

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair  
Commissioner  
Commissioner  
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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

ISSUE DATE: February 5, 2015

DOCKET NO. E-002/CN-12-1240

DOCKET NO. E-002/M-14-788

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

DOCKET NO. E-002/M-14-789

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

ORDER APPROVING POWER  
PURCHASE AGREEMENT WITH  
CALPINE, APPROVING POWER  
PURCHASE AGREEMENT WITH  
GERONIMO, AND APPROVING PRICE  
TERMS WITH XCEL

**PROCEDURAL HISTORY**

**I. History Leading to Commission Order**

On November 21, 2012, the Commission initiated Docket No. E-002/CN-12-1240, *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. E-002/CN-12-1240 (*12-1240 Docket*). In it, the Commission directed Northern States Power Company d/b/a Xcel Energy (Xcel) to solicit proposals from project developers to provide the additional resources needed to serve Xcel's customers.<sup>1</sup> The Commission later found that Xcel had demonstrated the need for an additional capacity of 150 megawatts (MW) by 2017, increasing up to 500 MW by 2019.<sup>2</sup> These findings provided the context in which project developers submitted their proposals.

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<sup>1</sup> *12-1240 Docket*, Order Closing Docket, Establishing New Docket, and Schedule for Competitive Resource Acquisition Process (November 21, 2012).

<sup>2</sup> See *In the Matter of Xcel Energy's 2011-2025 Integrated Resource Plan*, Docket No. E-002/RP-10-825, Order Approving Plan, Finding Need, Establishing Filing Requirements, and Closing Docket (March 5, 2013).

On December 31, 2013, an administrative law judge (ALJ), after conducting evidentiary hearings in the *12-1240 Docket*, issued his Findings of Fact, Conclusions of Law, and Recommendation.<sup>3</sup> The ALJ concluded that changes in Xcel's need forecast justified a strategy of minimizing capital commitments. In this context the ALJ concluded that the solar-powered generators proposed by Geronimo Wind Energy, LLC, d/b/a Geronimo Energy, LLC (Geronimo) provided the optimal combination of low cost and high flexibility. To the extent the Commission found it appropriate to acquire additional capacity, the ALJ recommended buying a utility's *capacity credits* – that is, the right to transmit electricity across the transmission grid for two or three years.

## **II. May 2014 Order**

After lengthy proceedings, on May 23, 2014, the Commission issued its Order Directing Xcel to Negotiate Draft Agreements with Selected Parties (May 2014 Order). In that order the Commission found that Xcel continued to need new sources of generation to meet its customers' needs. The Commission found that the cost of the temporary capacity credits was greater than the cost of simply accelerating the implementation of some more permanent solution. And the Commission found that the record justified ordering Xcel to pursue negotiating finalized terms for four rival proposals:

- Geronimo's collection of solar-powered generators to be installed at various locations throughout Minnesota, with an accredited capacity of 72 megawatts (MW).
- Calpine Corporation's Mankato Energy Center II, a 345 MW gas-powered generator to be installed in Mankato.
- Invenergy Thermal Development, LLC, (Invenergy)'s Cannon Falls II, 178.5 MW gas-powered generator to be installed in Cannon Falls.
- Xcel's Black Dog Unit 6, a 215 MW gas-powered generator to be installed in Burnsville.

Specifically, the Commission selected Geronimo's proposal for implementation, provided the parties could negotiate a power purchase agreement that was consistent with the public interest. The Commission also stated that it would review the finalized agreements for Calpine's and Invenergy's proposals, and price terms for Xcel's proposal, to determine which, if any, would best address Xcel's remaining system needs.

## **III. Subsequent Events**

Calpine, Geronimo, and Invenergy each formed subsidiaries -- respectively, Mankato Energy Center II, LLC; Aurora Distributed Solar, LLC; and Invenergy Cannon Falls II, LLC -- for the purpose of owning and operating their proposed projects. For ease of exposition, in this order these entities will also be referred to as Calpine, Geronimo, and Invenergy, respectively.

On September 23, 2014, Xcel made the compliance filing required by the May 2014 Order; Xcel revised the filing on October 2. The filing contained the following:

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<sup>3</sup> *12-1240 Docket*, Findings of Fact, Conclusions of Law, and Recommendation (December 31, 2013).

- A draft power purchase agreement (PPA) that Xcel had negotiated with Geronimo for generators to begin operations by 2016.
- Draft agreements that Xcel had negotiated with Calpine and Invenergy, and a statement reaffirming terms Xcel had previously proposed for Black Dog Unit 6, for generators to begin operations by 2018 or 2019.
- Xcel's updated assessment of need, now predicting that Xcel would not require additional resources until 2024.

Citing its revised need assessment, Xcel's recommended that the Commission refrain from selecting any gas-powered generators at this time, and instead authorize Xcel to re-negotiate the agreements to establish terms for a later implementation date. And Xcel recommended, in effect, that the Commission refer consideration of Geronimo's proposal to a separate docket for solar-powered generators, discussed below.

On September 25, 2014, the Commission initiated two dockets -- Docket No. E-002/M-14-788, *In the Matter of a Draft Purchase Power Agreement with Geronimo Wind Energy, LLC, d/b/a Geronimo Energy, LLC*, and Docket No. E-002/M-14-789, *In the Matter of Draft Purchase Power Agreements with Calpine Corporation and Invenergy Thermal Development and Proposed Price Terms for Black Dog Unit 6* -- soliciting comments on Xcel's compliance filing.

By November 3, 2014, the Commission had received comments, reply comments, or both, from –

- the project developers,
- the Minnesota Department of Commerce (the Department), and
- the Minnesota Center for Environmental Advocacy (MCEA), appearing on behalf of MCEA, Fresh Energy, Sierra Club, and Izaak Walton League - Midwest Office (collectively, the Environmental Intervenors).

On December 8, 2014, the Commission met to receive oral arguments from the parties.

On December 12, 2014, Xcel filed proposed revisions to Geronimo's power purchase agreement that were agreeable to both Xcel and Geronimo, in response to the Commission's concerns about the agreement's language governing cost recovery. In addition, Geronimo and Xcel filed joint comments addressing these concerns.

On December 15, 2014, the Commission met to consider the matter, and again received comments from the parties.

