



ATTORNEY GENERAL

STATE OF MINNESOTA

OFFICE OF THE ATTORNEY GENERAL

January 31, 2014

Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: Reply Exceptions of the Minnesota Department of Commerce, Division of Energy Resources

OAH Docket No. 08-2500-30760
MPUC Docket No. E002/CN-12-1240

Dear Dr. Haar:

The Reply Exceptions and Findings of Fact, Conclusions of Law and Recommendation of the Minnesota Department of Commerce, Division of Energy Resources are hereby efiled and served in the above matter.

Sincerely,

/s/Julia E. Anderson
JULIA E. ANDERSON
445 Minnesota Street, Suite 1800
St. Paul, MN 55101-2134
Telephone: 651-757-1202

Attorney for Minnesota
Department of Commerce,
Division of Energy Resources

cc: Service List
Enclosure

**BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION
SUITE 350
121 7th PLACE EAST
ST. PAUL, MINNESOTA 55101-2147**

Beverly Jones Heydinger
David C. Boyd
Nancy Lange
J. Dennis O'Brien
Betsy Wergin

Chair
Commissioner
Commissioner
Commissioner
Commissioner

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

PUC Docket No. E002/CN-12-1240
OAH Docket No. 08-2500-30760

**REPLY EXCEPTIONS
OF THE MINNESOTA DEPARTMENT OF COMMERCE,
DIVISION OF ENERGY RESOURCES**

JANUARY 31, 2014

REPLY EXCEPTIONS TO THE ALJ RECOMMENDATIONS
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

DOCKET NO. E002/CN-12-1240

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I. INTRODUCTION

On December 31, 2013, the Administrative Law Judge (ALJ) filed the ALJ's *Findings of Fact, Conclusions of Law and Recommendation* (ALJ Recommendations) to the Minnesota Public Utilities Commission (Commission) in the *Matter of the Petition of Northern States Power Company to Initiate a Competitive Resource Acquisition Process* (Docket No. E002/CN-12-1240).

On January 3, 2014 the Commission issued its *Notice of Schedule for Filing Exceptions to the Administrative Law Judge Report* (Notice). The Notice established January 21, 2014 as the due date for exceptions and January 31, 2014 as the due date for reply exceptions.

On January 21, 2014 the following parties filed exceptions:

- Calpine Corporation and its affiliate Mankato Energy Center, LLC (Calpine)—*Exceptions to the Findings of Fact, Conclusions of Law and Recommendation* (Calpine Exceptions);
- Geronimo Wind Energy, LLC d/b/a Geronimo Energy, LLC's (Geronimo)—*Exceptions to the ALJ's Report* (Geronimo Exceptions);
- Great River Energy (GRE)—*Exceptions to the ALJ Report* (GRE Exceptions);
- Invenergy Thermal Development LLC's (Invenergy)—*Exceptions to the Findings of Fact, Conclusions of Law and Recommendation of the ALJ* (Invenergy Exceptions);
- Minnesota Department of Commerce, Division of Energy Resources (Department)—*Exceptions to the ALJ Recommendations of the Minnesota Department Of Commerce, Division of Energy Resources* (Department Exceptions); and
- Northern States Power Company d/b/a Xcel Energy (Xcel)—*Exceptions to ALJ Report* which includes Xcel's proposed redline revisions to the ALJ Report (Xcel Exceptions).

Below are the reply exceptions of the Department.

II. DEPARTMENT'S REPLY EXCEPTIONS

A. ALL-SOLAR BIDDING

The Department has recommended throughout its testimony and in its Exceptions in this proceeding that the Commission require Xcel to start an All-Solar bid as soon as possible. In its Exceptions, Xcel indicated that the Company was in the process of beginning such a bid:

We are a leader in renewable generation and consider the addition of solar energy to our system to be an important part of our future resource mix. We look forward to the opportunities presented by large scale solar energy. Such a resource has the potential to become cost-effective and could transform our system, much like the addition of wind has. To further the procurement of cost-

effective solar resources, we are developing a competitive solar resource acquisition plan to ensure that by 2020 we have sufficient solar energy resources to meet our obligations under Minnesota's new solar energy standard ("SES").

The Department appreciates Xcel's commitment and recommends that the Company provide a plan to comply fully with the Minnesota SES within 30 days of these comments and file a proposed request for proposals (RFP) for an All-Solar bid in a timely manner in a new docket to begin this process as soon as possible.

