

Minnesota Public Utilities Commission
Staff Briefing Papers

Meeting Date: July 6, 2017 Agenda Item #2

Company: Xcel Energy

Docket No. E002/M-16-777

**In the Matter of Petition of Xcel Energy's Petition for Approval of the
Acquisition of 1,550 MW of Wind Generation**

Issues: Should the Commission approve the 1,550 MW of wind resource additions to the Xcel system pursuant to and consistent with the modified Track 2 competitive bidding process?

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Relevant Documents

[Docket 15-21] Commission – Order Approving Plan ...(2017 IRP Order) January 11, 2017
Xcel Energy – Letter: Wind RFP Issued September 22, 2016
Xcel Energy – Other: Wind Generation Acquisition *Xcel's Bids* October 24, 2016
Xcel Energy – Other: Petition – Corrected Attachment C November 17, 2016
Xcel Energy – Copy of RTF Application March 14, 2017
Xcel Energy – Supplement *RFP Results* (Five Parts) [Trade Secret] March 15, 2017

Comments

Laborers District Council of MN and ND – Comments May 1, 2017
Minnesota Chamber of Commerce - Comments May 1, 2017
RUD-OAG – Comments [*Trade Secret*] May 1, 2017
Clean Energy Organizations - Comments May 1, 2017
Geronimo Energy - Comments May 1, 2017
Department of Commerce DER - Comments [Trade Secret] May 1, 2017
Xcel Energy – Reply Comments (Four Parts) [Trade Secret] May 15, 2017
OAG-RUG – Reply Comments May 15, 2017
Department of Commerce DER - Reply Comments [Trade Secret] May 15, 2017
Department of Commerce DER - Supplemental Reply Comments May 19, 2017

The attached materials are workpapers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

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I. Statement of Issue

Should the Commission approve Xcel Energy's (Xcel) petition to approve 1,550 MW of wind generation, pursuant to and consistent with the modified Track 2 competitive bidding process? Should the Commission confirm that the Blazing Star 1, Blazing Star 2, Freeborn, and Lake Benton projects are exempt from the Certificate of Need requirements under Minn. Stat. § 216B.2422, Subd. 5?

Should the Commission approve the aggregated, symmetrical capital cost cap for the four Xcel self-build project portfolio? Or take some other action?

Should the Commission find that the acquisition of the projects are consistent with the public interest consistent with Minn. Stat. § 216B.50? Should the Commission grant a variance to Minn. R. 7825.1800 (B)?

Should the Commission find that Xcel's proposal to acquire 1,550 MW of wind resources is a reasonable and prudent approach to meeting its obligation under Minnesota's Renewable Energy Standard?

Should the Commission require any additional filings or requirements? Should the Commission take any other action?

II. Introduction and Background

The Commission found in Xcel Energy's (Xcel) 2016 Integrated Resource Plan docket that "it is reasonable [for Xcel] to acquire at least 1000 MW of wind by 2019. Acquisition of greater than 1000 MW may be approved upon submission of evidence such as price, bidder qualifications, rate impact, transmission availability, and location."¹

On September 22, 2016, Xcel filed a letter with the Commission noting that it had issued a request for proposals (RFP) for wind resources that would achieve commercial operation prior to December 31, 2020 in order to qualify for 100 percent of the current production tax credit (PTC). RFP bids were due by October 25, 2016. Xcel notified the Commission of its intention to submit its own proposals to the Commission, on the day prior (October 24, 2016), pursuant to the modified Track 2 process (described in more detail below).

On October 24, 2016, Xcel filed the Company's *Petition for Approval of the Acquisition of Wind Generation from the Company's 2016-2030 Integrated Resource Plan* (Petition). The Petition requested approval for the Company to build, own, and operate a 750 MW portfolio consisting of four self-build wind projects². The Petition also indicated that Xcel would file a supplement in the first quarter of 2017, after the Company evaluated (and potentially selected) proposals received in response to the pending RFP.

¹ Docket No. E-002/RP-15-21, Commission Ordering paragraph 3, January 11, 2017.

² Foxtail, Blazing Star I, Blazing Star II, and Freeborn.

On March 16, 2017, Xcel filed its Supplement to the Petition, which included three additional projects, totaling another 800 MW of wind resources, one build-to-transfer (BOT), one purchase power agreement (PPA), and one combined BOT and PPA structure.³ A BOT agreement entails a third-party developer building the project and selling the completed project to Xcel upon commercial operation. Xcel self-build arrangements differ from BOTs largely due to the timing of the Xcel-ownership; with self-build projects Xcel owns the projects prior to and during the construction process.⁴ Self-build projects are also referred to interchangeably in this docket as purchase sale arrangements (PSAs).

Xcel's Supplement at Table 1 provides a list of all the proposed projects:

Project Name	Size	Type	Location
Blazing Star I	200 MW	Self-Build	Lincoln County, MN
Blazing Star II	200 MW	Self-Build	Lincoln County, MN
Foxtail	150 MW	Self-Build	Dickey County, ND
Freeborn	200 MW	Self-Build	Freeborn County, MN; Worth and Mitchell Counties, IA
Crowned Ridge	300 MW 300 MW	BOT PPA	Codington County, SD
Lake Benton Repower Project	100 MW	BOT	Pipestone County, MN
Clean Energy #1	100 MW	PPA	Mercer and Morton Counties, ND
Total	1,550 MW		

Detailed project descriptions of the Xcel proposed projects can be found in the Petition at page 13 and the Supplement at page 12. The projects are a combination of differing ownership structures. All projects are new developments with the exception of the Lake Benton project, which is an existing facility that will be repowering. The existing Lake Benton facility currently has a PPA with Xcel which terminates in the mid-2020s; the proposal is to terminate the remaining PPA-term with Xcel and sell the repowered facility to Xcel through a BOT arrangement.

On March 20, 2017 the Commission issued a *Notice of Comment Period* on Xcel's Petition and Supplement.

On May 1, 2017, comments were received from:

- The Laborers District Council of MN and ND;
- The Minnesota State Building and Construction Trades Council;
- The Minnesota Chamber of Commerce;
- The Attorney General Residential Utilities Division;

³ Clean Energy 1, Lake Benton Repowering and Crowned Ridge.

⁴ While Xcel is the 'developer' in the self-build arrangement; Xcel is contracting for services to build the projects on its behalf.

- The Clean Energy Organizations (representing Fresh Energy, the Minnesota Center for Environmental Advocacy, Sierra Club, and Wind on the Wires);
- Geronimo Energy; and,
- The Department of Commerce, Division of Energy Resources.

All commenters either requested approval of the Petition (or modifications thereof) or took no position on its approval; however some commenters took issue with aspects of the proposal (largely Xcel's proposed four self-build aggregate cost-cap, discussed below).

On May 15, 2017, reply comments were received from Xcel Energy and the Department of Commerce (DOC or Department) and on May 19, 2017, supplemental reply comments were received by the DOC (as expected per their reply comments). The DOC reiterated their recommendation that the Commission approve the Petition with conditions among other related recommendations.

III. Xcel's Request and Relevant Law

Xcel has requested several approvals or findings from the Commission in conjunction with this Wind RFP Petition. In this section, staff outlines at a high level the requests and the guiding law that governs these requests. Each issue or request is discussed in greater detail later in the discussion section of this paper (with commenters' positions).

Specifically, Xcel has requested:

- Approval of the addition of 1,550 MW of wind generation;
- Approval of the supporting Lake Benton Repowering, Blazing Star I, Blazing Star II, Foxtail, Freeborn, and Crowned Ridge Projects under Minn. Stat. § 216B.50 and approve a variance from Minnesota R. 7825.1400 (A)-(J) (as required by Minn. R. 7825.1800, subp. B);
- Approval of an aggregate, symmetrical capital cap for the four self-build project portfolio; and,
- Confirmation that the 1,550 MW proposed wind portfolio is a reasonable and prudent way to continue to meet its obligations under Minnesota's Renewable Energy Standard.

Additionally, Xcel committed to file a status update in January 2018 to ensure that any necessary changes to this proposal will be brought to the Commission in a timely manner.

A. Request for Approval of the Petition (Minn Stat. § 216B.2422, Subd. 5)

Xcel has requested that the Commission approve its Petition for 1,550 MW of additional wind resources to the NSP system. Staff views Xcel's request for approval as requesting 1) a confirmation that the process used to solicit proposals adhered to the competitive bid process

(modified Track 2 bidding process) as outlined in the Commission's 2017 IRP Order⁵ and 2) an approval of the resulting agreements associated with that process as required by the modified Track 2 bidding process.

Ultimately, the competitive bidding process 1) ensures that Xcel properly acquires system resources and 2) provides an exemption to the certificate of need proceedings, as provided for in [Minn. Stat. § 216B.2422, Subd. 5](#) (the IRP Statute). The IRP statute allows for an electric generating plant selected in a competitive bidding process approved or established by the Commission to be exempt from the certificate of need requirements.

Additionally, Xcel proposed its four self-build projects as a portfolio and proposed to limit cost recovery of the four project's initial capital costs to an aggregate cap outlined in the Petition at page 3 (the cap is marked as trade secret). Again, those projects are the Blazing Star I, Blazing Star II, Foxtail and Freeborn projects. Xcel proposed that if it exceeds the cost cap of the four-project portfolio Xcel would bear those costs (not the customer) and if any cost-savings are able to be realized, Xcel would retain those savings.

Xcel's proposal to group their four projects into a single portfolio is contentious, and the Attorney General's office and laborer groups oppose the concept for several reasons (discussed in greater detail below). The Commission will need to consider:

- whether the cost cap is a reasonable part of Xcel's Petition,
- whether the cost cap (and other provisions) puts Xcel on a more level playing field compared to other bids, or, whether it does the opposite, and,
- if any conditions should be articulated in relation to the cost cap (among other related financial issues).

Questions for the Commission to consider:

Did the Company follow the modified Track 2 process (including the RFP solicitation parameters and project evaluations) fairly, sufficiently, and transparently?

