



Minnesota Solar Energy Industries Association

We Move Minnesota Solar + Storage Forward

September 17, 2024

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

Re: In the Matter of the Impacts of the “Capacity” Definition in Minn. Stat. §216B.164 and Associated Rules on Net Metering Eligibility for Rate-Regulated Utilities, Docket No. E002, E111, E017, E015/CI-24-200

Executive Secretary Seuffert,

Please find here the Reply Comments of the Minnesota Solar Advocates in the above-entitled matter. These comments reflect the views of the Minnesota Solar Energy Industries Association, Solar United Neighbors, Institute for Local Self Reliance, and other interested members related to the issue raised, and the topics open for discussion, in the Minnesota Public Utilities Commission’s Notice of Comment Period issued on May 31, 2024, with an extension filed July 30, 2024, in the above-referenced docket.

Sincerely,

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**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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*In the Matter of the Impacts of the
“Capacity” Definition in Minn. Stat.
§216B.164 and Associated Rules on Net
Metering Eligibility for Rate-Regulated
Utilities.*

REPLY COMMENTS OF THE
MINNESOTA SOLAR ADVOCATES

September 17, 2024

Docket No. E002/M-24-200

The Minnesota Solar Energy Industries Association (“MnSEIA”), Solar United Neighbors (“SUN”), and Institute for Local Self Reliance (“ILSR”) (collectively, the Minnesota Solar Advocates (“MSA”)), hereby submit these Reply Comments in the above-referenced docket. MnSEIA is a nonprofit association that represents Minnesota’s solar and storage industry, with over 170 members, ranging from rooftop installers to non-profit organizations, manufacturers, cooperative utilities, and many others, which employ over 5,000 Minnesotans. SUN is a non-profit organization dedicated to creating a clean, equitable, resilient energy system that benefits everyone. Nationally, SUN has helped 9,367 homes and businesses add more than 78 MW of solar combined. In Minnesota, SUN has run 22 solar co-ops to help neighbors learn about solar and go solar together at a group price. SUN has also educated thousands of Minnesotans about solar and storage, and has helped homes and small businesses install over 2 MW of solar combined. ILSR is a nonprofit organization and advocacy group that was founded

in 1974. ILSR provides technical assistance to communities about local solutions for sustainable community development in areas such as banking, broadband, energy, independent business, and waste.

INTRODUCTION

The Minnesota Legislature has made it clear that it wants Minnesota to meet its clean energy goals in a democratic way, giving all Minnesotans the right to participate whether they are installing small rooftop systems, commercial or industrial systems, community solar gardens or large utility scale projects. The Legislature laid the groundwork over 40 years ago when it adopted Minn. Stat. § 216B.164, following the Federal government’s lead in passing the Public Utility Regulatory Policies Act of 1978 (“PURPA”). The stated purpose of Minn. Stat. § 216B.164 is to promote small power production consistent with ratepayer protections and the public interest. Historically, small power producers installing rooftop systems have not been able to significantly participate in the clean energy transition because the installation costs of PV systems were high, while the capacity of PV panels was low, making even relatively small systems financially unfeasible.

However, with the significant decrease in PV system costs and increase in PV panel capacity, small power producers can now play a more significant role. This change is why MnSEIA objected to Dakota Electric’s updates to its Technical Specifications Manual (“TSM”). Contrary to the assertions made by the utilities in this docket, how capacity was being determined for the purpose of rate eligibility was far from consistent, and usually inconsistent with Minnesota law. While regulatory certainty is necessary to encourage renewable energy development at every scale, the issue for small DER owners was usually not

financially significant enough to challenge a utility's violation of the law when it occurred. Moreover, small DER owners who might have sought to challenge a utility's violation of the law have been deterred by the significant burden of a legal challenge. However, things have changed in 40 years and if Minnesota wants to meet its clean energy goals in the democratic way envisioned by the Minnesota Legislature, the Minnesota Public Utilities Commission ("Commission") must enforce the laws and policies established by the Legislature based on a plain reading of all of their clear language, not just select parts of certain sentences hobbled together in a way that contradicts the original language.

This is why MnSEIA brought this issue to the Commission in the interconnection docket. Some parties have implied that this issue is not significant because it hasn't affected many people. Regardless of the number, the issue remains: Minnesotans rights to are being infringed by utilities. MnSEIA's goal was to clarify this issue now before it becomes a much larger issue affecting thousands and impairing Minnesota's clean energy future.

The reason the Commission opened this docket was because numerous utilities stated that they had not been applying the legal definition of capacity, but rather using the nameplate capacity, and the Commission wanted to ensure that when utilities started complying with the law it, such adherence to the law would not create any reliability concerns. However, instead of addressing reliability concerns caused by the application of the legal definition of capacity, several parties have attempted to relitigate this issue and change the legal definition of capacity.

