

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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August 21, 2019

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

Docket No. E002/M-18-643

Answer to Xcel Large Industrials' Petition for Reconsideration

Fresh Energy, Minnesota Center for Environmental Advocacy, Natural Resources Defense Council, Sierra Club, and Union of Concerned Scientists submit this Answer in response to the Commission's August 8, 2019 [Notice of Comment Period](#). The Xcel Large Industrials' (XLI) legal and policy argument has no basis in law, regulation, or administrative usage, and XLI's petition ignores the environmental benefits of electric vehicles (EVs) and Minnesota's greenhouse gas emission reduction statute. Xcel's pilot programs would foster, not stifle, competition and innovation in EV charging. The Commission should deny XLI's petition for reconsideration of the Commission's Order approving Xcel's critical EV infrastructure programs.

1) Response to Xcel Large Industrials ("XLI")

1.1 XLI's legal and policy argument has no basis in law, regulation, or administrative usage

XLI argues that utility service stops at the meter, and therefore, Xcel cannot own make-ready or charging equipment as part of its Fleet Electric Vehicle and Public Charging pilots. This argument is a complete re-imagining of "traditional" utility regulation that has no basis law, regulation, or administrative usage. XLI would have this Commission create a bright-line demarcation where none previously existed, and further have this Commission apply that bright line to prohibit utility investment in equipment needed to deliver electricity to the customer where that equipment is installed behind the meter. This new policy has no basis in law or practice and should be rejected by the Commission.

XLI relies on a single Commission matter from the early 1980s to argue for its novel utility regulatory regime. However, that decision—which has never been cited for the proposition that XLI believes it stands for—concerned rate recovery for a gas company's program to provide leak detection and inspection services for customer owned gas appliances.¹ As Xcel correctly observed, that decision excluded rate basing a service that was something other than providing gas or electricity.² It does not stand for the proposition that everything on the customer side of an electricity meter is categorically outside the bounds of the statutory definition of "service."

Rather, to establish the bounds of the Commission's authority on this question, the matter begins and ends with the authorizing laws. In this regard, we agree with Xcel's conclusion that the definition of

¹ Minnesota Public Utilities Commission, "Order—after Reconsideration," filed November 25, 1981 in Docket 80-630, at page 1 ([link](#)).

² Xcel Energy, "Reply Comments," filed May 16, 2019 in Docket 19-186, at page 17 ([link](#)).

“service” under Minn. Stat. § 216B.02, subd. 6 does not contain the limitation that XLI claims.³ By law, activities that constitute “electric service” are not differentiated by the physical presence of the meter in the infrastructure chain. Instead, electric service generally comprises the “installation, removal, or repair of equipment or facilities for delivering or measuring [...] gas and electricity.”⁴ The charger for an EV is “equipment” that both delivers and measures electricity and “make ready” infrastructure—such as the costs of trenching and running wires through conduit to the charger location—is equipment that delivers electricity. Accordingly, both EV charging stations and the basic electrical infrastructure needed to support them are well-within the provision of electric service under Chapter 216B.

Indeed, utility ownership of equipment such as EV chargers and make ready infrastructure is not unusual. As Xcel explained in its Reply Comments in Docket 19-186, state utility commissions across the country have regularly approved utility ownership in both the storage and transportation electrification contexts.⁵ The Company’s list of program examples is not exhaustive; several programs with utility ownership components have been approved in California⁶, as well as in Oregon and Nevada.⁷ And while the design of these programs may vary—for example, in some, the utility owns the equipment and site hosts choose the equipment provider, and in others the site host can choose whether they or the utility will own the equipment—no state utility commission has categorically prohibited utility ownership on the customer side of the meter, as suggested by XLI. On the contrary, state utility commissions have embraced the importance of exploring a variety of business models and ownership structures. For example, in 2017 the Washington Utilities and Transportation Commission found that “[t]here is no consensus on the ‘right’ model to accomplish market transformation, and flexibility is essential at this early stage.”⁸ Similarly, this Commission has recognized that a diversity of strategies, including utility ownership of charging equipment, may need to be employed to realize the full range of ratepayer benefits offered by transportation electrification, as evident in the Commission’s February 2019 Order.⁹

Moreover, Minnesota law already provides for utility ownership of EV charging equipment that is located behind the customer’s meter. Section 216B.1614, passed in 2014, requires utilities to file an EV charging tariff with the Commission.¹⁰ That tariff must contain either a time-of-day or off-peak rate.¹¹ The statute

³ *Id.* at pages 13-14.

