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June 15, 2022

—VIA EMAIL & U.S. MAIL—

Mr. Steven M. Kahl, Executive Director
North Dakota Public Service Commission
State Capitol Building, Dept. 408
600 East Boulevard
Bismarck, ND 58505-0480

RE: REQUEST FOR COMMENT REGARDING MEASURES TO PROMOTE GREATER
ELECTRIFICATION OF THE TRANSPORTATION SECTOR PURSUANT TO THE
INFRASTRUCTURE INVESTMENT AND JOBS ACT (CASE NO. PU-22-147)

Dear Mr. Kahl:

Northern States Power Co., doing business as Xcel Energy, (the Company) submits the following comments in response to the Commission's Order in the above referenced case. In that Order the Commission requested each investor-owned utility with operations in North Dakota to provide written comments regarding their plans and efforts to promote greater electrification of the transportation sector, per the amended Public Utility Regulatory Policies Act of 1978.

Background

Pursuant to the IIJA, the Public Utility Regulatory Policies Act was amended by adding the following standard:

Each state shall consider measures to promote greater electrification of the transportation sector, including the establishment of rate that –

- (A) Promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure,
- (B) Improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles; and
- (C) Accelerate third party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles; and
- (D) Appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

Xcel Energy's electric vehicle (EV) vision is to power 1.5 million EVs across the areas we serve by 2030. This means that 20 percent of all vehicles within our footprint would be replaced with electric vehicles by 2030, or a 30-fold increase over the penetration levels in 2020. Through new EV customer programs, charging infrastructure, and our energy, we are bringing our long history of clean energy leadership to transportation, developing innovative partnerships with our communities, customers, and others. With 30 times more EVs on the road by 2030 than today, our objective is to reduce emissions, lower fuel and maintenance costs for EV drivers, and keep energy bills affordable for all customers.

The current Administration's clean transportation policies have set the stage for increased EV adoption. Federal funding for EV charging authorized by the IIJA -- through the EV Charging Program and the Charging Fueling and Infrastructure Program -- will provide new sources of investment in public charging. This will create additional public-private partnership opportunities to test new EV technology deployment, aid the build-out of charging infrastructure in lesser-served areas, and overall, lead to a better experience for Xcel Energy's customers. Additionally, many other sources of funding authorized by IIJA will advance transportation electrification through support for activities such as medium and heavy-duty vehicle electrification, advanced battery manufacturing and development, and research on vehicle to grid technology integration.

Requested Comments

In its Order the Commission noted that it would be in the public interest to commence consideration of the standard. Accordingly, the Commission requested comments on the following areas:

- A. A report of existing measures used to promote electrification of the transportation sector by the electric public utility.*
- B. Existing rate mechanisms that:*
 - 1. promote affordable and equitable electric charging options,*
 - 2. improve customer experience associated with charging,*
 - 3. accelerate third-party investment, and*
 - 4. appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle infrastructure.*
- C. Previous actions taken by the Public Service Commission or State Legislature to implement the standard or a comparable standard.*
- D. Appropriate measures to promote greater electrification of the transportation sector.*
- E. Any other information that the Commission should consider.*

Following are the Company's responses to each of these requests.

A. A report of existing measures used to promote electrification of transportation sector by the electric public utility.

Currently the Company has not proposed any programs or special rates in North Dakota to promote transportation electrification. In its Minnesota jurisdiction, the Company has a suite of programs targeted at increasing transportation electrification. These Company initiatives and offerings can be broadly broken into three categories: 1) advisory services, 2) electric vehicles and infrastructure, and 3) charging optimization through rates. The list below summarizes the activities included in each of these categories:

- ***Advisory Services***

- *Paid Media and Online Information* – Information highlighting the benefits of electrified transportation to our customers and the public at large
- *Dealer and Electrician Outreach* – Partner with dealers and electricians to educate these outlets with useful information on the benefits of EVs and driving electric vehicles which they can use to inform potential EV drivers
- *Online EV Advisory Tool* – Help customers explore available EV models, using information about their actual driving experience to find the vehicle that may work best for them. The Advisory Tool also helps customers determine potential savings from driving electric and the potential costs of wiring their home for EV charging.
- *Fleet EV Advisory Services* – Help fleet operators understand the suitability of incorporating electrified vehicles into their fleets, using telematics and other customer information. Enhance customer understanding of the rate programs that best meets their potential charging needs.

- ***Electric Vehicles and Infrastructure***

- *Utility-provided charging equipment for residential customers* – Company installs, owns, and maintains charging equipment for participants in residential EV charging rate options (*EV Accelerate At Home* and *EV Subscription Service Pilot*). Customers can choose to pay for equipment upfront, or through a monthly customer charge. Helps to lower the upfront cost of charger installation and eliminate the hassle of charger installation.

