

Action #3: Streamline Permitting and Inspection Processes

When individuals or businesses purchase PEVs and seek to install approved charging equipment to support their cars, they rely on their local government to serve them. Local governments should streamline their permitting and inspection procedures to ensure a positive experience for all. A streamlined process would be efficient, rapid, and consistent while ensuring safe installations and the least possible cost for property owners. Furthermore, streamlined processes reduce complexity for all participants: installers can clearly set expectations of PEV owners, procedures and requirements are obvious for electrical contractors, and city officials have well-defined, repeatable actions.

General considerations include:

Implement an efficient permit application process.

The process of installing charging equipment involves several steps, some of which add time and could potentially dampen consumer enthusiasm for PEVs. One such step is the permit application. Expedited solutions to move projects forward can save time and cost, alleviate PEV owner frustration, and bring goodwill toward the local government's efforts. Examples of expedited solutions include creating an online application in place of an initial office visit, or same-day "over-the-counter" approvals. Solutions will vary by community depending on resources and existing approaches for other permits. As an example of the various steps involved, a fact sheet describing the Los Angeles Department of Water and Power's (LADWP) installation process is referenced at the end of this chapter.

A key conclusion emphasized in the PEV Collaborative report, *Streamlining the Permitting and Inspection Process for Plug-in Electric Vehicle Home Charger Installations*, is the tradeoff between the permit application process and the inspection process. Some communities require a number of documents and references from residents and contractors when they are applying for a permit to install PEV infrastructure. This adds time up front and delays the installation, but may reduce the time for the inspection process after installation. On the other hand, clearly defined installation requirements enable electricians to be prepared and serve to streamline permitting procedures by avoiding unnecessary up-front paperwork and review, while ensuring inspectors have all the proper information necessary to approve the installation.

Minimize permit fees for charging equipment installation.

Permit fees will vary by jurisdiction, and may vary by project type and scope. Some communities are implementing a flat fee for charging station installations. Fixed, low fees can be implemented if the installation follows an approach that is consistent with or common to other community upgrades, or if the municipality wants to incentivize charging infrastructure. However, some communities need to recoup all costs including inspector and other staff time directly from each permit fee, a requirement which dictates higher rates. Communities could consider establishing preliminary rates with the intent to review them annually.

Secondary approach – use existing 240V permit.

Many communities are implementing a unique permit application for PEV charging equipment installations. However, some communities are using existing permits for 240-volt electrical service upgrades. Although this may not capture as much unique information, it allows a community to move forward without implementing new permit types (or until new types are implemented).

Reduce the number of on-site inspections.

In most cases, the installation of a charging station will only require one inspection. However, each time an additional inspection is required adds scheduling delays to the project. Where appropriate, consider requiring only a final inspection and avoiding project progress inspections. Additionally, establishing a common inspection checklist for charging station installations helps communities establish “common approaches,” and lets property owners know what to expect.

Additional Resources

Resource/Source	Chapter Name/Section or Page Number	Website
<i>Streamlining the Permitting and Inspection Process for Plug-in Electric Home Charger Installations</i> PEV Collaborative		www.pevcollaborative.org/sites/all/themes/pev/files/PEV_Permitting_InspectionReport.pdf
<i>Ready, Set, Charge, California</i> Bay Area Climate Collaborative	Installation streamlining for residential PEV chargers, 4 Checklist for building inspectors for residential charging station installations, 8.7 National Renewable Energy Laboratory charging station permitting template, 8.10	www.readysetcharge.org
<i>Charging Station Installation Handbook</i> Advanced Energy	Installation guidelines for inspectors, page 16 Inspection checklist, page 35	www.advancedenergy.org/transportation/evse/ChargingStation-InstallationHandbook.pdf

Additional Resources (continued)

Resource/Source	Chapter Name/Page Number	Website
City permit template U.S. Department of Energy Clean Cities		www.afdc.energy.gov/afdc/pdfs/EV_charging_template.pdf
Case studies of select large cities U.S. Department of Energy Clean Cities		www.afdc.energy.gov/afdc/vehicles/electric_deployment_case_studies.html
Installation of charging equipment video U.S. Department of Energy Clean Cities		www.cleancities.tv/FeaturedContent/Training/EVSEResidentialChargingInstallation.aspx

Region-Specific Resources

Resource/Source	Chapter Name/Page Number	Website
Los Angeles County template for permit and inspector Los Angeles Department of Water and Power	Rate options, online permit instructions and fees, incentives for residential EVSE, installation flow charts	https://www.ladwp.com/ladwp/faces/ladwp/commercial/c-gogreen/c-gg-driveelectric?_adf.ctrl-state=185f1baf3b4&_af-Loop=78152472646000&_af-WindowMode=0&_afWindowId=ala7jufih_1#%40%3F_af-WindowId%3Dala7jufih_1%26_af-Loop%3D78152472646000%26_afWindowMode%3D0%26_adf.ctrl-state%3Dala7jufih_37 https://www.permitla.org/
Electrical load calculations and wiring instructions – for property owners City of Riverside		www.riversideca.gov/utilities/pdf/2011/EV%20Charger%20Guidelines.pdf
<i>EV Permit and Charger Installation Guidelines</i> City of Riverside		www.riversideca.gov/building/pdf/handouts/EV-Charger-Guidelines.pdf

Region-Specific Resources (continued)

Resource/Source	Chapter Name/Page Number	Website
City of Beverly Hills		www.beverlyhills.org/services/building/electric_vehicles.asp#ChargingStation
City of Sacramento		www.cityofsacramento.org/dsd/customer-service/documents/CityofSac_ElectricVehiclePermitGuide-Packet_Oct_20_11.pdf
City of San Francisco		www.sfenvironment.org/downloads/library/home_evse_permit_summary_sheet_v12.pdf
City of San Diego		www.sandiego.gov/development-services/industry/pdf/infobulletin/ib187.pdf
City of Berkeley		www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3 - Energy and Sustainable_Development/PEV%20guide.pdf
Electric utility outreach material PG&E (an example)		www.pge.com/myhome/environment/pge/cleanair/electric-drivevehicles/pluginready/

**A few of the sample references listed above are reprinted
on the following pages**