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December 8, 2014

PUBLIC DOCUMENT

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

RE: **PUBLIC Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E002/M-14-162

Dear Dr. Haar:

Attached are the **PUBLIC** comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

Northern States Power Company d/b/a Xcel Energy's Request for Approval of Solar Portfolio to meet Initial Solar Energy Standard Compliance.

The petition was filed on October 24, 2014 by:

James J. Alders
Strategy Consultant
Xcel Energy Services, Inc.
414 Nicollet Mall, 7th Floor
Minneapolis, MN 55401

The Department recommends **approval**, and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ EILON AMIT
Statistical Analyst

EA/ja
Attachment

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

PUBLIC COMMENTS OF THE
MINNESOTA DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

DOCKET No. E002/M-14-162

I. SUMMARY OF XCEL ENERGY'S PETITION

On October 24, Northern States Power Company d/b/a Xcel Energy (NSP, Xcel or the Company) petitioned the Minnesota Public Utilities Commission (Commission) for approval of a solar portfolio to meet initial solar energy standard requirements (Petition).

The Petition requests that the Commission:

- Approve the following Power Purchase Agreements (PPAs) for solar energy:
 - i. A PPA with Marshall Solar for 62.25 Megawatt (MW).
 - ii. A PPA with MN Solar I for 24.75 MW.
 - iii. A PPA with North Star Solar for 100 MW (together, the proposed solar portfolio or Solar Portfolio 2).
- Allow the Company to apply the output of the proposed solar portfolio toward the Solar Energy Standard (Minn. Stat §216B.1691, subd. 2f).
- Approve recovery of the costs and expenditures associated with the proposed solar portfolio via the Fuel Clause Rider (FCR) as allowed by Minn. Stat §216B.1645.

Finally, to meet the solar energy standard, the Company estimates that it will need about 150 – 200 MW of solar capacity around the period 2016-2017. The overall level of solar resources needed under the Minnesota solar standard have not yet been determined. However, Xcel states that a goal of 150 – 200 MW of solar capacity would balance the factors of lower energy costs in the future with the opportunity to take advantage of the

existing Federal Investment Tax Credit (ITC) of 30 percent (that is, 30 percent of the cost of a solar facility can be credited against income taxes).

To meet its proposed goal, the Company identifies two alternatives:

- A solar portfolio of 187 MW consisting of Marshall Solar, MN Solar I and Geronimo Solar¹ (Solar Portfolio 1) and
- a solar portfolio consisting of Marshall Solar, MN Solar I and North Star Solar (Solar Portfolio 2).

II. BACKGROUND

Minn. Stat. §216B.1691, subd. 2b requires Xcel, by 2020, to have 30 percent of its retail sales in Minnesota generated by eligible renewable energy technology and additionally, by the end of 2020, each public utility must have at least 1.5 percent of its retail sales in Minnesota generated by solar energy (Minn. Stat. §216B.1691, subd. 2f).

As part of its effort to meet the requirements of 1.5 percent solar energy, the Company issued a Request for Proposals (RFP) on April 22, 2014 for utility-scale solar generation. As a result of the RFP, Xcel selected Marshall Solar, MN Solar I and North Star Solar (RFP Companies).

According to the Company, these three projects, totaling 187 MW, were the least-cost projects among all the proposals received through the RFP and would allow the Company to meet its solar energy standard in a cost-effective manner and thus “should be the preferred approach.”

The proposed solar projects are summarized below.

Marshall Solar is a 62.25 MW solar energy project near Marshall, Minnesota that would consist of 30° fixed-tilt configuration, photovoltaic modules. It would be developed, owned and operated by NextEra Energy Resources up through commercial operation. The proposed PPA is for 25 years and, similar to wind-related PPAs, the pricing is designed on a pay-for-production basis. The project is expected to begin operating in late 2016.

MN Solar I is a 25 MW solar energy project near Tracy, Minnesota that would be developed, owned and operated by juwi solar, Inc. up through commercial operation. It would consist of a ground-mounted single-axis tracking system of multi-crystalline solar cells, and would interconnect at a new substation of the Tracy to Walnut Grove 69 kV line. The proposed PPA is for 25 years and, similar to wind-related PPAs, the pricing is designed on a pay-for-

¹ Geronimo Solar is the Aurora Solar project being considered in Docket No. E002/CN-12-1240.

production basis. The project is expected to begin operating in late 2016.

