

# Admin Minnesota

## Office of State Procurement

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## CONTRACT RELEASE: E-108(5)

**DATE:** SEPTEMBER 10, 2024

**PRODUCT/SERVICE:** ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE)

**This Contract Release is for equipment only and does not include installation, software license agreements, or subscription fees**

**CONTRACT PERIOD:** JULY 1, 2021, THROUGH JUNE 30, 2025

**EXTENSION OPTIONS:** 12 MONTHS

**ACQUISITION MANAGEMENT SPECIALIST/BUYER (AMS):** ERIN MCCORMACK

**PHONE:** 651.201.3168

**E-MAIL:** [erin.mccormack@state.mn.us](mailto:erin.mccormack@state.mn.us)

**WEB SITE:** <http://www.mn.gov/admin/osp/>

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<u>CONTRACT VENDOR</u>	<u>CONTRACT NO.</u>	<u>TERMS</u>	<u>DELIVERY</u>
CD, LLC dba CARBON DAY AUTOMOTIVE 763 Bunker Court River Woods, IL 60015	195941	1% in 10, NET 30	SEE PRICE SCHEDULE

**VENDOR NO:** 0000377709

**CONTACT:** Robert Spatz

**PHONE:** 518.505.0508

**EMAIL:** [bobs@carbodayevcharging.com](mailto:bobs@carbodayevcharging.com)

**PRICING LINKS ARE LISTED ON ATTACHMENT A OF THIS CONTRACT RELEASE**

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<u>CONTRACT VENDOR</u>	<u>CONTRACT NO.</u>	<u>TERMS</u>	<u>DELIVERY</u>
BROADBAND TELCOM POWER, INC.	LAPSED		

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**CONTRACT VENDOR****CONTRACT NO.****TERMS****DELIVERY****CLIPPERCREEK****LAPSED****CONTRACT VENDOR****CONTRACT NO.****TERMS****DELIVERY****EVGATEWAY**5251 California Ave, STE 150  
Irvine, CA 92617**195928****NET 30****30 DAYS ARO****VENDOR NO: 0001071332****CONTACT:** Divina Anzures**PHONE:** 949.238.7500**EMAIL:** [Divina@evgateway.com](mailto:Divina@evgateway.com)**PRICING LINKS ARE LISTED ON ATTACHMENT A OF THIS CONTRACT RELEASE****CONTRACT VENDOR****CONTRACT NO.****TERMS****DELIVERY****EVSE, LLC**89 Phoenix Ave  
Enfield, CT 06082**195956****NET 30****30 DAYS ARO****VENDOR NO: 0000835287****CONTACT:** Sean Grady**PHONE:** 860.741.0706**EMAIL:** [sgrady@controlmod.com](mailto:sgrady@controlmod.com)**PRICING LINKS ARE LISTED ON ATTACHMENT A OF THIS CONTRACT RELEASE****CONTRACT VENDOR****CONTRACT NO.****TERMS****DELIVERY****LILYPAD EV, LLC**9801 W 100<sup>th</sup> Terrace  
Overland Park, KS 66212**213552****NET 30****14-21 DAYS ARO****VENDOR NO: 0001069211****CONTACT:** Keith Anderson**PHONE:** 913.269.2453**EMAIL:** [keith.anderson@lilypadev.com](mailto:keith.anderson@lilypadev.com)**PRICING LINKS ARE LISTED ON ATTACHMENT A OF THIS CONTRACT RELEASE**

<u>CONTRACT VENDOR</u>	<u>CONTRACT NO.</u>	<u>TERMS</u>	<u>DELIVERY</u>
MINNESOTA PETROLEUM SERVICE, INC. 682 39 <sup>th</sup> Ave NE Columbia Heights, MN 55421	196154	NET 30	4 WEEKS

**VENDOR NO:** 0000205762

**CONTACT:** Shane Spaeth  
**PHONE:** 612.221.0108  
**EMAIL:** [Sspaeth@mnpetro.com](mailto:Sspaeth@mnpetro.com)

**PRICING LINKS ARE LISTED ON ATTACHMENT A OF THIS CONTRACT RELEASE**

<u>CONTRACT VENDOR</u>	<u>CONTRACT NO.</u>	<u>TERMS</u>	<u>DELIVERY</u>
NATIONAL CAR CHARGING LLC 209 Kalamath St #3 Denver, CO 80223	195963	NET 30	VARIES BY MANUFACTURER

