

## Technical Requirements

*Projects that include procurement of EVSE and/or electric vehicles must adhere to the following guidelines and may require review on a case-by-case basis.*

### **Electric Vehicle Requirements**

- Battery Electric or Plug-in Hybrid Vehicles capable of charging from the grid includes new or used vehicles
- Capable of charging with standard EVSE
- Electric bikes
- Light duty vehicles including cars, vans, and trucks
- Medium and heavy-duty vehicles including school buses, transit buses, box trucks

## Electric Vehicle Supply Equipment (EVSE) Requirements - Level 2

- Level 2 EVSE must be selected from the Pacific Power [Qualified Products List](#)
- Open ADR
- Must offer a hardwired option
  - Installation must adhere to Pacific Power safety guidelines at [pacificpower.net/ESR](http://pacificpower.net/ESR)
  - Meet standards for National Electrical Manufacturers Association [NEMA] Type 3R or 4 for outdoor installations; minimum rating of NEMA Type 2 for indoor installations
- Conform to Open Charge Point Protocol (OCPP) v1.6 or later compliant
- RFID, NFC payment hardware offered
  - Payment methods must be accessible to persons with disabilities, not require a membership, not affect the power flow to vehicles, and provide access for those that are limited English proficient.
- EMV Credit Card Chip (CARB Attachment A Rule)
- Ethernet or Wifi capabilities
  - Smart charger with a network management system (NMS)
- Be listed by a nationally recognized test lab to the requirements of UL 2202
- Have an enclosure suitable for the installation location (minimum rating of NEMA Type 3R or 4 for outdoor installations; minimum rating of NEMA Type 2 for indoor installations)

## Electric Vehicle Supply Equipment (EVSE) Requirements - DC Fast Charging

- Provide one CHAdeMO and one SAE Combo compliant connection if chargers will be available to the public
- Open ADR
- Conform to Open Charge Point Protocol (OCPP) v1.6 or later compliant
- Provide a charging rate of at least 50 kW
- Installation must adhere to Pacific Power safety guidelines at [pacificpower.net/ESR](http://pacificpower.net/ESR)
- RFID, NFC payment hardware offered
  - Payment methods must be accessible to persons with disabilities, not require a membership, not affect the power flow to vehicles, and provide access for those that are limited English proficient.
- EMV Credit Card Chip (CARB Attachment A Rule)
- Ethernet or Wifi capabilities
  - Smart charger with a network management system (NMS)
- Be listed by a nationally recognized test lab to the requirements of UL 2251 and UL 2594
- Support installation requirements of National Electric Code article 625

## **Electric Vehicle Supply Equipment (EVSE) Requirements for all Level 2 and DC Fast Chargers**

### **Charger Uptime and Reliability**

EVSE is still an emerging technology, applicants are encouraged to seek out suppliers who offer warranties, provide 24/7 phone support to drivers, and have established programs to perform field repairs. Project plans should incorporate regular site inspection and a budget for ongoing operation and maintenance costs as well as relevant network fees.

### **Minimum Uptime**

Program participants must ensure that charging ports have a minimum uptime of 97%.

### **Multilingual and ADA Accessibility**

All electric vehicle supply equipment must provide means for conducting a charging session in at least one language other than English. The electric vehicle service provider shall consider the demographics of the area in which the unit will be installed, and the language(s) most commonly spoken in that location, when determining the alternative language(s) provided. At a minimum, electric vehicle service providers shall consult data published from the American Community Survey (ACS).