⁵ In the 2017 IRP Order the Commission approved a modified competitive bidding process for the limited purpose of acquiring wind and solar resources in the 2016-2021 timeframe, an ordering point that was specifically directed at this type of resource (and this anticipated acquisition). The bidding process that was modified by the Commission's 2017 IRP Order was established by Commission Order on May 31, 2006 in docket 04-1752. The modified bidding process requires that Xcel utilize the Track 2 process (established for instances when Xcel would provide proposals during an open solicitation) however, the modified process used the Track 1 framework (which is typically utilized when Xcel is *not* a bidder). The rationale for the modified bidding process was largely due to the (likely) robust response to any wind or solar RFP; there would be many similar proposals in which to compare and any resulting evaluations would not be as resource intensive as traditional generation resources. Therefore, the acquisition process and evaluation would not require the intensive contested-case procedures of the traditional Track 2 process (in which a limited number of proposals with complex and differing attributes) would need to be compared and analyzed. Additionally, the modified process established parameters in which Xcel could propose its own resources for consideration in a manner that would not compromise the independence of the RFP (by having Xcel submit its complete proposals the day prior to the RFP bids being due and establishing firewalls within the company). Last, the process utilized an independent auditor to evaluate the company's work to ensure it was unbiased and fair. (The findings and conclusions of this process are discussed below).

Are the resulting agreements in the public interest in regard to ratepayer risk and protections, and if so, should the Commission approve the project agreements as required by the Commission-approved competitive bidding process?

Does the filing and do the project information conform to the additional Commission 2017 IRP Order Requirements?⁶

Should the Commission confirm that relevant projects are exempt from the requirement to obtain a certificate of need pursuant to 216B.2422, Subd. 5?

Should the Commission approve Xcel's proposed aggregate cost cap for their four self-build portfolio?

B. Property Acquisition – Request for Approval (Minn. Stat. 216B.50)

Xcel requested that (if applicable) the Commission find that the agreements for the Lake Benton Project, Blazing Star I, Blazing Star II, Foxtail, Freeborn and Crowned Ridge projects are consistent with the public interest as required by [Minn. Stat. § 216B.50 Restrictions of Property Transfer and Merger](#). This statute requires, generally, that no public utility shall sell, acquire, lease, or rent any plant as an operating unit or system in this state ... in excess of \$100,000...without first being authorized to do so by the Commission and requires a finding by the Commission that the action is consistent with the public interest.⁷ There are questions by commenters in the record regarding this statute's applicability to facilities located outside of Minnesota, discussed further below in the discussion section.

Following, Xcel has requested variances to the associated information filing requirements of Minn. Rule 7825, specifically, information required by Minn. Rule 7825.1400 (A-J) as the Commission has established that those filing requirements are not applicable to petitions to acquire property and are only applicable to capital structure filings.

Questions for the Commission to consider:

Should the Commission find that the acquisition of the applicable projects are consistent with the public interest in accordance with Minn. Stat. § 216B.50?

⁶ In the 2017 IRP Order the Commission outlined several additional requirements and process steps required of Xcel in relation to any wind or solar acquisitions, like, and specifically pertaining to, this Wind RFP Petition before the Commission. Those requirements included discussions on Xcel's contingency plans in case of failure, curtailment risks of any proposed projects, the filing of MISO sales information and how that revenue is accounted for, and further system analysis of any wind procurement proposed greater than 1,000 MW depending on price, bidder qualifications, rate impact, transmission availability, and location.

⁷ See [Minn. Stat. 216B.50](#).

Should the Commission grant the requested variance to Minn. R. 7825.1800 (B)?

C. Minnesota Renewable Energy Standard Resources

Xcel has requested that the Commission approve the proposed projects as resources intended to meet the Minnesota Renewable Energy Standard pursuant to Minn. Stat. § 216B.1645, Subd. 1.

Minn. Stat. § 216B.1645 - Subdivision 1. Commission authority. Upon the petition of a public utility, the Public Utilities Commission shall approve or disapprove power purchase contracts, investments, or expenditures entered into or made by the utility to satisfy ... the renewable energy objectives and standards set forth in section 216B.1691...

This approval is required prior to a Company request for cost recovery through either the fuel clause or renewable energy riders. Xcel did *not* request approval of any project for cost recovery through a rider at this time, but the Company indicated it would return to the Commission to do so.⁸ Staff interprets Subd. 2 to pertain to PPAs and Subd. 2(a) to pertain to Xcel self-build or BOT projects:

Minn. Stat. §. 216B.1645 - Subd. 2. Cost recovery. The expenses incurred by the utility over the duration of the approved contract or useful life of the investment and expenditures ...shall be recoverable from the ratepayers of the utility.... Upon petition by a public utility, the commission shall approve or approve as modified a rate schedule providing for the automatic adjustment of charges to recover the expenses or costs approved by the commission under subdivision 1, which, in the case of transmission expenditures, are limited to the portion of actual transmission costs that are directly allocable to the need to transmit power from the renewable sources of energy. The commission may not approve recovery of the costs for that portion of the power generated from sources governed by this section that the utility sells into the wholesale market.

Minn. Stat. § 216B.1645 - Subd. 2a. Cost recovery for utility's renewable facilities. (a) A utility may petition the commission to approve a rate schedule that provides for the automatic adjustment of charges to recover prudently incurred investments, expenses, or costs associated with facilities constructed, owned, or operated by a utility to satisfy the requirements of section 216B.1691, provided those facilities were previously approved by the commission under section 216B.2422 or 216B.243.... For facilities not subject to review by the commission under section 216B.2422 or 216B.243, a utility shall petition the commission for eligibility for cost recovery under this section prior to requesting cost recovery for the facility.

⁸ Xcel Petition, at page 5.

Question for the Commission to consider:

Should the Commission find that Xcel's proposals to acquire 1550 MW of wind resources is a reasonable and prudent approach to meeting its obligation under Minnesota's Renewable Energy Standard?

IV. 2016 Integrated Resource Plan Overview and Relationship to Current Docket

On January 11, 2017, the Commission issued its *Order Approving Plan With Modifications* (January 2017 IRP Order) in 2016-2030 Integrated Resource Plan (IRP).⁹ In its Order, the Commission determined, based on the record:

Despite slight variation in the exact timing and magnitude, the record clearly showed that acquisition of wind and possibly solar resources in the next five years represents the least-cost method of meeting Xcel's near-term resource needs. The Commission finds that the record shows that it is reasonable to acquire at least 1000 MW of wind by 2019. This acquisition is least-cost even though Xcel does not show a planning capacity deficit until the mid-2020s because it will provide incrementally lower-cost energy, thereby reducing system costs. Upon submission of evidence such as price, bidder qualifications, rate impact, transmission availability and location, additional acquisitions may be approved.¹⁰

In the Department's July 8, 2016 comments, the Department recommended an expansion plan that included 1,000 MW of wind by 2019 and another 500 MW of wind by 2021. Of note, the 1,500 MW amount did not reflect a threshold above which new wind would not be cost-effective over the long-term. Rather, as the Department found:

For wind, 1,000 MW (2 units of 500 MW each) was selected in 2019 in all but one contingency. The fact that both units that were made available to be selected were chosen in nearly every contingency indicates that the amount of wind added in the five-year action plan is not limited to 1,000 MW by economic factors unless the price of wind is substantially higher than assumed by Xcel and the Department. ... Ultimately, when considering such modeling issues as the size of the expansion units, the number of expansion options that can be made available, and real-world factors such as the number of viable projects, transmission availability, and so on, the Department decided to limit the amount of wind available to 2 units of 500 MW each for modeling purposes.¹¹

The Strategist analysis displaces the fuel and variable O&M from the existing system, and analysis found the wind was cheaper than, in essence, the fuel clause. Notably, the prices proposed in

⁹ Docket No. E002/RP-15-21.

¹⁰ Docket No. E002/RP-15-21, Commission Order, January 11, 2017, at 7.

¹¹ Docket No. E002/RP-15-21, Department's July 8, 2016 comments.

Xcel's Petition are even lower than the lowest wind price base assumptions used in the IRP. The Department's base wind price assumed a flat levelized cost of approximately \$34/MWh for generic wind units with a 2019 in-service date and \$48/MWh with a 2021 in-service date.¹²

The Department expressed some concern in the resource plan regarding the quantity of wind – both the ability of the transmission system to accommodate the system additions and the potential for a spike in rates in the near time depending on the timing of the additions (potentially, within a short time period). The Department qualified its recommended amount (which the Commission adopted) to say, “variations in acquired capacity are possible based on price, bidder qualifications, rate impact, transmission availability, and so forth.”

V. Brief Summary of Parties Comments and Positions

Below staff provides a high-level summary of party positions, which are more thoroughly discussed in the issues and analysis section later in this paper.

Notably, no commenter opposed the Commission's approval of the projects.

The most significant concern in the docket arises in regard to (once approved) *how* the costs are recovered by Xcel for its self-build projects (as a four-project aggregate cap or otherwise).

A. The Laborers District Council of MN and ND

The Laborers District Council of Minnesota and North Dakota (Laborers Union) and its five Local Unions represent 12,000 construction workers and public employees in Minnesota, North Dakota and Northwestern Wisconsin.

The Laborers Union noted its concern with the aggregate cost cap proposed by Xcel for its four self-build projects, in that the supporting information is insufficient to assess whether the aggregate caps, without proper safeguards would, “incentivize front-end savings which could create undue pressure to cut corners in ways that undermine the economic, environmental and social benefits of the proposal; put the safety and well-being of workers at risk; and leave future ratepayers on the hook for the costs of maintaining poorly-built energy infrastructure.”¹³

Ultimately, the Laborers Union noted it is supportive of renewable energy generally and is supportive of Xcel's historic track-record of safety and contracting practices, but it would like additional information about Xcel's plan to ensure that prudent contracting practices and Xcel's high-standards are carried into the Company's in-house wind and solar projects.

¹² Id.

¹³ Laborers Union comments at page 2.

B. The Minnesota State Building and Construction Trades Council

The Minnesota State Building and Construction Trades Council noted it had reservations about the projects, including, generally, work place safety, quality of construction processes, the feasibility of the intended use, and with limited information provided in the Petition. It asks the Commission to address those issues prior to moving forward with approvals, but does not suggest how the Commission should do so.