The MSA are not alone in their interpretation of Minn. Stat. § 216B.164. As expressed in previous proceeding, stakeholder meetings, and this docket, the MSA's position is shared by

the Minnesota Department of Commerce (“Commerce”), the Commission and other advocates and stakeholders. A position that is based on the plain language of the law - both statute and rule. The law clearly establishes that a distributed energy resource (“DER”) owner can generate his or her own electricity and is entitled to receive the average retail utility energy rate (“ARUER”) for all energy that is exported as long as that energy does not exceed 40 kilowatts (“kW”). The arguments made by many of the utilities ignores the plain language of the law by either disregarding the words that are present or adding others that are not. Many parties also apparently misunderstand the relationship between the law regarding rate eligibility and interconnection policies and procedures.

Many utilities argue that even if their position is not supported by the language of the relevant authorities, that authority should be ignored because the utilities have been ignoring it for decades. To put such an argument in a different context, they are telling the law enforcement officer who stopped them for speeding that they should not be considered to be speeding because they have been violating the speed limit for the past 40 years. The public expects and needs electric utilities to comply with the law. Allowing a violation that has been occurring for so long to continue is not only against the public interest, it calls into question the ability of cooperative and municipal utilities, who are supposed to be regulating themselves, to fulfill that responsibility.

Given that the law is clear regarding rate eligibility and application of the law will not have any negative effect on grid reliability, the Commission should reaffirm that utilities are required to comply with the law and cannot ignore it for financial reasons. The arguments

made for changing the clear and unambiguous language of the law are inconsistent with Minnesota’s regulatory scheme, Minnesota’s policy regarding the democratic adoption of small power production, and its goal to transition to a clean energy economy.

REPLY COMMENTS

The MSA provide the following Reply Comments.

The Law is Clear and Unambiguous

While the parties disagree that the fundamental question in this proceeding is about rate eligibility, they do appear to agree that how rate eligibility is determined is simple and straightforward. The law is clear and unambiguous. As Commissioner Ham previously noted, “The definition [of capacity] is already there in the statute, and is very clear.”¹ He goes on to say:

*We cannot redefine what is defined in statute. The definition of capacity is already defined in the statute. This is a matter of how we are going to enforce it without jeopardizing reliability. If there is any issue with reliability the utility has to bring it up so we can either ask the legislature to change the definition or if they do not present good information they have to abide by the statute.*²

This position is echoed by both Commerce and Nokomis in their Initial Comments. Commerce stated, “The definition of capacity under Minn. Stat. § 216B.164 and the associated rules in Minn. R. Ch. 7835 provide clear guidance that capacity is defined at the point of interconnection, also called the point of common coupling, with the utility system.”³ While Nokomis stated, “These definitions [in statute and rule] make clear that the ‘capacity’ of a system is measured as the maximum number of megawatts alternating current that can be transmitted from the system to the utility’s electric system at a single point in time.”⁴

¹ *In the Matter of Dakota Electric Association’s Distribution Interconnection Process and Agreement*, Docket No.18-711, Minnesota Public Utility Commission, HEARING, at 1:27:45 (April 11, 2024) (emphasis added).

² *Id.*, at 1:46:30

³Docket No.24-200, Commerce, Initial Comments, p. 5.

⁴Docket No.24-200, Nokomis, Initial Comments, p. 2.

As noted in MnSEIA’s Initial Comments, when you take the statutory language regarding eligibility for the ARUER and include the statutory and rule definitions of capacity, the law reads, “Notwithstanding any provision in this chapter to the contrary, a qualifying facility having less than 40-kilowatt capacity,” which is measured by the number of megawatts alternating current at the point of interconnection/common coupling between a distributed generation facility/qualifying facility and a utility’s electric system, “may elect that the compensation for net input by the qualifying facility into the utility system shall be at the average retail utility energy rate.”⁵ The point at which the capacity of the system is measured for determining eligibility for the ARUER is clear and unambiguous. It is at the point of interconnection, which the Minnesota Rules call the point of common coupling, BETWEEN the qualifying facility and the utility’s electric system, not any other location.

The utilities and their advocacy group create a new definition of capacity for the purpose of receiving the ARUER by piecing together various words from various places. For example, MREA states, “It is the facility’s production capability, measured by its alternating current (AC) at the point of DG interconnection and reflected in the nameplate rating of the facility’s inverters.”⁶ This definition is notable for its lack of citation to any statute, rule or other authority. However, its most noteworthy traits are its omission of the words “between a qualifying facility and the utility’s electric system,” and the addition of the words “nameplate rating of the facility’s inverters,” which are nowhere to be found in any statute or rule related to ARUER eligibility. Such a definition should be rejected in favor of the words that are actually used in the Minnesota statute and rules that determine rate eligibility.

⁵ See Minn. Stat. § 216B.164, subd. 3(d); Minn. R. 7835.0100, subp. 4; Minn. Stat. § 216B.164, subd. 2a(c).

⁶ Docket No.24-200, MREA Initial Comments, p. 2.