North Star Solar is a 100 MW solar energy project located near North Branch, Minnesota that would be developed, owned and operated by Community Energy Renewables, LLC up through commercial operation. It would consist of single axis tracking panels, and would interconnect at the existing Chisago County Substation. The proposed PPA is for 25 years and, similar to wind-related PPAs, the pricing is designed on a pay-for-production basis. The project is expected to begin operating in late 2016.

III. DEPARTMENT ANALYSIS

Several issues in this proceeding overlap issues in Xcel's Competitive Resource Acquisition docket, E002/CN-12-1240 (12-1240 Docket). One issue is the level of solar resources. In its solar RFP, Xcel proposes to add a total of 187 MW of solar capacity to meet Minnesota's Solar Energy Standard. In the 12-1240 Docket, the Department analyzed adding a total of 290 MW of solar resources for the Solar Energy Standard. Attachment A to these comments provides the Department's analysis of Xcel's current plan to add 257. MW's of solar between now and 2020.

Similar to the approach used for other PPAs,² the Department recommends that the Commission approve the PPAs if, and only if, the PPAs are consistent with the interest of Xcel's ratepayers. To be consistent with the interest of Xcel's ratepayers, the PPAs must meet the following three requirements:

- The purchase price to be paid by Xcel for the solar energy is reasonable,
- Xcel's ratepayers are appropriately protected from the financial and operational risks of the solar project, and
- Curtailment provisions are appropriate.

1. *The Prices (Costs) of the PPAs and the Solar Portfolios*

a. *Analysis*

The proposed PPAs between Xcel and each of the three RFP Companies are the result of a competitive bidding process which was very robust and included a large number of participants. Therefore, the resulting prices in the PPAs are likely to be reasonable, based on current information. The selected three solar projects had the lowest levelized prices of all the proposed solar bids. Therefore, their selection appears to be appropriate.

² For example, Xcel's Petition for Approval of a Power Purchase Agreement with Geronimo Wind Energy, LLC., Docket No. E002/M-11-713, Xcel's Petition for Approval of 600 MW of Wind Generation, E002/M-13-603.

However, given that the decision to include a solar project proposed by Geronimo Energy, LLC (Aurora Solar) in Xcel’s resource portfolio is currently pending before the Commission, the Department analyzed the impact of Solar Portfolio 1 (which includes Marshall Solar, MN Solar I, and Aurora Solar) and Solar Portfolio 2 (which includes Marshall Solar, MN Solar I, and North Star Solar), individually, on the Company’s overall revenue requirements. The Department used the Strategist model to analyze the impact of the two potential solar portfolios on Xcel’s overall net present value of revenue requirements. Based on this analysis, the Department concludes that the proposed Solar Portfolio 2, with the RFP Companies, is the most reasonable resource portfolio to allow the Company to meet its Solar Energy Standard. This analysis is summarized below.

The Department first analyzed a base case with no solar units and calculated the present value of societal cost (PVSC) under different scenarios of gas prices, wind prices, coal prices, carbon dioxide (CO₂) costs and expansion unit capital costs.

The next step was to force the Solar Portfolio 1 and Solar Portfolio 2, respectively, into the base case scenario, and then compare the impacts of Solar Portfolio 1 and Solar Portfolio 2 on the PVSC. Tables 1 and 2 below compare Solar Portfolios 1 and 2 to the base case (Table 1) and to each other (Table 2). For each table there are three variable-cost (such as capital costs, wind costs, etc.) comparison scenarios: High, Medium and Low. In the tables, a negative value means that the overall costs are lower than the base case.

