

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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In the Matter of Xcel Energy's 2011-2025
Integrated Resource Plan

ISSUE DATE: March 5, 2013

DOCKET NO. E-002/RP-10-825

ORDER APPROVING PLAN, FINDING
NEED, ESTABLISHING FILING
REQUIREMENTS, AND CLOSING
DOCKET

PROCEDURAL HISTORY

On August 2, 2010, Northern States Power Company d/b/a Xcel Energy (Xcel) filed a resource plan under Minn. Stat. § 216B.2422 and Minn. R. 7843.0400, covering the period 2011-2025. Since that time Xcel has occasionally revised the data upon which its plan was based, and also revised its plans.

On November 30, 2012, the Commission issued its Order Establishing Procedural Schedules and Filing Requirements which, among other things, did the following:

- Established a schedule for filing forecasts of the amount of additional resources Xcel would need to meet customer demand, and for filing comments on the forecasts.
- Directed Xcel to file a notice plan for soliciting bids in Docket No. E-002/CN-12-1240, *In the Matter of the Petition by Northern States Power Company d/b/a Xcel Energy to Initiate a Competitive Resource Acquisition Process.*
- Directed Xcel to develop a plan to either update or replace the Sherburne County (Sherco) Generating Station Units 1 and 2, the two oldest coal-powered generators at Xcel's largest plant.
- Identified topics for Xcel to address in its next resource plan.

Since November 30, 2012, the Commission has received comments from the following:

- Minnesota Department of Commerce (the Department)
- Calpine Corporation, a developer of electric generators

- Flint Hills Resources, LP, Gerdau Ameristeel Corporation, and USG Corporation, filing jointly (the Xcel Large Industrials)
- Izaak Walton League of America – Midwest Office, Fresh Energy, Sierra Club, and the Minnesota Center for Environmental Advocacy, filing jointly (the Environmental Intervenors)
- Xcel

On February 20, 2013, the Commission met to consider the matter.

FINDINGS AND CONCLUSIONS

I. Summary

In the order the Commission does the following:

- Approves Xcel’s resource plan for planning purposes and closes the current docket.
- Finds that the record demonstrates a need for an additional 150 MW by 2017, increasing up to 500 MW by 2019.
- Authorizes entities to propose to provide the resources for meeting some or all of Xcel’s needs.
- Provides direction for Xcel’s next resource plan.

II. Legal Background

A. Resource Planning

To reliably provide the electricity demanded by its customers, an electric utility considers both supply and demand. The utility can supply electricity through a combination of generation and power purchases, and by reducing the amount of electricity lost through transmission and distribution. The utility can manage its customers' demand by encouraging customers to conserve electricity or to shift activities requiring electricity to periods when there is less demand on the electric system. A resource plan contains a set of demand- and supply-side resource options that the utility could use to meet the forecasted needs of retail customers.¹

A public utility providing electricity to at least 10,000 customers and capable of generating 100 megawatts (MW) of electricity must file a resource plan or report for the Commission’s approval, rejection, or modification.² Generally, the resource planning statute and rules direct a utility to file biennial reports on the projected need for electricity in its service territory, and the utility’s plans for meeting projected need, including the actions it will take in the next five years.³ By integrating the evaluation of supply- and demand-side resource options – treating

¹ Minn. Stat. § 216B.2422, subd. 1(d).

² Minn. Stat. § 216B.2422, subs. 1 and 4. The statute exempts federal power agencies, and the Commission’s findings regarding service providers that are not statutory “public utilities” are merely advisory.

³ Minn. Stat. § 216B.2422; Minn. R. Chap. 7843.

each resource as a potential substitute for the others – a utility can find the least-cost plan that is consistent with the other legal requirements and policies.

