

## Guidance for Creating Plug-In Electric Vehicle (PEV) Friendly Ordinances

The purpose of this Sustainable Jersey Guidance document is to assist municipalities in crafting Plug-in Electric Vehicle (PEV) ordinances that meet the objectives outlined in the Make Your Town EV Friendly Action. The ordinances must address both installation of Electric Vehicle Supply Equipment (EVSE, also known as EV charging stations) and parking regulations.

### **Definitions**

All technical terms used in the text of the zoning or land development ordinances must be included in the definitions section of the ordinance(s). The definition of each term can greatly impact how an ordinance is enforced; providing accurate definitions will ensure clarity in both the implementation and enforcement of the ordinance. See definitions in the sample ordinances listed in the Resources section.

### **Zoning Ordinance**

An important step that communities can take in promoting the use of plug-in electric vehicles is to clarify where Electric Vehicle Supply Equipment (EVSE or EV charging stations) are permitted. The **Make Your Town EV Friendly Action** requires that zoning ordinances be amended to include EV charging stations as a permitted accessory use in select or all zoning districts. Here are some things your municipality will want to consider when drafting the zoning amendments:

*Where should EV charging stations be permitted?*

The best way to promote the use of plug-in electric vehicles (PEV) is to permit charging stations throughout the community, i.e. in all zoning districts. Additional ordinances can then be adopted, if desired, to ensure the proper siting, lighting, design and safety of the EV charging stations. Regulations are typically not necessary for most residential areas, especially one and two family homes, though the community may want to adopt regulations for historic districts.

*What is the use of EV parking spaces?*

The following language is offered as a suggestion for limiting the use of EV parking spaces for charging purposes only:

*It shall be unlawful for any person to park or leave standing a vehicle in a stall or space designated for the recharging of plug-in electric vehicles (PEV) unless the vehicle is connected for electric charging purposes.*

## **EV Charging Stations and Parking Ordinance**

This ordinance will specify the criteria and design standards for which the EV charging stations and their associated parking spaces are permitted. The ordinance can be amended to the existing parking ordinance, or adopted as a stand-alone ordinance. In the case of the latter, the existing parking ordinance should be amended to include a cross-reference to the EV ordinance. Here are some suggested elements of the ordinance and things that the municipality will want to consider:

### ***Purpose***

The PEV ordinance should begin with a purpose statement that explains the benefits of plug-in electric vehicles for the community. Examples of the benefits are note below:

- Increased use of PEVs can help:
  - reduce air pollution, greenhouse gas emissions, and stormwater runoff contaminants
  - contribute to ‘placemaking’ efforts that attract early adopters
  - demonstrate that the municipality embraces sustainability
- Addressing PEVs can be part of the overall transportation planning

See the **Make Your Town EV Friendly Action** and the resources at the end of this guidance document to learn more about the benefits of PEVs and sample language for your purpose statement.

### ***Municipal Permits and Approvals***

Be sure to specify the municipal permits and approvals, if any, needed for the installation of PEV charging stations. Single-family and two-family homes typically require an electric permit. Further guidance for residential installations is available from the New Jersey Department of Consumer Affairs.

NJ DCA. Electric Vehicle Charging Stations: What You Need to Know  
[www.state.nj.us/dca/divisions/codes/publications/pdf\\_other/homeowners\\_guide\\_electric\\_vehicles\\_charging\\_stations.pdf](http://www.state.nj.us/dca/divisions/codes/publications/pdf_other/homeowners_guide_electric_vehicles_charging_stations.pdf)

### ***Minimum Number of EV Charging Stations***

The ordinance should include the minimum number of EV charging stations that are required for new developments, if any. For example, where EV charging stations are required in commercial and industrial districts, the requirements generally range from 2%-6% of the total number of parking spaces. However, it is almost a certainty that more may be needed in the near future as PEV adoption increases.

### ***Siting and Design Considerations***

The PEV ordinance should include requirements and general guidelines for the installation of EVSE for multi-family residential and non-residential development. These standards apply to EVSE installations intended for public use. Below are some issues to consider.

1. Signage should be required at the site of the EV charging station, and may also be located close to the site's ingress (near the road). The ordinance should stipulate the size, location and content of signage (e.g. the parking space is reserved for EV charging only). The ordinance may also require that signage include a phone number or other contact information for reporting purposes when the equipment is not functioning or other equipment problems are encountered.

