STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION

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In the Matter of a Commission Inquiry into Standby Service Tariffs	**MINNESOTA SOLAR ENERGY INDUSTRIES ASSOCIATION'S REPLY COMMENTS ON VARIOUS INVESTOR OWNED UTILITIES' FILED STANDBY TARIFFS**
May 15, 2017	**Docket No. E999/CI-15-115**

REPLY COMMENTS OF THE MINNESOTA SOLAR ENERGY INDUSTRIES ASSOCIATION

I. BACKGROUND

On April 21, 2017, several stakeholders, including the Minnesota Department of Commerce (DOC), posted commentary for the third time on the solar capacity credit in docket 15-115.[1]

On May 3, 2017, MnSEIA staff met with the DOC to better understand their commentary. The information provided during the meeting seemed to contradict in part the written comments submitted on April 21, 2017.

II. REPLY COMMENTS

MnSEIA and our members find ourselves in a peculiar situation in that the plain meaning of the DOC's written April 21, 2017 comments would be incredibly detrimental to the capacity credit rider, the commercial solar industry, and qualifying facilities (QFs). However, upon consulting with the DOC on May 3, 2017, it seems that our interpretation of their commentary is not what

[1] *See* COMMENTS, DOC DER, Docket No. E999/CI-15-115, Doc ID. 20174-131070-01 (Apr. 21, 2017) [hereinafter *DOC Comments*].

they intended their comments to suggest. If DOC clarifies their position for the record, then we only have some minor modifications to suggest.

The issue generally in DOC's comments arises out of what party the burden of getting systems registered with MISO is placed on. The statements DOC made in their comments to suggest what entity must register with MISO are:

> Xcel could work with their customers to register their solar generation.
>
> [and]
>
> The Department recommends that the Commission not allow Xcel to provide additional solar capacity credits to customers other than those already receiving a solar capacity credit, unless customers with new solar generation register their generation with MISO for Xcel's system.[2]

These two statements seem to direct customer QFs to do the actual registering and that Xcel Energy (Xcel) might help them, but it is up to their discretion. It puts the burden of registration on the customer. Conversely, in the May 3, 2017 meeting between DOC and MnSEIA it seemed clear that the burden of registering these systems (including associated costs and convincing MISO to devise a registration system) would fall upon Xcel.

Without seeing what, if any, clarifying comments DOC has added to their reply comments, we are submitting a two part document. The first part pertains to our understanding of what DOC was intending their comments to say, the second part will pertain to the plain meaning of DOC's written comments and the impact that approach would have if adopted.

i. THE MINNESOTA DEPARTMENT OF COMMERCE'S PROPOSAL, AS VERBALLY OUTLINED IN OUR MEETING WITH THEM ON MAY 3, 2017, REQUIRES MODIFICIATION, BUT WE DO NOT OPPOSE IT.

During our May 3, 2017 meeting DOC staff intimated to us that their intention is to have Xcel register the solar arrays with MISO, and not the solar installers or the QFs. By placing the burden upon Xcel to register these systems, it saves our members and their QF customers' time and money, so long as the costs associated with registration are not passed through to the QFs.

If Xcel gets additional value from systems registered with MISO over the ELCC study, then we favor that approach. Once Xcel starts registering systems with MISO, it should become clear that the $5.15/kw-mo. capacity credit is an undervalued resource, and that QF customers should be compensated at an even higher level for their capacity provided. We also support Xcel receiving some form of rate recovery from MISO for the capacity provided (whether that comes from

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[2] *DOC Comments, supra* note 1 at 8.

reduced reserve margins or some other mechanism), which the MISO registration should provide them.

The challenge with DOC's approach is, however, that if Xcel fails to get the credits registered, then the capacity credit will effectively drop to $0. In their April 28, 2017 comments DOC states "However, further analysis of this issue indicates that the installation of a solar generation resource by a customer provides quantifiable capacity value to Xcel ratepayers, and thus warrants a capacity credit, **but only if** the resource is registered with MISO for Xcel's system."[3] Under DOC's approach, the burden of working with MISO falls on Xcel, but the impact of a failure to meet the stated goals falls upon the solar installation community and their QF customers. This is unacceptable, because it could result in QFs not receiving compensation for capacity they are providing to Xcel even though the capacity is admittedly valuable to the utility.[4] It is unjust enrichment.

It is also unnecessary to do so at this time, because there is already an ELCC derived interim rate.[5] DOC is essentially requesting the Commission set aside the currently in place interim rate, while Xcel and MISO figure out how to register these systems. DOC's argument completely ignores that fact that the interim rate is an approximation for the capacity value these systems are providing to Xcel's grid. Instead, DOC seems to be claiming that until we know exactly how much value Xcel is really getting for QF capacity, then the QFs shouldn't be compensated at all.