## **FINDINGS AND CONCLUSIONS**

### **I. Summary**

In this order the Commission reviews Xcel's compliance filing, and the parties' comments on it. The Commission then reviews salient terms for the projects offered by the various developers. Finally, in rendering a decision on the merits, the Commission does the following:

- Finds that the terms offered by each of the project developers are consistent with the public interest and consistent with the prices and terms used to evaluate their proposals in this process.
- Reaffirms its selection of the Geronimo proposal, and orders Xcel to execute Geronimo's power purchase agreement as revised.
- Selects Calpine's and Xcel's proposals as resources that meet Xcel's remaining need, and approves the terms offered by Calpine and Xcel.
- Declines Invenergy's proposal on the grounds that it does not meet Xcel's needs as efficiently as Calpine's and Xcel's.

## II. Background

### A. The Proposed Projects

Consistent with the May 2014 Order, Xcel developed terms for the following four proposals:

- Geronimo proposes to erect photovoltaic panels at approximately 24 sites adjoining substations along Xcel's transmission or distribution lines, each site with a capacity of up to 10 megawatts (MW), for an aggregate capacity of up to 100 MW (or 72 MW of accredited capacity) fueled by solar power.
- Xcel proposes to install a 215 MW combustion turbine generator, powered by natural gas, at Xcel's existing Black Dog Generating Station in Burnsville (Black Dog Unit 6). This would be a peaking generator – that is, a generator designed to run only under periods of peak demand for electricity; these generators tend to be less expensive to build, but have relatively high operating costs, including fuel costs.<sup>4</sup>
- Invenergy proposes to install a natural gas combustion turbine generator adjoining its existing 357 MW generator in Cannon Falls. While initially proposing to install a 178.5 MW generator, Invenergy has now committed that generator to another project; Invenergy now proposes a substitute generator with a capacity of 209 MW.<sup>5</sup>
- Calpine proposes to install a gas-powered combined cycle generating plant – that is, a combustion turbine combined with a heat recovery steam generator to extract more energy from each unit of fuel burned. Calpine proposes to build its new Mankato Energy Center II (MEC II) adjoining the existing 375 MW Mankato Energy Center (MEC I). This addition would provide at least 55 MW of peaking capacity plus at least 290 MW of intermediate capacity. Intermediate generators, having higher construction costs but lower operating costs, are designed to run more frequently than peaking generators.<sup>6</sup>

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<sup>4</sup> See, for example, *12-1240 Docket*, Public Hearing Transcript, Vol. 1 at 11-12 (testimony of Xcel witness Alders).

<sup>5</sup> Xcel Compliance Filing (September 23, 2014) at 16.

<sup>6</sup> *Id.*; Xcel proposal (April 15, 2013) at 5-3.

## **B. Commission Instruction for Power Purchase Agreements and Price Terms**

In directing Xcel to finalize draft terms for each of the developer's proposals, the Commission offered the following admonitions:

- A. *Calpine, Geronimo, Invenergy, and Xcel shall be held to the prices and terms used to evaluate each bid for the purpose of cost recovery from Xcel ratepayers. Ratepayers must not be put at risk for costs that are higher than bid or for benefits assumed in bids that do not materialize. If actual costs are lower than bid, the bidders should be allowed to keep those savings.*
- B. *The agreements must provide terms that sufficiently protect ratepayers from risks associated with the non-deliverability of accredited capacity and/or energy from the project(s) as proposed.*
- C. *The Commission is unlikely to find it reasonable for Xcel to enter into an agreement in which negotiated terms shift risk or unknown costs to ratepayers.*
- D. *Delay and cancellation provisions are appropriate considerations for power purchase agreement negotiations.*<sup>7</sup>

## **C. Xcel's Solar Energy Standard Docket (SES)**

On May 23, 2013, the Governor signed a bill establishing Minnesota's Solar Energy Standard (SES), directing investor-owned utilities such as Xcel to acquire sufficient electricity from solar energy to supply 1.5 percent of the utility's total retail electric sales (excluding sales to certain industrial customers) by 2020.<sup>8</sup> By 2020 this policy would require Xcel to acquire an estimated 455,919 megawatt-hours (MWh) of solar energy,<sup>9</sup> or up to 200 MW of accredited capacity.<sup>10</sup>

Xcel has initiated a docket to solicit proposals for solar-powered generators to comply with the Solar Energy Standard (the SES Docket).<sup>11</sup> Both the Department and Xcel have proposed that the Commission defer consideration of Geronimo's proposal to that docket. Xcel aspires to make selections in that docket promptly in order to take advantage of a 30 percent federal investment tax credit, currently due to expire by the end of 2016.<sup>12</sup>

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<sup>7</sup> May 2014 Order, Ordering Paragraph 2.

<sup>8</sup> See 2013 Laws of Minnesota ch. 85, art. 10, § 3, codified at Minn. Stat. § 216B.1691, subd. 2f.

<sup>9</sup> *12-1240 Docket*, ALJ's Report, Finding 14, citing Ex. 57 at 8 (Engelking Direct), citing Xcel Comments, *In the Matter of the Request for Filings From Electric Utilities on Customers Excluded From the Solar Energy Standard*, Docket No. E-999/CI-13-542 at 4 (August 15, 2013).

<sup>10</sup> *12-1240 Docket*, Ex. 46 at 22 (Wishart Direct), Ex. 83 at 19 (Rakow Direct); but see Xcel Reply Comments (November 3, 2014) at 21-22.

<sup>11</sup> See *In the Matter of the Petition of Xcel Energy for the Approval of a Solar Portfolio to Meet Initial Solar Energy Standard Compliance*, Docket No. E-002/M-14-162.

<sup>12</sup> See 26 U.S.C. § 48; after 2016 the tax credit is reduced to 10 percent.

#### **D. The Midcontinent Independent System Operator, Inc. (MISO)**

All parties to this proceeding must anticipate and respond to the actions (and inactions) of the Midcontinent Independent System Operator, Inc. (MISO), which administers a regional electric transmission grid operating in parts of Minnesota, Manitoba, and 14 other states. MISO runs a market for bulk energy transactions, selecting the most efficient generators to meet the needs of the participating utilities and large industrial customers. And MISO runs a market for ancillary services, selecting the most efficient generators to hold in reserve for back-up power and balancing momentary fluctuations in supply and demand.

In an effort to maintain the transmission grid's reliability, MISO considers both supply and demand. MISO considers demand when it identifies the amount of capacity each load-serving entity is responsible to provide in order to meet the forecasted levels of peak demand, as well as each entity's reserve requirements – that is, a minimum amount of generating capacity that a utility must have in excess of the projected peak demand for electricity.<sup>13</sup>

MISO considers supply when it establishes policies to estimate, or *accredit*, the amount of power a generator can be expected to provide to meet this demand and reserve requirements. For example, Geronimo determined that under MISO's current policies, Geronimo's proposal would receive accreditation of 72 percent of the generators' nominal capacity of 100 MW. In accrediting the capacity of a gas-powered generator, MISO currently does not consider whether the generator has a firm gas supply – but this policy is currently under review.

