

Appendix C WSDOT Requirements for Highway EVSE

Washington State is offering grants through a new Electric Vehicle Infrastructure Pilot Program (EVIPP) for deploying electric vehicle quick-charging stations at key locations along highway corridors to support long-distance electric vehicle travel. Consumers who are considering the purchase of an electric vehicle (EV) need assurances that charging stations are located where the services are most needed. They expect charging stations to be safe, convenient, reliable, easily identified, simple to use, and any fees collected for the service fairly priced. Finally, consumers expect consistency in their EV charging experience from station to station, regardless of governmental jurisdiction.

Requirements for Electric Vehicle Infrastructure Pilot Program grants are as follows:

1. Charging Station Host Sites

All host sites, whether public or privately owned, must comply with all laws, federal, state, and local electrical and building codes for construction and must be fully licensed to use the equipment in a public accessible venue.

2. Charging Station Locations

Host sites must be located within three miles of the Highway, preferably within a half mile of a Highway interchange. Host sites must be easily accessible via a route that can safely and conveniently accommodate electric vehicles of the types, sizes and weights that would be traveling to the facility, entering and leaving the facility, and returning to the Highway.

Ideal grant projects will have multiple charging locations spaced about 40 miles apart along a corridor to enable regional travel between major cities or destination points. Preferred projects will include a string of chargers to complete a corridor, not just one location in one community.

Grant applicants may propose projects for developing new sites, upgrading existing CHAdeMO sites to add SAE CCS equipment, or co-locating with other charging services.

3. EV Charging Station Accessibility and Availability

All charging station components must be operational and publicly accessible 24 hours per day, every day of the year. Stations should not be located in locations with limited access or availability such as behind a fence or in a gated parking lot closed to the public after hours. The host sites must have paved parking spaces available to render electric charging services. These spaces must be adequately lit, and in a location safe from traffic circulation and ingress/egress points.

4. Charging Equipment Offerings

The charging stations must utilize technology that is compatible with most currently available electric vehicles. Host sites should ideally have 480V 3-phase power available with a transformer that has adequate capacity to provide power to the DC Quick Charger(s).

The equipment must be networked and include at least one 50kW CHAdeMO fast charger, one 50kW SAE Combined Charging System (CCS) fast charger (OR a dual 50kW unit with both CHAdeMO and SAE CCS), and one J1772-compliant EVSE Level 2 pedestal. Charging locations should also be future-proofed to be ready to install 150kW and faster charging equipment. The operator must have remote diagnostics and the ability to “remote start” the equipment.

The equipment must be industrial strength and able to withstand weather conditions including rain, snow, and mist. Any screens must be protected from malfunctions due to condensation and should be sturdy to withstand vandalism.

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Grant recipients that are eligible to purchase through the State Department of Enterprise Services (DES) Master Contract may purchase Electric Vehicle Supply Equipment through Contract #4016 <https://fortress.wa.gov/ga/apps/ContractSearch/ContractSummary.aspx?c=04016> The state's contract includes a menu of options for equipment, installation, maintenance and operations.

5. Operations and Maintenance

The grant recipient must ensure payment of all operating costs, including but not limited to payment of leases, rents, royalties, licenses, fees, taxes, revenue sharing, utilities, and electric power supply for the charging equipment and supporting elements, such as area lighting.

The grant recipient is responsible for the maintaining the charging station pedestals, ancillary equipment, and any awnings, canopies, shelters and information display kiosks or signage associated with the charging station. "Maintain," as used in this agreement shall mean "to provide all needed repairs or desired and approved alteration, as well as to clean the equipment and keep it safe, clean, and presentable."

The grant recipient must respond to any issues such as but not limited to malfunctions, repairs, or vandalism within two (2) business days of the initial notice. For complex issues including but not limited to power outages, the equipment should be repaired in 2-5 days. If the equipment is out of commission for more than two weeks or if the equipment is not operating at least 95% of the time, the operator may forfeit any right to use West Coast Electric Highway branding.

6. Payment Options

The charging equipment must support multiple point-of-sale methods, such as pay per use methods. Subject to equipment and software availability, the grant recipient must ensure that the charging station is equipped to accept a credit and/or debit card without incurring any additional fees or delays versus other payment or access control methods. Grant recipients may offer additional payment mechanisms, such as Radio frequency identification (RFID) cards that are linked to a credit card or payment through mobile apps. It is intended that when roaming is available, the point-of-sale and supporting network will use a protocol to allow subscribers of other EV charging system networks to access the charging station. The charging stations must clearly inform drivers of the prices per unit of measure and applicable charging voltages.

7. Customer Service

Grant recipients must ensure customer support service that is accessible twenty-four hours a day, seven days a week (24/7) via a toll-free telephone number clearly posted near the charging equipment that is available to EV drivers accessing the charging equipment. The customer support service must be capable of providing or dispatching services to address customer concerns at the charging station. The service provider must have remote diagnostics and the ability to "remote start" the equipment. When someone calls the toll free number due to an issue, that person should prompt immediate assistance.

8. Highway and On-Site Signage

The grant recipient must coordinate with the Washington State Department of Transportation “WSDOT” to have directional signage produced and installed along the Highway. The symbol signs, D9-11b (alternate), must meet MUTCD standards and be placed along the roadways at the exit approaches and on the off-ramps. The grant recipient shall coordinate with cities and counties on follow-through signage on local roads leading to the charging location. See www.westcoastgreenhighway.com/evsigns.htm for sign specifications.



Alternate Electric Vehicle Charging Symbol sign (D9-11b Alternate)

A host site must comply with the policies, procedures and project-related rules concerning signage of the state in which the host site is located, including but not limited to signage and advertising that touches or concerns the electric vehicle charging station, nearby interpretive signage, directional signage, use of logos, advertising, etc.

9. Marketing, Media Relations, and Public Outreach

The grant recipient is encouraged to use the West Coast Electric Highway logo and branding in accordance with the style guide online at www.westcoastgreenhighway.com/evsigns.htm. The grant recipient shall have flexibility in the sizes, quantities and application of the Marks. Co-branding is acceptable.

10. Optional Preferred Practices

Although not mandatory to qualify for a grant through the Electric Vehicle Infrastructure Pilot Program (EVIPP), grant recipients should attempt to incorporate these desired practices when possible:

- Site stations as close as possible to a Highway exit, preferably within a half mile of a Highway interchange.
- Site stations where restrooms are available to the public at all times of operation. Restrooms must be modern, sanitary and have drinking water. The restrooms and drinking water should be available at no charge or obligation.
- Host sites that offer products and ancillary services to the public while charging are preferred. Consumer options may include amenities such as vending, snacks, fast food and/or full service restaurants within safe walking distance of the charging station; traveler information (tourist, hotels, maps); reading/entertainment in waiting area; and retail shopping.
- Site stations where host sites are open for operations at least 17 consecutive hours (e.g., 6 a.m. to 11 p.m.), each day of the week and where staff is on duty and could render assistance to disabled persons if necessary.
- Site stations where a combination of two or more businesses are located in close proximity to each other and easily accessible on foot from each other’s parking lots via pedestrian walkways compliant with the ADA and that do not require crossing a public highway.
- Provide a location offering shelter from inclement weather for drivers to wait while their electric vehicle is charging.
- In mountainous areas where it snows, radiant heating should be used in concrete pads to melt the snow surrounding the equipment.