COMMERCE DEPARTMENT

January 19, 2024

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

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources** In the Matter of Updating the Generic Standards for the Interconnection and Operation of Distributed Generation Facilities Established Under Minn. Stat. § 216B.1611 Docket No. E999/CI-16-521

Dear Mr. Seuffert:

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

In the Matter of Updating the Generic Standards for the Interconnection and Operation of Distributed Generation Facilities Established Under Minn. Stat. §216B.1611

The Department **recommends an 18–24-month pilot program in Xcel Energy service territory** to assess the two-queue model proposed, and **rejection** of the capacity reservation proposal. The Department also **recommends the Commission reject MnSEIA's proposal** that small DER compensate large DER for queue position reassignment. The Department is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ Louise Miltich Assistant Commissioner of Energy Regulatory Analysis

LM/ar Attachment



Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket Nos. E999/CI-16-521

I. INTRODUCTION

The question before the Commission regards what changes to the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) should the Commission make to achieve the purpose of Minnesota Laws 2023, Ch.60, Art. 12, Sec. 75 (HF 2310).

The Commission is charged under Minn. Stat. § 216B.1611 with establishing statewide standards for the interconnection and parallel operation of distributed energy resources (DER) of no more than 10 megawatts (MW). The Commission established the Minnesota Distributed Energy Resources Interconnection Process (MN DIP), which outlines a procedure and provisions for the interconnection of DER.¹

Minnesota Laws 2023, Ch. 60, Art. 12, Sec. 75 specified that "no later than September 1, 2023, the Commission shall open a proceeding to establish interconnection procedures that allow customer-sited distributed generation projects up to 40 kilowatts alternating current in capacity to be processed according to schedules specified in the Minnesota Distributed Energy Resources Interconnection Process, giving such projects priority over larger projects that may enjoy superior positions in the processing queue."²

II. PROCEDURAL HISTORY

On January 24, 2017, the Commission established the Distributed Generation Workgroup (DGWG) to develop the Minnesota interconnection technical standards.³

On July 16, 2021, the Commission requested comments on changes proposed in the DGWG's subgroups' final reports, specifically on issues related to managing interconnection queues.⁴ Comments were received between August 25, 2022 and October 1, 2022.

¹ Minnesota Public Utilities Commission, Order Establishing Updated Interconnection Process and Standard Interconnection Agreement, (August 13, 2018) (eDocket No. <u>20188-145752-02</u>).

² 2023 Minn. Laws ch. 60, art. 12, sec. 75.

³ Order Establishing Workgroup and Process to Update ad Improve State Interconnection Standards (January 24, 2017) (eDocket No. 20171-128408-01). This order was concurrently filed in *In the Matter of Establishing Generic Standards for Utility Tariffs for Interconnection and Operation of Distributed Generation Facilities under Minnesota Laws 2001, Chapter 212*, Docket No. E-999/CI-01-1023 on the same date.

⁴ Minnesota Public Utilities Commission (July 16, 2021), Notice of Comment Period, (eDocket 20217-176216-01).

On March 31, 2022, the Commission issued an Order requiring Xcel Energy to modify its treatment of pending and future interconnection requests.⁵

On April 11, 2023, the Commission issued an Order conditionally adopting amended technical interconnection and interoperability requirements and requiring filings.⁶ Because "smart" inverters were not readily at the time, the Commission acknowledged the value in "encouraging the use of these inverters prior to their full implementation to facilitate a more seamless transition once they become readily available."⁷ On October 6, 2023, the Commission issued a Notice determining that the IEEE 1547-2018 certified inverters are now "readily available."⁸

This docket also considers the terms of the financial relationship between an electric utility and a distributed generation customer with no more than 10 MW capacity. The Commission took the matter up on August 10, 2023.⁹

On October 10, 2023, the Commission issued an Order amending attachment 6 of interconnection standards.¹⁰ Attachment 6 contains guidelines for the terms of the financial relationship between an electric utility and DG customer by addressing topics such as the qualifications DG facilities must meet, calculation of avoided costs, standby rates, and credits available to DG facilities.

On January 22, 2022, the Commission took up the matter of Updating the Generic Standards for the Interconnection and Operation of Distributed Generation Facilities Established under Minn. Stat. § 216B.1611.¹¹

On September 1, 2023, the Commission issued a Notice of Comment Period¹² requesting that interested participants submit proposals on how to modify MN DIP in line with Minnesota Laws 2023, Ch. 60, Art. 12, Sec. 75 by November 1, 2023, addressing the following topics:

- Interconnection procedures that allow customer-sited distributed generation projects up to 40 kilowatts alternating current in capacity to be processed according to schedules specified in the MN DIP, giving such projects priority over larger projects that may enjoy superior positions in the processing queue.
- 2. Whether the prioritization of these projects include areas where the distribution system is capacity constrained as well as in areas that are not similarly constrained.