MISO recalculates reserve requirements, and reassesses generators' accredited capacity, annually.

Finally, MISO designates the generators that may interconnect to the regional power grid, and establishes the price and schedule under which they may do so. Under MISO's current practices, MISO will not credit the capacity of generators such as those proposed by Calpine and Invenergy until the related transmission facilities have been upgraded – which is not expected until 2019 or 2020.

#### **III. Xcel's Compliance Filing and Recommendation**

In its compliance filing, Xcel submitted the draft power purchase agreements it has negotiated with Geronimo, Calpine, and Invenergy, and reaffirmed the terms it has offered for its own Black Dog Unit 6 proposal. But Xcel does not ask the Commission to approve any of these agreements.

Based on its new need assessment, Xcel claims that it will still have an excess 96 MW through 2019, and will not need new capacity until as late as 2024.<sup>14</sup> Xcel attributes this putative change in need to 1) a decline in customer demand, 2) the addition of generating capacity through temporary contracts and delayed plant retirements, and 3) changes in Xcel's assessment of its reserve margin<sup>15</sup> – in effect, freeing up some of Xcel's existing generators to meet customer needs.

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<sup>13</sup> See, for example, *12-1240 Docket*, Ex. 46 at 5 (Wishart direct) (defining “reserve margin”).

<sup>14</sup> *12-1240 Docket*, Xcel Compliance Filing (September 23, 2014) at 9.

<sup>15</sup> While MISO has not altered its reserve margin formula since the Commission's prior meeting in this docket, Xcel has altered its assessment of its reserve margin as it has “gained more confidence in the approach....” *12-1240 Docket*, Xcel Compliance Filing (September 23, 2014) at 5.

Given these changes, Xcel proposes that the Commission postpone acting on any of the proposals for gas-powered generators and authorize Xcel to negotiate terms for extending the implementation date for each of these projects into 2019-2021. And Xcel proposes that the Commission “mak[e] the public interest determination required for Geronimo’s Aurora PPA in light of the Commission’s assessment of the Company’s capacity requirements and the availability of the solar PPA proposals that we have developed through our [SES Docket].”<sup>16</sup>

But Xcel acknowledges that its proposals reflect only one means of balancing the various factors at issue in this docket, and that the Commission would be justified in drawing a different conclusion based on a different balancing of the factors.

#### **IV. Need Assessment**

##### **A. Positions of the Parties**

The Environmental Intervenors support Xcel’s recommendation to defer action on all new generators except for Geronimo’s. The Environmental Intervenors argue that the Commission’s May 2014 Order already selected Geronimo’s proposal for implementation, subject only to the condition that the parties agree on terms that are in the public interest. To the extent that the record demonstrates that Xcel has additional needs, the Environmental Intervenors recommend that Xcel pursue additional opportunities for conservation and other forms of managing customer demand.

Geronimo, Invenergy, and Calpine point out that Xcel’s new need assessment is internal, unvetted, and introduced too late in this case for adequate examination by other parties. Noting that need assessments inevitably change over time, these parties argue that Xcel’s most recent assessment provides an insufficient basis to abandon this docket.

Moreover, the Department joins these developers in emphasizing that the draft power purchase agreements, and Xcel’s terms for developing Black Dog Unit 6, offer favorable terms.<sup>17</sup> They caution that these terms are not likely to be available by the time Xcel’s need for additional generating capacity is resolved beyond all dispute. In particular, they argue that environmental regulations will prompt utilities to retire their older and coal-powered generators, driving up demand for -- and thus the price of -- new generators. For example, MISO estimates that the federal Mercury and Air Toxics Standards (MATS) will trigger the retirement of 10-12 gigawatts of coal-fired generation by 2016, and the proposed federal Clean Power Plan Proposed Rule (Section 111(d) Rule) could trigger the retirement of an additional 11-14 gigawatts by 2020.<sup>18</sup>

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<sup>16</sup> *12-1240 Docket*, Xcel Reply Comments (November 3, 2014) at 1.

<sup>17</sup> See, for example, *12-1240 Docket*, Hearing Transcript, Volume 1 (October 22, 2013) at 109-110 (Xcel witness Wishart).

<sup>18</sup> MISO Letter to federal Environmental Protection Agency (November 25, 2014); see also *In the Matter of Xcel Energy’s 2011-2025 Integrated Resource Plan*, Docket No. E-002/RP-10-825, Order Establishing Procedural Schedules and Filing Requirements (November 30, 2012) at 5 (discussing consequences of new federal environmental regulations); Environmental Report (October 14, 2013), Appendix C, Xcel response to Department Information Request 1-1 (noting Xcel must retire Black Dog Units 3 and 4, or make expensive changes, to comply with MATS); Ex. 46 (Wishart Direct) at 22.

The Department shares the concerns raised by other parties that Xcel's new need assessment filing left insufficient time for analysis. Nevertheless, the Department reports that it was able to evaluate some of Xcel's alleged changes to its need assessment, including Xcel's proposed short-term capacity additions. On the basis of this partial review the Department now recommends that the Commission defer bringing any new gas-powered generators on-line until 2019 – but no later.

## **B. Commission Action**

The Commission strives to maintain a stable perspective in evaluating a utility's ever-changing need assessment. This starts with noting that Xcel has revised its assessment of need throughout this proceeding. It is entirely foreseeable and unremarkable that Xcel's assessment has changed over time – and indeed, that it will continue to do so.

Because factors affecting need are continually changing, resource decisions must be made in the midst of flux. The weight the Commission gives to an assessment reflects the scrutiny the assessment has received. Xcel's latest need assessment is based on a technically complex analysis that has received much less scrutiny than Xcel's prior assessments.

In support of its recommendation to select none of the current generators proposed to it, Xcel argues that it now forecasts having an excess 96 MW through 2019. Parties dispute Xcel's assessment. But even if Xcel's assessment reflected the soundest data and methods, Xcel's recommendation assumes the Commission should be guided solely by Xcel's statement of MISO's minimum requirements. Moreover, 96 MW represents a margin of less than one percent of Xcel's estimated 9776 MW capacity obligation for 2019 – a rather narrow margin.<sup>19</sup>

Need assessments are necessarily approximate and even the most analytic utilities must plan for a range of outcomes. In this docket the Department has evaluated the consequences of selecting various combinations of generators under multiple scenarios – including a scenario of lower-than-expected demand. In short, Xcel's latest demand forecast, though new, was still within the range of contingencies contemplated and evaluated by the Department.<sup>20</sup>

Finally, the Commission's goal is not to forecast the precise level of need – a task rife with the potential for error – but to identify the resource mix that will best manage forecasting error. As Xcel observed,

[A] conservative approach [to resource planning] 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 from over-reliance on the MISO market due to routine variations in the availability of system resources.<sup>21</sup>

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<sup>19</sup> *12-1240 Docket*, Xcel Compliance Filing (September 23, 2014) at 9 (table).

