

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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| Katie J. Sieben | Chair |
| Dan Lipschultz | Commissioner |
| Valerie Means | Commissioner |
| Matthew Schuerger | Commissioner |
| John A. Tuma | Commissioner |

In the Matter of Xcel Energy's Petition for
Approval of Electric Vehicle Pilot Programs

ISSUE DATE: July 17, 2019

DOCKET NO. E-002/M-18-643

ORDER APPROVING PILOTS WITH
MODIFICATIONS, AUTHORIZING
DEFERRED ACCOUNTING, AND
SETTING REPORTING
REQUIREMENTS

PROCEDURAL HISTORY

On October 12, 2018, Xcel Energy (Xcel) filed a petition requesting approval of two electric vehicle (EV) pilot programs, a Fleet EV Service Pilot and a Public Charging Pilot.

By February 1, 2019, the Commission received comments on the proposals from the following:

- City of Hastings
- SemaConnect, Inc
- Alliance of Automobile Manufacturers; the Association of Global Automakers; American Honda Motor Co., Inc.; Audi of America; Ford Motor Company; General Motors LLC; Hyundai Motor Company; Kia Motor Corporation; and Mitsubishi Motors R&D of America, jointly
- Alliance for Transportation Electrification
- Siemens
- Institute for Local Self-Reliance (ILSR)
- Greenlots
- the Department of Commerce, Division of Energy Resources (the Department)
- City of Minneapolis
- the Office of Attorney General, Residential Utilities and Antitrust Division (OAG)
- Citizens Utility Board of Minnesota (CUB)
- Tesla, Inc. (Tesla)
- Minnesota Sierra Club Supporters
- Department of Administration
- Xcel Large Industrials (XLI)

- Fresh Energy, Minnesota Center for Environmental Advocacy, Natural Resources Defense Council, the Sierra Club, and the Union of Concerned Scientists, jointly (Clean Energy Organizations)
- Pollution Control Agency (PCA) and Department of Transportation (MnDOT), jointly
- ChargePoint, Inc. (ChargePoint)
- approximately 64 public commenters

By February 15, 2019, the Commission received reply comments from the following:

- Greenlots
- Xcel
- the Department
- CUB
- the OAG
- Tesla
- the Clean Energy Organizations
- ChargePoint
- Pollution Control Agency
- XLI
- Siemens

On April 11, 2019, the Pilot proposals came before the Commission.

FINDINGS AND CONCLUSIONS

I. Introduction

In 2014, the Legislature adopted Minn. Stat. § 216B.1614, which establishes requirements for engaging public utilities in the electrification of the transportation sector. Under the statute, “each public utility selling electricity at retail must file with the commission a tariff that allows a customer to purchase electricity solely for the purpose of recharging an electric vehicle.”¹ The tariff must be available to the residential class.² The statute also authorizes a cost-recovery mechanism to allow a utility to recover costs “reasonably necessary to comply” with the statute, as well as costs related to informing and educating “customers about the financial, energy conservation, and environmental benefits of electric vehicles.”³

In response to this directive, Xcel filed, and subsequently received Commission approval of its EV charging tariff, which established the rates to be charged to residential customers, consistent

¹ Minn. Stat. § 216B.1614, subd. 2.

² *Id.* at subd. 2 (a) (3).

³ *Id.* at subd. 2 (c) (2).

with the Legislature's directive.⁴ Since the development and implementation of its tariff, Xcel has taken additional steps to further advance the Legislature's policy objective to increase EV usage and ownership, including its proposal of two EV pilot programs in this docket.

The first pilot is a Fleet EV Service Pilot, which would authorize Xcel's investment in installing and maintaining EV infrastructure for fleet operators (entities using groups of EVs). Xcel estimated that over 700 charging ports would be installed as part of this pilot program, and the Company expects to initially serve three customers: Metro Transit; the Department of Administration; and the City of Minneapolis.

The second pilot is a Public Charging Pilot, which would authorize Xcel's investment in installing and maintaining EV infrastructure for site hosts and developers of public fast-charging stations⁵ along corridors within Xcel's service territory, as well as for a network of EV community mobility hubs.

II. The General EV Docket

A number of stakeholders cited the Commission's recent decisions in the General EV Docket⁶ as a basis for requiring specific action of Xcel in this proceeding, including the filing of a cost-benefit analysis. The purpose of the General EV Order is to shape and guide utility proposals, considering the importance of transportation electrification and its potential benefits to ratepayers. Utilities are specifically encouraged to make filings aimed at expanding charging infrastructure, facilitating fleet vehicle electrification, and enhancing consumer awareness.

The General EV Order, which was issued more than one year after Xcel's initial filing in this case and on the cusp of the Commission's consideration of this petition, also established filing requirements for utilities. By June 30, 2019, Xcel, as well as Minnesota Power and Otter Tail Power, must file a Transportation Electrification Plan identifying EV-related initiatives the utility is contemplating and an analysis of how those initiatives would achieve EV-related objectives.

The Commission encouraged utilities to include in their individual proposals a cost-benefit analysis to examine long-term ratepayer and societal benefits, as well as potential costs, but the Commission did not adopt a particular cost-benefit methodology. Further, the Commission determined that cost recovery should be decided on a case-by-case basis considering various factors, such as the purpose, nature, magnitude, and potential benefits of the investments.

⁴ *In the Matter of Northern States Power Company d/b/a Xcel Energy's Petition for Approval of a Residential Electric Vehicle Charging Tariff*, Docket No. E-002/15-111, Order Approving Tariffs and Requiring Filings (June 22, 2015).

⁵ Fast charging stations use direct current chargers that offer a faster charging timeline of typically between 10 and 30 minutes.

⁶ *In the Matter of a Commission Inquiry into Electric Vehicle Charging and Infrastructure*, Docket No. E-999/CI-17-879, Order Making Findings and Requiring Filings (February 1, 2019) (the General EV Order).

III. Xcel's Petition

In its petition in this case, Xcel stated that its overarching objective is to reduce greenhouse gas emissions and air pollution, while making efficient use of the electric grid and maintaining low bills for ratepayers. Xcel explained that use of pilot programs reasonably limits each program's scope and potential ratepayer impacts, and enables the Company to test, measure, and verify key assumptions before making the programs available on a larger scale.

Xcel developed its pilot proposals following a stakeholder process involving various non-profit organizations, state agencies, corporations, and utility companies. Great Plains Institute helped facilitate five workshops, which were aimed at understanding transportation electrification; identifying proposed solutions; and developing metrics to evaluate pilot success.

The petition includes each pilot program's objectives and budgets, as well as the Company's rate design proposal, proposed annual reporting metrics, and deferred accounting request. Further, Xcel stated that in developing the proposed pilots, the Company also took into consideration the comments filed in the EV General Docket, the experience of other utilities around the country, and the input of customers and stakeholders.

