

VEHICLE-TO-BUILDING ELECTRIC VEHICLE CHARGING PARTNERSHIP

PROJECT OVERVIEW

In May 2021, The Alliance Center installed one of the first vehicle-to-building (V2B) electric vehicle chargers including a publicly available carshare in North America. In partnership with the organizations listed below, a dedicated Nissan LEAF will be utilized to provide electricity to the building during times of high energy demand such as heat waves. The project is anticipated to reduce energy consumption for the building while serving as a carbon free service for carshare members and a research opportunity for broader market impacts.

PROJECT HIGHLIGHTS

- Save money on The Alliance Center utility invoices by reducing/eliminating some monthly demand (kW) events.
- Nissan LEAF is reserved by The Alliance Center staff based on anticipated heating/cooling loads as heating, ventilation and air conditioning (HVAC) loads have historically dictated demand on utility bills.
- The Alliance Center received approximately \$9,000 as part of a grant application for the installation of the charger from the Regional Air Quality Council.
- The charger and lease of the Nissan LEAF is funded by Fermata Energy, while observed demand savings are split between The Alliance Center and Fermata Energy.



MARKET BENEFITS AND RESEARCH OPPORTUNITIES

- Social impact of having an electric vehicle used as a carsharing fleet vehicle and demand energy resource (DER).
- Development of a vehicle-to-grid tariff rate with Xcel Energy or peer-to-peer energy trading.
- Resiliency research for natural disasters, utility outages, etc.
- Future integration of the system into energy demand signals coming from the local utility, Xcel Energy.

PARTNERS

