STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION

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July 8, 2019

In the Matter of Minnesota Power's Petition for Approval of its Electric Vehicle Commercial Charging Rate Pilot **Docket No. E015/M-19-337**

REPLY COMMENTS OF FRESH ENERGY, MINNESOTA CENTER FOR ENVIRONMENTAL ADVOCACY, NATURAL RESOURCES DEFENSE COUNCIL, SIERRA CLUB, AND UNION OF CONCERNED SCIENTISTS

Fresh Energy, Minnesota Center for Environmental Advocacy, Natural Resources Defense Council, Sierra Club, and Union of Concerned Scientists submit these Reply Comments in response to the Commission's May 22, 2019 Notice of Comment Period. We respond to the Initial Comments of the Department of Commerce (the Department) and the Office of the Attorney General (OAG) in Sections 1 and 2, and to the Reply Comments of Minnesota Power (the Company) in Section 3. Section 4 includes our conclusion and recommendation.

1) Response to the Department of Commerce (the Department)

We appreciate the Department's thorough and thoughtful comments. We share the Department's objectives of increasing electric vehicle (EV) adoption and integrating the new EV load in a way that benefits all Minnesota Power customers, and we agree that improving rate design is essential to realize this future. The Department's questions and data requests may serve to guide the Company as they evaluate the pilot program results and seek to establish a permanent commercial EV rate solution. However, we believe it would be more appropriate to delay implementation of a new commercial EV rate solution until after its new meters and meter data management system are in place.

On pages 7-11 of its initial comments, the Department extolls the benefits of time-of-use (TOU) energy rates. We agree that a well-designed TOU rate would both better reflect underlying system costs and encourage more economically efficient electricity usage patterns. As the Department notes, the demand charge in the Company's General Service Demand rate design includes not just customer-specific costs, but also generation and transmission costs.[1] It is inappropriate to recover these types of costs—which are intended to recover the costs of providing electricity during the highest-usage periods in the year—through a non-coincident peak demand charge because non-coincident peak demand charges result in some customers paying far more than their fair share toward system capacity. In our initial comments, we cited a report by the Regulatory Assistance Project detailing best practices in non-residential rate design.[2] The report concluded that an ideal large-customer tariff would limit the non-coincident demand

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[1] Minnesota Department of Commerce, "Initial Comments," filed June 17, 2019 in Docket 19-337, at page 15 (link).
[2] Linvill et al., "Smart Non-Residential Rate Design," *Regulatory Assistance Project*, December 8, 2017 (link).

charge to customer-specific capacity costs and move the peak-related capacity costs into time-varying energy rates. This type of rate design would better reflect underlying costs, ensuring customers pay their fair share toward system peak capacity costs. It would also make it easier for customers to change their consumption patterns, which will lower costs for all customers in the long run.

However, we should not let the perfect be the enemy of the good. Critically, the Company's proposal would provide valuable near-term relief for public EV charging stations and support for first-movers on fleet electrification, who are very likely paying more than the system costs that they cause currently. As Minnesota Power details in its filing, it is in the process of upgrading its meters and meter data management system. Moreover, the likelihood of a busy regulatory calendar at the Commission beginning this fall may not allow the Commission, its staff, and interested stakeholders to give this issue the attention that is needed for a rate design overhaul. Accordingly, we continue to recommend the Commission approve the pilot to provide temporary, near-term relief, while also providing a clear timeline for a permanent solution to address the Department's concerns.

2) Response to the Office of the Attorney General (OAG)

We also appreciate the Office of the Attorney General's (OAG) insightful comments. We strongly agree that the 14-hour on-peak period included in Minnesota Power's rate does not reflect actual system (and regional) peaks, and we support any additional reporting requirements that would aid the OAG's evaluation of the program. However, we disagree with the OAG's recommendation to remove the 30% demand charge cap.

As we explained in our Initial Comments, large non-coincident peak demand charges are not only a poor rate design practice, but such charges wreak havoc on the economics of DC fast charging. This can be seen in Table 3 (page 13) of Minnesota Power's Initial Filing, which shows that existing customers are paying as much as ***78 cents per-kWh***, or over seven times more than the energy rate for non-demand metered General Service customers. Moreover, our Initial Comments also noted that DC fast charging's usage pattern puts less stress on distribution system equipment, which should translate into longer equipment life. This is not accounted for in the Company's existing rate design and, as noted above, likely results in the DC fast charging stations overpaying their share of system capacity costs. When combined with the limitations of the Company's existing rate design described above, this limits the potential for any cross-subsidy between participants and non-participants.

To be clear, we share many of the OAG's concerns regarding both rate design and cross-subsidy. A well-designed C&I rate would limit the impact of large demand charges on both DC fast charging and electric fleet customers. However, we believe it would be more appropriate to delay a redesign of the Company's rates until its new meter data management system in place. In the meantime, this proposal would provide much-needed support for participants, with limited impact on non-participating customers.

3) Response to Minnesota Power (the Company)

In its Reply Comments, Minnesota Power took issue with our recommendation to limit the term of the pilot to two years:

> [O]ne of the main objectives of the Pilot Program is education and learning. Considering the time it will take to market this rate, a two year period may not be long enough to garner substantial uptake, provide the valuable system and usage information this Pilot is intended to collect, and also develop a more permanent solution based off of the information collected. Additionally, the Company proposed a three year pilot term to recognize planned investments that the Company has described including implementation of a Meter Data Management System ("MDM") and deployment of Advanced Metering Infrastructure ("AMI"). The Company feels that a three year pilot term better aligns with the implementation of those investments.[3]

In response to the Company's first concern, we note that the Company has already identified at least six customers that would benefit from this pilot, which may prove to be a significant sample, given the modest EV adoption the Company has reported in its service territory. Also, the system information needed to develop an improved rate design is not dependent on the scale of pilot participation.

As to the Company's second concern, we note that its metering and billing system transition is already well underway; the Company's Initial Filing explained that it has already selected a meter data management system vendor, and that the Company expects to select a system integrator in the coming months.[4] In light of this progress, two years should be more than enough time to develop an improved replacement program.

4) Conclusion and recommendation

We appreciate the opportunity to provide comments, and we applaud Minnesota Power for taking steps to limit the chilling effects that excessive demand charges can have on EV adoption. We continue to recommend the Commission approve the pilot as filed and speed the transition to a more beneficial program by making the following modification:

- Limit the term of the pilot to two years and require the Company to file a proposal for a replacement program within two years of the Order approving the pilot.

/s/ Andrew Twite
Fresh Energy
408 St. Peter Street, Suite 220
St. Paul, MN 55102
651.726.7576
twite@fresh-energy.org

/s/ Carolyn Berninger
Minnesota Center for
Environmental Advocacy
1919 University Ave. W., Suite 515
St. Paul, MN 55104
651.287.4878
cberninger@mncenter.org

/s/ Mark Nabong
Natural Resources
Defense Council
20 N. Wacker Drive #1600
Chicago, IL 60606
312.854.9813
mnabong@nrdc.org

/s/ Joseph Halso
Sierra Club
1536 Wynkoop Street, Suite 200
Denver, CO 80202
303.454.3365
joe.halso@sierraclub.org

/s/ Samantha Houston
Union of Concerned Scientists
1825 K Street NW, Suite 800
Washington, DC 20006
202.331.5459
shouston@ucsusa.org

[3] Minnesota Power, "Reply Comments," filed June 27, 2019 in Docket 19-337, at page 2 (link).
[4] Minnesota Power, "Initial Filing," filed May 16, 2019 in Docket 19-337, at pages 10-11 (link).