**VENDOR NO:** 0000916427

**CONTACT:** Jim Burness  
**PHONE:** 303.437.4947  
**EMAIL:** [jburness@nationalcarcharging.com](mailto:jburness@nationalcarcharging.com)

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<u>CONTRACT VENDOR</u>	<u>CONTRACT NO.</u>	<u>TERMS</u>	<u>DELIVERY</u>
VERDEK LLC 755 Main Street Bldg 2 Ste B Madison, CT 06864	195964	NET 30	VARIES BY MANUFACTURER

**VENDOR NO:** 0000916263

**CONTACT:** Guy Mannino  
**PHONE:** 203.421.6477  
**EMAIL:** [Gmannino@verdek.com](mailto:Gmannino@verdek.com)

**PRICING LINKS ARE LISTED ON ATTACHMENT A OF THIS CONTRACT RELEASE**

<u>CONTRACT VENDOR</u>	<u>CONTRACT NO.</u>	<u>TERMS</u>	<u>DELIVERY</u>
WERNER ELECTRIC SUPPLY CO.	LAPSED		

<u>CONTRACT VENDOR</u>	<u>CONTRACT NO.</u>	<u>TERMS</u>	<u>DELIVERY</u>
ZEF ENERGY 323 North Washington Ave Suite 200 Minneapolis, MN 55401	195960	NET 30	4-8 WEEKS

**VENDOR NO:** 0000953296

**CONTACT:** Will Barrett  
**PHONE:** 916.907.9715  
**EMAIL:** [will.barrett@zefenergy.com](mailto:will.barrett@zefenergy.com)

## PRICING LINKS ARE LISTED ON ATTACHMENT A OF THIS CONTRACT RELEASE

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**CONTRACT USERS.** This Contract is available to the following entities as indicated by the checked boxes below:

- ☒ State agencies
- ☒ Cooperative Purchasing Venture (CPV) members

**STATE AGENCY CONTRACT USE.** State agencies should make every effort to use the Contract Vendor(s) listed. However, this Contract does not prohibit State agencies from using their delegated local purchasing authority to procure similar products and services from other vendors.

**STATE AGENCY ORDERING INSTRUCTIONS.** Orders are to be placed directly with the Contract Vendor. State agencies should use a Contract release order (CRO) or a blanket purchase order (BPC). The person ordering should include his or her name and phone number. Orders may be submitted via fax.

**CONTRACT FEEDBACK.** If these commodities or service can be better structured to help you with your business needs, let us know. We solicit your comments and suggestions to improve all of our contracts so that they may better serve your business needs. If you have a need for which no contract currently exists, or you would like to be able to use an existing state contract that is not available to your entity, whether a state agency or CPV, please contact us. If you have specific comments or suggestions about an individual contract you can submit those via the [Contract Feedback Form](#).

## SPECIAL TERMS AND CONDITIONS

**SCOPE.** The purpose of the Contract is to provide a source for Electric Vehicle Supply Equipment (EVSE), which may be purchased by State Agencies and Cooperative Purchasing Venture (CPV) members on an as-needed basis. Equipment is limited to Level 1, Level 2 (non-networked, networked, and networked with Point-of-Sale system), and Direct Current Fast Chargers. Products offered by each contractor are included in the links listed on Attachment A, below. Full equipment specifications are listed in Attachment B, below.

The Customer should research and review equipment installation, operation, and maintenance requirements carefully prior to purchase. **This Contract Release is for equipment only and does not include installation, software license agreements, or subscription fees.** Any software license agreement or subscription fee must be negotiated separately between the Contract Vendor and Customer. Installation services, software and/or software licensing, smart communications, usage payment capabilities, service billing and/or invoicing features, siting, permitting, metering, monitoring, operating, securing, and maintaining is **not included**.

**PRICES.** Prices are firm through the initial period of the contract. After that period, prices may increase once a year. Price increases are not effective until they are approved by the AMS. **NOTE:** At no time should the ordering entity pay more than the Contract price. Agencies must contact the AMS immediately and fill out a [Vendor Performance Report](#) if there is a discrepancy between the price on the invoice and the Contract price.

**VERIFYING THE CONTRACT PRICES.** The following information explains the method(s) for calculating and/or confirming the contract prices.

The Contract(s) was executed with FIXED PRICING. The pricing offered must match or be lower than that detailed herein.

Only accept contract vendor quotes that provide itemized contract pricing (lump sum price quotes must be rejected and reworked by the Contract Vendor to show itemized State contract pricing).

Prior to accepting an order and/or issuing payment on an invoice, inspect the goods and/or deliverables to ensure they match both the terms and pricing of the contract.

