December 20, 2023

Will Seuffert, Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, Minnesota 55101-2147

Re: Docket No. E-002/M-23-452 – ***In the Matter of Xcel Energy's 2023 Integrated Distribution Plan***

Dear Secretary Seuffert,

Attached for electronic filing in the above-referenced matter, please find the initial comments on behalf of EV.ENERGY CORP in response to the 2023 Transportation Electrification Plan contained within the 2023 Integrated Distribution Plan, filed by Xcel Energy on November 1, 2023. Please let me know if you have any questions.

Respectfully,

Jared Ballew

Jared Ballew
US Policy Director
EV.ENERGY CORP

Minnesota Public Utilities Commission, E-002/M-23-452
Initial Comments of EV.ENERGY CORP

I. INTRODUCTION

EV.ENERGY CORP (ev.energy) respectfully submits these comments to the Minnesota Public Utilities Commission (Commission) regarding the managed charging offerings included in the 2023 Transportation Electrification Plan (TEP) filed by Northern States Power Company d/b/a Xcel Energy (Xcel) on November 1, 2023, as a part of its 2023 Integrated Distribution Plan.

In summary, ev.energy recommends the Commission approve Xcel's 2023 TEP and further recommends that:

- Xcel develop and propose an active managed charging pilot within the current TEP proceeding, or as a part of a future supplemental TEP filing later in 2024; and
- The active managed charging pilot be designed with a hardware-agnostic approach, allowing for participation via networked electric vehicle supply equipment (EVSE) or vehicle telematics.

II. ABOUT EV.ENERGY

ev.energy is an industry-leading software platform for electric vehicle (EV)-grid integration, with over five years of experience administering more than a dozen managed EV programs across the US – including Smart Charge New York, the country's largest managed EV charging program – as well as dozens of additional programs across the UK, Europe and Australia. ev.energy provides an end-to-end solution for utilities to directly connect to residential, commercial, and fleet EVs through a broad suite of Application Programming Interfaces (APIs), utilizing a hardware-agnostic platform that allows for customer participation through either EVSE or vehicle telematics. Due to our hardware-agnostic solution, as well as the broad range of auto original equipment manufacturers (OEMs) and networked EVSE that our software integrates with, ev.energy's platform is compatible with over 90% of light-duty EV drivers nationwide.

The API integrations with electric vehicles and EVSE are utilized to obtain charging data and, optionally, to deliver active load control for the purposes of managed charging to align with time-of-use (TOU) rate structures, localized network loads or thermal inputs from a distributed energy resource management system (DERMS) platform, bulk system demand-response dispatches, and/or renewable energy generation forecasts. ev.energy's algorithm can use these signals to schedule, turn on/off, and/or throttle EV charging in order to optimize load at both the network and local distribution levels while still ensuring the customer's vehicle is charged by the time they need it. Over 95% of EV drivers on our platform adhere to managed charging each day, which we achieve through an award-winning mobile app and mobile-friendly web portal that provides the customer with transparency and convenient control over their EV charging schedule, consumption/costs, incentives earned, battery level and health, and the ability to opt out of managed charging events if needed.

Our software helps utilities administer a diverse range of managed-charging program designs around one or multiple goals, including:

- *Reliable off-peak load shifting:* EPRI has verified our ability to shift 80-90% of EV charging to off-peak hours with Ameren across Missouri and Illinois;[1]

- *Meaningful DR curtailment:* With a customer opt-out rate of less than 2% during the summer 2023 season, we were able to deliver over 1 kW of load reduction per average EV enrolled in our program with the United Illuminating Company of Connecticut;[2]

- *Renewable generation alignment:* Administering programs such as Silicon Valley Clean Energy's GridShift program, ev.energy shifted an average of 42% of EV charging to hours of low carbon intensity;[3]

- *EV Charging Subscription Rate Programs*: Our platform collects charging data for National Grid's EV Charge Smart Plan which saves their New York customers up to 30% on their at-home EV charging by offering a choice of two subscription tiers that provide off-peak charging for a flat monthly fee;[4]