⁵ Minnesota Public Utilities Commission (March 31, 2022), Order Modifying Practices And Setting Reporting Requirements, (eDocket No. <u>20223-184288-01</u>).

 ⁶ Minnesota Public Utilities Commission, Order Conditionally Adopting Amended Technical Interconnection And Interoperability Requirements And Requiring Filings, (April 11, 2023) (eDocket No. <u>20234-194683-01</u>).
⁷ Id.

⁸ Minnesota Public Utilities Commission, *Notice of "Readily Available" Advanced Inverters and Full Implementation of Technical Interconnection and Interoperability Requirements*, (October 6, 2023) (eDocket No. <u>202310-199428-01</u>).

⁹ Minnesota Public Utilities Commission, *Notice of Commission Meeting*, (July 28, 2023) (eDocket No. <u>20237-197803-02</u>).

¹⁰ Minnesota Public Utilities Commission, *Order Amending Attachment 6 Of Interconnection Standards*, (April 11, 2023) (eDocket No. 202310-199476-01).

¹¹ Minnesota Public Utilities Commission, Notice of Commission Meeting, (January 7, 2022) (eDocket No. 20221-181336-01).

¹² Minnesota Public Utilities Commission, Notice of Comment Period, (September 2, 2022) (eDocket No. 20239-198677-01).

- Whether there are changes to the MN DIP that would be de minimis in nature regarding policy but would update the document to accurately reflect recent changes and references.
- 4. Are there other issues or concerns related to this matter?

III. PROPOSALS RECEIVED

A. PROPOSALS RECEIVED

Five proposals were received in response to the Notice of Comment and are summarized below.

1. Xcel Energy¹³

Xcel agrees that the forecasted growth for DER is significant given Minnesota's statutory decarbonization goals. Xcel proposes to adjust MN DIP to allow for the prioritization of small customer sited DER projects of up to 40 kW AC by allowing two separate interconnection queues and proposes specific language modifications to MN DIP. This proposal envisions one queue for customer sited Interconnection Applications of up to 40 kW AC (the Priority Queue) and all other interconnections (the General Queue), with area EPS Operators reserving available levels of DER capacity in the Priority Queue.

To implement capacity reserve levels, Xcel would change their Technical Planning Standard (TPS) for each of the queues above as follows:

General Queue: Projects are allowed capacity up to 50 percent of the system (feeder/substation) equipment rating.

Priority Queue: Projects are allowed capacity up to 100 percent of the system (feeder/substation) equipment rating.

Xcel attributes a significant amount of congestion in its system to Community Solar Gardens (CSGs) and standard equipment in the distribution system. Cost is also cited as a factor for both the utility and the customer—engineering costs as well as infrastructure costs such as feeder lines, new substation bays, or entire new substations. Xcel contends that a two-queue system and changes to the MN DIP allows the Commission to prioritize small DER as required by legislation while also allowing Area Electric Power System (EPS) Operators the ability to determine the level of reserved capacity appropriate for their specific technical planning standards, reserving 50 percent of the DER capacity per feeder/substation for up to 40 kW.

¹³ Xcel Energy, *Proposed Modifications to MN DIP*, (November 1, 2023) (eDocket No. 202311-200131-01).

Xcel further suggests the following changes to MN DIP (shown in red):

1.8.1 Queue Position is assigned by the Area EPS Operator based on when the Interconnection Application is deemed complete as described in section 1.5.2, but Queue Position is also subject to the provisions of section 1.8.3 and 1.8.5. The Queue Position of each Interconnection Application will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Queue Position also establishes conditional interconnection capacity for an Interconnection Customer, contingent upon all requirements of the MN DIP and MN Technical Requirements being met.

1.8.3 The Area EPS Operator shall maintain two a single, administrative queues and may manage the queues by geographical region (i.e. feeder, substation, etc.) One queue is for "customer-sited" Interconnection Applications up to 40 kWac (the "Priority Queue"), and the other queue is for all other Interconnection Applications (the "General Queue"). A "customer-sited" Interconnection Application is one that complies with the 120 percent rule whereby the total generation system annual energy production kilowatt hours alternating current is limited to 120 percent of the customer's on-site annual electric energy consumption. For existing customers, the application of the 120 percent rule must be based on standard 15-minute intervals, measured during the previous 12 calendar months. If a facility subject has either less than 12 calendar months of actual electric usage or has no demand metering available, then the means of estimating annual demand or usage for purposes of applying these limits will be based on looking at information for similarly situated customers. These is administrative queues shall be used to address Interconnection Customer inquiries about the queue process. If the Area EPS Operator and the Interconnection Customer(s) agree, Interconnection Applications may be studied in clusters for the purpose of the system impact study; otherwise, they will be studied serially.