B. REPLY TO CALPINE

Overall, the Department notes that the Calpine Exceptions:

- stated that the ALJ Recommendations adopted the most conservative forecast in the record and ignored substantial testimony supporting the Commission determined need and the risk of significant retirements in the Midcontinent Independent System Operator, Inc. (MISO) region;
- stated that adoption of the assumptions in the ALJ Recommendations, that the gas-fired resources bid in this proceeding would be available at a later date through a subsequent procurement, would risk the procurement of more expensive resources in the future only after a reliability issue is identified;
- stated that the Department's and Xcel's Strategist analysis supports the selection of Calpine on the basis of present value of societal costs;
- continued to support use of its levelized cost of energy (LCOE) analysis as additional support for its proposal as the lowest cost *thermal* proposal on an LCOE basis;¹ and
- stated that it does not take a position on uses of the LCOE to support Geronimo's proposal.

Below the Department responds to select issues raised by the Calpine Exceptions.

1. Forecast and Required Reserves

As discussed in its Exceptions, the Department agrees with Calpine that the erroneous conclusion in the ALJ Recommendations that Xcel likely will require only 26 MW by 2019 is not supported by the record. In light of all the uncertainties surrounding the need assumptions, the Department recommended that resource acquisition proceedings should consider a range of forecasts.² As the Department stated in its Exceptions filing:

Given the PUC's Order finding need for energy and capacity starting with 150 MW by 2017 and growing to 500 MW by 2019, and the consideration of over 3,600 scenarios, the Department has determined that the ALJ could only conclude as he did through

¹ Note that the ALJ Recommendations at Finding of Fact No. 253 supported use of LCOE analysis as well.

² DOC-DER Ex. 76 at 14 (Shah Direct); DOC Exceptions at 3-4, 9-11.

error. The ALJ's Recommendations, if adopted, would put at risk Minnesota's energy reliability and reasonable rates. Accordingly, the Department recommends that: 1) Calculations be based on the Commission's March 5, 2013 Order finding 150 MW by 2017 and 500 MW by 2019; 2) the Commission adopt the Department's exceptions; and 3) the Commission promptly order Xcel to issue an All-Solar competitive bid.³

As also discussed in its Exceptions, the Department agrees with Calpine that the ALJ Recommendations essentially ignores every risk that Xcel might need up to 500 MW by 2019. Examples of the risks ignored in the ALJ Recommendations, as discussed by Calpine, are presented below.

First, Calpine quotes Xcel witness Mr. Wishart that MISO has not established a long-term reserve margin requirement; thus reserve requirements 5-10 years from now are not very predictable under the current process.⁴ The Department agrees with Calpine and Xcel that it is uncertain that the same reserve requirement methodology will be in place next year, let alone in 2019. This fact is one reason the Department studied Xcel's system under more than one reserve requirement method.⁵ The recommendation in the ALJ Recommendations does not address this uncertainty.

Second, Calpine quotes the ALJ Recommendations as calculating a reduction in the net peak demand of between 275 MW and 290 MW due to the new MISO method of calculating reserves.⁶ The Department agrees with Calpine that to reach such an adjustment the ALJ Recommendations must assume that:

- 1) Xcel and MISO reach a peak demand at significantly different times—which did not happen in three of the seven years between 2006 and 2012;⁷ and
- 2) MISO's current interim reserve margin methodology applies in 2017 and beyond—while MISO has not yet established a long term planning reserve criteria.⁸

Resource planning, certificates of need and competitive bidding all must ensure that utilities are able to provide reliable service at reasonable rates, under a variety of circumstances. However, the recommendations in the ALJ Recommendations do not meet this fundamental principle and instead would put Xcel's ratepayers at risk of paying higher rates for service that may be less reliable.⁹

³ DOC Exceptions at 2.

⁴ Ex. 46 at 10 (Wishart Direct).

⁵ Ex. 83 at 22-27 (Rakow Direct).

⁶ ALJ Recommendations at 26, Finding 180.

⁷ Ex. 46 at 9 (Wishart Direct).

⁸ Ex. 46 at 10 (Wishart Direct).

⁹ Ex. 76 at 14 (Shah Direct).

2. *New Procurement Process After 2019*

The Department also agrees with Calpine that the assumption in the ALJ Recommendations that resources can be added effectively and efficiently after 2019 through a separate procurement process is flawed. As the Department stated in its Exceptions filing:

The ALJ Recommendations contain a number of errors; this process was complex, time intensive and likely unfamiliar. In addition, the ALJ Recommendations made a number of assumptions that were not supported by the record, which could lead to negative consequences for Xcel's ratepayers. For example, the ALJ Recommendations assumed that the gas turbines that were bid into this process would continue to be available to Xcel in the future (paragraph 261):

If gas turbines are needed to meet larger, forecasted needs after 2019, these turbines can be constructed and placed into service within 21 months of a need determination by the Commission.

