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VIA e-FILING

Dr. Burl Haar, Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

**RE: Comments of the Midwest Cogeneration Association and the Alliance for Industrial Efficiency;
PUC Docket No. E-999/R-13-729;
Possible Amendments to the Rules Governing Cogeneration and Small Power Production,
Minnesota Rules, Chapter 7835**

Dear Dr. Haar:

Please accept for e-Filing with the Minnesota Public Utilities Commission (Commission) the following Comments of the Midwest Cogeneration Association (MCA) and the Alliance for Industrial Efficiency (the Alliance) responding to the Commission's Request for Comments regarding Possible Amendments to Rules Governing Cogeneration and Small Power Production, *Minnesota Rules*, Chapter 7835. The MCA is a 501(c) (4) professional association dedicated to promoting clean and energy efficient combined heat and power (CHP) and waste heat-to-power (WHP) technologies. MCA members include representatives of CHP and WHP technology manufacturers and project developers, energy efficiency analysts, and energy and environmental consultants and attorneys – all of whom have expertise in CHP and WHP technologies and projects. A number of MCA members reside in and operate businesses in Minnesota. The Alliance is a diverse national coalition of labor, contractor, business and environmental organizations who are committed to advancing policies to increase deployment of CHP and WHP.

GENERAL COMMENTS

The MCA and the Alliance applaud the Commission for providing this opportunity for public input on the important topic of rules governing cogeneration and small power production. We strongly support the Commission opening a generic docket to consider implementation of the directives and authorities provided in new House File 729 regarding distributed generation. House File 729 lays a strong foundation for diversifying and strengthening the resiliency of Minnesota's energy portfolio with clean and efficient distributed generation.

Conventional power generation, transmission and distribution are extremely inefficient. In fact, roughly two-thirds of energy inputs are simply wasted, with only one-third actually delivered to customers. Ratepayers subsidize this inefficiency by paying for power that never reaches the end user. The unfortunate results are lost competitiveness and jobs, as well as increased pollution. Distributed generation in the form of CHP and WHP offers an alternative. CHP systems simultaneously generate heat and electricity from a single fuel source. WHP captures heat that would otherwise be wasted and generates additional electricity. In these ways, CHP and WHP projects dramatically reduce electric power demand (and related energy costs), making Minnesota businesses more competitive. By lowering energy use, CHP systems also cut greenhouse gas emissions in half.¹ At the same time, CHP projects can increase the reliability of the state's power sector, by ensuring that our manufacturers, universities and hospitals "keep the lights on" during extreme weather events that can compromise the electric grid. Historically, limitations on net-metering and onerous standby rates have acted as barriers to CHP and WHP deployment. House File 729 creates an opportunity to remove these barriers and level the playing field for distributed generation.

The MCA and the Alliance believe that CHP and WHP can serve a key role in Minnesota's energy mix. There are currently 55 CHP and WHP projects in Minnesota, producing nearly 1,000 megawatts of clean and efficient power.² The potential, however, is far greater. In fact, in a 2010 report, ICF consulting estimated that there are more than 2,500 megawatts of potential CHP projects in the state's commercial and industrial sector.³ This docket plays an important role in supporting investments in this area.

This legislation calls for transparency and consistent application of costing principles to remove barriers and level the playing field for distributed generation. Aligning the Commission's regulations and tariffs with House File 729 and best practices employed in other jurisdictions for cogeneration and small power production is critical to achieving these goals.

¹ EPA, Environmental Benefits: Conventional Generation vs. CHP: CO₂ Emissions (graphic) (<http://www.epa.gov/chp/basic/environmental.html>) (visited Sept. 27, 2013).

² DOE and ICF, Combined Heat and Power Installation Database (<http://www.eea-inc.com/chpdata/States/MN.html>).

³ Commercial and Industrial CHP Potential from ICF's "Effect of a 30 Percent Investment Tax Credit on the Economic Market Potential for Combined Heat and Power (USCHPA-WADE ITC Study), Table 3 and Table 4, on p. 11 and p. 12 respectively, http://www.uschpa.org/files/public/USCHPA%20WADE_ITC_Report_FINAL%20v4.pdf. N.B.: "The estimates of CHP technical potential are based on thermally loaded CHP systems sized to serve on-site electrical demands at target facilities and do not include export capacity", so the potential would be even higher if that were factored in.

The following comments represent our broad, initial response to the questions posed by the Commission in this docket. We look forward to continuing participation in the rulemaking process and will provide more detailed comments at that time.

