

Amendment #1 – State of Maryland, Request for Proposals #: LA-05-22

The following modifications are hereby made a part of the State of Maryland R.F.P. LA-05-22:

- 1. The specifications for the electric vehicle charging stations referenced in section 3.1.1 of the RFP document are attached to this amendment. All electric vehicle charging stations are required to adhere to the attached specifications which will also be made a part of the Lease.**

Information may be found on eMMA by clicking on the link below:

https://emma.maryland.gov/page.aspx/en/bpm/process_manage_extranet/42556

EV Charging Station Specifications for Leases

I. Equipment Requirements

A. Charging Station Requirements by Type

1. Charging stations must be Level-2 OR Level-3.
2. Charging stations must meet the relevant criteria based on charging station type:
 - a. Level-2 Charging Port shall provide a minimum of 7.2KW Power.
 - b. Level-3 (DC Fast Charging) Single Unit shall provide a minimum of 50KW Power.
3. Level-2 chargers must be ENERGY STAR certified, using the most recent version of the ENERGY STAR certification system in effect at the time of purchase.
4. Level-3 chargers are strongly encouraged to be ENERGY STAR certified, using the most recent version of the ENERGY STAR certification system in effect at the time of purchase.

B. Other Requirements

1. Electric Vehicle Supply Equipment (EVSE) shall be certified by a nationally recognized testing laboratory (NRTL) and UL listed and labeled as required by codes.

Visit the Occupational Safety & Health Administration website (<https://www.osha.gov/nationally-recognized-testing-laboratory-program>) for a list of NRTLs.
2. EVSE shall be factory assembled; no field assembly required.
3. EVSE enclosures shall be made of non-corrosive materials, NEMA 3R rated protection.
4. EVSE mounting type may be Wall, Pedestal, or Pole mount and may be

indoor or outdoor. For both indoor and outdoor locations, NEMA 3R protection shall be a minimum requirement.

5. LED Lights: High visibility multi color, for indication of EVSE status with minimum 5 LEDs.

6. LCD Messaging Screen, backlit, with 4 lines-16 characters per line to communicate charging instructions to EV drivers.

7. Charging ports shall comply with SAE J1772 regulation for EV and plug-in hybrid vehicles and CHAdeMo and CCS Type 1 in DC fast charging; it will also be able to charge any new EV.

8. Standard Cable Management: Standard cable management is a looped 20'-25' cable on a stainless-steel rack. When the charging session is complete, the EV driver returns the plug to the head unit and manually loops the cable on the rack.

a. Optional Cable Management System: When Charging Session is complete, the EV driver returns the plug to the head unit and the cable automatically retracts to an organized loop.

9. RFID compatible – Smart Card Authentication: For open or restricted access control, for billing and payment for EV drivers.

10. Charging access shall also be accessible through an additional method such as smart phone or tablet app, QR code scan and credit card entry, or credit card payment by phone.

11 . Energy measurement metering system-revenue grade included, with 1-5% accuracy at 15-minute interval.

12. Safety Features: overcurrent, overvoltage, undervoltage, ground fault including DC residual current protection, integrated surge protection (6KV at 3000A).

13. Operating Temperature: ambient range from (- 22-degrees F to +122-degrees F).

14. Operating relative Humidity: Maximum 95 % Non-condensing.

15. Must be EMC Compliant: FCC Part 1 Class A.

16. Networking: Wide Area Network – 5G / 4G LTE. Network

Communication Protocol – TCP/IP. Network Security: HTTPS, 128-bit AES

Encryption. Smart Card Reader – ISO 15693.

17. Provide the Tenant with web-based station management software, capable of configuring EVSEs for access policies and pricing, generating operational reports, including transaction, energy usage, total sessions and drivers, cost, revenue, and sustainability reports.

18. Non-Account Based Access Methods for First Time Users (Charging Stations listed on Network for Public Charging): There must be a method for first time EV users to start and pay for charging using one or more of the following methods: credit cards, smartphone app, website, etc. as applicable and as directed by the Procuring Agency's policy.

APPROVED EQUIPMENT MANUFACTURERS

1. Level 2 EVSE must be certified by EPA ENERGY STAR. Approved products list can be accessed at:

<https://www.energystar.gov/productfinder/product/certified-evse/>.