Table 1: Comparison of Solar Portfolio 1 and Solar Portfolio 2 with the Base Case

	PVSC (\$,000)		
	All Variables at High	All Variables at Medium	All Variables at Low
No Solar	\$0	\$0	\$0
Portfolio 1	(\$59,132)	\$21,804	\$71,208
Portfolio 2	(\$113,688)	(\$41,796)	\$8,232

Table 2: Comparison of Solar Portfolio 1 with Solar Portfolio 2

	PVSC (\$,000)		
	All Variables at High	All Variables at Medium	All Variables at Low
Portfolio 1	\$0	\$0	\$0
Portfolio 2	(\$54,556)	(\$63,600)	(\$62,976)

Using the middle of the ranges for all the contingencies listed above, the PVSC over a 30-year period increased by \$21.8 million comparing the base case to the Solar Portfolio 1 scenario. In contrast, the PVSC over a 30-year period *decreased* by \$41.8 million comparing the base case to the Solar Portfolio 2 scenario. Based on Table 2, using Solar Portfolio 2 would reduce the PVSC by \$63.6 million, compared to using Solar Portfolio 1. Also, Table 2 shows that when comparing the impacts of Solar Portfolio 1 and Solar Portfolio 2 relative to the high-cost and low-cost scenarios, Solar Portfolio 2 results in significantly lower PVSC than Solar Portfolio 1 (see Attachment 1 for detailed analysis of the impacts of the Solar Portfolios 1 and 2 on the PVSC).

b. Conclusions regarding the prices (costs) of the PPAs and the solar portfolios

As discussed earlier in these comments, the prices for each solar project in Solar Portfolio 2 were determined via a competitive bidding process for solar resources and therefore are likely to be reasonable and competitive. Since the price for Aurora Solar was not determined in this competitive bidding process for solar resources (in Solar Portfolio 1, Aurora Solar substitutes for North Star Solar) its price requires additional analysis, along with a comparative evaluation to other solar resources as discussed below.

The average price in the Aurora Solar PPA over 20 years is [TRADE SECRET DATA HAS BEEN EXCISED] per MWh. In comparison, the average prices over the lives of the RFP Companies' proposals are as follows: Marshall Solar is [TRADE SECRET DATA HAS BEEN EXCISED] per MWh, MN Solar 1 is [TRADE SECRET DATA HAS BEEN EXCISED] per MWh and North Star Solar is [TRADE SECRET DATA HAS BEEN EXCISED] per MWh. Thus, the average price of the Aurora Solar PPA is about [TRADE SECRET DATA HAS BEEN EXCISED] percent higher per MWh than each of the solar projects in the Solar Portfolio 2. Moreover, the average price per MWh for the Aurora PPA is about [TRADE SECRET DATA HAS BEEN EXCISED] per MWh higher than the average cost of the highest cost PPA in Portfolio 2. Also, based on the Department's analysis, using the Strategist model, substituting Aurora Solar for North Star Solar (namely using the Solar Portfolio 1 instead of the Solar Portfolio 2) would result in an increased present value of societal cost of about \$63 million under the mid or low values of the various scenarios and \$55 million under the high values of the various scenarios.

c. Reliability of the RPF PPAs, Aurora and other resources

Another issue the overlaps the 12-1240 Docket is the assumed level of reliability of the Aurora Resource and the Solar RFP resources. In its Briefing Papers in the 12-1240 Docket, Commission staff stated that "The Aurora Proposal is a capacity resource and the Solar Projects bid into the Solar RFP Docket are energy resources." Because electric reliability is an important factor, the Department notes the following.

Overall, as noted in the Department's October 23, 2014 Comments in the 12-1240 Docket and in Docket Nos. E002/ M-14-788 and M-14-789, pages 23-24, since the Aurora resource is not dispatchable, the proposed PPA with Aurora would require Aurora to make a payment to Xcel if Aurora is not accredited at 71 percent of nameplate capacity. Thus, in that proceeding, the Commission must determine whether this provision is sufficient protection to ensure that ratepayers receive reliable service. Moreover, the appropriate reliability comparison for Aurora in the 12-1240 proceeding is to a natural-gas, combined-cycle facility. However, in this proceeding the appropriate comparison is to other solar resources, as follows.

First, like Aurora, the RFP Companies' solar resources, while not dispatchable, would provide some accredited capacity, which is assumed to be an accreditation of 52 percent. Therefore it is inaccurate to state that the RFP Companies' solar resources are energy-only resources.

