

EV Resources for Businesses and Local Governments

Electric vehicles (EVs) can enable New Jersey communities to improve their air quality, reduce their carbon emissions, and save on fuel and maintenance costs. Charged off-peak, electric vehicles can place downward pressure on electricity rates for *all* ratepayers.

The following resources can serve to help New Jersey businesses and local governments accelerate this crucial transition. Whether their goal is electrifying a vehicle fleet, installing charging stations in municipal parking lots or at a workplace, or streamlining the permitting process to make private charger installation faster and simpler, NJTPA hopes that local stakeholders will find this information of value. EVs are a rapidly-changing field, so check back for updated information, or feel free to suggest additional resources that may be useful.

These resources cover a broad cross-section of EV topics, and may seem daunting. They can be used simply as a reference. Or, they can be used in a more systematic approach, with each relating to the others:

- Start with the overview of EVs, to get familiar with the technology and some essential resources.
- Then look to see if the municipality or business can lead by example, by electrifying at least some of its vehicles.
- Review the references on EV charger (Electric Vehicle Supply Equipment, or EVSE) costs, installation, and maintenance.
- For municipalities:
 - Consider if the EV charger installation for the municipality's *own* fleet reveals any ways to make EV charger installation in general easier and more streamlined.
 - Ensure that first responders are trained to safely deal with any EV-related collisions.
 - Take actions to enable EV adoption by residents and businesses.

Overview of EVs



These resources provide the best starting point. They provide overviews of the benefits of EVs and of state and federal programs.

[Why go Plug-In?](#): This Plug In America web page describes the numerous benefits of EV adoption. These benefits include affordability, air quality, convenience, environmental stewardship on climate change, national security, and performance. Plug In America provide links to numerous studies backing up these benefits, and provides extensive additional information on EVs on its website.

[Alternative Fuel Vehicle Readiness – A Guidebook for Municipalities](#): This NJTPA resource from December 2017 covers a range of alternative fuel vehicle (AFV) technologies, including biofuels, hydrogen, and natural gas vehicles as well as electric vehicles. It draws on the experience of

Montclair, Secaucus, and Woodbridge in developing AFV readiness plans, as well as a literature review and stakeholder outreach.

[Electric Vehicle Resources for Local Governments](#): This fact sheet from the New Jersey Department of Environmental Protection is a very good starting point for any municipality. It outlines incentives, procurement options, and policy resources for local governments. Updated February 2021. The fact sheet references multiple NJ incentive programs and procurement option, as well as some policy tools.

[Electric Vehicle Resource Kit for Municipalities](#) from the Delaware Valley Regional Planning Commission is a comprehensive guide to accelerating EV adoption. It lists numerous resources, some of which are also found in this guide.

[Current Federal and State Incentives and Loan Programs](#): The U.S Department of Energy's Alternative Fuels Data Center updates this information regularly. Because it is regularly updated, it provides information that might be missing from PDF resources. The Alternative Fuels Data Center also provides [a map of NJ charging infrastructure](#).

Frequently Asked Questions: These FAQs will further support Transportation Management Associations in their work with local governments and employers. This document contains answers to questions asked by TMA representatives, and will be updated over time as additional questions are submitted.

Fleet Electrification



Figure 1: Columbus, OH EV Fleet. Source: Smart Columbus Operating System, <https://smart.columbus.gov/>.

One of the most important things that municipalities and businesses can do to accelerate EV adoption is to lead by example. Electric options exist for many of the light-duty vehicles in a typical fleet, and in some cases the medium- and heavy-duty vehicles. These resources provide more in-depth analysis of fleet electrification.

Businesses or local governments considering fleet electrification will need to determine:

- How many electric vehicles, and of which kinds, are suitable for the fleet;
- How and where the vehicles will be charged;
- What infrastructure investment this will require;
- And, how to procure the vehicles.

The following resources allow a step-by-step process:

1. First, identify which fleet vehicles are suitable for replacement with EVs by using the [Dashboard for Rapid Vehicle Electrification \(DRVE\) Tool](#). This new tool from the Electrification Coalition uses an Excel spreadsheet to assess how best to electrify a vehicle fleet. It considers vehicle types, ownership structures, charging patterns, and more. Updated April 2021.
2. Next, review [The Road to Fleet Electrification](#). This report from CERES focuses on fleets owned by businesses. Many of the same considerations will be applicable to municipal fleet electrification. The report discusses utility-related issues, technology interoperability, and more. Some of the recommendations are also applicable to municipalities in their capacity as

policymakers, such as expedited regulatory review processes for transportation electrification related upgrades. Updated May 2020. Bring any questions to utility representatives and obtain a quote for necessary service upgrades.