2. Approved Manufacturers include, but are not limited to:

- a. ChargePoint (USA);
- b. BTC Power (USA);
- c. SemaConnect Inc. (USA)

II. CONSTRUCTION & INSTALLATION REQUIREMENTS

1. Pedestal mounted / Pole mounted EVSE shall be mounted on concrete pads, with wiring entering through the concrete pad underground.
2. The Landlord shall ensure the installation meets ADA requirements.
3. Installation of EVSE shall be weatherproof, and watertight as required per site conditions.
4. The Landlord shall provide all electrical work necessary to power EVSE, along with wiring from source power panel up to EVSE, using all required materials like conduits, cable/wires, junction box/pull box, transformer, accessories etc. as required by the project, safely and in accordance with all applicable local and state/federal codes, standards, and industry accepted best practices.
5. If the Charging Station Power is to be provided by new electric service, the Landlord shall be responsible for all procedures to get new utility service up to the final power connection. Coordinate with the Utility Company and Tenant Agency to get new service. All service connection charges to be paid to the utility company shall be paid by the Tenant Agency. All other expenses including supply of labor and materials shall be paid by the Landlord.

6. All Charging Stations shall have dedicated power circuits from the power source. No other load shall be connected on these circuits. If the Power source Panelboard is not on site, away from the Charging Station, provide a fuse disconnect switch/enclosed circuit breaker per dedicated circuit as required.
7. Wiring in conduits shall be underground for all outdoor EVSE locations per the National Electrical Code (NEC). Wall mount wiring shall be for wall mounted EVSEs as per applicable codes, and the NEC. Provide weather treated wooden board (3/4" thick) as base for wall mounting, size as required.
8. The Landlord shall make all trench/digging work for all underground wiring as required. After completion, the Landlord shall refill all trenches safely, and in accordance with all applicable codes, standards, and industry accepted best practices.
9. It shall be the Landlord's responsibility to verify the location of all existing utilities.
10. Protection bollards (concrete filled) shall be provided in front of EVSE for protection from vehicles.
11. The Landlord shall provide all signage systems for EVSEs as required by the Procuring Agency and as per applicable codes.
12. The Landlord shall configure the EVSEs per Tenant Agency/using agency requirements.
13. The Landlord shall perform testing and monitoring of EVSEs for full operational performance with the manufacturer's trained engineer/technician as part of commissioning.
14. The Landlord shall clean EVSEs promptly after installation in accordance with manufacturer's instructions.

IV. Signage and Pavement Markings

1. Landlord shall stencil each EVSE-designated parking space for a total of (1) space per charging port as per the following, unless otherwise specified:

- a. Stencil a green colored 42-inch square box at the center of the entrance of the parking space with EV graphic (See example below.)
- b. Stencil "ELECTRIC" in 6-8-inch tall white letters at the top of the box.
- c. Below "ELECTRIC", stencil "VEHICLE" in 6-8 inch tall white letters.
- d. Below "VEHICLE", stencil "CHARGING" in 6-8-inch tall white letters.



Pavement marking and signage examples

2. The Landlord shall provide signage for each EVSE-designated parking space for a total of (1) space per charging port.
3. A sign designating an EV charging space shall:
 - a. Be at least 18” inches high and 12” inches wide.
 - b. Be clearly visible to the vehicle driver entering the Plug-in EV charging space.
 - c. Meet all applicable State and federal requirements for parking signs as applicable.
4. For **reserved fleet parking**, enhanced signage shall be required to identify spaces reserved for authorized vehicles only.



Enhanced signage example

V. ADDITIONAL REQUIREMENTS

Network

- Networked charging stations must use one of the following networks:
 - Greenlots SKY
 - ChargePoint
 - Sema Connect

Data Access

- Must provide access to data portal so that DGS and tenant Agency users may view charging station real-time availability and status, usage (including energy usage, number and length of charging sessions, number of unique drivers), and costs.

RFID Cards

- Must provide a minimum of 5 RFID cards per charging station for state fleet vehicles to use to initiate charging at the charging stations. RFID card account set up shall be completed by the tenants.

Availability

- Chargers must offer a reliable way for State fleet vehicles to charge. Chargers must be online and functional for a minimum of 95% of the time (95% uptime required).

Maintenance & Repairs

- The Landlord must respond to any work orders or reported issues with charging stations within 48 hours and work to resolve them expeditiously.
- The Landlord must ensure any available software updates are applied when the manufacturer releases new software.
- The Landlord shall keep the EVSE clean by cleaning it regularly.
- The Landlord will display a contact phone number on the charging station for driver support and maintenance requests.