STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

Katie Sieben Valerie Means Matt Schuerger Joseph K. Sullivan John Tuma

Chair Commissioner Commissioner Commissioner

March 15, 2021 In the Matter of Dakota Electric Association Petition to Implement Pilot Electric Vehicle Services

Docket No. E111/M-21-127

Initial Comments of Fresh Energy, Minnesota Center for Environmental Advocacy, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, and Plug In America

Fresh Energy, Minnesota Center for Environmental Advocacy, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, and Plug In America (Clean Energy Groups or CEGs) submit these Reply Comments in response to the Commission's February 17, 2021 <u>Notice of Comment Period</u>.

Dakota Electric Association's proposed pilot EV rates for multi-family residences and nonresidential locations offer an opportunity for the utility to proactively integrate EV charging loads in a beneficial way. The Clean Energy Groups support Dakota Electric's proposal and recommend that the Commission approve it.

1) EVs have tremendous potential benefits

Numerous independent studies have come to the same conclusion: reducing global warming pollution to the levels required to avoid the worst impacts of climate change will require a dramatic shift to electric vehicles (EVs) powered by renewable and other zero-carbon energy sources.¹ EVs are cleaner than gasoline and diesel vehicles today and will become even more so as the electricity generation mix used to charge the vehicles continues its transition from fossil fuels to renewable energy.

¹ See, e.g., Williams, J.H. et al., "Pathways to Deep Decarbonization in the United States," Energy and Environmental Economics, Inc. (E3), November 2014; National Research Council, "Transitions to Alternative Vehicles and Fuels," (Washington, D.C.: The National Academies Press, 2013).

Electrifying transportation would also have tremendous public health benefits. The Minnesota Department of Health estimates that particulate matter and ozone pollution contribute to 2,000-4,000 deaths per year in Minnesota. Most troublingly, the costs of this pollution are not distributed equally; they fall disproportionately on children, the elderly, economically disadvantaged communities, and communities of color.² Switching gasoline and diesel vehicles for EVs can help reduce disproportionate pollution exposures in communities burdened by transportation pollution.

The successful implementation of EV programs and rate options can both accelerate transportation electrification and lower the cost of integrating renewable energy by leveraging charging load flexibility and the energy storage inherent in EV batteries. Done right, widespread transportation electrification will benefit all utility customers and Minnesota residents more broadly. MJ Bradley & Associates estimate that a mass market for light-duty EVs consistent with meeting the state's greenhouse gas reduction goals could provide cumulative net benefits to utility customers, EV drivers, and society at large totaling **over \$30 billion**.

The tremendous emissions reduction potential of EVs is especially relevant in light of Minnesota's strong greenhouse gas reductions goals. Unfortunately, the state fell short of its 2015 goal of 15 percent reduction relative to 2005, and it is not on track to meet the 2025 goal of 30 percent reduction or the 2050 goal of 80 percent reduction relative to 2005.³ As the report states, the transportation "is the sector with the most pressing need for swift decisive action."⁴

2) Benefits of the proposed program

Time-varying electricity rates are a key opportunity to integrate EV charging loads at gridbeneficial times. In addition, time-varying rates provide EV drivers and fleet operators an opportunity to save on operating costs by charging at cheaper, off-peak times. It is, therefore, essential that drivers living in multi-family housing and non-residential EV charging locations have the ability to enroll in a time-varying rate, like the time-of-use (TOU) rates Dakota Electric has proposed for multi-family and non-residential EV customers.

² The Minnesota Pollution Control Agency's and Department of Health's 2015 *Life and Breath* report (<u>link</u>) examined the effects of air pollution in the Twin Cities by zip code. The results (at pp. 36 - 38) are staggering: rates of premature death, respiratory hospitalizations, and asthma-related ER visits are dramatically higher in economically disadvantaged neighborhoods and neighborhoods in which the majority of residents are people of color.

³ Minnesota Pollution Control Agency and Minnesota Department of Commerce, "Greenhouse gas emissions in inventory: 2005-2018," January 2021 at p. 3 (link).

⁴ *Id* at 13.

We appreciate that Dakota Electric has presented cost-based TOU rates that account for wholesale energy costs. We support excluding demand charges and instead recovering those costs through energy rates. This approach eliminates the risk facing drivers, fleet managers, and public charging operators with low load factors that a short interval of relatively high demand will drive their costs for the month, which would reduce their incentive to focus on charging at times that are low-cost per kilowatt-hour and grid-beneficial.

Importantly, both pilot rates include the option to enroll in a renewable energy supply program. Charging EVs on renewable energy is important to maximize the environmental benefits of EVs for participants. That said, the Wellspring program carries an additional cost. We request Dakota Electric clarify in reply comments whether participants in the proposed pilot rates would also be eligible for the Revolt program, which provides wind energy to EV drivers at no additional cost, if they enroll in one of those rates by the program deadline.⁵ We recommend that Dakota Electric track participant enrollment in applicable renewable energy rate option(s) and report on number of participants and any electricity cost difference between the groups as part of its voluntary annual EV filing. We also request that Dakota Electric share aggregated daily and annual load profiles for the two pilot rates in the annual EV filing so that stakeholders can better understand how participants' charging behaviors align with TOU price signals as well as the degree of seasonal variation in behavior.

In addition, we recommend that participants in the multi-family and non-residential pilot EV rates be eligible and prioritized for the residential or commercial EV charger rebates offered by Dakota Electric, according to which charger type is appropriate for each participant's location.

3) Conclusion and Recommendations

In conclusion, the Clean Energy Groups support Dakota Electric Association's proposed multifamily and non-residential EV pilot rates. We recommend the Commission approve the EV pilot rates.

⁵ The enrollment form specifies that plug-in electric vehicles and plug-in hybrid electric vehicles are eligible to upgrade until December 31, 2021. (link)

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Samantha Houston, hereby certify that I have this day, served a copy of the following document to the attached list of persons by electronic filing.

Initial Comments of Fresh Energy, Minnesota Center for Environmental Advocacy, Natural Resources Defense Council, Sierra Club, and Plug In America

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Dated this 15th day of March 2021

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