Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: June 12, 2015 ....* Agenda Item # **7**

Company(s): All Electric

Docket No. E-999/R-13-729

In the Matter of Possible Amendments to Rules Governing Cogeneration and Small Power Production, Minnesota Rules, Chapter 7835

Issue(s): Whether to adopt the attached proposed rules as published in the *State Register*

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Relevant Documents

Proposed Rules as published in the *State Register*, attached...…….…………………..December, 2014
Statement of Need and Reasonableness………………………………………December 29, 2014
Comments, Department of Commerce……………………………………...…February 4, 2015
Comments, Xcel Energy……………………………………………………..…February 4, 2015
Comments, Otter Tail Power Company…………………………………….…February 4, 2015
Comments, Minnesota Power…………………………………………………February 4, 2015
Comments, Missouri River Energy Services……………………………………..February 4, 2015
Comments, Minnesota Rural Electric Association………………………………February 4, 2015
Comments, Powerfully Green…………………………………………………February 4, 2015
Comments, Fresh Energy……………………………………………………...February 4, 2105
Comments, Midwest Cogeneration Association…………………………………February 4, 2015

Comments, City of Minneapolis, Hennepin County, the Metropolitan Council, and Metropolitan Airports Commission……………………………………………………………..February 4, 2015
Comments, Darryl Thayer…………………………………………………......February 4, 2015
Comments, Sundial Solar………………..…………………………………………April 14, 2015
Comments, A Work of Art Solar Sales…………………………………….….April 15, 2015

I. Background

During the 2013 legislative session, the Legislature amended Minn. Stat. § 216B.164 governing cogeneration and small power production. The statute governs interconnections between qualifying facilities and utilities, and the statutory changes primarily affect interconnections with *public* utilities.

The changes increase the net-metering capacity limit for facilities interconnecting to a public utility. Under the changes, the limit increases to *less than 1,000 kilowatts* (kW) from *less than 40 kW*.

The statutory changes also include:

- establishing a new annual billing/accrediting method;
- prohibiting standby charges for facilities with 100 kW capacity or less;
- requiring public utilities to aggregate meters for net metering at customer's request;
- authorizing the Commission to limit cumulative generation from net-metered facilities and permitting a public utility to request that the Commission set such limits;
- authorizing public utilities to limit capacity to 120% of demand for wind customers and to 120% of energy consumption for solar photovoltaic customers; and
- changing requirements governing the uniform statewide contract to incorporate the new capacity limits.

The Commission opened a rulemaking to consider amending the Commission's rules governing cogeneration and small power production to incorporate the statutory changes and to make housekeeping changes as necessary. The scope was limited to updating the rules to help facilitate the timely and efficient development of rule amendments and to meet the goal of publishing proposed rule amendments by the end of 2014.

On August 26, 2013, we published a Request for Comments in the *State Register* and did a mass mailing to the rulemaking list, requesting comments on amending the rules to incorporate the statutory changes.

The Commission subsequently appointed an advisory committee, which met monthly between April and August 2014. The committee included the following stakeholders:

- Department of Commerce
- Xcel Energy
- Otter Tail Power Company

- Energy Systems Consulting Services, LLC
- Minnesota Power
- Interstate Power and Light Company
- Solar Rate Reform Group
- Fresh Energy
- Minnesota Rural Electric Association
- Southern Minnesota Municipal Power Agency
- Cummins Power Generation
- Midwest Cogeneration Association
- TransEnergy LLC on behalf of Midwest Cogeneration Association
- Minnesota Municipal Utilities Association.

Several other interested stakeholders also attended committee meetings, including Great River Energy, Steele Waseca Cooperative Electric, Dakota Electric Association; Connexus Energy; and the Metropolitan Council.

II. Scope of Rulemaking Proceeding and Proposed Rules

At the outset of this rulemaking proceeding, staff developed a draft consistent with the Commission's objective to update the rules as necessary to incorporate statutory changes. Our goal was to develop rule language consistent with that objective, while ensuring flexibility for the Commission, and regulated entities, in meeting the statutory requirements.

We therefore developed a working rules draft that included changes to definitions, filing requirements, applicable compensation rates, interconnection standards, and the uniform statewide contract, in addition to housekeeping changes to increase clarity.

We then met with an advisory committee to identify issues and to further develop possible rule changes in response to committee input and consistent with the Commission's objective to update the rules as necessary to incorporate statutory changes. The committee was able to resolve a number of issues, although there were issues on which the committee did not reach consensus.

Some of the issues identified may warrant further discussion or possibly further development in other Commission dockets, as discussed below. Additionally, some issues can be brought to the Commission to be decided on a case-by-case basis, using either the Commission's informal review process under Minn. R. Ch. 7829 or using contested case proceedings under Minn. Stat. Ch. 14, as further experience will assist informed decision-making. Taking action on issues not more fully developed could result in rule provisions that do not reasonably resolve issues they are intended to address.

After consideration of a proposed rules draft, the Commission directed staff to develop a Statement of Need and Reasonableness (SONAR) and to take further steps to continue the rulemaking process.

On December 29, 2014, the Commission published the proposed rules in the *State Register* and issued its SONAR. The comment period on the proposed rules closed February 4, 2015.

III. Overview of Comments

The Commission received thirteen comments on the proposed rules and two requests for a public hearing. The hearing requests came from Fresh Energy and the Midwest Cogeneration Association. The Commission did not hold a public hearing, however, because the Commission did not receive twenty five hearing requests, which would have triggered the requirement to hold a public hearing under Minn. Stat. § 14.25.

Below is a discussion of comments received and recommended changes to the proposed rules draft, which is attached.

IV. Recommended Changes to Proposed Rules Published in the *State Register*

A. 7835.0100, subp. 4. Capacity.

The Commission received comments on the proposed rule definition of capacity from Otter Tail Power Company, the Minnesota Rural Electric Association (MREA), and Minnesota Power. They all recommended using a 15-minute time interval to measure capacity. Otter Tail and MREA also recommended using three distinct definitions of capacity for different situations, as explained in further detail below.

The recently amended statute defines capacity as follows:

> "Capacity" means the number of megawatts alternating current (AC) at the point of interconnection between a distributed generation facility and a utility's electric system.