A Net Metered Facility is not the Same as a Qualified Facility

Several parties also cite to the definition of a “net metered facility,” apparently failing to realize that eligibility for the ARUER is based on the definition of a “qualifying facility,” not a “net metered facility,” or perhaps hoping the fact that the ARUER is commonly referred to outside of the law as the net metered rate will confuse the Commission. Such attempts were previously unsuccessful, with the Commission recognizing that while the definition of a net metered facility is relevant for DERs over 40 kW, it is legally irrelevant for ones under 40 kW. This is understandable considering Minn. Stat. § 216B.164, subd. 3a, is titled, “Net metered facility,” and only applies to “a net metered facility having a capacity of 40 kilowatts or greater but less than 1,000 kilowatts that is interconnected to a public utility.” Meanwhile, the ARUER statute, Minn. Stat. § 216B.164, subd. 3(d), applies to “a qualifying facility having less than 40-kilowatt capacity.” The premise that all small DER is solely meant to offset the DER owner’s load is simply not supported by Minnesota law or policy. The Minnesota Legislature’s explicit allowance of systems over 40 kW but less than 1,000 kW under Minn. Stat. § 216B.164, subd. 3a, to be limited is a clear recognition that systems under 40 kW do not have such a restriction. If they did, then this provision would explicitly say so by stating that it applied to qualifying facilities with a capacity under 40 kW.

Minnesota Law and Policy Encourage Small Power Production by Distributed Energy Resources

Limiting qualifying facilities to producing only enough energy to offset their own load would not further the Minnesota’s policies and goals to “encourage ... renewable energy use,”⁷ “give the maximum possible encouragement to ... small power production consistent with

⁷ Minn. Stat. § 216B.03

protection of the ratepayers and the public,”⁸ “provide cost savings and reliability benefits to customers,”⁹ “enhance both the reliability of electric service and economic efficiency in the production and consumption of electricity,”¹⁰ and “promote the use of distributed resources in order to provide electric system benefits during periods of capacity constraints.”¹¹ Minnesota wants and needs all of its citizens to produce as much renewable energy as possible. A DER owner who only offsets their own load is not providing excess generation that can be used by their neighbors, which eliminates or reduces the need for their utility to generate electricity at a distant location and transport it through its transmission and distribution system. Generating electricity locally reduces the wear and tear on the utility’s electric system, which should reduce the cost to maintain the electric system. It can also reduce congestion and the need to purchase expensive energy during peak times because the electricity is being generated and used locally. In this way, distributed generation is very similar to energy conservation or demand response, which the United States Supreme Court noted reduces the need to buy expensive electricity during peak periods while simultaneously easing pressure on the grid and, “thus protecting against system failures.”¹² Whether a customer is turning up their thermostat themselves, letting someone else do it, or generating the extra electricity necessary to run the A/C on a hot day, the result for the utility is the same – less demand for additional electricity from that customer, and maybe their neighbors.

While it is understandable than an investor-owned utility (“IOU”) would not want individuals to generate small amounts of electricity because the more customers that do it the harder

⁸ Minn. Stat. § 216B.164, subd. 1.

⁹ Minn. Stat. § 216B.1611, subd. 1.

¹⁰ *Id.*

¹¹ *Id.*

¹² See *FERC v. Elec. Pwr. Supp. Assoc.*, 577 U.S. 260, 270 (2016).

it will be for the IOU to justify building more utility owned distributed energy resources,¹³ which is how they make money for their investors, the Minnesota Legislature has determined that allowing small amounts of generation by utility customers is in the public interest. Resources, both financial and spatial, will usually limit most DER owners' ability to install a system that can export anywhere near 40 kW, but that doesn't mean the legal right that the Minnesota Legislature provided to DER owners should be limited because of a utility's financial interests or speculative concerns.

The MN DIP and TIIR

The reasonableness of the argument that nameplate capacity or the capacity at the point of connection is used to determine ARUER eligibility is further called into question when one considers the overall regulatory scheme and the relevant provisions of the MN DIP and TIIR. The purpose of the MN DIP is to:

- 1) Establish a practical, efficient interconnection process that is easily understandable for everyone involved;
- 2) Maintain a safe and reliable electric system at fair and reasonable rates;
- 3) Give maximum possible encouragement of distributed energy resources consistent with protection of the ratepayers and the public;
- 4) Be consistent statewide and incorporate newly revised national standards;
- 5) Be technology neutral and non-discriminatory.¹⁴

While the stated purpose of the TIIR is to provide:

[T]he technical requirements common to all regulated electric utilities in Minnesota for the interconnection and interoperability of DER with associated Area EPS. It provides references and requirements relevant to safety, security, performance, operation, interoperability, testing and verification in harmony with other industry, national and state standards.¹⁵

¹³ *In the Matter of Xcel Energy's 2024-2040 Upper Midwest Integrated Resource Plan Xcel IR*, Docket No 24-67, Xcel Energy, RE: INITIAL COMMENTS 2024-2040 UPPER MIDWEST INTEGRATED RESOURCE PLAN, August 9, 2024, *at 12*. "This DCP program could be considered a version of a utility-lead and funded Virtual Power Plant (VPP)." *And at 14* "Depending on the size of an approved program, we anticipate the ability to deploy hundreds of MW of DERs annually. At this time we estimate that an effort to deploy 400 MW of battery storage and 440 MW of distributed solar."