C. The Minnesota Chamber of Commerce

The Minnesota Chamber of Commerce (Chamber) was supportive of the competitive process used to procure resources and Xcel's efforts to capitalize on the low cost trend of wind resources, however, the Chamber had some areas of concern which it believes warrants further discussion and consideration by the Commission. Specifically, it detailed its concerns related to the integration of 1,550 MW of wind in a short time period (and related curtailment issues), whether the benefits related to markets sales were properly accounted for, and last, the lack of analysis on the foregone infra-marginal revenues associated with baseload resources.

If the resources are approved, the Chamber encouraged the Commission to not predetermine costs that might not be recovered from other jurisdictions (relating to the Resource Treatment Framework docket) and suggested imposing conditions on Xcel to ensure a balanced playing field between the independent bidders and the Xcel self-build and BOT arrangements. Specifically, the Chamber recommended three conditions the Commission should require:

1. Cost caps for on-going O&M and capital costs based on Xcel's projections;
2. that Xcel be held accountable for its assumed PTC benefit, to more closely align with the PPA risk;¹⁴
3. that the revenue requirements be levelized during in the first five years, during which the capital costs peak and depreciation begins.

D. The Office of the Attorney General - Residential Utilities and Antitrust Division

The Office of the Attorney General - Residential Utilities and Antitrust Division (OAG) provided lengthy comments which outlined its strong concerns over Xcel's aggregate cost cap proposal and ultimately recommended that the Commission *not* approve the assured cost-cap mechanism. The OAG noted it did not take a position on the reasonableness of the total amount of wind resources Xcel intends to procure nor the reasonableness of the self-build portfolio.

The OAG recommended that the "Commission should impose a hard cap, on an individual project level, with a 95/5 shared savings mechanism to encourage Xcel to minimize its costs while

¹⁴ The Chamber suggested one method the Commission could utilize by requiring in the renewable rider revenue requirements calculations, the Company should assume the same PTC assumptions used in the Petition, regardless of the outcome of a project's performance.

allowing ratepayers, not shareholders, to benefit from the resulting savings.”¹⁵ The OAG argued that Xcel’s filing was insufficient to provide guaranteed, advanced recovery, and that the four self-build projects benefited Xcel shareholders, but harmed ratepayers. Further, the OAG argued that the aggregate cost cap reduces Xcel’s incentive to maximize cost savings, and the proposed mechanism raises several broader public interest and policy concerns – including several specific issues: that it is similar to a fixed firm price contract is unreasonable to use in this context, that the Company’s proposal exacerbates the informational asymmetries between Xcel and other parties, and the mechanism unreasonably shifts certain risks onto Xcel’s ratepayers.

The OAG provided that the Commission could wait to develop a recovery mechanism since the projects are in the early stages and since Xcel has not yet requested cost recovery of these projects. Ultimately the OAG recommended that “final approval of a cost recovery mechanism is premature at this stage and that the record should be further developed in order to focus on design of a properly-functioning mechanism.”

E. The Clean Energy Organizations

The Clean Energy Organizations (CEO), consisting of Fresh Energy, the Minnesota Center for Environmental Advocacy, Sierra Club, and Wind on the Wires supported approval of the entire Petition, noting its consistency with the 2017 IRP. CEO recommended that the Commission approve the 1,550 MW of wind as the *minimum* amount of wind that should be built as a result of the RFP and it encouraged the Commission to include a finding that Xcel could, within its discretion, petition the Commission for approval of additional projects from this RFP.¹⁶ Additionally, the CEOs recommended that Xcel notify the Commission if, for any reason, one or more of the projects in its proposed portfolio falls through and include in that notification a list of alternative projects that could replace the lost capacity.

F. Geronimo Energy

Geronimo Energy, the developer of the Blazing Star I and Blazing Star II projects, provided comments supporting approval of the projects as part of Xcel’s larger portfolio. Geronimo provided an overview of the benefits of the wind projects to the local communities.

G. The Department of Commerce, Division of Energy Resources

The Department of Commerce, Division of Energy Resources (DOC or Department) supported the Commission approving the Petition among other related recommendations.

The Department provided initial, reply and supplemental reply comments responding to and analyzing most all of the issues raised by commenters. The Department provided significant analysis of the proposal, specifically, the Department provided analysis on the modified Track 2 adherence,

¹⁵ OAG Initial Comments, page 14.

¹⁶ CEO based this recommendation on the Xcel’s IRP modeling that supported the additional of 1,800 MW of wind to its system over the planning period (Staff Sept. 29, 2016 briefing papers, Docket 15-21, at page 11)

conformance of the RFP results with the latest IRP, an evaluation of each of the proposed projects and their benefits and risks, a review of Xcel's progress toward meeting the RES, and detailed comments on cost recovery issues.

In the Department's Supplemental Reply Comments the Department furthered its recommendation by adding provisions relating to 'putting Xcel on notice' regarding the acquisition terms relating to cost recovery and it ultimately recommended that the Commission:

- approve the Lake Benton, Blazing Star I, Blazing Star II, Foxtail, Freeborn, and Crowned Ridge projects under § 216B.50;
- approve a variance from Minnesota Rules 7825.1800 (B)—the need to provide information required by Minnesota Rules 7825.1400 (A) to (J)—for the Lake Benton, Blazing Star I, Blazing Star II, Foxtail, Freeborn, and Crowned Ridge projects;
- order Xcel to provide projects of less than 12 MW, the threshold at which the Company's competitive bidding process applies, a reasonable period (perhaps 60 days) to provide proposals for re-powering existing facilities;
- put Xcel on notice that:
 - the Commission will hold Xcel accountable for the prices and terms used to evaluate each of the selected projects for the purpose of cost recovery from Xcel ratepayers;
 - ratepayers will not be put at risk for any costs that are higher than bid or for assumed benefits that do not materialize;
 - ratepayers must be sufficiently protected from risks associated with the non-deliverability of accredited capacity and/or energy from the projects;
- order Xcel to report in its monthly fuel clause filings and annual automatic adjustment (AAA) filings the amount of any curtailment payments, along with explanations for the curtailments;
- require Xcel to account, clearly and separately, for all costs, including costs related to capital, operation and maintenance expense, and any other costs related to these facilities; and
- approve Xcel's proposed 1,550 MW of wind resource additions.

In addition to the Company's proposed January 2018 compliance filing, the Department recommends that the Commission require the Company to report, until the projects are in-service, project failures along with the options available to the Commission to remedy the failure.

Finally, the Department recommends that the Commission confirm that Xcel's proposed portfolio is a reasonable way to meet the Company's obligations under Minnesota's renewable energy standards.

VI. Discussion of Issues

A. Approval of the Petition

1. RFP and Resource Selection Process

No commenter opposed the process or method by which Xcel conducted the RFP or resulting Xcel evaluation of proposals, including the method by which Xcel compared its own proposals to that of the selected RFP bids.

The Department provided an in-depth review of 1) the process Xcel used to submit their initial Petition (the four Xcel proposed self-build resources), 2) execute the RFP, and 3) the subsequent evaluation of resources, which is not repeated here.¹⁷ Pursuant to the requirements of the competitive bidding process, an independent auditor reviewed Xcel's RFP process. The Executive Summary of the *Independent Auditor's Report: Northern States Power Company 2016 Wind Solicitation* (Auditor's Report) is available as attachment B to Xcel's Supplement.¹⁸ The Auditor's Report found no major issues with the RFP process and evaluation conducted by Xcel in review of the bids. Additionally, no commenters took issue with the process competitive process utilized or the manner in which Xcel compared and ranked its own projects within the RFP. Additionally, upon review, staff found no issues of concern relating to the competitive bid process.

Issues examined by Xcel, the auditor, and the Department of each bid and of Xcel's process included:

• Order Adherence	• Accounting Assessment	• Creditworthiness
• IRP Assumption Consistency	• Capacity Factors	• Experience
• Proposal Completeness	• Discount Rates	• Transaction Structure
• LCOE Analysis	• Tax Treatment	• Conformance with Xcel Technical Requirements
• Generator Technology	• Biases	• Wind Production Studies
• Permitting	• Project Size	• Transmission Risk
• Compliance	• Location	• Curtailment
• Site Control	• Interconnection	
• Transmission Access	• MISO Queue Status	

¹⁷ See Department Initial Comments, beginning at page 10.

¹⁸ See Supplement, Attachment B, page 6 of 93.

2. Portfolio Issues Generally

a. Size in relation to IRP

In its January 2017 IRP Order, the Commission determined, based on the record (repeated from above):

Despite slight variation in the exact timing and magnitude, the record clearly showed that acquisition of wind and possibly solar resources in the next five years represents the least-cost method of meeting Xcel's near-term resource needs. The Commission finds that the record shows that it is reasonable to acquire at least 1000 MW of wind by 2019. This acquisition is least-cost even though Xcel does not show a planning capacity deficit until the mid-2020s because it will provide incrementally lower-cost energy, thereby reducing system costs. Upon submission of evidence such as price, bidder qualifications, rate impact, transmission availability and location, additional acquisitions may be approved.¹⁹

The amount of wind Xcel proposed in its preferred expansion plan changed slightly over the course of Xcel's nearly two-year IRP proceeding; ultimately, Xcel proposed to add up to 1,500 MW of new wind, depending on the bids received in through its wind RFP process.

Of note, the 1,500 MW amount did not reflect a threshold above which new wind would not be cost-effective over the long-term, the modeling continued to show that additional levels wind was cost effective. It is more accurate to characterize that amount as a level in which cost-effective wind could reasonably be expected to be incorporated into the transmission system.

The amount of wind proposed in the Petition and Supplement conforms to the January 2017 IRP Order.

b. Ownership Mix

Xcel provided an overview of the PPAs versus Xcel-owned mix of wind resources on its system at page 42 of their Supplement. As shown, on a system basis, with an additional 1,550 MW of wind, Xcel's resource mix would equate to a roughly 50/50 split of PPAs and owned resources, as shown by Table 9 of Xcel's Petition.

Portfolio Component	Owned	PPA
Current Wind Resources	850	1,750
Proposed BOT	400	
Proposed Self-Build	750	
Proposed PPA		400
Total	2,000	2,150

Historically, the Commission has supported balanced system portfolios (to diversify the differing risk structures) to the extent that costs are similar between the proposals; however, the Commission has typically found that a balanced portfolio, or a specific

¹⁹ Commission Order, January 11, 2017, at 7.

target allocation, should not be obtained at any cost.²⁰ As noted by the Department's analysis, the projects selected through the RFP process did not incur any bias from Xcel and were ranked appropriately, so there was no indications of undue influence on the resource mix outcome by Xcel.

