

Minnesota Public Utilities Commission
Staff Briefing Papers

Meeting Date: December 8 and 15, 2014**Agenda Item 1

Company: Xcel Energy

Docket No. E002/CN-12-1240, M-14-788, M-14-789

In the Matter of the Petition of Northern States Power Company, d/b/a Xcel Energy, for Approval of Competitive Resource Acquisition Proposal and Certificate of Need

In the Matter of a Draft Purchase Power Agreement with Geronimo Wind Energy, LLC, d/b/a Geronimo Energy, LLC

In the Matter of Draft Purchase Power Agreements with Calpine Corporation, Invenergy Thermal Development and Proposed Price Terms for Black Dog Unit 6

Issue(s):

1. What action should the Commission take in regard to the Xcel Resource Need Update and Power Purchase Agreement Contracts?
2. Should the Commission approve or take some other action on the Aurora Solar power purchase agreement?
3. Should the Commission approve or take some other action on the thermal power purchase agreement contracts?
4. Should the Commission authorize cost recovery for any of the contracts or take some other action?

Staff: Sean Stalpes | 651-201-2255 | sean.stalpes@state.mn.us
Hwikwon Ham | 651-201-2253 | hwikwon.ham@state.mn.us
Tricia DeBleeckere | 651-201-2255 | tricia.debleeckere@state.mn.us
Susan Mackenzie | 651-201-2241 | susan.mackenzie@state.mn.us

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Relevant Documents

Commission - Order Directing Xcel to Negotiate Draft Agreements (...)	May 23, 2014
Geronimo Energy – Motion to Enforce Protective Order – TS	September 5, 2014
Xcel Energy – Compliance Filing – PPA Compliance Filing – TS	September 23, 2014
Xcel Energy – Correction to September 23, 2014 Compliance Filing – TS	October 2, 2014
Xcel Energy – Information Request Responses (2 Parts)	October 10, 2014
Xcel Energy – Information Request Responses (1 Part)	October 16, 2014
DOC DER – Comments TS	October 23, 2014
Environmental Intervenors – Comments – RE Sept. 23 Compliance Filing	October 23, 2014
Calpine Corporation – Comments	October 23, 2014
Geronimo Energy – Comments and Request for Aurora PPA TS	October 23, 2014
Xcel Energy – Reply Comments TS	November 3, 2014
DOC DER – Reply Comments	November 3, 2014
Calpine Corporation – Reply Comments	November 3, 2014
Geronimo Energy – Reply Comments	November 3, 2014

Appendix A – Track Two Process Overview

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I. Statement of the Issues

What action should the Commission take in regard to the Xcel Resource Need Update and Power Purchase Agreement Contracts?

Should the Commission approve or take some other action on the Aurora Solar power purchase agreement?

Should the Commission approve or take some other action on the thermal power purchase agreement contracts?

Should the Commission authorize cost recovery for any of the contracts?

II. Background – Docket History

In its March 5, 2013 Order, the Commission approved Xcel Energy's 2011-2025 Integrated Resource Plan (IRP), additionally finding the record evidence demonstrated the need for an additional 150 megawatts (MW) by 2017, increasing up to 500 MW by 2019.^{1,2} The specificity of this finding was to inform potential bidders in a competitive resource acquisition process (also known as CAP or track two process) which the Commission established to assist Xcel when acquiring new resources.³

Proposals by Xcel and four competitive bidders were submitted to meet Xcel's need (or some portion thereof) in the CAP Docket.⁴ The Commission referred the five proposals to the Office of Administrative Hearings for a contested case proceeding, and an Administrative Law Judge (ALJ) Report was received on December 31, 2013. The ALJ recommended the Geronimo Project be selected and, if additional resources are deemed necessary, the Great River Energy capacity credits proposal should be selected.

The Commission issued its May 23, 2014 *Order Directing Xcel to Negotiate Draft Agreements with Selected Parties* in the CAP docket (May 23, 2014 Order).⁵ In that order the Commission summarized in its Findings and Conclusions:

Assuming Xcel and the selected bidders can agree to terms that are consistent with the public interest, the Commission finds as follows:

¹ In 2012, several months into the Black Dog certificate of need proceeding, Xcel petitioned - and the Commission authorized - termination for its on-going competitive bid proceeding due to revised system needs (See Docket No. CN-11-184).

² See 2011-2025 IRP Docket No. RP-10-825, *Order Approving Plan, Finding Need, Establishing Filing Requirements, and Closing Docket*, March 3, 2013

³ The track two process steps are outlined in Appendix A.

⁴ Bids were received in April 2013 from Calpine Corporation, Geronimo Energy, LLC, Great River Energy, Invenergy Thermal Development, LLC, and Xcel Energy.

⁵ See *Order Requiring Xcel to Negotiate Draft Agreements with Selected Parties*, May 23, 2014.

- Geronimo’s proposal [Aurora Solar PPA] provides an appropriate choice for meeting a portion of Xcel’s reliability and adequacy needs, and to fulfill the state’s energy policies.
- Calpine’s [Mankato] proposal, Invenergy’s Cannon Falls proposal, and Xcel’s Black Dog proposal may also provide appropriate choices for Xcel to meet a portion of its reliability and adequacy needs and to fulfill the state’s policies.

Consequently the Commission directs Xcel to finalize draft power purchase agreements with Geronimo, Calpine and Invenergy, and to draft finalized cost estimates for Xcel’s Black Dog Unit 6 proposal that would be binding on Xcel, and to submit these finalized terms for Commission review.

The Commission also makes a number of findings in support of these conclusions.

Finally, as a procedural matter, the Commission directs Xcel to file annual progress reports and extends the filing date for Xcel’s next resource plan to January 2, 2015.⁶

Specifically, the May 23, 2014 Order noted, to “facilitate Commission oversight of the rest of this resource acquisition process, the Commission will accept Xcel’s offer to file status reports regarding changes in Xcel’s resource needs, including needs resulting from changes in MISO’s reserve requirements.”

Consistent with the competitive resource acquisition/track two process Step 7 - the May 23, 2014 Order required that the negotiated PPAs be filed for Commission review and approval or Xcel shall provide an explanation of its failure to negotiate the PPAs and its recommendation on how to proceed (see Track Two Process outline in Appendix A).

On September 23, 2014, Xcel filed its *Power Purchase Agreement Compliance Filing* (September 23 Filing) which included the Updated Resource Need Assessment and negotiated PPAs (for the solar and thermal projects) and pricing terms for Black Dog 6. However, Xcel did not request approval (or cost recovery) of any proposed projects because Xcel “no longer expects to have a resource need until perhaps 2024”.⁷

Therefore, Xcel has requested the Commission:

1. delay action on all thermal projects and allow Xcel to seek additional flexibility from bidders to reflect in-service timing in the 2019-2021 time period, and

⁶ Commission *Order Directing Xcel to Negotiate Draft Agreements with Selected Parties*, Docket No. E002/CN-12-1240, May 23, 2014.

⁷ Xcel’s September 23 Filing, pg. 11.

2. make its Aurora public interest determination in light of the Commission's assessment of the Company's capacity requirements and the least-cost solar resources available to meet Minnesota's Solar Energy Standard.⁸

Xcel proposed to bring the revised thermal PPAs and its Black Dog 6 pricing terms, along with any new resource need information, back to the Commission by May 1, 2015. With regard to solar procurement, Xcel requested the Commission consider Geronimo's proposal alongside bids received in its Solar Energy Standard Request for Proposal Docket (SES RFP or Solar RFP Docket) in Commission Docket M-14-162.⁹

III. Overview of Party Recommendations

Xcel Energy: Xcel recommended that:

- the Commission permit it to work with the thermal bidders, and on its Black Dog 6 proposal, to update terms and pricing that reflects in-service timing in the 2019-2021 timeframe; and
- Make the Aurora public interest determination in light of the Commission's assessment of the Company's capacity requirements and the least-cost solar resources available to meet Minnesota's Energy Standard.

Calpine Corporation: Calpine Corporation (Calpine) recommended that the Commission approve the Mankato PPA and order Xcel to proceed with its implementation.

Department of Commerce: The Department of Commerce (DOC or Department) recommended that the Commission should evaluate Xcel's resource needs based on the evidence in the record and with consideration of the risks that assumptions will change as time progresses. Further, the Department recommended that Xcel should add capacity to its system no later than 2018.

The Department did not make a recommendation on which resources would be most reasonable or prudent.

Environmental Intervenors: The Environmental Intervenors (EI) indicated that the question before the Commission is only whether the terms of the Aurora Solar PPA are in the public interest. The EI's recommended that the Commission find the Aurora Solar PPA terms in the public interest, find that there is no need for additional thermal resources and delay the addition of any other resources to after the next IRP proceeding.

