August 18, 2025

Mike Bull, Acting Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
Saint Paul, MN 55101-2147

Subject: ***Utility Group***

In the Matter of Impacts of the "Capacity" Definition in Minnesota Statute 216B.164 and Associated Rules on Net Metering Eligibility for Rate-Regulated Utilities

Docket Nos. E-002, -111, -017, -015/CI-24-200 and E999/R-25-86

Dear Mr. Bull:

These comments are filed in the above-entitled matter on behalf of the Minnesota Rural Electric Association, Connexus Energy, the Minnesota Municipal Utilities Association, Xcel Energy[1] and Otter Tail Power Company (collectively, "Utility Group").

On January 23, 2025, the Minnesota Public Utilities Commission ("Commission") issued an *Order Initiating Rulemaking Proceeding* ("Rulemaking Order"). The Commission initiated this rulemaking to clarify the existing definition of capacity under Minnesota Rules 7835.0100, subp. 4, consistent with applicable statutes, established practice and sound policy underlying the requirements of Minn. Stat. 216B.164.

These comments are specifically in response to the Commission's July 14, 2025 Request for Comments, which included the Commission's "working draft of a possible amendment."[2]

[1] Xcel Energy joins in these comments and is also filing its own separate comments.

[2] The Commission's Request for Comments mistakenly describes the scope of this rulemaking as "amending the rule to ***clarify that a qualifying facility with a nameplate rating of 40 kW capacity or more may be compensated for up to 39 kW of net input into the utility's system*** at the rate allowed under Minn. Stat. § 216B.164, subd. 3(d). That description is inaccurate as it does not reflect the purpose of the rulemaking or the Commission's working draft of a possible amendment. The purpose of the rulemaking, as reflected in the Commission's deliberations in Docket 24-200, is to clarify how capacity is defined to determine whether a facility's size is above or below specific thresholds that determine compensation. For example, a facility with a capacity of less than 40 kW qualifies for retail rate compensation, but a facility with a capacity of 40 kW or more does not. The issue is not "how much of a facility's export gets compensated at a particular rate". Importantly, the Commission's working draft amendment appropriately clarifies that the facility's capacity is determined ***before load*** by the facility's inverter or other devices that establish the facility's ***production*** capability.

I. PROPOSED RULE AMENDMENT

The Utility Group supports the Commission's working draft with one important modification to ensure alignment with the statute and several minor editorial suggestions to ensure clarity (all Utility Group modifications highlighted in yellow):

> Subp. 4. Capacity. "Capacity" means the capability to produce, transmit, or deliver electric energy, and is measured by the number of megawatts alternating current at the point of ~~common coupling~~ interconnection between a qualifying facility and a utility's electric system. "Capacity," as defined under Minn. Stat. § 216B.164, subd. 2a (c), for purposes of ~~eligibility for net-metering in~~ Minn. Stat. § 216B.164~~, subd. 3(d)~~, is determined by~~, and measured at,~~ the qualifying facility's nameplate rating, inverter settings, or a power control system or supplemental device that controls production ~~at~~ of the qualifying facility before the net-metered customer's load.

If the Utility Group's modifications were incorporated into the Commission's working draft, the rule amendment would be as follows:

> Subp. 4. Capacity. "Capacity" means the capability to produce, transmit, or deliver electric energy, and is measured by the number of megawatts alternating current at the point of ~~common coupling~~ interconnection between a qualifying facility and a utility's electric system. "Capacity," defined under Minn. Stat. § 216B.164, subd. 2a (c), for purposes of Minn. Stat. § 216B.164, is determined by the qualifying facility's nameplate rating, inverter settings, or a power control system or supplemental device that controls production of the qualifying facility before the net-metered customer's load.