But our understanding of this issue is that Xcel and MISO are currently not able to work in tandem to adequately evaluate the capacity that QF's provide to Xcel.[6] This is a miscommunication between Xcel and MISO. The QFs and the commercial solar installation community should not have to bear the burden of this miscommunication by not receiving credit for the capacity they provide to Xcel, especially when there is already an interim rate in place that is predicated on a scientifically sound ELCC study.

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3 *DOC Comments, supra* note 1 at 8 (emphasis added).

4 Value that has been repeatedly shown throughout this process; *See* INITIAL FILING – SOLAR EFFECTIVE LOAD CARRYING CAPABILITY_ELCC_STUDY, Xcel Energy, Docket No. E002/GR-10-971 Doc Id. 20135-86585-01 (May 1, 2013).

5 *See* INITIAL FILING – SOLAR EFFECTIVE LOAD CARRYING CAPABILITY_ELCC_STUDY, Xcel Energy, Docket No. E002/GR-10-971 Doc Id. 20135-86585-01 (May 1, 2013); *See also* ORDER SETTING INTERIM RATE AND ESTABLISHING NEW SOLAR RATE DOCKET, PUC, Docket No. E-002/GR-10-971, Doc. Id. 20135-86928-03 at 4 (5/13/2013).

6 *See DOC Comments, supra* note 1 at 8.

The part about DOC's proposal that is more disconcerting for our industry is how it does not encourage this situation to be alleviated. While Xcel, under DOC's approach, would be directed to figure out how to register these systems with MISO, there is nothing to incent Xcel to get this registration issue sorted out. On the contrary, there is an incentive for them to avoid ever resolving this issue with MISO. Based on this history of this docket, it seems Xcel may not want to administer the capacity credit at the $5.15/kw-mo. price – if at all – and providing them with an incentive cease credit distribution may result in the practical elimination of the program.[7] Placing the existence of the capacity credit on whether Xcel can figure out with MISO how to register these small systems encourages the utility to delay indefinitely.

We could support a similar position, however, if the solar PV Rider is adopted using the interim rate coupled with our modifications outlined in our prior comments (for new and pre-existing customers), a separate docket is opened wherein Xcel is required to post updates about their MISO registration progression, and once MISO and Xcel figure out the registration issue that it is retaken up in this docket. If our approach is adopted then 1) Xcel will have the proper impetus to work diligently on resolving this MISO registration issue, and 2) the solar industry and their QFs will not be harmed by any delay.

Assuming the DOC is requesting Xcel to do the aggregation of QF projects, be the party that registers them with MISO, and pay for the associated registration costs, then we would support their position with modifications.

ii. THE PLAIN MEANING OF MINNESOTA DEPARTMENT OF COMMERCE'S PROPOSAL IN ITS APRIL 21, 2017 WRITTEN COMMENTS WOULD NULLIFY THE CAPACITY CREDIT, BE DETERMINETAL TO QUALIFYING FACILITIES, FLIES IN THE FACE OF HISTORICAL PRECEDENT AND IS FOUNDED UPON IMPROPER ANALYSIS.

During the last round of reply comments, the Minnesota Department of Commerce (DOC) stated the following:

> However, further analysis of this issue indicates that the installation of a solar generation resource by a customer provides quantifiable capacity value to Xcel ratepayers, and thus warrants a capacity credit, but **only if the resource is registered with MISO for Xcel's system**. If a solar installation is not registered with MISO for Xcel, then it neither has the impact of a supply-side resource nor a load modifying resource (LMR). In response to DOC IR No. 6 (Attachment A)

[7] *See* COMMENTS, Xcel Energy, Docket No. E999/CI-15-115, Doc Id. 20174-131093-01 (Apr. 21, 2017) (stating "While we structured our proposal to maintain current "legacy" levels for Solar PV customers, we believe the level of the solar credit should be revisited.).

Xcel stated that it has not registered any customer-owned generators on the Standby Tariff and has not received any capacity accreditation for these resources. Further, Xcel's response to DOC IR No. 6 indicates that the Company's resource adequacy forecast:

• treats customer-owned generation as a reduction to a customer's load, and,
• includes the standby load in the load obligation if the standby generator resource fails.