B. Xcel's Competitive Bidding Process

The Commission authorizes Xcel to secure new resources through a competitive bidding process, as permitted under Minn. Stat. § 216B.2422, subd. 5.⁴ Xcel has initiated the process for soliciting proposals for meeting the needs to be identified in this docket.⁵

III. Positions of the Parties

A. Xcel

Based on its analysis, Xcel's revised five-year action plan includes the following elements:

- Retiring Black Dog Units 1 and 2, but canceling plans to acquire replacement power.
- Canceling the further expansion of the generating capacity of the Prairie Island Nuclear Power Plant.
- Continuing the operation of the Key City generator in Mankato (43 MW) and Granite City generator near St. Cloud (54 MW) until 2016, and bringing the French Island Unit 3 generator (57 MW) back into service.
- Continuing to analyze whether to update or replace Sherco Units 1 and 2.
- Soliciting proposals for an additional 200 MW of wind-powered electricity.
- Continuing to use demand-side management programs such as offering discounts to customers that permit Xcel to interrupt electric service during time of peak demand, estimated to reduce the demand on Xcel's system during periods of peak demand by approximately 1000 MW.
- Continuing to use demand-side management to reduce energy sales by 1.3 percent, and working with stakeholders to achieve even greater savings.
- Continuing programs involving solar energy, including Solar*Rewards – a program subsidizing customer purchases and installation of photovoltaic solar cells⁶ -- albeit with lower subsidies for enrollees.

⁴ See *In the Matter of Northern States Power Company d/b/a Xcel Energy's Application for Approval of its 2005 - 2019 Resource Plan*, Docket No. E-002/RP-04-1752, Order Establishing Resource Acquisition Process, Establishing Bidding Process Under Minn. Stat. § 216B.2422, and Requiring Compliance Filing (May 31, 2006).

⁵ See *In the Matter of the Petition by Northern States Power Company d/b/a Xcel Energy to Initiate a Competitive Resource Acquisition Process*, Docket No. E-002/CN-12-1240, Order Closing Docket, Establishing New Docket, and Schedule for Competitive Resource Acquisition Process (November 21, 2012).

⁶ See Docket No. E,G-002/CIP-12-447, *In the Matter of the Implementation of Northern States Power Company, a Minnesota Corporation's 2013/2014/2015 Triennial Natural Gas and Electric Conservation Improvement Program*.

Based on its forecasts, Xcel argues that it will need an additional 154 MW by 2017, 319 MW by 2018, and 443 MW by 2019 to meet anticipated customer demand. Xcel asks the Commission to affirm this level of need, and this degree of specificity, arguing that the information would be useful to entities that might provide resources as part of Xcel's competitive bidding process.

To attract the broadest range of projects for its consideration, Xcel asks the Commission to grant a wide degree of latitude to potential bidders in Xcel's competitive resource acquisition process. In particular, Xcel proposes soliciting bids that 1) meet all or any portion of the need, 2) rely on any fuel type, 3) rely on new or existing generators, and 4) rely on intermediate or peaking generators, or both – that is, any generators other than base-load generators designed to run on a continuous basis.

However, Xcel opposes proposals to reduce the amount of Xcel's forecasted need based on the assumption that Xcel can increase the amount of savings it can achieve through demand-side management. While Xcel's own study concluded that Xcel could save 300 MW through the use of demand-side management, Xcel argues that the study was insufficiently rigorous to provide a basis for altering its demand forecasts.

B. Environmental Intervenors

The Environmental Intervenors argue that it is premature to close the current docket or initiate a competitive resource acquisition proceeding. Instead, the Environmental Intervenors recommend that the Commission do the following:

- Direct Xcel and the Department to re-analyze Xcel's resource plan based on the latest forecast data.
- Direct Xcel to evaluate the potential savings Xcel could achieve through implementing demand-side management programs, and to quantify these savings with sufficient rigor to enable Xcel to rely on the estimate when forecasting future resource needs.
- Direct Xcel to look for opportunities to integrate solar power into its resource mix.

If and when the Commission initiates the competitive resource acquisition process, the Environmental Intervenors support Xcel's proposal to solicit the broadest range of resources for consideration.

Finally, before the Commission approves any new supply-side resource, the Environmental Intervenors argue that the Commission should require Xcel to demonstrate in a contested case proceeding that Xcel has sufficient need to justify the new resource, and that the need could not be met more cost-effectively through demand-side management or renewable sources of energy.