Second, unlike Aurora, the RFP Companies do not have a provision requiring payment to Xcel for failure to achieve an accreditation of 71 percent. However, the Department's Strategist analysis already accounts for the assumed capacity differential by assuming a 71 percent accreditation for Aurora but only a 52 percent accreditation for the RFP Companies. Therefore, the differences in the PVCS between the Aurora Proposal and the RFP Companies appropriately reflect the differences in capacity accreditation.

Based on the above discussion, the Department concludes that any significant difference in the type of resources between the Aurora Proposal and RFP Companies' solar proposals is accounted for in the Department's Strategist analysis.

Therefore, based on both a comparison of individual prices of each of the proposed solar projects (including the Aurora Solar option), and a comparison of the PVSC of Solar Portfolio 1 and Solar Portfolio 2, the cost of Solar Portfolio 2 and the prices of the individual projects in Solar Portfolio 2 are reasonable. The Department cannot reach a similar conclusion for the Solar Portfolio 1.

2. *Protection of Xcel's Ratepayers from Financial and Operational Risks of the PPAs*

The PPAs for the three RFP Companies are essentially identical. Therefore, the Department references the details of the biggest project (North Star Solar – 100 MW) in the following analysis. The Department's conclusions are applicable to Marshall Solar and MN Solar I, unless otherwise specifically indicated.

a. *Financial Risks*

There are two main financial risks that may have negative impacts on Xcel's ratepayers. They are:

- In the case of a “front-loaded” PPA, a seller default and termination of the PPA during the early years of the contract when the price paid exceeds the contract levelized price, and
- Entitlement by a lender or other party, as a result of the seller’s failure to pay debt, to take over the project and terminate the PPA.

Under the first event Xcel’s ratepayers may have to pay an excessive price for solar energy during the period when the PPA is in effect. Moreover, Xcel may be forced to find more costly replacement power when the PPA is terminated. Also, under both events, the Project may be terminated and, therefore, put Xcel’s compliance with various legislative and Commission solar requirements in question, along with forcing Xcel to find what is likely to be more expensive replacement power.

However, none of the solar PPAs proposed front-load pricing; therefore, an early termination of any of the PPAs would not result in overpayments by Xcel’s ratepayers. In addition, to lower the financial risks of the PPA, the seller is required to maintain a Security Fund. Article 11.1 of the PPA describes the Security Fund required to be established by the seller. The PPA allows the Company to withdraw money from the Security Fund to account for various events of underperformance and bankruptcy. The seller is required to maintain a pre-commercial operation date (COD) and a post-COD Security Fund. The North Star Solar pre-COD and the post-COD Security Funds are capped at **[TRADE SECRET DATA HAS BEEN EXCISED]** dollars.³

Article 12 of the PPA describes events of default and the appropriate remedies. The events of default include, among other provisions, the following:

- Either Party’s application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for a Party or for all or substantially all of its assets, or its authorization of such application or consent, or the commencement of any proceedings seeking such appointment against it without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of sixty (60) Days from its inception.
- Either Party’s authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency,

³ The amounts of the Security Funds differ across the PPAs to reflect the different size of each PPA.

dissolution, liquidation or other similar law of any jurisdiction or the institution of such proceedings against Party without such authorization, application or consent, which proceedings remain undismissed or unstayed for sixty (60) Days from its inception or which result in adjudication of bankruptcy or insolvency within such time.

(Article 12, Section B and C, respectively).

Article 12.2(A) specifies the remedies available to the Company if the Seller fails to cure, in a timely manner, any default event. Such remedies include, among other options, drawing from the Security Fund, seeking legal remedies, exercising step-in rights and terminating the PPA. In addition to the remedies available to the Company, if the Seller enters into bankruptcy or receivership proceedings, the PPA restricts the Seller's ability to assign or transfer the PPA to another party. Article 19 of the PPA lists restrictive conditions on any transfer of the PPA from the Seller to another party. These conditions include, among others, the Company's pre-approval of such a transfer, the assignee of such transfer must assume all the obligations under the PPA, and in the event the assignee fails to meet any of the obligations under the PPA, the assigner remains responsible for any such unmet obligations.