Staff believes the proposed mix of Xcel-owned projects and PPAs is reasonable (as it is in the realm of 50 percent) and conforms to previous Commission preferences on system resource diversification.

3. Evaluation of the Proposals – Ratepayer Risk

Xcel asserted that the projects will provide lower cost energy to its system over the life of the projects, \$1.599 billion lower with the addition of the 1,550 MW to its system on a Present Value Revenue Requirement (PVR) basis and \$2.319 billion lower on a Present Value of Societal Costs (PVSC) basis. Xcel believes the risks of the acquisitions have been properly identified, assessed and mitigated through the negotiated contracts. The Department generally agrees with this assessment and recommends approval of the proposal with additional conditions.

Each proposal and each ownership structure provides some level of risk to ratepayers. Below each general area is discussed: federal production tax credit, transmission risk and interconnection risk, construction, operational, environmental, tax reform, and curtailment, among others.

a. Federal Production Tax Credit (PTC)

In order to qualify for the 100 percent of the production tax credit (PTC) through the safe harbor provision, construction must have begun by the end of 2016 and must be completed within 4 years of the date construction commenced.²¹ Projects can qualify for the PTC by either commencing work of a significant nature at the project site or factory or by incurring at least five percent of the total project cost (and accepting equipment delivery by certain milestones).

BOTs and PPAs

Xcel noted that the RFP required a non-negotiable provision that all bidders would be able to meet a commercial operation date (COD) that would allow for the full PTC benefit. Pursuant to this requirement, the BOT and PPA projects (Crowned Ridge BOT and PPA, Lake Benton BOT and Clean Energy #1 PPA) the bidders assumed the risk of completing the projects in the timeframe required to achieve the full PTC benefit.²² The BOTs will not be purchased by Xcel until construction is complete (and therefore whether the projects met the qualification date will be known before Xcel purchases the facilities). The PPAs have a firm price point which assumes the PTC cost reduction (borne by the seller) and therefore, Xcel and its ratepayers, will

²⁰ See June 19, 2009 [Order](#) Approving Target Portfolio Allocation Within Xcel's Renewable Energy Plan

²¹ The PTC has a four year step down structure, which steps down 20 percent each year, between 2016 and 2020. Here Xcel required bidders to be able to obtain the full 100 percent for work beginning in 2016.

²² Supplement, page 25.

not bear the PTC risk for the PPA projects.

Additionally, Xcel noted that bidders had indicated they had turbines that qualify for PTC credits through the safe-harbor mechanisms (and Xcel noted they had turbines that could be utilized for these project, if needed, as well).

Self-Build / PSAs

For the self-build proposals, Xcel secured wind turbines (meeting the PTC's five percent safe harbor provision) in September 2016.²³ Additionally, Xcel argued that it has developed a project schedule that aims to keep the projects on track to ensure qualification for the 100 percent PTC. However, for the self-build proposals, the PTC not being fully realized could occur from either a delay in in-service date or from energy output being less than projected (either from a reduced capacity factor or operational issues resulting in reduced production, i.e. curtailment or mechanical issues).²⁴

The Chamber argued that Xcel's self-build projects should be held to similar standards of the PPAs if the PTC is not met or not fully realized. The Chamber argued that as proposed, the PPAs provide greater protections from the in-service date delays:

"...one of the biggest reasons that wind projects are so cost competitive is because of the production tax credit (PTC), which is \$23/MWh for every MWh of output. To the extent that the wind generation does not perform as projected, that shortfall impacts the economics of the project. For example, Table 12 in the Supplemental petition indicates that a 5% reduction in capacity factors reduces the savings by \$335 million or 28% of the total savings on a Present Value of Revenue Requirements (PVRR) basis for the owned projects. PPA prices are provided on a \$/MWh levelized basis and the PTCs are accounted for in this levelized price. Thus, the PPA developers take the risk of assuming a capacity factor in calculating and submitting their levelized price. For owned projects, there should be similar accountability. One way to achieve this accountability is require that in calculating the revenue requirements in the renewable rider, the Company assumes the same PTC assumptions that were included in the petition to justify the economics of the project and regardless of project performance. Once again, since this project is being won based on competitive bidding, it would be reasonable for the Commission to hold the utility accountable to its assumptions."

Staff believes there is a risk in the self-build proposals in the instance of Xcel failing to meet the in-service date for full PTC benefit, or if the energy output is less than expected (outside the projected contingency bands in the modeling).²⁵ Specifically, if the PTC benefit does not

²³ See Docket AI-17-215, also up on the July 6, 2017 Agenda.

²⁴ Curtailment is further discussed below.

²⁵ Staff notes that the projections and assumption used by Xcel seem reasonable and conservative, and anticipated benefits as outlined by Xcel will likely materialize within the bounds put forth by Xcel in their petition, however, staff believe the addition of conditions seems reasonable.

materialize at the expected level or if curtailment is outside of the bounds used in Xcel's projections (again, Table 11 and 12 in Xcel's supplement), there is no ramification to Xcel (in the Petition as proposed) of not realizing the full potential benefit.

In its reply comments the Department provided additional analysis on decreased energy production scenarios (8 percent curtailment) that is discussed further in the curtailment section below; essentially, the Department found that even when modeling higher than the reasonably expected curtailment levels, the LCOE was still reasonable. In regard to the scenario in which Xcel does not achieve the full PTC, the Department's Supplemental Reply Comments, and final recommendation, outlined revised approval terms which may provide sufficient protection for ratepayers (if adopted) by the Commission:

- the Commission will hold Xcel accountable for the prices and terms used to evaluate each of the selected projects for the purpose of cost recovery from Xcel ratepayers;
- ratepayers will not be put at risk for any costs that are higher than bid or for assumed benefits that do not materialize;
- ratepayers must be sufficiently protected from risks associated with the non-deliverability of accredited capacity and/or energy from the projects;

Staff would interpret the "risk for...assumed benefits that do not materialize" both broadly (and within reason) and would assume that benefits that do not materialize could be applied to the estimated LCOE generally, but also be applied to any unreasonable net reduction in assumed benefits. Staff does not believe the ratepayer protection in Xcel's proposal, without the Department's proposed language is sufficient, since 1) Xcel has a large margin in which to ensure some net-positive impact to ratepayers and/or 2) decreases in benefit of the proposed projects (and thereby increased project costs) could have resulted in another project being selected through the RFP. Using the Department's recommended language the Commission could better hold Xcel accountable to realize the project benefits within Xcel's projections and estimates. Additional cost recovery structures and provisions were proposed by parties and are discussed further below in Section 6. Cost Recovery.

However, important to note is that staff believes that the projections and assumptions used by Xcel regarding their ability to obtain 1) the full PTC and 2) to achieve the PTC benefit on a kwh basis were reasonable. Therefore writing in some assurance for performance and sharing of risk with Xcel both seems reasonable and likely to be low risk to Xcel.

b. Transmission and Interconnection

Xcel provided project specific transmission risk assessments in its Petition and Supplement. The projects proposed are through varying degrees of the MISO interconnection process; some are still in the MISO interconnection study process and some have finished the study process but have GIAs that are conditional until additional transmission lines are placed into service.

Conditional GIAs will become unconditional once all required transmission upgrades listed in its GIA are completed. There are two main implications during the time a GIA is conditional: 1) generators may not qualify as a capacity resource or may receive partial capacity accreditation; and 2) operating limits may be imposed on the generators. The issues related to operating limits imposed on projects are discussed in further detail in the curtailment section below.

Several factors are confounding the MISO transmission interconnection queue at this time, but largely the PTC step-down has caused a rush of projects seeking to interconnect. Additionally, Xcel explains at page 26 of its Supplement:

Estimating potential network upgrades costs for projects in upcoming DPP cycles has always involved some level of uncertainty, but is more challenging today than in the past. This is largely due to (1) the amount of wind generation requesting to be added to the MISO system; (2) the delays associated with processing of the MISO interconnection queue; (3) the way that upgrades and their costs are assigned to projects in the queue; and (4) the number of projects that actually move forward once the studies are complete.

Therefore, Xcel has committed to returning to the Commission in January 2018 to provide a status update on all projects. Staff believes Xcel's approach to update the Commission with the provisions outlined below are reasonable.

Self-Build/ PSAs

Foxtail (Self-Build/PSA): Foxtail Wind Project has a signed, conditional GIA. The costs of upgrades and interconnection costs are known, with the exception of one transmission line. Xcel has negotiated terms in which the project can be cancelled for unforeseen interconnection upgrades. The contingent transmission facilities required by the Foxtail GIA that are not yet in service, along with the status of each facility, are included in Table 1 below.

Table 1 - Contingent Transmission Facilities - Foxtail

Transmission Provider	Facility	Expected Completion Date	Status
MISO	N LaCrosse-N Madison 345 kV Line (MVP)	12/31/2018	Under Construction
MISO	Zachary - Ottumwa 345 Line (MVP)	12/31/2019	Under Construction ⁷
MISO	Lakefield Jct. - Winnebago - Winco - Kossuth County & Obrien County - Kossuth County - Webster 345 kV Line (MVP)	06/01/2018	Under Construction

Freeborn (Self-Build/PSA): MISO studies are underway, cost estimates for transmission upgrades and interconnection have been incorporated into the price. Xcel has negotiated terms in which

the project can be cancelled for unforeseen interconnection upgrades. The contingent transmission facilities required by the Freeborn GIA that are not yet in service, along with the status of each facility, are included in Table 2 below.

Table 2 - Contingent Transmission Facilities - Freeborn

Transmission Provider	Facility	Expected Completion Date	Status
MISO	Zachary - Ottumwa 345 Line (MVP)	11/15/2018	Under Construction
MISO	N LaCrosse-N Madison 345 kV Line (MVP)	12/31/2018	Under Construction
MISO	N Madison - Cardinal Eden-Hickory Creek 345 kV Line (MVP)	12/31/2023	Pending Regulatory Approval

Blazing Star I and II (Self-Build/PSA): MISO studies are underway and cost estimates for transmission upgrades and interconnection have been incorporated into the price. Xcel has negotiated terms in which the projects can be cancelled for unforeseen interconnection upgrades.