- *Customer savings:* We are reducing customers' energy bills by administering an EV-specific Time-of-Use rate for Con Edison, nudging and incentivizing customers to charge during off-peak hours and saving them an average of $400/year through the Smart Charge New York program;[5] and

III. COMMENTS

A. TEP Issue #1: Should the Commission approve, modify, or reject Xcel Energy's TEP?

ev.energy commends Xcel and the Commission for efforts to implement TE programs in Minnesota, with previous proceedings resulting in the approval of various TE programs.[6] To build on these previous efforts, Xcel has included a suite of new proposals within the 2023 TEP with a total proposed budget of $44.5 million over the 2024-2027 TEP period.[7] These proposals include:

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[1] https://skipsolabs-epri.s3.amazonaws.com/uploads/content/44bf0c2a83c23c767aa6ef08548c268bb68864ba.pdf.
[2] https://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/2da56e102725a0d385258a2a0072e555/$FILE/Annual%20Review%20Tech%20Session%20%209.19.23_.pdf, slide 22.
[3] https://svcleanenergy.org/wp-content/uploads/GridShift-pilot-report_2021.pdf.
[4] https://www.nationalgridus.com/Charge-Smart-UNY.
[5] https://scny.ev.energy/.
[6] *See* Xcel's 2023 Integrated Distribution Plan, Appendix H, pp. 6-8.
[7] *Id.,* p. 47.

1. An expansion plan for its EV Subscription Service Pilot into a permanent offering, the EV Accelerate at Home – Subscription program;[8]
2. A Home Wiring Rebate program to reduce the upfront costs of installing charging infrastructure and to encourage managed charging;[9]
3. Support for Electric School Buses to facilitate V2G demonstrations;[10]
4. Expanded Residential Advisory Services;[11] and
5. Additional funding to support Fleet EV Service and Public Charging Pilots[12]

Xcel has also stated its intent to file a supplement to this TEP is 2024, which will potentially include proposals to transition its commercial programs into permanent offerings, additional support for school bus electrification, and a proposal to support public direct current fast chargers (DCFC).[13]

ev.energy broadly supports Xcel's proposed 2023 TEP and recommends the Commission approve the programs. However, ev.energy believes there are gaps within Xcel's transportation managed charging offerings and recommends minor modifications to the TEP to address these gaps which are further discussed below.

B. TEP Issue #2: How should the Commission consider modifications or supplements to Xcel Energy's TEP?

ev.energy believes that the consideration of modifications to the proposed TEP, based on feedback from parties, is an important component of the approval process to ensure that the programs are implemented in a manner that maximizes benefits to Xcel and its customers. If the Commission finds that there are gaps in the TEP, or modifications are deemed necessary, the Commission could either make modifications as a part of this proceeding or direct Xcel to file future supplements to the TEP to address any issues that are identified.

C. TEP Issue #4: Are there gaps in Xcel Energy's transportation electrification programs the Commission should address to ensure equitable customer outcomes?

a. An active managed charging pilot should be developed.

There are two primary methods for managed charging programs: passive managed charging, which relies on customer behavior (e.g., manual customer response to grid conditions, TOU

[8] *Id.,* p. 48.
[9] *Id.,* pp. 52-56.
[10] *Id.,* pp. 57-65.
[11] *Id*., pp. 70-71.
[12] *Id.,* pp. 65-66.
[13] *Id.,* p. 2.

rates), and active managed charging programs which enable utilities and grid operators to directly control charging activity, automatically scheduling charging around various signals (e.g., grid conditions, renewable energy generation, distribution constraints, etc.), while still respecting customer preferences around battery level and departure time; this direct control generally delivers greater grid benefits.[14] There are numerous examples of active managed charging programs across the United States, such as Silicon Valley Clean Energy's GridShift program,[15] Eversource and United Illuminating's EV Charging Program,[16] the advanced tiers of New York State Electric & Gas/Rochester Gas & Electric's Charge Smart program,[17] and Xcel's own Charging Perks program which is offered in its Colorado service territory.[18]

Currently, Xcel has four managed charging offerings in Minnesota. These include:[19]

1. The Residential EV Service Rate;
2. EV Accelerate at Home (EVAAH) Program;
3. Optimize Your Charge Program; and
4. the EV Subscription Pilot, which Xcel has proposed to extend into a permanent offering under its EVAAH program.