The proposed rule incorporates and clarifies the statutory definition, while also retaining existing rule language. It reads:

> "Capacity" means the capability to produce, transmit, or deliver electric energy<u>, and 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.</u>

The capability to produce, transmit, or deliver electric energy is existing rule language and is relevant if the number of megawatts (output) cannot be measured, such as in situations where the customer's metering system reads only net input. Retaining the existing language ensures that capacity can be determined by using nameplate capacity, i.e., the system's capability.

The proposed rule definition also clarifies the statute's use of "distributed generation facility." The proposed rule instead uses the term "qualifying facility" because a distributed generation facility is a type of qualifying facility. This ensures that "capacity" is applicable to subsequent rule parts governing interconnections with qualifying facilities.

Further, instead of using the "point of interconnection," the proposed rule uses "point of common coupling," which is defined by the Commission's interconnection standards as the point where the customer's electric power system connects to the utility's power system. Use of "point of common coupling" is the term used in the Commission's interconnection standards, as well as in a recent Commission decision governing Xcel Energy's solar garden program.[1]

1. Comments of Otter Tail Power Company and Minnesota Electric Rural Association

Otter Tail Power Company and MREA recommended using several different definitions, including one for determining generation system size, another for determining when standby charges apply, and another for complying with reporting requirements.

a. Generation System Size

For determining the facility's generation system size, Otter Tail and MREA recommended the following language.

> "Capacity" means the maximum capability to produce electrical energy and is quantified as the greater of either the manufacturer's nameplate continuous kilowatts rating or the maximum measured kilowatts alternating current produced by the generation during standard 15-minute intervals.

b. Standby Charges

For determining when standby charges apply, they recommended using nameplate capacity as follows:

> "Capacity" is quantified by the nameplate rating stated in kilowatts alternating current for continuous output of the generation system.

The recent statutory changes prohibit a public utility from imposing a standby charge on a qualifying facility with 100 kilowatt capacity or less. The statute also states that a public utility may not impose a standby charge on any facility, except by order of the Commission establishing allowable costs.

c. Reporting Requirements

Otter Tail and MREA recommended another definition of capacity for rules governing reporting requirements, which require utilities to report certain data annually, including the number and production levels of qualifying facilities. They recommended the following:

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[1] *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, Order Establishing Standards (September 28, 2004); and *In the Matter of the Petition of Northern States Power Company, d/b/a Xcel Energy for Approval of its Proposed Community Solar Garden Program*, E-002/M-13-867, Order Approving Solar Garden Plan with Modifications (September 17, 2014).

> "Capacity" is quantified by the maximum number of kilowatts alternating current produced and measured at the point of common coupling during standard 15-minute intervals.

d. General Definition

Otter Tail also recommended using a general definition in all other instances where the term is used, other than as described above. For this definition, Otter Tail recommended the following:

> "Capacity" means the maximum average energy which is produced or is designed to be produced over standard 15-minute intervals.

2. Comments of Minnesota Power

Minnesota Power recommended defining capacity using 15-minute intervals with a production demand meter at the point of generator output. Minnesota Power stated that this definition would be applicable to the majority of situations, makes the rule clearer by including a measurement method, and that situations not covered by this language could be separately addressed.

Minnesota Power stated that the "point of generator output" is more precise because the "point of common coupling" is commonly the location of the net meter and does not necessarily reflect the amount of energy generated and used by the customer.

Minnesota Power therefore recommended the following definition:

> "Generation Capacity" means the capability to produce, transmit or deliver electric energy, and is determined by the maximum 15 minute average alternating current energy production of a qualifying generating facility, measured with a production demand meter at the point of generator output.

3. Staff Analysis

a. 15-Minute Time Interval

The statute does not apply a time interval for measuring capacity, and although the advisory committee discussed this issue, there was not consensus on whether to use a 15-minute time interval.

Standard utility practice is to include in tariffs 15-minute intervals for billing purposes, including, for example, to determine demand levels. Demand charges are applicable to most non-residential customers and represent costs related to ensuring that the utility can meet maximum load levels.

Utility tariffs vary, but they typically use the highest 15-minute load (in kW) in a month to determine demand levels. Some utilities consider consecutive months of demand levels. Others

look to the highest 15-minute interval in any month. Once demand charges are set, they typically continue at that level for 12 months, unless the customer's demand increases, in which case the demand charge is set at the new, higher level for 12 months.

Incorporating a 15-minute interval in this rule raises two issues. First, the standard would be problematic to enforce in situations where there is no production meter (to read output in 15-minute intervals) at the customer site. The Commission's interconnection standards set forth generation metering, monitoring, and reporting requirements and do not require all customers to install production meters.

Second, capacity is used to determine whether customers are compensated at the avoided cost rate or the retail rate. Defining capacity on the basis of 15-minute intervals could determine the viability of many types of projects, raising important practical and policy issues that might be best resolved by acting on tariffs or considering the issue on a case-by-case basis.

Importantly, the proposed rule does not prohibit use of a 15-minute standard, which utilities can propose in tariffs. The proposed rule also preserves the flexibility for the Commission to consider issues based on the facts specific to the utility and it customers, particularly because the definition of "capacity" governs interconnections with all utilities, including public utilities, as well as cooperative electric associations and municipal electric utilities.

b. Point of Common Coupling

We recommend adding a definition to the rules to define "point of common coupling," as follows:

> the point where the qualifying facility's generation system, including the point of generator output, is connected to the utility's electric power system.

Minnesota Power recommended modifying the definition of "capacity" as energy production at the "point of generator output." We concur that generator output is relevant but rather than amending the definition of capacity, we recommend defining the term "point of common coupling." Using "point of common coupling" is consistent with Commission decisions that use the term.[2] The Commission's interconnection standards define "point of common coupling" as the point where the local area electric power system (the customer's system) is connected to an area electric power system (the utility's system).

c. Standby Service

Under the statute, a public utility is not allowed to impose standby charges on facilities with capacity of more than 100 kW, except by a Commission order establishing allowable costs.

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[2] *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, Order Establishing Standards (September 28, 2004); and *In the Matter of the Petition of Northern States Power Company, d/b/a Xcel Energy for Approval of its Proposed Community Solar Garden Program*, E-002/M-13-867, Order Approving Solar Garden Plan with Modifications (September 17, 2014).

