Boswell 1 and 2 for the next resource plan. (CEO)
15. Minnesota Power has not demonstrated at this time that its proposed investment in SO₂ reduction at Boswell units 1 & 2 is reasonable. (Staff)

Natural Gas

16. Procure approximately 200 MW of natural gas combined cycle generation, partly to replace Boswell Energy Center Units 1 and 2 and Taconite Harbor 1 and 2, and (Department)

17. Secure and implement 200 to 300 MW of efficient natural gas combined cycle generation resource for Minnesota Power's generation fleet to meet expected capacity and energy needs by 2024. (Minnesota Power) (Staff note: Staff does not see Options 16 & 17 as materially different.) **OR**
18. Minnesota Power shall suspend its pending natural gas power plant procurement. Any future acquisition process shall be fuel-neutral and timed consistent with the need the Commission finds in this resource plan (CEO).
19. Minnesota Power's request for proposals (RFP) for up to 400 MW of natural gas capacity was issued prematurely. The RFP should be suspended or reissued with a revised size and scope commensurate with the approved Resource Plan and to allow responses that incorporate customer self-generation or cogeneration. In any future resource procurement process, Minnesota Power must consider customer self-generation and cogeneration and give notice to existing customers to ensure that customers are able to participate (Large Power Intervenors); **OR**
 - a. The Commission's approval of Minnesota Power's Resource Plan does not extend to the outstanding request for proposals for up to 400 MW of natural gas generation in the 2022-2024 timeframe. While a need could possibly arise in the 2022-2024 timeframe, it has not been established at this time that an approximately 400 MW natural gas unit is the most prudent resource to meet this possibly emerging need. (Staff variation of LPI's recommendation.) *(Staff introduces this alternative language because it makes no determination that MP's issuance of a natural gas RFP was unreasonable; however, it does emphasize that "approving" the resource plan does not pre-judge the reasonableness of MP's natural gas acquisition.)*
20. Order Minnesota Power to formalize a process for working with large power customers interested in self-generation and incorporate that process into the resource planning process, starting with Minnesota Power's next resource plan. (Large Power Intervenors)

Wind additions

21. Minnesota Power shall acquire up to 300 MW of wind capacity in about 2018 (Department); **OR**
22. Minnesota Power shall evaluate whether adding 100 MW of new wind by 2018 with the extension of the Production Tax Credit would provide benefit to its customers. A competitive non-site specific RFP (request for proposal) shall be issued as part of the investigation. (Minnesota Power)
23. By the end of 2017, Minnesota Power shall initiate a competitive bidding process for procurement of 100-300 MW of installed wind capacity. (Staff)

Solar additions

24. Minnesota Power shall acquire solar units of 11 MW in 2016, 12 MW in 2020 and 10 MW in 2025; (Department);
25. In addition to its obligations under the Solar Energy Standard, Minnesota Power shall acquire up to 50 MW of solar by 2022 as part of its least-cost expansion plan. (Department)

AND/OR

25.a. The Commission finds that up to 100 MW of solar by 2022 is likely an economic resource for MP's system. In any competitive acquisition process for solar resources, Minnesota Power shall account for this finding in its request for proposals. (Staff alternative)

26. Minnesota Power will continue to monitor solar technology trends and evaluate further additions in the next Resource Plan and maintain compliance with the Solar Energy Standard. (Minnesota Power)

Conservation

27. a. Minnesota Power shall procure average annual ~~average~~ energy savings of 76.5 GWh. (Department), **OR**

27.b. Minnesota Power shall procure average annual energy savings of 61.2 GWh, or 2.0% of retail sales, **OR**

27.c. Minnesota Power shall procure average annual energy savings of 57.3 GWh, or 1.87% of retail sales. (Minnesota Power)

28. Minnesota Power ~~will~~ shall continue to work to identify reasonable additions to its conservation and demand-side management programs where it is most beneficial for customers, while continuing to meet existing energy savings goals. (Minnesota Power)

Demand Response (Staff)

29. Minnesota Power shall initiate a demand response competitive bidding process to supplement or supplant its existing/expiring supply-side, bilateral contracts. (Staff)

Additional Commission Actions

Conservation

30. Minnesota Power shall proactively seek ways to increase conservation by its CIP-exempt customers and consider additional DSM scenarios for CIP opt-outs. (CEO)
31. Direct parties to convene a technical workgroup to establish a set of best practices which could include how to treat embedded energy savings, energy efficiency modeling practices, as well as load forecasting techniques. If the Commission chose, it could open an investigation docket to accomplish these goals. (CEO)

Distribution/Distributed Energy Resources

32. Order Minnesota Power to conduct a distribution study to identify interconnection points on its distribution system for small-scale distributed generation resources. (Department)

Staff's Proposed Compliance Filings

Taconite Harbor Energy Center

33. If the Commission permits idling Taconite Harbor 1 & 2 (THEC 1 & 2), Minnesota Power shall submit an annual report, by August 1 of each year, to include:
- Whether THEC 1 & 2 were selected in MISO's Annual Capacity Auction;
 - If THEC 1 & 2 will receive capacity accreditation in each MISO Planning Year;
 - How often the units were dispatched in the previous planning year; and
 - For the previous and upcoming planning year, how much fuel was and will be delivered to the THEC site.
 - MP shall quantify and demonstrate how and why the economic idling of THEC 1 & 2 is in the ratepayers' interests.**
34. Within 30 days of the Commission's order in the resource plan, MP shall file any documentation provided to and/or received from MISO regarding its plans to idle Taconite Harbor 1 & 2, including ~~the MISO/OMS resource adequacy survey and~~ MISO Attachment Y or Y-2 filings.

34.a. Minnesota Power shall file its 2016 and 2017 OMS/MISO (Organization of MISO States/Midcontinent Independent Service Operator) Resource Adequacy Surveys and LSE (Load Serving Entity) Balance Sheets in the record of this docket. If MP reports to MISO that Taconite Harbor 1 & 2 should be counted for resource adequacy, MP shall file notify the Commission and explain any differences in capacity accreditation between its surveys and its resource plan.

Bilateral Contracts

35. When Minnesota Power commits to a specific bilateral contract, the Company shall file pertinent details of the contract, such as the duration, price, and amount of capacity and associated energy to be procured. The filings shall be made within 10 business days after the contract is signed.

Deadline for Minnesota Power's Next Resource Plan

36. Require Minnesota Power to file its next resource plan on December 1, 2018. (MP); OR
37. Require Minnesota Power to file its next resource plan on September 1, 2017. (Staff)