After reviewing the features of the Security Fund and the remedies available to the Company in case the Seller enters into bankruptcy or receivership proceedings, the Department concludes that the three PPAs reasonably protect Xcel's ratepayers from the financial risks of the PPAs.

b. Operational Risks

As is typically true of PPAs in general, the operational risks are the risks that the solar project would not be built and operated as expected. These risks include a complete shutdown or a partial shutdown of the project due to technical problems. In the case of a partial shutdown, ratepayers must be assured that their payments for the solar energy are reduced accordingly. In the case of a complete shutdown, once again Xcel may face the risk of non-compliance with the various legislative solar requirements, and may need to find what is likely to be more expensive replacement power.

The RFP PPAs include specific features that protect both Xcel and its ratepayers from the operational risks discussed above. These features include a Security Fund and payments only for energy actually delivered to Xcel (except for curtailment issues discussed by the Department below). Additionally, the PPA includes restrictions on the sale or transfer of the solar facility, provisions to allow Xcel to monitor the operational aspects of the project and to verify compliance with certain aspects of the Project. Finally, any curable or other material breach of the PPA by the Seller must be cured within 60 days. Failure to do so allows Xcel to

terminate the contract and draw on the Security Fund to compensate for any losses caused by such underperformance events.

To protect Xcel's ratepayers from the operational risks of the PPA, the curable events of default for which, if not timely cured, the Seller must compensate the Company include, among others, failure to deliver at least 85% of the annual committed solar energy for each year of the contract and failure to achieve commercial operation no later than 90 days after the commercial operation milestones. The PPA has a step-in provision if the Seller fails to cure an event of default during the allowed curing period.

All the operational risk mitigation measures discussed above are common to all three solar PPAs, with different amounts for the security funds. However, the Right of First Offer (ROFO) provisions are different for each PPA and therefore, require further analysis for each individual PPA.

i. ROFO for the North Star Solar PPA

The ROFO allows Xcel the opportunity to negotiate to purchase the Facility⁴ if the Seller seeks to convey the facility to an unaffiliated third party. Section 19.2 sets the terms under which the Company and the Seller may negotiate for the Company to purchase the facility from the Seller. It sets certain periods under which certain steps must be completed as well as the process by which a fair purchase price is to be determined. Under Article 19.2, the Company also has an option to buy the facility after the end of certain time periods. However, this option is unrelated to the ROFO provision.

Article 19.1 of the PPA allows the Seller to assign the PPA to a third party only if:

- a. The Company consents to such a transfer;
- b. The Seller is still obligated to all of the provisions of the PPA unless otherwise agreed by the Company; and
- c. Before the PPA is assigned by the Seller to a third party, the Seller must first obtain such approvals as may be required by all applicable Government Authorities.

Based on the provisions in Article 19.1, the integrity of the PPA is protected in case the Seller assigns it to a third party as long as the Company requires it. However, to protect Xcel's ratepayers from possible changes to the PPA if transferred to a third party, the Department proposes that, should the Commission approve the North Star PPA, the Company and the Seller must be required to request and receive Commission approval of any proposed transfer of the PPA to a third party. Moreover, if NSP successfully exercises its ROFO option, the PPA would disappear since Xcel would then own the facility. The

⁴ Facility includes the net plant and interconnection equipment (Petition Attachment C, Exhibit A, Page A-5).

Department requests that Xcel discuss in Reply Comments how it intends to recover its costs for any such purchase the facility, should it exercise the ROFO for North Star Solar.

ii. ;ROFO for the Marshall Solar PPA

The ROFO for Marshall Solar reflects, to some degree, the fact that Marshall Solar is owned by NextEra Energy Operating Partners, LP, a publicly traded company. As a result of this ownership structure, Article 19.2 of the PPA with Marshall Solar includes the following provisions.

Seller hereby grants Company (i) an option to purchase **[TRADE SECRET DATA HAS BEEN EXCISED]**.