Otter Tail and MREA recommended that only nameplate capacity be used to determine whether standby charges apply. This would authorize standby charges on customers who have a system with nameplate capacity of more than 100 kW but whose *measured* capacity, in any given time, is 100 kW or less.

We do not recommend incorporating a separate definition of capacity, using only nameplate capacity, to determine whether standby charges apply. The Commission can examine this issue in greater detail as utilities make filings requesting authorization to impose standby charges on customers with capacity of more than 100 kW.

B. 7835.0100, subp. 5. Capacity costs.

To clarify the phrasing in the proposed rule's definition of "capacity costs," we recommend the following technical correction, as shown in bold:

> "Capacity costs" means the costs associated with providing the capability to deliver energy. ~~They consist of~~ The utility capital costs consist of **the costs of** facilities used to generate, transmit, and distribute electricity and the fixed operating and maintenance costs of these facilities.

C. 7835.0100, subp. 6a. Customer.

MREA recommended that the Commission address the issue of merchant generators who are not serving traditional customer load but did not recommend a specific rule change. Rather, MREA recommended that the Commission continue exploring this issue in ongoing dockets.

D. 7835.0100, subp. 9. Firm Power

The Department, Fresh Energy, and the Midwest Cogeneration Association recommended a new definition of 'firm power." The existing rule reads:

> "Firm power" means energy delivered by the qualifying facility to the utility with at least a 65 percent on-peak capacity factor in the month. The capacity factor is based upon the qualifying facility's maximum on-peak metered capacity delivered to the utility during the month."

"Firm power" is used in current rule parts governing compensation rates to qualifying facilities that are interconnected with a public utility, a cooperative electric association, or a municipal electric utility. The proposed rules do not incorporate any changes to the existing definition.

Under the current rules, a qualifying facility that commits to provide firm power will be compensated at the avoided cost rate, which includes an energy and a capacity component.[3] The capacity component is not, however, included in the compensation rate if the qualifying facility

[3] The exception to this billing rate applies to net-metered facilities that produce monthly net input and elect to be compensated in the form of a kilowatt-hour credit carried forward to subsequent energy bills.

does not commit to provide firm power. The existing rules also include a methodology for determining the capacity component. Each utility's specific costs and calculations are detailed in tariffs.

Commitments to provide firm power help offset a utility's capacity requirement for serving its load and therefore the capacity component is excluded from the compensation rate paid to qualifying facilities that do not commit to provide firm power.

The proposed rules incorporate the existing public policy by requiring larger qualifying facilities (with capacity of at least 40 kW but less than 1,000 kW) to commit to provide firm power to receive the avoided cost rate, including both the energy *and capacity* components.

1. Comments

The Department, Fresh Energy, and the Midwest Cogeneration Association recommended repealing the existing definition and instead using a definition consistent with how MISO determines accredited capacity for specific types of generation in its Business Practices Manual.

The Department recommended the following definition:

> "Firm power" means the capacity credit for the specified type of generation as determined by the methodology in the most recently approved MISO Resource Adequacy Business Practices Manual.

The Department stated that the current definition of "firm power" is outdated, is contrary to Midcontinent Independent System Operator (MISO) rules and practices, and is inconsistent with recent Commission orders and Department positions.

Fresh Energy and the Midwest Cogeneration Association also recommended further exploring how firm power requirements affect all types of distributed generation.

The Midwest Cogeneration Association stated that limiting compensation (excluding the capacity component) to qualifying facilities that do not commit to provide firm power unfairly penalizes qualifying facilities that use the majority of their power to meet their own load. Further, the Midwest Cogeneration Association stated that the statute requires compensation at the avoided cost rate, which includes the capacity component.

The Commission also received comments from A Work of Art Solar Sales and Sundial Solar recommending that qualifying facilities not be required to make commitments to provide firm power.

2. Staff Analysis

We do not recommend updating the definition of firm power at this time.

The MISO methodology for determining capacity credits varies because there are multiple types of capacity credits (e.g., intermittent, region wide, or wind). And use of a MISO methodology

may not be applicable to all utilities, such as cooperatives and municipalities, meaning that a new definition of "firm power" would not necessarily fit all rule parts where the term is used.

It is also unclear if adopting the MISO methodology would conflict with the existing rule methodology for determining the capacity component of the avoided cost rate. Any correlation between the MISO methodology and the rule's methodology could be considered when evaluating individual utility tariffs detailing capacity costs and credits and therefore analyzing utility filings might be more effective than amending the rule at this time. Further, the committee did not develop this issue and broader discussion may be useful before making rule changes.

E. 7835.0100, subp. 20a and 20b. Standby charge and Standby service.

These two terms are used in proposed changes to rule part 7835.2600, which governs services a utility must offer to a qualifying facility. Under the statutory changes, a public utility is not allowed to impose standby charges on facilities with capacity of more than 100 kW, except by a Commission order establishing allowable costs.

The Commission received comments on the definitions of standby charge and standby service from Fresh Energy, the Midwest Cogeneration Association, and Minnesota Power.

The recently amended statute defines "standby charge" as follows:

> "Standby charge" means a charge imposed by an electric utility upon a distributed generation facility for the recovery of costs for the provision of standby services, as provided for in a utility's tariffs approved by the commission, necessary to make electricity service available to the distributed generation facility."

The proposed rules incorporate definitions of both "standby charge" and "standby service" and read as follows:

> "Standby charge" means the rate or fee a utility charges for standby service or standby power.
>
> "Standby service" means:
>
> A. for public utilities, service or power that includes backup, maintenance, and related services necessary to make electricity service available to the facility, as described in the public utility's commission-approved standby tariff; and
>
> B. for a utility not subject to the commission's rate authority, the service associated with the applicable tariff in effect under Minnesota Statutes, section 216B.1611, subdivision 3, clause (2).

1. Comments of Fresh Energy and the Midwest Cogeneration Association

Fresh Energy and the Midwest Cogeneration Association recommended using the statutory definition of standby charge, stating that it is more accurate. The Midwest Cogeneration Association stated that the proposed rule should not limit standby service to "backup, maintenance and related services" and recommended that these issues be further explored, consistent with the Commission's directive to open a generic proceeding to address standby rates.[4]

2. Comment of Minnesota Power

Minnesota Power recommended clarifying the proposed rule by using the statutory term "distributed generation facility," instead of "facility."