Ultimately, the majority of parties supported Xcel's petition; several offered recommended modifications to improve the pilot programs. The OAG and XLI recommended that the Commission deny the petition.

A. Fleet Electric Vehicle Service Pilot

The EV Fleet Service pilot would be available to non-residential customers operating fleets of light-, medium-, or heavy-duty EVs. Initially, Xcel expects three entities – Metro Transit; the Department of Administration; and the City of Minneapolis – to participate.

Xcel stated that the Company proposed this pilot because the fleet market has a diversity of vehicles; is focused on economic value; is motivated to reduce greenhouse gas emissions and improve air quality; and has the volume of vehicles to make larger strides toward transportation electrification. Xcel stated that although the Company has existing residential EV service offerings, adding the Fleet EV Service pilot would, as EV expansion evolves, deepen the understanding of EV system benefits and how to best socialize costs. Under this pilot, Xcel would own install, own, and maintain infrastructure, and if requested by a participant, would also install, own, and maintain charging equipment.

This pilot's proposed budget is \$14.4 million over a three-year term. Details of the proposed budget are shown in the table below.

| TABLE 1 | | | |
|--|---------------------|--------------------|---------------------|
| Estimated Fleet EV Service Pilot Budget | | | |
| Cost Item | Capital | O&M | Total |
| EV Service Connection | \$1,864,000 | \$30,000 | \$1,894,000 |
| EV Supply Infrastructure and Charging Equipment | \$9,396,000 | \$457,000 | \$9,853,000 |
| Installation Management (includes construction management, design engineering, and legal agreement review) | - | \$575,000 | \$575,000 |
| Advisory Services and Outreach, including Analytics Services | - | \$1,163,000 | \$1,163,000 |
| Program Management | - | \$735,000 | \$735,000 |
| IT | - | \$175,000 | \$175,000 |
| TOTAL | \$11,260,000 | \$3,135,000 | \$14,395,000 |

B. Public Charging Pilot

Under Xcel’s proposed Public Charging pilot, the Company would install EV infrastructure for site hosts and developers of public charging stations along corridors and at community mobility hubs. Under this pilot, Xcel would own install, own, and maintain infrastructure but would not own or maintain any charging equipment. Xcel stated that public charging is a critical element of expanding the EV market because it supports longer distance driving and makes charging available to those who do not charge EVs at home.

This pilot’s offerings are twofold. The first is the development of community mobility hubs; Xcel has partnered with the Cities of St. Paul and Minneapolis for the development of community mobility hubs, with HOURCAR providing a car-sharing service at charging locations in the area. These hubs would make charging available to the public and to transportation network companies, such as Lyft and Uber.

The second offering of this pilot is aimed at, but not limited to, applicants seeking funds from Minnesota’s Diesel Replacement Program, which is funded by the Volkswagen Environmental Mitigation Settlement and administered by the PCA. These funds will be used to develop fast-charging stations at corridors within Xcel’s service territory, with the goal of expanding the EV market by broadening access to charging stations, which would in turn alleviate impediments to long-range driving.

Under this pilot, Xcel expects to facilitate installation of approximately 350 publicly accessible charging ports.

This pilot’s proposed budget is \$9.2 million over a three-year term. Details of the proposed budget are shown in the table below.

| TABLE 2 | | | |
|---|--------------------|--------------------|--------------------|
| Estimated Public Charging Pilot Budget | | | |
| Cost Item | Capital | O&M | Total |
| EV Service Connection | \$2,019,000 | \$29,000 | \$2,048,000 |
| EV Supply Infrastructure | \$5,781,000 | \$87,000 | \$5,868,000 |
| Installation Management (includes construction management, design engineering, and legal agreement review) | \$0 | \$575,000 | \$575,000 |
| Marketing and Outreach | \$0 | \$60,000 | \$60,000 |
| Program Management | \$0 | \$555,000 | \$555,000 |
| IT | \$0 | \$95,000 | \$95,000 |
| TOTAL | \$7,800,000 | \$1,401,000 | \$9,201,000 |

C. Pilot Similarities

Although the two pilots are fundamentally different, they do share certain characteristics.

First, Xcel proposed to waive its tariff provisions governing Contributions In Aid of Construction (CIAC).⁷ Generally, CIAC governs the cost of service connection installation, of which customers pay a portion. CIAC provisions apply to the general provision of service, for which costs and revenues are known.⁸ In this case, the CIAC waiver would apply to make-ready infrastructure.⁹ The Company stated that it does not have accurate estimates of costs and revenues related to EV charging and usage and is therefore unable to determine an accurate customer contribution amount for make-ready infrastructure under the pilots, which are intended to study this and other issues related to EV expansion.

Second, Xcel proposed to treat its capital investments in make-ready equipment as utility plant cost items in its Federal Energy Regulatory Commission (FERC) distribution plant accounts (FERC account 182.3). FERC authorizes a utility to include in that account the cost of installed equipment on the customer’s side of the meter when the utility incurs such cost and retains title to, and is responsible for, the maintenance and replacement of such property. The proposed

⁷ Xcel Energy Minnesota Electric Rate Book, Section 6, Sheets 22 et. seq.

⁸ The CIAC formula is used to determine the customer contribution amount, which is not collected by the utility through revenues.

⁹ Xcel defines “make-ready” infrastructure to include: a dedicated service connection for EV charging, along with necessary transformer upgrades, service conductors, and meters. It also includes EV supply infrastructure, such as new service panels, conduits, and wiring up to the charger. In this order, the Commission uses the term with the meaning given by Xcel. Under the Fleet EV Service pilot, customers may request that Xcel provide, install, and maintain chargers, and Xcel has accordingly proposed to recover these costs through either a monthly EV Charger Service charge, or, at the election of the customer, an up-front payment.

classification would allow Xcel to include the investments in rate base in its next general rate case filing.¹⁰

Third, customers under either pilot would be charged for electric usage according to Xcel's existing general service time-of-day (TOD) rates, which are based on a 12-hour on-peak period between 9:00 a.m. and 9:00 p.m. (also known as a 2:1 energy rate differential ratio). Under the Public Charging Pilot, customers, i.e., site hosts, would not, however, required to pass the TOD rates onto drivers who use the EV charging stations. In addition to the TOD rates, customers in both pilots would be charged a minimum monthly bill based on the number of ports installed.

Fourth, Xcel's petition requests deferred accounting treatment of costs related to Operations and Maintenance (O&M) expenses and depreciation expense related to capital investments in the make-ready infrastructure.

IV. Pilot Approval

There is widespread support for Xcel's petition from parties and from members of the public who commented. The OAG and XLI opposed the petition. The Department and CUB took no position on whether the pilots should be approved but made recommendations on specific aspects of the proposals, which are discussed separately below.