However, given the regional nature of the electric system, and the record in this matter, there is no basis to conclude that the gas turbines bid into this proceeding would be available to any Minnesota utility, or that the non-utility bidders would be willing to construct the projects at that time or at the prices bid. Moreover, as discussed further below, it is not reasonable to make such an assumption given changes expected in the electric industry in the near future.¹⁰

3. *Quantitative Analysis and Calpine's Proposal*

The Calpine Exceptions state that all of the quantitative analysis in this proceeding supports Calpine's proposal.¹¹ The Department agrees with Calpine that all three sets of quantitative analysis resulted in Calpine's proposal being selected.¹² However, the Department disagrees with Calpine's assertion (and that of the ALJ Recommendations) that LCOE analysis is useful in this proceeding. For a complete discussion of the issue see the Department's December 6, 2013 Reply Brief at page 35.

4. *Emissions Analysis and Calpine's Proposal*

The Calpine Exceptions discuss the conclusions in the ALJ Recommendations that Geronimo's solar proposal was superior to the gas-fired resources proposed from an

¹⁰ Department Exceptions at 5-6.

¹¹ Calpine Exceptions at 15-26.

¹² See Ex. 52 at 10 (Hibbard Direct); Ex. 83 at 43 (Rakow Direct); Ex. 86 at 21 (Rakow Rebuttal); Ex. 46 at 40-41 (Wishart Direct).

environmental/emission perspective.¹³ The Calpine Exceptions show that Calpine's combined cycle (CC) or intermediate proposal has lower emissions than the combustion turbine (CT) or peaking proposals of Xcel and Invenergy. In response, the Department notes that emissions should not have been considered separately for any proposal since the estimated impact of emissions are integral in the Department's overall cost analysis, based on the Commission's approved externality values and internal cost of CO₂ estimate. Such values were included in all of the Strategist analysis presented in this proceeding.¹⁴ Further, such analysis should be based upon analysis of how the addition of new units affect the emissions on Xcel's entire system.¹⁵

5. MISO

The Department also agrees with Calpine regarding reliance on the effects of changes in MISO's reserve margin requirements and the potential for capacity deficits in MISO. As the Department stated in its Exceptions filing¹⁶:

The ALJ Recommendations relied more than is reasonable on the proposed changes in capacity reserve requirements of the Midcontinent Independent System Operator, Inc. (MISO);

The ALJ Recommendations states that, if MISO changes its estimates of the amount of capacity a utility must have on reserve in case of an outage on the electric system, then Xcel will need less capacity.¹⁶ However, the Commission's decisions in resource planning are not dictated by MISO's policies; MISO's policies pertain only to the reliability of the transmission system since MISO has no authority over generation resources and defers to states' resource planning authority for such matters. Further, the ALJ Recommendation did not consider the impact of MISO's policies upon accreditation of demand-side resources.¹⁷

While the Commission certainly can take note of MISO's policies regarding transmission capacity, the Commission is responsible for determining the amount of supply-side and demand-side resources that each utility must have to meet the needs of their ratepayers reliably. In fact, that is what the Commission did in finding that Xcel had a need of 150 MW in 2017, growing to 500 MW by 2019.

Moreover, in assessing GRE's capacity-only bid, the Commission may wish to take administrative notice of MISO's recent forecast of a capacity deficit within MISO's footprint of 3,000 to 7,000 MW in 2016.¹⁸ If such deficits materialize, the market-based

¹³ Calpine Exceptions at 26-29.

¹⁴ Ex. 83 at 19, 36-37 (Rakow Direct); Ex. 46 at 21-22 (Wishart Direct).

¹⁵ Ex. 46 at 19 (Wishart Direct); Ex. 83 at 14 fn 4 and 17 (Rakow Direct).

¹⁶ DOC Exceptions at 9, 11-12.

energy that would be needed with the capacity-only proposal of GRE, as in the ALJ Recommendations, could be prohibitively expensive under such a shortage.

16 Finding of Fact 239.

17 Ex. 83 at 24-25 (Rakow Direct).

18 (footnote omitted)

C. REPLY TO GERONIMO

Overall, the Department notes that the Geronimo Exceptions:

- acknowledged that the ALJ Recommendations mischaracterized the Department's analysis in stating that the Department only evaluated combinations of plants that produced 300 MW by 2019 and recommended changes acknowledging the DOC analysis of smaller plants; and
- supported the conclusions in the ALJ Recommendations.

Below the Department responds to select issues raised by the Geronimo Exceptions.

1. Agree With Geronimo's Proposed Revisions to Findings of Fact Nos. 15, 16, and 151

The Geronimo Exceptions provide minor corrections to the ALJ Recommendations regarding wind in-service dates, wind accreditation dates, and the definition of PVRR (present value of revenue requirements).¹⁷ Regarding the few changes Geronimo recommends to the ALJ Recommendations, the Department agrees with changes that Geronimo proposes to Findings of Fact Nos. 15, 16, and 151.

