Electric Vehicle Infrastructure Frequently Asked Questions

The National Electric Vehicle Infrastructure (NEVI) formula program provides funds for states to install fast chargers for electric vehicles (EVs). Minnesota expects to invest about $68 million from this program over five years, along with a 20% non-federal match. Minnesota submitted a Statewide Electric Vehicle Infrastructure Plan that was approved in Fall 2022.[1]

NEVI funds fast-charging stations along designated corridors, in Minnesota these are the I-35 and 94 corridors. It aims to provide reliable, long-distance EV travel, while also recognizing the unique needs of different regions and communities.

How will MnDOT buildout EV charging infrastructure after I-35 and I-94 are completed?

The Minnesota Electric Vehicle Infrastructure Plan includes an EV Fast Charging Network Vision that identifies corridors for future investment with NEVI funds after I-35 and I-94 are built out. See the map included on p. 8 of the Plan. MnDOT will soon begin the stakeholder and public engagement process, which will run through summer of 2023. This will help prioritize corridors for the next round of investment.

Will there be reliability requirements for EV charging stations built with NEVI funds?

Yes, the Federal Highway Administration's proposed minimum standards for the NEVI program require each charging port must be operational 97% of the time on an annual basis. MnDOT will incorporate the federal rules for the program into the project selection process. MnDOT contracts will hold the entities selected responsible for installing and maintaining the charging stations with NEVI funds.

What power sources does the electricity come from for EV charging?

The source of power depends on the Utility is providing the electricity. Many utilities are making shifts to more renewable sources of electricity. The Public Utilities Commission has a map that shows utility service areas.

[1] 2022 Minnesota Electric Vehicle Infrastructure Plan, Minnesota Department of Transportation, July 2022. https://edocs-public.dot.state.mn.us/edocs_public/DMResultSet/Urlsearch?columns=docnumber,docname&folderid=20009901

Is three-phase power required for the NEVI fast chargers?

For the 4-150 kW charging port stations three-phase power will be required.

When can we expect to see NEVI funded EV chargers installed?

MnDOT anticipates that the first round of fast charging stations using the NEVI funds will be mid-year 2024. Before installation can occur, MnDOT will be doing a site application process to identify the location 16 potential sites and site host/service provider teams, conduct National Environmental Policy Act (NEPA) review of the sites, and then enter the agreement/contracting phase.

Can MnDOT ask users to pay a fee to use charging stations in public right-of-way?

During the NEVI plan process, MnDOT received many questions about placing chargers at rest areas. Rest areas are not a priority for the fast chargers because they lack many of the amenities of privately-owned sites. Rest areas could be an option if MnDOT cannot identify private site hosts. Due to current federal and state regulations, the agency cannot charge drivers a fee to use fast chargers at rest areas.

How much money will EV charging stations charge?

The rates will vary depending on the provider. The proposed minimum standards for the NEVI program require State DOTs to collect information about charging rates from vendors. MnDOT is committed to ensuring reasonable rates to avoid price gauging.

How many people drive electric vehicles?

MnDOT has an Electric Vehicle Dashboard with data on EVs in Minnesota. In 2022 there were 28,887 EVs (this includes battery electric vehicles and plug-in hybrid electric vehicles) on the road in Minnesota. This dashboard can be used to look at numbers for each county.

How well do EVs work in cold weather?

From Drive Electric MN Fact Sheet- Electric Vehicle Fast Facts:

Scandinavian countries have the highest percentage of EV drivers in the world (and it's cold there)! With more consistent acceleration and a lower center of gravity, EVs often perform better in cold weather than gasoline alternatives. Battery life can be affected on the most bitterly cold days, with some seeing a 40 percent reduction at -10F. These temperatures usually only happen 3-4 times a year and also impact gas-powered cars.

If Minnesota converts to all EVs and/or people drive less, how will we fund the transportation system?

Electric vehicle owners' contribution to the Highway User Tax Distribution (HUTD) Fund comes in the form of sales tax paid at the time of purchase and the annual $75 registration tax. Over the course of ten years, an electric vehicle owner will pay more into the Highway User Tax Distribution Fund than the owner of a

comparable luxury internal combustion engine (ICE) model. This is due in part to the higher purchase price (and therefore higher sales tax) of an electric vehicle as compared to a similar ICE model.