1.8.5 Applications in the Priority Queue have priority over applications in the General Queue unless a specific application in the General Queue has already begun a System Impact Study or been issued an Interconnection Agreement.

1.8.6 The Area EPS Operator may reserve levels of available DER capacity in the Priority Queue that differs from the General Queue.

2. Minnesota Rural Energy Association (MREA)¹⁴

MREA represents 50 cooperatives in Minnesota. It has been an active participant with the Distributed Generation Working Group (DGWG) and the development of Minnesota's DER interconnection process. Except for Dakota Electric Association, Minnesota electric cooperatives have adopted an interconnection process similar to MN DIP and have not experienced delays with evaluating less than 40 kW applications.

MREA proposes creating two queues for application review:

- 1. one queue specifically for less than 40 kW systems and one queue for 40 kW and greater systems. These would apply to non-constraint areas of individual distribution systems.
- 2. For constraint areas of distribution systems, a single queue would remain as there is potential for any size DER to end up in the engineering study phase. With this approach, each queue would rely upon engineering models that are updated regularly to reflect the DER application that passed the engineering review stage.

MREA does not offer specific changes to MN DIP.

3. Dakota Electric Association (DEA)¹⁵

Dakota Electric Association (or Cooperative) remains in what it refers to as the "free phase" of DER interconnection. That is, it is not experiencing significant interconnection problems, cost concerns for members, and does not have a significant number of large DER applications. DEA has not taken a position on whether smaller (under 40 kW) DER facilities are better compared to larger facilities (over 40 kW) from a policy perspective but suggests that a two-queue process for DER interconnections that includes systems smaller than 40 kW and systems larger than 40 kW may work.

DEA suggests that a longer-term solution is "outside of the specific requirements of the Legislative directive and will require additional overarching policy discussion." DEA proposes what it considers a potential shorter-term option, which includes a process where utilities maintain at least two queues for DER interconnections: one for systems which are smaller than 40 kW, and one for systems larger than 40 kW. In this model, "the utility continues to process less than 40 kW DER applications as they come in for all portions of their system which are not already limited. When a larger than 40 kW system is proposed, any required studies are completed with a base of existing and proposed level of DER. The base of existing DER is then increased to a level that reflects the expected amount of less than 40kW DER interconnection requests over the next 6 to 12 months. The proposed larger than 40 kW DER is then studied with that updated base of interconnected DER. No other larger than 40 kW DER can proceed in that area (substation) until that first DER has completed the process and is cleared for interconnection or withdrawals [sic] their request."

¹⁴ Minnesota Rural Energy Association (November 1, 2023), *Comments*, eDockets <u>202311-200141-01</u>.

¹⁵ Dakota Electric Association (November 1, 2023), Small DER Interconnection Proposal, eDockets 202311-200126-01

DEA notes potential drawbacks of the two-queue system, including "the potential to shift interconnection and distribution upgrade costs to over 40kW facilities and that it does not resolve the circumstance where a large DER has taken all the availability on a feeder." Furthermore, multiple queues may create management issues, especially for smaller utilities with limited staff.

The comments also include what DEA considers *de minimis* changes to MN DIP rather than policy changes. These include:

Section 1.5.2- Recommends the addition of a table showing the time frames for each of the application paths. We have found this information to be very helpful for the reader to understand the difference between the application paths. Some applicants have selected the Fast Track path as they thought this was faster than simplified path.

Application Path	<u>Notification of</u> <u>Application</u> <u>Receipt</u>	Notification of Application Completeness	<u>Notification</u> <u>of</u> <u>Interconnecti</u> <u>on Approval</u>
<u>Simplified</u>	<u>3 days from filing</u>	<u>10 days from filing</u>	20 days from receipt of complete application
<u>Fast Track</u>	<u>3 days from filing</u>	10 days from filing	25 days from receipt of complete application
Study Process	<u>3 days from filing</u>	<u>10 days from filing</u> <u>to initiate</u> <u>scheduling of</u> <u>scoping meeting</u>	<u>Per study</u> process time-lines

Note: Days are Business Days.