3. Staff Analysis

We concur with the recommendation of the Midwest Cogeneration Association to clarify that a standby charge is the rate or fee imposed by a utility "for the recovery of costs for the provision" of standby service. We also concur with Minnesota Power that the term "facility' should be further clarified and recommend using "qualifying facility."

Although the Midwest Cogeneration Association had recommended against limiting the definition of standby service to "backup, maintenance, and related services," the proposed rule is consistent with utility tariffs, which ordinarily treat backup and maintenance services as types of standby service.

The existing rules contain definitions of: backup power, interruptible power, maintenance power, and supplementary power. Typically, utility tariffs do not describe standby service as interruptible and supplementary power; and we therefore do not recommend including them in the definition.

To increase clarity in the proposed rule, we also recommend removing "related services" from the phrase "standby service is backup, maintenance, and related services."

We therefore recommend the following modifications to the proposed rule:

> Standby service is backup and maintenance service, <u>as described by a utility in its Commission-approved tariff</u>, necessary to make electricity service available to the facility.
>
> "Standby service" means:

[4] See *In the Matter of a Rate for Large Solar Photovoltaic Installations* Order Setting Final Solar Photovoltaic Standby Service Capacity Credit, Requiring Updates, and Requiring Compliance Filing, Docket No. E-002/M-13-315 (May 19, 2014).

A. for public utilities, service or power that includes backup or maintenance service, as described by a utility in its commission-approved tariff, necessary to make electricity service available to the qualifying facility.

B. for a utility not subject to the commission's rate authority, the service associated with the applicable tariff in effect under Minnesota Statutes, section 216B.1611, subdivision 3, clause (2).

F. 7835.0100, subp. 24 – Utility

Missouri River Energy Services recommended a clarification to the definition of utility to include a reference to a new proposed rule provision, 7835.9920, governing nonstandard contract provisions. This would ensure that the definition applies to this rule part, and we therefore recommend incorporating this clarification. The definition would therefore read:

"Utility" means:

A. for the purposes of parts 7835.1300 to 7835.1800 and 7835.4500 to 7835.4550, any public utility, including municipally owned electric utilities or cooperative electric associations, that sells electricity at retail in Minnesota; or

B. for the purposes of parts 7835.0200 to 7835.1200, 7835.1900 to 7835.4400, 7835.4600 to 7835.6100, ~~and~~ 7835.9910, and 7835.9920, any public utility, including municipally owned electric utilities and cooperative electric associations, that sells electricity at retail in Minnesota, except those municipally owned electric utilities that have adopted and have in effect rules consistent with this chapter.

G. 7835.0800 – Schedule E

The Commission received comments from the Department, Powerfully Green, and Darryl Thayer.

This rule requires utilities to file information about their safety standards and operating procedures and states that the utility's standards and procedures must not be more restrictive than the interconnection standards in rule parts 7835.4800 to 7835.5800. Under the proposed rules, these rules parts are repealed because the Commission separately established interconnection standards by order in 2004. This proposed rule part therefore strikes the following sentence:

These standards and procedures must not be more restrictive than the interconnection guidelines listed in parts 7835.4800 to 7835.5800.

1. Comments

The Department and Powerfully Green recommended retaining this sentence and clarifying it to read:

These standards and procedures must not be more restrictive than the interconnection guidelines listed in parts ~~7835.4800 to 7835.5800~~ 7835.2100 and 7835.4750.

Rule part 7835.2100 governs compliance with the National Electrical Safety Code, and part 7835.4800 requires each utility to provide a copy of the Commission's standards to their customers before they sign the uniform statewide contract.

Mr. Thayer echoed the concerns of the Department and Powerfully Green, stating that utility standards and procedures should not be more restrictive than what is required to pass an electrical inspection conducted by a state or local inspector.

2. Staff Analysis

We concur with the comments that clarifying the sentence, rather than striking it, is reasonable. To clarify the sentence, we recommend the following language:

These standards and procedures must not be more restrictive than the standards contained in the electrical code under part 7835.2100 or than the interconnection standards distributed to customers under part 7835.4750.

H. 7835.2100 – Area Electric Power System

The Commission received comments from the Department and Missouri River Energy Services recommending clarifications to the proposed rule language.

The proposed rule changes read:

7835.2100 – Electrical Code Compliance ~~with National Electrical Safety Code~~.

Subpart 1. **Compliance; standards**.
The interconnection between the qualifying facility and the utility must comply with the requirements of the National Electrical Safety Code~~, 1981 edition,~~ issued by the Institute of Electrical and Electronics Engineers ~~as American National Standards Institute Standard C2 (New York, 1980)~~. The interconnection is subject to subparts 2 and 3.

Subpart 2. **Interconnection.**
The interconnection customer is responsible for complying with all applicable Local, state, and federal codes, including building codes, the National Electric Code (NEC), the National Electric Safety Code (NESC), and noise and emissions standards. The Area Electric Power System will require proof of complying with the NEC before the interconnection is made. The interconnection customer must obtain installation approval from an electrical inspector recognized by the Minnesota State Board of Electricity.

Subp. 3. **Generation system**.

The Interconnection customer's generation system and installation must comply with the American National Standards Institute/Institute of Electrical and Electronics Engineers(ANSI/IEEE) standards applicable to the installation.

1. Comments

a. Missouri River Energy Services

Missouri River Energy Services recommended clarifying subpart 1 of the proposed rule as shown in bold:

> The interconnection between the qualifying facility and the utility must comply with the requirements **in the most recently published edition** of the National Electrical Safety Code~~, 1981 edition,~~ issued by the Institute of Electrical and Electronics Engineers ~~as American National Standards Institute Standard C2 (New York, 1980)~~. The interconnection is subject to subparts 2 and 3.

b. The Department

The Department recommended adding a definition to the rules to define “electric area power system.” The term is used in the second sentence of subpart 2 and is defined in the Commission’s interconnection standards as “an electric power system that serves local electric power systems.” In other words, area electric power system is the utility’s system serving the local electric power system, which is the customer’s electric system.

