



Minnesota Solar Energy Industries Association

We Move Minnesota Solar + Storage Forward

November 1, 2023

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, MN 55105

Re: In the Matter of Updating the Generic Standards for the Interconnection and Operation of Distributed Generation Facilities Established Under Minn. Stat. § 216B.1611 (Docket E999/CI-16-521)

Mr. Seuffert,

Please find a Proposal from the Minnesota Solar Energy Industries Association regarding Qualified Facilities with a capacity up to 40 kilowatts. This proposal reflects the views of our organization and interested members related to the issue, “What changes to the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) should the Commission make to achieve the purpose of Minnesota Law 2023, Ch. 60, Art. 12, Sec. 75 (HF 2310),” noticed for comment on September 1, 2023, in this docket.

Sincerely,

/s/ Logan O’Grady, Esq.
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**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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

PROPOSAL REGARDING QUALIFIED FACILITIES WITH CAPACITY UP TO 40 KW

November 1, 2023

Docket No. E999/CI-16-521

INTRODUCTION

The Minnesota Solar Energy Industries Association (“MnSEIA”) is a 501(c)(6) nonprofit association that represents Minnesota’s solar and storage industry, with over 150 members, ranging from rooftop installers, to distributed generation developers, non-profits, manufacturers, and utilities. Together, our members employ over 4,500 Minnesotans.

If Minnesota wants to transition to a 100 percent clean energy economy by 2040 and take advantage of all of the state and federal incentives that are currently available, it is going to have to develop everything from large utility scale projects to small rooftop projects, and everything in between. As everyone is aware from Xcel’s recent solar RFP and the huge MISO backlog, Minnesota cannot rely solely on large utility scale projects to meet its clean energy goals. Distributed generation (“DG”) must also be an essential part of Minnesota’s clean energy future. Unfortunately, to develop the DG projects that Minnesota needs to meet its clean energy goals, it

will need to improve the business environment for developing DG projects. Minnesota was once a leader in developing solar projects on its distribution system but that is no longer the case. While Minnesota had 1,763 MWs of solar installed as of 2022, the majority of that was installed in 2017 and 2018, with over 400 MWs in each of those years.¹ However, only 78 MWs were installed in 2022.² This ranks Minnesota 16th in terms of installed capacity, but the future is bleak, with a projected growth over the next 5 years that has that rank falling to 32nd.³

If Minnesota wants to regain a leadership position, or at least catch up with other states, then it will, among other things, have to assure renewable energy businesses that Minnesota provides a predictable and reasonable business environment for the development of renewable energy projects. A crucial part of that is improving the interconnection process for small projects up to 40 kW. The Minnesota Legislature recognized the importance of these small projects, which can be installed in a matter of months instead of years if reasonable interconnection procedures are in place, by requiring the Minnesota Public Utilities Commission to change the interconnection procedures for projects up to 40 kW.

As the Commission considers what changes are appropriate, MnSEIA believes that it is probably necessary to consider the implications of Xcel's Technical Planning Limit ("TPL"), which is currently being challenged by 26 parties in docket 23-445. The TPL is limiting the capacity of Xcel's entire distribution system by 2.6 gigawatts, which is more than all of the solar that is currently installed in Minnesota. Many of 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. The Commission will likely have to determine the legality and

¹ See Exhibit A – SEIA Minnesota State Solar Spotlight.

² See *id.*

³ See *id.*

reasonableness of the TPL before it can consider what changes to the MN DIP are appropriate to allow small projects to bypass larger projects.

The Commission should also consider whether the proposal actually makes interconnection faster for the smaller projects and whether it is fair and reasonable to the projects that are being bypassed. It is likely advisable to consider what approaches are working in other states with clean energy goals similar to Minnesota.

BACKGROUND

In a bill that included many items intended to promote the development of distributed energy resources in Minnesota, the Minnesota Legislature wanted to make sure that small solar projects were part of Minnesota's clean energy future by including a provision that specifically addressed the interconnection problem that many small solar projects were facing. Accordingly, the Minnesota Legislature directed the Commission to do the following:

Sec. 75. Public Utilities Commission Docket; Interconnection

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.⁴

On September 1, 2023, the Commission issued a Notice of Comment Period. The notice stated that the issue was, "What changes to the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) should the Commission make to achieve the purpose of Minnesota Law 2023, Ch. 60, Art. 12, Sec. 75 (HF 2310)?," and listed the following topics:

1. 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 MNDIP, giving such projects priority over larger projects that may enjoy superior positions in the processing queue.

⁴ House File 2310 (Law 2023, Ch. 60). Art. 12; Section 75

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.
3. 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?

The current MN DIP process treats every DG application the same, regardless of the extent of that application's likely impact on the grid.

PROPOSAL

MnSEIA believes that proposals should be evaluated based on whether they meet the purpose of the legislation, which appears to be to get more small projects interconnected as quickly as possible. Simply bypassing the larger projects but not shortening the time it takes to interconnect small projects was surely not the intent of the Minnesota Legislature. Any fast lane that is created for small projects, should actually be faster.