- *Make-ready (electrical supply infrastructure) and optional charging equipment for fleet operators* – Company installs, owns, and maintains supply and charging infrastructure needed for fleet charging for customers participating in the *Fleet EV Service Pilot*. Infrastructure can include new transformers, electrical service, meters, service panels, and conduit and wiring necessary to facilitate charging. Customer can opt to have the Company install, own, and maintain charging equipment as a part of the pilot.
- *Make-ready for public charging operators* - Company installs, owns, and maintains supply and charging infrastructure needed for public charging providers participating in the *Public Charging Pilot*. Infrastructure can include new transformers, electrical service, meters, service panels, and conduit and wiring necessary to facilitate charging.
- ***Charging Optimization through Rates***
 - *Whole Home Time-of-Use (TOU) Rate* – Two-period rate for all home usage. Not reserved exclusively for EV charging applications
 - *Residential EV Charging Tariff*– Two-period rate for EV charging energy usage. Requires installation of a second meter dedicated to measuring EV charging usage. First tariff dedicated to EV charging use. Attractive to customers who already own charging equipment but want access to lower cost charging during off-peak period.
 - *Residential EV Accelerate At Home* – Three period rate dedicated to EV charging. EV charging energy usage is measured through Company-owned EV charging equipment. Does not require the installation of second meter.
 - *Residential EV Subscription Service Pilot* – Launched in 2020, this three-year pilot program allows participants to pay a single monthly fee for unlimited *off-peak* charging. Company measures charging usage using Company-owned EV charging equipment (same as *EV Accelerate At Home*). Customers pay separately for any charging outside of off-peak period. This pilot seeks to assess customer understanding and satisfaction of a flat rate for EV charging, assess if the pilot and rate structure provide appropriate signals and automation for off-peak charging, and assess the costs for providing service to customers and determine the accuracy of flat rate cost assumptions. The pilot is capped at 150 participants.
 - *EV Optimization Pilot* - Participants select a charging schedule from options designed to reduce strain on Xcel Energy’s system and are responsible for charging within the selected timeframe. Pilot is open to residential customers and certain operators of EV fleets. Customers receive bill credits totaling \$50 per year for each participating vehicle.

- *Fleet EV Service Pilot* – The Company launched this pilot program in 2019 to study the effectiveness of Company investment in EV infrastructure for fleet operators. By lowering upfront costs, the pilot aims to facilitate greater adoption of electric fleet vehicles by fleet operators in our service territory. Xcel Energy will focus on serving charging needs for light-duty vehicles and buses. Participants are required to take electric service for charging on the two-period TOU rate currently available to commercial and industrial customers.
- *Public Charging Pilot*– This pilot was launched in 2019 at the same time as the *Fleet EV Service Pilot*. Under this program, the Company installs, owns, and maintains EV infrastructure for developers of public charging stations. Participants in the *Public Charging Pilot* are required to take electric service for charging on the two-period TOU rate currently available to commercial and industrial customers.

B. Existing rate mechanisms that: 1. Promote affordable and equitable electric charging options

Described below are some examples from Xcel Energy’s EV offerings that promote affordable and equitable electric charging options.

Residential EV Accelerate At Home (MN)

The Company currently operates several EV programs in its Minnesota service territory that strive to make EV charging more convenient and affordable for customers. To serve customers who prefer to avoid the upfront meter installation cost required for the *Residential EV Charging* tariff, we offer our *EV Accelerate At Home* program. Under this service option, the second meter is instead replaced by Company-provided Electric Vehicle Service Equipment (EVSE) (also known as an EV charger). The EVSE provides billing-quality data through a wireless internet connection at the customer’s premises, which makes off-peak charging rates available without a second meter to measure usage. The program lowers upfront costs as customers can pay for the EVSE as a part of their monthly customer charge for the program.

Residential EV Subscription Service (MN pilot)

For customers seeking a simple, consistent monthly charging cost, the Company also offers a *Residential EV Subscription Service* pilot in Minnesota, which is built on the general structure of the *EV Accelerate at Home* program. This pilot allows customers to charge off-peak for a preset monthly fee. The design is intended to encourage off-peak charging and offer customers certainty in monthly charging costs. Like the *EV*

Accelerate At Home program, Company-provided EVSE will be used to measure charging.