2. Staff Analysis

We concur with the recommended clarification of Missouri River Energy Services. The editions of the National Electric Safety Code appear to be annually issued, and it might therefore be helpful to state “in the most recently published annual edition” to avoid any confusion over which edition is the most recently published edition.

We also concur with the Department that the language in subparts 2 and 3 should be further clarified. Those subparts come directly from the Commission’s interconnection standards and are applicable even without the proposed rule language.

To further clarify the language, we recommend using terms consistent with existing rule language. For example, “interconnection customer” is the “qualifying facility,” and “area electric power system” is the “utility.” To increase clarity, we therefore recommend the following:

> Subpart 2. **Interconnection.**
> The qualifying facility is responsible for complying with all applicable Local, state, and federal codes, including building codes, the National Electric Code (NEC), the National Electric Safety Code (NESC), and noise and emissions standards. The utility must require proof that the qualifying facility is in compliance with the NEC

before the interconnection is made. The qualifying facility must obtain installation approval from an electrical inspector recognized by the Minnesota State Board of Electricity.

Subp. 2. **Generation system**.
The qualifying facility's generation system and installation must comply with the American National Standards Institute/Institute of Electrical and Electronics Engineers(ANSI/IEEE) standards applicable to the installation.

I. 7835.4020 – Amount of Capacity Payments; Considerations.

The City of Minneapolis, Hennepin County, the Metropolitan Council, and the Metropolitan Airports Commission jointly recommended adding a definition of "accredited capacity" to be used in part 7835.4020, which governs capacity payments.

They recommended the following definition:

> "Accredited capacity" means the capacity of a qualifying facility determined by the Midcontinent Independent System Operator ("MISO") or such governing organization that replaces MISO, that allows the facility's accredited capacity to be included as part of a load serving entity's plan for resource adequacy.

They recommended using the term in proposed rule part 7835.4020 as follows:

> The qualifying facility which negotiates a contract under part 7835.4019 must be entitled to the full avoided capacity costs of the utility if the utility needs capacity within a 10-year planning period. The amount of capacity payments must be determined through consideration of the following, without requirement that all be met:
>
> A. the capacity factor of the qualifying facility;
>
> B. the cost of the utility's avoidable capacity;
>
> C. the length of the contract term;
> D. reasonable scheduling of maintenance;
>
> E. the willingness and ability of the qualifying facility to provide firm power during system emergencies;
>
> F. the willingness and ability of the qualifying facility to allow the utility to dispatch its generated energy;
>
> G. the willingness and ability of the qualifying facility to provide firm capacity during system peaks;
>
> H. the sanctions for noncompliance with any contract term; and

I. the smaller capacity increments and the shorter lead times available when capacity is added from qualifying facilities.

J. the expected accredited capacity, capacity value, or expected capacity value to the utility in its resource plan.

If incorporated, the addition of "accredited capacity" would apply to qualifying facilities interconnected to a public utility but would not apply to existing rule part 7835.3700, which governs capacity payments to smaller qualifying facilities interconnected with a cooperative electric association or municipal electric utility.

We do not think this change is necessary because accredited capacity can be considered under F above, which requires consideration of "the willingness and ability of the qualifying facility to allow the utility to dispatch its generated energy."

J. 7835.4750 – Interconnection Standards.

This proposed rule requires a utility to distribute to each customer, prior to signing the uniform statewide contract, a copy of the Commission's current interconnection standards. Missouri River Energy Services recommended that the proposed rule be modified to allow utilities the option of satisfying the notification requirement by publishing notice of the Commission's interconnection standards in a newspaper of general circulation, along with information on where customers can obtain a copy of the standards.

MRES stated that it would be burdensome for some utilities, particularly smaller utilities, to notify customers individually of subsequent changes to the standards. MRES therefore recommended the following change:

> Prior to signing the uniform statewide contract, a utility must distribute to each customer a copy of, or electronic link to, the commission's order establishing interconnection standards dated September 28, 2004, in docket number E-999/CI-01-1023. The utility must provide each customer a copy of, or electronic link to, subsequent changes made by the commission to any of those standards. A utility may satisfy this requirement by publishing notice in a newspaper of general circulation in the service area of the utility information that the commission established interconnection standards in Docket No. E-999/CI-01-1023, and describing where a copy of the commission's interconnection standards may be reviewed.

We recommend further clarifying the rule to address the issue raised by MRES. The proposed rule is intended to require a utility to provide the 2004 interconnection standards (or subsequent changes to the standards) only *prior* to signing the contract with the customer. We therefore recommend clarifying the proposed rule as follows:

> Before a customer signs the uniform statewide contract, a utility must distribute to that customer a copy of, or electronic link to, the commission's order establishing

interconnection standards dated September 28, 2004, in docket number E-999/CI-01-1023, or currently effective interconnection standards established by subsequent commission order.

K. 7835.5900 – Existing Contracts

MRES recommended clarifying this proposed rule, which incorporates statutory language affecting existing interconnections. The statute applies the uniform statewide contract to all new and existing interconnections *except that existing contracts may remain in force until terminated by mutual agreement between both parties.* The proposed rule therefore reads:

> Any existing interconnection contract~~s~~ executed between a utility and a qualifying facility with ~~installed~~ capacity of less than 40 kilowatts ~~before November 13, 1984, may be canceled and replaced with the uniform statewide contract at the option of either party by either party giving the other written notice~~ remains in force until terminated by mutual agreement of the parties. ~~The notice is effective upon the shortest period permitted under the existing contract for termination, but not less than ten nor more than 30 days.~~

MRES stated that some utilities might, under existing contracts, exercise a unilateral right to terminate, according to the terms of the existing contract. While the statute was amended to apply the uniform statewide form of contract to all new and existing contracts, the statute states that "existing contracts *may* remain in force until terminated by mutual agreement between both parties." MRES recommended modifying the proposed rule as shown in bold:

> Any existing interconnection ~~contracts~~ **contract** executed between a utility and a qualifying facility with ~~installed~~ capacity of less than 40 kilowatts ~~before November 13, 1984, may be canceled and replaced with the uniform statewide contract at the option of either party by either party giving the other written notice~~ remains in force until terminated by mutual agreement of the parties **or as otherwise specified in the contract**. ~~The notice is effective upon the shortest period permitted under the existing contract for termination, but not less than ten nor more than 30 days.~~

We concur that this modification clarifies that parties will continue to have the option to exercise their rights to terminate, which are otherwise in effect under existing contracts. We therefore recommend incorporating this change.