A. Comments in Support of the Proposed Pilots

1. The Clean Energy Organizations

The Clean Energy Organizations recommended Commission approval of both pilot programs, stating that transportation electrification would significantly reduce greenhouse gas emissions and help achieve state targets for emissions reductions (citing a report by the Pollution Control Agency and Department of Commerce that states that transportation is the largest source of greenhouse gas emissions in Minnesota).

They also maintained that EVs would have enormous health benefits by reducing pollution-related health issues (citing Department of Health estimates that particulate matter and ozone pollution contribute to 2,000 deaths annually in the Twin Cities metropolitan area). Both pilots, they stated, would advance these goals while reasonably protecting ratepayers, as the proposals are modest in size with limited budgets.

Further, they stated that the proposed pilots promote effective grid utilization by incentivizing charging during off-peak periods. They also stated that any opposition to the budgets is unfounded, and that the budgets, if anything, are too small to sufficiently bolster EV expansion.

In particular, they highlighted the need for public support and utility intervention in the development of public charging stations, which are not economically viable without decisive action to approve EV programs, such as Xcel's proposed Public Charging pilot. They asserted that expanding the EV charging network is critical to making EVs a favored alternative to gasoline- and diesel-fueled vehicles.

¹⁰ Xcel's proposed classification would include charging equipment provided by Xcel under the Fleet EV Service pilot, although pilot participants would pay their portion of those costs.

They were equally supportive of the proposed Fleet EV pilot program, stating that a fleet EV transit system, such as Metro Transit, will increase the visibility of EVs, enticing riders to purchase EVs for individual use as well. Further, transit buses travel an average of 34,000 miles per year, compared to 11,000 for light-duty vehicles, resulting in more substantial environmental benefits. They noted that any unanticipated complications under either pilot would be a valuable learning tool as EV expansion continues.

2. EV Industry Proponents

The Alliance of Automobile Manufacturers, Tesla, Greenlots, ChargePoint, SemaConnect, Siemens, and the Alliance for Transportation Electrification are variously involved in the manufacturing of EVs or the development of related equipment, products, and services, and they voiced overwhelming support for Xcel's proposed pilot programs.

These stakeholders endorsed the pilot programs' objectives outlined in Xcel's petition and recommended that the Commission approve the proposals. They emphasized the role of utilities in expanding the EV market by developing EV programs that increase grid efficiency and provide ratepayer benefits. They stated that EV load is generally flexible (meaning that charging can occur at optimal times because batteries store the electricity rather than immediately use it). Moreover, adding EV load to the system has the potential to reduce system-wide energy costs if coupled with effective rate structures. They also asserted that because the proposals will explore the central role of utilities in deployment of EV infrastructure at scale, the outcomes will provide valuable information on how utility infrastructure investments affect the EV market and how to increase the effectiveness of the utility's role.

3. Pilot Participants

The Department of Administration, the City of Minneapolis, and Metro Transit, prospective participants in the Fleet EV Service pilot, supported Commission approval of the petition. They stated that the pilot programs would create a sustainable path toward lowering electricity costs for ratepayers, meeting climate goals, and improving health impacts associated with transportation.

4. PCA and MnDOT

The PCA and MnDOT recommended Commission approval of the pilot programs, stating that utility investment in advancing electric vehicles is critical to achieving the agencies' goals of developing a multimodal transportation system that maximizes the health of people, the environment, and the state economy. They also stated that utility infrastructure investments would likely help stretch the VW funding to increase the number of public charging stations.

B. Comments in Opposition to the Proposed Pilots

1. The OAG

The OAG recommended that the Commission deny the petition and direct Xcel to refile its proposed pilots at the time of its June 2019 Transportation Electrification Plan.¹¹ The OAG

¹¹ The Plan must be filed by June 30, as directed by the Commission in the EV General Docket.

recommended several changes to the current proposal, including a rate design with more effective price signals. The OAG also recommended that a modified proposal should remove the request to waive CIAC provisions, remove the deferred accounting request, and remove the proposal for utility ownership of make-ready infrastructure beyond the meter. The OAG stated that these changes would shift the cost risk of the pilots away from ratepayers.

The OAG disputed that the proposed budgets are acceptable, stating that the proposed capital budget of \$19.1 million for both pilots is unreasonably high due to the Company's CIAC waiver request.

2. XLI

XLI recommended that the Commission deny the petition because the pilot proposals would require ratepayers to subsidize investments that are more appropriately made by private businesses, and because the proposals exceed the Legislature's policy objectives. XLI argued that the structure of the pilot proposals requires ratepayer funding with little return on the investment.

XLI also claimed that Xcel has not demonstrated that the proposed pilots would produce environmental benefits as intended and that investing ratepayer dollars to generate increases in EVs is speculative. XLI recommended that Xcel take steps to support transportation electrification through customer education and advanced rate design to address increases in demand caused by more EVs.

C. Commission Action

The Commission concurs with parties supporting Xcel's petition. The two proposed pilots advance the legislative goal of increasing transportation electrification in a manner that reasonably limits potential rate impacts, while presenting an opportunity for ratepayers and the public to benefit. The Commission is not persuaded that requiring Xcel to file a new petition would do more than delay implementation of these pilots.

Xcel engaged in a meaningful stakeholder process in which a wide range of input was provided, and the Company then took that input into serious consideration when developing its proposals. As a result, the proposals are limited in duration – three years each, and are limited in budget size as needed to achieve the projected increases in fleet EVs and public charging. Together, both pilots are estimated to facilitate the installation of approximately 1,000 charging ports, of which approximately 350 will be publicly accessible. These parameters reasonably balance the commitment to EV expansion and the ratepayer cost of those efforts. Furthermore, any future cost recovery-related filings will be separately scrutinized and considered by the Commission. Additionally, Xcel intends to take the following steps if the pilots are approved: host semi-annual advisory committee meetings with a facilitator; provide data on key metrics in an annual filing; and engage third-party evaluators to conduct an interim and final evaluation. These steps provide helpful continuity between the implementation and subsequent review of the programs.

Further, Xcel's proposal is for two limited-duration pilot programs. As discussed in greater detail below, the Commission will require Xcel to file reports on pilot performance, which the Commission will review before making a decision on whether to continue or expand the programs.

For all these reasons, the Commission will approve the proposed pilots, with modifications as discussed in further detail below.

V. Key Pilot Features

Parties differed on key aspects of the pilot proposals, including the following: waiver of CIAC provisions; the classification of make-ready infrastructure costs; and the pilots' TOD rate structure. These issues are addressed below.