¹⁴ MN DIP, Forward

¹⁵ TIIR, 1.3, p. 5.

Neither the MN DIP nor the TIIR are intended to be used to set tariff rates. As Commerce correctly noted,

MN DIP's usage of aggregate nameplate rating to define capacity in the context of interconnection requirements is distinct from that of net-metered rate eligibility, and it is appropriate in that context. For purposes of evaluating the safety and reliability of the interconnection of the proposed DER system, the aggregate nameplate rating provides utilities with a more conservative approach for assessing system safety and reliability impacts, as it effectively assumes the maximum potential impact to the utility's system.¹⁶

It is understandable that the MN DIP allows utilities to start with the nameplate capacity of a DER system to determine whether it can be safely and reliably interconnected.¹⁷ Obviously, if the theoretical maximum generation of a DER system can pass the basic screening process required by MN DIP Section 3.2, then surely interconnection cannot create any reliability concerns. Using nameplate capacity is essentially a shorthand way to quickly and easily evaluate the potential impact of a DER system given it inherently includes a wide margin of safety.

However, it is important to note that that is just a starting point. If one carefully reads the MN DIP, it becomes obvious that the use of nameplate capacity is not the final and only way that a DER is evaluated under the MN DIP. In fact, nameplate capacity is used in very limited circumstances under the MN DIP. Any DER system that fails the initial screens, is required to be evaluated more precisely, focusing on the actual impact of the system, not the theoretical maximum impact. For example, when applying the Minimum Load Screen under Supplement Review, "only the net injection into the Area EPS Operator's electric system will be considered as part of the aggregate generation" if the DER is serving some station load under MN DIP 3.4.4.1.2. And if a DER system fails supplement review, then a System Impact Study is conducted under MN DIP

¹⁶ Docket No. 24-200, Commerce, Initial Comments, p. 8.

¹⁷ See MN DIP 5.14.2.

Section 4.3. And a System Impact Study, as its name implies, evaluates “the impact of the proposed interconnection on the reliability of the electric system.”¹⁸

This also becomes evident from the MN DIP Simplified Application Form itself. While the form starts by asking what the aggregate DER nameplate rating of generation and storage types” is, it then asks, “Is the Maximum Physical Export Capacity request the same as the nameplate capacity.”¹⁹ This is understandable because, as previously noted, the nameplate capacity of a DER is just the starting point. Section 5.14.2 explicitly states that a DER “shall be evaluated on the basis of the Aggregate Nameplate Rating of the multiple DERs **unless** 5.14.3 applies.”²⁰ It is that “unless” that has appeared to have been ignored. And section 5.14.3 states:

If the maximum capacity of the DER(s) is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the Area EPS Operator’s agreement that the manner in which the Interconnection Customer proposes to implement such a limit will effectively limit active power output so as to not adversely affect the safety and reliability of the Area EPS Operator’s system. Such agreement shall not to be unreasonably withheld. If the Area EPS Operator does not so agree, then the Interconnection Application must be withdrawn or revised. Nothing in this section shall prevent an Area EPS Operator from considering an output higher than the limited output (e.g. Aggregate Nameplate Rating), if the limitations do not provide adequate assurance, when evaluating system impacts. See Minnesota Technical Requirements for more detail.

In short, the MN DIP explicitly recognizes that while the starting point for evaluating the impact of interconnecting a DER is its nameplate capacity, that evaluation changes if the actual export capacity of the DER is less than the nameplate capacity.

The TIIR also recognizes that a DER owner may limit the export of the DER system to be eligible for certain rates, stating,

The DER Operator may choose to limit the AC capacity of a DER system using Power Controls. Power Controls may also be used to limit DER system export levels to the Local EPS and/or the Area EPS. **There are many possible reasons for implementing Power Controls, including meeting specific tariff terms or to**

¹⁸ See MN DIP 4.3.1.

¹⁹ See MN DIP Attachment 2, p. 3.