<sup>20</sup> *12-1240 Docket*, Department comments (October 23, 2014) at 3.

<sup>21</sup> *12-1240 Docket*, Xcel Exceptions to ALJ Report (Jan. 21, 2014) at 6.

Based on the state of the record regarding Xcel's latest need assessment, the Commission will decline to alter its finding of need on this basis. Rather, the Commission reaffirms its finding from its May 2014 Order at 26:

[T]he Commission will err on the side of ensuring that Xcel has enough capacity to meet the needs of its customers. The future will always be uncertain, but the Commission must proceed to make the necessary choices on the basis of a rigorous analysis of the data that *is* in the record.<sup>22</sup>

That said, Xcel has negotiated draft terms with each of the developers of gas-powered generators that provide the option of postponing the generator's in-service date to as late as 2019. Commission approval of any of these agreements will provide Xcel with the discretion, consistent with the Department's recommendation, to delay operations to that point in time.

But Geronimo, the Department, the Environmental Intervenors, and Xcel itself acknowledge that different factors influence the timing of a solar-powered project. The Commission concurs: The analysis demonstrating the merits of Geronimo's power purchase agreement rests on the assumption that Geronimo would implement its proposal in time to qualify for a 30 percent federal investment tax credit, currently due to expire by the end of 2016. Nothing in Xcel's need analysis alters this dynamic.

## **V. Geronimo's Aurora Power Purchase Agreement**

### **A. Party Positions**

Geronimo and the Environmental Intervenors ask the Commission to approve Geronimo's power purchase agreement, arguing that it complies with the May 2014 Order. And the Department concludes that the terms of Geronimo's agreement are consistent with the public interest and consistent with the prices and terms used to evaluate its bid in this process.

Xcel does not specifically recommend or oppose the Geronimo project. Rather, Xcel recommends referring consideration of Geronimo's proposal to its new SES Docket, thereby facilitating comparisons to rival proposals for solar-powered generators.

### **B. Agreement Provisions**

#### **1. Capacity and Commercial Operation Date**

Geronimo proposes to build solar-powered generators with a combined nameplate capacity of 100 MW, and an accredited capacity of at least 71 percent of this amount.

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<sup>22</sup> [Fn. 96] Ex. 49 at 7 (Alders Direct) (“[T]here are factors that create uncertainty and could materially affect our resource need assessment. The new need assessment is another data point that should be considered in analyzing which resource proposals should be selected to address the range of [Xcel]’s potential need in the 2017-2019 timeframe.”).

Unlike Calpine, Invenergy, or Xcel, Geronimo promises that its proposal would be able to provide power by December 1, 2016.

## **2. Price, Financial Risk, Operational Risk, Capacity Accreditation**

The Department reviewed the draft agreement's terms governing price and promised nameplate capacity, and other matters.

All power purchase agreements involve financial risk, such as the risk that the seller will be unable to deliver power as promised, forcing the utility to acquire other resources at the last minute. They also involve operational risks, such as the risk that the project will be delayed, or shut down in whole or part.

Geronimo's agreement provides a Security Fund to provide some protection against the risk of having to buy replacement power on short notice. And the agreement provides a variety of other remedies, including damage payments if Geronimo fails to have 100 MW installed by the operational date, as well as compensation for failing to gain accreditation of at least 71 percent for the generators' installed capacity. The Department concludes that these terms are consistent with Geronimo's proposal and with providing reasonable protection to ratepayers.

## **3. Transmission Interconnection**

Because the Geronimo project is not designed to interconnect with the MISO transmission system, the project bears no risk related to interconnecting to the transmission grid.

Rather, the project is designed to interconnect with Xcel's distribution system. Because Geronimo has agreed to bear all costs related to interconnecting to the distribution system, the Department concludes that this arrangement poses no unreasonable risks to ratepayers.

## **4. Environmental Risk**

Geronimo's agreement would award all environmental and renewable energy credits arising from this project to Xcel. The Department concludes that this arrangement poses no unreasonable risk to ratepayers.

## **5. Curtailment**

Geronimo's agreement provides for Xcel to compensate Geronimo if, from time to time, Xcel refuses to take delivery of the electricity generated by the project. Curtailments might occur, for example, when a given part of Xcel's electrical system is experiencing a temporary glut of electricity relative to demand. Xcel would not need to compensate Geronimo for curtailments triggered by emergencies.

Xcel states that this part of the agreement is analogous to terms in Xcel's other agreements with renewable generators. In any event, Xcel notes that solar generators tend to provide power during periods of high demand, reducing the likelihood of curtailments.

## **6. Cost Recovery**

During the Commission's meetings on December 8 and 15, 2014, the Commission expressed concerns about language in Article 6.1(A) of Geronimo's agreement governing cost recovery; no other developer has proposed similar language in their agreements. In response to the Commission's concerns, Geronimo and Xcel agreed to modify the contested language in the manner set forth in the Ordering Paragraphs.

In general, the revised language provides for either party to terminate the power purchase agreement if, within a specified timeframe, it is unclear that Xcel can secure assurances of having a reasonable opportunity to recover the share of the project's costs allocated to the Minnesota and North Dakota jurisdictions.

According to Geronimo and Xcel, this language is intended to achieve two competing goals. First, it is intended to maximize Xcel's opportunity to recover the cost of Geronimo's project throughout Xcel's service area. This includes cost recovery from North Dakota, a jurisdiction providing roughly five percent of Xcel's revenues, which may preclude cost recovery of projects undertaken prior to receiving state approval. Second, the cost recovery language is intended to give Geronimo the confidence to make the investments necessary to meet the 2016 in-service date before the 30 percent investment tax credit expires.

## **VI. Calpine's Mankato Energy Center II Power Purchase Agreement**

### **A. Party Positions**

The Environmental Intervenors oppose this proposal, as they oppose the other gas-powered generators offered in this docket, as exceeding Xcel's latest assessment of need.

In contrast, the Department recommends that the Commission approve at least one of the gas-powered proposals – and Calpine's project is the Department's first choice among the proposals in this docket. But the Department acknowledges that concerns about some of the terms of Calpine's power purchase agreement, discussed below, could justify selecting one of the other gas-powered generators instead.