Aside from these provisions, the ROFO provisions in the PPA with Marshall Solar are the same as the ROFO provisions in the North Star Solar PPA. Again, as in the PPA between the Company and North Star Solar, NSP's ratepayers are appropriately protected from the business risks of transferring the PPA to a third party, except if NSP waives the Seller's continuing obligations under the PPA. Therefore, the Department recommends that, should the Commission approve the Marshall Solar PPA, the parties be required to request and receive Commission approval of any proposed transfer of the PPA to a Third Party.

Also, if the Company exercises its option to purchase the facility, the PPA would disappear as Xcel would own the facility. The Department requests that the Company clarify in Reply Comments how it intends to recover its costs to purchase the facility, should it exercise the ROFO for Marshall Solar. Finally, if the Company exercises its option to **[TRADE SECRET DATA HAS BEEN EXCISED]**, it is unclear which corporate structure would prevail after **[TRADE SECRET DATA HAS BEEN EXCISED]**. The Department also requests that the Company address this issue in its Reply Comments.

iii. ROFO for the MN Solar PPA

MN Solar PPA has a ROFO option, and it also would allow Xcel to purchase the facility at any time over the following two time periods:

- January 1 – March 31, 2016; and
- January 1 – March 31, 2038

Article 19.2 of the MN Solar PPA describes the terms under which Xcel may purchase the facility. Article 19.3 of the PPA describes the terms of the ROFO. Finally, Article 19.4 of the PPA would allow the Company to negotiate a purchase of the facility if there is a Pending Facility Transaction (PFT) that does not trigger a ROFO. Again, as in the case of the other two PPAs, the provisions in Article 19.1 of the PPA guarantee that the PPA's integrity remains intact if the Seller transfers the PPA to a third party. However, if the Company purchases the facility, then the PPA would disappear. Therefore, the Department requests that Xcel explain in Reply Comments how it intends to recover its costs to purchase the facility, should it exercise the ROFO for MN Solar.

d. Conclusions

Based on its review of each of the three PPAs, the Department concludes that, except for the event of the Company purchasing the facility, Xcel's ratepayers would be reasonably protected from the operational risks of the RFP PPAs. The Department expects the Company, in its Reply Comments, to clarify how it intends to recover its costs to purchase a facility, should it exercise the ROFO in any of the PPAs. Finally, the Department requests that Xcel discuss the resulting corporate structure in the event the Company obtains [TRADE SECRET DATA HAS BEEN EXCISED] in the Marshall Solar project.

3. Curtailment Provisions

In principle, only if the curtailments are initiated by Xcel, and the Seller is able to produce and deliver solar energy, Xcel must pay for the curtailed energy. Xcel would not make curtailment payments in other circumstances. If, after including these payments, the price is still reasonable, curtailment payments should be approved. Below is a detailed discussion of the curtailment issue; this discussion applies to all three proposed PPAs with the RFP Companies.

Section 8.2 of the RFP PPAs contains provisions to ensure that the Solar Project will continue to receive payments for energy it would have generated during any period of compensable curtailment.

The PPA defines two types of curtailment:

- Compensable curtailment (8.2 (A).1), and
- Non-compensable curtailment (8.2 (C)).

Non-compensable curtailments are, in essence, curtailments resulting from, among other events: emergency, seller's failure to obtain the necessary permits, failure of the seller's equipment, and interconnection issues. A complete list of non-compensable events is provided in Article 8.2 (C) of the PPA.

Compensable curtailments are curtailments for reasons other than non-compensable events. In essence, compensable curtailments are the result of Xcel's refusal to accept delivery for reasons other than non-compensable events. (For example: lack of transmission capacity, lack of transmission service, and transmission loading relief procedures, etc.). Article 8.2 (A) of the PPA provides the definition of compensable curtailed energy.

The proposed PPA stipulates that payments per MWh for compensable curtailment are the same as the payments that would have been received by the Seller absent the curtailment.

The Department notes that the compensable curtailment provisions are necessary to maintain the integrity of the transmission system. Furthermore, the payments for curtailed energy are needed to maintain the financial viability of the Seller. Therefore, the Department concludes that the curtailment provisions of the PPA are appropriate.