²⁰ See MN DIP 5.14.2 (emphasis added).

mitigate the maximum level of power which can flow on the Local or Area EPS.²¹

The TIIR then goes on to state:

Using Area EPS Operator’s approved Power Control methods, the DER Operator may limit the DER AC capacity. **The limited DER AC capacity value may be used by the Area EPS Operator when performing impact studies if the means of limiting capacity is determined to be adequate by mutual agreement. Some of the reasons the DER Operator may choose to limit DER AC capacity include, to avoid system upgrades or to size the DER to be compatible with programs or tariffs.²²**

Additionally, the footnote to this paragraph states, “The applicable programs or tariffs eligibility may be based on a nameplate capacity rather than a configured value. Consult the tariff or program rules of interest to determine if the nameplate capacity governs any aspects of the interconnection.”²³ Thus, the TIIR explicitly recognizes that while the nameplate capacity of a DER may be relevant, one must consult the actual language of the relevant provisions to determine what should be used for impact studies and tariff eligibility. And, as discussed above, the plain language of the law uses the capacity of the system measured at the point of interconnection/common coupling between the DER and the Area EPS, not the nameplate rating of the DER.²⁴

Point of Interconnection between a Distributed Generation Facility and a Utility’s Electric System

Some parties have argued that the capacity of a DER for purposes of the net metered rate is measured at the Point of Connection, not the Point of Interconnection/Common Coupling between the QF and the utility’s electric system. They do this by conflating the Point of Connection and the

²¹ TIIR 11.1 (emphasis added).

²² TIIR 11.2 (emphasis added).

²³ *Id.*

²⁴ See Minn. Stat. § 216B.164, subds. 2a(c) & 3(d); Minn. R. 7835.0100, subp. 4; Minn. R. 7835.3300, subp. 1; Minn. R. 7835.4013, subp. 1.

Point of Interconnection between a distributed generation facility and a utility's electric system.”²⁵ For example, after quoting Minn. Stat. § 216B.164, subd. 2a(c), Dakota Electric states, “While ‘point of interconnection’ is not defined in the statute, that term is commonly understood in the industry, and discussed in these comments, to be the output of the generating device(s), exclusive of any offset from load.”²⁶ In a footnote Dakota Electric then states, “It is important note that the industry uses the Point of Interconnection and Point of DER Connection interchangeably.” Similarly, Otter Tail states, “It is also important to note that Point of DER Interconnection (POI) and Point of DER Connection (PoC) have widely been accepted for many years across the engineering field to be synonymous and interchangeable terms which are pointing to the same location directly after the inverter(s) on the Alternating Current (AC) side.”²⁷

What is most noteworthy about these claims and similar ones made by others, is that despite the term “Point of DER Interconnection” and “Point of DER Connection” being widely “accepted for many years across the engineering field to be synonymous and interchangeable terms which are pointing to the same location” is that no one cites to any authority, engineering or otherwise, to support such an assertion. Surely, if such a term so was widely used and accepted, it would show up somewhere other than comments to support an inconsistent interpretation of the law. While “Point of DER Connection” shows up in the MN DIP and TIIR, “Point of DER Interconnection” doesn’t show up in either of them. Moreover, even if the “Point of DER Interconnection” or “Point of Interconnection”²⁸ are terms used by engineers to denote the “location directly after the inverter(s) on the Alternating Current (AC) side,” that is not the term used in Minn. Stat. § 216B.164, subd. 2a(c). The statute states that capacity “means the number of megawatts alternating

²⁵ See Minn. Stat. § 216B.164, subd. 2a(c).

²⁶ *Id.*

²⁷ Docket No.24-200, Otter Tail Power, Initial Comments, p. 2.

²⁸ It is relevant to note that even the utilities do not appear to agree on the exact language of this widely used term.

current (AC) at the point of interconnection **between a distributed generation facility and a utility's electric system.**" (Emphasis added).²⁹ The utility arguments miss the important words "between a distributed generation facility and a utility's electric system," and, in the law, it is important to read all of the words in definition. Further, this argument fails to address the fact that the rules state that capacity "is measured by the number of megawatts alternating current at the point of common coupling **between a qualifying facility and a utility's electric system.**"³⁰ The words between a distributed generation/qualifying facility and a utility's electric system show up in both definitions so, surely, they are important words that are relevant to determining the location where capacity is measured.

Even more importantly, such arguments not only conflict with the plain language of the law, they also conflict with the MN DIP and the TIIR. If that conflict wasn't clear enough from the language, both the MN DIP and TIIR provide helpful illustrations that clearly demonstrate where the Point of Common Coupling is located and where the Point of DER Connection is located.³¹ Not only do these illustrations comport with the legal definition of capacity, it should be obvious to anyone reviewing these, that they are different places. The Point of DER Connection is "where an individual DER is electrically connected in a Local EPS."³² It is not where the qualified facility is interconnected with the utility's electric system. The Point of Common Coupling, however, is where the qualified facility is interconnected with the utility's electric system. And, as one can see from both figures, the customer's load is behind the Point of Common Coupling. Thus, if the Point of Common Coupling is where the capacity of a system is measured, which is what the law says, it will necessarily exclude the amount of energy consumed by the load.

²⁹ Minn. Stat. § 216B.164, subd. 2a(c).

³⁰ Minn. R. 7835.0100, subp. 4 (emphasis added).

³¹ See Exhibit A (Diagram from MN DIP); Exhibit B (Figure 2 from TIIR).

