

Driving Minnesota's Tourism Further: The Role of Electric Vehicle Charging Stations



UNIVERSITY OF MINNESOTA
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Overview

Electric vehicles are paving the way to a cleaner transportation option, and they may be driving tourism in Greater Minnesota. Owners of plug-in electric vehicle owners have charging needs that bring them off highways and into communities. Small towns and lodging and other businesses are recognizing this value.



Solar-powered EV station, Austin Utilities

“ Soon we will have highways with fast charging stations every 30 to 50 miles leading to popular tourism destinations in our state. We are partway there building these electric highways or corridors to the North Shore. With electric vehicles having a 200 mile or over driving range per charge, becoming available within this next year, this type of tourism travel is expected to become commonplace in the near future.

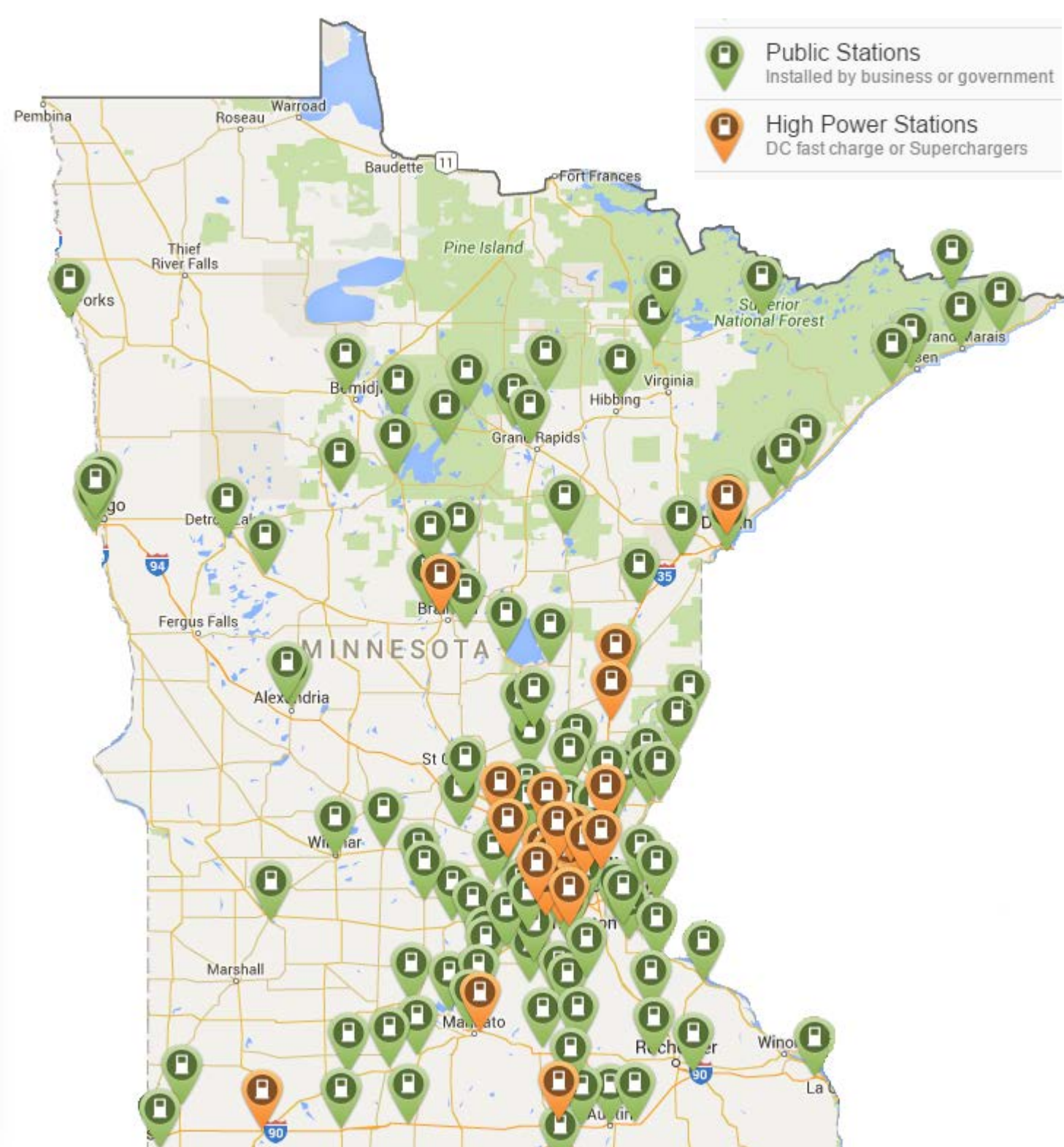
- Fran Crotty, Electric Vehicle State Program Administrator, Minnesota Pollution Control Agency

EV Charging Stations

There are 238 electric stations (like those shown below) and 518 charging outlets in Minnesota (Source: U.S. DOE Alternative Fuels Data Center). Charging outlets are made available by a government, non-profit, or business for EV charging. The PlugShare map shown below is a great resource for getting station information, including whether it is currently in-use, as well as for planning driving routes with charging stations. High Power Stations are DC fast chargers and provide a full charge in about 30 minutes for \$3-\$5.



Charging Station, Austin Utilities



Map Source: www.plugshare.com

Lodging with EV Charging

CERTs used Qualtrics to create a form for lodging owners to express their interest in offering an outdoor outlet for EV charging, as well as being added to the PlugShare map. The UMN Tourism Center distributed the form several times in 2014 through its newsletter. The effort resulted in 15 new places of lodging added to the PlugShare map. Each received a sticker of the image (left) to place at their main entrance.



Case Study: Pine City, MN

A DC fast charging station (along with a Level 2 charger) has been installed at the Family Pathways Thrift Store in downtown Pine City. Family Pathways, located right on the I-35 Business Loop and Pine City's "Main Street"

was happy to provide the space for the charging units.

Family Pathways is a nonprofit committed to helping people reduce their impact on the environment and were proud to expand EV charging opportunities in Minnesota.



There are also directional signs to help navigate drivers off the highway to the stations. In fact, city staff worked with MNDOT to update its policies to allow for the installation of appropriate interstate informational signs about charging sites. The policy reflects today's transportation technology.

Installing an EV charger in Pine City means peace of mind for EV drivers as they head from the Twin Cities metro area to places up north. Prior to the opening of the Pine City station, there were no such chargers between Forest Lake and Duluth. Now, EV drivers can pull off, charge-up and grab a cup of coffee, eat a meal, or run some errands at nearby shops before continuing on their way.

“ Emissions from motor vehicles are the single largest source of air pollution in Minnesota. Air pollution can be dangerous, especially to those living with asthma, COPD and other lung diseases. The American Lung Association in Minnesota (ALAMN) recognizes advanced vehicle technologies such as electric vehicles as a Clean Air Choice® motorists can make to reduce their impact on air quality and human health while enjoying Minnesota's 10,000+ lakes.

- Lisa Thurstin, Twin Cities Clean Cities Coalition, ALAMN

CERTs Promotes EVs

CERTs hosts regional events showcasing EV charging stations and writes blogs about new EV charging and vehicle opportunities, and the CERTs blog has more than 12,000 readers.