Geronimo Energy: Geronimo Energy, LLC (Geronimo) requested that the Commission approve the Aurora Solar PPA, find it complies with the May 23 Order and is in the public interest. Further, Geronimo requested the Commission allow Xcel to recover 100% of the costs incurred under the PPA from Xcel's Minnesota retail customers.

⁸ Xcel Reply Comments, pg. 11.

⁹ The Solar RFP Docket is No. M-14-162. The Solar RF PPAs were filed October 26, 2014 and comments on the filings will be received until December 18, 2014.

IV. Staff Discussion on Xcel's September 23 Filing

Staff addresses three issues to be contemplated regarding Xcel's September 23, 2014 Filing before moving on to the PPA evaluations: 1) whether Xcel's filing is in compliance with what the Commission ordered to be filed, 2) Xcel's request for the Commission to find a reduced (or no) capacity need on Xcel's system (and following, the request to delay acquisition of resources), and 3) whether the Commission should consider delaying the acquisition of resources.

1) Content and Filing

Staff does not believe that Xcel's recommendation is in line with what the Commission ordered. Xcel was required, pursuant to the track two processes and the Commission's order, to file power purchase agreement(s) *for approval*.¹⁰ Staff views this lack of request for approval combined with the Need Assessment as potentially a request of reconsideration in the Commission's finding of need and an attempt to reargue the Commission's selected proposals.¹¹ Xcel did, however, file complete PPAs, and the Department and other parties have analyzed the merits of the PPAs, so staff believes the record is sufficient for the Commission to make decisions on the merits of the PPAs as was intended by the Commission's May 23, 2014 Order.

2) Xcel's Updated Resource Needs Assessment

Xcel characterizes the Needs Assessment as a procedural step that the Commission initiated for the purposes of resolving uncertainty in the record. Xcel cites the Commission's May 23, 2014 Order, in which "the Commission acknowledged there were several areas of uncertainty in the record regarding the Company's resource needs in the 2017-2019 timeframe."¹²

The Commission did not require the Need Assessment in order to revisit its finding of need. What the Commission required Xcel to do was to bring before it draft PPAs for approval, with the Aurora Proposal being the preferred proposal out of four which could ultimately be selected. While the Needs Assessment could certainly factor into the Commission ultimate choice, the intention was never to rely on the Needs Assessment completely. Instead, the purpose was simply "to facilitate Commission oversight of the rest of this resource acquisition process."¹³

The Commission's May 23, 2014 Order was clear in the Commission's intent with respect to the Needs Assessment, as well as its consideration of uncertainty. While Xcel is correct that the Commission acknowledged the uncertainty of the record, the Commission's Order concluded, "The future will always be uncertain, but the Commission must proceed to make the necessary

¹⁰ May 23, 2014 Order, pg. 36.

¹¹ It is important to note that the Commission anticipated the PPA filings and the Need Assessment as individual filings, which, if filed separately by Xcel (if say, PPA negotiations only took two months instead of the full four) may have been considered independent of each other.

¹² Xcel reply comments, p. 2.

¹³ Commission Order, p. 35.

choices on the basis of a rigorous analysis of the data that is in the record.”¹⁴ Even in light of this uncertainty, the Commission observed the record “demonstrates a need for more than 300 MW by 2019.”¹⁵

Xcel’s September 23 Filing, and its Updated Resource Need Assessment, includes:

- a new demand forecast,
- a MISO coincident peak adjustment to its reserve obligations, and
- new potential options for capacity resources (among other new information).

The primary driver of Xcel’s proposed elimination of need is the MISO coincident peak adjustment. Xcel’s new demand forecast softens Xcel’s need only slightly, and Xcel makes modest adjustments to its existing unit availability. The MISO coincident peak adjustment, however, reduces Xcel’s resource obligation by approximately 500 MW. The Commission already considered the MISO coincident peak issue in its order. All that has changed since then is Xcel’s own confidence in applying a different MISO coincident peak adjustment.

Taking the entire record into account, some iterations of forecasts have projected a significant capacity deficit, while more recent forecasts suggest a declining need. Xcel’s September 23, 2014 Needs Assessment represents a new lower bound of possible need.

The Department concludes that since Xcel’s most recent forecast [September 2014] remains within the band of demand forecasts the Department has analyzed, it is unnecessary for the Commission to reconsider the need it determined in its May 23, 2014 order.

3. Delay until the Next IRP Process

Xcel’s next Integrated Resource Plan (IRP) is due January 2, 2015. Staff believes it could be very problematic to assume an upcoming IRP could resolve any lingering uncertainties, due to the impact such a decision could have on the prices of the proposed bids, the ability for Xcel to add the projects to its system, and the urgency this would impose on the next planning process.

Xcel’s request that it be allowed to “work with bidders to refresh their proposals” is problematic because parties solicited bids with the expectation that they would be meeting a 2017-2019 resource need identified by the Commission. Geronimo’s bid requires commercial operation by December 2016 to qualify for the federal solar Investment Tax Credit. And as Calpine notes in its initial comments to Xcel’s September 2014 Letter:

The Commission’s May 23, 2014 Order issued in these proceedings requires that the terms and conditions of the parties’ PPAs remain consistent with their April 2013 bids. It is difficult to see how it will be possible to maintain the pricing used to support a 2013 bid during additional PPA negotiations for a [commercial operation date] beyond 2019. Any delay beyond 2019 creates significant uncertainty with respect to project costs – uncertainty that would need to be

¹⁴ Commission Order, p. 26.

¹⁵ Commission Order, p. 31

reflected in the terms and conditions of any new PPA. This would lead to a likely increase in the cost of the project and could put Calpine in the position of being unable to comply with that specific requirement of the Commission's Order.

If any of the bids were cancelled as a result of the passage of time leaving bidders unable to meet the terms of their proposals as bid, it would be very risky to assume similarly priced proposals will be available in a future bidding process. Furthermore, in order to meet a resource need in 2019, it may already be too late to secure new bids. As the Department noted in their Reply Exceptions to the ALJ Report:

[I]f a need is identified in the fall of 2014, new resources should not be expected to be on-line until early 2018. If a need is identified in the fall of 2015, new resources should not be expected to be online until early 2019. In essence, a process to cover any needs in 2018 or 2019 not covered by the resources recommended by the ALJ Recommendations would have to be triggered essentially immediately.¹⁶

Third, staff is not convinced that Xcel's new forecast is credible. Throughout this process, the only forecast that was "verified" by the Department was Xcel's Fall 2011 forecast. In its initial comments to Xcel's September 23, 2014 Compliance Letter, the Department notes:

Analysis of Xcel's updated forecast would require a significant amount of time. Further given that Xcel's recent sales increases exceeded Xcel's sales forecasts, the DOC has some concerns about the accuracy of Xcel's forecast of lower demand. Moreover, the DOC noted in its Direct Testimony in this proceeding a number of concerns regarding Xcel's September 2013 forecast, which Xcel was not able to explain.

Since August 2010, the filing date of Xcel's most recent IRP, Xcel has frequently updated the record with its resource needs, and each subsequent update has resulted in major fluctuations in Xcel's projected need. The table below shows Xcel's proposed 2015-2020 resource need by filing (the red numbers in parentheses identify the capacity deficit):

¹⁶ Department, p. 14.

Table 1: Xcel's Proposed Resource Need, by Filing

Filing	2015	2016	2017	2018	2019	2020
2011 IRP (Aug. 2010)	(329)	(472)	(581)	(724)	(817)	(963)
2011 Update (Dec. 2011)	686	303	(1)	(182)	(299)	(369)
Final IRP Need Assessment (Dec. 2012)	-	(32)	(154)	(319)	(443)	(532)
September 2013 Need Assessment (RAP docket)	-	-	(93)	(218)	(307)	-
September 2014 Updated Need Assessment	-	-	254	173	96	(71)

In a matter of four years, the resource need Xcel has proposed with each subsequent filing has cumulatively decreased Xcel's need by 900 MW. Given this sequence of events, it is difficult to be assured that Xcel's most recent forecast is inherently more accurate or can create more resolution than its previous one.

Additionally, there are ongoing forecasting issues between the Department and Xcel. Particularly concerning is the Department's comment that "Xcel was not able to explain" certain changes to its forecasted demand.

Overall, staff believes the record before the Commission, which has been built over the course of the previous two years, is sufficient for the Commission to decide whether to approve the draft PPAs before it. Furthermore, Staff does not agree with Xcel that by considering its new lower bound only is reflective of the entire record or the Commission's May 23, 2014 Order.