Section 5.4.5.2: If the proposed interconnection requires construction of any facilities, the Area EPS Operator shall notify the Interconnection Customer of such requirement when it provides the supplemental review results and either: 1) provide a good faith cost estimate; or 2) require a facilities study pursuant to 4.4.1. Within five (5) Business Days, the Interconnection Customer shall inform the Area EPS Operator if the Interconnection. If the Interconnection Customer makes such an election, within twenty (20) business days, the Area EPS Operator shall either provide: i) an Interconnection Agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, within twenty (20) Business Days after the Area EPS Operator receives such an election or ii) a facilities study agreement pursuant to section 4.4. Clarification of Technical Requirements (in red)

MN Technical Requirements – The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: the Minnesota DER Technical Interconnection and Interoperability Requirements (TIIR) and the Dakota Electric Technical Standards Manual (TSM). The terms Technical Requirements, Minnesota Interconnection Technical Requirements and Minnesota Technical Requirements are all considered referencing this set of technical requirements for the interconnection of DER. 1) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission's September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated in late 2019.)

Other changes include:

- Attachment 2, Simplified Application Form: Replaced existing Simplified Interconnection Application with version approved by the DGWG in 2021. May 7, 2021 Notice Docket Nos. E999/CI-01-1023 and E999/CI-16-521.
- Attachment 2, Exhibit B: This exhibit is removed. Energy Storage information is now contained in both updated applications.
- Attachment 3: Replaced Interconnection Application with version approved by the DGWG in 2021. May 7, 2021 Notice Docket Nos. E999/CI-01-1023 and E999/CI-16-521.
- Attachment 4: Need to update the technical references to align with the updated TIIR document. This would include updating or possibly removing the footnote #14.
- The reference on page 1 of the MN-DIP of MN DTIIR should be updated to MN TIIR.

These changes are in addition to prior suggestions for minor MN DIP updates.

DEA also identifies two areas of concern related to DER interconnection: energy storage in the DER interconnection process and interconnection costs associated with smaller DER facilities. Regarding energy storage, DEA notes that MN DIP and interconnection standards treat energy storage and DER capacity on a combined basis.¹⁶

The second concern relates to interconnection costs and smaller DER facilities and how those costs are applied. Under the current interconnection framework, once a feeder or substation has limited

¹⁶ The Department addressed this concern in Comments in this docket and in E111/CI-18-711. *See* Comments of the Department of Commerce, Division of Energy Resources (January 12, 2024) (eDocket Nos. <u>20241-202160-01</u>, <u>20241-202160-01</u>, <u>20241-202160-02</u>).

or no hosting capacity, the next DER applicant, regardless of size, is responsible for the full incremental upgrade costs to support that proposed interconnection. The crux of the issue is that the current process does "not allow consideration of system optimal, but more expensive, solutions that may provide greater long term overall benefit." DEA also points out,

"If the overarching policy goals or objectives are to shield smaller DER installations from high, and unexpected, interconnection upgrade costs, and avoid lengthy queue delays, then Dakota Electric believes discussion and analysis of longer-terms solutions may be beneficial. In particular, Dakota Electric believes additional analysis and discussion of a process built around "make ready" for distribution upgrades associated with under 40kW facilities may be worthwhile. The concept of "make ready" can have different definitions or interpretations, so it is important that we provide some clarity to how we see "make ready." In terms of "make ready," Dakota Electric would (except in limited, unique circumstances) consider making necessary distribution upgrades with no upfront payment requirement for facilities under 40kW, but it would assess a monthly charge to each DER system to account for some allocation of DER related distribution upgrade costs."

DEA contends that the monthly charge to each DER system creates a more equitable distribution of costs rather than "requiring the utility (through its captive ratepayers) to fully fund system upgrades, primarily for the benefit of a group of consumers who use less energy contribute less in terms of revenue recovery toward overall system costs, shifts costs to consumers who are unable to consider DER, especially lower income consumers and renters."

To illustrate this point, DEA includes the following table in its comments:

Year	Number of	Number	Member	Dakota	Total Cost
	Interconnections	of	Cost	Electric	
		Upgrades		Cost	
2019	98	1	\$871.94	\$851.24	\$1,723.18
2020	138	1	\$869.82	\$1,201.44	\$2,071.26
2021	371	8	\$7,417.44	\$18,150.67	\$25,868.11
2022	322	15	\$15,347.56	\$28,167.71	\$43,515.27

Table 1: Potential Impacts of Interconnection Upgrade Cost Charge on DER Installations

Source: Dakota Electric Association

The table summarizes costs assessed for DER interconnections on an annual basis since DEA began experiencing upgrade costs. Not only have significant increases in upgrade costs occurred in a short period of time, but the Cooperative also covers a significant portion of interconnection upgrade costs and does not bill members/customers the full upgrade cost. DEA believes that "monthly charges

should be assessed to prospective interconnections annually and potentially expanded to all DER after a phase in period. If this rate is assessed to all under 40kW installations, regardless of installation date, it will result in a lower overall monthly rate which could lessen the impact of future high-cost DER interconnections."