⁴ Minn. Stat. § [216B.02, subd. 6](#).

⁵ Xcel Energy, “Reply Comments,” filed May 16, 2019 in Docket 19-186, at pages 14-18 ([link](#)).

⁶ See, e.g., Decision Regarding Underlying Vehicle Grid Integration Application and Motion to Adopt Settlement Agreement, Application 14-04-014, California Public Utilities Commission (filed February 4, 2016) (approving \$45M investment in charging infrastructure to be owned and operated by San Diego Gas & Electric).

⁷ Final Order, In the Matter of PacifiCorp, dba Pacific Power, Application for Transportation Electrification Programs.UM 18-10, Public Utilities Commission of Oregon (filed February 27, 2018) (approving Pacific Power ownership of publicly accessible charging stations); Final Order, Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of annual plans for the Solar Energy Systems Incentive Program, the Wind Energy Systems Demonstration Program, the Waterpower Energy Systems Demonstration Program, the Energy Storage and Low Income components of the Solar Program, and the Electric Vehicle Infrastructure Demonstration Program for Program Year 2018-2019.Docket No. 18-02002, Public Utilities Commission of Nevada (filed June 27, 2018) (approving \$5M EV infrastructure investment and permitting NV Energy to own and operate highway fast charging stations).

⁸ *Policy and Interpretive Statement Concerning Commission Regulation of Electric Vehicle Charging Stations*, Docket UE-160799, In the Matter of Amending and Adopting Rules in WAC 480-100 Rulemaking to consider policy issues related to the implementation of RCW 80.28.360, electric vehicle supply equipment (filed June 14, 2017), Washington Utilities and Transportation Commission.

⁹ The Commission directs all future EV infrastructure proposals to discuss “ownership structures,” among other issues, “to the extent relevant.” Minnesota Public Utilities Commission, “Order Making Finding and Requiring Filings,” filed February 1, 2019 in Docket 17-879 at page 14 ([link](#)).

¹⁰ Minn. Stat. § [216B.1614, subd. 2](#).

¹¹ Minn. Stat. § [216B.1614, subd. 2\(a\)\(1\)](#).

allows the Commission to approve the EV charging tariff if the utility demonstrates that the tariff (among other things) “incorporates the cost of metering or submetering within the rate charged to the customer.”¹² By directing utilities to offer EV customers a specialized rate that incorporates the cost of metering and submetering, the Legislature has by implication authorized utility ownership of reasonably necessary EV charging infrastructure, including equipment that is located behind the customer’s meter. A submeter in a multi-unit apartment, for instance, is necessarily located behind the customer’s meter and yet is expressly included in the mandated EV charging tariff.¹³

XLI’s interpretation that Minnesota law prohibits utility ownership of behind-the-meter equipment is a new policy of XLI’s own creation. It is not one that exists in state laws or regulations, and it should be rejected.

1.2 Xcel’s pilot proposals would foster, not stifle, competition and innovation

In its petition, XLI argued Xcel’s proposal “could quickly disrupt and undermine the private market, squeezing out charging vendors and private companies providing behind-the-meter supply infrastructure and installation.”¹⁴ These concerns are misplaced, and they seem to reflect a fundamental misunderstanding of Xcel’s proposal. In reality, Xcel’s proposal provides support that will spur investment in EV infrastructure while still allowing for the development of a competitive market for charging services.

