1. What is the National Electric Vehicle Infrastructure (NEVI) Formula Program?

On November 15, 2021, the Bipartisan Infrastructure Law (BIL) was enacted to provide funding for Federal-aid highways, safety, transit and other purposes. The BIL established the National Electric Vehicle Infrastructure (NEVI) Formula Program that provides Pennsylvania more than $170 million over the next 5 years to support electric vehicle (EV) infrastructure. The program will be administered by the Pennsylvania Department of Transportation (PennDOT).

The NEVI Formula Program provides dedicated funding to Pennsylvania and other states to strategically deploy EV charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability. Initially, funding under this program is directed to designated Alternative Fuel Corridors (AFCs) for build-out of a national EV charging network, particularly along the Interstate Highway System to support long distance travel. When the national network reaches full build-out, funding may be used on any public road or in other publicly accessible locations.

2. Why is Pennsylvania creating a NEVI State Plan?

Each state is required by the Federal Highway Administration (FHWA) to submit a plan in accordance with the NEVI Formula Program by August 1, 2022. NEVI Formula Program funds cannot be obligated by a state until FHWA has approved the plan.

In addition, each state Department of Transportation is required to submit an updated NEVI State Plan each year to the Joint Office of Energy and Transportation on how the state plans to utilize the funds distributed under the NEVI formula Program.

The first plan covers federal fiscal years 2022 and 2023. The second round plan will cover federal fiscal year 2024.

3. Will funds typically used for roadway projects or maintenance be diverted to fund electric vehicle charging infrastructure?

No. The NEVI Formula Funds are specifically allocated federal funds from the Bipartisan Infrastructure Law dedicated to the deployment of a national network of EV charging infrastructure, including in Pennsylvania.
4. How will PennDOT ensure there are no concerns with electrical grid capacity with the installation of EV charging infrastructure?

PennDOT has and will continue to coordinate with Pennsylvania’s utility providers on the implementation of the NEVI State Plan and as project sites are proposed. Any charging station planned for development will require early coordination with the utility provider in the service area. The utility provider will perform a site analysis to estimate costs and options for power access.

The evaluation of electric grid infrastructure is a key step in planning for and implementing a charging station. In evaluating proposed locations for infrastructure, PennDOT will ensure that utility companies are brought in early to assess site feasibility and help determine if and what utility upgrades would be needed.

5. Where will EV charging infrastructure be installed?

According to the February 2022 NEVI Guidance, NEVI Formula Program funding must be used for EV charging infrastructure that is located only along designated AFCs until the FHWA certifies that the entire AFC network is “full build-out.” This means that all of Pennsylvania’s designated EV-“Ready” and EV-“Pending” corridors must have AFC-qualifying charging stations along them every 50-miles or less and within 1-mile of an exit or highway intersection.

From 2016-2021, a “Ready” designation was assigned to AFC corridors based on older requirements that have since been revised by USDOT. For example, originally, a qualifying charging station could be within 5-miles of an interstate or highway intersection. The updated requirements now indicate AFC-qualifying stations must be within 1 mile of the corridor and have at least four ports of 150 kW each. As such, many stations that previously qualified no longer do, and most “Ready” corridors now contain gaps of more than 50-miles between qualifying stations. In fact, of the approximately 2,000 miles roadway designated as EV AFCs from 2016-2021, all of them are located within a gap of greater than 50-miles between qualifying stations, except for a 20-mile segment along I-76 in Philadelphia—meaning that 99% of the existing AFC network in PA would now be considered “Pending” under the new criteria.

Since there are gaps of more than 50-miles between qualifying stations on both “Ready” and “Pending” AFCs, PennDOT is prioritizing filling gaps on both using the same approach, rather than prioritizing one designation type over the other.

As AFC gaps are filled, PennDOT may also identify priority exit locations for AFC redundancy, including disadvantaged communities (DACs), rural areas, key interchanges, and areas where there may be untapped demand due to a large percentage of people living in multi-family housing without home-charging access.

