

Seattle Permits

Installation of Electric Vehicle (EV) Charger for Commercial Properties

May 9, 2017

This Tip is designed to help guide you through the process of establishing an electrical vehicle charging infrastructure in commercial properties. It provides general information on what you need to know about the type of equipment required to support an electrical vehicle, and how to apply for a permit to install the vehicle charging station.

Electric Vehicle

An electric vehicle uses one or more electric motors for propulsion and runs on a rechargeable battery. Electric vehicles can have a positive impact on the environment because they release almost no air pollutants and they have less noise pollution than regular motor vehicles. There are a variety of makes and models for electric vehicles currently available on the market. The level of charging required for individual battery modules vary widely depending on the manufacturer of the vehicle. All charging equipment installed in the city of Seattle must be listed by a nationally recognized testing laboratory. Currently, there are several manufacturers producing listed vehicle charging stations.

Car companies and utilities are working together to develop communication capabilities between the cars and the power utility grid that will further reduce the chance of overloading the electrical service and feeder equipment.

Things to Consider

You will need to evaluate the electrical service on your property before purchasing an electrical vehicle charging station. We recommend using a state licensed and bonded electrical contractor.

Before you install an electric vehicle charging station in your parking garage, you must determine that your service or feeder panel has adequate capacity. You may just need to install a new breaker in the sub-panel feeding the garage, and route a raceway to the location of the charging station. However, if you intend to install multiple charging stations, the service or feeder may not be adequate for the additional electrical load required and it may be necessary to replace existing, or add new, electrical equipment.

Adding the equipment needed to supply power to the charging stations will require floor space with adequate working clearances for electrical safety. The new subpanels will need to be located in an area that will meet the minimum requirements for working space.

Another factor to consider is where you intend to locate the charging station(s) in relation to the location of the electrical equipment that will serve the load. Installing charging stations may be a simple task, or it may be complicated and expensive depending on the location of the equipment.

You need to be careful when routing raceways to feed the charging stations in an existing garage. You may need to penetrate firewalls or secure raceways to the existing structure. Another thing to consider is how to do your work without blocking traffic in your existing parking garage.

Relocating utilities may also increase the cost of your project.



When to schedule an inspection

The type and number of inspections required vary according to the type of work being performed and the permit issued. For example, your electrical permit may require a cover inspection. Generally speaking, an inspection should be conducted before any hole (filled with concrete or dirt), wall, or ceiling is covered. Your project does not need to be 100 percent complete to receive an inspection. You may call for an inspection on the portion that is complete and then schedule another inspection when the rest of your work is finished. Contact your district inspector if you aren't sure when you need an inspection. You can find a district map, listing district inspectors, on our electrical inspections webpage at www.seattle.gov/sdci/inspections/electrical-inspections.

Day of Inspection

The property owner or their representative (employee, contractor, etc.) must be present at the inspection. SDCI's staff will not enter an occupied property without a representative present. The exception is we can inspect vacant properties without a responsible party present. You may request either a morning or afternoon inspection and our staff will attempt to accommodate your request. However, due to work volumes and workload balancing, this may not be possible.

Inspectors are available by phone between 7:00 a.m. and 8:00 a.m. You can find inspector's telephone numbers, and the area they inspect, on our website at www.seattle.gov/sdci/inspections/electrical-inspections. Select the Electrical Inspection District Map on the right side on the web page.

Call (206) 684-8950 to find out who your inspector is. You can also find which inspector is assigned to your project by researching your Permit and Complaint Status Report on the Seattle Services Portal at <https://cosaccela.seattle.gov/Portal/welcome.aspx>. Your inspector will be identified under the "Inspections" tab of the report after 8:00 a.m. on the day of your inspection.

The flowcharts on page four of this Tip will help you understand the permitting and inspection process.

Seattle City Light

You will need to contact Seattle City Light (SCL) if your electrician determines that your electrical service is not adequate. You must contact SCL before starting your project.

You will be required to complete an electrical service application package and submit it to SCL if the proposed service upgrade exceeds 200 amps or is greater than 120/240 volts.