XLI seems to misunderstand the utility’s role and the enduring value of make ready infrastructure in Xcel’s proposal. For example, on page 8 of its petition, XLI argues “Xcel has no experience with the transportation sector that would enable it to appropriately site and size charging stations, select the most appropriate equipment, advertise stations, or influence customers’ parking behaviors to ensure stations are utilized efficiently.” Under Xcel’s Public Charging proposal, each of these decisions—siting, sizing, equipment, advertisement, and customer influencing—would be made by the site host, not the Company. Under the Fleet Charging program, the Company would provide a list of several chargers from which participants could choose, provided the chargers meet basic qualifications for communications capability, safety, energy efficiency, etc. Similarly, XLI argues that “charging technology is rapidly improving and DCFC chargers could quickly be replaced by wireless charging or other technologies.”¹⁵ While there will likely be advancements in DC fast charging technology, DC fast chargers will remain useful to the vehicles capable of wired charging, which will be around for some time to come, given the durability of vehicles in the fleet. Furthermore, the chargers themselves will not be owned or subsidized by the Company and, therefore, pose no stranded asset risk to customers. The portion of the EV supply equipment that would receive utility support is simply the “make ready” components, such as the costs of trenching and running wires through conduit to the charger location. This make ready infrastructure poses no stranded asset risk because it will still be required to supply electricity to the charger, even if the charger itself supplied electricity to the vehicle wirelessly.

XLI also raised concerns that Xcel’s pilots “could quickly disrupt and undermine the private market, squeezing out charging vendors and private companies providing behind-the-meter supply infrastructure

¹² Minn. Stat. § [216B.1614, subd. 2\(c\)\(4\)](#).

¹³ *Id.*

¹⁴ Xcel Large Industrials, “Petition for Reconsideration and Motion,” filed August 6, 2019 in Docket 18-643, at page 9 ([link](#)).

¹⁵*Id.*, at page 8 (footnote omitted).

and installation.”¹⁶ This concern is misplaced. In its petition, Xcel explains that it will select technology vendors through a request for proposal process, as well as contractors for “designing, installing, and maintaining the EV supply infrastructure under the pilot.”¹⁷ Moreover, part of the focus for “key learnings” will be whether the program “sufficiently maintains choice of program options and technology vendors for our customers.”¹⁸ In other words, Xcel has built a program that would support competition based on best practices elsewhere *and* analyze the success of that program design. This conclusion is underscored by the fact that every EV service provider involved in this docket has expressed support for Xcel’s program.

It is critical to understand that a utility like Xcel is entirely reliant on EV service providers for hardware, software, and networking solutions related to EV charging. This equipment is the locus of innovation in vehicle charging technology and business models. The question of who owns, operates or invests in EVSE bears little on the question of whether the program will support a sustainable and innovative EV technology marketplace. Far more important is whether the program solicits input from multiple vendors, uses a clear and transparent procurement process, requires use of open technical standards, and clearly defines the roles for site hosts, EV providers and the utility to provide market certainty.

To claim that utility participation will stifle competition and innovation not only misunderstands the EV charging marketplace, it also ignores the analogous history of the energy efficiency market. The U.S. has a highly competitive market for energy efficiency products and services. In most states, utilities have a major role in the energy efficiency market, and that participation has promoted competition. For that reason, most energy efficiency companies support utility participation in the energy efficiency market, just as EV charging providers support utility participation in the EV charging market, including utility support for infrastructure.¹⁹

That Xcel’s program will support the EV market is evident from the comments of the EV charging providers, the very parties who would be harmed if XLI’s concerns about competition were rooted in any truth. SemaConnect strongly supported the proposals, arguing utilities have a “critical role to play in advancing vehicle electrification” and that utilities are “uniquely positioned to deploy and manage charging networks.”²⁰ Greenlots²¹ and Siemens²² likewise supported the program, including the ownership components. ChargePoint strongly supported the public component and supported the fleet component with minor clarifications.²³

1.3 XLI ignores the environmental benefits of EVs and Minnesota’s greenhouse gas emission reduction statute

¹⁶ Xcel Large Industrials, “Petition for Reconsideration and Motion,” filed August 6, 2019 in Docket 18-643, at page 9 ([link](#)).