2. Agree In Part with Geronimo's Proposed Revisions to Finding of Fact No. 181

Regarding Geronimo's proposed revision to Finding of Fact No. 181 (evaluating combinations of at least 300 MW),¹⁸ the Department agrees that the ALJ Recommendations requires revision. The Department agrees that Geronimo's exceptions accurately reflect the Department's analysis in that the Department analyzed packages that were less than 300 MW and allowed generic units to be added so that Xcel's system meets reliability requirements. However, Geronimo's exceptions do not reflect the full extent of the revisions necessary to this Finding.

The Department's analysis in the first round included several different versions of forecasts, solar accreditation, reserve methods, and wind additions, producing a wide variety of needs (both above and below 300 MW figure cited by the ALJ Recommendations).¹⁹ The Department's analysis in the second and third rounds included several different forecast

¹⁷ Geronimo Exceptions at 2-4.

¹⁸ Geronimo Exceptions at 4.

¹⁹ Ex. 83 at 20-29 (Rakow Direct); Ex. 84 at SR-3 and SR-4A, (Rakow Direct Attachments).

uncertainties, again producing a wide variety of needs (both above and below 300 MW figure cited by the ALJ Recommendations).²⁰ Therefore, in order to accurately reflect the record Finding of Fact No. 181 requires substantially greater revision than that proposed by Geronimo.

As shown in proposed Finding of Fact 190 in the Department's companion document showing revisions needed to the ALJ Recommendations, Finding of Fact 181 should be revised as follows:

Both the Department and Xcel only evaluated combinations of energy plants that produced 300 MW by 2019. In the first round of Strategist analysis the Department evaluated 24 different combinations forecast, solar accreditation, required reserve ratios, and wind additions. This analysis resulted in a wide variety of capacity deficits. In the second round of Strategist analysis, under base case conditions the Department's model has a deficit of about 300 MW by 2019. However, the Department also used four different forecast contingencies, again presenting Strategist with a variety of capacity deficits. Xcel's Strategist analysis evaluated the proposals assuming a deficit of about 300 MW in 2019.²¹

D. *REPLY TO GRE*

Overall, the Department notes that the GRE Exceptions:

- recommended that its capacity credit bid should be selected before Geronimo's bid;
- took exception to the use of LCOE to compare projects; and
- stated that on a capacity cost basis its proposal is best and does not require any new resources to be built.

Below the Department responds to select issues raised by the GRE Exceptions.

1. *Cost per MW*

Page 2 of the GRE Exceptions states:

The Commission identified Xcel Energy's need for capacity, not energy. No party has asserted that GRE's capacity credit proposal should not be selected because it does not include an energy component. The appropriate test, therefore, is evaluation of the cost of capacity, on a per MW basis.

²⁰ Ex. 83 at 36-37 (Rakow Direct); Ex. 84 at SR-5A, and SR-5B (Rakow Direct Attachments).

²¹ Ex. 46 at 10-11 (Wishart Direct); Ex. 84 SR-3 and SR-4A (Rakow Direct Attachments).

GRE provided no basis to conclude that the Commission found that Xcel had no energy need and thus the costs of energy should be ignored. In fact, the Commission's November 30, 2012 *Order Establishing Procedural Schedules and Filing Requirements* in Docket No. E002/RP-10-825, which started the Competitive Resource Acquisition Process stated at page 5:

Xcel then selects a reference case or base case – that is, a set of supply- and demand-side resources to be evaluated, and against which to compare alternative combinations of supply- and demand-side resources. Using a computer model, Xcel then evaluates how well any given resource plan would perform under a variety of conditions, or scenarios. Xcel varies assumptions about the amount of customer demand; the amount of fuel costs; the cost of complying with environmental regulations, including CO₂ costs; and whether Congress extends the Production Tax Credit.

In referring to fuel costs, CO₂ costs and potential extension by Congress of the Production Tax Credit, the Commission's Order refers to the energy resources that would accompany capacity resources.

2. *Scalability*

The GRE Exceptions state the following:

GRE supports Judge Lipman's recommendation to select the "scalable alternatives" offered by GRE and Geronimo to meet Xcel Energy's needs between 2016 and 2019.

... As the ALJ found, GRE's proposal to sell up to 200 MW of capacity credits for periods ranging from one to three years is fully scalable to meet Xcel Energy's changing capacity needs.²²
[Citations omitted]

GRE's proposal is for a short-term supply of capacity. As discussed in the Department's Exceptions, there is a risk to Xcel's ratepayers as to the capacity needs of the region and how such regional needs might impact Xcel.²³ As the Department Exceptions at page 12 stated:

...in assessing GRE's capacity-only bid, the Commission may wish to take administrative notice of MISO's recent forecast of a capacity deficit within MISO's footprint of 3,000 to 7,000 MW in

²² GRE Exceptions at 1-2.