Since the Blazing Star projects do not have completed studies or executed GIAs, contingent facilities that were required under earlier generator interconnection studies will be required, these are listed in Table 3. The Blazing Star I and II projects will also be conditional on any additional transmission facilities identified in their MISO interconnection studies.

[con'td]

Table 3 - Contingent Transmission Facilities – Blazing Star 1 & 2

Transmission Provider	Facility	Expected Completion Date	Status
MISO	Zachary - Ottumwa 345 Line (MVP)	12/31/2019 ⁸	Under Construction
MISO	N LaCrosse-N Madison 345 kV Line (MVP)	12/31/2018	Under Construction
MISO	N Madison- Cardinal-Eden-Hickory Creek 345 kV Line (MVP)	12/31/2023	Pending Regulatory Approval
MISO	Lakefield Jct. - Winnebago - Winco - Kossuth County & Obrien County - Kossuth County - Webster 345 kV Line (MVP)	06/01/2018	Under Construction
MISO	200 Mvar STATCOM at Stone Lake 345 kV	12/31/2020	Generator Interconnection Project
MISO	Ellendale to Big Stone South 345 kV Line (MVP)	9/30/2019	Under Construction
MISO	Big Stone South to Brookings 345 kV Line (MVP)	9/30/2017	Under Construction
SPP	Gentleman Generating Station–Thedford–Holt 345kV Project (R-Plan)	10/1/2018	Under Construction

BOTs and PPAs

For the RFP (PPAs and BOTs) projects, Xcel required in its RFP that a bidder's ability to achieve a Commercial Operation Date (COD) to allow for the full PTC tax benefit and responsibility for transmission cost risk was non-negotiable. Crowned Ridge is separated into three projects as it has three interconnection points (and ultimately will have three GIAs) with MISO.

Crowned Ridge – Part 1 BOT: All transmission interconnection costs for this portion of the project have been included in NextEra's bid and the Generator Interconnection Agreement (GIA) was filed on January 8, 2016. Transmission cost certainty exists.

Crowned Ridge – Part 2 PPA: The GIA for this project has not yet been signed, but a review by Excel Engineering deemed the network upgrade costs to be reasonably accurate. Additionally, since this is a PPA, the transmission interconnection costs are borne by the developer.

Crowned Ridge – Part 3 BOT and PPA: This project does not yet have system studies completed and therefore does not have a signed GIA. However, provisions are included in Xcel's filing the outline how ratepayers will be protected from risk, they are labeled trade secret.²⁶

²⁶ See page 14, of Xcel's Supplement.

Lake Benton BOT: Lake Benton is a repowering project that was interconnected pre-MISO and therefore currently has grandfathered interconnection rights. The project is not yet through the new study process, but is interconnecting at the same point of the transmission system. Xcel has conducted a review of the interconnection estimates and deemed them reasonable, additionally, as a BOT project, transmission interconnection costs will be borne by the developer.

Clean Energy #1: As a PPA, the interconnection costs are borne by the seller. The project has an executed GIA.

Staff believes that the evaluation conducted by Xcel regarding the interconnection risks and cost estimates along combined with the terms outlined in the agreements with the developers provides as much certainty as could be reasonably obtained at this time. Most of the risk is outside of Xcel or the project developers' control, and therefore, with the protections in place as proposed, staff believes this risk has been sufficiently mitigated.

c. Construction

Construction risks occur when there are construction problems, or setbacks, that cause the project to not come on-line or operate as intended by the commercial operation date (COD).

Self-Build: For the self-build projects, Xcel noted it mitigated constructed related risk by proposing a cost cap, in which Xcel would absorb any costs above its cap and retain any savings below that amount. Specifically in regard to construction techniques, this is of concern for the laborer groups that believe the cost cap may incent Xcel and its contractors to conduct subpar work and produce a project lacking in quality. Additionally, the Department noted this issue as well, noting that poor construction could lead to greater long-term operation and maintenance (O&M) costs. This issue is discussed in greater detail in the cost-recovery mechanism section.

Xcel argued by proposing a four-project portfolio it was minimizing construction-related risk by "leveraging economies of scale associated ... in project planning and execution, and reduce schedule-related risks typically associated with individual projects."

Staff notes that the cost risk associated with construction is mitigated by the cost cap, as Xcel argued, but schedule delay costs (as discussed above - via foregone PTC benefits by unrealized kwh savings) are not. However, with the Department's additional recommended language regarding benefits that do not materialize, the Commission would be providing additional ratepayer protections and therefore staff recommends supporting the Department's recommended language.

BOTs: For the BOTs, Xcel will not purchase the facility until it is commercially operable, and additional trade secret damage provisions have been contractually agreed upon, therefore construction risk has been sufficiently mitigated.²⁷ BOTs additionally have technical construction

²⁷ See Xcel's Supplement at pg. 25.

criteria included in their contracts.

PPAs: For the PPAs, Xcel is not obligated to make payments until the commercial operation date (when energy is delivered) and damage provisions for delays have been included in the contracts. The largest risk is the termination of the contract before the end of the PPA term and then having to replace the energy with potentially higher cost resources. Therefore, Xcel utilized the same provisions as the Courtenay and Odell PPAs that provide a Security Fund to be established by the seller to account for damages. The Department concluded that Xcel ratepayers would be reasonably protected from financial risk (however, this assumes Xcel enforces the damages provisions when necessary).²⁸

d. Environmental

Environmental risk exists both in the permitting of a facility as well as its operation. A developer, or Xcel, could encounter a protected resource, or have trouble obtaining a permit during the development process. Additionally, during operation, the environmental harm from the facility may have been incorrectly assessed during the permitting process (i.e, wildlife fatalities, etc.).

Xcel noted it would return to the Commission in January 2018 to provide an update on the projects in case of unforeseen events – this could include issues that arise during the environmental survey and permitting processes.

Self-Build: For the self-build projects, Xcel noted it mitigated environmental related risk by requiring developers to be responsible for obtaining all required permits. Pre-construction wildlife studies have been initiated or completed at all four locations.

BOTs and PPAs: Bidders are responsible for obtaining all required permits prior to the transfer of ownership to Xcel (BOTs) or commercial operation (PPAs).

e. Operations

Operational risks occur when the amount of output from a facility is less than expected, curtailment is the largest operational risk (discussed separately) but as discussed elsewhere, reduced performance due to construction or other factors could occur.

Self-Build and BOTs: Upon operation, Xcel will own both the self-build projects and the BOTs. The BOT projects will undergo testing prior to the sale and transfer that would ensure some level of operational performance at the time of the sale, but long-term issues and costs would be borne by Xcel (like their self-build projects). Xcel argued that there is both a potential risk and benefit to long term operation, in that the projects could perform better than estimated.

Again, staff refers Commission's to the Department's recommendation, as discussed above, regarding additional conditional language on the approval of the projects. The Department's reply comments go into detail about the operational risks, and their additional language was

²⁸ Department Initial Comments, page 26.

specifically written to better cap this risk to ratepayers.

PPA – Crowned Ridge, Clean Energy #1: Both projects will only be compensated for energy produced²⁹, incenting the owners to properly maintain their turbines and maximize production. However, the failure to produce energy may cause Xcel to be non-compliant with Commission order or statutory mandates. Additionally, the PPA provides restriction on transfers. The Department found that Article 11 Security Fund and Article 19 on transfers are sufficient to protect ratepayers.

f. Tax Reform

Various corporate tax reform proposals exist at the federal level that could impact the corporate tax rate, interest deductibility and expensing of capital, all which could affect the ultimate wind pricing. Xcel needs to have a tax burden sufficient to offset the tax credit. Since the largest benefit in price stems from the PTC, as long as that remains, Xcel believes that the projects provide significant value. Xcel has negotiated provisions in the BOTs and PPAs that allow for renegotiation (including termination) in the event of tax reform. Tax reform is an issue inherent in all wind projects and significant tax reform is not a certainty.

g. Curtailment

Generally, Xcel expects the average regional level of wind curtailments over the life of the wind projects to be about four percent. However, in the early years, due to several multi-value projects and other required transmission upgrades being under development and construction, Xcel anticipated the curtailment level may initially be higher. The curtailment would be required because of congestion on the system (due to lack of transmission) resulting in instances of (potentially) negative locational marginal pricing (LMP) on the MISO system. Xcel at pg. 31 of the Supplement:

While completion of the CapX2020, the MVP transmission projects, and the generator interconnection upgrades will reduce the amount of future curtailment experienced, the amount of curtailment will depend on the in-service timing of the numerous wind generation projects currently in the development queue.

Xcel modeled scenarios for all projects in which energy output was reduced by +/- five percent of the project estimates. Xcel also evaluated the following different sources to evaluate curtailment of the projects:

- PROMOD: electric market simulations using MTEP16 study databases,
- a historical analysis on curtailment costs: based on its system purchases and sales and while curtailment spikes existing, they quickly levelized,

²⁹ Except for certain instances of curtailment, discussed in more detail in the curtailment section.

- Minnesota Renewable Energy Integration and Transmission Study: which found that with system upgrades up to 40 percent wind could be accommodated reliably, and,
- Bidder analyses: the majority used third party PROMOD analysis, which found minimal curtailment risk.

For PPAs, the contracts provide terms for compensable and non-compensable curtailment payments (which are trade secret).

For the BOTs there are no provisions regarding curtailment in the purchase contracts, so they are reviewed similar to the Xcel self-build projects. The Department reviewed the projects based on a 3.8 percent curtailment and deemed the projects still cost effective. Additionally, in reply comments, the Department expanded its analysis of the curtailment scenarios by using an eight percent projected curtailment. The Department's eight percent projection did not affect the project rankings assuming a similar curtailment on the next best alternative. Staff found the eight percent curtailment scenario (over the life of the projects) run by the Department very helpful in the review of these proposals, as it is unlikely that eight percent curtailment would occur for a sustained period in our region. Staff believes the curtailment of the projects has been addressed and mitigated in all proposal structures and sufficiently protect ratepayers.

Xcel noted it would report in its monthly fuel clause filings and annual adjustment filings (AAA) the amount of any curtailment payments (as it does currently) and the Department noted that it would review those filings for any curtailment payments that are beyond a reasonable level.