The impact of Xcel's two countering actions is that the Company's capacity reserve requirement is the same as if the solar resource did not exist. Consequently, Xcel is unable to reduce its load obligations for MISO resource adequacy purposes when its customers add resources that are not registered with MISO. Xcel's summer peak load occurs between the hours of 1-7pm, coincident with approximately half of the daily output from a solar PV array. Thus, **although a solar installation may have positive impacts on Xcel's system, and while Xcel's proposed capacity credit provides a pricing signal to produce solar power coincident with peak load, Xcel is currently not able to account for any of these impacts in its capacity reserve requirement in its transactions with MISO if the generator is not registered**. That is, Xcel's system would receive the energy benefits, but not the capacity benefits.

Whether or not customer-owned intermittent resources provide capacity value for Xcel and other utilities in the future is dependent on whether they are registered with MISO. **Xcel could work with their customers to register their solar generation.** The value of customer owned solar installations to Xcel may change if MISO's policies change. **Currently the Department is monitoring MISO discussions concerning how behind the meter generation (BTMG—if registered with MISO, btmg, if not registered with MISO) will be treated**. For example, on January 26, 2017 several Department Staff listened to the MISO Common Issues Meeting where MISO discussed with interested parties options for customer-owned generation to demonstrate deliverability. MISO's discussions about BTMG continue. **Currently there is no foreseen path for MISO to count btmg solar as an LMR or as a planning resource**.[8]

Assuming the plain meaning of these comments is DOC's actual position, then our association takes issue with DOC's proposal. This approach would seemingly place the system registration on the QF and the solar installation community, and it would preclude customers from receiving value for their capacity until our industry convinces MISO to count btmg solar as an LMR or as a planning resource.

8 *DOC Comments*, *supra* note 1 at 8 (emphasis added).

We take issue with this approach for the following reasons:

A. DOC's Proposal Would Nullify Xcel's Entire Capacity Credit Program.

The DOC's recommendation does not seem to be overly onerous on its face, but it would effectively and immediately destroy the capacity credit program. DOC categorizes different generation as BTMG (capitalized) and btmg (lower case). To our knowledge, all current commercial rooftop arrays – the only entities that would likely receive this credit - would be considered "btmg." Under DOC's proposal, they would not receive any value for their capacity, unless registered with MISO. Our understanding is there is no viable pathway for a rooftop project to become registered with MISO.

Plus, even if the system could register with MISO, the process would be too costly. Take for example the interconnection fees associated with MISO registration:

Amount of new Interconnection Service requested (MW)	**Non-Refundable Deposit 1 (D1)**	**Study Deposit 2 (D2)**
< 6 MW	$5,000	$50,000
20 ≥ MW ≥ 6	$5,000	$120,000
50 ≥ MW > 20	$5,000	$180,000
100 ≥ MW > 50	$5,000	$270,000
200 ≥ MW > 100	$5,000	$320,000
500 ≥ MW > 200	$5,000	$420,000
1000 > MW > 500	$5,000	$530,000
MW ≥ 1000	$5,000	$640,000

[9]

A system that would be installed under this program would fall into the under 6MW category, and would be subject to a total of $55,000 in study fees. This cost alone would cripple any rooftop project and would likely negate the value of the capacity credit itself. MISO queues also create more lengthy time requirements.

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[9] GENERATOR INTERCONNECTION PROCEDURES (GIP), MISO, pp. 26, available at https://www.misoenergy.org/Library/Repository/Tariff%20Documents/Attachment%20X.pdf Effective March 23, 2017.

MISO queues are for customers that seek to interconnect to the transmission system. Even Xcel Energy's 5MW community solar gardens are not subject to MISO requirements, because they are connecting to the distribution system.[10]

MISO projects are typically much larger than any rooftop project would ever be. Here is a snap-shot of the MISO queue in Xcel's Minnesota Service territory:

Queue Date	Transmission Owner	County	State	Study Status	Study Cycle	Study Group	Interconnection Serv. Type	Point of Interconnection	Max Summer Output (MW)	Max Winter Output (MW)
1/13/2014	Xcel Energy	Ramsey County	Minnesota	GIA Complete	DPP-2014-AUG	West	ERIS	Xcel's existing High Bridge 115 kV substation	0	55
1/13/2014	Xcel Energy	Renville County	Minnesota	Withdrawn			ERIS	69 kV bus at Sacred Heart substation	40	40
3/17/2014	Xcel Energy	Chisago County	Minnesota	Withdrawn	FES-2014-MAR		ERIS		100	100
5/19/2014	Xcel Energy	Chisago County	Minnesota	Withdrawn	FES-2014-JUN		NRIS		50	50
5/19/2014	Xcel Energy	Waseca County	Minnesota	Withdrawn			ERIS	69 kV bus at Meriden Substation	40	40
5/19/2014	Xcel Energy	Sherburne County	Minnesota	Withdrawn			NRIS	SE Corner of 137th ST & 140th AV, Becker, MN	100	72
5/19/2014	Xcel Energy	Goodhue County	Minnesota	Withdrawn			NRIS	3 mi to 69 kV line (XCEL switing and Vasa sub)	39	39

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The smallest project in their queue currently is 39MW. MISO deals with projects that are larger than the QFs that would receive the capacity credit, and requiring that the QF register with MISO to receive the credit would render the program useless. It would be too costly and too time intensive for QFs.