Residential Multi-Dwelling Unit (MDU) EV Service (MN pilot)

To promote more equity in EV charging, the Company in its Minnesota service territory has launched its Multi-Dwelling Unit (MDU) EV Service Pilot. This pilot is intended to meet a need for charging options at MDU buildings, such as apartment buildings, condominiums, etc. which have unique barriers that have made them difficult to serve with EV charging access. The Company is also generating learnings about the level of utility support for EV charging and supply infrastructure needed to drive interest in installing charging. The pilot has a budget of about \$4 million and participation will be limited to the number of projects whose costs can be covered by this budget.

As a part of this program, the Company partnered with HOURCAR, a Minnesota nonprofit car-sharing organization, to provide EV charging with a car-sharing service at several locations serving lower income residents, increasing EV access to drivers that may not have had access previously. This program also provides preference to lower income housing locations during the selection process for projects that qualify for full project funding.

Community Mobility Hub Initiative (MN)

Xcel Energy is supporting an innovative community mobility hub program initiative in Minnesota, known as the EV Spot Network, under its *Public Charging Pilot*. The Company is partnering with the cities of Saint Paul and Minneapolis to use Xcel Energy's *Public Charging Pilot* to support installation of the mobility hubs, places of connectivity where different modes of travel converge to access EV charging and electrified transportation options. The cities have obtained *Federal Congestion Mitigation Air Quality* funds to purchase vehicles, chargers, and operating services for this new network of hubs. Xcel Energy is providing the make-ready infrastructure for these locations. The 70 mobility hubs located within Minneapolis and Saint Paul, may be utilized by car-sharing services, transportation network companies, and the public, including customers who do not have EV charging capabilities at home.

Transportation Electrification Plan (CO)

In Colorado, the Company's *Transportation Electrification Plan* highlights Xcel Energy's commitment to a future where transportation electrification is widespread, and all its Colorado customers have better access to affordable vehicles and charging solutions. The Company is directing at least 15 percent of its \$110 million Colorado Transportation Electrification Plan (TEP) budget for 2021-2023 toward supporting

income-qualified customers and communities, in addition to customers in higher emissions communities (HECs). The Company’s Colorado residential, multi-family and commercial portfolios offer enhanced rebates to customers and communities meeting certain criteria identifying them as an underserved population.

For example, in Xcel Energy’s Colorado service territory, the Company offers a *Residential Standard Home Wiring* rebate program that provides a one-time \$500 wiring rebate per house to offset the large upfront costs of installing a level 2 charging station in a home. Income-qualified customers can receive an enhanced rebate of \$1,300.

B. Existing rate mechanisms that: 2. Improve customer experience associated with charging

The Company offers several programs in Minnesota that strive to make EV charging easier for customers. As a part of our *EV Accelerate At Home*, *EV Subscription Service*, *Fleet EV Charging*, and *MDU EV Service* pilots, the Company offers (in some cases, optional) a turnkey service, where the Company will install, own, and maintain the charging equipment. Through these offerings, the Company uses its own expertise and the expertise of partner electricians to eliminate the worries of customers who may not know how to get started in the installation of charging infrastructure and equipment. The Company also handles all maintenance, giving customers peace of mind that their equipment will be taken care of if issues arise, keeping their EVs charged on the road.

In another example of customer experience optimization, one of Xcel Energy’s operating companies, Public Service Company of Colorado, has been working together with stakeholders to develop a siting analysis for its planned Company-owned Direct Current Fast Charging (DCFC) stations as approved under its Colorado TEP. The siting methodology will identify station locations in underserved areas and establishes minimum distances from other existing or publicly proposed DCFC station locations – setting a minimum distance of 10 miles for “connector” station types in more rural areas and a buffer of 0.5 mil for “market station types in more populated areas. Market stations intend to help serve the public fast charging need for EV drivers primarily within communities to meet local demand for fast charging and for commuter trips, whereas connector stations focus more on enabling intercommunity travel where there may be no access, or limited access, to public fast charging, such as travel between cities and communities. These efforts will effectively help reduce customer range anxiety and give customers access to charging who may not have it at home.

B. Existing rate mechanisms that: 3. Accelerate third-party investment

The Company is encouraging third-party investment in public charging through our *Public Charging Pilot*. The pilot is intended as an initial pathway to address barriers to DCFC in our service territory. The pilot will facilitate the deployment of DCFC

stations along transportation corridors and in high utilization areas, seeking to support the market and target recipients of funds from Minnesota’s Diesel Replacement Program. One major component of the pilot is that it will facilitate DCFC in the cities of Saint Paul and Minneapolis at key mobility hubs.