A. Contribution in Aid of Construction

Xcel's proposal included a request to waive its applicable CIAC provisions for both pilots because the Company stated that it could not determine the expected usage of participating customers and corresponding revenue needed to accurately calculate the amount of the customer contribution. Without the waiver, Xcel stated that pilot participants would be required to finance the make-ready infrastructure costs independently, potentially upending pilot participation.

1. Positions of the Parties

The Department recommended that the CIAC waiver request be granted for certain infrastructure. Other parties either supported or opposed the CIAC waiver as proposed.

a. The Department

The Department appeared to take the nuanced approach that infrastructure that is not ordinarily owned by the utility is not subject to the Company's CIAC provisions and therefore no waiver is required for the installation costs of that infrastructure. The Department did, however, support waiver of CIAC provisions for infrastructure that *is* ordinarily utility-owned.

The Department reasoned that the line of demarcation between utility- and customer-owned infrastructure is the point of service connection and that under the pilot, Xcel's proposal to include make-ready infrastructure in that designation is beyond what is traditionally included in determining cost allocation. The Department stated that although the CIAC provisions do not apply to equipment beyond the utility's point of service connection, the waiver request should otherwise be approved.

b. Clean Energy Organizations, ChargePoint, Greenlots, Tesla, and the Alliance for Transportation Electrification

The Clean Energy Organizations, ChargePoint, Greenlots, Tesla, and the Alliance for Transportation Electrification all voiced support for Xcel's proposal to waive the applicable CIAC provisions, asserting that under these circumstances, the request is warranted. They stated that the CIAC formula is not designed with EV usage in mind, and that the smaller volumetric load per EV is therefore not reflected in the calculation.

They also stated that a CIAC waiver would be, in effect, moderated by the limited duration and budget of each pilot, thereby minimizing the impact on ratepayers. Further, they contended that reducing up-front costs through utility investments is essential to fulfilling program objectives and encouraging participation.

c. The OAG, CUB, and XLI

The OAG, CUB, and XLI opposed waiver of the CIAC provisions, stating that granting the request would weaken ratepayer protections by over-subsidizing participating customers. They claimed that waiving the provision is not offset by clear and obvious benefits to ratepayers through system improvements.

They described the pilot investments as large-scale with no clear estimation of expected revenues. They argued in favor of applying traditional cost causation principles in which customers incurring upfront infrastructure costs pay the portion of those costs that the utility would not otherwise recover through its revenues. XLI further contended that a utility's ownership of EV charging infrastructure behind the meter is not within the scope of utility service because it is different from what is ordinarily associated with providing electric service to customers. XLI claimed that Xcel's proposal is an expansion of the utility's role beyond what the Legislature either authorized or envisioned.

d. Xcel

In response to issues raised, Xcel stated that based on its initial observations, potential pilot participants are cost-sensitive and that the Company's proposed investments are a factor affecting participation levels. Xcel also emphasized that ratepayers are expected to benefit from the pilots, both through increased revenues, as well as environmental benefits, and that the data gleaned from the pilots will inform future programs and proposals.

Contrary to claims that the provision of service using make-ready infrastructure is outside the range of what a utility ordinarily provides, Xcel stated that the test for determining whether equipment qualifies as utility distribution plant, i.e., utility equipment, is not its location in relation to the meter, but whether it is "used and useful in rendering service to the public."¹² Xcel also asserted that some degree of departure from ordinary practices is warranted as a means of furthering the goals of electrification of the transportation sector.

2. Commission Action

The Commission concurs with parties who support Xcel's request to waive the CIAC provisions. While the issues raised by those opposing the waiver are relevant considerations, it is important to view the request within the context of each pilot, its duration, and its budget.

The limited terms of the pilots and their reasonable budgets ultimately limit the impact to ratepayers. In the event pilot budgets are reached prior to the end of the three-year term, Xcel will not accept additional participants; the Company has committed to staying within the budgets proposed. Further, Xcel has made a persuasive argument that the customer's CIAC contribution cannot be accurately calculated without knowledge of EV charging and revenues.

The Commission recognizes that the existing CIAC policies were developed to protect ratepayers from excessive and unreasonable costs. But to foster growth of EVs for the purpose of transportation electrification requires a forward-thinking approach. Utilities are at the forefront of this effort. Although the pilots could ultimately lead to an understanding that advancing EVs

¹² Minn. Stat. § 216B.16, subd. 6.

requires no refinement of the traditional cost-causation approach, such an outcome is merely one possibility and is an issue the pilots are intended to study. Facilitating expansion of EVs necessarily requires the installation of equipment not typically installed. This is a new arena, and as Xcel aptly pointed out, it warrants a limited departure from ordinary practices.

Furthermore, as pilots, they are intended to be instructive on the propriety of cost allocation and cost recovery for this infrastructure, and they will provide data that will aid subsequent evaluation of the pilots' costs and effectiveness.

For all these reasons, the Commission will authorize a waiver of CIAC service policy provisions, and other customer contributions, for the three-year term of the pilots. The Commission will also direct Xcel to use its current CIAC formula to determine the amount of subsidy a participant would receive and then track and report these costs for each pilot, including revenues.

B. Classification of Make-Ready Infrastructure Costs

Xcel proposed to treat its capital investments in make-ready infrastructure for both pilots as cost items in its FERC distribution plant accounts. This accounting treatment would enable Xcel to include the amounts in base rates in the Company's next general rate case.

1. Positions of the Parties

Parties differed on this issue for reasons similar to those discussed above.

a. The Department

The Department recommended that if the Commission authorizes classification of equipment that Xcel does not ordinarily own as utility distribution plant, the Commission should limit pilot participation to public entities.

b. The Alliance for Transportation Electrification, Greenlots, Tesla, ChargePoint, PCA and MnDOT,

These parties supported Xcel's proposal, stating that the pilots are modest in scope and that the proposal would foster regulatory certainty and help spur economic innovation in the transportation sector.

They also stated that utility ownership of EV charging infrastructure is likely necessary to make financing possible for pilot participants, particularly fleet participants and that the proposed structure would accelerate EV market growth by alleviating financial barriers to EV expansion. Without utility ownership of make-ready infrastructure, they asserted that the likely pool of eligible participants would be scaled back. They also asserted that utility infrastructure investments would likely help stretch VW funding to increase the number of public charging stations.

c. The OAG and XLI

The OAG and XLI opposed treating make-ready infrastructure as utility distribution plant, stating that the existing utility-customer demarcation point balances the system benefits of each new customer with that customer's cost responsibility for new service.

They also stated that because Xcel intends to contract with third-parties to conduct engineering and maintenance of that equipment, the Company is outside its area of expertise. Instead, they maintained that a competitive EV market ~~that supports a competitive market~~ for the provision of such services is a better option. Further, they argued that Xcel should rely on revenues from pilot participants to recover its make-ready infrastructure costs, rather than impose those costs on ratepayers.