²³ Ex. 52 at 26 fn 30 (Hibbard Direct), which states:

Sherco Study at p. 7. It should also be noted that Xcel may not be able to rely on transactions with neighboring regions to help, should compliance raise resource mix challenges. MISO as a whole is heavily reliant on coal-fired baseload resources, and has identified potential retirement of such resources due to EPA requirements only (that is, not accounting for potential CO₂ requirements) as a risk to maintaining planning reserve margins. Potomac Economics, "2012 State of the Market Report for the MISO Electricity Markets," June 2013 at pp. 16-17.

2016. (Footnote omitted) If such deficits materialize, the market-based energy that would be needed with the capacity-only proposal of GRE, as in the ALJ Recommendations, could be prohibitively expensive under such a shortage.

3. *Miscellaneous Issues with GRE's Exceptions*

GRE's exceptions list two other advantages for GRE's proposal. These advantages and a brief reply are below:

- No new permitting needed²⁴—the Department agrees that GRE's proposal eliminates permitting uncertainty.²⁵ However, in terms of costs, permitting activities would have been included within the cost of the bids which require permits and thus the cost-related benefits of no permitting have already been considered.
- No cancellation costs²⁶—the Department agrees with GRE that the short term nature of GRE's proposal limits the risk of cancellation costs.²⁷ However, as discussed above, the short term nature of GRE's proposal also creates exposure to off-setting risks regarding the cost of expansion units once the end date of GRE's proposal is reached.²⁸

E. *REPLY TO INVENERGY*

Overall, the Department notes that the Invenergy Exceptions:

- disputed the ALJ Recommendation's finding that Xcel may only require 26 MW by 2019—Invenergy stated that the Commission determined the need in its Notice and Order for Hearing in this docket and that the record cannot support the reversal of the Commission's prior finding of 150 MW by 2017 increasing up to 500 MW by 2019;
- disputed ALJ Report's finding that the LCOE is the better prediction of cost and impacts to ratepayers—Invenergy referenced the EIA analysis which states the LCOE is a misleading method when assessing different types of generation;
- argued that because:
 - 1) Xcel's existing CC units are operated at a 20% capacity factor, and
 - 2) Xcel added 750 MW of wind instead of the 200 MW contemplated in Xcel's integrated resource plan (IRP),
CT resources (Invenergy) make more sense than CC resources (Calpine); and
- disputed the reliance in the ALJ Recommendations on the solar standard—Invenergy stated that the Commission identified need for peaking and intermediate resources, not intermittent. Further, without an all-solar RFP process, Xcel ratepayers may be exposed to unnecessary costs.

²⁴ GRE Exceptions at 2.

²⁵ Ex. 38 at Table 10 (Environmental Report).

²⁶ GRE Exceptions at 2.

²⁷ Note that this issue was not raised in testimony by GRE; instead it was discussed in the ALJ Recommendations.

²⁸ The ALJ Recommendations (at, for example, Finding of Fact No. 258) appears to confuse this risk with a benefit rather than considering it as a cost.

Below the Department responds to select issues raised by the Invenergy Exceptions.

1. Forecast Range

On page 6, the Invenergy Exceptions state the following:

The ALJ Recommendation also focused significant attention on Xcel's most recent forecast. That forecast was discussed but not fully vetted in this record due to the time constraints. Notably, in this newer forecast the Xcel system continues to show a declining load factor, further influencing the choice of resource in this proceeding. As the Department noted:

Xcel predicts a significant change in the overall load factor of its system. Specifically, Xcel's prediction that customers will use less energy overall while making *higher demands on Xcel's peak* means that Xcel predicts that its load factor will decrease significantly over time, with customers demanding ever more from Xcel's peak while using less energy overall.

The declining load factor in this most recent update continues a trend for Xcel dating back to 2004 and mirrors the trend seen nationwide over that same time span. Further, Xcel's September 2013 update to its forecast suggested a capacity need of just 93 MW in 2017, as compared to the 2010 IRP Docket forecast showing a 150 MW need.

