



Be Part of the Solution

Working Together to Get Ready for Electric Vehicles

The majority of electric vehicle (EV) drivers plug in at home overnight, during off-peak hours. As the number of EVs increase, home charging will increase and businesses and public EV chargers will become more common. Electric utilities in the Northeast and Mid-Atlantic can prepare for this increase in electricity demand by understanding how EVs will affect their service territory, working with local stakeholders, and adopting EV-friendly policies.

Resources for Utilities

The Transportation and Climate Initiative (TCI), a collaboration of Northeast and Mid-Atlantic state transportation, environment, and energy agencies, has developed a suite of documents to help communities become EV-ready as part of its Northeast Electric Vehicle Network project. Utilities may wish to reference these documents when considering electric vehicle supply equipment (EVSE) policies in the Northeast and Mid-Atlantic. These resources include:

- ***EV-Ready Codes for the Built Environment.*** Provides an overview of building and electrical codes, how they relate to EVs, highlights best practices from around the country, and makes recommendations for Northeast and Mid-Atlantic jurisdictions.
- ***Siting and Design Guidelines for Electric Vehicle Supply Equipment.*** Identifies and diagrams key siting and design issues that are relevant to local governments, developers, homeowners, businesses, utility providers, and other organizations.
- ***Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools.*** Provides discussion and guidance regarding the process of creating, administering, and amending planning processes, rules, and regulations, and explores the potential for jurisdictions to adopt practices that encourage EVSE.
- ***Plug-In Electric Vehicle Deployment in the Northeast: A Market Overview and Literature Review.*** Assesses current EV and EVSE technology, looks at the state of EV markets, reviews the benefits of EV deployment, and identifies barriers and challenges to EVs in gaining market acceptance, including EVs' impact on the grid.

EV Issues for Utilities

Utilities will be affected by wide-scale adoption of EVs in a variety of ways. Issues that utilities and public service commissions should be aware of include:

- **Impact on local distribution network.** EVs will increase demand on the grid and local distribution networks. To prepare for this, utilities can survey their infrastructure and determine the potential effect that a large influx of EVs would have on their networks.
- **Tracking EV purchases of its customers.** As EVs become more popular, utilities may want to explore ways to track EV purchases in order to anticipate future EV charging station installations and the need for upgrades to electricity service and distribution systems.
- **Installation and metering requirements for charging stations.** Installing a Level 2 (240 volt) charging station may require an electrical upgrade or separate meter. Utilities can explore how they will facilitate charging station installation and electrical upgrades.
- **Resale of power by a third party.** Many states prohibit the resale of electricity by a third party, which can include charging station hosts. As EV charging stations become more widely available, public utility commissions may consider alternative policies to allow the resale of electricity specifically for EV charging.
- **Cost of electricity for EV owners.** EV owners will plug in their cars at different locations at different times, but the majority of charging will take place at home. Utilities can encourage off-peak charging by offering time of use rates to their EV customers.

Utilities as Stakeholders in the Northeast and Mid-Atlantic

The TCI is working with the region's Clean Cities Coalitions to promote EV readiness. The initiative includes extensive collaboration with utilities and other stakeholders to discuss how communities can become EV-ready, and supporting EV initiatives already underway.

Examples of state-based EV initiatives involving utilities include:

Maryland Electric Vehicle Infrastructure Council

The Maryland EVIC is developing strategies to deploy EVs and EV charging stations throughout Maryland. The EVIC works with state staff, the Baltimore Electric Vehicle Initiative, private companies, and utilities in the region, including Baltimore Gas and Electric.

Drive Electric Vermont

Drive Electric Vermont is a project of the Vermont Energy Investment Corporation, in partnership with the Rocky Mountain Institute, Vermont Agency of Natural Resources, Agency of Transportation, and the Vermont Department of Public Service. This partnership is engaging stakeholders from the private sector, regional and local planning organizations, and electric utilities to facilitate the adoption of EVs across Vermont.



Additional Resources

For information about how to get involved in community dialogues, contact your Clean Cities Coordinator:
www.cleancities.energy.gov

EV resources prepared by the Northeast Electric Vehicle Network can be found at: www.northeastEVs.org

The Northeast Electric Vehicle Network is a project of the Transportation and Climate Initiative—a regional collaboration of the energy, environment, and transportation agencies from Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Early planning efforts for the Network have been supported by a U.S. Department of Energy Planning Grant, which was awarded to TCI, and project partners NYSERDA, the Georgetown Climate Center, and 16 of the region's Clean Cities Coalitions.