As the sole party to propose a combined cycle plant, Calpine argues that its proposal generates greater benefits for lower cost – including environmental costs – than the other gas-powered proposals. Calpine states that the costs reflected in its draft power purchase agreement reflect the economies of scale Calpine was able to achieve by combining its proposal with its existing Mankato Energy Center. Calpine cautions that these unusually advantageous circumstances are unlikely to arise in the future.

According to the Department, Calpine's generator would prove to be the least-cost choice under a variety of scenarios – if gas prices increase, or regulations increase the cost of generating carbon dioxide, or the retirement of other generators causes Xcel (and MISO) to dispatch the remaining generator more often than anticipated. In analyzing the parties' initial proposals, the Department determined that Calpine's proposal was the single least-cost generator under the Department's base forecast of need. And the Department determined that Calpine's proposal combined with Black Dog Unit 6 formed a package of generators that would permit Xcel to meet its customers' needs at least cost.

But the Department also determined that the dynamics that would make Calpine efficient if gas prices were to rise, or plant utilization would be greater, would also render the proposal less advantageous than the other gas-powered proposals in the event gas prices were to fall or the generator were dispatched less than anticipated.

## **B. Agreement Provisions**

### **1. Capacity and Commercial Operation Date**

Calpine proposes to build a 345 MW combined-cycle generator to provide both peaking and intermediate power.

Like the other developers of gas-powered generators, Calpine reports that it is no longer able to have its new generator ready for operation in 2017. It could meet a 2018 or 2019 in-service date, albeit at slightly higher prices than applied to a 2017 in-service date.

### **2. Price, Financial Risk, Operational Risk**

The Department reviewed the draft agreement's terms governing price and promised nameplate capacity, and concluded that they were consistent with the Calpine proposal.

The draft agreement provides for a Security Fund and other measures to manage financial, operational, and capacity accreditation risk. The Department generally concluded that these safeguards were reasonable.

### **3. Environmental Risk**

The agreement identifies circumstances under which each party might bear some cost of future environmental regulations. Where new regulation of emissions would produce a material adverse effect on the economics of the agreement, the parties agree to cooperate in finding a strategy to mitigate the harm. The Department concludes that these terms are reasonable and consistent with the assumptions used for purposes of comparing the various developers' proposals.

### **4. Capacity Accreditation**

Under the terms of the draft agreement, Xcel would begin making payments to Calpine only when MISO recognizes the generator as a "capacity resource" available to help Xcel meet its system power needs, including Xcel's reserve margins. But before this could occur, MISO must complete its upgrades to certain transmission facilities to provide additional transmission capacity. Only MISO can determine the timing of these events. While Calpine might be able to interconnect with the transmission grid by 2018, it does not expect to secure accredited capacity for its generator before 2019, and perhaps later.

The draft power purchase agreement contains various terms managing risks arising from securing capacity accreditation. If Calpine were to conclude that MISO will not provide an assessment of its generator's capacity in time to meet the agreement's in-service date, the draft agreement authorizes Calpine to postpone the date. The power purchase agreement also provides terms to compensate Xcel if Calpine, when it finally receives accreditation, fails to achieve the promised level of generating capacity.

## 5. Transmission Interconnection

Generators seeking to interconnect with the transmission grid must pay the transmission interconnection cost established by MISO. This practice creates two uncertainties: uncertainty about the magnitude of the costs, and uncertainty about when MISO will establish the relevant costs. Calpine reports that MISO has not yet established the transmission interconnection cost for its proposed project.

Under the draft agreement, Xcel would bear these transmission interconnection costs. Calpine estimated that MISO would allocate transmission costs of \$650,000 to \$1.5 million to the Calpine project, and the Department used the \$1.5 million figure when comparing the cost-effectiveness of the Calpine proposal to other alternatives.

The Department offers no opinion about the appropriate magnitude of the risk. Rather, the Department concludes that allocating this risk to Xcel, and hence to ratepayers, is inconsistent with the Commission's May 2014 Order admonishing negotiators that the terms of the power purchase agreements should not place such risks on ratepayers.

Calpine defends the agreement's allocation of interconnection costs on various grounds. First, Calpine argues that Xcel, being the more experienced party, is in the better position to assess and bear the risk.

Second, Calpine argues that the manner in which the parties have evaluated Calpine's proposal has mitigated the interconnection risk. In modeling the costs and benefits of Calpine's initial proposal, the Department imputed a cost of \$1.5 million for interconnection. The fact that Calpine's proposal remains cost-competitive relative to other proposals suggests that it delivers \$1.5 million in benefits beyond the benefits of the competing proposals. In effect, the power purchase agreement would pay Xcel \$1.5 million to bear this interconnection risk; if interconnection costs less than \$1.5 million, Xcel and ratepayers retain the benefit.

Third, Calpine argues that the interconnection costs are not unbounded. The agreement provides for Xcel to cancel the agreement (albeit with cancellation fees) if the costs grow too high.<sup>23</sup>

## 6. Dispatchability Payments

Calpine's agreement provides for Xcel to make dispatchability payments to Calpine. Generally, dispatchability payments provide a financial incentive for a power plant operator to maximize the capacity the generator has available to respond when dispatched, and to maximize the promptness and speed with which the generator responds to signals to change output levels.<sup>24</sup> These are not uncommon terms, appearing in both Calpine's power purchase agreement with Xcel, and in Invenegy's draft agreement.<sup>25</sup> According to the Department, while the magnitude of this payment

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<sup>23</sup> 12-1240 Docket, Xcel Compliance Filing (September 23, 2014), Attachment A (draft MEC II power purchase agreement), Article 2 (Term and Termination).

<sup>24</sup> *Id.*, Attachment A (draft MEC II power purchase agreement), Section 8.2 (Payment for Dispatchability).

<sup>25</sup> See *id.*, Attachment B (draft Invenegy Cannon Falls II power purchase agreement), Section 8.2 (Payment for Dispatchability).

is designated a trade secret, the net effect of this term would be to “slightly increase[] the total expected capacity payments” to Calpine.<sup>26</sup>

The Department objects to this provision -- not because of its magnitude, but because it represents a type of charge that was not included in Calpine’s initial proposal, and thus was not incorporated into the calculations comparing the cost-effectiveness of the various proposals.

Calpine and Xcel argue that this added term would benefit all parties. Xcel sought this change to make the payment structure for Calpine’s new generator mirror Xcel’s payments structure for the existing Mankato Energy Center generator – a structure that the Commission has already approved. According to Calpine, a more uniform pricing structure would better enable Xcel to offer the combined plant’s capacity into the MISO ancillary services markets via automatic generation control, making the facility more nimble and useful – and able to generate more revenues.