4. Otter Tail Power¹⁷

Otter Tail Power (OTP) serves a largely rural region in northern Minnesota and have been able to process interconnections under the process described within the Minnesota Distributed Energy Resource Interconnection Process. They have not experienced a queue or priority concern where a larger interconnection project is actively holding up one or more smaller (< 40 kW) DER projects behind them in their interconnection queue. OTP did not submit a proposal but expressed a willingness to participate in a DGWG on this topic to find the most appropriate solution.

5. Minnesota Solar Energy Industries Association (MnSEIA)¹⁸

In addition to this docket, MnSEIA believes that it is necessary to "consider the implications of Xcel's Technical Planning Limit ('TPL'), which is currently being challenged by 26 parties in docket [23-424]. The TPL is limiting the capacity of Xcel's entire distribution system by 2.6 gigawatts, which is more than all the solar that is currently installed in Minnesota." ¹⁹ MnSEIA argues that the feeders and substations that are currently constrained are "constrained solely because of the TPL, not larger projects ahead of the smaller projects in the queue." MnSEIA presents evidence that Massachusetts, New Mexico, and Illinois use different procedures to interconnect DER, which should be emulated. MnSEIA proposes the following changes to MN DIP:

- (1) To allow the creation of a different level of screening review for nonexporting or net metered facilities;
- (2) In the event that a screen is not passed obtaining interconnection approval through the usage of advanced inverter settings for curtailment to mitigate export in excess of grid capacity;
- (3) For small projects that are not sized to load, the impact of the smaller project or projects on the larger projects in the queue should be determined so that those costs can be offset or otherwise compensated so that the larger projects are not prejudiced.

¹⁷ Otter Tail Power, *Comments*, (November 1, 2023) (eDocket No. <u>202311-200128-01</u>).

¹⁸ Minnesota Solar Energy Industries Association, *Proposal for up to 40 kW Fast Track*, (November 1, 2023) (eDocket Nos. 202311-200169-01, 202311-200169-02, 202311-200169-03).

¹⁹ Note that MnSEIA's Formal Complaint and Request for Relief was denied at the December 14, 2023 Agenda Meeting.

IV. ANALYSIS

The Department has reviewed the proposals of the parties, and offers the following recommendations.

The Department agrees that a two-queue system *may* meet the intent of Minnesota Laws 2023, Ch. 60, Art. 12, Sec. 75, which seeks to give small customer-sited projects interconnection priority. The Department nonetheless has concerns that: (1) the two-queue system will not work for all utilities, nor do all utilities need such a system now (or in the near future) because their systems are either not constrained or they do not have significant customer-sited projects vying for interconnection with larger projects; (2) as new technology becomes more widely available and deployed, and if other proposals become more fully-developed, this approach may no longer be necessary; (3) if the two-queue system is inefficient or burdensome, modifications may prove unnecessary; (4) the Department is currently reviewing Xcel's Integrated Distribution Plan (IDP) and it is not clear how the proposal here dovetails with the IDP, if in fact it does. Accordingly, the Department recommends implementing the proposed two-queue system as a limited term, eighteen-to-twenty-four-month-long pilot project in Xcel territory only. Pilot results should then be considered, and a recommendation should be made regarding whether this system should be permanently incorporated into MN DIP, or whether a different solution should be implemented.

The reserved capacity proposal from Xcel is arbitrary, and is not in the public interest because it potentially limits the amount and speed of DER brought on-line.

MnSEIA's first two proposals bear further exploration, and that promise supports limiting the priorityqueue proposal to a pilot. MnSEIA's third proposal, which would have smaller projects compensate larger ones, would disincentivize small projects altogether instead of prioritizing them ahead of large projects. Nothing in Ch. 60, Art. 12, Sec. 75 gives direction about cost allocation or cost sharing, and therefore MnSEIA's third proposal is outside the scope of statutory directive. This proposal is therefore not in the public interest.

DEA's *de minimis* proposed changes should be adopted.

The Department addresses each of these concerns in the following analysis.

A. A TWO-QUEUE SYSTEM SHOULD BE PILOTED BEFORE WIDESPREAD ADOPTION.

1. Two queues are not needed for all utilities.

Xcel argues that its rate of DER interconnection, especially customer-sited or otherwise third-partyowned solar, far exceeds that of other utilities in Minnesota (1,127 MW of total solar, whereas the utility with the next-highest rate of interconnection is Connexus Energy with 49 MW²⁰), and on that basis differentiates Xcel from other utilities: "When considering new approaches to DER interconnection, such

²⁰ Xcel filing at 6.

as queue priority for Small DER, it is these factors that differentiate Xcel Energy from other utilities in Minnesota."²¹ Xcel also provides some data regarding thirteen capacity-constrained feeders, whose constraints, Xcel believes, are due to its community solar garden (CSG) program.²²