Contact the AMS/Buyer detailed herein to report any pricing discrepancies or for assistance in confirming/calculating contract pricing.

**SHIPPING REQUIREMENTS.** All shipments are to be FOB Destination, Prepaid and Allowed. The Contract Vendor pays the freight charges. Freight charges are included in the cost of the equipment. No additional freight charges may be added to the invoice.

**DELIVERY REQUIREMENTS.** The Contract Vendor must notify the receiving agency at least 72 hours before delivery to allow for receiving, inspection and compliance evaluation. No delivery can be made on State holidays, Saturday, or Sunday or after 4:00 PM on weekdays without prior approval by the agency to which the equipment is being delivered. The Contract Vendor must confirm delivery locations and requirements with the Customer. Prior to delivery, the Contract Vendor is responsible for confirming with the Customer that the delivery location will accommodate unloading the equipment.

**UNSPSC CODE.** 39121700

## **REVISIONS.**

<b>2024.09.10</b>	Contract 195960 amended to updated price schedule.
<b>2024.08.06</b>	Contract 195960 extended at the same terms and conditions. Price schedule updated.
<b>2024.08.01</b>	Contract 195963 extended at the same terms and conditions. Price schedule updated.
<b>2024.07.01</b>	Contracts 195928, 195941, 195956, 195964, 196154, and 213552 extended at the same terms and conditions. Price schedules updated. Contract 195964 extended at same prices, terms, and conditions.
<b>2023.11.06</b>	Contract No. 195960 for Zef Energy amendment to update price schedule.
<b>2023.10.24</b>	Contract No. 195964 for Verdek amended to update and correct price schedule.
<b>2023.10.10</b>	Contract No. 195928 for EvGateway extended through 6/30/2024 at same terms and conditions. Price Schedule updated.
<b>2023.08.16</b>	Contract No. 195964 for Verdek amended to update and correct price schedule.
<b>2023.08.08</b>	Contract No. 195960 for ZEF Energy Inc. extended through 6/30/2024 at same terms and conditions. Price Schedule updated.
<b>2023.07.27</b>	Contract No. 195941 for Carbon Day Automotive extended through 6/30/2024 at same terms and conditions. Price Schedule updated.
<b>2023.07.01</b>	Contracts 195956, 195963, 195964, 196154, 213552 extended for 12 months at same terms and conditions. Price schedules also updated.
<b>2023.07.01</b>	Contract No. 196971 for Broadband Telcom Power extended 12 months at the same prices, terms, and conditions.
<b>2022.12.07</b>	Contract No. 213552 for LilyPad EV LLC extended 12 months at same terms and conditions. Price Schedule updated.
<b>2022.09.27</b>	Contract No. 195960 for vendor Zef Energy extended for 12 months at same terms and conditions. Price Schedule updated.
<b>2022.09.16</b>	Assignment of Contract No. 196152 (LilyPad EV LLC) to Contract No. 213552 (LilyPad EV LLC).
<b>2022.08.04</b>	Contract No. 195956 for vendor EVSE LLC executed.
<b>2022.07.21</b>	Contract No. 195928 for EvGateway extended 12 months at same terms and conditions. Price Schedule updated.
<b>2022.07.06</b>	Contract No. 196971 for Broadband Telcom Power extended 12 months at same prices, terms and conditions.
<b>2022.07.01</b>	Contract No. 196154 for Minnesota Petroleum Service extended 12 months at same terms and conditions. Price Schedule updated.
<b>2022.04.05</b>	Contact information for ZEF Energy updated.
<b>2021.10.14</b>	Contract No. 196154 for vendor Minnesota Petroleum Service, Inc. executed.
<b>2021.09.10</b>	Contract No. 196152 for vendor LilyPad EVSE executed.
<b>2021.09.07</b>	Contract No. 195941 for vendor Carbon Day Automotive executed.

