Pennsylvania NEVI Community Charging Program

PennDOT plans to invest $80 million from the federal National Electric Vehicle Infrastructure (NEVI) program to support electric vehicle (EV) community charging projects across the Commonwealth. Everyone is encouraged to share their charging station priorities with Regional Planning Partners. Visit the **MPO/RPO Planning Resources webpage** of the PennDOT website to find your regional partners.

The information below offers guidance to support the development of EV charging infrastructure. Everyone can influence local EV charging infrastructure priorities and installations in the following ways:

- **Create a list of communities/locations and types of local charging needs to share with Regional Partners.**
- **Build local support for a community charging project by sharing information about the NEVI program and approaching local stakeholders.**

What Are the Benefits of Community Charging for Pennsylvania Communities?

Unlike traditional fueling, EV charging can occur at a range of speeds and locations. EV charging can be installed in homes, workplaces, parking lots, parks, and other community spaces. This flexibility enables communities to strategically expand access to EV charging in ways that supports residents, attracts visitors, and spurs local economic activity.

PROVIDE EV CHARGING ACCESS

Many multi-unit dwelling residents cannot charge at home, increasing the need for affordable and reliable public charging options.

EXPAND WORKFORCE OPPORTUNITIES

EV charging projects can create or sustain local jobs for electricians, laborers, electric utilities, and charging station technicians.

LEVERAGE ADDITIONAL INFRASTRUCTURE

Charging stations can be co-located with other infrastructure, such as overhead lighting to improve safety or charging for mobility or personal devices.

ENCOURAGE ECONOMIC DEVELOPMENT

Charging stations in central business districts and commercial/mixed-use areas encourage planned stops for travelers, increasing revenue and vitality in the vicinity of the charger.

Types of EV Charging

	Direct Current Fast Charging (DCFC)	Level 2 (L2) Charging
Charge Time	Fast: 15-60 minutes	Slow: 2-8 hours
Hardware and Installation Cost	More Expensive ($$$$)	Less Expensive ($$)
Specific Use Locations	Short Dwell Times: Convenience and grocery stores, shopping districts, downtown business districts	Long Dwell Times: Municipal lots, multi-unit housing lots, destinations, workplaces
Mixed-Use Locations	Entertainment venues, lodging, healthcare & educational facilities	

Supporting Community Charging Project Development

There is no "one-size fits all" approach to implementing community EV charging—needs differ in rural, suburban, and urban areas. Factors such as housing density, EV car ownership, and traffic patterns impact local EV charging needs. Not all EV charging installations need to be large or expensive. For example, a few level 2 chargers can increase range confidence for visitors and provide residents with affordable overnight charging.

How to Get Started: Understand the EV Charging Landscape in the Community

Communities interested in implementing EV charging stations should begin by understanding the demand and interest for EV charging in their community. Communities can begin by taking any combination of the following steps.

ASSESS COMMUNITY NEEDS & DEMAND

Identify potential users, key locations, and charging needs based on housing types, commuter patterns, large events and seasonal fluctuations in travel, and local businesses.

COORDINATE WITH UTILITIES

If EV charging projects require new electric utility connections, work with the local utility to understand available capacity and timelines.

GAUGE SITE READINESS

Assess potential charging locations for space availability, electrical capacity, safety, and accessibility.

IDENTIFY TRUSTED PARTNERS

Collaborate with experienced EV charging infrastructure manufacturers, charging networks, installers, and Clean Cities and Communities coalitions for project ideas and technical expertise.

ENGAGE STAKEHOLDERS EARLY

Involve local government, community organizations, local businesses, and residents to ensure the potential project aligns with community goals and needs.

ADDRESS ACCESSIBILITY

Ensure charging stations are accessible to all community members—including urban, rural, disabled, and multi-unit housing residents.

Next Steps: Best Practices for Community EV Charging Planning

Once communities have identified their specific EV charging needs, they should work to prepare for future PennDOT funding opportunities.

- **Engage community members.** Engage community members early to understand their mobility needs, concerns, and priorities before discussing specific EV charging project ideas. This empowers community members to ensure solutions support broader community goals.
- **Assemble an experienced project team.** Include experienced EV charging professionals and community stakeholders from a variety of backgrounds. Discuss EV charging needs of the community and complete the attached EV charging planning worksheet.
- **Develop a basic project scope.** Determine what is feasible for the community and the potential project site(s). Identify any problems or concerns. Project performance and success can be improved with early and thoughtful planning.
- **Co-locate and/or leverage EV charging projects to meet other community and transportation needs.** Community leaders can combine multiple projects together to create efficiencies in purchasing, project schedule, workforce, outreach, and land usage.
- **Plan for flexibility and future-proofing**. Plan carefully for both current and future charging needs to minimize costs of future upgrades. Using modular charging stations and laying extra electrical conduits are two examples of building with the future in mind.