XLI also argued that allowing Xcel to own infrastructure beyond the meter would be an expansion of the utility's traditional role, and that it would be more reasonable for Xcel to conduct such business through an unregulated affiliate.

d. Xcel

Xcel stated that the make-ready infrastructure, including service panels, conduit, and wiring, is not likely to change over time and is not different in kind from the infrastructure installed up to the charging stubs. The Company stated that there is no basis for imposing a location-based test for determining whether the equipment is utility equipment, particularly in light of the fact that there is no law prohibiting such ownership and that the applicable legal standard is whether the equipment is used and useful in rendering service to the public.

2. Commission Action

The Commission will approve Xcel's proposed classification of its make-ready infrastructure as utility distribution plant in this case. One key purpose of the pilots is to investigate the extent to which socializing the costs of this EV-related infrastructure will encourage EV adoption, and to measure the benefit that increased EV adoption provides to ratepayers. This purpose would be unattainable if Xcel were not allowed to classify these infrastructure investments as utility distribution plant. Therefore, Xcel's proposal to install, maintain, and own infrastructure is an essential and necessary part of these pilots. As a result, it is therefore reasonable under these circumstance to authorize Xcel to classify its make-ready infrastructure as requested. More specifically, these proposed infrastructure investments in the context of these pilots will help the Commission and stakeholders evaluate the extent to which these investments will benefit the public.

The Commission will therefore approve Xcel's request to classify its make-ready EV infrastructure investments as utility distribution plant for both pilots, and will approve Xcel's request to own charging equipment provided under the bundled service option in the Fleet EV Service Pilot. This classification is limited to EV infrastructure investments and charging equipment installed during the pilots.

The Commission is also acutely aware, however, of the importance of approving programs that are as sound as possible and do as much as possible to advance the broad public interest. While the Commission does not adopt the Department's specific recommendation, the Commission will direct Xcel to consider geographic and customer diversity in its selection of additional participants in the Fleet EV Service pilot. Of the additional participants, one must be a public entity with a primary location outside Ramsey and Hennepin Counties. Further, no more than one of the additional participants may be a private or non-profit entity.

C. The TOD Rate Structure

Xcel's petition applies a TOD rate structure to participants in both pilots that includes an off-peak period between 9:00 p.m. and 9:00 a.m. Customers would also incur a demand charge applied to the highest 15-minute peak kilowatt (kW) load during a month. Total demand charges are limited according to the kWh energy used during the month, using a calculation that divides the amount of kilowatt hours (kWh) energy used during the month by 100 hours.

Under the Public Charging pilot, public charging stations would be billed according to this rate structure, but Xcel's proposal does not condition their participation in the pilot on their agreement to pass the TOD rates onto to EV customers using the charging stations.

The Clean Energy Organizations recommended two related pilot modifications. First, they recommended that the Commission direct Xcel to require that charging stations in the Public Charging pilot pass the TOD rates onto their customers, EV drivers. Second, in response to disagreement over Xcel's proposed TOD rate structure, they recommended that the Commission initiate a separate proceeding to examine rate structures of Xcel's Commercial and Industrial customer class to better understand whether permanent changes to the existing rate structure are warranted. These two issues are discussed below.

1. Public Charging Stations

a. Positions of the Parties

i. Clean Energy Organizations

In recommending that public charging stations be required to pass the TOD rates through to their customers, the Clean Energy Organizations emphasized the need to encourage efficient grid management by incentivizing drivers to charge their EVs during off-peak periods. This, they said, consequently maximizes cost savings. They stated that unless drivers are incentivized by price, they are much more likely to charge their EVs when it is convenient, rather than when it is most effective in terms of grid utilization. They recommended that Xcel make the TOD rate the default arrangement with public charging stations.

ii. ChargePoint and Tesla

ChargePoint and Tesla adamantly recommended that site hosts retain the flexibility to set pricing that reflects cost components other than the energy cost. They said that such flexibility spurs market competition and ensures that charging stations are able to recover their costs, including the cost of operating a charging station, as well as the fixed costs of charging equipment. This, in turn, helps develop a more innovative and cost-effective market.

They also stated that the recommendation of the Clean Energy Organizations is problematic for several other reasons. They maintained that pricing will vary based on incentives established by charging stations to entice customers, depending on the station's location and business hours, among other factors. Charging behavior also depends, they claimed, on the needs of individual drivers and their accessibility to charging stations commercially or at home. They further stated that pricing restrictions do not achieve better grid utilization if, for example, drivers are not incentivized to leave when the charge is finished. In such a case, charging availability is reduced, preventing other drivers from using the service.

They also disputed that there is a clearly demonstrated effectiveness of price signals, stating that there is insufficient data available to conclusively show that driving behavior is affected by pricing alone. Charging station operators, they asserted, are sophisticated market participants and are in the best position to know how to set prices.

iii. CUB

CUB made the general comment that it is reasonable for the Commission to establish certain contingencies that would be set forth in Xcel's agreements with pilot participants who benefit from ratepayer funds. Those contingencies could address important program features, such as rate structures that are likely to affect the successful use of ratepayer funds. CUB stated that the advantages of price signals are lost if not passed onto drivers.

iv. Xcel

Xcel did not propose to require charging stations to charge their customers TOD rates, stating that maintaining pricing flexibility is important. Xcel also concurred, however, on the importance of using TOD rates, acknowledging that charging during off-peak hours increases sales while reducing the need for additional resources to support peak demand. To address this issue, Xcel proposed to include a provision in its agreements with public charging stations suggesting that TOD rates be passed through to drivers. Xcel also recommended requiring public charging stations to provide data on their rates and fees to enable further examination of this issue. Xcel would include this data in its annual report on the pilot.

b. Commission Action

The Commission concurs with parties on the importance of minimizing ratepayer costs while incentivizing participation in these programs that were developed with the understanding that effective grid utilization will help keep costs down in the near-term and that reducing greenhouse gas emissions will produce both environmental and economic benefits in the long-term. With this in mind, protecting ratepayer interests requires a modified approach to strongly encourage charging stations to effectively incentivize their customers in a way that aligns with the pilot's objectives.

The Commission will therefore modify the Public Charging pilot by directing Xcel to condition participation on agreement by site hosts to have a default time-differentiated rate structure that reflects the on-peak and off-peak time periods of Xcel's pilot tariff and an energy rate differential ratio of at least 2:1. Site hosts may opt out of the default arrangement at their discretion to set pricing that reflects other considerations or needs, provided that such prices are reported to the utility for purposes of Xcel's annual reporting. In its next rate case, Xcel must develop and propose a revised general service TOD rate that is more reflective of hourly system costs with a price signal designed to reduce peak demand. These requirements are consistent with the Commission's directive in the General EV Docket.