C. Large Power Intervenors

Echoing some of the Environmental Intervenors' concerns, the Large Power Intervenors caution the Commission against overestimating Xcel's needs. They argue that Xcel developed its forecast of customer demand based on data that is now out of date. Moreover, the Large Power Intervenors note that Xcel recently solicited bids for 200 MW of wind power; these new generators may offset Xcel's alleged resource deficits, they argue.

D. The Department

Using assumptions and analysis that differed somewhat from Xcel's assumptions and analysis, the Department reaches recommendations that are generally similar to Xcel's. In particular, whereas Xcel argues that it will need an addition 443 MW by 2019, the Department predicts that Xcel will need 500 MW within the 2017-2019 timeframe.

The Department also supports Xcel's proposal to grant broad discretion to bidders in Xcel's competitive bidding process. The Department shares Xcel's view that computer models indicate that a variety of alternatives might prove to be the least-cost alternative, and the final choice should be referred to Xcel's resource acquisition docket.

Unlike Xcel, however, the Department asks the Commission to specify that Xcel must pursue new sources of electricity generated from natural gas. According to the Department's analysis, each of ten least-cost scenarios for meeting Xcel's needs involves relying on one or more new gas-fueled generators.

Finally, the Department argues that Xcel should, in its next resource plan, report on the expected amount of solar energy on Xcel's system, barriers Xcel sees to further deployment of solar cells, and new programs for promoting solar power that might replace the Solar*Rewards program.

E. Calpine

Calpine supports both Xcel's and the Department's proposals to solicit resource proposals broadly, without restricting the type of generators to be considered.

Calpine favors the Department's recommendation to find that Xcel needs 500 MW within the 2017-2019 timeframe. Calpine argues that Xcel's proposal -- identifying a precise level of need for each year -- could discourage rather than encourage potential bidders because it may hint that Xcel may have already identified the projects that it will meet those specific targets.

IV. Commission Analysis and Action

A. Xcel's Resource Plan

Parties from varying perspectives have now had sufficient opportunity to scrutinize and challenge the data and analysis underlying Xcel's resource plan, and have had the opportunity to share their comments with this Commission. Having reviewed these comments along with the rest of the record, the Commission concludes that Xcel's plan is reliable for planning purposes. Consequently, the Commission will approve it, and will close this docket.

The Environmental Intervenors ask the Commission to refrain from approving the plan until Xcel has further refined it by, for example, considering more recent forecast data. And they argue that approval of Xcel's overall resource plan should not relieve Xcel of the duty to justify the acquisition of any specific resource.

The Commission finds that Xcel has fulfilled the requirements of Minn. Stat. § 216B.2422 and Minn. R. Chap. 7843 governing resource planning. Moreover, Xcel filed revised forecasting data less than three months ago. Rather than attempting to address the Environmental Intervenors'

concerns by ordering a further revision of forecasting data, the Commission will refer these concerns to Xcel's next resource plan that Xcel is due to file in the next 11 months.

Finally, the Commission notes that it is approving Xcel's plan for planning purposes only. This approval does not relieve Xcel from the need to comply with any regulatory review required for any specific resource it might pursue in implementing this plan.

B. Competitive Resource Acquisition Process

The current resource planning docket will have a direct bearing on Xcel's competitive bidding process. In particular, the current docket supports the finding that Xcel will need an additional 150 MW in 2017, increasing up to 500 MW by 2019. Moreover, a broad range of resources could contribute to meeting this need, justifying solicitation of a broad range of proposals. In particular, Xcel should invite proposals for meeting all of the forecasted need, or any part of it. Xcel should invite proposals for adding peaking resource, intermediate resources, or a combination of the two. Xcel should invite proposals that rely on building new generators, as well as proposals that rely on existing generators.

Commentors largely agree about the advantages of considering a broad range of potential resources. While the Department recommends that the Commission direct Xcel to seek gas-fueled sources of generation in particular, the Commission is not persuaded of the need to prohibit consideration of other alternatives. Rather, the Commission is willing to rely on the bid evaluation process to identify the best alternatives, regardless of type.

In contrast, parties disagree about the magnitude of Xcel's needs. For example, the Environmental Intervenors and the Large Power Intervenors argue that the 500 MW figure may exceed customer demand. In contrast, Calpine and the Department argue that the 500 MW figure is justified, and may even be too low.