The Department concurs that Xcel's situation regarding capacity for DER is unique. By contrast, no other utility reports such issues. DEA regards itself as in the "free phase" of DER interconnection, where no "significant interconnection problems or cost concerns for our members" have been experienced, and there have not been significant numbers of larger (over 40 kW) DER that compete with small (under 40 kW) DER.²³ Similarly, OTP "has been able to process [its] interconnections under the process described within the [MN DIP] and has not experienced a queue or priority concern where a larger interconnection project that enjoys a higher queue priority is actively holding up one or more smaller (< 40 kW) DER projects behind them in [its] interconnection queue."²⁴

The singular nature of Xcel's capacity constraints—and the resulting interconnection troubles for small DER—supports a singular solution. The only Minnesota utility currently experiencing this problem, that of small DER held up by larger DER in the interconnection queue, is Xcel, which proposes the twoqueue procedure. There is no evidence that other utilities require this proposal to ensure an orderly and just procedure for interconnection queue management. Accordingly, Xcel's proposed redlines to MN DIP 1.8.1, 1.8.3, and 1.8.5 should apply only to Xcel.

2. New developments may alter the need for a two-queue system in the future.

MnSEIA recommends changes to MN DIP to allow for the possibility that non-exporting facilities—i.e., net-metered facilities sized-to-load,²⁵ facilities paired with storage, or facilities otherwise curtailed— which could interconnect with "minimal impact to the grid"²⁶ should interconnect faster or even without regard to a queue, as in Massachusetts. MnSEIA also proposes that DER that fails a screening (which is not specified), should be allowed to obtain interconnection approval, "through the usage of advanced inverter settings for curtailment to mitigate export in excess of grid capacity."²⁷ MnSEIA does not offer redlined changes to the language or structure of MN DIP. Nonetheless, its survey of interconnection practices in other states offers the possibility that technological advances and different utility engineering screenings may alleviate the need for a priority queue, or even a queue at all. If such practices were adopted, MnSEIA argues, there may not be a need for a priority queue.

Adoption of these practices may necessitate larger changes to MN DIP, changes to the scope of engineering screens, and changes to utility parameters such as Xcel's Technical Planning Standard/Limit. To better understand what those changes are, and to better evaluate them, the

²¹ Ibid.

²² *Id*. at 5.

²³ DEA filing at 3.

²⁴ OTP filing at 1.

²⁵ It should be noted that a facility "sized to load" may still export energy, as the sizing may be on an annual basis producing more than load during peak production, and less at other times.

²⁶ MnSEIA filing at 4.

²⁷ Id. at 6.

Department recommends that MnSEIA provide a more fleshed-out proposal that notes those changes comprehensively in redline form. If, as MnSEIA argues, those practices offer a viable alternate path to the priority queue proposal, then the administrative and other burdens of the priority queue might not be necessary.

The Department notes that a pilot program of eighteen to twenty-four months for Xcel's priority queue proposal may allow time for an alternate proposal—perhaps one not yet proposed—to develop. Additionally, this pilot program will provide valuable information on whether the two-queue system performs as proposed.

DEA similarly takes a long view regarding further changes to MN DIP, noting that, "in our estimation a longer-term solution is outside of the specific requirements of the Legislative directive and will require additional policy discussion." This position brackets the specific problem at hand (capacity constraints in Xcel territory) as the one that needs immediate attention and strives to meet the legislative direction given.

3. If the two-queue system is inefficient or burdensome, modification may be difficult.

The Department is concerned that the two-queue or priority-queue proposal from Xcel may create inefficiencies, like those that DEA describes²⁸ and those that may be as of yet unforeseen. The Department is also reluctant to permanently impose a solution proposed by Xcel for a problem currently experienced only by Xcel on other service territories without proof that the proposal is the best solution. Approval of Xcel's proposed changes to MN DIP would also shift the burden of proof in the future. Removal of these proposed redlines from MN DIP in the future, in the case that they prove inefficient or burdensome, would require showing that those burdens merit changes to MN DIP; by contrast, a pilot would allow for further input and modification before making the changes permanent and widespread, or else allow for other proposals to take shape instead.

4. Review of Xcel and other utility IDPs should be complete before this proposal takes shape.

The Department is in the process of reviewing the IDPs of Xcel, OTP, DEA, and Minnesota Power (MP). These also interact with plans for a Distributed Solar Energy Standard (DSES) and a Distributed Energy Resources System Upgrade Program for Xcel, in which "funded system upgrades must maximize the number and capacity of DER projects up to 40 kW."²⁹ It is a time of great change in DER policy in the state, and, in order to implement those changes smoothly and efficiently, the Department recommends that the Commission does not make permanent changes to MN DIP concurrently.