In addition, any fast lane for small projects should recognize that not all small projects are the same, or will have the same impact on the grid. Small projects that are sized to their load⁵ should have a minimal impact on the grid so, as such, should be studied differently than small projects that are not sized to primarily offset their load. Minnesota refers to this as a “net metered facility.”⁶ Small projects that are not sized to load could have a greater impact on the larger projects they bypass, and, as such, should not substantially impact the time or cost to build the projects that are being bypassed. Such an impact would be unfair and unreasonable, which is prohibited under Minnesota law.⁷ To address any such impact, any additional cost for

⁵ Sized to load should be considered 200% of the reasonably expected average annual total consumption of electricity, which is consistent with the law recently passed in Colorado, where Xcel is also a public utility. *See* Public Utilities Commission Encourage Renewable Energy Generation (available at <https://leg.colorado.gov/bills/sb21-261>).

⁶ *See* Minn. Stat. § 216B.164, subd. 2a(j).

⁷ *See* Minn. Stat. § 216B.03 (“Every rate made, demanded, or received by any public utility, or by any two or more public utilities jointly, shall be just and reasonable. Rates shall not be unreasonably preferential, unreasonably

interconnecting the larger project caused by the smaller projects that bypassed the larger project should be paid by an alternate source. Perhaps a fund that is paid by all projects that are not sized to load, based on the size of their project.

Further, it is likely reasonable to consider what has worked in other states. There is no need to reinvent the wheel. When looking at the interconnection processes of other states with similar carbon reduction goals, it's clear that Minnesota is using outdated interconnection standards and processes.

Other States

Massachusetts

In Massachusetts, systems under 15 KW that use certified inverters are only screened to confirm that the added aggregate DER does not exceed more than 15% of the annual peak load as measured at the substation circuit breaker. With regard to queue position, these systems are not considered to be "moving ahead in the queue," but rather being approved for interconnection upon completing the appropriate level of screening review - based on that system's size and likely impact on the grid.

New Mexico

In New Mexico, for systems under 10kW, Xcel screens for aggregate generating capacity of under 65% of the Substation Rating and compatibility with the transformer rating. Note that a penetration test is completed at Screen 3, however there are only restrictions based on Minimum Daytime Loading for Highly Seasonal Circuits.⁸

prejudicial, or discriminatory, but shall be sufficient, equitable, and consistent in application to a class of consumers.”).

⁸ See Exhibit B - Xcel NM Penetration Test Attachment.

Illinois

In Illinois, the administrative code permits up to 100% of DML on the basis of aggregate export capacity. Ameren processes smaller interconnections (Level 1 and Level 2) at the circuit level. Larger projects are first reviewed for aggregate impacts at the sub transmission level and if no issues are observed then allowed to join the distribution circuit level queue with other smaller projects.

Proposal

In summary, when one considers what is happening in other states, the major trends are:

- (1) advanced interconnection processes assign screening tests based on the appropriate level of review for a system's impact on the grid; and,
- (2) the starting queue position may differ from the ending queue position because a system with a lesser impact on the grid requires fewer screens and studies to cross the finish line and achieve interconnection approval.

Thus, the MN DIP should be changed:

- (1) To allow the creation of a different level of screening review for non-exporting 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.

Any changes to the MN DIP must be consistent with Minnesota law. Changes that violate Minnesota law will simply be replacing one interconnection problem with another one. Changes should reflect the real-world impact of the project, the capabilities of current electrical equipment, and the benefit to all parties, including ratepayers and later projects in the queue, of upgrading the system to increase its capacity for more distributed energy resources. Upgrading the distribution system does not solely benefit the project requesting to interconnect. It benefits

the ratepayers who would have otherwise had to pay to maintain or upgrade the system at some point in the future and the subsequent projects that are now allowed to interconnect. Thus, placing the entire cost of distribution upgrades solely on the project currently seeking to interconnect is fundamentally unfair and unreasonable. Changes to the MN DIP to allow smaller projects, especially small net metered projects, to proceed quickly through the process likely cannot be made in a fair and reasonable manner without addressing this fundamental issue.

CONCLUSION

Updating the MN DIP is not about small systems skipping the line but rather applying the correct screenings for smaller systems commensurate with their likely impact on the grid. Small systems that will have a greater impact on the grid because they are not designed primarily to offset the customer's load should be treated differently because their impact on larger projects could be significant, individually or cumulatively. Thus, while they should be allowed to move ahead of larger projects, the time and cost to the larger projects should be offset or otherwise paid or compensated such that the larger project is not prejudiced. However, a solution that is consistent with Minnesota law is unlikely unless the Commission addresses the significant limitation that Xcel has placed on its entire distribution system without Commission approval or the way that distribution system upgrade costs are allocated.

Thank you for your time and consideration of this important issue.

Sincerely,

/s/ Logan O'Grady

Executive Director

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