L 7835.5950 – Renewable Energy Credit; Ownership.

This proposed rule addresses ownership of renewable energy credits (RECs), consistent with the Commission's recent decision on REC ownership.[5] The proposed rule reads:

[5] *In the Matter of a Commission Inquiry into Ownership of Renewable Energy Credits Used to Meet Minnesota Requirements*, Docket No. E-999/CI-13-720, Order Determining Renewable Energy Credit Ownership Under Minn. Stat. § 216B.164 (July 22, 2014).

> A qualifying facility owns all renewable energy credits unless other ownership is expressly provided for in the contract between the qualifying facility and a utility under part 7835.9910.

Xcel Energy recommended changes to the proposed rule to incorporate the precise language from the Commission's decision on REC ownership as follows:

> Generators own all RECs unless (1) other ownership is expressly provided for by a contract between a generator and a utility; (2) state law specifies a different outcome, or (3) specific Commission orders or rules specify a different outcome.

We concur with Xcel's recommended change, although it eliminates any reference to rule part 7835.9910, which contains the uniform statewide contract. The contract does, however, include proposed rule language requiring that the owner of the RECs be named.

M. 7835.9910 – Uniform Statewide Form of Contract.

The Commission received comments on proposed changes to the uniform statewide contract from the Minnesota Rural Electric Association (MREA), the Department, and Xcel Energy.

1. Comments

Xcel commented that under the proposed rule changes to the contract, it would offer rates of compensation consistent with rates identified in the contract, meaning that rates not listed in the contract would not be offered.

The Department recommended clarifying use of the term "utility" by instead using "cooperative electric association or municipal electric utility" in Contract Term 2 and by using "public utility" in Contract Terms 3 and 4.

MREA recommended modifying the first paragraph of the contract, which, under the proposed rules, reads:

> The form for the uniform statewide contract must be applied to all new and existing interconnections between a utility and cogeneration and small power production facilities having less than ~~40~~ 1,000 kilowatts of capacity ~~is as follows:~~, except as described in part 7835.5900.

MREA recommended that the proposed rule be modified to specify that the contract governs interconnections between: a cooperative electric association or a municipal electric utility and a qualifying facility having less than 40 kW capacity; or a public utility and a qualifying facility having less than 1,000 kW capacity.

Further, MREA recommended adding language to state that contract terms applicable only to public utilities are not required in the contract used by cooperative electric associations or municipal electric utilities.

2. Staff Analysis

a. Kilowatt-hour credits

The existing contract terms correspond to existing rule parts. For example, contract term 2 lists three rate categories and refers to each rule part governing the rate category listed. The proposed rules therefore amend contract provisions as necessary to incorporate corresponding proposed rule changes.

There was, however, a proposed rule change for which there is not a corresponding contract provision, which we recommend adding. Proposed rule part 7835.4017 incorporates the recent statutory change governing bill credits for net metered facilities. It states that customers with a net metered facility have the option to be compensated for net input in the form of a kilowatt hour credit on the customer's bill, which will be carried forward to subsequent energy bills. It requires a true-up at the end of the year for any remaining net input, paid out at the avoided cost rate for that class of customer.

Compensation in the form of a kilowatt-hour credit on the bill is, in effect, the retail rate. Because it has a rate impact, we recommend clarifying the proposed contract language as follows:

> 4. The Public Utility will buy electricity from the QF under the current rate schedule filed with the Commission. If the QF is not a net metered facility and has at least 40 kilowatt capacity but less than 1,000 kilowatt capacity, the QF elects the rate schedule category hereinafter indicated:
>
> ____ a. Simultaneous purchase and sale billing rate under part 7835.4014.
>
> ____ b. Time-of-day purchase rates under part 7835.4015.
>
> A copy of the presently filed rate schedule is attached to this contract.
>
> 4a. The Public Utility will buy electricity from a net-metered facility under the current rate schedule filed with the Commission or will compensate the facility in the form of a kilowatt-hour credit on the facility's energy bill. If the net metered facility has at least 40 kilowatts capacity but less than 1,000 kilowatt capacity, the QF elects the rate schedule category hereinafter indicated:
>
> ____ a. kilowatt hour energy credit on the customer's energy bill, carried forward and applied to subsequent energy bills, with an annual true-up under part 7835
>
> ____ b. Simultaneous purchase and sale billing rate under part 7835.4014.
>
> ____ c. Time-of-day purchase rates under part 7835.4015.
>
> A copy of the presently filed rate schedule is attached to this contract.

Without this clarification, the standard contract would not require a public utility to offer, and would not specify that a net metered facility may elect, kilowatt hour credits for monthly net input, an option required by the statute. Further, Xcel stated in its comments that, under the proposed rules (without the clarification described above), it would not bank a customer's kilowatt hour credits for net input. Instead, customers would be compensated for net input at the avoided cost rate in the form of a payment each month.

b. Use of "utility."

We concur with the Department and MREA to clarify which contract terms apply to public utilities. We therefore recommend using "cooperative electric association or municipal electric utility" in the first sentence of Contract Terms 2 and 3.

We also recommend using "public utility" in Contract Terms 4 and 4a (as shown above). Contract Term 6 governs all interconnections, and we therefore recommend clarifying Term 6 as follows:

> 6. The Public Utility, the Cooperative Electric Association, or the Municipally Owned Electric Utility will compute the charges and payments for purchases and sales for each billing period. Any net credit to the QF or to the net metered facility, other than kilowatt hour credits under 4a above,will be made under one of the following options as chosen by the QF:
>
> ____ 1. Credit to the QF's account with the Utility.
>
> ____ 2. Paid by check to the QF within 15 days of the billing date.

N. Other Changes

1. Average retail utility energy rate

Minnesota Power recommended use of the "average retail energy rate" rather than "net energy billing rate." The proposed rules use "average retail energy rate in part 7835.4013, but "net energy billing rate" is used in proposed rule part 7835.4012.