Curtailment from insufficient transmission is inherent in almost all of these projects due to the upgrades needed on the bulk transmission system, regardless, ratepayer benefits are still realized in the long-term.

4. Economic Analysis and Overview

As stated previously, the Commission's January 11, 2017 *Order Approving Resource Plan* found that the acquisition of 1,000 MW of additional wind by 2019 would be in the public interest.³⁰ Factors such as price, bidder qualifications, rate impact, transmission availability, and location would determine whether Xcel should procure an amount greater than 1,000 MW.

Xcel evaluated the economic impact of the projects to ratepayers at the bid LCOEs using Strategist, modeling out to 2053, both for the projects individually and as a portfolio and on a PVRR and PVSC basis. In this case, all proposed project LCOE's are lower than the LCOE assumed in the IRP.³¹ Xcel evaluated its system: with markets on and off, a sensitivity that did not allow Xcel to buy or sell power to the energy market (to see what the impact of the resources would be on Xcel's system in isolation), with increasing renewables on its system longer term (which increased additions diminish in system value overtime), project life sensitivities (of 20, 25, and 30 years), on-going cost sensitivities (10% increase in O&M costs and 30% increase in capital

³⁰ Docket No. E002/RP-15-21, Commission ordering paragraph 3, January 11, 2017.

³¹ Department May 1, 2017 initial comments, p. 7.

costs), capacity factor (+/- 5%), gas price forecasts (impacts of lower than projected market gas prices), and cost of carbon sensitivities. See Xcel's Table 12: Incremental PVRR Savings from Reference Case (\$ millions).

Table 12: Incremental PVRR Savings from Reference Case (\$millions)

	PVRR						
						High On-	Low On-
	Base	30-Year Life	20-Year Life	+5% Cap Factor	-5% Cap Factor	Going Costs	Going Costs
Reference Case	0	0	0	0	0	0	0
BOT Crown Ridge	(342)	(430)	(253)	(429)	(254)	(324)	(360)
PPA Crown Ridge	(331)	(331)	(331)	(358)	(303)	(331)	(331)
Lake Benton	(92)	(109)	(51)	(120)	(62)	(85)	(98)
Clean Energy	(42)	(42)	(42)	(49)	(35)	(42)	(42)
Blazing Star 1	(233)	(230)	(151)	(292)	(175)	(222)	(244)
Blazing Star 2	(188)	(219)	(144)	(247)	(130)	(178)	(199)
Foxtail	(149)	(175)	(113)	(195)	(105)	(140)	(157)
Freeborn	(184)	(214)	(143)	(242)	(127)	(174)	(195)
All	(1,541)	(1,740)	(1,269)	(1,886)	(1,203)	(1,477)	(1,605)

Savings shown in Table 12 assume Xcel is able to take advantage of the MISO energy market to make energy purchases and sales. However, Xcel considered a scenario in which the wholesale market was unavailable ("markets off"). While Xcel believes the "markets on" scenario is a better indicator of the likely rate impacts—in part because the assumption in the "markets off" scenario is that the Company will receive no revenue from excess energy—in either case the portfolio shows significant cost savings. This was a concern of the Chamber, that Xcel overestimated the value of the projects by making unrealistic assumptions about the ability to sell energy to the MISO market (as transmission congestion would be higher than expected). As noted here, while not as great, savings to ratepayers are still realized even if market sales are 'off'.

Table 16: Hedge Value

Total System 2017-2053	Natural Gas <i>bcf</i>
Reference Case	6,186
BOT Crown Ridge	(187)
PPA Crown Ridge	(186)
Lake Benton	(27)
Clean Energy	(20)
Blazing Star 1	(176)
Blazing Star 2	(111)
Foxtail	(93)
Freeborn	(107)
All	(716)

In addition to the economic benefits, adding additional wind at favorable pricing provides a hedge against future increases in natural gas prices. This is primarily because the wind displaces thermal generation. Table 16 of Xcel's Petition shows a base volume of natural gas and the delta avoided by the studied projects.

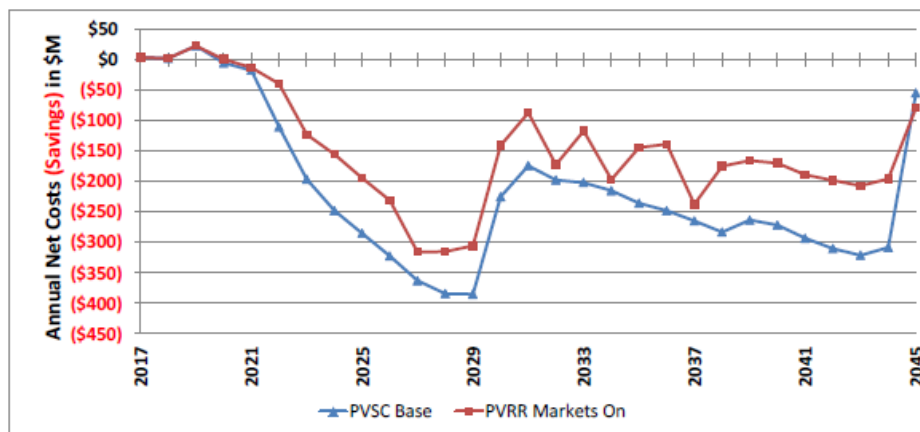
In the Reference Case of the Strategist analysis, the natural gas combined cycle (CC) average capacity factor from 2020-2030 was 23%, which includes the Sherco CC and a generic CC added

in 2027. In the Wind Portfolio Case, the CC average capacity factor was 19%, which includes the Sherco CC but with the addition of wind, the model projects the potential avoidance of an additional Generic CC.

Additionally, the wind portfolio decreases the overall cost of serving NSP load by lowering MISO Purchases by \$74 million while increasing MISO Sales revenue by \$221 million through 2022.³² MISO sale revenues are credited and purchase costs are recovered through the monthly FCA to Minnesota customers.

All projected sensitivities show a ratepayer savings – however there is an increased cost in the early years (see Xcel’s Figure 4: annual Costs (Savings) Compared to Reference Case) below.

Figure 4: Annual Costs (Savings) Compared to Reference Case



5. Rate Impact

Table 17 of Xcel’s Petition shows the Company’s forecasted incremental annual rate impact of the wind additions through 2022. (Xcel’s Petition does not include publicly available estimates beyond 2022.) The values reflect incremental costs or savings as compared to the Reference Case where no wind additions are included. As shown in the row labeled “Net Costs,” Xcel projects the peak rate impacts to occur in 2019 and decline thereafter as the projects depreciate.

³² The sale revenues and purchase costs shown in Table 17 of the Petition reflect the Strategist dispatch of resources with the addition of the wind portfolio under the Markets On sensitivity.

Table 17: Incremental Revenue Requirement Impact Proposed Portfolio, \$M

	2017	2018	2019	2020	2021	2022
New Ownership Wind, 1150MW	4	3	31	74	93	73
New PPA Wind, 400MW	0	0	2	24	24	25
Production Cost Savings	0	0	(6)	(41)	(57)	(64)
MISO Purchases	0	0	(1)	(25)	(26)	(22)
MISO Sales	0	0	(4)	(55)	(78)	(84)
Wind Congestion Costs*	0	0	1	15	19	20
Wind Integration Costs	0	0	0	2	3	3
Wind Coal Cycling Costs	0	0	0	7	9	10
Net Costs	4	3	23	1	(12)	(39)

* Congestion Costs reflected as cost adder to wind generation rather than lower generator LMP.

In terms of net costs, as shown in Table 17, the addition of the proposed wind resources will not result in system cost savings until 2021. This is because, initially, upfront capital costs of the proposed owned projects drive costs higher in the early years. Over the long-term, however, rate benefits are realized from avoided fuel costs and the accrual of PTCs.

Table 18, below, shows the forecasted incremental impact on average monthly bills in Minnesota. Like the revenue requirement analysis, the monthly cost impact is expected to peak in 2019 before seeing a net reduction in monthly bills thereafter, for the life of the project.³³

Table 18: Incremental Average Monthly Bill Impacts

<i>Rate Class Impacts</i>	2017	2018	2019	2020	2021	2022
Residential	\$0.06	\$0.04	\$0.37	\$0.04	(\$0.16)	(\$0.56)
Commercial Non demand	\$0.09	\$0.07	\$0.54	\$0.05	(\$0.25)	(\$0.86)
C&I Demand	\$3.41	\$2.38	\$19.57	\$0.78	(\$10.60)	(\$32.65)
Lighting	\$0.04	\$0.03	\$0.20	(\$0.05)	(\$0.19)	(\$0.43)

Of note, as the Department highlighted, the revenue requirements will begin to inch back up from their 'peak' system saving years once the PTC expires in 2030 and 2031. PTCs are eligible to be claimed for 10 years after energy production begins and flow through to the ratepayers in each of the years in which the credits are generated from the projects. The value of PTCs to ratepayers is a significant factor in the overall LCOE of projects. Staff refers Commissioners to the Department's initial comments, at pp. 37-38 and pp. 42-43 for further discussion of this issue.

³³ For a complete picture of rate impacts, staff refers the Commission to Attachment M of Xcel's Petition (in e-dockets, Supplement Part 5 of 5). Attachment M provides each project's revenue requirements and LCOEs and the total revenue requirements and LCOEs through 2060. (Of note, the information provided in Attachment M is designated as Protected Data.)

The Department noted it did not have a recommendation regarding the intergenerational rate equity issue (in that savings vary by year).³⁴ If the Commission believes that this issue need additional scrutiny, it could refer the matter to the Company's next rate case or order further analysis on the issue in this docket.

6. Cost Recovery and Cost Cap Mechanism

a. Proposed Portfolio Cost Cap Method

The cost cap concept was utilized in Xcel's 2012-13 Competitive Resource Acquisition Process docket, which approved the Aurora solar project, Calpine Mankato project, and Xcel Black Dog 6 project.³⁵ This method served to hold Xcel, as a regulated utility, to the same parameters as the other competitive bidders when it came to recovering costs of Black Dog 6. Holding Xcel to the cost cap used in its proposal provided for fair competitive process to ensure that Xcel did not underbid during the RFP process knowing it would have the potential to recover cost overruns later. Other bidders would not have that ability and would need to accurately bid their costs.