RESPONSE TO SPECIFIC STATUTORY CHANGES HIGHLIGHTED BY THE COMMISSION

1. Increasing the net-metering threshold capacity for a qualifying facility or net metered facility interconnecting to a public utility – under the changes, the threshold is “less than 1,000 kW” (from less than 40 kW).

Following the legislative mandate, we concur that Commission regulations must be amended to reflect the new 1,000 kW threshold for net-metering customer interconnection to a public utility. This will allow larger projects to benefit from net metering, which will encourage greater deployment of CHP and WHP in the industrial sector.

2. **Establishing a new annual billing/crediting method.**

House File 729 states:

Subd. 3a. Net metered facility. (a) Except for customers receiving a value of solar rate under subdivision 10, a customer with a net metered facility having more than 40-kilowatt and less than 1,000-kilowatt capacity that is interconnected to a public utility may elect to be compensated for the customer's net input into the utility system in the form of a kilowatt-hour credit on the customer's energy bill carried forward and applied to subsequent energy bills. Any net input supplied by the customer into the utility system that exceeds energy supplied to the customer by the utility during a calendar year must be compensated at the applicable rate.⁴

While House File 729 provides that a net-metered customer may “elect” to be compensated in the form of an on-bill credit for excess exported power generation, Commission rules should make it clear that the utility shall pay, rather than credit, the customer for such excess exported generation unless the customer elects the on-bill credit. Such a change will ensure that net-metered customers are properly compensated for their contribution to the grid.

3. **Prohibiting standby charges for Facilities under 100 kW.**

The imposition of high standby electricity rates is the largest obstacle to the economics of installing distributed generation facilities in Minnesota. Unwarranted standby rates discourage investment in CHP and WHP projects and fail to recognize the benefits that these projects provide to the grid. The perverse rationale for imposing standby rates on reliable distributed generation, such as CHP and WHP, is well-stated in the 2007 article, “The Legal Case against Stand-By Rates”:

Typical local generation is available over 95 percent of the time, with approximately half of the outages due to planned maintenance... Local generation also enables lower on-peak grid loads, reducing system losses and the need for expensive marginal generation sources...Despite

⁴ Sec. 4. Minnesota Statutes 2012, Section 216B.164.3a.

such benefits, rates developed for on-site generators focus almost exclusively on the costs needed for backup during those rare 2.5-percent-probability events. Ignoring the benefits that accrue during the remaining 97.5 percent of the time creates a windfall for utility investors at the expense of their customer base.⁵

The State & Local Energy Efficiency Action Network (SEEACTION), a consortium of state energy-efficiency policy makers, recently published a “Guide to the Successful Implementation of State Combined Heat and Power Policies”⁶ which includes a chapter discussing the key considerations in designing standby rates that incentivize CHP development and efficient use of standby power. Key among those considerations is the “principle of ‘cost causation’...implemented through rate designs that fairly allocate costs based on measurable customer characteristics.”

This is consistent with the PURPA requirement that all rates be based on an actual cost basis and on the same principles that apply to non-net metered customers:

Rates for sales shall be just and reasonable and in the public interest and shall not discriminate against any qualifying facility in comparison to rates for sales to other customers served by the electric facility. Rates for sales which are based on accurate data and consistent system wide costing principles shall not be considered to discriminate against any qualifying facility to the extent that such rates apply to the utility’s other customers with similar load or other cost-related characteristics.⁷

House File 729 directly addresses standby charges by prohibiting such charges on facilities that are less than 100 kilowatts and requiring Commission consideration of appropriate standby charges for larger projects in a public proceeding:

Subd. 3a. Net metered facility....

(b) A public utility may not impose a standby charge on a net metered or qualifying facility:

- (1) of 100 kilowatts or less capacity; or
- (2) of more than 100 kilowatts capacity, except in accordance with an order of the commission establishing the allowable costs to be recovered through standby charges.⁸

We are pleased to see the prohibition of such charges on smaller projects in House File 729. We are also pleased to see the directive to the Commission to review standby charges for projects greater than 100 kilowatts capacity.

⁵ “The Legal Case against Stand-By Rates”, Casten and Karegianes, *The Electricity Journal*, November 2007, Vol. 20, Issue 9, pp. 37-38. This article is included as *Attachment A* to these comments.

⁶ “Guide to the Successful Implementation of State Combined Heat and Power Policies,” March 2013; See especially, Chapter 2. p. 7. http://www1.eere.energy.gov/seeaction/pdfs/see_action_chp_policies_guide.pdf.

⁷ Public Utility Regulatory Policies Act (PURPA), 18 U.S.C. 292.305.