The term "net energy billing rate" is used in existing rule parts 7835.3300 (governing compensation rates) and 7835.9910 (the statewide uniform contract). Parts 7835.1400 and 7835.1500 use the term "net energy billing" and require utilities to file information on qualifying facilities receiving the net energy billing rate and those receiving the avoided cost rate.

The existing rules define the term "average retail utility energy rate," and we recommend using this term consistently throughout the rules, in place of "net energy billing rate" and "net energy billing."

2. SONAR language

Minnesota Power recommended amending language on page 24 of the SONAR, which identifies the persons who will probably benefit from the proposed rule. Included in the list are "retail electric customers, who will offset reliability concerns during outages by using electricity they are producing."

Minnesota Power stated the Commission's interconnection standards require that during outages, the generation system be shut down as well. This prevents unintentional back feed and energizing of the utility system, and as a result, customers without a backup generator installed will not have power during outages. We concur with Minnesota Power that this is generally true, and we therefore recommend correcting the SONAR as suggested by Minnesota Power.

3. Public Comment

Darryl Thayer recommended that the proposed rule changes protect customers from undue cost allocations for upgrades to the utility's system and ensure that technical requirements of the utility be no more stringent than the national electrical safety code requires. These issues are directly governed by the Commission's interconnection standards, and it would appear that these issues could be further explored when the Commission next considers modifying those standards.

4. Part 7835.4019 – Qualifying Facilities of 1,000 Kilowatt Capacity or More.

We recommend making a technical correction to the first sentence of proposed rule part 7835.4019 to clarify that the rule applies to interconnections with a "public" utility. The proposed rule would therefore read:

> A qualifying facility with 1,000 kilowatt capacity or more must negotiate a contract with the public utility to set the applicable rates for payments to the customer of avoided capacity and energy costs.

V. Next Steps

The next steps in this rulemaking are to send any draft the Commission approves to the Revisor for final editing, to the Governor's Office for final approval, and then to the Office of Administrative Hearings for final review. Unless the Office of Administrative Hearings suggests substantive changes, we will file the rules with the Secretary of State and then publish the final draft in the *State Register*. The rules will have the force and effect of law five days after publication.

We will bring the rules back to the Commission for formal action if the Office of Administrative Hearings recommends any substantive change. Otherwise, we will report back when these processes are complete.

VI. Commission Alternatives

A. Approve the attached rule draft, with any of the following changes, as recommended by staff, and authorize staff to take the necessary steps to continue the rulemaking process and finalize adoption of the rule. Delegate to Commissioner Lange authority to make necessary, non-substantive edits to the rule that may be required after OAH's review under Minn. R. 1400.2310.

7835.0100. Point of Common Coupling.

Add a definition of "point of common coupling" to read as follows:

> the point where the qualifying facility's generation system, including the point of generator output, is connected to the utility's electric power system.

7835.0100, subp. 5. Capacity costs.

Modify the definition of capacity costs to read:

> "Capacity costs" means the costs associated with providing the capability to deliver energy. ~~They consist of~~ The <u>utility</u> capital costs consist of <u>the costs of</u> facilities used to generate, transmit, and distribute electricity and the fixed operating and maintenance costs of these facilities.

7835.0100, subp. 20a. Standby charge.

Modify the definition of "standby charge" to read:

> "Standby charge" means the rate or fee a utility charges for <u>the recovery of costs for</u> the provision of standby service or standby power.

7835.0100, subp. 20b. Standby service.

Modify the definition of "standby service" to read:

> "Standby service" means:
>
> A. for public utilities, service or power that includes backup <u>or</u> maintenance ~~and related~~ services<u>, as described by a utility in its Commission-approved tariff</u>, necessary to make electricity service available to the <u>qualifying</u> facility. ~~as described in the public utility's commission-approved standby tariff;~~

7835.0100, subp. 24 – Utility.

Modify the definition of "utility" to read:

"Utility" means:

B. for the purposes of parts 7835.0200 to 7835.1200, 7835.1900 to 7835.4400, 7835.4600 to 7835.6100, ~~and~~ 7835.9910, and 7835.9920, any public utility, including municipally owned electric utilities and cooperative electric associations, that sells electricity at retail in Minnesota, except those municipally owned electric utilities that have adopted and have in effect rules consistent with this chapter.

7835.0800 – Schedule E.

Modify the following sentence of this rule part to read:

These standards and procedures must not be more restrictive than the standards contained in the electrical code under part 7835.2100 or than the interconnection standards distributed to customers under part 7835.4750.

7835.2100 – Area Electric Power System.

Modify the proposed rule as follows:

Subpart 1. **Compliance; standards**.
The interconnection between the qualifying facility and the utility must comply with the requirements in the most recently published **annual** edition of the National Electrical Safety Code~~, 1981 edition,~~ issued by the Institute of Electrical and Electronics Engineers ~~as American National Standards Institute Standard C2 (New York, 1980)~~. The interconnection is subject to subparts 2 and 3.

Subpart 2. **Interconnection.**
The qualifying facility is responsible for complying with all applicable
Local, state, and federal codes, including building codes, the National Electric Code (NEC), the National Electric Safety Code (NESC), and noise and emissions standards. The utility must require proof that the qualifying facility is in compliance with the NEC before the interconnection is made. The qualifying facility must obtain installation approval from an electrical inspector recognized by the Minnesota State Board of Electricity.

Subp. 3. **Generation system**.
The qualifying facility's generation system and installation must comply with the American National Standards Institute/Institute of Electrical and Electronics Engineers(ANSI/IEEE) standards applicable to the installation.

7835.4019 – Qualifying Facilities of 1,000 Kilowatt Capacity or More.

Modify the proposed rule as follows:

A qualifying facility with 1,000 kilowatt capacity or more must negotiate a contract with the public utility to set the applicable rates for payments to the customer of avoided capacity and energy costs.

7835.4750 – Interconnection Standards.

Modify the proposed rule as follows:

Before a customer signs the uniform statewide contract, a utility must distribute to that customer a copy of, or electronic link to, the commission's order establishing interconnection standards dated September 28, 2004, in docket number E-999/CI-01-1023, or currently effective interconnection standards established by subsequent commission order.