Here, Xcel requested that the Commission treat four projects as "one-petition to realize efficiencies from building these projects as a single proposal – economies in project planning and execution, and a reduction in scheduled-related risks typically associated with individual projects." Xcel's proposal to group their four projects into a single portfolio is contentious, and the Attorney General's office and laborer groups oppose the concept for several reasons.³⁶

The OAG believes that the Commission should not approve Xcel's mechanism as it benefits shareholders, and not ratepayers and the information provided is insufficient to supports its approval. Instead, the OAG recommended that the Commission utilize a hard cap and impose it on an individual project basis, with a 95 (shareholder) /5 (Xcel) shared saving mechanism. The OAG also recommended that the Commission retain a consultant to design the details with stakeholder input.

Xcel argued that the portfolio approach will allow Xcel to realize greater savings and spread risk. Furthermore, this approach was consistent with the RFP process that put Xcel on a playing field

³⁴ The 'increase' upon PTC expiration is still a net-decrease in ratepayer costs compared to a scenario where the wind is not added to the system; the rate 'impact' (or increase) is due to the decreased level of savings upon PTC expiration.

³⁵ Commission Docket 12-1240, April 16, 2015 Order

³⁶ While Xcel proposes a four-project portfolio, staff believes there are differences in the Company and parties understanding of what would happen if *part* of Xcel's proposal fails; whether the entire portfolio would be under question, or whether only the failed portion would be subject to review. Xcel provides at page 11 of their Petition: "...we have negotiated contractual rights in each of our [PSAs] that give us the ability to terminate the contracts if network upgrade costs exceed a predetermined amount in each contract, making the project unviable. To the extent that occurs for any of our projects, we believe the aggregate capital cap could be expressed in a cost per-kW basis for the remaining projects." However, the Department's initial comments at page 35: "Xcel's proposal to treat all four projects as one takes the risk that a failure of one of the four components of the proposed project might result in all four components being rejected."

equivalent to the other bidders (in holding to its costs) and being held to projects costs is what Xcel based its bid prices upon. Additionally, Xcel argued that recovering costs based on a projection is not unusual (using forecasted test years as an example). The Department agreed in part with Xcel, in that Xcel bid into a Commission established process, and any modification of that established process would undermine its integrity. However, the Department did provide additional conditions on the approval of the projects that would allow for further ratepayer protections and additional accountability on the prices proposed by Xcel in this proceeding, however, not to the level the OAG would recommend.

The laborer groups opposed the approach put forth by Xcel as it may lead to Xcel to cutting corners in order to realize greater shareholder benefit, the laborer groups argued that the Commission should require Xcel to adhere to the same standards in these contracts and it has used in the past on its Xcel-owned thermal project development. Xcel provided in its reply comments that it conducted a thorough review of the balance-of-plant contractors and gave an overview of Xcel's internal process to pre-qualify contractors.

b. Timing and Extent of a Cost Recovery Approval

As an initial matter, staff notes that the Commission can either view the cost-cap provision as an immediate decision that is inherent in the RFP approval Petition (since it is closely related to the parameters of the RFP in that it could be viewed a component of Xcel's 'bid'). Or, staff believes the Commission could view the cost-cap provision as part of the cost recovery approval, a request Xcel has not yet petitioned for these projects. Xcel indicated that request for cost recovery approval would be forthcoming.³⁷ Essentially approving the Xcel self-build projects as reasonable resource additions based on their LCOE and determining the appropriate cost recovery structure and approval of it, when petitioned to do so.

However, as the Department argued, not approving a certain recovery mechanism at this time could result in Xcel ultimately terminating one or more projects based on a future unfavorable cost recovery structure, foregoing associated PTC benefits, and potentially adding more costly resources to the system later. Additionally, not approving the cost-cap mechanism, or by holding Xcel to individual project cost-caps would be altering Xcel's proposal. The Department recommended making a determination at this time on a recovery mechanism.

The Department provides two options for cost recovery of Xcel's self-build projects, first, holding Xcel to its LCOE price submitted into the record (as some parties recommend), or second, authorizing the portfolio cost cap but also holding Xcel to (the standard) on-going capital cost and operations and maintenance (O&M) soft cap using the estimates provided in this record.

³⁷ "The in-service dates range from 2019-2020, the timeframe during which we are currently anticipating our multi-year rate case settlement to be in effect (if the multi-year rate plan (MYRP) settlement is approved in Docket No. E002/GR-15-826). Accordingly we intent to return to the Commission to seek recovery of these costs through the annual RES rider process as opposed to our next rate case which will not be filed until 2019, at the earliest, if the settlement is approved)." Supplement at page 5.

LCOE Method: The Department indicated that this method would resolve the Chambers concern regarding the initial 5-year rate impacts (which are not 'smooth'). Additionally, this would resolve the Department's concern about the PTC-expiration rate 'increase' beginning in year 2030 (which again, is still a net rate *decrease*, but a year to year increase at a point in time). However the LCOE method would create additional issues. First, a curtailment agreement would need to be arranged (similar to PPA curtailment agreement provisions) to ensure that Xcel does not produce energy in the case of negative system LMPs (as Xcel would be paid per kwh generated, incenting production of energy even when the LMP is negative). Additionally, the Department noted that this approach would result in ratepayers essentially borrowing money from Xcel which it would repay at a later date. The Department noted that this would actually result in *increased* ratepayer costs as Xcel's rate of return is greater than the current level of inflation.

Commission's CAPCON Approach: The Department outlined (and ultimately recommended) that the Commission utilize the approach used in the CAPCON docket (but expanded and modified) in holding Xcel to the estimates used in this proceeding in relation to on-going O&M and capital costs on a soft cap basis. These parameters were recently used in the CAPCON acquisition process for the Black Dog Generating Plant. From DOC's reply comments, pg. 8:

A second alternative would be to modify Xcel's recovery to use the Commission's standard approach, but extended and modified. Currently, ratepayers pay the revenue requirements for actual capital expenditures, subject to a soft cap. Under the soft cap process, the Company can recover revenue requirements for capital expenditures up to the level in the resource acquisition process in a rider filing. Only in a rate case can any overruns be requested. During the rate case, for any cost overruns to be recoverable the Company has to demonstrate that the cost overruns could not have been anticipated during the resource acquisition process. This soft cap applies to both the initial capital cost estimate and to the estimate of on-going capital expenditures. The extension would be to apply the cap to O&M expenditures as well. The modification would be to use Xcel's proposal to fix payments to Xcel at the levels proposed, but for both the capital and O&M cost categories. This approach would address the tradeoff between O&M and capital expenditures.

The Department noted that the Commission should require Xcel to report in future rate cases the O&M and capital expenditure amounts used to develop the LCOEs and require the use of the Commission's standard soft cap for both O&M and capital costs. The Department notes that this does not address the intergenerational equity issue.

Staff believes that the Department's approach, in allowing the cost cap is reasonable for this acquisition. Xcel held itself to the parameters established by the Commission to allow for a transparent and bidding process in which Xcel itself bid into. However, if the Commission agrees with the OAG, staff would recommend further consideration and record development of potential alternative methods of cost recovery for Xcel-bid resources, likely in a different and more comprehensive proceeding (and preferably resolved prior to the next resource acquisition).

However, staff would not recommend altering the provision established here – in holding Xcel to costs bid into the docket as it would change the ‘level-playing field’ that was established.

Staff supports the adoption of the additional provisions recommended by the Department, in applying the cap to O&M expenditures and the use of Xcel’s proposal to fix payments to Xcel at the levels proposed, for both the capital and O&M cost categories. As the Department noted, this approach would address the tradeoff between O&M and capital expenditures. Additionally, this approach would address some of the concerns of parties in regard to the incentives to cut costs during construction (as there was no ramifications for increased O&M expenses in Xcel’s original proposal).

B. Property Acquisition

Xcel has requested, that if deemed applicable, the Commission authorize (pursuant to Minn. Stat. 216B.50) acquisition of the resources that are in excess of \$100,000, which includes Blazing Star 1, Blazing Star 2, Foxtail, Freeborn, Crowned Ridge and Lake Benton Projects. Early in this record development, the Department took the position that it had in the previous Courtenay and Borders Wind Projects, that the law only applied to the acquisition (or sale, rent, etc.) of resources located within the state of Minnesota. At the time of those project approvals the Commission agreed with this interpretation.

However, the Department has revised its position on the applicability of this statute and believes that approval is necessary for *any* acquisition (sale, rent, etc.), in-state or out, that costs in excess of \$100,000. The Department noted that this revised interpretation is consistent with several other non-Xcel related dockets that have been before the Commission, such as Otter Tail Power’s recent acquisition of 3.5 miles of transmission in South Dakota (Docket PA-16-441)³⁸ and Interstate Power and Light’s sale of its Iowa hydro plants (Docket D-07-328).³⁹ Xcel revised their request of the Commission through this docket to ultimately include all the projects the Department lists as applicable.

Xcel provided that the Commission may interpret the statute differently than the Department, in that:

We note here that the final sentence of Minn. Stat. 216B.50 states that “This section does not apply to the purchase of property to replace or add to the plant of the public utility by construction.” We believe this sentence may lead the Commission to conclude that Minn. Stat. 216B.50 does not apply to the Company’s Self-Build projects (*i.e.*, the Freeborn, Foxtail, Blazing Star I, and Blazing Star II projects).

Due to the Department’s revised interpretation, Xcel noted it had also expanded its request for a variance of Minn. Rule 7825.1800 subp. B (which requires submittal of information outlined in Minn. Rule 7825.1400, A-J) to all of the projects listed by the Department. Xcel requested

³⁸ Docket 16-441, [Commission Order](#) Approving the Transfer of Property

³⁹ Docket 07-328, [Commission Order](#) Requiring Filing Pursuant to 216B.50.

the variance since the rule subpart is only relevant to capital structure filings and used for the purposes of issuing securities it is therefore not relevant here. Xcel argued that the Commission has previously granted the variance in property acquisition dockets and found that the rule is only applicable to capital structures filings and therefore the information identified is not relevant to petitions to acquire property.^{40,41}

7825.1800 FILING REQUIREMENTS FOR PETITIONS TO ACQUIRE PROPERTY. Petitions for approval to acquire property shall contain one original and three copies of the following information, either in the petition or as exhibits attached thereto:

- B. Petitions for approval of a transfer of property shall be accompanied by the following: all information as required in part 7825.1400, items A to J; the agreed upon purchase price and the terms for payment and other considerations.⁸

The Department provided that Xcel's Petition and Supplement provide the agreed upon purchase price, the terms for payment, and other considerations required by this acquisition statute and the Department noted it had reviewed (as part of the analysis for the larger questions) whether the projects were in the public interest. Ultimately, Department recommends that the Commission approve the projects (listed above) under Minn. Stat. § 216B.50 and approve the variances as requested.