3. Then, move on to assessing options for fleet acquisition. For municipalities, read through the [Sustainable Jersey Alternative Fuel Vehicle Procurement Guide](#) to determine the most suitable form of procurement. This guide covers Fleet Vehicle Leasing; Purchasing Cooperatives and Government Contracts; Direct Purchase, and Service Contracting and Shared Services. Updated June 2020.
4. If the specific vehicles needed are not on the state procurement list, the [Climate Mayors Electric Vehicle Purchasing Collaborative](#) offers a broader selection. This group includes mayors of many New Jersey cities, and provides extensive information about municipal fleet electrification as well as cooperative purchasing. This site is also linked in the NJDEP overview guide. The Collaborative provides access to a number of medium- and heavy-duty trucks that are not on the state procurement schedule, as well as school buses. The Collaborative also provides access to fleet leasing services. And, it provides access to a number of charging station installation and service solutions.
5. For additional information, refer to [Resources for Fleet Managers](#) from the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy.

Installing EV Infrastructure



Local governments have a key role to play in accelerating EV adoption, not only in leading by example but in establishing policies allowing for expeditious installation of EV infrastructure while maintaining public safety. The New Jersey DEP is developing model ordinances for permitting and inspection of EV charging infrastructure. Such policies can allow for faster installation, reducing costs. The guidance will be posted here when it is developed..

Other relevant resources on EV charger installation include the following:

[Costs for EV Workplace Charging Stations](#): this Plug In America fact sheet draws on recent data to characterize costs of EV charger installations. The focus is on workplace charging, which may be relevant for local governments providing charging for their employees. Public chargers typically (but not always) entail slightly higher costs. Updated March 2021.

[Charging Infrastructure Operations and Maintenance](#): this page from the U.S. Department of Energy's Alternative Fuels Data Center provides general information on the actions needed to ensure proper operation of EV chargers as well as a cost estimate.

[CT Guidelines for the Installation of Electric Vehicle Charging Stations at State-Owned Facilities](#): although developed for a different state, and focusing on state-owned properties, this is still a very recent, thorough, and well-sourced document that can be of use to NJ municipalities in the interim while a NJ-specific handbook is developed. Updated March 2021.

[Preparing Our Communities For Electric Vehicles: Facilitating Deployment Of DC Fast Chargers](#): This paper by the Northeast Coordinated States for Air Use Management (NESCAUM), of which New Jersey is a member, does not delve deeply into administrative details but rather offers some general guidelines and best practices. Updated May 2019.

Training Resources for First Responders

In addition to ensuring safe installation of EV charging equipment, local governments have a vital interest in ensuring the safety of their first responders when EVs are involved in collisions. In 2017, the Board of Public Utilities collaborated with the National Fire Protection Association (NFPA) to put on a “train the trainer” session. Trainers from most county fire companies in New Jersey received the training.

The National Fire Protection Association’s (NFPA) [Alternative Fuel Vehicles Safety Training Program](#) offers training for first responders, as well as for those involved with fire investigation, crash reconstruction, or tow and salvage. They offer low-cost online training, as well as extensive free content. They also offer comprehensive full-day classroom instruction.

Increasing Public Adoption

Local governments can also accelerate EV adoption by implanting policies to support their residents in switching to electric vehicles. They can also support their local auto dealerships in selling EVs with recognition or EV ride-and-drive events. Businesses can also host EV ride-and-drive events, to highlight for their employees or their customers any charging options installed on their property.

[AchiEve Model Policy Toolkit](#): This document, developed by Plug In America, the Sierra Club, FORTH, and the Electrification Coalition, outlines steps that policymakers can take to accelerate EV adoption. It includes an extensive list of actions that local governments can take. Updated August 2020.

[Sustainable Jersey](#) notes a number of EV-supportive efforts that local governments can take. These include designating EV charging as a permitted accessory use (rather than requiring separate zoning approval); enacting an EV ordinance to include regulations and design standards for EVSE, EV parking spaces, and design guidelines for installation of EVSE; requiring local first responders to participate in online or in-person training and education programs related to PEVs and EVSE; sponsoring and hosting an EV awareness event; providing incentives to builders and developers for including pre-wiring for Electric Vehicle Supply Equipment (EVSE); and securing commitments from local partners to install workplace charging or multi-family residential charging.

[PlugStar](#): This program connects interested EV buyers with local dealers trained and certified through a Plug In America program. PlugStar dealers know not only the capabilities of their vehicles, but charging infrastructure, state incentives, and other relevant information.