4. Conclusions regarding the financial and operational risks of the PPAs

Based on its review and analysis of the PPAs, the Department concludes that the provisions of the RFP PPAs would appropriately protect Xcel and Xcel's ratepayers from financial and operational risks, including the curtailment risk, of the PPAs. However this conclusion assumes that any transfer of the PPA to a third party would require Commission approval prior to any such transfer.

IV. WHETHER TO ALLOW THE COMPANY TO APPLY THE SOLAR ENERGY TOWARD MEETING ITS SOLAR ENERGY STANDARD

Based on its review of the PPA and Minn. Stat. §216B.1691 and based on the Department's conclusion that Solar Portfolio 2 represents the least-cost resources to meet Minn. Stat. §216B.1691, subd. 2f, the Department recommends that the Commission allow the Company to apply the solar energy produced by the three proposed RFP PPAs toward its Solar Energy Standard requirements.

V. CERTIFICATE OF NEED EXEMPTION

The Commission's October 28, 2014 *Notice* requested comment on whether the Commission should grant an exemption to the certificate of need if required for a selected project and, if so, under what statutory provision. A certificate of need is required under Minn. Stat. § 216B.243 for a large energy facility as defined in Minn. Stat. § 216B.2421. Minn. Stat. § 216B.2421 defines an electric generating plant with a capacity greater than 50 MW as a large energy facility. As the MN Solar I project is a 25 MW project, it is not

subject to Minn. Stat. § 216B.243. However, as the Marshall and North Star projects are greater than 50 MW, they are each subject to Minn. Stat. § 216B.243 unless an exemption applies as discussed below.

Minn. Stat. § 216B.243, subd. 9 exempts a project from the requirement to obtain a certificate of need if the Commission determines that the facility is a reasonable and prudent approach to meeting its renewable energy obligations under Minn. Stat. § 216B.1691, after considering the factors enumerated in the statute. Thus, if the Commission determines that the solar additions are a reasonable and prudent approach to meet Xcel's renewable energy obligations, the solar additions are exempt for the certificate of need requirement. The Department notes that the Commission has previously found Xcel's Odell and Nobles Projects to be exempt from the certificate of need requirement under Minn. Stat. § 216B.243, subd. 9. Further, the Department's analysis indicates that the three PPAs with the RFP Companies are least-cost approaches to meeting Minnesota's Solar Standard in Minn. Stat. § 216B.1691, subd. 2f.

Under Minn. Stat. § 216B.2422, subd. 5, utilities are authorized to select resources to meet needs identified in their integrated resource plans (IRPs) through a bidding process approved by the Commission.⁵ Resources procured in this manner are then exempt from the certificate of need requirements. However, the Minnesota Solar Standard in Minn. Stat. § 216B.1691, subd. 2f was passed after the Commission decided the issues in Xcel's IRP; as a result, the Commission did not require Xcel to pursue the addition of any solar resources in its last IRP.⁶ Thus, the Marshall Solar and North Star Solar projects are not exempt from the certificate of need requirements under Minn. Stat. § 216B.2422, subd. 5. The Department notes that this conclusion does not mean that 187 MW of solar in 2016 is not needed; rather it means that an addition of 187 MW of solar in 2016 was not identified in the resource plan.

As noted above, the Department concluded the Marshall and North Star projects are exempt from the certificate of need requirements under Minn. Stat. § 216B.243, subd. 9 if the Commission determines that each project is a reasonable and prudent approach to meeting its renewable energy obligations under Minn. Stat. § 216B.1691, after considering the factors enumerated in the statute. Subdivision 9 of the certificate of need statute provides:

⁵ ORDER ESTABLISHING RESOURCE ACQUISITION PROCESS, ESTABLISHING BIDDING PROCESS UNDER MINN. STAT. § 216B.2422, SUBD. 5, AND REQUIRING COMPLIANCE FILING at 8, Docket No. E002/RP-04-1752 (May 31, 2006).