V. Solar Proposal Considerations

Xcel has requested that the Commission consider information received in a separate docket Xcel's *Petition for Approval of a Solar Portfolio* (Solar RFP Docket) regarding the price of solar energy projects) in the PPA decisions before it in this competitive docket.

Staff believes there are three main issues that need to be addressed regarding Xcel's request to consider information obtained in the Solar RFP when evaluating the 'public interest' of the Aurora Proposal.

- 1) This request reframes the question from whether the *negotiated terms* of the Aurora PPA are in the public interest to whether the *selection* of the Aurora project is in the public interest.**

Xcel and the bidders have followed the Commission-approved bidding process (track two process) and the Commission has completed project selection (Step 5) and ordered Xcel to commence the four-month negotiation period (Step 6) with the Commission's decisions outlined

in the May 23 Order.¹⁷ Following, the remaining steps (7-9) are: 7) Xcel petitions the Commission for approval of the negotiated PPA (unless agreements were not able to be negotiated), 8) the project(s) proceed to obtain remaining permits or approvals, and 9) the project(s) proceeds with construction.

Staff believes it is clear the Commission's May 23, 2014 order selected the Geronimo proposal, noting that the Aurora project is most aligned with the public interest. According to the Commission order:

In sum, the ALJ's Report demonstrates the merits of Geronimo's proposal, both for supporting the reliability and adequacy of Xcel's power supply, but also for promoting beneficial environmental and socioeconomic outcomes. In particular, the Commission notes the state policy favoring energy from renewable sources,¹⁸ and the goal of reducing greenhouse gases relative to 2005 levels by 30 percent by 2025 and 80 percent by 2050.¹⁹ Geronimo's proposal best advances these policies.

The principal objection to Geronimo's proposal has been cost. But whether an analysis shows Geronimo's proposal to be more expensive than the other proposals, or less expensive, or similar in cost, depends on the value given to solar energy, S-RECs, externality values, and other factors. While the Department's analysis found other proposals to be more cost-effective, the difference in the cost of Geronimo's proposal and other proposals was less than half a percent.

Weighing all factors explored in this record, the Commission affirms the ALJ's recommendation and will select Geronimo's proposal.

If the Commission does not reconsider its finding of need or even if the Commission concludes there is still a capacity deficit, although less than previously thought, then Staff believes the Commission's previous order is clear in its selection of Geronimo's proposal. If the Commission agrees with Xcel that there is no need, the Commission should discuss whether Geronimo's proposal is in the public interest absent the need for capacity.

2) The Commission should consider whether the Solar RFP PPAs and the Aurora Proposal are comparable.

Staff believes the Aurora PPA and Solar RFP PPAs should be considered independent of each other for reasons outlined below.

¹⁷ The completed steps (1-6) of the track two process are briefly: 1) Identification of a system need, 2) Xcel submittal of an initial proposal, 3) Submittal of competitive proposals, 4) a contested case process and the findings returned to the Commission, 5) Commission consideration of the record and issuance of its decision, and 6) the four-month process for final PPA negotiations (May 23-Sept.23).

¹⁸ Minn. Stat. 216B.2422, subd. 4.

¹⁹ Minn. Stat. 216H.02.

First, Xcel and the Department's request to consider the Geronimo Aurora proposal in the Solar RFP Docket was made early during the CAP proceeding. Both the ALJ and the Commission did not find those arguments persuasive. Ultimately, the ALJ and the Commission selected the Aurora solar proposal on its own merits in the capacity procurement docket.

Second, the Commission solicited proposals to best meet Xcel's capacity need in early 2013, none of the Solar RFP Docket proposals were submitted at that time. Further, in its May 23, 2014 Order, the Commission – based on the record evidence - selected among those competing proposals, within the CAP, the resources that best met Xcel's need.

Third, based on staff's initial review of the Solar RFP PPAs submitted into the Solar RFP Docket, the projects bid into the Solar RFP PPAs are sufficiently different types of resources, have different timing and project features.²⁰ The Aurora proposal is a capacity resource and the solar projects bid into the Solar RFP Docket are energy resources. While the Solar RFP energy resources will likely receive some accredited capacity in the future, only the Aurora proposal provides assured capacity resources by 2017 – with the risk of not providing that capacity on seller.

The Solar RFP projects are intended to be connected via the transmission grid, whereas, the Aurora Project was designed to be connected directly to the distribution system (at 24-separate sites) to provide additional reliability – project benefits contemplated in this proceeding. At the time of Solar RFP PPA petition for approval, not one of the Solar RFP PPAs had a finalized interconnection agreement (and final interconnection costs are not known) and at the earliest, would receive accredited capacity for the MISO 2018/2019 planning year.

Fourth, the review of the Solar RFP Docket is just getting underway, the Solar RFP proposals were submitted in late October and the comment periods on that petition will remain open past the Commission's decision on this docket. While staff has preliminarily reviewed those proposals, no additional comments will have been received prior to the Commission's deliberations in the CAP Docket and the resulting agreements.

3) Geronimo's October 2014 motion to the Commission to exclude information provided by Xcel.

Last, Geronimo has alleged that Xcel has violated the Protective Order in the CAP Docket by releasing protected Aurora PPA price information in its public *Status Update on Solar Resource Acquisition* (Status Update) in the Solar RFP Docket.²¹ Geronimo claims that by Xcel indicating in its Status Update that eleven companies proposed 15 projects ...each at a levelized cost of \$85/MWh or less combined with information it claims as protected, but released by Xcel, violated provisions of the Protective Order.

Xcel denies that it released protected information, however Xcel indicated in order to provide an abundance of caution it refiled its Status Update with the information omitted.

²⁰ Staff's review of the Solar RFP PPAs is currently underway, reply comments are due December 18.

²¹ See Geronimo Energy, LLC – Motion to Enforce Protective Order, September 12, 2014.

Geronimo has claimed that since the information has been made public and since refiling the status report would not provide sufficient remedy, it has requested that the Commission:

“...neither consider nor rely upon any comments or other information it receives as a result of Xcel Energy’s violation of the Protective Order. Because Xcel Energy has already widely disseminated Geronimo’s Protected Information, this is the only meaningful and equitable way to remedy the harm done to Geronimo.”

Staff believes this motion may resolve itself depending on the decisions made by the Commission. If not, staff believes the Commission may need to evaluate whether the motion is appropriately before it and/or whether additional record development is necessary.

VI. Aurora Solar PPA Evaluation

Xcel disclosed to the Commission the terms of its proposed agreements for the Aurora Proposal – and in addition to the direct and knowable costs - PPAs contain risks for future costs. The Commission in its Order required Xcel to develop the PPA terms:

(...) and submit them for Commission approval – or, alternatively, to explain why it had not been able to develop these terms, and to propose how to proceed.

The terms should acknowledge that, for purposes of cost recovery, each bidder would be held to the prices and terms used to evaluate its bid. The terms should not put ratepayers at risk for costs that are higher than bid, or for promised levels of accredited capacity, energy, or other benefits that do not fully materialize. The Commission is not likely to regard as reasonable any terms that shift risk or unknown costs to ratepayers. ...²²

In the ordering points, the Commission required:

“A. Xcel shall negotiate a draft power purchase agreement with Geronimo Wind Energy, LLC d/b/a Geronimo Energy, LLC, and submit the agreement for Commission review to ensure that the negotiated terms are consistent with the public interest.”²³

The terms and associated risks of the PPA were negotiated by Xcel and evaluated by the Department and Geronimo in their comments.

Price

The Department confirmed that the price provided in the negotiated PPA matches the bundled per-MWh capacity/energy price provided in Geronimo’s proposal.

Financial Risks

²² May 23, 2014 Order at p. 35.

²³ May 23, 2014 Order at p. 36.

The Department evaluated two main financial risks that could have negative impacts on Xcel's ratepayers – the seller default and termination of the PPA before the expiration of the contract period and entitlement by a lender or other party – as a result of the seller's failure to pay debt, to take over the project and terminate the PPA. The Department reviewed the (trade secret) pre- and post-COD Security Fund amounts and concluded that Xcel's ratepayers would be reasonably protected from the financial risks noted.

Operational Risks

The Department evaluated operational risks of the project not being built or operated as expected, including – delay in the commercial-operational date, a complete shutdown, or a partial shutdown due to technical problems. The Department concluded that the PPA terms includes specific features that would protect both Xcel and its ratepayers from operation risks including 1) the security fund, 2) the agreement that the seller provide liquidated damages in the event of an accredited capacity shortfall, 3) the damage fund in the instance of insufficient capacity by the COD, 4) among others (requirements for specific performance, step-in rights, actual damage payments, and PPA termination).

Transmission Interconnection

None of the phases of the Aurora Project interconnect to the transmission system and Geronimo bears all distribution interconnection costs – the Department concluded that the issue is reasonably resolved.