In addition, Xcel negotiated other changes to offset the advantage that this change would bring to Calpine. For example, the draft language eliminated bonus payments, requires Calpine to obtain a subordinated mortgage on the facility for Xcel, grants a Right of First Offer in the event Calpine were to propose to sell the original Mankato Energy Center I, and grants the right to assume Calpine’s duties and prerogatives if Calpine were to default (“step-in rights”).

## **VII. Invenergy’s Cannon Falls Power Purchase Agreement**

### **A. Party Positions**

The Environmental Intervenors oppose this proposal, as they oppose the other gas-powered generators offered in this docket, as exceeding Xcel’s latest assessment of need.

In contrast to Calpine’s agreement, the Department praises Invenergy’s draft power purchase agreement for refraining from shifting costs or risks to ratepayers that were not part of its initial bid. It does, however, expose Xcel to the risk of a fuel supply interruption, discussed below.

According to the Department, Invenergy’s proposal proves to be the least-cost generator under scenarios in which demand for electricity is lower than anticipated, and when the generator selected in this docket is dispatched less often than anticipated. However, it compares less favorably under scenarios in which gas prices are lower than anticipated, or if the generator were required to operate more often than anticipated. And when the Department identified the least-cost package of generators to meet Xcel’s forecasted need, Invenergy’s proposal was not part of the package.

### **B. Agreement Provisions**

#### **1. Capacity and Commercial Operation Date**

Invenergy proposes to build a 209 MW peaking generator.

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<sup>26</sup> Department comments (October 23, 2014) at 15.

Like the other developers of gas-powered generators, Invenergy reports that it is no longer able to have its new generator ready for operation in 2017. It could meet a 2018 or 2019 in-service date, albeit at slightly higher prices than applied to a 2017 in-service date.

## **2. Price, Financial Risk, Operational Risk, Capacity Accreditation**

The Department reviewed the draft agreement's terms governing price and promised nameplate capacity, and concluded that they were consistent with Invenergy's proposal.

The draft agreement provides for a Security Fund and other measures to manage financial, operational, and capacity accreditation risk. The Department generally concluded that these safeguards were reasonable.

## **3. Transmission Interconnection**

As with Calpine's proposal, Invenergy's proposal cannot interconnect with the transmission grid until MISO completes necessary grid improvements. Invenergy would not expect to interconnect and secure accredited capacity for its generator before 2019, and perhaps later. As with Calpine's proposal, this proposal manages that risk for the generator by permitting the developer to postpone the project's agreed-upon in-service date without penalty.

Unlike Calpine's proposal, Invenergy's proposal bears 100 percent of the cost of interconnecting to the transmission grid. The Department concludes that this arrangement imposes no unreasonable risk to ratepayers.

## **4. Environmental Risk**

The agreement identifies circumstances under which each party might bear some cost of future environmental regulations. The Department concludes that these terms are reasonable and consistent with the assumptions used for purposes of comparing the various developers' proposals.

## **5. Dispatchability**

As with Calpine's agreement, Invenergy's agreement provides for Xcel to make dispatchability payments. Unlike Calpine, Invenergy had included this provision in its initial proposal, and these payments therefore did not represent a change from the proposal as submitted.

## **6. Fuel Supply**

Invenergy's proposal provides for Xcel to acquire either firm or interruptible sources of natural gas to power the plant. Contracting for an interruptible supply would save money, but expose the project to the risk that the utility's gas supply would be interrupted, especially during the winter when demand for natural gas grows higher. For purposes of developing a cost comparison with other proposals, the estimated cost of the Invenergy proposal incorporated the cost of contracting for an interruptible gas supply.

Invenergy offers three reasons to conclude that this risk is reasonable. First, the period of highest demand for natural gas is during the winter when the MISO system has excess generating capacity. Second, Invenergy proposes to have on site a 28-hour supply of fuel oil to use in the event that the

gas supply is interrupted. Third, MISO accredits the capacity of generators that rely on interruptible sources of fuel, indicating that MISO does not regard this arrangement as excessively risky.

The Department notes, however, that MISO has been reconsidering its policy regarding the accreditation of generators relying on interruptible sources of gas.

## **VIII. Xcel's Black Dog Unit 6 Price Terms**

### **A. Party Positions**

The Environmental Intervenors oppose this proposal, as they oppose the other gas-powered generators offered in this docket, as exceeding Xcel's latest assessment of need.

According to the Department's analysis, Black Dog Unit 6 is Xcel's least-cost alternative under a variety of scenarios, including if gas costs are lower than forecast, or the unit is dispatched less often than anticipated. Conversely, Black Dog Unit 6 performs less well than other generators under scenarios in which the cost of natural gas, or of carbon emissions, is higher, or if the unit is dispatched more than anticipated.

Based on its analysis of all the generators, the Department concludes that if the Commission were to select two gas-powered generators, one of them should be Black Dog Unit 6. But as previously noted, if the Commission were to select only one gas-powered generator, the Department would recommend Calpine's generator instead.

### **B. Agreement Provisions**

The May 2014 Order directed Xcel to develop price terms for its proposal in lieu of a draft power purchase agreement. These terms address many of the same issues addressed in the power purchase agreements, including the following:

#### **1. Capacity and Commercial Operation Date**

Xcel proposed to build a 215 MW combustion turbine generator providing peaking power.

Like the other developers of gas-powered generators, Xcel reports that it is no longer able to have its new generator ready for operation in 2017. It could meet a 2018 or 2019 in-service date.

#### **2. Transmission Interconnection**

Xcel expects Unit 6 would be able to interconnect with the transmission grid as early as 2018 using the accredited transmission capacity of Black Dog Units 3 and 4, which Xcel plans to retire in 2015. Consequently, Xcel argues, the Commission can have confidence that Black Dog Unit 6, unlike the proposals of Calpine or Invenergy, will be able to secure interconnection rights promptly.

#### **3. Cost Recovery and Term**

In its May 2014 Order, the Commission admonished the negotiating parties that ratepayers should not be put at risk for costs that are higher than bid, but that bidders would be allowed to retain the savings if actual costs prove to be lower than bid. This language applies to the Black Dog Unit 6

proposal differently than to the other proposals, in that 1) Xcel would own this project rather than contract for it, and 2) Xcel estimates that the project would last longer than 20 years.

Xcel first addresses cost: Consistent with the first part of the Commission's admonition, Xcel states that it will forgo recovery of any costs that exceed its proposal (plus financing costs). But distinct from the second part of the admonition, Xcel states that it would not seek to recover from ratepayers more than the project's actual costs, plus financing costs, even if this proves to be less than the amount of Xcel's bid.