⁸ Sec. 4. Minnesota Statutes 2012, Section 216B.164.3a.

Significantly, House File 729 prohibits standby charges for facilities of greater than 100 kW absent an order of the Commission establishing recoverable charges. This directive requires the Commission to open a docket to consider the appropriate costs which may be imposed in such standby charges.

Responding to this directive, the Commission should open a public docket to develop consistent criteria for standby charges that incentivize distributed generation without adversely affecting reliability or shifting costs to other customers. These criteria should be based on the “cost causation principle,” i.e. the actual costs incurred by the utility as a result of providing standby power to a distributed generation facility.

The current standby rates for each of the different Minnesota utilities differ substantially, in some instances without regard to the location, timing or nature of the standby power demand. This is an indication that these rates are not tied to actual cost. The Commission should examine the justification for these differences and ensure that consistent “cost driver” principles are applied going forward.

We believe that standby rates for net-metered customers will be deemed inappropriate under this “cost driver” approach. Even with the change in new House File 729, net-metered facilities are limited to facilities that are less than 1,000 kW. As such, outages at these facilities will have little consequence for the overall utility supply. To the contrary, CHP and WHP projects benefit utilities by easing grid congestion when they are operating. Imposing standby rates of any size on such facilities unduly discourages investments in CHP and WHP.

In the coming regulatory proceeding, the Commission should do the following:

- a. Adopt consistent criteria for calculation of standby rates;
 - b. Base these criteria on the actual costs incurred by the utilities to provide backup, maintenance and supplemental power to distributed generation customers. For example, such criteria should distinguish between scheduled and non-scheduled standby power demand and between peak and non-peak standby power demand;
 - c. Take into consideration not only the marginal impact of the small percentage of random, unplanned outages, but also the off-setting substantial benefit provided by reliable distributed generation, such as CHP and WHP, in reducing base load demand on the grid during both peak and non-peak periods; and
 - d. Place the burden on the regulated utilities to justify any element of a standby rate based upon these criteria.
4. **Requiring public utilities to aggregate meters for net metering at customers’ request.**

House File 729 states:

Subd. 4a. Aggregation of meters.

(a) For the purpose of measuring electricity under subdivisions 3 and 3a, a public utility must aggregate for billing purposes a customer's designated meter with one or more aggregated meters if a customer requests that it do so. To

qualify for aggregation under this subdivision, a meter must be owned by the customer requesting the aggregation, must be located on contiguous property owned by the customer requesting the aggregation, and the total of all aggregated meters must be subject to the size limitation in this section.

(b) A public utility must comply with a request by a customer-generator to aggregate additional meters within 90 days. The specific meters must be identified at the time of the request. In the event that more than one meter is identified, the customer must designate the rank order for the aggregated meters to which the net metered credits are to be applied. At least 60 days prior to the beginning of the next annual billing period, a customer may amend the rank order of the aggregated meters, subject to this subdivision.

(c) The aggregation of meters applies only to charges that use kilowatt-hours as the billing determinant. All other charges applicable to each meter account shall be billed to the customer.

(d) A public utility will first apply the kilowatt-hour credit to the charges for the designated meter and then to the charges for the aggregated meters in the rank order specified by the customer. If the net metered facility supplies more electricity to the public utility than the energy usage recorded by the customer-generator's designated and aggregated meters during a monthly billing period, the public utility shall apply credits to the customer's next monthly bill for the excess kilowatt-hours.

(e) With the commission's prior approval, a public utility may charge the customer-generator requesting to aggregate meters a reasonable fee to cover the administrative costs incurred in implementing the costs of this subdivision, pursuant to a tariff approved by the commission for a public utility.⁹

Following this legislative mandate, Minnesota public utilities are required to aggregate meters for net-metering customers upon the customer's request. We believe aggregating meters at the request of an individual net-metering customer is a good idea. This requirement will allow industrial, non-profits, and other businesses that have multiple meters to aggregate for the purpose of billing of electricity. If the electricity customer has on-site electrical generation capabilities, the production of power generated on-site and measured on one meter will offset the charges for electricity measured on other meters, the net being the actual electricity in kWh used by the facility from the grid at the charged electrical rate.

The details of how such aggregation will be implemented should be considered in a public rulemaking docket. For example, Section (d) seems to indicate that the only method of compensation is via an on-bill credit. This is inconsistent with Sec. 4. Minnesota Statutes 2012, section 216B.164.3a, discussed above, which provides that the customer may "elect" an on-bill credit. This could be significant if the electricity exported to the utility exceeds the amount of kWh used month after month and year after year. Minimally, Commission rules should clarify that customers may request direct compensation rather than an on-line credit for aggregated meters.