2. TOD Rate Design

a. Positions of the Parties

Some parties recommended that the Commission require Xcel to implement a more sophisticated rate design in lieu of the proposed off-peak period of between 9:00 p.m. and 9:00 a.m., which is applicable to participants in both pilots.

The Department had reservations about the 2:1 rate design, stating that without effective price signals to induce charging during off-peak periods, subsidization of EV infrastructure is not fully compatible with the public interest. The Department emphasized the importance of establishing effective price signals at the outset of these pilots to facilitate the success in meeting pilot objectives.

The OAG opposed Xcel's proposed TOD rate structure, arguing that a better rate design would send more accurate price signals by setting rates using an on-peak, a mid-peak, and an-off peak period, similar to Xcel's newly established residential TOD Rate Design Pilot program, which is applicable to residential general service customers, unless those customers opt out of the program.¹³

CUB emphasized that support for transportation electrification is predicated on related system benefits and corresponding savings. CUB echoed the comments of the Department and OAG, stating that a pricing system with critical peak pricing, super off-peak pricing, or real-time pricing would be more effective.

Xcel maintained that its proposed rate structure is reasonable, stating that there is no cost basis to apply the residential TOD rate design to a class of customers with distinct load characteristics. The commercial TOD rates include a demand charge, whereas the residential TOD rates do not. This is an important distinction that encourages efficient use of resources. Further, Xcel stated that the impact of the demand charge is balanced by the provision that limits the billed quantity of peak demand to the amount of kWh energy used in a month, divided by 100 hours.

b. Commission Action

Notably, Xcel's TOD rate proposal was designed with commercial customers in mind. Requiring the Company to implement a three-tiered rate structure similar to what the Commission approved in Xcel's residential TOD Rate Design Pilot program would be premature. That pilot program is ongoing and will study that rate structure's effectiveness within two communities in the Twin Cities metropolitan area.

Recognizing, however, that the Company's proposed rate design with a twelve-hour on- and off-peak period, as applied to commercial customers, is reasonable but is perhaps not optimal for public EV charging, the Commission will require Xcel to file, within six months, a commercial EV charging tariff that is more reflective of hourly system costs with price signals to reduce peak demand. More generally, in its next rate case, Xcel must develop and propose a revised general

¹³ *In the Matter of Xcel's Residential Time of Use Rate Design Pilot Program*, Docket No. E-002/M-17-775, Order Approving Pilot Program, Setting Reporting Requirements, and Denying Certification Request (August 7, 2018).

service TOD rate that is more reflective of hourly system costs with price signals designed to reduce peak demand. These requirements are consistent with the Commission's directive in the General EV Docket.

VI. Smart Charging Capabilities of Charging Equipment

A. The Issue

Xcel has committed to using smart charging equipment for chargers the Company would install at the request of participants in the Fleet EV Service pilot. Xcel's petition does not, however, require all pilot participants to install smart-charging equipment with their chargers. A number of parties recommended that the Commission establish such a requirement.

Smart charging uses technology that is capable of sending data to Xcel to enable more effective load management. In some form, Xcel would have remote capabilities to incentivize charging during off-peak hours, to reduce the coincidence between EV charging and system peak, and to avoid charging during emergencies or other high-peak times.

The Department, Greenlots, ChargePoint, the Clean Energy Organizations, Seimens, and the City of Minneapolis supported requiring smart charging capabilities of all pilot participants. They stated that requiring smart charging capabilities is fundamentally reasonable because even if the Company does not currently have plans to use the technology, it is important to have the capability for future use by ensuring that participants install it at the outset. This, in turn, helps the programs achieve the potential benefits of EVs.

Tesla opposed requiring participants to install smart charging capabilities, stating that it is not clear that the technology will be put to use and that imposing unnecessary requirements does not facilitate pilot participation and is inefficient. Tesla also claimed that such requirements can have unintended consequences to market participants by creating an advantage for some, such as charging stations with certain technology. Instead, Tesla recommended that the issue, along with other standards for interoperability, be evaluated as part of the pilot programs.

Xcel stated that while the Company did not propose a smart-charging requirement as recommended by some parties herein, the Company did not object to doing so, noting that the Company intends to install chargers with such capabilities in its Fleet EV Service pilot to any participants who request that Xcel provide the chargers.

B. Commission Action

The Commission concurs on the reasonableness of requiring pilot participants to install chargers with smart charging capabilities. Remote load management and maintenance is aimed at achieving efficient grid utilization, ultimately benefitting ratepayers. The Commission will therefore require that all chargers installed as part of the pilots have smart charging capabilities.

VII. Deferred Accounting Request

Xcel's petition included a request for deferred accounting of O&M expenses and depreciation expenses related to capital investments in the pilots. Xcel stated that it intends to include these

costs for recovery in the Company's next general rate case and requested authorization to track the costs in the EV tracker account established in a separate docket.¹⁴

A. Introduction

Deferred accounting is a regulatory tool used primarily to hold utilities harmless when they incur out-of-test-year expenses that, because they are unforeseen, unusual, and large enough to have a significant impact on the utility's financial condition, should be eligible for possible rate recovery in the next rate case. Deferred accounting has also been permitted when utilities have incurred sizeable expenses to meet important public policy mandates.

Under Minn. R. 7825.0300, subp. 4, the Commission retains the authority to approve a public utility's request for an exception to a provision of the applicable uniform system of accounts for good cause shown. Xcel has petitioned the Commission for an exception to the standard accounting treatment of certain costs that would otherwise be ineligible for cost recovery because they are incurred between rate cases.

B. Positions of the Parties

Parties disagreed about Xcel's request for deferred accounting. Their positions are discussed below.

1. Comments in Support of the Request

The Alliance for Transportation Electrification supported Xcel's request, stating that deferred accounting provides necessary regulatory certainty in an emerging technology area. Because these proposals will further state goals for emissions reductions and will spur innovation in the transportation sector, the Alliance recommended that the Commission approve the request.

ChargePoint emphasized the strong public policy mandate that the proposals are aimed at fulfilling; the pilots reflect emerging trends and opportunities in electrification of the transportation sector. ChargePoint also stated that the costs were unforeseen at the time of the Company's last general rate case and that it was reasonable for Xcel to pursue the proposals, in spite of the lack of assurance that the associated costs would be eligible for recovery. As a result, ChargePoint recommended that the Commission grant Xcel's request.

2. Comments in Opposition to the Request

The Department, the OAG, and XLI opposed the Company's deferred accounting request.