The idea that Xcel will need an additional 500 MW by 2019 is well-supported in the record. Indeed, Xcel had previously argued that it would need up to 600 MW of additional capacity – and Xcel generated this estimate before it cancelled plans to add 118 MW of new capacity to its Prairie Island plant.

For purposes of Xcel's competitive bidding docket, the Commission finds it appropriate to solicit proposals for *an additional* 150 MW in 2017, increasing *up to* 500 MW by 2019. This statement does not preclude Xcel from acquiring more than 150 MW of new resources by 2017. Those choices will be made in the context of the resource acquisition docket, based on the proposals and the evidence adduced in that docket.

Finally, Xcel asks the Commission to identify the magnitude of Xcel's forecasted need in each of the years 2017, 2018, and 2019, on the theory that this information would be useful to potential bidders. In contrast, Calpine and the Department argue that Xcel's figures suggest an unwarranted degree of precision in the forecasting process. Calpine even suggests that the figures could discourage potential bidders by signaling that Xcel has selected need specifications to justify a pre-determined conclusion.

The Commission concludes that the degree of specificity in Xcel's statement of resource need is unnecessary. A statement that Xcel anticipates needing an additional 150 MW by 2017, increasing up to 500 MW in 2019, will suffice to inform potential bidders of the scope of projects that the Commission will be considering.

C. Xcel's Next Resource Plan

The Environmental Intervenors, among others, ask the Commission to direct Xcel to further address issues of demand response and solar energy as part of Xcel's resource plan. Rather than prolong the consideration of Xcel's current resource plan, the Commission will adopt the Department's recommendation to have Xcel address these issues in its next plan.

Xcel commissioned a study that suggests that Xcel could avoid the need for an additional 300 MW if Xcel could harness the full potential for demand response in its service area. Xcel argues, however, that the study is too general to be relied upon. For its next resource plan, therefore, the Commission will direct Xcel to analyze the capacity for demand response in its service area – and to conduct the study with sufficient rigor that the Commission may rely on the results for evaluating how demand response will influence Xcel's forecasted need for additional resources.

Similarly, the Commission will direct Xcel to include a report on solar power as part of its next resource plan. This report should note the expected amount of solar energy on Xcel's system, barriers it sees to further solar deployment, and how solar development could contribute to peak demand management, economic development in Minnesota, and meeting Minnesota's renewable energy and environmental mandates and goals.⁷

These filing requirements supplement the other requirements set forth in the Commission's November 30, 2012 order.

ORDER

1. The Commission approves for planning purposes the 2011-2025 Resource Plan of Northern States Power Company d/b/a Xcel Energy, and closes this docket.
2. The Commission finds that the current resource plan demonstrates Xcel's need for an additional 150 MW in 2017, increasing up to 500 MW in 2019.
3. Participants in Xcel's competitive resource acquisition process, Docket No. E-002/CN-12-1240, *In the Matter of the Petition by Northern States Power Company d/b/a Xcel Energy to Initiate a Competitive Resource Acquisition Process*, may propose a variety of resources to meet Xcel's need, including --
 - a. Resources to address all or a portion of the identified need;
 - b. Peaking resources, intermediate resources, or a combination of the two; and
 - c. Resources that rely on new or existing generators.
4. In its next resource plan Xcel shall address, in addition to the issues set forth in the Commission's Order Establishing Procedural Schedules and Filing Requirements (November 30, 2012), the following issues:

⁷ See, for example, Minn. Stat. §§ 216B.1691 (renewable energy standards), 216B.2422 (environmental externalities), 216H.02 (carbon dioxide regulations).

- a. Solar Energy: Xcel shall report on the expected amount of solar energy on its system, barriers it sees to further solar deployment, and how solar development could contribute to peak demand management, economic development in Minnesota, and meeting Minnesota's renewable energy and environmental mandates and goals.
 - b. Demand Response: Xcel shall evaluate the potential capacity savings that Xcel could achieve via demand response programs, and the extent to which Xcel may rely on demand response in forecasting future need.
5. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary



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