While these programs represent a good starting point for managed charging offerings, they are all designed around passive managed charging mechanisms, leaving no active managed charging option for Xcel's Minnesota customers. Accordingly, ev.energy recommends that the Xcel develop and propose an active managed charging pilot either within the current TEP proceeding or as a part of a future supplemental TEP filing later in 2024, laying the groundwork for beneficial charging activity to be maximized in Xcel's service territory.[20]

b. The active managed charging pilot should be designed with a hardware-agnostic approach to maximize customer enrollment.

Currently, Xcel's Optimize Your Charge program provides multiple pathways for participation through a hardware-agnostic approach, allowing customers to enroll via networked EVSE or vehicle telematics. ev.energy strongly supports this hardware-agnostic approach. Enrollment and participation in managed charging programs can be increased when they are designed in a

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[14] Smart Electric Power Alliance, *The State of Managed Charging in 2021*, p. 9. Available at: https://sepapower.org/resource/the-state-of-managed-charging-in-2021/.
[15] https://svcleanenergy.org/gridshift-ev/.
[16] https://www.uinet.com/documents/1678076/1704262/UI+-+UEVC002+-+EV+Program+Participant+Guide+12-2023.pdf/2360d292-2da0-0e67-a31a-fde74cd60824?t=1702590958394.
[17] https://www.nyseg.com/smartenergy/electricvehicles/ev-programs-for-your-home, https://www.rge.com/smartenergy/electricvehicles/ev-programs-for-your-home.
[18] https://ev.xcelenergy.com/Charging-Perks.
[19] *Id*., pp. 11-13.
[20] Smart Electric Power Alliance, *The State of Managed Charging in 2021*, p. 9. Available at: https://sepapower.org/resource/the-state-of-managed-charging-in-2021/.

manner that maximizes customer eligibility by providing multiple pathways for participation, rather than providing a single pathway for participation (e.g., only via telematics *or* EVSE integration).

Further, utilizing a hardware-agnostic approach that provides multiple options for participation advances social equity by allowing different profiles of customer to participate. For example, utilizing vehicle telematics from a limited subset of auto OEMs as the primary channel for eligibility risks blocking customers who drive lower cost, or older, EV models that lack telematics from enjoying the financial benefits of participation. Similarly, managed charging programs that solely utilize private Level 2 EVSE can also create equity issues by restricting participation from renters, residents of multi-unit dwellings, and low-income communities. The MIT Science Policy Review found, "lower income households may find the installation of home charging unaffordable, and those in multifamily housing are less likely to have access to charging at home".[21] Rewiring America has further found that 60-70 percent of households have electrical panels with ratings less than the 200 amps needed to fully electrify, with service upgrades costing between $2,000–$30,000.[22]

Accordingly, ev.energy recommends that the active managed charging pilot be designed using a hardware-agnostic approach. This will maximize customer enrollment and advance equity of access by allowing for participation from a broad range of customer profiles, not just those that can afford newer, high-cost EVs.

IV. Conclusion

ev.energy thanks the Commission, Xcel, and all other parties for thoughtful consideration of its comments. We support the approval of Xcel's 2023 TEP, with the additional recommendations outlined above. Please contact me with any questions, and we look forward to continued engagement with all stakeholders on TE programs in Minnesota.

/s/
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[21] See August 30, 2021 "A perspective on equity in the transition to electric vehicles", available https://sciencepolicyreview.org/2021/08/equity-transition-electric-vehicles/.

[22] See "Circuit Breakers: Upending Electrification Myths", available at https://www.rewiringamerica.org/circuit-breakers-the-grid#12.