After reviewing your request, SCL will provide you with information such as the cost for the service connection, instructions on the appropriate location for your new or upgraded service point, the cost for connecting your new or upgraded service, and the steps to follow to make this all happen. Please contact SCL to speak with an electric service representative at:

North of Denny Way (206) 615-0600

South of Denny Way (206) 386-4200

Additional information regarding the process for a new or upgraded electric service can also be found at www.seattle.gov/light/electricservice.

The following basic steps are generally required for upgrading or installing a new service:

1. Contact an electric service representative (ESR) for your location.
2. Complete and submit an electrical service application package.
3. Purchase a Permit from SDCI.
4. Install a new electrical service.
5. Schedule an inspection with an SDCI electrical inspector.
6. Notify your ESR once installation is complete and has been approved by your SDCI electrical inspector. Then make sure all SCL connection fees are paid.

Other Important information

We recommend contacting SCL prior to beginning any work because codes and processes may change.

You must submit plans for review by the SCL engineering group due to the complexity of electrical services over 200 amperes, and underground electrical services. Please allow additional time for the review and for crew work.

Seattle City Light charges a fee for new service connections and electric service upgrades. The fee is based on size of the service and the complexity of the installation. Large services and underground services are the most costly.

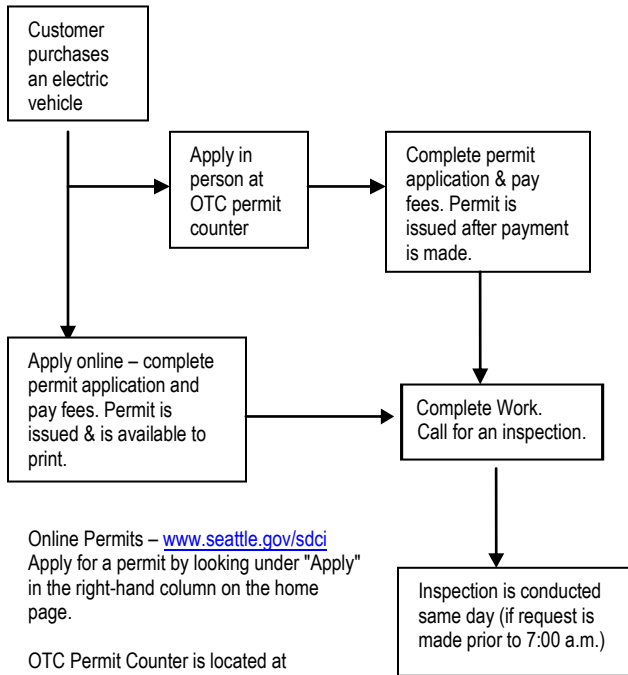
All new or upgraded services must be inspected by both a SDCI Electrical Inspector and a SCL ESR. Please be sure you contact your ESR once the SDCI electrical inspector has provided you with a final approval for your service installation.

Contact SCL for information regarding your new service or service upgrade, including cost estimates and estimates of time frames for work. Their phone number is (206) 615-0600. You can find additional information, including a copy of the electric service application, on the SCL website at www.seattle.gov/light/electricservice.

Access to Information

Links to electronic versions of SDCI **Tips, Director's Rules**, and the **Seattle Municipal Code** are available at www.seattle.gov/sdci. Paper copies of these documents are available from our Public Resource Center, located on the 20th floor of Seattle Municipal Tower at 700 Fifth Ave. in downtown Seattle, (206) 684-8467.

Over-the-Counter (OTC) Permit Process (no plan review) for Level II Charger (40 amps)



Online Permits – www.seattle.gov/sdcj
 Apply for a permit by looking under "Apply" in the right-hand column on the home page.

OTC Permit Counter is located at 700 5th Ave, Suite 2000, Seattle

Request an Inspection online – at www.seattle.gov/sdcj
 Request an inspection online by clicking on "Schedule an Inspection" in the Apply section on the home page.

Request an Inspection via 24-hr Inspection Request Line – call (206) 684-8900

Plan Review Level III Charger and Sub Panel 400 Amps or Larger