For these reasons, the Department recommends that Xcel's priority-queue proposal be limited to Xcel territory in the form of an eighteen-to-twenty-four-month-long pilot. The Department welcomes proposals from other parties as to what the pilot should measure, and what should be reported to the Commission.

²⁸ See DEA Comments at 6.

²⁹ See Xcel Filing, Table 1, at 7.

B. XCEL'S CAPACITY RESERVATION PROPOSAL IS NOT IN THE PUBLIC INTEREST.

The second part of Xcel's proposal revises its Technical Planning Standard to apply differently to DER smaller than and larger than 40 kW. The proposal would make one hundred percent of Xcel's Technical Planning Standard available to small DER in the proposed priority queue, but only fifty percent available to the large DER in the proposed general queue. The Department finds that this aspect of Xcel's proposal is unsupported, discriminatory, and not in the public interest.

In a recent docket,³⁰ Xcel characterized its TPS as an engineering decision, not a policy decision. The Commission agreed, and on those grounds refused to prohibit Xcel from implementing it, despite concerns regarding the precision and necessity of the TPS. The Department is similarly concerned that this modification of the TPS is imprecise and unnecessary to achieve the directed legislative goal—and here, the proposal is unabashedly one of policy, not engineering.

Xcel supports this proposal with "a general assumption that at least half of all homes are suitable for rooftop PV systems in the region" and accordingly half of all residential customers "might install PV [solar photovoltaics] sometime in the future."³¹ Xcel further calculates that recent rooftop PV growth rates of 42 percent would accomplish this total penetration of half of all residential rooftops (at 10 kW each³²) within 10 years.³³ The Department does not find this assumption well-supported or reasonable. Rather, the Department concludes that this capacity carve-out is arbitrary.

Furthermore, it may be more likely that DER penetration—absent policy-driven changes to Xcel's TPS and the requirements of the DSES will be met by larger DER more quickly and efficiently. Meeting those standards efficiently is prima facie in the public interest.

Lastly, the proposed capacity limitation on larger DER is discriminatory on its face, and provides no rational basis to support that position. The legislative directive giving rise to this proceeding is to give priority to small DER interconnection as it relates to speed, not volume. The discriminatory nature of the proposed capacity reservation is therefore not in the public interest.

The Department recommends that the Commission deny this proposal as redlined in changes to MN DIP 1.8.6.

C. MNSEIA'S PROPOSAL THAT SMALL DER COMPENSATE LARGER DER IS NOT IN THE PUBLIC INTEREST.

MnSEIA's third proposal, which would have smaller projects compensate larger ones, is contrary to legislative intent and not in the public interest. A fee or other such charge paid by small DER would disincentivize or otherwise burden small DER; by contrast, the statutory direction in Ch. 60, Art. 12, Sec. 75 clearly calls for priority processing for small DER in the interconnection queue. Nothing in statute directs, or even hints, that small DERs must pay for this prioritization. It is reasonable to

³⁰ See generally, Docket No. E002/C-23-424.

³¹ Xcel filing at 10.

³² Ibid.

³³ *Id*. at 11.

assume, as DEA does in its analysis,³⁴ that small DERs are less able to absorb distribution system upgrade costs; it is also reasonable to assume that they would be less able to absorb a 'toll' or other fee to compensate large DER for jumping the queue.

The Department recommends the Commission deny this proposal.

D. DEA'S DE MINIMIS PROPOSALS SHOULD BE ADOPTED.

The Department has reviewed DEA's proposals that are claimed to be de minimis in policy impact, but would update the document to reflect recent changes and references. The Department reviewed DEA's proposed changes, and concurs that they are de minimis in policy impact, and that they should be incorporated into MN DIP.

V. CONCLUSION AND RECOMMENDATION

The Department appreciates the contributions from various parties to the work of the DGWG to address the legislative directive at issue here. After analysis and consideration, the Department recommends that Xcel pilot its priority-queue proposal as redlined in MN DIP 1.8.1, 1.8.3, and 1.8.5 for a period of eighteen to twenty-four months. The Department urges other parties to propose parameters, metrics, and decision points to be considered in the evaluation of this pilot. The Department recommends the Commission reject MnSEIA's proposal that small DER compensate large DER for queue position reassignment. The Department also recommends the Commission reject Xcel's proposed changes to MN DIP 1.8.6. Lastly, the Department recommends the Commission approve DEA's request for de minimis changes to MN DIP and related documents.

³⁴ See DEA filing at 5-6.

