Zoning, Permitting, and Inspection of Workplace Charging Stations

The installation of an EV charging station (referred to as electric vehicle supply equipment, or EVSE) at a workplace may require numerous approvals by local officials. Many jurisdictions have adopted processes to expedite EVSE installation while ensuring compliance with all appropriate codes, ordinances and regulations.

Zoning
Zoning specifies the regulations that apply to a particular parcel of land, and governs which sorts of activities are allowed. EV charging is typically classified as an “accessory use” to an existing facility, such as an office building or a parking lot. As such, installation of EVSE need not trigger a zoning review. Some municipalities have passed ordinances clarifying that this is the case. To avoid inconsistent interpretations at the local level, some installers have recommended that states pass legislation establishing that EV charging is an accessory use that does not require separate zoning approval.

Building and Electrical Codes
Codes specify requirements for constructing or modifying a building. Building codes can support EV deployment by specifying that a certain percentage of parking spaces must be pre-wired for EVSE installation. Electrical codes ensure that EVSE installation is done safely, and that the building’s electrical service can accommodate the load of the EVSE. Local authorities will ensure compliance with codes through the permitting and inspection process. For new workplaces, as commercial facilities, there are likely state, city or local building codes that may apply to how many EVSE will need to be installed.

Permitting
Securing building permits and electrical permits may constitute a time-consuming aspect of EVSE installation, especially if the local officials are unfamiliar with EVSE systems. The installer must present a diagram showing that the planned EVSE installation will be in accordance with the building code, the electrical code, the Americans with Disabilities Act, and other relevant regulations. Numerous documents are typically required at this stage of the process, such as a permit application, a site plan, electrical load calculations, and electrical plans.

Inspection
After an EVSE system in installed, an inspection is necessary to determine that the installation was in fact carried out in accordance with the permit and the code. As with permitting, this step can be expedited by increasing inspector familiarity with EVSE systems.

Innovative Solutions
A 2012 report by the Transportation and Climate Initiative noted,¹

“The easiest way to accommodate EVSE installations in existing permitting processes is to define EVSE as appliances, and thereby make it subject to the same permitting requirements. On the whole these installations are similar, even though EVSE’s lengthy, sustained electrical draw does not compare to other household appliances. Being categorized as an appliance allows EVSE installations to fall under “minor” electrical work, which is usually subject to the least burdensome permitting processes.”

This is the approach taken in Oregon, with the Minor Label Program. The Minor Label is an inexpensive form of permit valid statewide for certain types of improvements.

Another process to expedite EVSE installation is to convene a series of training workshops and networking sessions for electricians, inspectors, planning departments, departments of public works, and regional field technicians to share best practices on permitting and inspection of EV charging systems. This approach preserves local jurisdiction as well. For example, the Granite State Clean Cities Partnership has hosted a series of webinars for local officials in New Hampshire outlining best practices for streamlining the EVSE permitting process.

**Additional Resources**


- Center for Sustainable Energy, 2017, *Electric Vehicle Charging Station Toolkit Guide*, [https://sites.energycenter.org/valleytakescharge/resources/toolkit](https://sites.energycenter.org/valleytakescharge/resources/toolkit). These documents, required by CA bill AB 1236 to streamline the permitting process, include the following:
  - Checklist for Residential and Nonresidential Permit Application
  - Plan Review and Permit Correction Sheet for Residential and Nonresidential EVCS
  - Installation Checklist for Residential and Nonresidential EVCS

**About Plug In America**

Plug In America is the nation’s leading independent consumer voice for accelerating the use of plug-in electric vehicles in the United States to consumers, policymakers, auto manufacturers and others. Formed as a non-profit in 2008, Plug In America provides practical, objective information collected from our coalition of plug-in vehicle drivers, through public outreach and education, policy work and a range of technical advisory services. Our expertise represents the world’s deepest pool of experience of driving and living with plug-in vehicles. We drive electric. You can too.

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