⁶ Instead, given the law that existed at that time, the Commission directed Xcel to:

...include a report on solar power as part of its next resource plan. This report should note the expected amount of solar energy on Xcel's system, barriers it sees to further solar deployment, and how solar development could contribute to peak demand management, economic development in Minnesota, and meeting Minnesota's renewable energy and environmental mandates and goals ORDER APPROVING PLAN, FINDING NEED, ESTABLISHING FILING REQUIREMENTS, AND CLOSING DOCKET at 7.

This section does not apply to a wind energy conversion system or a solar electric generation facility that is intended to be used to meet the obligations of section 216B.1691; provided that, after notice and comment, the commission determines that the

facility is a reasonable and prudent approach to meeting a utility's obligations under that section. When making this determination, the commission must consider:

- (1) the size of the facility relative to a utility's total need for renewable resources;
- (2) alternative approaches for supplying the renewable energy to be supplied by the proposed facility;
- (3) the facility's ability to promote economic development, as required under section 216B.1691, subdivision 9;
- (4) the facility's ability to maintain electric system reliability;
- (5) impacts on ratepayers; and
- (6) other criteria as the commission may determine are relevant.

Regarding this provision, Xcel's need for additional solar resources and the costs of the proposed facilities along with the consideration of other renewable resources in the bids submitted to Xcel are discussed above. MISO's interconnection process ensures that Marshall Solar and North Star Solar will be connected to the grid in a safe and reliable manner. Finally, as discussed above, not only would the addition of Solar Portfolio 2 be a least-cost means to meet the Minnesota Solar Standard, it would *reduce* the PVSC versus not adding the Solar Portfolio 2 under all scenarios except the low values of variables.⁷

VI. COST RECOVERY

Minn. Stat. §216B.1645, subd. 2 allows Xcel to recover the costs of the PPAs, if approved by the Commission, via the FCR.

Based on its analysis, the Department concludes that Xcel's proposed solar portfolio (Portfolio 2) is the least-cost resource toward meeting its Solar Energy Standard requirements (Minn. Stat. §216B.1691, subd. 2f). Therefore, the Department recommends that the Commission allow Xcel to recover all of its prudent costs associated with Solar Portfolio 2 via its FCR.

⁷ Regarding the requirement that the Commission must consider the facility's ability to promote economic development, the Department notes that such information is not determinative in this case since these projects are cost-effective even without consideration of economic development factors. However, Xcel's filing includes economic development information about both Marshall Solar and North Star Solar.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

Based on the above review and analysis of the proposed PPAs, and the Department's Strategist modeling, the DOC concludes that:

1. The prices of the PPAs with the RFP Companies are reasonable;
2. Solar Portfolio 2 is the least-cost resource toward meeting Xcel's Solar Energy Standard requirements;
3. Xcel's ratepayers would be appropriately protected from the operational and financial risks of the PPAs with the RFP Companies;
4. The curtailment provisions in the PPAs with the RFP Companies are appropriate; and
5. While the Department concludes that Solar Portfolio 2 is in the public interest, the Department cannot reach a similar conclusion for Solar Portfolio 1, given the costs to Xcel ratepayers.⁸

B. RECOMMENDATIONS

Based on its analysis and conclusions, the Department recommends that the Commission:

1. Approve the PPA's between Xcel and Marshall Solar, Xcel and MN Solar 1 and Xcel and North Star Solar with the condition that a transfer of any of the PPAs to a third party or purchase of any of the three facilities by Xcel must first be approved by the Commission.
2. Allow the solar energy produced by Solar Portfolio 2 to be counted toward Xcel's Solar Energy Standard requirements.
3. Allow Xcel to recover the costs of each of the PPAs in Solar Portfolio 2 via the FCR.

/ja

⁸ On May 23, 2014, in Docket No. E002/CN-12-1240, the Commission issued its *Order Directing Xcel to Negotiate Draft Agreements With Selected Parties*. Point 1, Part A of the Order states, "Xcel shall negotiate a draft power purchase agreement with Geronimo Wind Energy, LLC, d/b/a Geronimo Energy, LLC, and submit the agreement for Commission review to ensure that the negotiated terms are consistent with the public interest."

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
Public Comments**

Docket No. E002/M-14-162

Dated this **8th** day of **December 2014**

/s/Sharon Ferguson

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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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