¹⁷ Xcel Energy, “Petition for Approval of Electric Vehicle Pilot Programs,” filed October 12, 2018 in Docket 18-643, at page 32 ([link](#)).

¹⁸ *Id.*, at page 43.

¹⁹ See, e.g.: Initial Comments of Siemens, Greenlots, eMotorWerks, and ChargePoint in this proceeding.

²⁰ SemaConnect, “Initial Comments,” filed November 9, 2018 in Docket 18-643, at page 3 ([link](#)).

²¹ Greenlots, “Initial Comments,” filed February 1, 2019 in Docket 18-643 ([link](#)), e.g. at page 7: “utility ownership and operation of charging stations is an appropriate and often necessary role for the utility to help break through significant and persistent market barriers, accelerate the market across most segments, support competition, and improve the environment for private investment.”

²² Siemens, “Initial Comments,” filed January 18, 2019 in Docket 18-643 ([link](#)), e.g. at page 3: “it is our experienced opinion that utility ownership should be permitted, because such ownership of EV infrastructure provides compelling benefits and in reality, promotes competition in EV charging infrastructure.”

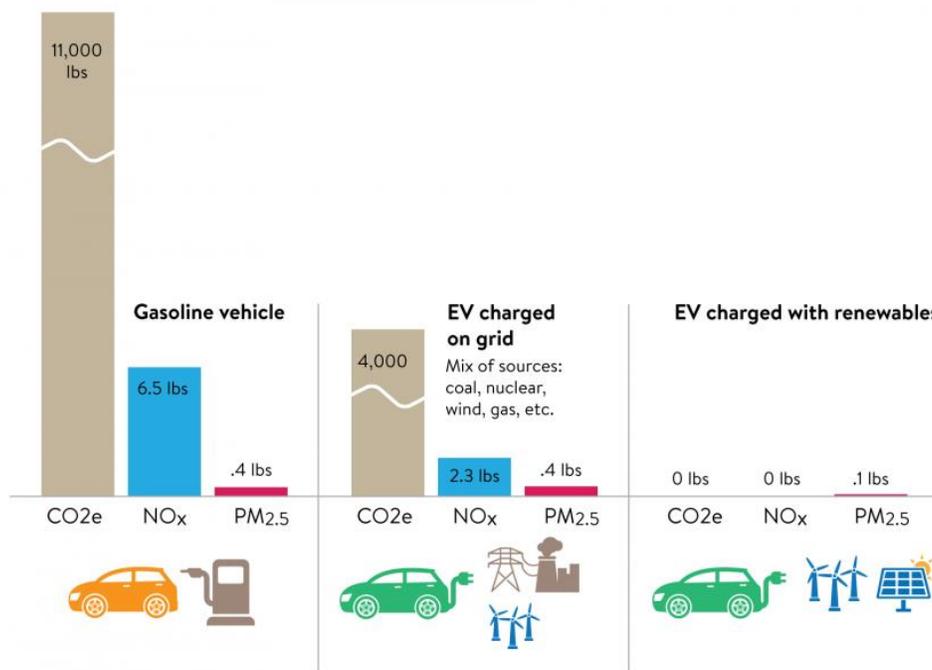
²³ ChargePoint, “Initial Comments,” filed February 1, 2019 in Docket 18-643 ([link](#)). While ChargePoint did express concerns regarding the impact of the Fleet pilot on competition (at pages 6-8), these concerns centered on the relationship between charging providers and site hosts, not the utility make ready investments bemoaned by XLI.