Xcel then addresses benefits: To the extent that Black Dog Unit 6 operates beyond the 20 years analyzed for purposes of comparing the developer's proposals, ratepayers would derive the benefit of retaining Unit 6's capacity without necessarily incurring additional capital costs. In contrast, while it may be possible to extend the term of a power purchase agreement, it would come at additional cost.

The Department concludes that these proposed terms are reasonable.

## **IX. Commission Analysis and Action**

### **A. Summary**

Having reviewed the parties' arguments, the Commission reaffirms its selection of Geronimo's proposal and directs Xcel to execute Geronimo's draft power purchase agreement.

To meet the rest of Xcel's needs, the Commission also selects the power purchase agreement offered by Calpine – largely due to its operational efficiency and economies of scale -- and the terms offered by Xcel – largely due to its ability to interconnect and provide flexible energy on a timely basis.

### **B. Geronimo Proposal**

#### **1. Referral to Xcel's SES Docket**

On April 15, 2013, Geronimo submitted its proposal to build a collection of solar generators distributed throughout Minnesota. Ever since, parties have periodically requested that the Commission refer this proposal to Xcel's SES Docket.<sup>27</sup> Nevertheless, the proposal has remained in the current docket, was recommended by the administrative law judge, and was selected by this Commission subject to review of the power purchase agreement's terms. Simply put, Geronimo's proposal fit squarely within the criteria of Xcel's request for proposal and deserves to be considered alongside the other proposals.

In any event, it is not obvious that the proposals being considered in the SES Docket are comparable to Geronimo's proposal. In the current docket, Xcel solicited proposals to provide *capacity* in the near-term; in the SES Docket, Xcel solicited proposals to provide *energy* by 2020, the focus of the Solar Energy Standard. Thus Geronimo's proposal offered to provide

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<sup>27</sup> See, for example, *12-1240 Docket*, Ex. 46 at 36 (Wishart Direct), Ex. 83 at 12-13 (Rakow Direct).

MISO-accredited levels of power to Xcel's system by 2016, and to bear financial consequences if the solar project fails to perform. The SES Docket was not designed to elicit this type of proposal.

For the foregoing reasons, the Commission will decline to refer consideration of Geronimo's project to a different docket. Instead, the Commission will evaluate Geronimo's power purchase agreement in the context of the current docket.

## 2. Commission Action

In its May 2014 Order, the Commission directed Xcel to negotiate a draft power purchase agreement with Geronimo, and to submit the agreement for Commission review to ensure that the negotiated terms are consistent with the public interest.<sup>28</sup> A variety of factors prompted the Commission to select Geronimo's project:

[T]he 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,<sup>29</sup> and the goal of reducing greenhouse gases relative to 2005 levels by 30 percent by 2025 and 80 percent by 2050.<sup>30</sup> 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 [solar renewable energy credits], 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.<sup>31</sup>

The Commission affirms these findings. Geronimo's proposal offers unique benefits. For example, only Geronimo's proposal would connect to Xcel's distribution system, thereby alleviating rather than exacerbating transmission line congestion. And only Geronimo states that it can implement its proposal by the beginning of 2017, the first year specified in the docket's request for proposal.

The Department concludes that Geronimo's agreement is generally consistent with Geronimo's proposal and the prices and terms used to evaluate Geronimo's bid in this proceeding. The agreement maintains the project's in-service date. The price has remained the same. And the agreement does not place Xcel's ratepayers at risk for more cost than Geronimo included in its

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<sup>28</sup> May 2014 Order at 36.

<sup>29</sup> Minn. Stat. 216B.2422, subd. 4.

<sup>30</sup> Minn. Stat. 216H.02.

<sup>31</sup> May 2014 Order at 34 (some citations omitted).

initial proposal; indeed, the agreement specifies that Geronimo bears the risk if the generators fail to deliver the promised generating capacity.

While the proposed agreement does not shift costs to Xcel or ratepayers, it does add language addressing how Xcel would recover the cost of this project. Geronimo and Xcel explain that these terms were prompted by the need to manage a potential conflict of state policies within the time constraints of an expiring federal tax credit. The Commission concludes that these terms, as revised through these proceedings, promote the interest of Minnesota ratepayers by enhancing the likelihood that Xcel will recover the cost of the Geronimo project from ratepayers throughout Xcel's operations, and from the tax credit.

The Commission finds that Geronimo's power purchase agreement is consistent with its initial proposal, does not put ratepayers at undue risk, and is consistent with the public interest. Consequently the Commission will approve it.

## **C. Proposals for Gas-Powered Generators**

### **1. Introduction**

Throughout this docket, analytical models developed by the Department and Xcel have identified combinations of three natural gas projects -- Calpine's Mankato Energy Center II proposal, Invenenergy's Cannon Falls II proposal, and Xcel's Black Dog Unit 6 proposal – as providing Xcel with the least-cost means to fulfill Xcel's established need for more power. To aid the Commission's selection among these alternatives, the Commission directed the developers of these projects to finalize the terms of their proposals.

Having reviewed the filings, the Commission finds that the terms offered for all of these proposals are generally consistent with the prices and terms used to evaluate the proposals in this proceeding.

Moreover, the Commission finds that these terms are consistent with the public interest. The Commission concurs with the Department and the developers that the offered terms appear quite economical by historical standards. This fact, combined with forecasts of plant retirements due to new regulations, persuade the Commission to authorize Xcel to lock in these favorable terms on behalf of ratepayers.

Nevertheless, the Commission found that Xcel might require up to 500 MW of additional capacity by 2019. The Commission anticipates Geronimo providing 72 of those MW, leaving a need for up to 428 MW. This is enough demand to justify contracting for two, but not three, of the gas-powered generators under consideration.

Again, the Department recommends that the Commission secure the services of at least one of the gas-powered generators. If the Commission were to select only one, the Department would recommend Calpine's; if two, the Department would recommend the combination of Calpine's and Xcel's. The Commission concurs.

## 2. Calpine

Calpine provides the greatest flexibility of any of the proposals under consideration. It offers both peaking and intermediate power. With at least 345 MW, it offers the greatest capacity of any single generator. And this capacity could be coordinated with the capacity provided by the existing Mankato Energy Center, which Xcel already has under contract.

Calpine's economies of scale permit it to operate with the lowest operating cost (including lowest carbon emissions) per unit of output of the gas-powered alternatives.