³² See TIIR, p. 15.

It is worth noting that the TIIR explicitly states that “Figure 2 contains a depiction and description of the relationship of some key terms used throughout this document. The usage of these terms as it relates to Figure 2 is consistent with IEEE 1547 definitions.”³³ So, it appears that the terms of Point of DER Connection and Point of Common Coupling are the terms that are widely used by engineers, which explains why, when the Commission adopted its rules, it used the words “point of common coupling between a qualifying facility and a utility's electric system,”³⁴ instead of the words in the statute, “point of interconnection between a distributed generation facility and a utility's electric system.”

Cost-Effective Interconnection

While utilities often recognize their obligation to ensure the safe and reliable operation of their system, they typically fail to mention they also have a legal obligation to ensure that the process to interconnect is “low cost” and “provide cost savings and reliability benefits to customers.”³⁵ This is why the MSA appreciate Dakota Electric’s recognition that if one of its members wants to install a DER, Dakota Electric has an obligation “to facilitate this transaction in the most efficient and cost-effective manner possible and, most importantly, in compliance with relevant laws.”³⁶ However, if Dakota Electric or any other utility is determining upgrade costs based on the nameplate capacity of the DER, and the nameplate capacity of the DER exceeds the actual impact the DER will have on the utility’s electric system, then it appears that the utility is possibly charging the DER owner for unnecessary upgrades, which would not be considered efficient, cost-effective or in the public interest. DER owners should only be required to pay for the upgrade costs that are necessary for the DER to safely, reliably and cost-effectively interconnect

³³ TIIR, p. 4.

³⁴ Minn. R. 7834.0100, subp. 4.

³⁵ See Minn. Stat. § 216B.1611

³⁶ Docket No.24-200, Dakota Electric, Initial Comments, p. 3-4.

to the utility's electric system. The claims by many utilities that they use nameplate capacity to evaluate interconnection without any recognition that both the MN DIP and TIIR allow DER owners to limit their output is concerning and should be investigated further.

Reliability

The fundamental issue in this proceeding is whether the application of the legal definition of capacity for the purposes of rate eligibility creates any reliability issues. This issue, as noted in MnSEIA's Initial Comments, is largely unaddressed by the utilities beyond any passing unsupported statement that following the law will negatively impact it. This is understandable because, as previously noted, the nameplate capacity of a system is the maximum amount of energy that a system can theoretically produce. Meanwhile, the capacity at the point of interconnection/common coupling is the amount of energy that is actually exported to the utility's distribution system, which will always be less for a behind the meter system because part of that generation will be consumed by the DER owner before it is exported to the utility's distribution system. This fact is something that MREA even recognizes, noting that "the production that is actually consumed by the customer at their premise" reduces "the portion of electricity that gets exported to the grid."³⁷ Which means that MREA and the MSA agree that nameplate capacity does not measure the actual impact the DER will have on the utility's system and that it will be less than the nameplate capacity of the system. So, if utilities are already evaluating the impact of DERs based on their maximum capacity, and the capacity at the point of interconnection/common coupling will never be more than that, then there cannot be any reliability concerns.

³⁷ Docket No.24-200, MREA, Initial Comments, p. 5.

Utility Concerns

The MSA, like Commerce, recognize and appreciate some of the concerns expressed by the utilities. Everybody wants, needs and benefits from an electrical system that operates safely, reliably and cost-effectively. And, although the application of the legal definition of capacity for purposes of net metering does not and cannot affect reliability because the capacity measured at the point of interconnection/common coupling between a qualified facility and a utility's electric system will never be more the nameplate capacity of a qualified facility, any other concerns they might have been already addressed.

First, while it's hard to understand how there could be any concern about the impact a system could have if it will export less energy than the theoretical maximum that it was evaluated by, if any damage did occur to the utility's system by the DER, the DER owner would be responsible for it and has been required to have insurance to cover any potential damage.³⁸ Second, if the export of energy by DER owners to their neighbors,³⁹ does, somehow, have a negative financial impact on other cooperative members,⁴⁰ then the cooperative utility can impose a reasonable and appropriate fee to remedy that impact.⁴¹ And finally, once the cumulative generation of net metered facilities reaches "four percent of the public utility's annual retail electricity sales," the public utility may request that the Commission limit the cumulative generation of the facilities.⁴² Of course, the Commission can only limit "additional net metering obligations under clauses (2) to (4) only if it determines that additional net metering obligations would cause

³⁸ See Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA), p. 16.

³⁹ Which should reduce wear and tear on the utility's distribution system and congestion because the utility does not have to transport energy from a distant generation source and reduce the need for the utility to purchase energy at peak times when it is the most expensive.

⁴⁰ Which Commerce notes is "hypothetical and unquantified." See Docket No.24-200, Commerce Initial Comments, p. 6

⁴¹ See Minn. Stat. § 216B.164, subd. 3(a).