The Company is also encouraging advancements in fleet electrification, which could see a large increase in third-party investments for both fleet vehicles and charging infrastructure and equipment. The Company sees three levels of support for the rapid electrification of a large fleet: i) advisory services, ii) interconnection, and iii) charging infrastructure (where applicable). Advisory services are supported by the Company’s community relations and account management teams, alongside the fleet advisory group, to help customers better understand the suitability of converting fleet vehicles to electric and providing them information on the Company’s services and rate structures for electric fleets. This includes alerting eligible customers to available charging pilots and programs that may meet their needs, such as the *Fleet EV Charging* service pilot, and encouraging enrollment.

For the Public Charging and Fleet EV Charging pilots, customers have choice of eligible charging equipment they can choose to use. This was done to ensure customer choice and avoid the risk of the Company advantaging a single third-party charging equipment provider over others.

Interconnection support is focused on providing distribution services to connect the charging infrastructure to the Company’s distribution system. This could include, where appropriate, engineering studies, design consultation, and infrastructure construction.

The Company also offers support to accommodate charging along transit corridors in the event of the rapid electrification of heavy-duty fleets. The Company provides development assistance for charging applications. This assistance, via the Company’s distribution and transportation electrification teams, supports customers in evaluating the feasibility of site locations and provides information on the Company’s services and rate structures for public charging. In addition, where programs are available and applicable, the Company seeks to support customers and site hosts in building out the charging infrastructure.

B. Existing rate mechanisms that: 4. Appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle infrastructure

All the Company’s EV initiatives in Minnesota that involve capital investments in charging infrastructure or equipment require participants to take service on a TOU rate tariff. Each of these rates have higher rates during peak periods and significantly lower rates during off-peak hours. These rates deliver price signals to discourage charging during peak times, when it is much more expensive to serve customers, and encourage

charging during off-peak times when service is much less expensive. This has the added environmental benefit of taking advantage of encouraging charging overnight when wind power is much more plentiful and can serve to better utilize available renewable power generation.

C. Previous actions taken by the Public Service Commission or State Legislature to implement the standard or a comparable standard

In 2019, the Department of Transportation collaborated with the North Dakota utility industry and North Dakota EV stakeholder groups to design a jointly owned public and private network of EV infrastructure to support both commercial and non-commercial vehicles and make recommendations regarding EV charging infrastructure. This was in direct response to Section 2 of Senate Bill No. 2061 (2019) that directed the Legislative Management to study current methods using the EV infrastructure coalition.

The North Dakota Legislative EV Infrastructure Study also referenced several bills introduced during the 2019 legislative session related to EVs. House Bill No. 1238, as introduced, would have required all-electric motor vehicle owners to pay an initial and renewal registration fee of \$180 each year, or the owner could have chosen to provide a sworn affidavit of the vehicle's mileage traveled during the 12-month cycle and paid an amount equal to one-half cent per mile. The bill was amended to adjust the amount to \$120 each year and remove the option to pay a per mile fee. The bill failed to pass the Senate.

House Bill No. 1405 mandates that a parking space designated for a plug-in electric vehicle must be indicated by signage approved by the Department of Transportation which indicates the space is for plug-in electric vehicle charging only. The signage must be consistent with the United States Federal Highway Administration's Manual on Uniform Traffic Control Devices for Streets and Highways. The bill prohibits an individual from stopping, standing, or parking a motor vehicle within any parking space specifically designated for parking and charging a plug-in electric vehicle unless the motor vehicle is connected to the charger. A fee of \$50 applies for unauthorized use of a space designated for plug-in electric vehicles.

1. Actions in Other Jurisdictions

The Minnesota PUC has developed a Transportation Electrification Plan (TEP) filing process for all utilities in Minnesota. As a part of this process, the Company identifies EV-related offerings in the plans at least two years into the future. This TEP reporting also includes discussions about:

- Facilitating availability and awareness of public charging infrastructure and residential charging options for both single family and multiple unit dwellings, including programs or tariffs in development to address flexible load or reduce metering and data costs,
- Educating customers on the benefits of EVs,
- Assisting in the electrification of vehicle fleets with a focus on medium- and heavy-duty trucks and buses,
- Offering direct current fast charging (DCFC) specific tariffs and which tariffs are currently in use, and
- Optimizing EV benefits by, for example, aligning charging with periods of lower customer demand and higher renewable energy production and by improving grid management and overall system utilization/efficiency.

Initially, this TEP reporting was required to be filed annually. However, the MPUC recently switched the process to a biannual filing schedule. The Company will be filing its next TEP in June 2023.