The following briefly explains the rationale for the Utility Group's proposed modifications identified above:

- The most important modification replaces "point of common coupling" with "point of interconnection" to mirror the statutory definition of capacity, which refers to capacity as the AC current at the ***"point of interconnection,"*** not the point of common coupling.[3] Aligning directly with the statute will help ensure clarity and avoid confusion.
- The Utility Group also suggests modifying the definition slightly so that it is not strictly limited to net-metered facilities *below 40 kW*; hence the suggestion to strike "subd. 3(d)". There does not appear to be any legal, technical or policy basis for limiting the definition's applicability to facilities below 40kW threshold since there are other capacity thresholds for determining compensation under Minn. Stat. § 216B.164.
- The Utility Group proposes added the term "nameplate rating" to the list of things that determine a facility's capacity to ensure the definition covers facilities such as wind, which do not have inverters, and whose capacity would instead by determined by their nameplate.
- Finally, the Utility Group suggests several other minor editorial modifications to the Commission's working draft to ensure clarity.

[3] Minn. Stat. 216B.164, subd. 2a (c).

II. RATIONALE FOR RULE AMENDMENT

The Commission's proposed working draft, with the modifications suggested above, is supported by the extensive record developed in the proceeding that gave rise to this rulemaking ("Docket 24-200"). These comments will not attempt to replicate or repeat that entire record since it can be imported into this rulemaking but will instead provide an overview of the rationale for the rule amendment as discussed more thoroughly in the extensive filings in that record.

In Docket 24-200, the Commission addressed the following fundamental question: What is the capacity of a distributed generation (DG) facility, including a qualifying facility ("QF") when that term is applied to determine eligibility for net metered compensation? The answer that emerged from that proceeding based on the record was that a facility's capacity is its ***production capability,*** measured by its ***alternating current (AC)*** at the point of ***DG interconnection before load*** and reflected in the facility's fixed inverter or determined by supplemental devices (e.g., a power control system) that determines the AC production of the facility before load.

The AC production capability for distributed solar generation is, and for decades always has been, determined by the ***nameplate rating of the facility's inverters***, which convert the Direct Current (DC) capacity of the solar panels to Alternating Current (AC) output that can be used by consumers – hence the term "nameplate capacity."[4] An inverter's nameplate rating can be set to a lower capacity (called de-rating) and, if verified, that lower rating would determine the facility's output and become the facility's de facto capacity. Similarly, there are new technologies, referred to generally as supplemental devices, that can determine a facility's AC production capability. The common thread through all of these measures of a facility's capacity is that they all measure a facility's output or maximum production capability ***before load***.

A. Staff's Working Definition as Modified Above Reflects the Commission's Explanation of the Current Rule.

The understanding of capacity as a facility's production or output capability before load aligns with the Commission's Statement of Need and Reasonableness ("SONAR") for the existing rule, which expressly tied the current definition of capacity to a facility's "production," not its "export" after customer consumption. Notably, the Commission's SONAR explained capacity as follows:

> It is necessary to update the rules to incorporate the recent statutory changes, which define capacity as the "number of megawatts alternating current at the point of interconnection between a distributed generation facility and the utility's electric system." Under this definition, capacity is, in effect, the amount of ***electricity actually produced***. It is therefore reasonable to incorporate this language into the rules by stating that ***capacity is the capability to produce***, transmit, or deliver electricity and is ***measured by the amount produced***.[5] (Emphasis added).

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[4] Exhibit A (Declaration of Kristi Robinson), paragraph 5; Exhibit B (Declaration of Tom Gottormson), paras 4 and 5.

[5] Commission Statement of Need and Reasonableness, Docket No. E-999/R-13-729 (December 29, 2014), pp. 3-4.

The existing rule definition's use of the term "point of common coupling" led to some recent confusion as the Minnesota Solar Energy Industry Association (MNSEIA) argued in Docket 24-200 that capacity is determined by the amount of AC power exported to the grid after load. That interpretation conflicts with the SONAR's description of ***capacity as production*** since ***production obviously occurs before load at the customer's premise.*** Replacing "point of common coupling" with the term "point of interconnection" will align the rule definition with the Commission's previously stated explanation of the rule and also with the statutory definition, which refers specifically to point of interconnection.