Capacity Accreditation Risk

The Department concluded that ratepayers are sufficiently protected via the negotiated scale of damage payments.

Environmental Risk

Xcel will own all the renewable energy credits and therefore the Department concluded that the structure is reasonable.

Curtailment Risk

The Department requested Xcel explain in its reply comments the risk that it will incur with respect to compensable curtailment payments and did not make a recommendation on whether that risk is reasonable.

Xcel provided that the compensable curtailment provisions negotiated were similar to those used in Xcel's model PPA (adjusted to reflect the technical differences in the Aurora project's distributed structure). The compensable payments would be due to economic curtailments when it would be most economic (i.e. negative LMPs) – and would limit the total cost paid to

customers. Xcel explained that since solar provides an on-peak resource, it is unlikely to experience curtailments due to negative LMPs or system balancing issues.

Geronimo provided that due to the dispersed and distribution-side nature of the Aurora project, it is unlikely that the entire project would be subject to curtailment at the same time or that any curtailment would last for an extended period of time.

Conclusion

No party asserted that the negotiated terms of the Aurora PPA provide inadequate protections to ratepayers.

Staff believes the negotiated terms of the Aurora PPA to be consistent with the proposal submitted in the CAP proceeding and the negotiated terms to be consistent with the public interest.

VII. Thermal Considerations

In the Company's September 24, 2014 Compliance Letter, Xcel states:

based on our updated resource need assessment, we believe it would be beneficial to our customers to **delay the addition of any thermal resources** to our system. Instead, we recommend the Commission afford us the opportunity to work with Calpine and Invenenergy to renegotiate PPAs with pricing to reflect in-service dates ranging from 2019-2021 and similarly refresh our Black Dog 6 self-build proposal.²⁴ (Emphasis added)

Staff believes Xcel's conclusion is problematic for at least three reasons:

1. The need relies solely on a Median (50%) peak demand forecast, with a MISO coincident peak adjustment;
2. It does not appropriately capture the risk of being underbuilt; and
3. It assumes, or at least implies, that prices available today will be available at some later time.

The Median Forecast

Xcel bases its resource need solely on the **Median**, or 50th percentile, forecast, whereas the Department makes recommendations using a range of forecasts above and below the Median. In order to consider Xcel's revised September 2014 forecast in a similar context to that of the Department's range approach, Staff issued PUC Information Request #6, asking that Xcel provide its 75th percentile and 90th percentile peak demand data.

The table below provides Xcel's Median (50%), 75th percentile, and 90th percentile peak demand compared to Xcel's total available resources. Xcel's Median forecast is the only forecast

²⁴ Xcel Energy, September 23, 2014 Compliance Letter, p. 2.

included in the Needs Assessment—it projects a peak demand of 9,478 MW in 2017, growing to 9,608 MW in 2019. As shown in the table, in the event of higher-than-expected demand growth (the 75th and 90th percentile), Xcel would have insufficient resources to cover its resource need in all planning years, starting with 2017. (The values below represent megawatts.)

	2017	2018	2019	2020	2021	2022	2023	2024
50%	9,478	9,552	9,608	9,639	9,669	9,726	9,720	9,712
75%	9,932	10,043	10,134	10,213	10,273	10,390	10,426	10,421
90%	10,340	10,481	10,626	10,720	10,812	10,952	11,020	11,054
Resources	9,897	9,892	9,872	9,736	9,979	9,981	9,953	9,720

The Department concludes that capacity should be added to Xcel’s system no later than 2018. If the Commission determines there are benefits to delaying the acquisition of the proposed projects, the Department recommends a credible short-term capacity addition must be available as a bridge from at least 2018, if not earlier. At this point, Xcel has not provided a credible short-term capacity addition to ensure that it has sufficient capacity resources allowing for a further delay in the in-service dates of the proposed projects.²⁵

Overbuilt versus Underbuilt

In his December 31, 2013 Report, the ALJ found that by taking into account two factors, Xcel’s lower demand forecast and the Solar Energy Standard, Xcel’s capacity deficit “might conceivably grow to 307 MW by 2019.”²⁶ However, when taking into account MISO’s coincident peak, the ALJ concluded “it is not efficient to procure one or more gas turbines when the project needs through 2019 are modest – and may be getting smaller.”²⁷

In the Company’s Exceptions to the ALJ Report, Xcel disagreed with the ALJ recommendation because it did not address the range and uncertainty of need. Specifically, Xcel addressed the benefits of being slightly overbuilt, as opposed to the risk of being underbuilt. Xcel states:

Under these circumstances, a conservative approach is warranted to ensure adequate generating capacity on our system under all reasonably plausible outcomes. While this may sometimes mean that available capacity will exceed the identified need for a short period of time, this is preferable to incurring a shortfall of capacity. Further, this conservative planning approach insulates our customers

²⁵ Department initial comments, p. 13

²⁶ ALJ Report, Finding of Fact 238.

²⁷ ALJ Report, Finding of Fact 239.

from overreliance on the MISO market due to routine variations in the availability of system resources.²⁸

It is important to consider the overbuilt versus underbuilt question in the context of the size of Xcel's total system. Xcel's total system demand is approximately 9,500 MW, and Xcel's Updated Needs Assessment projects it will have 96 MW of excess reserves in 2019, with a 71 MW deficit in 2020. Notably, this 96 MW surplus represents only one percent of Xcel's total system. Moreover, it includes several uncertain assumptions, such as:

- A Median (50th percentile) forecast, with the MISO coincident peak adjustment;
- A fixed MISO reserve margin in all planning years;
- Approximately 120 MW of solar which does not yet exist on Xcel's system; and
- Higher capacity values for Sherco 3 and Black Dog 5/2 than Xcel assumed in its September 2013 Assessment.²⁹

Excessive rate impacts would be the dominant reason to avoid adding surplus capacity. And, of course, Staff believes consideration of rate impacts is vitally important to this proceeding. However, rate impacts should be considered under the appropriate context as well and weighed against the ratepayer risks of Xcel's system being underbuilt. With regard to rate impacts of the thermal PPAs, Xcel concluded in Direct Testimony that, considering the size of Xcel's system, the overall rate impacts of the projects would be minimal. Xcel states:

In the context of the Company's system, these projects are rather small and their rate impacts are expected to be minimal. In the first full year of the Black Dog 6 project - 2020 - the forecasted rate impact is 0.05 cents/kWh. In the first full year of the Calpine PPA - 2018 - the rate impact associated with the capacity payments is forecasted to be 0.07 cents/kWh. This cost increase will be partially offset by the fuel efficiency gains from the project, which are projected to be about 0.01 cents/kWh. Invenergy Cannon Falls would have the smallest rate impact of only 0.02 cents/kWh. But Cannon Falls is also the smallest resource considered for selection. The total impact of Black Dog 6 and either of the two PPAs should be less than 1% of average rates.³⁰

What is not evident is the appropriate consideration of ratepayer risk as a result of capacity shortfalls or excessive reliance on the MISO market. Staff believes the Commission's May 23, 2014 order appropriately weighed these risks, but Xcel's elimination of resource need and subsequent request to delay consideration of all thermal PPAs does not.

The Commission can certainly take into account changes to Xcel's demand forecast, changes to MISO's resource adequacy construct, and changes to capacity availability from existing units. However, in Staff's view, arguments which focus so narrowly on whether Xcel might have

²⁸ Xcel Energy, Exceptions to ALJ Report, at 5-6

²⁹ In determining the capacity value for Sherco 3 and Black Dog 5/2, Xcel used a 5-year average instead of the 2014/2015 planning year 3-year average UCAP values used by MISO.

³⁰ Xcel Energy, Wishart Direct, at 42-43.

excess reserves amounting to tens of megawatts in three particular years of the planning period distract from the broader goal of providing long-term reliability to ratepayers at reasonable costs.

Proposal Prices

In addition to Xcel's exception that the ALJ should have considered a range of forecasted need, a second factor Xcel recommended the Commission consider was price. According to Xcel:

Price is also a consideration. The proposed natural gas projects in this proceeding all have attractive pricing. If project selection is delayed it is possible that next time the projects are proposed the costs could be significantly higher.³¹

As shown in Department's Table 2, below, all proposals not only have "attractive pricing," but they are also similarly priced. Scenarios with multiple proposals are generally less expensive than scenarios selecting only one project, because the costs of generic units are substantially higher than the proposed bids. Table 2 compares multiple proposals (shaded in grey) to single proposals, under base case and lower bound forecast contingencies.

