

February 27, 2018

*Via Electronic Filing*

Daniel P. Wolf  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place E., Suite 350  
St. Paul, MN 55101

**Re: Comments of the Institute for Local Self-Reliance for Xcel Residential EV Service Pilot Program / Docket No. 17-817**

Dear Mr. Wolf:

The Institute for Local Self-Reliance (ILSR) respectfully submits these comments in response to the Commission's notice to provide input on Xcel Energy's Residential EV Service Pilot Program.

## Support for Reducing Upfront Costs

We very much appreciate the pilot's elimination of a second meter install, taking advantage of Electric Vehicle Supply Equipment (EVSE) technology that makes it unnecessary. We also support comments by Fresh Energy, et al., noting that second meters offer no material benefit to customers, unlike many commercial EVSEs that provide apps and interactive interfaces for managing vehicle charging and costs.

## Frustration with Lack of Financial Benefit for Participants

As noted in comments by Fresh Energy, et al., off-peak charging for electric vehicles offers benefits to all customers. Therefore, it is difficult to understand why in this pilot it will not offer benefits to participants.

ILSR obtained the bill of a residential Xcel customer who owns an electric vehicle to do a comparison between participation in Xcel's pilot program and the customer's current costs to charge their Nissan LEAF on Xcel's flat rate residential tariff. **Our conclusion is that the monthly maintenance fees proposed by Xcel erase any potential savings for off-peak charging, despite evident benefits to other customers and to the utility.** We used the same assumptions for charging rates as provided in Xcel's filing, and used the rates from the

customer's July and December 2017 electric bills for the per kilowatt-hour charges and fuel costs (we used the higher value from July 2017 for the latter). Our analysis is shown below:

### Xcel EV Pilot Program Charging Cost Analysis

#### CONSUMPTION

303	kWh per month
288	off peak
15	on peak



#### RATES

\$0.0940	Default summer*
\$0.0900	Default winter*
\$0.0270	fuel cost surcharge (July 2017), .0255 in Dec. 2017*
\$13.88	EV rate monthly cost
\$0.0426	EV rate off peak
\$0.1700	EV rate on peak winter
\$0.2100	EV rate on peak summer

#### Cost to Charge

Monthly driving	Winter		Summer	
	Existing Rate	EV Rate	Existing Rate	EV Rate
1000 miles	\$35.45	\$36.88	\$36.66	\$37.48
500 miles	\$17.73	\$25.38	\$18.33	\$25.68

Americans average 29 miles per day of driving, 870 miles per month: <http://bit.ly/2EWEJof>

\*Taken from residential bill of Xcel customer, July 2017 and December 2017

The lack of financial benefit is particularly telling for electric vehicle drivers that cover less distance. Xcel's assumption of 1,000 miles per month is higher than the average monthly driving distance covered by most Americans, according to the Federal Highway Administration.<sup>1</sup>

Typical annual estimates of driving (often around 15,000 miles) also overstate potential savings, because they include some long-distance travel that will either not happen in a shorter-range electric vehicle, or more importantly, not include charging at home.

<sup>1</sup> [nhts.ornl.gov/briefs/EVFeasibility20160701.pdf](http://nhts.ornl.gov/briefs/EVFeasibility20160701.pdf)

## The Wrong Comparison

ILSR concurs with other commenters that a pilot will provide valuable data about costs and EVSE technology that will benefit a permanent program. However, comparisons of the proposed EV pilot to the existing EV tariff (requiring a second meter) are misapplied. Pilot participants will be choosing to participate on the its value proposition *relative to their existing electric service*. If ILSR's calculations are correct, then that value is zero (or negative). And given no benefit, it will be difficult to enroll enough participants to provide the data that both the utility and commenters (and ILSR) desire.

## A Note on Marketing

There is a Facebook group with over 1,000 members for Minnesota owners of plug-in electric vehicles. If the EV pilot program offers a financial benefit to participants, I'd suspect it could be a very low-cost way to identify 100 participants.

## Recommendation: Approve the Pilot, Cut the Maintenance Fee

The increasing adoption of electric vehicles means that Xcel customers need a better option for charging their vehicles at times that maximize benefits for the entire grid, as well as themselves. If the data to be gathered from this pilot will lead to better financial and reliability outcomes for the entire grid, then give participants a financial incentive to participate. Even if Xcel collected zero monthly maintenance fee (instead of \$13.88) from participants, the total cost over 24 months would be approximately \$33,000, comparable to just three rebates for Nissan Leaf vehicles the utility offered in 2017. That seems a reasonable down payment on a program designed to increase sales, manage charging, and cost-effectively integrate electric vehicles into the utility's grid system.

Thank you for the opportunity to comment; we appreciate that there has not been any legislative preemption of this regulatory process.

Sincerely,

/s/

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