



April 21, 2017

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
Saint Paul, MN 55101-2147

Re: Comments from the Alliance for Industrial Efficiency; In the Matter of a Commission Inquiry into Standby Service Tariffs; Docket No. E-999/CI-15-115

Dear Mr. Wolf,

The Alliance for Industrial Efficiency (the “Alliance”) appreciates the opportunity to submit comments in response to the Matter of Commission Inquiry into Standby Service Tariffs prepared by the Minnesota Public Utilities Commission (the “Commission”). The Alliance is a diverse coalition that includes representatives from the business, environmental, labor and contractor communities, including over 380 electrical, mechanical, and sheet metal contractors in Minnesota alone. We are committed to enhancing manufacturing competitiveness and reducing emissions through industrial energy efficiency, particularly through the use of clean and efficient power generating systems such as combined heat and power (CHP) and waste heat to power (WHP).

We greatly appreciate the effort of the Commission to review and potentially revise standby rate policy for regulated utilities in the state. We are writing to support the concept of standardization of certain aspects of standby service rates, as proposed in the Model Standby Service Template presented by the Midwest Cogeneration Association (MCA) and Fresh Energy.¹ A model tariff can help ensure transparent, reasonable rates across utilities, which would help realize the substantial potential of CHP and WHP in Minnesota.

About CHP in Minnesota

CHP is a sustainable and efficient energy solution that recycles waste heat from power generation and converts it into useful thermal energy. By generating both heat (thermal energy) and electricity from a single fuel source, CHP dramatically increases overall fuel efficiency –

¹ Midwest Cogeneration Association and Fresh Energy, November 9, 2016, “Reply Comments from Midwest Cogeneration Association and Fresh Energy In the Matter of a Commission Inquiry into Standby Service Tariffs Docket No. E-999/CI-15-115” (<https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPopup&documentId={1FC7286C-9402-4BC4-8CF8-C86C200F26FF}&documentTitle=201611-126407-01}>).



allowing utilities and host companies to effectively “get more with less.” CHP more than doubles the fuel efficiency of a conventional plant, using more than 70 percent of fuel inputs. WHP systems recover waste heat and use it to generate electricity with no additional fuel and no incremental emissions. As a consequence, CHP and WHP can produce electricity while lowering costs for both host companies and all Minnesota ratepayers.

In Minnesota, there is a substantial opportunity to implement CHP. Currently, the state has 56 CHP sites, generating 937 megawatts (MW) of clean and efficient power.² The Department of Energy estimates the state has 4,310 MW of remaining CHP and WHP technical potential capacity (identified at 6,326 sites), with 1,495 MW of remaining onsite technical potential in the industrial sector alone.³ A 2016 report from the Alliance for Industrial Efficiency found that if an economically viable portion of the state’s CHP and WHP was deployed,⁴ Minnesota industrial sector customers would save \$1.1 billion in cumulative electricity costs from 2016 to 2030.⁵ These cost savings result from increasing CHP and WHP deployment alone, demonstrating the importance of these technologies to increasing manufacturing competitiveness.

Minnesota is particularly well-positioned for CHP growth because of its strong industrial base and significant remaining technical potential. Manufacturing accounts for 14 percent (\$43.7 billion in 2013) of the total gross state product and employs over 11 percent of the workforce.⁶ Minnesota’s industrial sector consumed 34.6 percent of the total energy used statewide in 2013 (or 663.4 trillion British thermal units).⁷ The size of the state’s manufacturing sector and the significant technical potential for CHP indicates that Minnesota has a tremendous opportunity for additional CHP implementation, which can be encouraged by removing barriers such as arbitrary and excessive standby rates.

Impact on Standby Rates on CHP

In their [reply comments](#) regarding Docket No. E-999/CI-15-115 the Midwest Cogeneration Association (MCA) and Fresh Energy, compared the impact of Xcel Energy, Minnesota Power,

² U.S. DOE Combined Heat and Power Installation Database, (<https://doe.icfwebservices.com/chpdb/state/MN>).