Table 2: Selected Delayed In-Service Date and Reduced Forecast Scenarios (PVSC)

	Base Forecast	Mid-Low Forecast - 2.5%	Low Forecast - 5%	Scenario #
<i>Interruptible Gas (Invenergy)</i>				
Black Dog 2017 and Calpine 2019	\$41,258,564	\$40,145,956	\$39,064,212	41
Black Dog 2017 and Invenergy 2019	\$41,280,804	\$40,164,740	\$39,047,572	43
Invenergy 2016 and Calpine 2019	\$41,310,372	\$40,179,328	\$39,084,200	45
Calpine 2017 and Invenergy 2019	\$41,270,568	\$40,157,360	\$39,089,008	47
Black Dog 2019 and Calpine 2017	\$41,263,483	\$40,151,467	\$39,072,079	33
Black Dog 2018 and Invenergy 2016	\$41,299,021	\$40,160,593	\$39,067,529	37a
Geronimo 2016	\$41,423,488	\$40,249,608	\$39,121,180	25
Black Dog 2017	\$41,326,470	\$40,178,734	\$39,075,954	27
Calpine 2017	\$41,315,664	\$40,197,444	\$39,103,384	29
Invenergy 2016	\$41,381,884	\$40,175,872	\$39,072,568	31
Invenergy 2016 and Calpine 2017	\$41,287,152	\$40,182,260	\$39,089,596	35a
<i>Firm Gas</i>				
Black Dog 2018 and Invenergy 2016	\$41,334,589	\$40,196,845	\$39,103,705	37
Invenergy 2016	\$41,381,884	\$40,211,528	\$39,107,792	31
Invenergy 2016 and Calpine 2017	\$41,322,652	\$40,218,196	\$39,125,080	35

Under base case conditions, the Department's analysis shows that Black Dog 2017 and Calpine 2019 is the least-cost combination (shown with bold text). If only one proposal is selected, the least-cost proposal is Calpine 2017. (Staff notes that none of the proposed thermal bids can achieve a 2017 in-service date, which will be discussed later in this briefing paper.)

³¹ Xcel Energy, Exceptions to ALJ Report, at 16

Under the Mid-Low (-2.5%) forecast contingency, the Black Dog 2017 and Calpine 2019 combination is still the least-cost package. However, if only one project is selected, then Invenergy 2016 with Interruptible gas supply is least-cost.

Under the lowest forecast bound (-5%), the least-cost package is Black Dog 2017 and Invenergy 2019. As with the Mid-Low forecast contingency, Invenergy 2016 with Interruptible gas supply is again least-cost in the Low (-5%) forecast contingency.

Because there is not a “clear winner” in terms of cost, Staff discusses some of the qualitative advantages and disadvantages among the thermal proposals, as well as the various ratepayer risks within the PPA terms.

Comparison of the Thermal Proposals

A summary table of the three thermal proposals is shown below. As shown in the table, Calpine’s Mankato Expansion is the largest project (345 MW), and it is also the only combined cycle project. Xcel’s Black Dog 6 and Invenergy’s Cannon Falls proposal are similarly-sized peaking CT units.

Project Name	Type	Fuel	Firm/Non-Firm	In-Service Date	MW
<i>Black Dog 6</i>	CT	NG	Firm	2018	215
<i>Calpine</i>	CC	NG	Firm	2018	345
<i>Invenergy</i>	CT	NG	Non-Firm (Backup Fuel)	2018	209

The combined cycle capability provided by Calpine’s proposal can be thought of as a way to mitigate energy cost risk. For example, in the modeling which took place before the negotiation phase, Xcel’s analysis showed Calpine’s Mankato project to be competitively priced under base case conditions. However, when testing higher natural gas prices and high carbon prices, the value of Calpine’s Mankato project was magnified considerably.³²

The energy cost risk is due to the fuel efficiency gains from the combined cycle unit, which creates annual fuel cost savings that equalize the net cost of the projects. Because Xcel’s and Invenergy’s proposals are CTs, if Xcel requires energy for several hours of the year, Calpine’s project can provide energy at lower cost. In addition, the ability for Calpine’s Mankato Expansion to provide low-cost energy at higher capacity factors better positions Xcel’ to manage environmental risk at its coal-fired assets.

Among the thermal proposals, Xcel’s Black Dog 6 provides the earliest opportunity for meeting the Commission’s identified need. Unlike Calpine and Invenergy, Xcel does not require transmission upgrades before obtaining capacity accreditation. In response to PUC IR #8, Xcel

³² Wishart Direct Testimony, p. 38.

stated the Company is planning on utilizing the existing Interconnection Rights assigned to Black Dog 3 and 4 for Black Dog 6. According to Xcel, it will likely receive the unconditional interconnection rights for Black Dog 6 by 2017. Therefore, Black Dog 6 would be able to receive capacity accreditation in 2018.

Project Name	Capacity Risk Mitigation				Energy Cost Risk Mitigation			
	2017	2018	2019	2020	2017	2018	2019	2020
<i>Black Dog 6</i>	No	Yes	Yes	Yes	No	No	No	No
<i>Calpine</i>	No	No	Yes	Yes	No	Yes	Yes	Yes
<i>Invenergy</i>	No	No	Yes	Yes	No	No	No	No

Based on the negotiated draft PPAs, the Calpine and Invenergy proposals bear an interconnection timing risk. According to Xcel, interconnection of both facilities will likely require completion of MISO Multi-Value Project (MVP) transmission lines, which are scheduled to be completed in 2018.³³ If the MVP lines are completed as scheduled, then both facilities will receive unconditional interconnection rights by June 2019.

Project Name	Interconnection Risk	Additional Cost above the Bid
<i>Black Dog 6</i>	No	No
<i>Calpine</i>	Yes	Yes
<i>Invenergy</i>	Yes	No

Calpine's PPA shifts the interconnection cost risk to ratepayers. During the PPA evaluation, the Department included \$1.5 Million as an estimated transmission interconnection cost. The draft PPA does not cap the transmission line interconnection cost at \$1.5 million; therefore, ratepayers are exposed to the interconnection cost risk in any amount above \$1.5 million. However, in its reply comments, Calpine suggested it can further negotiate the portion of the interconnection cost risk to be allocated to Calpine.

Calpine's draft PPA also includes a dispatchability payment that was not included in Calpine's bid. The Department concludes that the dispatchability payment is an unreasonable addition to the draft Calpine PPA since the Commission's order required all parties to be held to the prices of their initial bid. In response to the Department, Calpine argues that it assumed risk more than the bid term, so the dispatchability payment reflects a reasonable trade off.

³³ Xcel Response to PUC Information Request No. 8

A distinction between Invenergy and the other thermal bids is that the Cannon Falls expansion would operate on interruptible gas. With future plant retirements expected to comply with EPA's MATS and 111(d) rules, as well as increasing use of natural gas as an electric resource, MISO may require firm gas supplies for natural gas generators to receive MISO capacity accreditation.

Xcel noted that, during negotiations, Invenergy proposed to increase fuel oil storage at the proposed Cannon Falls Expansion by 50 percent at no cost to Xcel. MISO could consider this extra fuel storage as sufficient in terms of giving Cannon Falls capacity accreditation.

A benefit of the Invenergy proposal is the price as a standalone project. According to the Department's analysis, under base case conditions, Calpine is the least-cost standalone project. However, under the lower forecast contingencies, Invenergy's Cannon Falls project is commonly a least-cost result.

Issues with Delaying Resource Selection

One of the common themes among the parties' comments is that the passage of time in this proceeding is disrupting the supply chain of the proposals. Xcel noted it must make a major equipment commitment soon in order to meet a 2018 in-service date. Calpine is uncertain whether it can secure the same turbine model it incorporated into its initial bid for a 2019 in-service date. Invenergy has changed the turbine it expected for its proposal because it is no longer in stock.

With the national transition to natural gas generation, there is an increasing price and availability risk in obtaining the equipment during a period of rising demand. It is reasonable to assume that MATS and 111(d) compliance will require a ramp up in demand for turbines, labor, engineering, and construction that could introduce substantial bottlenecks locally, regionally, or nationally, which could introduce delays or cost escalation in the broader supply chain of natural gas facilities.

As stated previously, none of the proposals can now meet a 2017 in-service date, and the parties cite the process of Commission review and the time required for interconnection as the reasons why. Staff believes further delay could not only result in price impacts, but possible cancellations of the proposals altogether.