When the Pennsylvania reaches full build-out, funding may be used on any public road or in other publicly accessible locations.
6. What kind of EV charging infrastructure will be installed?

The NEVI program focuses on direct current fast charging (DCFC) stations that can charge an EV much faster than Level 1 (typically at household) and Level 2 (typically at work or public destinations) chargers. According to the NEVI Formula Program Guidance issued on February 10, 2022, a state’s EV AFC network must meet the following criteria before the FHWA will certify it has satisfied “full build-out”:

- EV charging infrastructure is installed every 50 miles along the AFC system and within 1 travel mile of an interstate exit or highway intersection along the AFC, unless a discretionary exception has been granted
- EV charging infrastructure includes at least four 150kW DCFCs with Combined Charging System (CCS) ports capable of simultaneously DC charging four EVs
- EV charging infrastructure has minimum station power capability at or above 600kW and supports at least 150kW per port simultaneously across four ports for charging

After “build-out” of the AFC network, PennDOT will have more flexibility to fund other charging infrastructure including Level 2 chargers at key publicly accessible locations and destinations including locations in disadvantaged communities.

7. How will EV charging infrastructure contribute to environmental benefits?

The 2021 Pennsylvania Climate Action plan identifies EV adoption as a key strategy to reduce transportation emissions which comprise 24% of Pennsylvania’s GHG emissions, the 2nd highest sector.

Burning gasoline and diesel in high-traffic intensity areas is a substantial source of air pollution. EVs have zero tailpipe emissions. EVs provide the Commonwealth and our nation with the opportunity to significantly cut our greenhouse gas emissions and work to combat the climate crisis. Climate change does not impact all communities equally, with poor and non-white communities hit hardest by its damaging effects.

In addition, EV’s significantly reduce air and noise pollution improving health outcomes for communities near roadways.

It also provides an opportunity to incorporate more renewable and sustainable energy sources.
8. How will PennDOT assist in ensuring there is a skilled workforce prepared to operate and maintain the EV charging infrastructure and vehicles?

The NEVI Formula Program provides funding to grow and diversify the local workforce that supports the installation, operation and maintenance of electric vehicle charging infrastructure. PennDOT is coordinating with Clean Cities, International Brotherhood of Electrical Workers (IBEW), and other stakeholders and educational agencies/institutions to better identify educational needs and opportunities related to electric vehicle infrastructure.

PennDOT must ensure that that NEVI funded charging infrastructure is installed, maintained and operated by a diverse workforce with appropriate licenses, certifications and training.

PennDOT will utilize the resources of our two local Clean Cities Coalitions, Eastern Pennsylvania Alliance for Clean Transportation (EP-ACT) and Pittsburgh Region Clean Cities (PRCC), to provide assistance, education and outreach for EV workforce development.

Concurrently, EP-ACT and PRCC will be working with the Department of Education on developing programs that can be shared with other community-based colleges and career development centers throughout Pennsylvania. There are over 80 trade and technical schools that would provide the building blocks of a new EV workforce.

Additionally, Clean Cities will assist in the development and provision of educational workshops in six regions of Pennsylvania that coincides with the Department of Education’s Career and Technical Education divisions: South Central; Central/North; Southwest; Southeast; Northeast and Northwest.

PennDOT has also been in coordination with organizations to evaluate the possible use of NEVI Formula Program funding to support training programs related to hybrid and electric vehicle maintenance and repair. The programs aim to educate automotive technicians across the state on the proper diagnosis of electric vehicle issues, safety, and how to confidently carry out informed conversations with customers on EV technology.

9. How will Pennsylvania collect road use fees for EV drivers?

At this time PennDOT is considering a wide variety of funding options for alternative fuels, not limited to EVs, to replace gas tax revenues. Considerations include equitable and accessible approaches that do not prohibit or inhibit the expansion of alternative fuel usage in Pennsylvania. You can learn more at www.penndot.pa.gov/funding.