B. The Department of Commerce's Approach Would Be Detrimental To Pre-existing QFs Receiving the Capacity Credit, And Future QFs.

Many QFs, like the City of Minneapolis, would have to register with MISO in order to be grandfathered into the program, and other projects would need to register upfront in order to receive their capacity benefits, but this is an economic burden that may not be feasible for some pre-existing customers. Many of the pre-existing customers signed up with the understanding that the capacity value they receive for their systems may change but would not be eliminated.

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10 As the author recalls through the verbal SRC working group conversations in early 2014, it seemed that gardens would get kicked up to requiring MISO approval at approximately 20MW.

11 Midwest ISO Generator Interconnection Queue - 4/29/2017 available at https://www.misoenergy.org/PLANNING/GENERATORINTERCONNECTION/Pages/InterconnectionQueue.aspx

Once the utility has acknowledged that a system provides them capacity, and the QF has relied on that acknowledgement, it is incredibly ill-founded to pivot to a position that the system actually does not provide a capacity value.

Moreover, the entire issue of MISO registration seems to be an issue between Xcel and MISO. Yet, the QF is the one being harmed in this process. DOC states in its comments:

> Although a solar installation may have positive impacts on Xcel's system, and while Xcel's proposed capacity credit provides a pricing signal to produce solar power coincident with peak load, Xcel is currently not able to account for any of these impacts in its capacity reserve requirement in its transactions with MISO if the generator is not registered.[12]

Within the same sentence, DOC acknowledges that these systems provide a benefit to Xcel, but argues that the QF shouldn't be compensated for the benefits provided because Xcel cannot adequately communicate its received benefits with MISO. It should not be incumbent upon the QF to register with MISO, so that Xcel can understand how much value it is getting – especially for preexisting systems.

C. The DOC's Recommendation Flies In The Face Of Over 7 Years Of Precedent.

This Docket, 15-115, has a long history. It has emerged from a series of other dockets. The original docket 10-971 was started in 2010, and the Commission first ordered an ELCC study on April 25, 2013.[13] On May 13, 2013, the Commission set a rate that has now become the basis for the $5.15/kw-mo. capacity credit.[14]

Throughout the entire process, DOC has been supportive of the capacity credit.[15] It even offered an alternative justification for the $5.15/kw-mo. credit amount.[16] Collectives (like the Solar Rate Reform Group), entities (like Xcel Energy), and organizations (like our MnSEIA Members) have

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12 *DOC Comments*, *supra* note 1 at 8.

13 *See* ORDER SETTING INTERIM RATE AND ESTABLISHING NEW SOLAR RATE DOCKET, PUC, Docket No. E-002/GR-10-971, Doc. Id. 20135-86928-03 at 4 (5/13/2013).

14 *See* ORDER SETTING INTERIM RATE AND ESTABLISHING NEW SOLAR RATE DOCKET, PUC, Docket No. E-002/CI-13-315, Doc. Id. 20135-86928-02 (5/13/2013).

15 *See e.g.* COMMENTS – SUPPLEMENTAL, DOC DER, Docket No. E-002/M-13-315, Doc. Id. 201312-94457-01 at 2-5 (Dec. 9, 2013).

16 *See* COMMENTS, DOC DER, Docket No. E-002/M-13-315, Doc. Id. 20143-97377-01 at 6 (Mar. 17, 2014).

worked diligently with DOC to develop an appropriate and justifiable credit. Now DOC's most recent comments threaten to upend the entire process, and negate all of the hard work leading up until now.

The thing that is the most bizarre about DOC's turnabout has been that since Xcel's ELCC analysis in 2013, even the utility has acknowledged that there is at least some value for the capacity that these systems provide (regardless of their standing with MISO). Even in Xcel's most recent filings they state the following:

> While we structured our proposal to maintain current "legacy" levels for Solar PV customers, we believe the **level of the solar credit should be revisited**. Unlike interruptible load which receives a capacity credit, the capacity of **Standby customers generators is not registered with MISO which impacts the value of the capacity to the system**. Another important consideration for determining the level of the capacity credit is the need for consistency with the embedded cost basis of applicable rates including base tariff demand charges.[17]

Xcel highlights the same MISO registration issue that DOC did, but instead of denying that the capacity credit has any value unless registered with MISO, Xcel only states that it impacts the overall value of the credit. Determining the true value of the capacity provided is a much different conversation than discussing whether these systems even provide useful capacity.