Here are examples of language for EVSE sign regulations:

*Notice of reserved parking for recharging of electric vehicles shall be posted on a sign not greater than 17 inches by 22 inches in size with lettering not less than one inch in height that clearly and conspicuously states the following:*

*[Publicly owned station]: Unauthorized vehicles not connected for electric charging purposes may be towed away at owner's expense. Towed vehicles may be reclaimed at designated towing facility or by calling the municipal police department at \_\_\_\_\_.*

*OR*

*[Privately owned station]: Verbiage is at the discretion of the owner.*

2. Lighting should be required for EVSE available during all hours. The ordinance should reference the municipality's lighting ordinance.
3. Charging station design and safety measures. The ordinance may include required protection around the EV charging stations to avoid potential damage from vehicles, as well restrictions on the height and design of the stations. Here is sample ordinance language:

*Charging station outlets and connector devices shall be no less than 36 inches and no higher than 48 inches from the ground or pavement surface where mounted, and shall contain a retraction device and/or a place to hang permanent cords and connectors a sufficient and safe distance above the ground or pavement surface. Equipment mounted on pedestals, lighting posts, or other devices shall be designated and located so as not to impede pedestrian travel or create trip hazards on sidewalks.*

*Adequate charging station equipment protection such as concrete-filled steel bollards, shall be used. Non-mountable curbing may be used in lieu of bollards, if the charging station is setback a minimum of 24 inches from the face of the curb.*

### **Required number of PEV parking spaces**

The ordinance should specify if the parking spaces associated with EV charging stations are included in the parking calculations for the site's (re-)development, and if so, how many spaces are credited. Some municipalities will count a PEV parking space as two spaces under the parking requirement to incentivize its installation. In other words, if a development requires 25 parking spaces per the municipal parking ordinance, and one of the spaces is proposed to be an EV charging station, the number of total required spaces would be reduced to 24.

## **Parking enforcement**

Fines or other consequences for violations

- Public EV charging stations should be monitored by the municipality and enforced in the same manner as any other parking. The signage on the space should indicate the penalties for violations. (See model sign language above.)
- The use of private EV charging stations should be monitored by the property owner or designee.
- One way to discourage the abuse of parking in EV charging stations is to include a tiered fee for charging. After a PEV has been fully charged, EV charging meters can assess a higher fee for continued parking. These tiered EV charging station meters can be used at public stations as well. See the resources below for more information.

## **Sample EV parking ordinance**

Red Bank, NJ

<http://ecode360.com/14164108>

Chapter 680: Vehicles and Traffic

Article 1: Parking and Traffic

680-3 Parking. Section K. Reserved parking for electric charging vehicles.

## RESOURCES

Excerpt from: US Department of Energy Alternative Fuels Data Center. 2014. [A Guide to the Lessons Learned from the Clean Cities Community Electric Vehicle Readiness Projects](http://www.afdc.energy.gov/uploads/publication/guide_ev_projects.pdf) (pp 34-35).  
[www.afdc.energy.gov/uploads/publication/guide\\_ev\\_projects.pdf](http://www.afdc.energy.gov/uploads/publication/guide_ev_projects.pdf)

**Master plan language** – *Adopting local Master Plan language that identifies plug-in electric vehicles (PEVs) as part of the local transportation strategy is a foundational step for communities.*

*Master Plans are strategic documents developed by communities as a blueprint to guide long-term policymaking. Including language on PEVs provides a basis for the development of supportive zoning codes and other ordinances that foster the deployment of electric vehicle charging infrastructure.*

**Standard definitions in local codes** – *As localities consider updating codes to address and support charging station installation, it is valuable to establish and codify standard definitions for PEV terms, such as vehicle types and charging levels.*

*Clearly specifying which zoning districts permit charging station installation and at what power level can reduce confusion for property owners and public officials and foster deployment.*

*Zoning ordinances can specify criteria for charging station size, accessibility, maintenance, lighting, signage, and other site design elements in different zoning districts or in public places.*

*Zoning ordinances can also be amended to establish incentives or requirements for charging station installation.*

*Zoning codes can include charging stations in the calculation for minimum required parking spaces pursuant to established zoning ordinances or provide density bonuses for installation of charging stations. Zoning ordinances can also require that a percentage of parking spaces be outfitted with or prewired for charging stations in new multi-unit residential, commercial, industrial, or large parking lot construction.*

**Public parking regulation, enforcement, and signage** – *Local parking ordinances can specify the terms of use for public charging stations, standardize charging station signage, and specify how charging station rules will be enforced.*

*Parking policies must balance the desire to support PEV adoption with equity, practicality, and budget concerns.*

*Once the terms of use have been established, localities must also codify the means of enforcement, potentially including fines or towing for violators.*

## **General Background**

Delaware Valley Regional Planning Commission (DVRPC). Ready to Roll.