Funds in the Highway User Tax Distribution Fund are used for construction, maintenance, and administration of state highways, county roads, and city streets. While some states direct funds collected from EV registration fees to support EV charging, in Minnesota there is a prohibition on using HUTD funds to invest in EV charging infrastructure.

The registration fees of EVs and prohibition on using HUTD funds for EV infrastructure was decided by the Minnesota Legislature. More information on transportation funding can be found at: MnGO Funding page

Will NEVI funding charging stations allow for Tesla charging?

NEVI funded charging stations are required to use an industry standard charging port type called the Combined Charging System (CCS). The CCS is compatible with most electric vehicles. Tesla drivers will need a CCS adapter to use NEVI-funded stations.

Will there be tax exemptions for NEVI charging stations?

There is no federal or state tax exemption. The NEVI formula funds can pay for up to 80% of the cost of the project.

What are the property tax implications of putting chargers on private property? How may property taxes exempt any land that the chargers go on?

There are no known state or federal tax implications related to putting chargers on publicly accessible, privately-owned property. Local governments may have policies that support or restrict where chargers can be sited.

How will the build out of NEVI charging stations support upgrades to the distribution system (aka "grid") with utility providers?

NEVI funds are primarily used for on-site EV charging equipment, not to support general upgrades to the grid. MnDOT is coordinating with utility companies that serve the locations along the I-94 and 35 corridors where the first round of NEVI stations will be installed. This will help us understand existing needs for transmission infrastructure. FHWA provides additional information about possible upgrades to the transmission system.

> NEVI funds can be used on electric infrastructure if it is a *"necessary component to connect the EV charging station to the electricity source (or to supply power from the electricity source). Costs to acquire and install on-site electric service equipment (e.g., power meter, transformer, switch gear) are eligible. However, State DOTs are encouraged to consider the magnitude of these costs and explore whether they could be covered by electric utilities or other programs rather than the NEVI Formula Program.*
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> *Costs for minor grid upgrades are also eligible, provided the work is necessitated solely by the construction or upgrading of the EV charging station and participation in the upgrade does not exceed the allocable cost of the minimum upgrades needed to match the planned power requirements of the EV*

charging station. A minor grid upgrade is defined as the work necessary to connect a charging station to the electric grid distribution network; for example, extending power lines or upgrading existing power lines several miles. Finally, major grid upgrades, such as longer line extensions or upgrades, improvements to offsite power generation, bulk power transmission, or substations are ineligible."

How much does it cost for grid upgrades needed for a NEVI charging station?

It depends on what the upgrade needs are at each location. Major grid upgrades are not allowable expenses with NEVI funds. Factors to consider for the on-site needs include distance of cables and wires, location nuances such as a new construction vs. existing site and availability of equipment. In Michigan, the cost range was $15,000 - $130,000 for two different sites under varying conditions and equipment. MnDOT will evaluate costs for electric infrastructure at the sites for charging stations as part of the application review, scoring and selection process.

What does the Electric Vehicle Infrastructure Training Program provide? How much does it cost and how can someone take the training?

The Electric Vehicle Infrastructure Training Program (EVITP) offers comprehensive training to install electric vehicle infrastructure. After successful completion of the online EVITP training course, participants will be scheduled for the next available online session. Electricians must have a State Electrical License and provide their license number. EVITP will verify this information with the State. Currently, the training costs $275.00 and includes online training course, online proctored exam, and certification.

In Minnesota, the Minneapolis Electrical JATC Training Center in St. Michael offers the EVITP course as part of its registered apprentice training program.

What is being done for workforce development in the NEVI program?

MnDOT is collaborating with a variety of partners on workforce development issues, including DEED, DLI, COMM, MPCA, Blue Green Alliance, Native Sun/Indigenized Energy, Minneapolis JATC, Xcel Energy, Renewable Energy Partners, LIUNA, MnDOT OCR, MN State Energy Center of Excellence (part of MnSCU system), City of St. Paul, and the Karen Organization of Minnesota.

Key workforce development needs that were identified include:

- Determine the current labor pool and what anticipated demands.
- Share information about the work of installing and maintaining an EV station with contractors to be better informed and more likely to bid on the work.
- Identify where existing training is available and more is being developed at different levels/entry points.
- Provide flexible training opportunities.
- Identify and grow the number of skilled instructors available.

Contact

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