The Department claimed that costs for equipment beyond the service connection are not suitable for recovery because doing so would potentially stifle competition by giving Xcel an upper hand in the marketplace. The Department also emphasized that Xcel would have the opportunity to recover costs for capital investments in the Company's next rate case after demonstrating that the investments are used and useful in rendering service to customers. Further, the Department stated that these pilots are expected to increase volumetric sales, negating the need for cost recovery and that the Company bears the responsibility to manage its costs between rate cases.

¹⁴ Xcel's tracker account was established in Docket No. E-002/M-15-111.

The OAG argued that the costs for which Xcel seeks deferred accounting are not significantly sizeable, as they are approximately one-quarter of one percent of the Company's total revenue for the time period of the pilot programs. The OAG also stated that the costs are not associated with important policy mandates because the Commission has not mandated the pilot programs. Finally, the OAG stated that the costs are not unforeseen, unusual, or extraordinary because they relate to the addition of new customers and new load, which are to be expected.

XLI echoed these comments, stating that there is no justification for deferred accounting. XLI stated that granting the request would allow Xcel to avoid scrutiny of its expenditures and that the Company could have planned for such investments in its last rate case. XLI dismissed Xcel's contention that without deferred accounting the Company would not likely pursue such initiatives, claiming that private businesses would be more likely to invest in developing EV-related infrastructure in a competitive environment that excluded a regulated public utility.

3. Xcel's Response

Xcel took issue with characterizations that its request is over-reaching. Xcel stated that deferred accounting is a critical tool affecting the Company's decisions to take on innovative projects between rate cases. Xcel also stated that the Commission has granted deferred accounting requests when important public policy issues are involved.

C. Commission Action

After careful consideration of the record, the Commission will approve Xcel's request for deferred accounting under Minn. R. 7825.0300, subp. 4 for the following reasons.

First, investments for which deferred accounting is sought in this case are clearly intended to serve important public policy objectives. Both the Legislature and the Commission have indicated that transportation electrification is an important public policy goal. The Legislature highlighted this objective by enacting Minn. Stat. § 216B.1614. The Commission has further encouraged utilities in this effort by applying its expertise to direct them to file such proposals, and Xcel's proposed pilots move deliberately and promptly in this direction. The record demonstrates that these two pilots are targeted to explore the potential public benefits of EV adoption and have the potential to be transformative. Supporting the growth of two markets – one for EV public charging stations and the other for Fleet EVs – has the potential to broadly expand access to environmentally beneficial transportation, including to lower-income communities through use of public transit EVs. The Commission's decisions to limit portions of the Fleet EV Pilot to public entities further targets the potential public benefits of the program.

Furthermore, these two pilots will be the first window into evaluating the utility's growing role in transportation electrification—through infrastructure investments in public charging and Fleet EVs and the potential ratepayer benefits derived from that role—the results of which will ultimately guide the Commission's future decisions on other EV programs. Ultimately, they are targeted to produce maximum public and ratepayer benefit, while having a limited rate impact.

Second, the request for deferred accounting in this instance is confined to two proposed pilot programs, both of which are limited in scope and duration. As a result, the potential ratepayer impact of deferred accounting here is constrained by the fact the costs are associated with pilots and not more typical utility investments.

Third, the Commission will further limit the potential cost to ratepayers by restricting the timeframe during which these costs will qualify for deferred accounting. Specifically, deferred accounting will apply to costs incurred only after the date of this order up to January 1, 2020, which would be the beginning of the test year for Xcel's next anticipated rate case filing. This protects ratepayers by limiting the total amount of expenses eligible for cost recovery.

Finally and importantly, allowing some costs to qualify for deferred accounting does not guarantee the recovery of those costs. To the contrary, any subsequent request to recover those costs will be separately scrutinized and considered by the Commission in the Company's next general rate case. They will not be recoverable unless shown by the utility to be reasonable and prudent.

For these reasons, the Commission will grant Xcel's request for deferred accounting without requiring the Company to demonstrate that the costs are unforeseen, unusual, and significant in size. This decision is based upon the specific facts of this case, and the Commission will continue to evaluate deferred accounting requests on their own merits in the future.

The Commission will therefore authorize Xcel to defer O&M and depreciation pilot expenses, associated with capital assets placed in service for each pilot, incurred during the period between the date of this order and January 1, 2020, the expected onset of the test year in Xcel's anticipated rate case.

Further, the Commission recognizes that there is a particular need to develop a more comprehensive strategy for encouraging utilities to innovate within the regulatory structure. For that reason, the Commission will require Xcel to address in its next rate case filing how it intends to handle and budget for future pilots prior to its following rate case filing.

VIII. Reporting Requirements

Numerous parties recommended additional reporting requirements beyond those proposed by Xcel. Xcel agreed to include most of them, with the exception of three items.

First, CUB requested that Xcel report on whether third-party development and delivery of charging services provides the highest level of customer benefit compared to other possible delivery methods, such as public, or utility ownership. Xcel stated that because the Company is not proposing ownership of charging stations, the data would not be available.

Second, ILSR recommended that Xcel collect and report data on the cost reductions of participants with Fleet EVs. Xcel stated that the Company is disinclined to ask participants to report on their costs and corresponding costs savings.

Third, ChargePoint recommended that Xcel report data on avoided costs as a result of using smart-charging equipment. Xcel stated that the pilots are not focused on the effectiveness of smart-charging technology and that the request goes beyond the scope of these pilots.

The Commission will incorporate parties' recommended reporting requirements, with the exception of the three recommended items listed above. The Commission concurs with Xcel's reasoning for not including them.

The Commission will establish reporting requirements, as set forth in the ordering paragraphs below. The information required must be filed on an annual basis throughout the pilot as part of Xcel's Annual EV Report in Docket 15-111, with a copy filed in this docket.

IX. Other Commission Action

The Commission will require Xcel to take other action and make filings consistent with the decisions herein, as follows.

Xcel must track both the costs and the associated revenues for each pilot.

Xcel must establish a new tracker account for non-promotional and non-educational expenses associated with each pilot.

In its annual report, Xcel must discuss the interoperability of installed charging equipment under both pilots, including which, if any, standards the pilots require. This should include hardware and software standards.

Within 10 days, Xcel must file its Fleet EV Service pilot agreement for Commission approval. The Commission will delegate authority to the Executive Secretary to approve, via notice, the contract if no interested parties or Commission staff object or file an intent to object within 30 days of the filing.

Within 10 days, Xcel must file its Public Charging pilot agreement for Commission approval. The Commission will delegate authority to the Executive Secretary to approve, via notice, the contract if no interested parties or Commission staff object or file an intent to object within 30 days of the filing.

Where not otherwise noted, Xcel must file a compliance filing consistent with the Commission's decisions in this matter no later than 10 days from the date of this order.