7835.5900 – Existing Contracts

Modify the proposed rule language as shown in bold:

Any existing interconnection contract~~s~~ executed between a utility and a qualifying facility with ~~installed~~ capacity of less than 40 kilowatts ~~before November 13, 1984, may be canceled and replaced with the uniform statewide contract at the option of either party by either party giving the other written notice~~ remains in force until terminated by mutual agreement of the parties **or as otherwise specified in the contract**. ~~The notice is effective upon the shortest period permitted under the existing contract for termination, but not less than ten nor more than 30 days.~~

7835.5950 – Renewable Energy Credit; Ownership.

Modify the proposed rule as follows:

Generators own all RECs unless (1) other ownership is expressly provided for by a contract between a generator and a utility; (2) state law specifies a different outcome, or (3) specific Commission orders or rules specify a different outcome.

7835.9910 – Uniform Statewide Form of Contract.

Modify the first sentence of Contract Term 2 to read:

The Cooperative Electric Association or Municipally Owned Electric Utility will buy electricity from the QF under the current rate schedule filed with the Commission.

Modify the first sentence of Contract Term 3 to read:

3. The Public Utility will buy electricity from the QF under the current rate schedule filed with the Commission.

Modify Contract Term 4 as follows and add Contract Term 4a as follows:

4. The Public Utility will buy electricity from the QF under the current rate schedule filed with the Commission. If the QF is not a net metered facility and has at least 40 kilowatt capacity but less than 1,000 kilowatt capacity, the QF elects the rate schedule category hereinafter indicated:

____ a. Simultaneous purchase and sale billing rate under part 7835.4014.

____ b. Time-of-day purchase rates under part 7835.4015.

A copy of the presently filed rate schedule is attached to this contract.

4a. The Public Utility will buy electricity from a net-metered facility under the current rate schedule filed with the Commission or will compensate the facility in the form of a kilowatt-hour credit on the facility's energy bill. If the net metered facility has at least 40 kilowatts capacity but less than 1,000 kilowatt capacity, the QF elects the rate schedule category hereinafter indicated:

____ a. kilowatt hour energy credit on the customer's energy bill, carried forward and applied to subsequent energy bills, with an annual true-up under part 7835

____ b. Simultaneous purchase and sale billing rate under part 7835.4014.

____ c. Time-of-day purchase rates under part 7835.4015.

A copy of the presently filed rate schedule is attached to this contract.

Modify Contract Term 6 to read:

6. The Public Utility, the Cooperative Electric Association, or the Municipally Owned Electric Utility will compute the charges and payments for purchases and sales for each billing period. Any net credit to the QF or to the net metered facility, other than kilowatt hour credits under 4a above,will be made under one of the following options as chosen by the QF:

____ 1. Credit to the QF's account with the Utility.

____ 2. Paid by check to the QF within 15 days of the billing date.

7835. 1400; 7835.1500; 7835.3300; 7835.4012; and 7835.9910 – Average Retail Utility Energy Rate.

Use "average retail utility energy rate" rather than "net energy billing rate." This would apply to existing language in parts 7835.1400 (governing reporting requirements) 7835.3300

(governing compensation rates) and 7835.9910 (the statewide uniform contract), as well as to proposed rule part 7835.4012 (governing compensation rates).

Replace "net energy billing" with "average retail utility energy billing" in parts 7835.1400 and 7835.1500.

SONAR. Modify p.24 of the SONAR, which lists persons who will probably benefit from the proposed rule, by striking the following statement:

> Retail electric customers, who will offset their reliability concerns during outages by using electricity they are producing.

B. Make other revisions, as recommended in comments, to the following rule parts:

7835.0100, subp. 4. Capacity.

Modify the proposed definition of capacity to incorporate any of the following definitions:

a. Generation System Size

> "Capacity" means the maximum capability to produce electrical energy and is quantified as the greater of either the manufacturer's nameplate continuous kilowatts rating or the maximum measured kilowatts alternating current produced by the generation during standard 15-minute intervals.

b. Standby Charges

> "Capacity" is quantified by the nameplate rating stated in kilowatts alternating current for continuous output for the generation system.

c. Reporting Requirements

> "Capacity" is quantified by the maximum number of kilowatts alternating current produced and measured at the point of common coupling during standard 15-minute intervals.

d. Definition for all other instances other than a-c above:

> "Capacity" means the maximum average energy which is produced or is designed to be produced over standard 15-minute intervals.

e. General Definition

> "Capacity" means the capability to produce, transmit or deliver electric energy, and is determined by the maximum 15 minute average alternating current energy production of

a qualifying generating facility, measured with a production demand meter at the point of generator output.

7835.0100, subp. 9. Firm Power

Amend the definition of firm power to read:

"Firm power" means the capacity credit for the specified type of generation as determined by the methodology in the most recently approved MISO Resource Adequacy Business Practices Manual.

7835.0100, subp. 20a and 20b. Standby charge and Standby service.

Modify the proposed rule to strike the definition of standby service and incorporate the statutory definition of standby charge, which reads:

"Standby charge" means a charge imposed by an electric utility upon a distributed generation facility for the recovery of costs for the provision of standby services, as provided for in a utility's tariffs approved by the commission, necessary to make electricity service available to the distributed generation facility."

7835.4020 – Amount of Capacity Payments; Considerations.

Add a definition of "accredited capacity" to read:

"Accredited capacity" means the capacity of a qualifying facility determined by the Midcontinent Independent System Operator or such governing organization that replaces MISO, that allows the facility's accredited capacity to be included as part of a load serving entity's plan for resource adequacy.

Modify proposed rule part 7835.4020 as follows:

The qualifying facility which negotiates a contract under part 7835.4019 must be entitled to the full avoided capacity costs of the <u>utility if the utility needs capacity within a 10-year planning period</u>. The amount of capacity payments must be determined through consideration of <u>the following, without requirement that all be met</u>:

<u>J. the expected accredited capacity, capacity value, or expected capacity value to the utility in its resource plan.</u>

7835.4750 – Interconnection Standards.

Modify the proposed rule by adding the following sentence:

A utility may satisfy this requirement by publishing notice in a newspaper of general circulation in the service area of the utility information that the commission established interconnection standards in Docket No. E-999/CI-01-1023, and describing where a copy of the commission's interconnection standards may be reviewed.

C. Take other action as the Commission deems appropriate.