VIII. Solar Cost Recovery

Geronimo's request for a Commission finding that 100% of the costs associated with the Aurora PPA will be recovered from Minnesota ratepayers

Statement of issue and parties' positions

Under Section 6.1 of the Geronimo PPA, either Xcel or Geronimo can terminate the PPA if the Commission and the North Dakota Public Service Commission (NDPSC), either separately or in

the aggregate, have not approved 100% recovery of costs incurred under the PPA within six months of a written request for such approvals.³⁴ The relevant PPA terms include:

6.1 Company Conditions Precedents

(A) No later than September 23, 2014, Company intends to file an unexecuted draft of this PPA with the Minnesota Public Utilities Commission pursuant to the requirements of the Order. No later than ten (10) Days after receipt of an outcome of the Order approving this PPA as consistent with the Order, Company shall file this PPA with the North Dakota Public Service Commission pursuant to relevant regulatory requirements. Seller shall cooperate with Company's effort to seek State Regulatory Approval.

(B) Either Party shall have the right to terminate this PPA, without any further financial or other obligation to the other as a result of such termination, by Notice to the other Party not more than ten (10) Days after the earlier of (i) fourteen (14) Days after receipt of written determinations by both State Regulatory Agencies that together do not constitute State Regulatory Approval, or (ii) six (6) months following the written request for State Regulatory Approval without receipt of State Regulatory Approval. If a Party fails to terminate this PPA in the time allowed by this paragraph, such Party shall be deemed to have waived its right to terminate this PPA under this Section 6.1 and this PPA shall remain in full force and effect thereafter. (pp. 16-17)

PPA Exhibit A, Definitions

"State Regulatory Agency(s)" means the Minnesota Public Utilities Commission or any successor agencies in the State of Minnesota and the North Dakota Public Service Commission or any successor agencies in the State of North Dakota. (p. A-16)

"State Regulatory Approval" means a final, written order of one State Regulatory Agency, or if needed, both State Regulatory Agencies, that does not impose conditions unsatisfactory to the Company and is not subject to application for rehearing, re-argument and reconsideration, and that makes the affirmative determination that Company's execution of this PPA is reasonable and in the public interest, and that 100% of the costs incurred by Company under this PPA are recoverable, in the aggregate, from the retail customers of both States or if only one State then from the retail customers of that State (without application of jurisdictional allocators or other reductions to reflect multi-state operations) pursuant to Applicable Law, subject only to the requirement that the State Regulatory Agency retains ongoing prudency review of Company's performance and administration of this PPA. (p. A-16)

Given these terms in the PPA, Geronimo argued that approving cost recovery for Xcel, specifically 100% cost recovery from Minnesota retail customers, is important in order to avoid

³⁴ Staff believes only the states of MN and ND are discussed here because they have a "preapproval" process or requirement.

unnecessary delays or excuse Xcel from performing under the contract.³⁵ Geronimo suggested that the Commission's approval of cost recovery as requested need not preclude Xcel from seeking a separate approval from the North Dakota Commission. However, the approval of 100% recovery at this time would ensure that development and construction of the Geronimo project could proceed and remain on track for 2016 completion.

Xcel did not raise the issue of cost recovery in its PPA compliance filing. In reply comments, it agreed with Geronimo that a proceeding in North Dakota to approve recovery will take time and that the Commission could alleviate this issue by ordering that 100% of the Geronimo project costs be recovered from Minnesota ratepayers.³⁶

The DOC did not raise project cost recovery initially but in reply comments responded to Geronimo's request.³⁷ It noted that typically a "least-cost" resource procured to meet system needs would be recovered on a system-wide basis.³⁸ It recommended however that if the Commission approves the PPA, it should clarify its intentions regarding cost recovery of the Geronimo project. Specifically, the DOC recommended that the Commission consider the mechanics of cost recovery either in this or a subsequent proceeding. The goal of such a proceeding would be to ensure that both costs and benefits are fairly allocated to all jurisdictions.

Why has Geronimo sought approval for recovery of 100% of the costs associated with the PPA from Minnesota retail customers at this time?

Geronimo and Xcel deem North Dakota's approval of its jurisdictional costs for the project within the time frame allotted in the PPA as unreliable. The time frame is further compressed by the expiration of the 30% ITC on December 31, 2016.³⁹ Qualification for the ITC is a critical factor supporting the economic viability of the project. Both Xcel and Geronimo agree on these facts.

Achieving pre-approval of the PPA costs in North Dakota will be difficult and potentially time consuming. Both Geronimo and Xcel support this finding. As noted by Geronimo, under Section 6.1(a) of the PPA, Xcel would request NDPSC approval after the Minnesota Commission issues a written order in this matter. Assuming a 3-6 month approval process in North Dakota, this condition precedent in the PPA could remain open well into the third quarter of 2015, providing a significant financial risk to Geronimo that could delay acquisition of equipment and execution of key contracts. As they noted, given the conservative approach to

³⁵ See Geronimo's October 23, 2014 comments, pp. 11-13.

³⁶ See Xcel's November 3, 2014 comments, pp. 9-10.

³⁷ See DOC's November 3, 2014 comments, p. 1.

³⁸ The DOC went on to indicate that it does not know whether the Commission has made a determination that the Geronimo project is the least cost resource. It cited the Commission's May 23 Order (at p. 34) that states, "whether an analysis shows Geronimo's proposal to be more expensive than other proposals, or less expensive, or similar in cost depends on the value given to solar energy S-RECs, externality values, and other factors." See DOC reply comments, p. 1.

³⁹ Project must be placed in service by this date.

cost recovery taken by the NDPSC, cost recovery approval could be delayed, if granted at all, negating the Minnesota Commission's approval.⁴⁰

In support of Geronimo's request for cost recovery, Xcel cited the Settlement adopted by the NDPSC in the Company's most recent electric rate case.⁴¹ Under the Settlement, the Company is required to examine ways that its integrated system can be restructured to avoid the policies of one state having unwanted impacts on ratepayers of another state. Until this issue is addressed, any new capacity and any new renewable resource Xcel proposes to add to its system will be reviewed by the NDPSC with heightened and potentially prolonged scrutiny.

If North Dakota pre-approval for cost recovery is prolonged, under the terms of the PPA, the delay allows Xcel to terminate the PPA even if the Minnesota Commission approves it.

What are staff's concerns with the Geronimo cost recovery proposal?

Despite the reasons discussed above for the request by Geronimo for cost recovery, staff is concerned that this unusual request could set a problematic precedent. It should be noted that Xcel has not formally requested approval for cost recovery and that the issues surrounding it are not well developed in the record to-date. If the Commission were to grant the cost recovery request, clarification of the intent and further development of the specifics of implementation would be needed as discussed below. However, without approval of the cost recovery request, the project may not go forward and the Commission may see this as a concern as well.

Needed clarification of Geronimo's request. PPA Term 6.1, Company Conditions Precedents, refers only to a filing "pursuant to regulatory requirements" and efforts "to seek State Regulatory Approval" in the State of North Dakota. First, staff assumes the reason that only North Dakota is identified is that other than Minnesota it is the only jurisdiction with a resource pre-approval requirement (i.e. Advanced Determination of Prudence). Staff assumes that South Dakota, Wisconsin and Michigan are unmentioned for this reason. Second, even with Commission approval of the request for 100% recovery from Minnesota ratepayers, Xcel could pursue cost recovery in each of its jurisdictions, including North Dakota, South Dakota, Wisconsin and Michigan.⁴²

⁴⁰ Geronimo provided support for this statement by citing a Post-Hearing Brief of Advocacy Staff, in NDPSC Case No. PU-12-59 (December 3, 2012), which recommends that the NDPSC deny Xcel's application for advance determination of prudence for the Prairie Rose Project because the project was driven by Minnesota's renewable energy mandate, as well as a Findings of Fact Order, issued December 21, 2012, denying Xcel's application for advance determination of prudence for the Prairie Rose Project. Geronimo also cited the Petition to Intervene (filed July 31, 2013) and Direct Testimony of Mike Diller (filed September 27, 2013), both in Docket No. 12-1240, expressing concern about Xcel's continue construction of generation facilities in Minnesota, rather than North Dakota.

⁴¹ See NDPSC Second Amended Comprehensive Settlement Agreement, in Case No. PU-12-813, filed February 18, 2014 and approved February 26, 2014.

⁴² Xcel's June 30, 2011 Petition for Approval of a Power Purchase Agreement with Geronimo Wind Energy, LLC (Prairie Rose), in Docket No. E-002/M-11-713, stated under "Minnesota Compliance":

We spread the cost of renewable energy to all of our customers across our five state jurisdictions.

Normal treatment of purchased power (and generated power) is to allocate costs based on sales, between NSP-MN and NSP-WI,⁴³ and then among the three NSP-MN state jurisdictions of MN, ND and SD. The fuel clause related allocation factors typically applied to PPAs are as follows:

MN – 74%
ND – 5.5%
SD – 5%
NSP-WI – 15.5%

If the Commission approves Geronimo's request for cost recovery, it should ask Xcel to specify the efforts it intends to make regardless of this approval and capture this understanding in its Order.⁴⁴ Importantly, the Commission should require Xcel to pursue cost recovery in each of its jurisdictions regardless of a Minnesota pre-approval.⁴⁵ It is unclear, whether, if Minnesota acts to approve recovery of 100% of costs before the other jurisdictions, it will serve as an example or a disincentive to the others.