Volume 1: [www.dvrpc.org/reports/12055A.pdf](http://www.dvrpc.org/reports/12055A.pdf) - AND - Volume 2: [www.dvrpc.org/reports/12055B.pdf](http://www.dvrpc.org/reports/12055B.pdf)

Plug-in Ready Michigan: An Electric Vehicle Preparedness Plan.

[www.nextenergy.org/wp-content/uploads/2012/12/Plug-In-Ready-Michigan.pdf](http://www.nextenergy.org/wp-content/uploads/2012/12/Plug-In-Ready-Michigan.pdf)

Puget Sound Regional Council. Model Development Regulations and Guidance.

[www.psrc.org/assets/4329/PEVI\\_report\\_Sec2\\_Regulations\\_Guidance.pdf](http://www.psrc.org/assets/4329/PEVI_report_Sec2_Regulations_Guidance.pdf)

Ready, Set, Charge California: A Guide to EV-Ready Communities.

[www.rmi.org/Content/Files/Readysetcharge.pdf](http://www.rmi.org/Content/Files/Readysetcharge.pdf)

Transportation and Climate Initiative. Electric Vehicle Information for Local Governments.

[www.georgetownclimate.org/electric-vehicle-information-for-local-governments](http://www.georgetownclimate.org/electric-vehicle-information-for-local-governments)

Transportation and Climate Initiative. Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools.

[www.transportationandclimate.org/creating-EV-ready-towns-and-cities-guide-planning-and-policy-tools](http://www.transportationandclimate.org/creating-EV-ready-towns-and-cities-guide-planning-and-policy-tools)

US DOE. A Guide to the Lessons Learned from the Clean Cities Community Electric Vehicle Readiness Projects.

[www.afdc.energy.gov/uploads/publication/guide\\_EV\\_projects.pdf](http://www.afdc.energy.gov/uploads/publication/guide_EV_projects.pdf)

## **Ordinances**

Kane IL:

[www.countyofkane.org/Documents/Focus%20on%20the%20County/Kane%20Electric%20Car%20Ordinance%20Called%20National%20Model.pdf](http://www.countyofkane.org/Documents/Focus%20on%20the%20County/Kane%20Electric%20Car%20Ordinance%20Called%20National%20Model.pdf)

Kansas City, MO:

[www.municode.com/library/MO/Kansas\\_City/codes/code\\_of\\_ordinances?nodetid=ZODECOKAMI\\_300\\_SERIESUSRE\\_88-305ACUSST\\_88-305-10ELVECHST](http://www.municode.com/library/MO/Kansas_City/codes/code_of_ordinances?nodetid=ZODECOKAMI_300_SERIESUSRE_88-305ACUSST_88-305-10ELVECHST)

City of Methuen, MA: [www.cityofmethuen.net/sites/methuenma/files/file/file/electveh.pdf](http://www.cityofmethuen.net/sites/methuenma/files/file/file/electveh.pdf)

Zillah, WA: [www.codepublishing.com/WA/Zillah/html/zillah17/zillah1719.html#17.19](http://www.codepublishing.com/WA/Zillah/html/zillah17/zillah1719.html#17.19)

## **Parking Rules**

Philadelphia Parking regulation

[legislation.phila.gov/attachments/4385.pdf](http://legislation.phila.gov/attachments/4385.pdf)

Philadelphia EVSE parking space application

[philapark.org/wp-content/uploads/2014/03/EVPS-Application.pdf](http://philapark.org/wp-content/uploads/2014/03/EVPS-Application.pdf)

Plug-In NC. Parking Enforcement

[www.pluginnc.com/wp-content/uploads/2016/06/16-PEV\\_Planning\\_Toolbox\\_ParkingEnforcement.pdf](http://www.pluginnc.com/wp-content/uploads/2016/06/16-PEV_Planning_Toolbox_ParkingEnforcement.pdf)