B. Defining Capacity As Production Before Load Reflects the Statutory Provisions Implementing Net Metering

The first principle of statutory interpretation is to effectuate the Legislature's intent, applying the letter of the law and giving effect to all of the statute's provisions.[6] To that end, it is critical to recognize that the long-standing, universally applied practice of defining capacity as a DG facility's AC production capability before load, usually based on inverter nameplate rating, aligns squarely with the relevant statutory language under which eligibility for net metered compensation is determined. Specifically, for cooperative and municipal utilities, Minn. Stat. § 216B.164, subd. 3 applies the term capacity to determine eligibility for net metered compensation as follows:

> Subd. 3. Purchases; small facilities. (a) This paragraph applies to cooperative electric associations and municipal utilities. For a qualifying facility having less than 40-kilowatt capacity, the customer shall be billed for net energy supplied by the utility according to the applicable rate schedule for sales to that class of customer. . .. In the case of net input into the utility system ***by a qualifying facility <u>having less</u> than 40-kilowatt capacity,*** compensation to the customer shall be at the per kilowatt-hour rate determined under paragraph (c) or (d).

(d) Notwithstanding any provision in this chapter to the contrary, a qualifying ***facility <u>having less</u> than 40-kilowatt capacity*** 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***. (Emphasis added).

These governing statutes clearly limit net metered (retail rate) compensation to a qualifying facility that ***has*** a capacity below 40 kilowatts. The word "has" means to "possess, own or hold."[7] As such, the capacity of a solar DG facility is its AC ***production capability*** (i.e., the AC power it <u>possesses</u> or can <u>produce</u>), ***not*** the amount of the facility's alternating current that is ultimately ***exported to the grid after load***. In fact, the term "export" does not exist anywhere in section 216B.164. The relevant statutes clearly differentiate between "net input" (i.e. export) to the grid on the one hand and a "QF's capacity" on the other. The statute says a QF's "net input" is eligible for retail rate compensation if that net input comes from ***"a qualifying facility <u>having less</u> than 40-kilowatt capacity . . ."***

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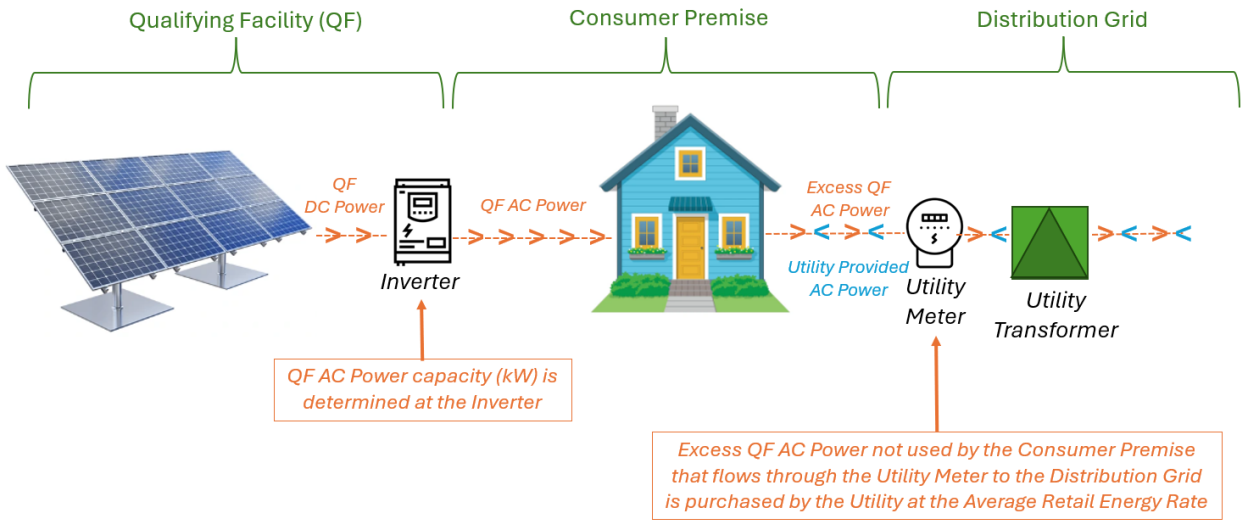
[6] Minn. Stat. § 645.16.