While the ALJ Recommendation seizes on the possibility of lower overall need, it ignores the impact of the continuing trend of a declining load factor. [Citations omitted]

The Department agrees with Invenergy that the ALJ Recommendations focused on Xcel's most recent forecast rather than the range of forecasts that Mr. Shah recommended and Dr. Rakow used in beginning his assessment of the bids.²⁹

Mr. Shah questioned the basis of Xcel's predictions about its load factor changing over time and Xcel's use of the spring 2013 forecast as a base case.³⁰ Further, Mr. Shah pointed out the unusual impact of the changes from the fall 2011 forecast to the spring 2013 forecast; see Figure 1 in Mr. Shah's direct testimony.³¹

As a result of the Department's concerns,³² the Department used the Commission-approved fall 2011 forecast that the Department had already analyzed in Docket No. E002/RP-10-825. Further, the Department used a forecast band that was wide enough to encompass the

²⁹ Ex. 76 at 12-14 (Shah Direct).

³⁰ See Ex. 76 at 10-11 (Shah Direct).

³¹ Specifically Ex. 76 at 9 (Shah Direct).

³² See Ex. 76 at 3-14 (Shah Direct).

spring 2013 forecast. This fact is demonstrated by Figures 2 and 3 from Mr. Shah's direct testimony.³³

As explained by Mr. Shah, the uncertainty band (high and low forecasts) above and below the 2011 forecast used by the Department in the modeling's base case already encompassed the Spring 2013 vintage forecast.³⁴ Thus, the Department relied, not only on the forecast that was already analyzed and approved by the Commission and underlying the Commission's 150 MW to 500 MW need determination, but also upon analysis assuming demand and energy forecasts below the level of Xcel's Spring 2013 vintage forecast that was the focus of the conclusions in the ALJ Recommendations.³⁵

As the Department has consistently stated throughout this proceeding, the fundamental goal in certificate of need and resource planning proceedings is not to establish a plan that is least cost under a single forecast but for the plan to be least cost across a wide range of forecasts.³⁶ As discussed in the Department's Exceptions, the Commission should treat forecast uncertainty through careful review of the contingency analysis.

2. *Solar RFP*

The Invenergy Exceptions conclude that:

In order to minimize ratepayer costs of Xcel's solar energy mandate, the Commission should initiate an all-solar RFP after the close of this proceeding. Without such a process, the Commission may well be exposing Xcel ratepayers to unnecessary costs.³⁷

As explained in detail elsewhere in these reply exceptions, the Department agrees with Invenergy that the Commission should initiate an All-Solar RFP to allow for proper notice to be given to potential bidders, obtain more solar projects bids, and as a result provide better information about the potential for solar projects.³⁸

3. *Load Following*

The Invenergy Exceptions state that Xcel will have significantly more intermittent resources on its system in the 2017-2019 time frame."³⁹ As a consequence, Invenergy claims that Xcel will have a need for "fast-start, fast-ramp resources, and provide net-load-following capability in off-line and on-line mode."⁴⁰

³³ Ex. 76 at 12-13 (Shah Direct).

³⁴ *Id.*

³⁵ Ex. 76 at 13 (Shah Direct).

³⁶ See Ex. 76 at 14 (Shah Direct).

³⁷ Invenergy Exceptions at 10.

³⁸ Ex. 83 at 12 (Rakow Direct).

³⁹ Invenergy Exceptions at 4.

⁴⁰ Invenergy Exceptions at 4.

The Department disagrees with Invenergy's claim. The fact is that Xcel's generating units are dispatched by MISO. MISO's dispatch includes not only Xcel's generating units, but the generating units of many utilities in Minnesota and the surrounding states. Thus, any potential needs regarding load following, adjusting to the output of intermittent resources, and so forth must be considered in the broader, regional context of MISO rather than Xcel's system in isolation.⁴¹

4. *Unreviewed Forecast*

The Invenergy Exceptions state that:

The ALJ Recommendation also focused significant attention on Xcel's most recent forecast. That forecast was discussed but not fully vetted in this record due to the time constraints.⁴²

The Department agrees with Invenergy that the ALJ Recommendations relied upon Xcel's most recent forecast and that the forecast was not vetted in this record. There was only one forecast witness in this proceeding, the Department's Mr. Shah who stated "I performed a very limited review of the latest vintage of Xcel's forecast – the spring 2013 forecast – which lead to further concerns as I note later in this testimony."⁴³ Therefore, not only was the forecast not fully reviewed, but the limited review that was performed indicated there may be issues with Xcel's forecast. No witness disputed Mr. Shah's forecasting conclusions. Therefore, the reliance in the ALJ Recommendations on the spring 2013 forecast rather than a forecast range creates a fundamental flaw within the ALJ Recommendations.

5. *Levelized Cost Analysis*

The Invenergy Exceptions object to the ALJ Recommendation's reliance upon levelized cost analysis.⁴⁴ The Department agrees with Invenergy's assertion that the LCOE analysis offered nothing of probative value to this proceeding. For a full discussion of the flaws inherent in the use of LCOE in this proceeding see the Department's December 6, 2013 Reply Brief at page 35.

