



February 2, 2018

-VIA ELECTRONIC FILING-
Docket No. E002/M-17-817

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

RE: Greenlots' Comments in the Matter of Xcel Energy's Petition for Approval of a Residential EV Service Pilot Program

Dear Secretary Wolf,

In response to the Public Service Commission's ("the Commission") November 22nd 2017 Notice of Comment Period and Request for Information in the matter of Xcel Energy's Petition for Approval of a Residential EV Service Pilot Program, Greenlots offers the following comments on broader considerations regarding transportation electrification in Minnesota and in response to the questions posed.

Greenlots is a leading provider of grid-focused electric vehicle charging software and services. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America and Minnesota. Greenlots' smart charging solutions are built around an open standards-based focus on future-proofing while helping site hosts, utilities, and grid operators manage dynamic electric vehicle (EV) charging loads.

Greenlots supports the initiative Xcel has taken with this pilot proposal to make enhancements to its existing EV service rate and in reducing barriers to adoption of this rate. We also appreciate the concerted engagement and outreach Xcel conducted with stakeholders over the past year that helped shape this pilot filing. While firmly noting that much more will need to be done to transform the market for EVs in Minnesota, Greenlots supports this modest proposal as a first step towards a broader and deeper EV support strategy. There are a number of key learnings that can be drawn from this pilot that will help inform scaled infrastructure support and potential future deployment by Xcel. We encourage the Commission to approve Xcel's Tariff and Customer Agreement, proposed accounting treatment, and its request for a rule variance and to allow Xcel to proceed as proposed.

In its proposal, Xcel seeks to pilot an approach to address barriers that exist for single-family homes in adopting an EV-specific time-of-use (TOU) rate. Namely, these barriers are cost and hassle. Xcel's proposal attempts to address the cost issue by eliminating the need to install a separate metered service and by offering an optional on-bill financing mechanism. It addresses the issue of hassle by prequalifying electric vehicle supply equipment (EVSE) with the technical specifications needed for the program and their ability to use metering capabilities internal to

the networked EVSE in lieu of a separate utility meter. It also addresses customer burden and hassle by offering a more or less turn-key solution where Xcel handles the equipment sourcing and installation.

The issues of cost and hassle are well-documented barriers, as are the strategies that Xcel proposes to address them. While the expected customer cost savings are significant, rapid broader adoption beyond this pilot will likely require further cost savings on infrastructure. We will also note that there are a number of other customer and market segments that this pilot does not address. These include multi-unit dwellings (MUDs) and the split-incentive issue of installing EVSE in such settings, public charging, deployments in disadvantaged communities, and transportation electrification (TE) and EVSE barriers for fleets and the medium and heavy-duty segments.

TOU rates can serve as a good first step in sending price signals to EV drivers to integrate their load in ways that better support the grid and all ratepayers, but managed charging programs can take this a step further. Given that the EVSE being deployed as part of this program is fully capable of more advanced management and grid integration, we are hopeful that this pilot might itself transition, or otherwise support future programs that take advantage of more advanced managed charging functionality. Additionally, we are hopeful that when such a program using networked EVSE is expanded to a larger set of customers, program requirements and deployed hardware and software more fully embrace open standards and therefore interoperability between hardware and software to better protect investments, guard against stranded assets and support competition and innovation in both hardware and software.

We encourage approval and rapid implementation of this modest program with an eye to future programs capable of more significantly supporting the electrification of transportation in Minnesota. Transportation electrification represents a clear opportunity to increase the utilization of the electric grid to the benefit of all utility customers, and Xcel and other utilities have a critical role to play in facilitating this transition.

Greenlots looks forward to engaging with the Commission and utilities' broader process on this topic, and growing the EV and EVSE market across the State.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Thomas Ashley', with a stylized flourish at the end.

Thomas Ashley
VP Policy, Greenlots
925 N. La Brea Ave
Los Angeles, CA 90038
tom@greenlots.com