

Determine Where EVSE Should Be Installed

As you decide where your EV supply equipment (EVSE) should be located, you will want to:

- [Determine preferred charging station locations & layouts](#)
- [Assess power capacity](#)
- [Employ best practices](#)

Determine preferred charging station locations & layouts

- Identify preferred parking and EVSE installation locations in relation to an existing electrical panel, utility meter, or cabinet with transformer.
 - Keep in mind that back-in parking may affect access to the charging equipment.
 - Decide if the EVSE be mounted on a wall, pedestal, or other configuration.
- Determine the proximity of charging stations to the electrical power service. Placing the charging equipment near an existing power supply will reduce cost, power loss, and time for installation. This is not always feasible and is highly dependent on the site.
- Analyze duty cycles to determine the charging needs of the fleet.
- For networked charging, ensure the location has adequate cell connection or Wi-Fi. This is typically only an issue in a parking garage or remote rural area. You may need to add a cell repeater to resolve this issue.
- Identify operating issues, costs, fees, and department policies and chargebacks (for a shared facility) that may make a potential charging location ideal, mediocre, or unacceptable.

Assess power capacity

Complete a site walk-through and an electrical survey for each planned charging location and the entire facility to identify electrical service and upgrades required to support charging infrastructure.

- Walk the site and facilities with a commercial electrician or other electrical professional.
- Investigate selected electric panels, meters, or utility access points to determine electrical load available for charging station use.
- Complete a load calculation for each panel and EVSE location. The electrical professional will work out the final load calculation and determine if unused or excess capacity is available for charging.
- Adjust the location of EVSE charging stations to be closer to the best electrical panel locations.
- Determine capacity required to add dedicated circuits for the planned EVSE.
- If a facility has insufficient power, consider using managed charging and load management software to maximize load from the panel.

Employ best practices

- Ask the property owner to identify electrical panels on the property and current electrical loads.
- Consider revenue models such as sharing charging stations with employees when they are not in use for the fleet or offering them for daytime public charging.
- Familiarize yourself with planned new construction on site. Consider integrating EVSE work with new construction or electrical projects already planned.
- Consider future proofing: add battery storage capacity, solar, or battery back-up for resiliency.

