DRIVE ELECTRIC NH

Types of EV Chargers

There are three "levels" of charging stations depending on their power output:

- "Level 1 EVSE" means a 120 volt alternating current (AC) EVSE, a typical household 3-prong outlet. EV owners can charge at home overnight by plugging the vehicle into the garage outlet.
- "Level 2 EVSE" means a 208 – 240 volt alternating current (AC) EVSE using an SAE J1772 connector. EV owners can install a Level 2 charger at home to reduce charging time.
- "Level 3 EVSE" or "DC Fast Charger" means a direct current (DC) vehicle charger with high voltage (up to 480 volts) and amperage output using SAE DC Combo or CHAdeMO standard connector. Not all EVs are equipped to use this type of charger, which requires commercial installation.

EV Charger Suppliers

There are a variety of EV chargers commercially available and the price for a Level 2 unit starts at about $600. Charger selection should be based on a number of factors including expected number of users, preferred length of charging time, exposure to weather, physical location, available electric service, etc. Plug-In America maintains a list of level 1, 2 and 3 charger manufacturers with links to individual manufacturers.

EV Charger Design and Installation Guidelines

Electric vehicle charging introduces new equipment and a new set of activities into parking facilities. Safe and convenient operation of EVSE requires sufficient space. Designing EVSE sites also requires consideration of the parking facility design and the patterns of how it is being used. Adequate functioning of the parking area itself should not be compromised by poor EV charging station design.

The optimal location for EV charging stations will change according to the type of equipment in use. For example a 1 to 3-hour Level 2 charger may be a good match for a mall or municipal parking lot while a 30-minute DC Fast charger would be best suited to a highway rest area. Local building zoning ordinances may play a role in where public stations are located. EVSE must be installed in accordance with applicable codes as well. New Hampshire towns and cities follow versions of the National Electric and Building Codes for EVSE installation.

Several entities have free publications for on site design.

- The Northeast Electric Vehicle Network has a series of documents for site planning, signage, and general information aimed at assisting employers, utilities and local governments. Visit: www.transportationandclimate.org/northeast-electric-vehicle-network-documents
- The New York State Energy Research and Development Authority (NYSERDA) developed a "Site Design for Electric Vehicle Charging Station" guidebook that describes how to design an electric vehicle charging station depending on the intended use and parking facility where the station is located.
- The Chittenden County Regional Planning Commission also developed an "Electric Vehicle Charging Station Guidebook" that offers EVSE installation guidelines ranging from a list of manufacturers to standard EVSE signage design.

Regulations Supporting Electric Vehicle Charger Infrastructure

Policies and regulations that support the development of EVSE infrastructure are critical to the long term success of EVs. Therefore, cities and towns need to prepare for growing EV use. Every jurisdiction is different, yet there are key factors necessary in order to successfully support the development of EV infrastructure. Zoning ordinances and building and electrical codes generally allow for the development of EV infrastructure development but inexperience may hinder EV charger installation. For this reason, a local government may want to adopt or revise land use and building ordinances to support the development of EV infrastructure and make sure code enforcement officials are knowledgeable about EVSE requirements.

There are several planning guides offering generic language a local government may adopt into their land use and construction regulations.

- Transportation and Climate Initiative's "Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools" also offers language for zoning, parking, electrical and building codes a town or agency may add to their existing regulations.
- Chittenden County RPC has an "Electric Vehicle Charging Equipment Model Bylaw Language".

* See selected pages.

TRANSPORTATION & CLIMATE INITIATIVE
Of the Northeast and Mid-Atlantic States

Northeast Electric Vehicle Network Documents

The documents below provide information about electric vehicles to the public, government planners, businesses, and other stakeholders in the northeastern United States. These documents were produced by the Northeast Electric Vehicle Network - a project of the Transportation and Climate Initiative (TCI).

For more information about the documents below, please contact Kate Zyla with the Georgetown Climate Center at zyla@law.georgetown.edu.

To view a map of electric vehicle charging stations in the northeastern U.S., click here.

Information About Electric Vehicles

- Charging Ahead - Georgetown Climate Center Report on Policy Options for the Regulation of EV Charging Markets
- Brochure: Learn About Electric Vehicles and Their Use in the Northeastern United States*
- Electric Vehicle Information for Employers
- Electric Vehicle Information for Local Governments
- Electric Vehicle Information for Multi-Unit Housing Owners
- Electric Vehicle Information for Utilities

Planning, Guidance, and Analysis

- Assessment of Current Electric Vehicle Supply Equipment and EV Deployment
- Lessons from Early Deployments of Electric Vehicle Charging Stations
- Menu of Plug-In Electric Vehicle Incentives

- Electric Vehicle Supply Equipment Cluster Analysis
- Electric Vehicle Siting and Design Guidelines
- EV-Ready Codes for the Built Environment
- Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools
- Plug-In Electric Vehicle Deployment in the Northeast: A Market Overview and Literature Review

** View sources for the "Learn About Electric Vehicles and Their Use in the Northeastern United States" l*

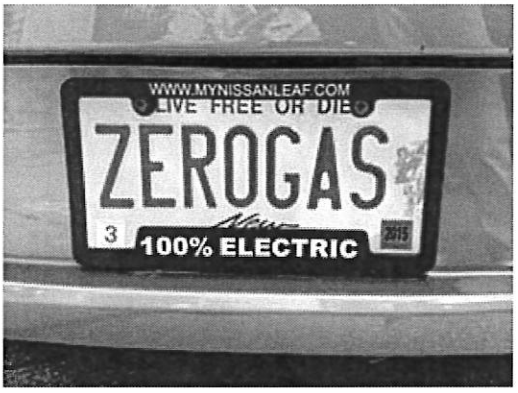
DRIVE ELECTRIC NH

Welcome to the Drive Electric NH home page! Electric vehicles save money on fuel, increase energy security, are quiet, have lower maintenance cost, and reduce emissions of air pollutants. And, they are fun to drive!

Choose from the options above to learn about the world of electric transportation.

NH Offer Charging Station Grants

- Pre-application
- Grant Guidelines



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