If 100% of the costs of the PPA were to be allocated to Minnesota, then there is a strong argument that 100% of the benefits should remain with Minnesota ratepayers, also. For example, if the Geronimo solar generation is available during hot August afternoons or extremely cold winter events when LMPs on the MISO system are significantly higher than the cost of the Geronimo energy under the PPA, why should other Xcel jurisdictions get the benefits of avoiding the higher cost purchases at LMP rates? Also, North Dakota is the only Xcel jurisdiction mentioned by Geronimo as problematic. If the Commission were to allow 100% cost recovery from Minnesota ratepayers without the requirement to pursue recovery in South Dakota and Wisconsin, does that imply that those other jurisdictions would also be denied the benefits of the Geronimo generation?

And as the footnote below states, Minn. Stat. §216B.1645 limits cost recovery to retail costs, not power sold into the wholesale market.

Accordingly, we have treated the associated Renewable Energy Credits ("RECs") as if they belong to the customer groups that pay for that energy. Minnesota customers pay for approximately 74 percent of the cost of renewable energy on our system and thus, 74 percent of that renewable energy production is available to meet Minnesota compliance obligations. (p. 11)

⁴³ NSP-WI includes Wisconsin and Michigan.

⁴⁴ Xcel should clarify its intent to pursue cost recovery in other jurisdictions and also clarify that the Geronimo request that "100% of costs from Minnesota retail" does not imply that Minnesota retail customers will be responsible for any portion of the energy from the PPA allocated to wholesale customers. Minn. Stat. 216B.1645, subd. 2 states that the Commission may not approve "recovery of the costs for that portion of the power generated from sources....that the utility sells into the wholesale market."

⁴⁵ Since Xcel's efforts to attain cost recovery in North Dakota begin once the Minnesota Commission issues its Order, the Commission should make every effort to issue its Order quickly.

A determination by the Commission to allow recovery of 100% of costs from Minnesota retail ratepayers could set precedent. The Geronimo project was selected by the Commission as a least cost project in the best interest of Minnesota ratepayers. Under most scenarios, expenses associated with the PPA would be considered systems costs and allocated under the jurisdictional allocation factors noted above. The essential problem is that the system-wide benefits and costs of this project cross four jurisdictions. If one state initiates cost recovery approval before the others at a level disproportionate to its jurisdictional allocation it is unclear whether (a) this will lead other states to assume their jurisdictional responsibilities, or (b) act as a deterrent.⁴⁶ If such action by Minnesota creates a precedent such that other states continue to expect Minnesota to incur a disproportionate share of the system-wide costs, it could undermine the mutual obligations to the regional system. Approval of 100% cost recovery from Minnesota customers in this case also could potentially be used as a basis for arguing that the same treatment should be given to the costs of meeting Minnesota's Solar Energy Standard (SES) or even the RES. To avoid such an outcome, if Minnesota assumes a disproportionate responsibility for jurisdictional cost recovery, the Commission must put forward a clear rationale limited to the facts of the case.

North Dakota denial of jurisdictional allocation of RDF expenses. The Commission has addressed the issue of jurisdictional allocation of costs in Xcel's 2011 Renewable Development Fund (RDF) tracker approval. Its findings may be relevant here.^{47, 48}

In October 2010, Xcel sought approval to allocate 100% of the Xcel RDF energy production grant payments (and associated administrative expenses) to the Minnesota jurisdiction. The DOC asserted that it was not clear that Xcel did not or would not recover the RDF costs allocated to North Dakota and/or South Dakota. The Commission initially denied Xcel's request, finding that the Company had not fully pursued recovery of these costs from North and South Dakota. The Commission also questioned that Xcel had exercised its own authority in resolving by settlement the issue of RDF cost recovery.

In its Order of March 17, 2011, the Commission found that since Xcel had not pursued legal claims, there had been no definitive rejection on the merits of recovery of these costs. In addition, the Commission read Minn. Stat. §216B.1645, subd. 2 as failing to compel a finding that Minnesota ratepayers should be held exclusively responsible for the recovery of disputed energy production project expenses from other states. The Commission made clear it did not read this statute as a requirement to disregard principles such as prudence and just and reasonable jurisdictional allocation of costs.

⁴⁶ Because the five commissions will act on recovery at different times, the timing of one decision may influence the others. For example, if Minnesota assumes 100% recovery in this case, it will send a signal that may influence the others. As noted above, this influence may cause the other jurisdictions to be more or less inclined to assume their jurisdictional responsibility.

⁴⁷ Although there are similar policy issues, the disputed amount reallocated back to Minnesota ratepayers in the RDF case at the time of the decision was only \$322,298.

⁴⁸ See ORDER, in Docket 10-1054, issued March 17, 2011.

On April 6, 2011, Xcel filed a petition for reconsideration of the RDF cost recovery issue. Xcel argued that it had undertaken reasonable and good faith efforts to recover the RDF energy production grant payments from North Dakota and South Dakota, and that the Commission's Order put the Company in the untenable position of significant under recovery. In an Order issued June 6, 2011, the Commission modified its initial Order and decided to reallocate to Minnesota ratepayers the 2011 RDF energy production grant payments (and associated administrative expenses) previously allocated to North Dakota and South Dakota.⁴⁹ The Commission found that the North Dakota and South Dakota denial of the recovery of these expenses was more definitive than it had first appeared. The Commission also found:

The Company correctly points out that these costs---unlike most system-wide utility costs---have a unique connection with Minnesota. They are incurred under Minnesota statutory mandates to promote state energy policies, and may not have been incurred without those mandates. There is therefore no danger that allocating the full 2011 costs to Minnesota ratepayers would create a worrisome precedent of allocating to Minnesota ratepayers costs disallowed in other jurisdictions, especially since the approval granted today is limited specifically to the facts underlying the record related to the 2011 rate rider. (See ORDER, p. 2)

The implications of the 2011 case for the present one are first, to show that the Commission has made exceptions to strict jurisdictional allocations in a specific case; second, wherever Minnesota's interests diverge from those of other jurisdictions it may take actions that differentiate it. In the present case, if there was sufficient time and no ITC deadline, the Commission could approve Minnesota's jurisdictional costs, and then wait for Xcel to secure cost recovery in other jurisdictions. If it did not receive approval for recovery in other states and could demonstrate this to the Commission in a manner similar to its June 6, 2011 Order, the Commission would then be in a better position to support a finding to reallocate 100% of the costs to Minnesota ratepayers.

Additional distinguishing characteristics of the Geronimo case related to Minnesota. There are other reasons why the facts in this case may distinguish the project as of unique interest to Minnesota ratepayers. These include:

- the solar energy could be used to comply with the Minnesota SES, a mandate that sets Minnesota apart from other jurisdictions
- the distributed solar facilities are all near load centers located only in the state of Minnesota
- the Commission has already examined the costs and benefits of the distributed solar energy for Minnesota ratepayers and found it to be in the public interest
- the Commission may wish to advance Minnesota's efforts as a leader in development of distributed renewable energy projects

The inclusion of regulatory provisions in this PPA. When the Commission ordered Xcel to develop a PPA with Geronimo, it did so expecting Xcel to implement its findings. It did not

⁴⁹ See ORDER, in Docket 10-1054, issued June 6, 2011.

expect Xcel and Geronimo to reinterpret their obligations under the Order. Specifically, Xcel and Geronimo have included certain provisions in the PPA concerning deadlines for decisions by different jurisdictions. These could potentially terminate the PPA and thus the project, outcomes not contemplated or contained in the Commission's Order. In effect, Xcel and Geronimo are imposing their own regulatory requirements through the PPA.

Although the Commission could consider striking certain provisions of the PPA that it finds objectionable, language in the PPA states "State Regulatory Approval" means a final, written order of one State Regulatory Agency, or if needed, both State Regulatory Agencies, that does not impose conditions unsatisfactory to the Company....". This language makes it likely that Xcel would terminate the project as a result of delay caused by striking provisions or imposing conditions through Order.

As a matter of policy it seems unreasonable and inappropriate for a PPA to put limits on the timing and type of actions the Commission must take. To say that within six months of submission the Commission (or Commissions) must approve 100% cost recovery by Minnesota retail ratepayers is unreasonable. The effect is to pressure the Commission not to change or challenge the provisions of the PPA.

