



City of Hickory Hills

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City of Hickory Hills Guide to Electrical Vehicle Charging Station Permits

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 home to upgrade or replace your electrical panel or add receptacles.

Definitions:

- A **Hybrid** is a vehicle that has an internal combustion engine as well as an electric motor and battery to increase gas mileage and decrease tail pipe emissions.
- 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** 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 plug-in hybrid electric vehicles, extended-range electric vehicles, battery electric vehicles and electric vehicles.
- **Electric Vehicle Charging Station (EVCS)** equipment designed to safely supply power from a facility or structure to Plug-in EVs. EV Charging Stations include hard-wired EV Charging Stations and EV Charging Stations that plug in to standard wall outlets and may also integrate communication, metering, GPS and other features that assist EV drivers and the host facility.
- **Electric Vehicle Charging Infrastructure (EVCI)** "make ready" electrical equipment including panels with circuit breakers, switchboards, transformers, conduit, wiring, junction boxes, conduit hangers and other interconnections necessary and integral to delivery electrical power from a facility for charging electric vehicles.
- **Electric Vehicle Energy Management System (EVEMS)** technologies that enable the sharing power between EV chargers or EV charging circuits, including panel sharing and circuit sharing. EVEMS can be integral to the EVSE or can be managed at the panel or the facility level.
- **Electric Vehicle Supply Equipment (EVSE)** equipment designed to safely supply power from a facility or structure to Plug-in EVs. EVSEs include hard-wired EV Charging Stations, EV Charging Stations that plug in to standard wall outlets and portable EV chargers. EVSEs may also integrate communication, metering, GPS, two-way electricity flow management, and other features that assist EV drivers and the host facility.



Is my home ready?

Depending on the charging requirements that your vehicle needs, your home electrical panel may need to be upgraded or replaced to accommodate the electric vehicle charging station recommended for your vehicle.

There are two levels of electric vehicle charging stations for single family residence (one- and two- family dwellings) installations:

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

Level 2 charging: (240 VAC, 40A or larger), many newer homes use this type of outlet for a clothes dryer. This level of charging can take 4-6 hours to fully charge a vehicle, depending on how drained the battery is.

Direct Current Fast Charging (DCFC Level 3): Devices that provide DC power to battery electric vehicles (BEV) at various amperage levels and voltage levels, most commonly 480 VAC, with power outputs ranging between 25 and 175 kW of power. DCFCs convert Alternating Current (AC) from facility power and output Direct Current (DC) and Volts Direct Current (BDC), which then delivers DC power to the BEV through a standard connector. DCFCs are sometimes referred to as Level 3 EV Chargers.

To find where public and existing electric vehicle charging stations are currently located, view the map here:

<https://www.comed.com/SmartEnergy/InnovationTechnology/Pages/FindAPublicCharger.aspx>

Or the U.S. Department of Energy Alternative Fuels & Advance Vehicles Data Center:

https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC

To learn about ComEd rates, rebates and incentives for plug-in electric vehicle owners visit:

<https://www.comed.com/SmartEnergy/InnovationTechnology/Pages/ElectricVehicles.aspx>

or send an email to EVSmart@ComEd.com

Do I need a building permit?

Depending on the current configuration of your home electrical service, and if a new electrical panel, sub-meter or outlet are needed to accommodate your vehicles charging needs, a building permit may be required. If your home already has the appropriate receptacle (either 120VAC or 240VAC) a building permit is not required.

A building permit is required for all new installations and modifications of electrical panels, meters and electrical outlets. Before a permit can be issued, an electrical plan review, and sometimes a mechanical plan review (depending if a manufacturer's installation guidelines require mechanical ventilation), must be approved. Permits may be obtained over-the-counter or online at <https://hickoryhillsil.org/2023/09/electric-vehicles/> for electric vehicle charging station installations.

Permit Fees

The City of Hickory Hills charges a flat fee for the residential electrical charging station permit. The flat rate is \$60. If a service upgrade is needed, additional fees will apply. If you have any questions, feel free to contact feel free to contact the Building Dept. at (708) 237-4140 8:30 am to 4:30 pm, Monday through Friday.



Steps to getting an electric vehicle charging station permit:

<p>Sign up for a new ComEd rate and system design</p>	<p>Once you decide to purchase an electric vehicle</p> <ol style="list-style-type: none"> 1. Confirm with your auto dealership what charging equipment your vehicle needs (Level 1, Level 2, or DCFC charging) and the installation requirements. 2. Have a qualified electrical contractor do an electricity panel capacity and load check. This information will need to be submitted to the city to obtain a building permit. *Please check with ComEd for any additional requirements. 3. To learn about ComEd rates, rebates and incentives for plug-in electric vehicle owners visit: https://www.comed.com/SmartEnergy/InnovationTechnology/Pages/ElectricVehicles.aspx or send an email to FVSmart@ComEd.com
<p>Submit for City Building Permit</p>	<p>Obtaining a building permit- City Review</p> <ol style="list-style-type: none"> 4. If the scope of work requires a building permit, submit a complete building application, electrical plans, and mechanical plans if needed, for all new charging equipment to be installed. Please email your application and plans to hhbld1@hickoryhillsil.org. You may also turn it in at the Building Department. 5. Obtain a city issued permit and complete installation work. 6. Schedule and complete a building inspection.
<p>Interconnection & Preferred Rates</p>	<p>Once you have finished the building permit.</p> <ol style="list-style-type: none"> 7. If needed, contact ComEd for electrical service upgrades and to discuss rate options. 8. Plug-in your vehicle and charge.