³ U.S. Department of Energy, Mar. 2016, “Combined Heat and Power (CHP) Technical Potential in the United States” (<http://energy.gov/sites/prod/files/2016/03/f30/CHP%20Technical%20Potential%20Study%203-18-2016%20Final.pdf>).

⁴ Percentage of Minnesota’s technical potential for CHP with less than 10-year payback period.

⁵ The Alliance for Industrial Efficiency, Sep. 2016, “State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency” (http://alliance4industrialefficiency.org/wp-content/uploads/2016/09/FINAL-AIE-State-Industrial-Efficiency-Ranking-Report_9_15_16.pdf). Report considers potential for CHP alongside other modest industrial efficiency improvements. Citation here refers to unpublished data reflecting CHP and WHP deployment alone.

⁶ National Association of Manufacturers, Feb. 2015, “Minnesota Manufacturing Facts,” (<http://www.nam.org/Data-and-Reports/State-Manufacturing-Data/2014-State-Manufacturing-Data/Manufacturing-Facts--Minnesota>).

⁷ U.S. Energy Information Administration, “Minnesota: State Profile and Energy Estimates,” December 2015 (<https://www.eia.gov/state/?sid=MN#tabs-2>).



Otter Tail Power, and Dakota Electric Association's existing standby service tariffs on a hypothetical customer with an onsite CHP system. This analysis found that all four utilities adopted different approaches for assessing standby tariffs. As a result, the charges imposed on the same customer receiving the same level of standby service in the different utility territories varied substantially. For example, a company with a 2 MW CHP system with no outages would be required to pay standby fees ranging from roughly \$1,000 to nearly \$6,600 each month – dependent upon where the system is located. The disparity is even greater once outages are factored in.

This variation between utilities in the state puts manufacturers at a competitive disadvantage and discourages companies from investing in CHP and WHP in large portions of Minnesota. Fair and equitable standby rates also create a business opportunity for CHP developers, who are more likely to build projects in states without excessive standby rates.

Recommendations for Standby Rates in Minnesota

We urge the Commission to ensure standby tariffs are designed to achieve fair rates, accurate cost recovery, reductions in peak load, and customer and public transparency. One way in which the Commission can achieve that is to adopt the Model Standby Service Template presented by MCA and Fresh Energy in Table 10 of their November 9, 2016 comments. This model tariff provides a framework for designing and assessing utility standby tariffs and is based on the following best practice principles:

- Either: All “time of use” charges or a mix of “time of use” charges and fixed charges as a reasonable proxy for “time of use” charges;
- Where fixed charges are employed they should be based on the CHP system’s actual forced outage rate (FOR) or a good approximation of that rate (e.g. equipment class outage rate);
- Cost-based price differentials for peak/off-peak demand; and
- Additional reasonable price differentials to encourage scheduled maintenance which reduces unscheduled outages.

Utilities can encourage scheduled CHP system maintenance at off-peak times by offering a price reduction or credit that is reflective of the value of such scheduling to the utility. Coordination of scheduled maintenance between facilities and utilities is advisable. The PUC may also consider requiring coordination to seek to have scheduled maintenance to occur during shoulder months and/or off-peak periods.



We believe that such a model tariff would help Minnesota utilities achieve fair rates, accurate cost recovery, and reductions in peak load. We recommend the Commission include this model tariff in the final Standby Rate Working Group Report. Further, standby tariffs should be readily understandable and comparable to customers, the public and regulators. To achieve that end, we recommend the Commission require each utility to include in their Standby Tariff a standardized, brief summary of charges, to aid in transparency.

Conclusion

For all of the reasons stated above, the Alliance urges the Commission to ensure standby rates are fair and reasonable, thus encouraging more CHP and WHP deployment in the state. We urge the Commission to review each Minnesota utility's standby tariffs to ensure equitable revenue allocation and rates which are correlated to cost of service. These rates should be transparent and designed to send a clear price signal for the most efficient interface between utility and CHP and WHP resources. Adopting this approach will keep electricity costs lower for all consumers and help cut electricity and heat costs for Minnesota manufacturers, making them more competitive.

Thank you for your consideration.

Sincerely,

Jennifer Kefer
Executive Director
Alliance for Industrial Efficiency