The Commission may vary its rules when it finds that enforcing the rule would impose an excessive burden, granting the variance would not adversely affect the public interest, and granting the variance would not conflict with standards imposed by law. Here, because Xcel does not plan to issue stock to finance these proposals, enforcing the rule would require Xcel to attempt to respond to questions that simply are not applicable (e.g., stating the "[p]urpose for which the securities are to be issued..."). The burden of addressing these questions exceeds any benefit. And because the public derives no benefit from having Xcel generate inapplicable answers to inapplicable questions, granting a variance would not harm the public interest. Finally, there is no legal standard prohibiting the requested variance.

Therefore, staff recommends the Commission approve as consistent with the public interest any of the approved projects and grant Xcel's request and vary the application of Minn. R. 7825.1800(B).

C. RES Related Resource

According to Xcel, "this wind generation is a reasonable and prudent way to ensure our compliance with the state's clean energy objectives. We still need to add wind to meet the 24 percent renewable energy standard (RES) requirement."⁴²

⁴⁰ Docket PA-10-685, December 28, 2010 [Commission Order](#) Approving Sale as Conditions, Granting Variance and Req'ng Filing

⁴¹ Docket PA-06-932, October 16, 2006 [Commission Order](#) granting waiver under 7825.1800 among other approvals.

⁴² Xcel Petition, at 2.

According to Xcel's biennial RES Compliance Report, "we own or have under contract sufficient renewable resources for RES compliance through at least 2023."⁴³ In the Initial Filing of its 2015 Resource Plan, Xcel stated, "we expect to generate a sufficient amount of RECs in 2016 and 2020 to satisfy our renewable obligations in those years without adding any new capacity beyond the projects we currently have under contract."⁴⁴

In response to PUC Information Request No. 6 in the instant docket, Xcel stated:

The Company will utilize a combination of production and banked RECs to meet the 30% RES, including the 24% Wind requirement. Currently, the Company estimates this combination will be sufficient to meet the 24% Wind requirement through year [2026].⁴⁵ To maintain compliance with the 30% RES, including the 24% Wind requirement, through year 2030, it is estimated the additional need is 300-400 MW wind capacity. The addition of the 1550 MW Wind Portfolio, as proposed, extends the RES compliance forecast through year 2044.⁴⁶

The Department reviewed the information provided by Xcel in response to DOC IRs 16 and 17, which requested the calculations used to determine long term RES compliance, and found Xcel's analysis reasonable, that Xcel properly allocated RECs among its various jurisdictions, and that Xcel will need the additional wind resources proposed by this RFP by the mid-2020's. The Department noted that Xcel will exceed, in some years, the amount of renewable energy needed to comply with the RES – however, because of the high cost-effectiveness of the projects obtained in this RFP, and that it is unknown whether that will be the case in the future, Xcel's proposal to use the projects to meet the RES is reasonable.

D. Other Issues

1. Certificate of Need

The Commission in its January 11, 2017 IRP Order, found that, "Concerning wind and solar resource acquisitions, Xcel:

- a. may use the modified Track 2 process for the acquisition of wind resources included in the five-year action plan, and for any additional solar, if needed, through 2021;
- b. shall, if Xcel intends to provide a bid for wind generation, acquire wind resources through the modified Track 2 process.
- c. shall file a contingency plan early in the process (preferably with the filing of the Company's self-build proposal) to address the potential for the bidding process to fail; and

⁴³ Docket 16-12.

⁴⁴ Xcel Energy, Resource Plan, Appendix E, p. 12.

⁴⁵ Xcel originally calculated that existing resources would meet the 24 percent wind requirement through 2027, however, on May 15, 2017 Xcel filed a correction noting compliance would only run through 2026 with existing resources.

⁴⁶ Xcel Energy, Response to PUC IR No. 6, April 24, 2017.

In the IRP, the Company and the Department agreed on the following process, in part:

- 1) Xcel issues an RFP for wind resources.
- 2) The day prior to receiving wind bids, Xcel will submit its own self-build proposal including estimates of final costs.
- 3) Xcel will evaluate the bids and select projects for negotiations based on a list of factors (factors which Xcel outlined in its reply comments).
- 4) Xcel will file with the Commission the results of the bidding process, project rankings, its analysis, and the results of a third party auditor's report of its bidding and review process.
- 5) Additionally, Xcel will evaluate the criteria outlined in the Minn. Stat. § 216B.243, subd. 9 certificate of need exemption for renewable energy standard (RES) facilities.

Staff believes that if the Commission finds that Xcel adhered to the modified Track 2 process, and the Commission approves the resources as requested, then all facilities located in Minnesota would be exempt from the certificate of need requirements. Staff does not think it is necessary to 'approve' an exemption to the certificate of need process. However it could be useful in the permitting stages of the forthcoming projects to be able to have an overt acknowledgement from the Commission that the projects are exempt from the Certificate of Need process. In siting, it is a requirement that applicants provide detail about their certificate of need status.

2. Department Small Repowering Proposal

The analysis above indicated that the New Lake Benton project, consisting of rebuilding an existing project, results in savings for the Company's ratepayers.⁴⁷ To resolve issues in multiple dockets regarding smaller PPAs, the Department recommends that the Commission order Xcel to provide projects of less than 12 MW, the threshold at which the Company's competitive bidding process applies, a reasonable period (perhaps 60 days) to provide proposals for repowering existing facilities. In addition to the criteria applied in this proceeding Xcel should be required to use two additional criteria:

- That the repowered project has a lower overall LCOE than the existing PPA—supplemented by a generic replacement if necessary; and
- That the repowered project has an LCOE that is equal to or less than the highest LCOE approved by the Commission in this proceeding [Docket No. E002/M-16-777].

Xcel noted that it did not oppose this concept. Staff notes that this concept was proposed prior to the Commission's agenda in which it considered Xcel's Woodstock Hills PPA amendment in Docket 17-26 and this Department proposed solution may allay some of the concerns expressed generally by the Commission at that time.

⁴⁷ See the Department's Initial Comment for a thorough analysis of the Lake Benton repower cost effectiveness.

VII. Commission Decision Options

Approval of Resources

Staff recommends Options 3 (a-c)

2. Approve the petition by Xcel Energy to add 1,550 MW of wind resources to its system.
3. Approve select projects in Xcel's petition:
 - a. Xcel's Portfolio:
 - i. Blazing Star I
 - ii. Blazing Star II
 - iii. Foxtail
 - iv. Freeborn
 - b. Lake Benton
 - c. Crowned Ridge
 - d. Clean Energy #1
4. Approve the petition by Xcel Energy to add 1,550 MW of wind resources to its system with additional provisions (as outlined by the Department)
 - a. Find:
 - the Commission will hold Xcel accountable for the prices and terms used to evaluate each of the selected projects for the purpose of cost recovery from Xcel ratepayers
 - ratepayers will not be put at risk for any costs that are higher than bid or for assumed benefits that do not materialize
 - ratepayers must be sufficiently protected from risks associated with the non-deliverability of accredited capacity and/or energy from the projects
 - order Xcel to report in its monthly fuel clause filings and annual automatic adjustment (AAA) filings the amount of any curtailment payments, along with explanations for the curtailments
 - require Xcel to account, clearly and separately, for all costs, including costs related to capital, operation and maintenance expense, and any other costs related to these facilities
 - b. Acknowledge Xcel's commitment to file a compliance filing in January 2018 that provides an update on each approved project status. (DOC)
 - c. Require the Company to report quarterly, until the projects are in service, project failures along with the options available to the Commission to remedy the failure. (DOC)
 - d. Require Xcel to file a list of back-up projects that can be utilized if any project fails (CEOs)

Property Acquisition Authorization

Staff recommends Options 4 and 5

5. Find that the acquisition of the applicable projects are consistent with the public interest (in accordance with Minn. Stat. § 216B.50). (DOC)
 - a. MN Projects: Blazing Star I, Blazing Star II, Freeborn, Lake Benton
 - b. Non-MN Projects: Foxtail, Crowned Ridge

6. Grant the requested variance to Minn. R. 7825.1800 (B) to not require the filing of the information required by Minn. R. 7825.1400 (A)-(J). (DOC)

Certificate of Need Exemption*Staff recommends Option 6*

7. Confirm that Blazing Star I and II, Freeborn, and Lake Benton are exempt from the requirement to obtain a certificate of need pursuant to 216B.2422, Subd. 5.

Cost Recovery*Staff recommends none, Option 3 is sufficient*

8. Approve Xcel's proposed aggregate cost cap for their four self-build portfolio. (Xcel)
9. Approve Xcel's portfolio on an individual project hard cap basis based on individual project LCOEs. (Suggested by several parties and Department, but not recommended by the Department)
10. Approve a 95/5 cost shared mechanism as outlined by the OAG. (OAG)
11. Take no action on the cost recovery structure until Xcel files a petition for cost recovery.

RES Resource*Staff recommends Option 11*

12. Find that Xcel's proposals to acquire 1550 MW of wind resources is a reasonable and prudent approach to meeting its obligation under Minnesota's Renewable Energy Standard. (DOC)

Small Project Repowering Proposals*Staff recommends Option 12, or taking no action*

13. Order Xcel to provide projects of less than 12 MW, the threshold at which the Company's competitive bidding process applies, a reasonable period (perhaps 60 days) to provide proposals for re-powering existing facilities.

Other Options*Staff recommends taking no action*

14. Require Xcel to implement additional construction and labor best practices. (Laborer Groups)
15. Find that 1,550 MW is the minimum amount of wind that Xcel should acquire
16. Find that Xcel could, within its discretion, petition the Commission for approval of additional projects from this RFP)