



A Tradition of Stewardship
A Commitment to Service

County of Napa Guide to Expedited Permitting for Electrical Vehicle Supply Equipment (EVSE) for Residential and Commercial Buildings



Do you own an Electric Vehicle, or are you considering buying one? Depending on your charging needs, building permits may be required if work needs to be performed in your building to upgrade or replace your electrical panel, outlets, or to add a second meter. Please contact PG&E for possible additional requirements.

Definitions:

- A **Hybrid** is a vehicle that has an internal combustion engine as well as an electric motor and battery to increase gas mileage
- A **Plug-in Hybrid Electric Vehicle (PHEV)** is a hybrid with a larger battery pack that produces superior gas mileage and reduced emissions comparable to a hybrid, and has the capability to be plugged in to charge the battery for increased efficiency.
- An **Electric Vehicle (EV)** or **Battery Electric Vehicle (BEV)** is 100% electric and has zero tail pipe emissions with no internal combustion engine.
- A **Plug-in Electric Vehicle (PEV)** refers to all vehicles that have a battery on board that can be charged/plugged in to an electrical outlet, such as PHEVs, Extended-Range Electric Vehicles (EREVs), BEVs, and EVs.
- **Electric Vehicle Supply Equipment (EVSE)**, or charging station, is your connection to the grid or charge connector for your **Plug-in Electric Vehicle (PEV)**.

Is your building ready?

Depending on the charging requirements that your vehicle needs, your electrical panel may need to be upgraded or replaced to accommodate the Electrical Vehicle Supply Equipment (EVSE) recommend for your vehicle.

There are three levels of electric vehicle (EV) charging systems for residential and commercial installation:

Level 1 charging: (120 V AC, 15/20 A) This is the standard electrical outlet found in most buildings. This charging level can take 8-15 hours to fully charge a vehicle, depending on how drained the battery is.

Level 2 charging: (208/240V AC, 40 A) This level of charging can take 4-6 hours to fully charge a vehicle, depending on how drained the battery is.

Level 3 charging: (500 V DC) Charging at this level takes only an hour or 2 depending on how drained your battery is to fully charge your vehicle. *For commercial use only

To find where public and existing electric vehicle charging stations are currently located, view the map here: <http://www.recargo.com/search>

Electric Vehicle Supply Equipment (EVSE) Permit Guide Steps:

1. Research car & get the charging specifications from the manufacturer.
2. Verify that the car will fit completely on your property while charging. Must be clear of sidewalk/curb.
3. Have your electrical system assessed by a licensed electrician for capacity and to determine if upgrades are needed. *For safety reasons, it may be required to have a dedicated circuit for EVSE.*
4. Contact PG&E to apply for service and for help on charging levels & rate options. Call 1-877-743-7782.*
5. Contact the County of Napa to inquire about needs of preliminary inspections, call 707-253-4417.
6. Apply for permits with the County of Napa. An electrical permit is required for all EVSE.
7. Obtain a final inspection from the County of Napa once permitted work is complete, call 707-253-4417.

* If steps 1-4 are completed and verified, permit can be issued on same day as applied for

Permitting Requirements for Electric Vehicle Supply Equipment

An electrical permit is required for all EVSE when electrical work is needed to install the equipment. When attached to the side of a building, the charging system must be at least 3' from the property line. Approval of EVSE location does not change the required off-street parking space(s).

Permit Application Submittal Requirements: Applicants must submit three (3) sets of legible plans (11"x17"), drawn to scale, or at least fully dimensioned, with the following information:

- Coversheet with project address, owner name, address, phone, and a brief description of project, EV Charging Station Worksheet;
- Site plan with property lines, garage or parking space dimensions, & clearances of proposed charging system location including location of additional meter, if applicable;
- Size (height, width, and depth) of charging system, with a single line electrical plan;
- Type of charging system: Level 1/Level 2, with approved product listing agency (i.e., UL) number;
- Manufacturer's specifications, installation guidelines, and, if applicable (See 625.29 C, D, E), ventilation requirements;
- Existing panel rating, amperage, available spaces, load calculations for all systems, wire sizes to EVSE, breaker size, grounding and bonding.
- If installing E-9B meter, meter must be labeled as "PEV Charging only" and submit a PG&E Authorization form with application.

Application Submittal: Please bring in to the PBES office, 1195 Third St.

Permit Fees: For Residential Level 1 - \$111.34 not including any additional permits required to upgrade the existing system. For current permitting fees for all other levels please contact PBES, 707-253-4417.

Inspection: Call 707-253-4416 or go online: <http://www.countyofnapa.org/Inspection/>

Resources & Incentives:

- **PG&E Information:** www.pge.com/electricvehicles
- **PG&E Bill & Meter Rate Calculator:** www.pge.com/pevcalculator
- **Tax Incentives:** www.fueleconomy.gov/feg/taxcenter.shtml

For more information, see: www.countyofnapa.org/PBES/ or call 707-253-4416