⁴² See Minn. Stat. § 216B.164, subd. 4b.

significant rate impact, require significant measures to address reliability, or raise significant technical issues.”⁴³ And although, this provision does not apply to cooperative or municipal utilities because its explicit language requires a request from a public utility, because this type of ability is likely something that cooperative and municipal utilities should have, the MSA would likely be supportive of appropriate legislative changes.

Dakota Electric and others also raised concerns about how the legal definition would be applied because the export “capacity of a facility would vary over time with changes in customer load. With the uncertainty of load, there is no meaningful measure, or standard, for whether the facility meets the requirement of having less than 40-kW capacity.”⁴⁴ That, of course is true even if there wasn’t any load because of the nature of the energy source. But, more importantly, claiming there is no way to meaningfully measure whether the facility meets the requirement of having less than 40 kW capacity is simply not true. The utility has a bi-directional meter at the point of interconnection/common coupling that measures the energy exported from the DER. That is how each utility currently determines how much to charge or credit their net metered customers. As long as the energy exported did not exceed 40 kW, the facility would be eligible. It should not be difficult to measure the energy exported from a DER to the utility’s system because that is already being done by utilities. All that is necessary to determine if a particular DER exceeded the 40 kW limit would be for a utility to review its data.

Xcel Energy

Xcel Energy’s Initial Comments raise two issues, that while generally addressed by the discussion above, are raised in a somewhat different way that likely warrants additional discussion. First, Xcel argues that MnSEIA may want to discuss “how batteries in conjunction with a PV system

⁴³ *Id.*

⁴⁴ Docket No.24-200, Dakota Electric, Initial Comments, p. 5.

should be counted for purposes of net metering” and argues that this issue should not be addressed because the Commission directed the DGWG “to explore if and how battery storage systems should be evaluated under the MN DIP.”⁴⁵

As should be clear to anyone who attended the stakeholder meetings or who read MnSEIA’s Initial Comments, MnSEIA and the other members of the MSA believe that this proceeding is about whether the application of the legal definition of capacity will impact the reliability of the utility’s electric system. Neither MnSEIA nor the other members of the MSA believe a discussion about net metering eligibility is necessary because the law is already clear on that issue. That clarity extends to how battery storage is treated. The law measures capacity of the DER at the point of interconnection/common coupling between the facility and the utility’s electric system. It does not care whether the energy is coming directly from the PV system or the Battery Energy Storage System (“BESS”). As long as the capacity of that DER at the point of interconnection/common coupling is less than 40 kW, the energy exported from the DER is eligible for the ARUER. This makes sense due to the fact that a utility cannot tell whether an energy electron coming onto its system, or more likely, going to a neighbor, is coming directly from a PV system or from a BESS.

However, to the extent the Commission decides to clarify eligibility for net metering in this proceeding, then it should do so, so that the DGWG can use that information to help guide how it recommends BESS be evaluated under the MN DIP. As has been explained by the MSA and Commerce, the MN DIP and the law are different. While, for the reasons discussed herein, one might expect how DERs with BESS are evaluated under the MN DIP to be consistent with the law, the law is already established and cannot be changed by the DGWG.

⁴⁵ Docket No.24-200, Xcel Energy, Initial Comments, p. 1-2

Further, Xcel’s claim that there are two scenarios - one within the Notice of Comment Period and one outside of it is confusing. If net metering eligibility is within the scope of the Notice of Comment Period as most of the utilities appear to argue, then all the issues regarding net metering eligibility would presumably be open.

Xcel also appears to argue that the Commission should follow FERC’s “send out” or “net output” approach. As FERC explained in its brief to the DC Circuit, “Under the so-called ‘send out’ approach, first articulated in *Occidental Geothermal, Inc.*, 17 FERC ¶ 61,231, at p. 61,445 (1981), a facility’s ‘power production capacity’ reflects its total output, rather than the nameplate capacity of its generation subcomponents.”⁴⁶ FERC noted that in “*Southern California Edison*, the Court deemed it in ‘accord[ance] with the purposes behind PURPA’ for the Commission to ‘certif[y] the amount of output that the [Qualifying Facility] actually contributes to the [grid] system—[i.e.,] the amount that will displace electricity produced by traditional means,’ also known as ‘net output.’”⁴⁷ FERC also noted, that the utilities in its case, like the utilities in this matter, “fail to appreciate the explicitly stated purpose of the line 7 series: to calculate the “‘maximum gross and maximum net electric power production capacity of the facility *at the point(s) of delivery*[.]’”⁴⁸

So while the FERC Form 556 that Xcel uses to support its position is not relevant because it is not applicable to DERs with a capacity of less than 1 MW that are being interconnected to the distribution system,⁴⁹ such a policy appears to be consistent with Minnesota’s statutory and rule language, which, also measures capacity at the point of interconnection/common coupling rather than nameplate capacity. As noted above, FERC asks greater than 1 MW projects that will be interconnected to the transmission system to “Indicate the maximum gross and **maximum net**

⁴⁶ See Exhibit C, Brief for Respondent Federal Energy Regulatory Commission, p. 31 (16).