The State of Colorado has passed the most supportive legislation so far, among all the states in which Xcel Energy serves, to spur EV adoption. Colorado enacted a state tax credit, \$2,500 as of 2021 for new vehicle purchases that dealers can offer as a point-of-sale discount. This tax credit was \$5,000 in 2019 but has been stepping down over time, with plans to continue until the end of 2025. State vehicle tax credits support EV adoption by lowering the purchase or sticker price of a vehicle. 4,952 of these state tax credits were used in 2019.

Another example is Colorado's Zero Emissions Vehicle (ZEV) rule that requires automakers to sell a certain percentage of vehicles that are zero emissions. Colorado's mandate requires 4.9% of vehicles sold in the state to be zero emissions in 2023 and 6.1% in 2030. A ZEV policy is designed to bring more vehicle options to drivers. Zero Emissions Vehicle rules, typically, do not require new legislation. They can be advanced through an official rulemaking and public comment process typically initiated by a Governor's executive order, like in Colorado, though they may also be initiated through legislation.

The foundational legislation (SB 19-077) for Colorado's TEP established support for utilities to propose transportation electrification programs. This legislation codifies in statute the objectives, processes, and cost treatment for electric utilities with regards to EV-related investments and customer programs. Statutes like these typically provide greater clarity for the utility role in supporting the EV market.

Colorado also passed Senate Bill 21-260 in the spring of 2021, aimed at supporting the implementation of EV infrastructure through a \$5.3 billion investment. This bill launched four state enterprises, funded through General Fund transfers and new fees

on fleet retail deliveries and/or passenger ride services from Transportation Network Companies (TNC). The enterprises fund efforts such as public transit electrification planning efforts, financial incentives for electric vehicle purchases, the development of vehicle charging infrastructure, and private and government vehicle fleet electrification.

D. Appropriate measures to promote greater electrification of the transportation sector

The Company has a holistic approach to promoting transportation electrification. The Company's efforts address key customer barriers and facilitate EV adoption in three primary ways, all with a strong emphasis on intuitive solutions: 1) improving customer understanding of EV options and the benefits of driving electric vehicles, through education and advisory services, 2) providing rebates and other programs to lower up-front costs for charging infrastructure and vehicles, and 3) establishing price signals to encourage EV charging at optimal times for the power grid, which generally lowers costs for all customers and EV drivers.

The Company's education and outreach efforts inform the public on the benefits of driving electric and the Company's EV offerings. These efforts include participation in community and industry events to directly engage with customers on the benefits of EVs, provide opportunities to drive an EV and interact with our educational garage and/or other educational materials that simulate what it is like to charge an EV.

The Company encourages residential EV adoption through its suite of residential charging options. This includes our *EV Accelerate At Home* service and *EV Subscription Service* pilot, which makes charging at home easier and cheaper if customers charge off-peak.

A major concern limiting the adoption of EVs is range anxiety. Access to public charging is key in lowering that anxiety. The Company is encouraging the development of public charging in Minnesota through its *Public Charging Pilot*. In addition, the Company recently received PUC approval in Minnesota to build out a network of public fast charging stations in areas of our service territory not currently served by third-party charging providers.

The Company is encouraging the electrification of fleet vehicles through its *Fleet EV Service Pilot*. With this pilot, the Company makes it easier for fleet operators to get their electrification operations up and running with the Company handling the installation and maintenance of supply and charging infrastructure. Customers can also choose to have the Company handle the installation of charging equipment as a part of this pilot. The Company also offers advisory services to fleet operators to assess what vehicles would be best to switch to electric. This service can serve both operators looking to electrify light-duty fleets, but also transit operators and school districts looking to electrify bus fleets.

The Company also has an innovative portfolio approach to “Partnership, Research and Innovation” projects that helps us address emerging issues with the aim to increase and broaden access to electricity as a transportation fuel, minimize system costs, increase benefits of electric transportation, and inform future EV programs.

E. Any other information that the Commission should consider

The Company sees great potential for increased EV infrastructure and adoption in North Dakota in the coming years. The North Dakota EV Infrastructure Study from 2019 indicated that there are thousands of public EV charging outlets in the United States. As of the date the study was published, California had 22,000 public charging outlets while North Dakota had 40. The utility role in EV charging is critical and can serve multiple purposes, as evidenced by the Company’s program offerings described in the above comments.

Closing Comments

Xcel Energy appreciates the opportunity to provide information to the Commission on transportation electrification. The Company would be happy to provide additional information and updates at the Commission’s request and/or meet with the Commission and its staff to discuss this standard further.

Please contact me if you have any additional questions or comments about the information we have provided. Thank you.

SINCERELY,



DAVID H. SEDERQUIST
SR. CONSULTANT, REGULATION & FINANCE

cc: Mr. Jack Schuh
Mr. Victor Schock