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 Comments

Docket No. E999/CI-16-521

Dated this 19th day of January 2024

/s/Sharon Ferguson

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Bethany	Owen	bowen@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Cezar	Panait	Cezar.Panait@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 55101	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Dan	Patry	dpatry@sunedison.com	SunEdison	600 Clipper Drive Belmont, CA 94002	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Jeffrey C	Paulson	jeff.jcplaw@comcast.net	Paulson Law Office, Ltd.	4445 W 77th Street Suite 224 Edina, MN 55435	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Dean	Pawlowski	dpawlowski@otpco.com	Otter Tail Power Company	PO Box 496 215 S. Cascade St. Fergus Falls, MN 565370496	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Susan	Peirce	Susan.Peirce@state.mn.us	Department of Commerce	85 Seventh Place East St. Paul, MN 55101	Electronic Service	No	OFF_SL_16-521_Official Service List PUC

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Donna	Pickard	dpickardgsss@gmail.com	Genie Solar Support Services	1215 Lilac Lane Excelsior, MN 55331	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Crystal	Pomerleau	crystal.r.pomerleau@xcele nergy.com	Xcel	N/A	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
David G.	Prazak	dprazak@otpco.com	Otter Tail Power Company	P.O. Box 496 215 South Cascade S Fergus Falls, MN 565380496	Electronic Service Street	No	OFF_SL_16-521_Official Service List PUC
Elizabeth	Psihos	elizabeth.psihos@idealener gies.com		N/A	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Mark	Rathbun	mrathbun@grenergy.com	Great River Energy	12300 Elm Creek Blvd Maple Grove, MN 55369	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Michael	Reinertson	michael.reinertson@avante nergy.com	Avant Energy	220 S. Sixth St. Ste 1300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
John C.	Reinhardt	N/A	Laura A. Reinhardt	3552 26th Ave S Minneapolis, MN 55406	Paper Service	No	OFF_SL_16-521_Official Service List PUC
Generic Notice	Residential Utilities Division	residential.utilities@ag.stat e.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_16-521_Official Service List PUC
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206 St. Paul, MN 551011667	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Isabel	Ricker	ricker@fresh-energy.org	Fresh Energy	408 Saint Peter Street Suite 220 Saint Paul, MN 55102	Electronic Service	No	OFF_SL_16-521_Official Service List PUC

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Kristi	Robinson	krobinson@star- energy.com	STAR Energy Services, LLC	1401 South Broadway Pelican Rapids, MN 56572	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Daniel	Rogers	dan@nokomispartners.com	Nokomis	2639 Nicollet Ave Ste 200 Minneapolis, MN 55408	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Michael	Ruiz	michael.ruiz@xcelenergy.c om	Xcel Energy	N/A	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Darla	Ruschen	d.ruschen@bcrea.coop	Brown County Rural Electric Assn.	PO Box 529 24386 State Highway Sleepy Eye, MN 56085	Electronic Service 4	No	OFF_SL_16-521_Official Service List PUC
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
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Kay	Schraeder	kschraeder@minnkota.com	Minnkota Power	5301 32nd Ave S Grand Forks, ND 58201	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Matthew	Schuerger	matthew.schuerger@state. mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 55101	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Ronald J.	Schwartau	rschwartau@noblesce.com	Nobles Cooperative Electric	22636 U.S. Hwy. 59 Worthington, MN 56187	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
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Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_16-521_Official Service List PUC
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Trevor	Smith	trevor.smith@avantenergy. com	Avant Energy, Inc.	220 South Sixth Street Suite 1300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Rafi	Sohail	rafi.sohail@centerpointener gy.com	CenterPoint Energy	800 LaSalle Avenue P.O. Box 59038 Minneapolis, MN 554590038	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Beth	Soholt	bsoholt@cleangridalliance. org	Clean Grid Alliance	570 Asbury Street Suite 201 St. Paul, MN 55104	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Marcia	Solie	m.solie@bcrea.coop	Brown County Rural Electrical Assn.	24386 State Hwy. 4, PO Box 529 Sleepy Eye, MN 56085	Electronic Service	No	OFF_SL_16-521_Official Service List PUC

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Robert	Walsh	bwalsh@mnvalleyrec.com	Minnesota Valley Coop Light and Power	PO Box 248 501 S 1st St Montevideo, MN 56265	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Roger	Warehime	roger.warehime@owatonna utilities.com	Owatonna Municipal Public Utilities	208 S Walnut Ave PO BOX 800 Owatonna, MN 55060	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Elizabeth	Wefel	eawefel@flaherty- hood.com	Flaherty & Hood, P.A.	525 Park St Ste 470 Saint Paul, MN 55103	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
John	Williamson	John.Williamson@state.mn .us	Minnesota Department of Labor and Industry	443 Lafayette Rd N St. Paul, MN 55155-4341	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
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Brian	Zavesky	brianz@mrenergy.com	Missouri River Energy Services	3724 West Avera Drive P.O. Box 88920 Sioux Falls, SD 57108-8920	Electronic Service		OFF_SL_16-521_Official Service List PUC