⁴⁷ *Id.* at p. 69 (54).

⁴⁸ *Id.* at p. 93 (78).

⁴⁹ It is for larger systems that are being interconnected to a utility’s transmission system to sell energy at wholesale.

electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below.”⁵⁰ Of course, while the net output of a PURPA front of the meter project that would use a form like the one Xcel provided only subtracts the energy absorbed by the equipment, the DER owner’s load would also have to be subtracted for the type of behind the meter systems that are being discussed in this docket.

While the MSA agree with Xcel that “[t]he capacity of a QF should be measured in the same consistent way for all PURPA and net metering purposes,” Xcel apparently fails to recognize that the “net output” of a behind the meter system net metered system necessarily has to be measured differently than a front of the meter PURPA system. To the extent that Xcel is trying to argue that FERC’s “net output” approach requires capacity to be measured at the Point of Connection, which appears to be what it is trying to do, it should be rejected. As discussed above, to not subtract load for a behind the meter net metered system by measuring capacity at the Point of Connection would be inconsistent with the explicit language of Minnesota law that requires it be measured at the Point of Interconnection/Common Coupling between the distributed generation/qualifying facility and the utility’s electric system.

And while it is acceptable for Xcel to use a “net power production capacity” that does not exclude load for some MN DIP purposes, it is a clear violation of the law to do so for the purpose of ARUER eligibility. This, of course, highlights the point that both the MSA and Commerce have repeatedly made-that capacity may be determined differently for different purposes. The MN DIP and the law can and often do serve different purposes, which is why it is so important that utilities follow the explicit language of the relevant provision rather than conflating them for the apparent sake of simplicity. As Commission Ham previously stated, “If there is any issue with reliability

⁵⁰ Docket No.24-200, Xcel Energy, Initial Comments, Attachment A, p. 10.

the utility has to bring it up so we can either ask the legislature to change the definition or if they do not present good information they have to abide by the statute.”⁵¹ The literary gymnastics that are being done to argue that the words in the statute and rules.

CONCLUSION

Minnesota’s clean energy future depends on everyone, at every scale, participating in it. To do that we need a safe and reliable electric system that allows all parties to interconnect to it using reasonable terms and conditions, consistent standards and processes at the lowest cost.⁵² The regulatory regime for DER interconnection has a process for evaluating what is necessary to safely, reliably and cost-effectively interconnect DERs, which is found in the MN DIP and TIIR, and policies regarding what rate those DERs receive for the energy they export, which is found in Minnesota law. While this docket was supposed to be about whether the application of the law affected reliability, some parties have attempted to use it to rewrite the plain language of the law in a way that is inconsistent with the goals and policies of the state, and infringe on the rights of Minnesotans to be part of Minnesota’s clean energy future. It is unclear whether utilities misunderstand the law and the interaction between the MN DIP and the TIIR, or if they are attempting to justify their violation of these authorities for such a long period of time.

Regardless, the law regarding eligibility is clear and effectuates Minnesota’s goals to “encourage ... renewable energy use,”⁵³ “give the maximum possible encouragement to ... small power production consistent with protection of the ratepayers and the public,”⁵⁴ “provide cost savings and reliability benefits to customers,”⁵⁵ “enhance both the reliability of electric service and

⁵¹ Hearing, at 1:46:30

⁵² See Minn. Stat. § 216B.1611, subd. 2.

⁵³ Minn. Stat. § 216B.03

⁵⁴ Minn. Stat. § 216B.164, subd. 1.

⁵⁵ Minn. Stat. § 216B.1611, subd. 1.

economic efficiency in the production and consumption of electricity,”⁵⁶ and “promote the use of distributed resources in order to provide electric system benefits during periods of capacity constraints.”⁵⁷ The utilities’ position would go against all of those policies by limiting the size and design of small DER systems and, thus, their ability to be part of Minnesota’s clean energy future. The utilities’ arguments also call into question their compliance with the MN DIP and TIIR in evaluating DER interconnection, which could unreasonably increase the cost of interconnection by requiring unnecessary system upgrades and also overstating the amount of capacity being used, which could likewise increase the cost of other DER systems interconnect by requiring additional unnecessary upgrades.

Accordingly, the Commission should: 1) Affirm that the legal definition of capacity, which measures the capacity of a DER at the point of interconnection/common coupling between a distributed energy/qualifying facility and a utility’s electric system, does not and cannot affect reliability because it is necessarily less than the nameplate capacity of any DER; and 2) Open an investigation or direct the DGWG to investigate how utilities are evaluating the interconnection of DERs to ensure utilities are complying with the MN DIP and TIIR. The MSA thank the Commission for its time and attention to this important issue and appreciate the opportunity to participate in this proceeding.

⁵⁶ *Id.*

⁵⁷ *Id.*

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