ORDER

1. The Commission hereby approves Xcel's proposal for implementing a Fleet EV Service Pilot and associated tariff, as modified.
2. Within 10 days, Xcel must file its Fleet EV Service Pilot service agreement for Commission approval. The Commission hereby delegates authority to the Executive Secretary to approve, via notice, the contract if no interested parties or Commission staff object or file an intent to object within 30 days of the filing.
3. The Commission hereby approves Xcel's proposal for implementing a Public Charging Pilot and the associated tariff, as modified.
4. Within 10 days, Xcel must file its Public Charging Pilot service agreement for Commission approval. The Commission hereby delegates authority to the Executive Secretary to approve, via notice, the contract if no interested parties or Commission staff object or file an intent to object within 30 days of the filing.

5. Within six months, Xcel must file a commercial EV charging tariff that is more reflective of hourly system costs with a price signal designed to reduce peak demand.
6. The Commission hereby modifies the Public Charging tariff to condition participation in the pilot program on agreement by site hosts to have a default time-differentiated rate structure that reflects the on-peak and off-peak time periods of Xcel's Pilot tariff and an energy rate differential ratio of at least 2:1. However, site hosts may opt out of the default arrangement at their discretion to set pricing that reflects other considerations or needs, provided that such prices are reported to the utility for purposes of Xcel's annual reporting.
7. In its next rate case, Xcel must develop and propose a revised general service TOD rate that is more reflective of hourly system costs with a price signal designed to reduce peak demand.
8. Xcel must ensure that all chargers installed as part of the pilots have smart charging capabilities.
9. Xcel must consider geographic and customer diversity in its selection of additional participants in the Fleet EV Service Pilot. Of the additional participants, one must be a public entity with a primary location outside Ramsey and Hennepin Counties. Further, no more than one of the additional participants in the Fleet EV Service Pilot may be a private or non-profit entity.
10. The Commission hereby approves Xcel Energy's request to classify its make-ready EV infrastructure investments as utility distribution plant for both pilots, as well as Xcel's request to own charging equipment provided under the bundled service option in the Fleet EV Service Pilot. This classification is limited to EV infrastructure investments and charging equipment installed during the pilots.
11. The Commission hereby approves a waiver of service policy provisions for contributions in aid of construction and other customer contributions for only the three-year term of the pilots.
12. Xcel must use its current CIAC formula to determine the amount of subsidy a participant would receive and must track these costs, as well as revenues, for each pilot.
13. The Commission hereby grants deferred accounting for Xcel's O&M and depreciation pilot expenses, associated with capital assets placed in service for each pilot, incurred during the period between issuance of the Commission's order approving the pilots and January 1, 2020, the expected onset of the test year in Xcel's forthcoming rate case.
14. In its next general rate case filing, Xcel must address how it intends to handle and budget for future pilots.
15. Xcel must track both the costs and the associated revenues for each pilot.
16. Xcel must establish a new tracker account for non-promotional and non-educational expenses associated with each pilot.

17. The Commission adopts the following reporting requirements, filed on an annual basis throughout the pilot, as part for Xcel's Annual EV Report in Docket 15-111, with a copy filed in the present docket, 18-643.
18. For the Fleet EV Service Pilot, Xcel must report on:
 - A. Program level:
 1. Participation over time on:
 - a. the number of fleets;
 - b. the number of vehicles; and
 - c. the number of ports
 2. End-user satisfaction, including surveys of fleet EV drivers and transit users riding electric buses;
 3. Publicly accessible information on site host characteristics; and
 4. Customer charging behavior in response to rate structure.
 - B. Site level, annual:
 1. Location of the fleet charging site;
 2. Number of ports at the site, and individual port capacities;
 3. Costs:
 - a. program implementation;
 - b. installation costs:
 - i. EV service connection;
 - ii. EV supply infrastructure;
 - iii. Optional EV charging equipment;
 - iv. Cost of distribution system upgrade investments for the make-ready component of the pilot, including cost per kW.
 - c. customer service and technical assistance needs;
 - d. dollar estimate of public and private funds being leveraged; and
 - e. any other costs not reflected in the list above.
 4. Revenues, broken down by:
 - a. energy revenues;
 - b. demand charge revenues;
 - c. fixed costs revenues; and
 - d. optional charger cost revenues.
 5. Whether the customer elected to charge with renewable energy.
 - C. Site level, monthly:
 1. kWh consumed in the on- and off-peak periods of Xcel's tariff;
 2. Coincident peak demand, at the MISO system peak and NSP system peak, including the time of day at which the peak occurred;
 3. Non-coincident peak demand, including the time of day the peak occurred;
 4. Number of vehicles, reported by the customer, using the charging infrastructure; and

5. Percentage of charging that aligned with any onsite generation, if applicable.
19. For the Public Charging Pilot, Xcel must report on:
- A. Program level:
 1. Participation over time:
 - a. number of site hosts;
 - b. number of ports;
 2. End-user satisfaction;
 3. Publically accessible information on site host characteristics; and
 4. Customer charging behavior in response to rate structure.
 - B. Site level, annual:
 1. Location of the site;
 2. Number of ports at the site, and individual port capacities;
 3. Costs:
 - a. program installation;
 - b. installation costs:
 - i. EV service connection
 - ii. EV supply infrastructure
 - iii. EV charging equipment
 - iv. Cost of distribution system upgrade investments for the make-ready component of the pilot, including cost per kW
 - c. Customer service and technical assistance needs;
 - d. Dollar estimate of public and private funds being leveraged; and
 - e. Any other costs not reflected in the list above.
 4. Revenues, broken down by:
 - a. energy revenues;
 - b. demand charge revenues; and
 - c. fixed cost revenues.
 5. Whether the site host has elected to charge with renewable energy; and
 6. Rates and fees charged to end-user customers, and if those rates changed during the year, what period they were in effect.
 - C. Site level, monthly:
 1. kWh consumed in the on-and off-peak periods of Xcel's tariff;
 2. Coincident peak demand, at the MISO system peak and NSP system peak, including the time of day at which the peak occurred;
 3. Non-coincident peak demand, including the time of day the peak occurred;
 4. Number of charging events, times, and durations, to the extent available; and
 5. Percentage of charging that aligned with any onsite generation, if applicable.

20. In its annual report, Xcel must discuss the interoperability of installed charging equipment under both pilots, including which, if any, standards the pilots require. This should include hardware and software standards.
21. Where not otherwise noted, Xcel must file a compliance filing consistent with the Commission's decisions in this matter no later than 10 days from the date of this order.
22. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf
Executive Secretary



This document can be made available in alternative formats (e.g., large print or audio) by calling 651.296.0406 (voice). Persons with hearing loss or speech disabilities may call us through their preferred Telecommunications Relay Service or email consumer.puc@state.mn.us for assistance.