6. *Reliance On Solar Mandate*

The Invenergy Exceptions object to the ALJ Recommendation's reliance upon the solar mandate that was enacted after the due date for bids in this proceeding.⁴⁵ The Department's Exceptions discuss this issue, including the issue of insufficient notice to other solar bidders that is also discussed in Invenergy's Exceptions.

⁴¹ Ex. 86 at 17 (Rakow Rebuttal).

⁴² Invenergy Exceptions at 6.

⁴³ Ex. 76 at 4 (Shah Direct).

⁴⁴ Invenergy Exceptions at 8-9.

⁴⁵ Invenergy Exceptions at 10.

F. *REPLY TO XCEL*

Overall, the Department notes that the Xcel Exceptions:

- stated that there is uncertainty regarding need, and therefore, a range of forecasts should be analyzed;
- stated that Xcel evaluated a range of needs in reaching its conclusions, while the ALJ Recommendations focused on the low-end of the potential range;
- stated, regarding the ALJ Recommendation's finding that additional gas resources could be acquired in subsequent procurement, that the projects and terms, including price, may not be available in a subsequent procurement, exposing ratepayers to significant risk;
- regarding the ALJ Recommendation's conclusion that the simultaneous negotiation process would distort the Commission's Track 2 process Xcel stated the negotiations with multiple parties will result in better terms for ratepayers and that the terms of the final power purchase agreement (PPA) will be subject to Commission approval;
- stated that it is not in the public interest to select Geronimo in this proceeding because the pricing of Geronimo's proposal is higher than what Xcel has seen in solar bids in other jurisdictions and that a competitive solar acquisition process should be used to ensure the lowest priced solar bid the market has to offer are selected;
- stated that it is inappropriate for the ALJ Recommendations to state that the use of LCOE is appropriate to compare different types of generation and that Strategist is the appropriate tool;
- regarding the ALJ Recommendation's as to inclusion of revenues from the sales of solar renewable energy credits (S-RECs), Xcel stated that it cannot both use the S-RECs to meet the new solar standard and sell the credits to raise millions of dollars;
- regarding the ALJ Recommendation's as to inclusion of avoided transmission costs, Xcel stated that any savings is speculative since, per MISO's rules governing the network transmission service charges, Xcel transmission payments will not change as a result of the addition of the Geronimo project; and
- stated that statutory preferences for renewable resources cannot be interpreted as preferring renewables at any price.

The Department addressed a number of these issues either above or in its Exceptions and does not repeat that discussion here. However, the Department responds to select issues raised by the Xcel Exceptions.

1. *Consequences of Delay*

The Xcel Exceptions state:

...it takes nearly a year and a half to develop and select a proposal once a need is identified, which is in addition to the 21 months assumed by the ALJ from the time the selection has been finalized for construction.⁴⁶

⁴⁶ Xcel Exceptions at 16.

Given Xcel's timeline of 1.5 years⁴⁷ to identify and approve a proposal, added to 1.75 years for construction, the result is a lead time of 3.25 years. This result means that if 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 on-line 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.

2. *Subsequent Proceeding*

The Xcel Exceptions stated that the projects and terms, including price, may not be available in a subsequent procurement, exposing customers to significant risk.⁴⁸ The Department agrees, as stated in its Exceptions filing:

Beyond making an untested assumption that the cost per MW of such resources would be the same in the future, the ALJ Recommendations assume that Xcel would be able to obtain these resources in the future, at the same time that other utilities in the region are expected to have needs for capacity on their systems that exceed total system supply. It would not be reasonable to require Xcel's ratepayers to face the risk of paying much higher prices for resources in the future, based on speculative and untested assumptions.⁴⁹

III. CONCLUSIONS AND RECOMMENDATIONS

The Department maintains its recommendations, repeated here for ease of reference:

Overall, given the Commission's finding of the need to acquire capacity of 150 MW by 2017 and 500 MW by 2019 and based on extensive analyses, the Department concluded that three proposed projects are superior: Calpine's Mankato project, Invenenergy's Cannon Falls project, and Xcel's Black Dog Unit 6 project. To maintain competitive pressure on these bids, the Department recommends that the Commission require all three projects to continue in negotiations; it is not expected that all three projects will be chosen. Absent differences negotiated in the PPAs the Department concluded from its analysis that the best package was Calpine's Mankato project combined with Xcel's Black Dog Unit 6 [natural gas] project as needed.

⁴⁷ The Commission's Order in Xcel's IRP was issued March 5, 2013. It appears that Commission selection of a project or projects will occur approximately 1 year later—March 2014. Allowing about 6 months to negotiate, review, and approve power purchase agreements results in a 1.5 year process from identifying a need to ultimate selection of a project.

⁴⁸ Xcel Exceptions at 16.