Calpine's generator would prove to be the least-cost choice under a variety of scenarios – if gas prices increase, or regulations increase the cost of generating carbon dioxide, or the retirement of other generators causes Xcel (and MISO) to dispatch the remaining generator more often than anticipated. In analyzing the parties' initial proposals, the Department determined that Calpine's proposal was the single least-cost generator under the Department's base forecast of need. And the Department determined that Calpine's proposal combined with Black Dog Unit 6 formed a package of generators that would permit Xcel to meet its customers' needs at least cost.

Moreover, the Commission finds the terms of Calpine's power purchase agreement to be reasonable, even with respect to transmission costs and dispatchability payments. This is so, notwithstanding the Commission's admonitions that "[r]atepayers must not be put at risk for costs that are higher than bid" and that "[t]he Commission is unlikely to find it reasonable for Xcel to enter into an agreement in which negotiated terms shift risk or unknown costs to ratepayers."<sup>32</sup>

With respect to Calpine's transmission interconnection language, the negotiated agreement does not alter the terms initially established in Calpine's proposal – that is, the terms under which the Department determined Calpine's proposal to be the most cost-effective. Moreover, Calpine and Xcel are sophisticated, competing parties negotiating an arm's length transaction. There is nothing inherently unreasonable with Xcel bearing a portion of a generator's interconnection costs as part of a power purchase agreement, especially when the agreement has a cancellation clause. Consequently the Commission finds insufficient reason to second-guess their transmission interconnection terms at this time.

Calpine's proposed dispatchability payments, in isolation, would shift costs to ratepayers. However, the magnitude of these costs is not unknown; it is reasonably clear and quantified. Moreover, when these payments are evaluated not in isolation, but within the context of the larger agreement, they are eminently reasonable. According to Calpine and Xcel, these payments are 1) common in the industry, 2) small in proportion to other considerations, 3) motivated by a desire to coordinate the operations of both halves of the Mankato Energy Center, creating economies of scale and the potential to generate offsetting revenues, and 4) offset by other concessions. Thus the Commission finds that the *net* costs of these terms, evaluated in context, are reasonable and consistent with Calpine's overall proposal.

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<sup>32</sup> May 2014 Order, Ordering Paragraph 2.

That said, the dispatchability terms were not included in the initial calculation of Calpine's costs, and the quantification of costs and benefits were not well developed in the record. Consequently the Commission will require this matter to be addressed when Xcel seeks to recover the costs of the Calpine project.

### **3. Xcel's Black Dog Unit 6**

As previously noted, Black Dog Unit 6 is Xcel's least-cost generator under a variety of scenarios, including if gas costs are lower than forecast, or the unit is dispatched less often than anticipated.

Xcel's proposal offers attractive terms, including the option of retaining the benefits of any construction savings, and the option of continuing to derive useful life from the plant beyond its first 20 years. But its most unique attribute is that Black Dog Unit 6 has the option of providing dispatchable capacity by 2018 due to its ability to use the transmission capacity from some of Xcel's retiring generators. By selecting Black Dog Unit 6, the Commission builds a higher degree of security into Xcel's generation portfolio.

### **4. Invenergy**

As previously discussed, the terms of Invenergy's proposal are consistent with the public interest and consistent with the prices and terms used to evaluate its bid in this process. Moreover, Invenergy proves to be the least-cost generator under scenarios in which demand for electricity is lower than anticipated, and when the generator selected in this docket is dispatched less often than anticipated. However, it compares less favorably under scenarios in which gas prices are lower than anticipated, or if the generator were required to operate more often than anticipated. And when the Department identified the least-cost package of generators to meet Xcel's forecasted need, it did not include Invenergy's proposal as part of the package.

The Department concluded that Invenergy's proposal was competitive with the other proposals in this docket – under the assumption that Invenergy would operate with an interruptible gas supply. Securing fuel on an interruptible basis is cheaper, but exposes the generator to a risk that the fuel supply would be cut off, especially during periods of peak demand for natural gas. It is unclear how well a 28-hour supply of fuel oil would offset this risk, especially in extreme cold when demand for gas is likely to be at its highest. And prospectively, it is unclear how MISO will accredit generators that rely on interruptible gas supplies.

### **5. Commission Action**

In selecting the gas-powered generators to meet the remainder of Xcel's needs, the Commission strives to identify a portfolio that will provide the best combination of benefits at least cost. In brief, the Commission finds that Calpine's proposal provides the greatest operational flexibility and lowest operating costs, while Xcel's proposal provides the greatest reliability in securing an energy source with transmission access. These generators, combined with Geronimo's proposal, meet all the capacity needs demonstrated on the record.

For the foregoing reasons, the Commission will select Calpine's Mankato Energy Center II power purchase agreement and Xcel's Black Dog Unit 6, subject to its price terms, as resources that fit Xcel's need. Consequently the Commission will approve the power purchase agreement and the price terms. For the same reasons, the Commission will decline to select Invenergy's proposal.

The Commission will so order.

## ORDER

1. Regarding Geronimo's proposal:
  - A. The Commission selects the proposal as a resource that fits Xcel's need and approves the power purchase agreement between Xcel and Aurora Distributed Solar, LLC, as set forth in Xcel's compliance filing of September 23, 2014, modified to substitute the following language for the original language in Article 6.1(A), as well as for the language in Exhibit A, "State Regulatory Agency(s)" and "State Regulatory Approval":

### *Article 6 – CONDITIONS PRECEDENT*

#### *6.1 Company CPs.*

*(A) On September 23, 2014, Company filed 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 order from the Minnesota Public Utilities Commission authorizing Company to execute this PPA, Company shall file this PPA with the North Dakota Public Service Commission. 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.*

### *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.*

*"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 prudent and/or in the public interest, and that those costs incurred by Company under this PPA as presently allocated by ratemaking mechanisms to Company's Minnesota and North Dakota jurisdictions are recoverable, in the aggregate, from the Company's Minnesota and/or North Dakota retail customers. The preceding is subject only to the requirement that the State Regulatory Agency retains ongoing prudency review of Company's performance and administration of this PPA.*

- B. Xcel shall execute Geronimo's power purchase agreement as amended and, within 10 days of the Commission's order in this matter, make a compliance filing with the executed power purchase agreement.
2. Regarding Calpine's proposal:
- A. The Commission selects the proposal as a resource that fits Xcel's need and approves Xcel's draft power purchase agreement with Mankato Energy Center II, LLC.
  - B. In any request to recover costs related to this project, Xcel shall address the costs and benefits of the dispatchability payments.
3. Regarding Xcel's Black Dog 6 proposal, the Commission selects the proposal as a resource that fits Xcel's need and approves the price terms.
4. The Commission declines to select Invenergy's proposal.
5. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf  
Executive Secretary



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