Cost recovery for renewable energy pursuant to Minn. Stat. §216B.1645. Ordinarily, Xcel would have requested approval of the Geronimo PPA pursuant to Minn. Stat. §216B.1645, under which a utility can petition the Commission for approval of a PPA entered into to meet the renewable energy standards set forth in Minn. Stat. §216B.1691. As part of the same filing or as part of a second filing but "upon petition by a utility," the Commission can approve an automatic adjustment charge to recover the expenses or costs approved under the approved PPA.⁵⁰ This case is unusual because Xcel did not formally petition for approval of the PPA or to recover costs associated with the PPA through an automatic adjustment charge. Staff assumes that if the Commission were to approve the Geronimo PPA, Xcel would file for approval to recover PPA costs under an automatic adjustment mechanism pursuant to this section.⁵¹

Alternative directions for the Commission. Staff has identified four directions in which the Commission might proceed.

First, the Commission could deny Geronimo's request for a finding on cost recovery at this time without prejudice and move all issues associated with cost recovery, including Geronimo's request, to another docket. As noted above, since many of the issues surrounding cost recovery have not been raised or addressed in the record, the Commission may feel most comfortable with this direction. Jurisdictional allocation is typically addressed in rate cases, and ratepayer organizations used to addressing the issue there may not have become aware of the request here

⁵⁰ Minn. Stat. §216B.1645, Subd. 2, states that "the commission may not approve recovery of costs of that portion of the power generated from sources governed by this section that the utility sells into the wholesale market."

⁵¹ Under the Geronimo PPA, payment is structured based on a "solar energy payment rate" which is a blended energy/capacity payment per MWh. See PPA, Attachment C, Exhibit J.

given the unique circumstances of this case. The separate docket would allow them to review this issue more completely.

Second, the Commission could approve Geronimo's request for 100% recovery from Minnesota retail ratepayers but order Xcel to continue its efforts to seek cost recovery from other jurisdictions, distinguishing the specific circumstances under which the Commission intends to make such a finding to avoid setting a precedent. This approach could help mitigate the time constraints placed on the project by the regulatory approval provisions in the PPA and the ITC deadline.

In addition, the Commission could include a requirement that Xcel identify and quantify all of the benefits associated with the project and develop a proposal to assure that these benefits are allocated to Minnesota ratepayers.⁵² The DOC noted that it would be in favor of such an approach, identifying and assigning both costs and benefits, if the Commission were to approve the Geronimo's request for cost recovery.⁵³

Third, the Commission could deny the Geronimo request but require Xcel to come back to the Commission for approval if it intends to execute certain provisions in the PPA, specifically any provisions that would terminate the PPA.

Fourth, the Commission could strike provisions in the PPA that create some of the problems discussed above. However, the Commission should note there is language in the PPA such that if the action of striking provisions is deemed unsatisfactory to the Company, it can terminate the PPA.

⁵² Such benefits might include: (1) charging higher prices to North Dakota on hot days when LMPs are extremely high, (2) allocating the value of all S-RECs to Minnesota retail customers unless they are compensated for the S-RECs, and/or (3) allocating to Minnesota only any 111(d) compliance value achieved through the project.

⁵³ The DOC suggested a subsequent proceeding, the overall goal of which would be "to ensure that Xcel's cost recovery of resources used to serve more than one jurisdiction reasonably reflects the costs of such resources as well as the benefits each jurisdiction receives."

IX. Decision Options

Need Update

A. Should any action be taken as a result of the need information provided by Xcel in its September 2014 Need Update and subsequent filings in this docket?

Power Purchase Agreements

B. Should the Commission approve the solar power purchase agreement?

- 1) Find that the Aurora Project PPA terms are consistent with the public interest and consistent with the prices and terms used to evaluate its bid in this process, and approve the PPA between Aurora Distributed Solar, LLC and Xcel.
- 2) Take no action.

C. Should the Commission select any of the thermal power purchase agreements for approval?

- 1) Find that the Calpine Mankato PPA terms are consistent with the public interest and consistent with the prices and terms used to evaluate its bid in this process; and approve the PPA between Calpine Corporation and Xcel.
- 2) Find that the Invenergy Cannon Falls PPA terms are consistent with the public interest and consistent with the prices and terms used to evaluate its bid in this process; and approve the PPA between Invenergy Thermal Development, LLC and Xcel.
- 3) Find that the Black Dog 6 price terms are consistent with the public interest and consistent with the prices and terms used to evaluate its bid in this process; and approve the Black Dog 6 proposal.
- 4) Take no action.
- 5) Take some other action.

Cost Recovery

D. Solar Cost Recovery

- 1) Approve Geronimo's request for recovery of 100% of the costs associated with the Geronimo PPA from Minnesota retail ratepayers under the specific fact scenario of this case, and subject to the following:

- Require Xcel to continue its efforts to pursue cost recovery in other jurisdictions, including North Dakota, South Dakota, Wisconsin and Michigan.
 - Require that Minnesota retail ratepayers incur no costs associated with sales of wholesale energy.
 - Open a separate proceeding in which Xcel is directed to make a specific proposal for implementing the requirements of the two bullet points above. The proceeding is also intended to identify and quantify benefits associated with the Geronimo project and determine how those benefits should be allocated to jurisdictions according to their jurisdictional recovery of project costs from ratepayers.
 - Delegate to the Executive Secretary the authority to issue notices and establish and amend time lines and procedures to implement the above process.
- 2) Deny without prejudice Geronimo's request for a finding on cost recovery and move all issues associated with PPA cost recovery to a separate proceeding, including Geronimo's request for a finding allowing recovery of 100% of the costs associated with the PPA from Minnesota retail ratepayers.
 - 3) Deny Geronimo's request for a finding allowing recovery of 100% of the costs associated with the Geronimo PPA from Minnesota retail ratepayers. Find that Xcel may recover only the Minnesota retail jurisdictional portion of the PPA costs from Minnesota retail ratepayers. Find that regulatory provisions in the PPA, specifically Term 6.1 and the definition of "State Regulatory Approval," should be stricken from the PPA.
 - 4) Require that, if Xcel decides to execute any provisions that would terminate the PPA, it must return to the Commission for approval to do so.
 - 5) Take some other action.

Miscellaneous

E. Geronimo Motion

- 1) Grant Geronimo's Motion to "not consider nor rely upon comments or information it receives as a result of Xcel's violation of the Protective Order."
- 2) Deny Geronimo's Motion
- 3) Take no action.

Appendix A

The Competitive Bidding Process / Track Two Process

Pursuant to Statute, a utility may select generation resources to meet its projected energy demand through a Commission established bidding process.⁵⁴ For Xcel, the Commission approved a bidding process in Xcel's 2004 IRP Docket (E002/RP-04-1752).⁵⁵ Xcel's process involves two tracks:

- Track One to be utilized in instances where Xcel *is not* proposing a competing proposal
- Track Two to be utilized in instances where Xcel Energy *is* proposing a self-build option

This docket utilized the track two process since Xcel proposed a self-build option (Black Dog 6). The track two process, generally, follows these steps, as outlined by Xcel in a 2006 compliance filing:⁵⁶

1. The Commission issues a Resource Plan Order:
 - a. Identifying the size, type and timing of the resource needs;
 - b. Specifying the date to initiate the competitive process.
2. On the date specified by the Commission, Xcel Energy submits its detailed filing for approval of its preferred resource...
3. On the same date as Xcel Energy's submission described in Step 2, interested competitors (or alternative projects) provide their proposals in similar certificate of need-like detail.
4. A contested case (certificate of need-like proceeding) is conducted, returning findings and recommendations to the Commission.
5. The Commission considers the developed record and issues its decision.
6. If the Commission selection (or preferred) option is not Xcel Energy's proposal, a four-month period for PPA negotiations is provided. If the Commission selected option is Xcel Energy's proposal, the Commission Order provides the requested (or Commission modified) approval.
7. Following the four-month negotiation period (or earlier as applicable) Xcel Energy petitions for approval of the PPA. If the parties are unable to reach a PPA, Xcel Energy shall file an explanation with the Commission and requested next steps (such as moving to another considered alternative proposal or the Company's original proposal).
8. For an approved PPA, the project would proceed to obtain any remaining permits, but a certificate of need would not be required per Minn. Stat. 216B.2422, subd. 5.
9. Upon receipt of all needed permits, the project proceeds with construction.

⁵⁴ Minn. Stat. § 216B.2422

⁵⁵ [Commission May 31, 2006 Order Establishing Resource Acquisition Process.](#)

⁵⁶ See *In the Matter of Xcel Energy's Application for Approval of its 2005-2019 Resource Plan*, Compliance Filing – Resource Acquisition Process, E002/RP-04-1752, August 28, 2006