XLI questions the environmental benefits of Xcel’s pilots, arguing “the environmental benefits of the EV Pilot Programs are far from certain. EV charging stations will be powered by the mix of generation resources existing on the regional grid. Xcel has not demonstrated that powering EVs with the regional grid’s generation mix will lower carbon emissions or any other emissions.”²⁴

Xcel’s petition directly addressed the greenhouse gas reductions potential of powering EVs with Xcel’s generation mix:

A typical gasoline-powered light-duty vehicle emits just over five tons of CO₂ per year, based on average miles driven and fuel economy. By 2030—based on the retirement of coal plants, maintenance of nuclear plants, and addition of renewable energy sources—an EV traveling the same miles at 0.3 kWh per mile could emit only 0.4 tons CO₂ per year, a 93 percent reduction from the gasoline-powered vehicle.²⁵

Independent analysis from the Minnesota Pollution Control Agency (PCA) further demonstrates the emissions reduction potential of EVs.²⁶ As shown in the chart below, PCA calculates an EV powered by the current regional grid produces roughly one-third the greenhouse gas and NO_x emissions of the average gasoline vehicle. And when an EV is powered by renewable energy, emissions reductions increase even further. Notably, 56 percent²⁷ of Xcel’s Upper Midwest electricity supply comes from carbon-free sources today, and the Company has committed to be 100% carbon-free by 2050.²⁸



The tremendous emissions reduction potential of EVs is especially relevant in light of Minnesota’s strong greenhouse gas reductions goals. XLI claims, “the EV investments proposed by Xcel in the EV Pilot Programs are not necessary to meet any public policy mandate, because there is no legislative mandate to

²⁴ Xcel Large Industrials, “Petition for Reconsideration and Motion,” filed August 6, 2019 in Docket 18-643, at page 10 ([link](#)).

²⁵ Xcel Energy, “Petition for Approval of Electric Vehicle Pilot Programs,” filed October 12, 2018 in Docket 18-643, at Attachment E, page 1 (footnotes omitted) ([link](#)).

²⁶ Minnesota Pollution Control Agency, “Electric vehicles,” accessed August 16, 2019 from <https://www.pca.state.mn.us/air/electric-vehicles>

²⁷ Xcel Energy, “Corporate Responsibility Performance Summary,” May 2019, at page 11 ([link](#)).

²⁸ Huttner, Paul, “Xcel Energy going carbon-free by 2050,” *Minnesota Public Radio*, December 4, 2018 ([link](#)).

increase EVs and the Commission has not been expressly or impliedly authorized to pursue EV expansion.”²⁹ This statement ignores the state’s Greenhouse Gas Emissions-Reduction Goal statute, which states: “It is the goal of the state to reduce statewide greenhouse gas emissions **across all sectors** producing those emissions to a level at least 15 percent below 2005 levels by 2015, to a level at least 30 percent below 2005 levels by 2025, and to a level at least 80 percent below 2005 levels by 2050” (emphasis added).³⁰

As documented by a recent Pollution Control Agency and Department of Commerce report, the state fell far short of its first goal of a 15 percent reduction (relative to 2005) by 2015, seeing a reduction of just 5 percent.³¹ Notably, emissions reductions from electricity generation far exceeded the 2015 goal—seeing a 29 percent reduction between 2016 and 2005—but other sectors of the economy could not keep up. Specifically, the report concludes: “Transportation is now the largest source of GHG emissions in Minnesota. This sector will require ongoing, focused effort to reduce emissions to the levels necessary to meet statutory goals.”³² Xcel’s proposed pilot programs are a valuable step toward meeting the state’s public policy goals.

2) Conclusion and Recommendation

In conclusion, XLI’s legal and policy argument has no basis in law, regulation, or administrative usage. Contrary to XLI’s claims, Xcel’s pilot proposals would foster, not stifle, competition and innovation. Transportation electrification will be essential to meeting Minnesota’s Greenhouse Gas Emissions-Reduction Goal, and the proposed programs would help increase EV adoption in the state. The Commission should deny XLI’s petition for reconsideration of the Commission’s Order approving Xcel’s critical EV infrastructure programs.

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²⁹ Xcel Large Industrials, “Petition for Reconsideration and Motion,” filed August 6, 2019 in Docket 18-643, at page 14 ([link](#)).

³⁰ Minn. Stat. [§216H.02, subd. 1](#).

³¹ Minnesota Pollution Control Agency and Minnesota Department of Commerce, “Greenhouse gas emissions in Minnesota: 1990-2016,” January 2019 ([link](#)).

³² *Id.*, at page 2.