⁴⁹ DOC Exceptions at 17.

The Department also recommends that the Commission require Xcel to issue an All-Solar RFP with its Order in this matter to obtain the overall best solar projects for meeting Xcel's obligations under Minnesota's recently enacted solar mandate. This approach would also allow for proper notice to be given to potential bidders, obtain more solar projects bids, and as a result provide better information about the potential for solar projects.

Finally, the Department notes that the Department's January 21, 2014 Exceptions included the Department's proposed Findings of Fact that were originally filed in this proceeding on December 6, 2013. The Department submitted the proposed Findings of Fact from the contested case proceeding in order to provide the Commission the ability to adopt the Department's original Findings of Fact rather than attempt to edit the ALJ Recommendations. However, if the Commission prefers to edit the ALJ Recommendations, provided with this Reply Exceptions is a red-lined version of the ALJ Recommendations with the Department's proposed edits.

Date: January 31, 2014

/s/Julia E. Anderson
JULIA E. ANDERSON
445 Minnesota Street, Suite 1800
St. Paul, MN 55101-2134
Telephone: 651-757-1202

Attorney for Minnesota
Department of Commerce,
Division of Energy Resources

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce
Reply Exceptions and Findings of Fact, Conclusions of Law and
Recommendation**

Docket No. E002/CN-12-1240

Dated this **31st** day of **January 2014**

/s/Sharon Ferguson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_12-1240_Official CC Service List
Thomas	Bailey	tbailey@briggs.com	Briggs And Morgan	2200 IDS Center 80 S 8th St Minneapolis, MN 55402	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Michael	Bradley	mike.bradley@lawmoss.com	Moss & Barnett	Suite 4800 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Kodi	Church	kchurch@briggs.com	Briggs & Morgan	2200 IDS Center 80 South Eighth Street Minneapolis, Minnesota 55402	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
James	Denniston	james.r.denniston@xcenergy.com	Xcel Energy Services, Inc.	414 Nicollet Mall, Fifth Floor Minneapolis, MN 55401	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	Yes	OFF_SL_12-1240_Official CC Service List
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_12-1240_Official CC Service List
Linda	Jensen	linda.s.jensen@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota Street St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_12-1240_Official CC Service List
Michael	Krikava	mkrikava@briggs.com	Briggs And Morgan, P.A.	2200 IDS Center 80 S 8th St Minneapolis, MN 55402	Electronic Service	No	OFF_SL_12-1240_Official CC Service List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Lipman	eric.lipman@state.mn.us	Office of Administrative Hearings	PO Box 64620 St. Paul, MN 551640620	Electronic Service	Yes	OFF_SL_12-1240_Official CC Service List
Thomas	Melone	Thomas.Melone@AllcoUS.com	Minnesota Go Solar LLC	222 South 9th Street Suite 1600 Minneapolis, Minnesota 55120	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Brian	Meloy	brian.meloy@stinsonleonard.com	Stinson, Leonard, Street LLP	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Ryan	Norrell	rmnorrell@nd.gov	North Dakota Public Service Commission	600 E. Boulevard Avenue State Capital, 12 th Floor Dept 408 Bismarck, ND 58505-0480	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206 St. Paul, MN 551011667	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	Ste 122 9100 W Bloomington Frwy Bloomington, MN 55431	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Donna	Stephenson	dstephenson@greenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 55369	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_12-1240_Official CC Service List
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_12-1240_Official CC Service List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Katie	Clark Sieben	katie.clark.sieben@state.mn.us	DEED	332 Minnesota St, #E200 1st National Bank Bldg Saint Paul, MN 55101	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Randall	Doneen	randall.doneen@state.mn.us	Department of Natural Resources	500 Lafayette Rd, PO Box 25 Saint Paul, MN 55155	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Travis	Germundson	travis.germundson@state.mn.us		Board of Water & Soil Resources 520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Leah	Hedman	Leah.Hedman@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St Saint Paul, MN 55101	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Ray	Kirsch	Raymond.Kirsch@state.mn.us	Department of Commerce	85 7th Place E Ste 500 St. Paul, MN 55101	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Karen	Kromar	karen.kromar@state.mn.us	MN Pollution Control Agency	520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Susan	Medhaug	Susan.medhaug@state.mn.us	Department of Commerce	Suite 500, 85 Seventh Place East St. Paul, MN 551012198	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Bob	Patton	bob.patton@state.mn.us	MN Department of Agriculture	625 Robert St N Saint Paul, MN 55155-2538	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS
Michele	Ross	michele.ross@state.mn.us	Department of Health	625 N Robert St Saint Paul, MN 55101	Electronic Service	No	SPL_SL_CN - CERTIFICATE OF NEEDS