MnSEIA is dismayed that after seven years of stakeholder engagement building this program, we are placed in a position where we must argue once again for its existence.

D. The DOC's Recommendation Is Ill-Founded.

a. The DOC's recommendation is incongruent with other dockets and commission determinations.

The greatest challenge with DOC's recommendation is it runs contrary to several other important dockets. Xcel Energy's Value of Solar (VOS) docket and even its more recent Renewable Connect program have values for solar capacity. The VOS Tariff is a methodology **actually devised by the Department of Commerce itself** and then approved by the Commission.[18] One of the many values associated with the VOS is a credit for capacity.

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17 COMMENTS, XCEL ENERGY, Docket No. E999/CI-15-115, Doc. Id. 20174-131093-01 at 5 (Apr. 21, 2017).

18 *See* Minnesota Public Utilities Commission Docket No. E-999/M-14-65.

The VOS methodology could apply to any rooftop program throughout the state, and because it is a feed-in tariff mechanism, the QF would be receiving value for its capacity provided.[19] Furthermore, in the context of Community Solar Gardens in Xcel's service territory, any CSG that is applied for in 2017 or thereafter will receive the VOS rate.

So under DOC's approach, a 1-MW system installed on a rooftop would not receive value for its capacity provided to Xcel unless registered with MISO, but a 1-MW CSG located on the adjacent parcel would receive compensation for its capacity provided regardless of whether it is registered with MISO. This incongruent application of prior precedent is arbitrary and capricious on its face.

b. The DOC's statements are only partially true.

Xcel is able to account for some of the capacity benefits that the QF provides regardless of whether the QF is registered with MISO. btmg solar may not help Xcel determine its planning reserves directly, but btmg solar will reduce Xcel's overall peak. A reduction in overall peak means that Xcel can – with statistical confidence -procure less capacity reserves on average. Perhaps Xcel needs to plan for specific system failures, but with enough PV capacity Xcel will be able to hedge against specific system outages.

Moreover, DOC's entire argument is predicated on "capacity reserve requirement in [Xcel's] transactions with MISO" as the only benefit that QF PV capacity provides.[20] This is simply not the case. For instance, solar provides reserve capacity benefits in case one of Xcel's generators goes offline. Or, with enough PV capacity, Xcel may be able to defer building a new resource to garner more capacity. These benefits do not require MISO registration for it to be measurable.

c. The DOC's statements contradict themselves.

Under the DOC's "SOLAR CAPACITY CREDIT INTRODUCTION" the DOC reiterates an equation that it has suggested the Commission use. The equation is here:

> • Estimating Xcel's avoided cost per kW-month, which consists of:
> - Avoided capacity costs ($/kW/month), plus
> - Avoided transmission costs ($/kW/month) plus
> - Line Losses
> • Multiplying the avoided costs by either:
> - Effective Load Carrying Capability (ELCC), ***or***
> - MISO-determined solar capacity value.[21]

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19 *See* Minn. Stat. § 216B.164, subd. 10.

20 *DOC Comments*, *supra* note 1 at 8.

21 *DOC Comments*, *supra* note 1 at 7 (emphasis added).

When taking this language and applying it to the rest of DOC's position, then it is startling they reach the conclusion that they do. Xcel has already performed an ELCC and that has been the value that has been historically used throughout this process. Now, DOC is suggesting that the program use the MISO-determined solar capacity value, despite 1) it currently not existing due to no fault of the QF customers, the solar community or Xcel Energy, and 2) while having a perfectly viable ELCC study instead. If it is truly the case that you can multiply Xcel's avoided cost by either the ELCC or the MISO-determined solar capacity value, then it seems prudent for the Commission to apply the pre-existing, previous used ELCC in lieu of a number that does not exist because MISO has not gotten around to determining it.

For the above reasons under section D, DOC's request is ill-founded.

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In many ways, it feels like DOC's comments are incomplete. In that they highlight a problem, but do not suggest a viable pathway forward. Instead, they advocate for a programmatic pause until the QF community can devise an approach with MISO. We are concerned that the potential "pause" in the capacity credit program will become permanent and ultimately end the program. The best pathway forward is to retain the capacity credit interim rate until Xcel and MISO can devise an appropriate way for the utility to register these btmg systems. Then at that time a transition to a permanent rate seems appropriate.

Thank you for providing us an opportunity to comment.

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