[7] Oxford Dictionary.

In short, the statute applies retail rate compensation to a facility's "***net input*** into the system" but only to the extent the net input comes from a ***facility that has a production capability below the 40-kilowatt*** threshold.[8] The production capability for a solar DG facility is determined by its inverters, which convert the solar facility's DC capacity to AC capacity before load for consumption by the consumer, although a supplemental device could also potentially establish a facility's AC production capability before load.[9] A DG facility's capacity is necessarily a fixed number that defines the facility's size for purposes of determining the compensation rate the utility will pay for the variable amount of electricity exported to the grid after the DG customer's consumption. There is no sensible alternative reading of the statute's plain language.

The following illustration depicts the production capability or output of a facility, which defines its capacity, compared to what might ultimately be exported to the grid:



Note that the AC production of the qualifying facility (QF) is determined at the inverter where the DC capacity of the solar panels is converted to usable AC capacity. This fact is indisputable, although the fixed production capability of the facility before load could conceivably be set by a supplemental device. A net metered QF's production will then be consumed in whole or part by the consumer who owns the net metered facility. This fact is also indisputable. If capacity were defined based on the amount of power exported to the grid after load, the capacity of facilities would vary potentially day to day depending on the variability of the customer's electric consumption. That result could not be reconciled with the language or purpose of the net metering statute or with the widely understood meaning of capacity.

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[8] To give effect to all the provisions of this statute, as required by Minn. Stat. § 645.16, the Commission needs to give effect to both the phrase "net input" **and** the phrase "***by a qualifying facility having less than 40-kilowatt capacity.***

[9] Exhibit A, para. 5; Exhibit B, paras 5 and 6.

Defining capacity based on export to the grid after load at the customer premise would ignore the portion of a facility's production that is actually consumed by the customer at their premise. That would make no sense because capacity refers to the facility, not export, and is rooted in the facility's production capability. Therefore, the production capability of a facility defines its size (i.e., capacity) for purposes of determining the appropriate compensation for the facility's output. A plain reading of the statutory provisions applying the term capacity to net metering indicates that capacity was intended to be determined by what a facility can produce – i.e., what it has – not the amount of electricity exported to the grid after load.

III. ALTERNATIVE FORMULATION OF CAPACITY DEFINITION

The following is an alternative definition of capacity for Commission consideration that might provide more clarity than the modified version of the Commission's working draft:

Alternative proposal shown as Redlines to current rule:

> Subd. 4. Capacity. "Capacity" means the maximum power capability at the point of interconnection, ~~to produce, transmit, or deliver electric energy, and is~~ measured as ~~by~~ the number of megawatts in alternating current before load and determined by the facility's nameplate rating, inverter settings, supplemental devices or combination thereof. ~~at the point of common coupling between a qualifying facility and a utility's electric system.~~

Alternative proposal shown with no redlines:

> Subd. 4. Capacity. "Capacity" means the maximum power capability at the point of interconnection measured as the number of megawatts in alternating current before load and determined by the facility's nameplate rating, inverter settings, supplemental devices or combination thereof.

This alternative proposal would be functionally the same as the Commission's working draft with the Utility Group's minimal modifications, but it is a bit more clear and straight forward. It isn't limited to net metering but there is no reason to have different definitions of capacity. In all cases, capacity is a facility's production capability before load. And technical experts tend to refer to production capability as "maximum power output."

The Commission working draft with the Utility Group's suggested modifications would be a fully appropriate and reasonable definition, but we offer this alternative as a potentially better option.