Addressing EV Charging in Communities with Transportation Challenges

Many communities across Pennsylvania, especially those in areas of persistent poverty, rural or remote areas, and historically underserved neighborhoods, face barriers to accessing reliable transportation and infrastructure investments. The NEVI Community Charging Program offers an opportunity to intentionally address these disparities through targeted outreach, inclusive planning, and fair and balanced distribution of EV charging infrastructure.

Challenge Faced by Community	How Challenge Impacts EV Charging Infrastructure Location and Use	Strategies for EV Infrastructure to Support Communities Facing these Challenges
Economic Constraints	Many communities have a large number of residents living in households making under 200% of federal poverty income. This puts vehicle ownership financially out of reach for many, which reduces demand for local charging stations.	Affordable and convenient locations and leveraging additional uses for charging stations can support future adoption. Focus on locating stations where they are conducive for ride-share drivers and/or where they can bring customers to locally-owned businesses.
Lack of EV Awareness and Education	Many communities may have limited exposure to EVs, their benefits, and available incentives—reducing interest in EV adoption and use.	Quality community outreach, engagement, and training programs can support growing awareness. Community input can help align broader community interests with EV charging infrastructure solutions.
Utility and Energy Costs	High electricity rates, demand charges, and grid limitations can make operating public EV chargers financially unviable.	Work with utilities and regional Clean Cities and Communities. They can provide education about potential grid and power constraints.
Land Use and Space Constraints	Limited available land for new infrastructure, especially in dense urban areas, can make installing charging stations challenging.	Utilizing existing infrastructure or co-locating with other infrastructure projects can help create space for EV charging infrastructure.
Competing Priorities	Communities may prioritize more immediate needs such as affordable housing, job access, or public transit over EV infrastructure.	EV charging projects should be designed to support improvements in these areas. Ideally, EV charging infrastructure can be included as a value-add to existing projects.
Risk of Underutilization	Local businesses and municipalities may hesitate to invest in charging stations due to concerns over low usage.	Right sizing the initial project with the potential for future expansions is highly advantageous. Additionally, leveraging similar programs and goals can create projects where local charging demand is not the only driver of project success.
Historical Disinvestment and Distrust	Some communities may be skeptical of infrastructure projects due to experiences with inequitable development and neglect from policymakers.	Engage community members early and often to prioritize trust-building, transparency, and shared decision-making. Partner with trusted local organizations and design EV infrastructure that reflects community-identified needs and values.
Rural and Remote Infrastructure Constraints	Rural and remote EV charging projects may encounter supporting infrastructure constraints, such as limited electric grid capacity or internet service.	Engaging utilities and charging equipment providers early can develop innovative solutions for rural and remote areas.

Additional Resources:

Please visit the **PennDOT NEVI information webpage** or the **PennDOT EV Resources webpage** for more information. You can also contact the PennDOT's NEVI team at **ra-pdevcorridors@pa.gov**.

Planning Your Community Charging Project

Use this worksheet to guide you through some key considerations when planning for a community charging project.

Potential Project Planner

Project Location *(address, neighborhood, venue)*	**Projected Users** *(resident, commuter, customer)*	**Predicted Dwell Time** *(<1 hr, 2-6 hours, Overnight)*	**Potential Stakeholders** *(public, private, utilities, etc.)*

Site Amenities and Features

Use the following list to identify priority levels for various EV charging station amenities and features. Some sites may already have access to the high priority amenities or features, making them a better fit for a future project.

Give each listed item a score of 1 through 4, with 1 being the highest and 4 being the lowest priority amenities and features.

__Restrooms
__24-Hour Access
__On-site support staff
__Prepared food available
__Basic snacks/drinks vending
__Lighting
__Security cameras
__Emergency call system
__Fire extinguisher
__AED

__High foot traffic
__Overhead canopy
__Indoor space/shelter
__Climate-controlled space
__Public greenspace
__Shopping
__Free Wi-Fi
__Transit access
__Park and ride access
__Pull-through parking

__Located in/near underserved area or area of persistent poverty
__Supports multi-unit housing residents
__Supports rural or remote area
__On-site renewable energy generation

Are you Ready to Pursue an EV Charging Project?

Using your ideas from the above planner and the prioritized amenities marked above, consider these questions to determine whether you are ready for the next steps in pursuing an EV charging project.

__Does our community need EV charging access?
__Do we have community leaders that will be interested in EV charging?
__Do you have a site in mind that would best accommodate an EV charging project?

__Is this site welcoming and would users feel safe?
__Would the EV charging site be publicly or privately owned and/or operated?
__Is there already power access at the site?