⁹ Minnesota Statutes 2012, Section 216B.164.4a.

5. **Authorizing the Commission to limit cumulative generation from net-metered customers and permitting a public utility to request that the Commission set such limits.**

House File 729 states:

Subd. 4b. Limiting cumulative generation.

The commission may limit the cumulative generation of net metered facilities under subdivisions 3 and 3a. A public utility may request the commission to limit the cumulative generation of net metered facilities under subdivisions 3 and 3a upon a showing that such generation has reached four percent of the public utility's annual retail electricity sales. The commission may limit additional net metering obligations under this subdivision only after providing notice and opportunity for public comment. In determining whether to limit additional net metering obligations under this subdivision, the commission shall consider:

- (1) the environmental and other public policy benefits of net metered facilities;
- (2) the impact of net metered facilities on electricity rates for customers without net metered systems;
- (3) the effects of net metering on the reliability of the electric system;
- (4) technical advances or technical concerns; and
- (5) other statutory obligations imposed on the commission or on a utility.

The commission may limit additional net metering obligations under clauses (2) to (4) only if it determines that additional net metering obligations would cause significant rate impact, require significant measures to address reliability, or raise significant technical issues.¹⁰

We urge the Commission to allow for net-metering as much as possible, as this provides a key incentive for CHP and WHP projects. The new legislation recognizes that arbitrarily limiting generation from net-metered customers is contrary to good public policy. We note especially the use of the word “significant” in the last paragraph as placing a heavy burden on any request for limiting generation from net metered facilities. In the upcoming rulemaking and in responding to any future requests from a public utility, the Commission must apply the criteria specified in Subd. 4b and place the burden on the requesting utility to justify any limit on the amount of net-metered generation required to be purchased by that utility.

¹⁰ Minnesota Statutes 2012, Section 216B.164.4b.

6. **Changing requirements governing the uniform statewide contract to incorporate the new net-metering threshold for facilities interconnecting to a public utility.**

House File 729 states:

Subd. 6. Rules and uniform contract.

(a) The commission shall promulgate rules to implement the provisions of this section. The commission shall also establish a uniform statewide form of contract for use between utilities and a net metered or qualifying facility having less than 1,000-kilowatt capacity if interconnected to a public utility or less than 40-kilowatt capacity if interconnected to a cooperative electric association or municipal utility.

(b) The commission shall require the qualifying facility to provide the utility with reasonable access to the premises and equipment of the qualifying facility if the particular configuration of the qualifying facility precludes disconnection or testing of the qualifying facility from the utility side of the interconnection with the utility remaining responsible for its personnel.

(c) The uniform statewide form of contract shall be applied to all new and existing interconnections established between a utility and a net metered or qualifying facility having less than 40-kilowatt capacity, except that existing contracts may remain in force until terminated by mutual agreement between both parties.¹¹

The MCA and the Alliance support transparency and consistency. The uniform statewide contract should be amended to incorporate the new net-metering threshold and other new thresholds, limitations and requirements developed in the proposed generic rulemaking. The uniform statewide contract should also recognize differences in the type and location of distributed generation and the nature, duration and timing of standby power requirements.

As noted above, the MCA and the Alliance believe that CHP and WHP can provide a valuable contribution to Minnesota's energy mix. ICF reports that the potential for CHP in the state is two-and-one-half time's current deployment.¹² This docket on the implementation of the directives and authorities provided in new House File 729 regarding distributed generation provides an opportunity for the Commission to ensure that the appropriate incentives are in place to encourage these investments. We look forward to working with the Commission throughout the rulemaking process.

¹¹ Minnesota Statutes 2012, section 216B.164.6.

¹² Commercial and Industrial CHP Potential from ICF's "Effect of a 30 Percent Investment Tax Credit on the Economic Market Potential for Combined Heat and Power (USCHPA-WADE ITC Study), Table 3 and Table 4, on p. 11 and p. 12 respectively, http://www.uschpa.org/files/public/USCHPA%20WADE_ITC_Report_FINAL%20v4.pdf. N.B.: "The estimates of CHP technical potential are based on thermally loaded CHP systems sized to serve on-site electrical demands at target facilities and do not include export capacity", so the potential would be even higher if that were factored in.

Respectfully submitted,

/s/ Patricia F. Sharkey

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A handwritten signature in black ink, appearing to read "Jennifer Kefer", enclosed in a thin black rectangular border.

Jennifer Kefer
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