**Attachment A: Product and Price Lists**

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR CARBON DAY AUTOMOTIVE:**

[https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085carboday\\_a3\\_ps.pdf](https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085carboday_a3_ps.pdf)

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR EVGATEWAY:**

[https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085evgateway\\_exhibitd\\_a3.pdf](https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085evgateway_exhibitd_a3.pdf)

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR EVSE LLC:**

[https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085evsellc\\_a2\\_ps.pdf](https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085evsellc_a2_ps.pdf)

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR LILYPAD EVSE:**

[https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085lilypad\\_exhibitd\\_a3.pdf](https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085lilypad_exhibitd_a3.pdf)

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR MINNESOTA PETROLEUM SERVICE, INC.**

[https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085mnpetro\\_a3\\_ps.pdf](https://osp.admin.mn.gov/sites/osp/files/2024-06/e-1085mnpetro_a3_ps.pdf)

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR NATIONAL CAR CHARGING:**

[https://osp.admin.mn.gov/sites/osp/files/2024-08/e-108ncc\\_exhd\\_sup2\\_a3.pdf](https://osp.admin.mn.gov/sites/osp/files/2024-08/e-108ncc_exhd_sup2_a3.pdf)

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR VERDEK LLC:**

[https://osp.admin.mn.gov/sites/osp/files/2023-10/e-1085\\_195964\\_verdek\\_exhibitd\\_s2\\_a4.pdf](https://osp.admin.mn.gov/sites/osp/files/2023-10/e-1085_195964_verdek_exhibitd_s2_a4.pdf)

**CLICK HERE TO VIEW PRODUCTS AND PRICING FOR ZEF ENERGY:**

[https://osp.admin.mn.gov/sites/osp/files/2024-08/e-1085\\_195960\\_exhibitd\\_s2\\_a5.pdf](https://osp.admin.mn.gov/sites/osp/files/2024-08/e-1085_195960_exhibitd_s2_a5.pdf)

## **Attachment B: EQUIPMENT SPECIFICATION**

### **Electric Vehicle Supply Equipment (EVSE)**

#### **Level 1 – Non-networked EVSE Charger**

##### **1. Scope**

This Specification is for commercial grade Level 1 “Basic” Electric Vehicles service Equipment (EVSE) charger suitable for installs at parking facilities and/or garages.

##### **2. Applicable Laws and Industry Standards**

- UL Subject 2594            Electric Vehicle Supply Equipment
- UL 2231                 Standards for Personnel Protection Systems in EV Charging
- UL 50E                  Electrical Enclosures, Environmental Considerations
- UL991                   Safety Controls Employing Solid State Devices (If Used)
- UL 1998                 Software in Programmable Components (If Used)
- NFPA 70                 National Electrical Code Article 625, EV Charging Systems
- SAE J1772               Recommended Practice Electrical Vehicle & Plug-In-Hybrid Electric Conductive Coupler
- EMI Compliance        FCC Part 15 Class A or B

##### **3. Requirements**

At a minimum, the EVSE charger shall meet/include the following:

###### **3.1. General Requirements**

- Commercial Grade
- Charger unit, software, and all mounting hardware
- Cord – minimum of one option exceeding 20 feet in length
- Connector – SAE J1772 compliant
- Outdoor-rated enclosure – NEMA 3R, 3S, 3X, 3RX, 3sx, 4, 4x, 6, or 6P (UL50E)

###### **3.2. Functions and Features**

- User interface – start/stop mechanism, status indicators
- Cord management system – self-retracting or hanging system
- Fault detect/diagnostic capability
- Capable of installation in compliance with American with Disabilities Act (ADA)

###### **3.3. Operating Environment**

- Input voltage                    110/120 Volt AC (VAC) single-phase
- Voltage Frequency            60/50Hz
- Power Output                  1.4 kW minimum
- Temperature-Operating Condition        -22-degree F to +122-degree F minimum range
- Humidity                         Up to 90% RH, non-condensing
- Regulatory Compliance        FCC part 15 Class A or Class B

###### **3.4. Safety Features**

- Auto short-circuit and ground fault shutoff
- Auto restarts – in event of power outage and/or ground fault
- Power surge protection
- UL and/or ETL listed (UL 2594, UL 2231, UL 1998, UL 991) and NEC Article 625 (where applicable)

###### **3.5. The Contractor will provide pricing for the following configurations:**

- Single port, wall mount
- Single port, floor mount (pedestal)
- Dual port, wall mount
- Dual port, floor mount

###### **3.6. The Contractor must provide pricing for the following options for each configuration:**

- 5-year warranty

###### **3.6.1. Indicate pricing for parts including:**

- Charging cord and handle

## Level 2 – EVSE Charger

### 1. Scope

This Specification is for commercial grade Level 2 Electric Vehicles Service Equipment (EVSE) charger suitable for installs at parking facilities and/or garages.

### 2. Applicable Laws and Industry Standards

- UL Subject 2594 Electric Vehicle Supply Equipment
- UL 2231 Standards for Personnel Protection Systems in EV Charging
- UL 50E Electrical Enclosures, Environmental Considerations
- UL991 Safety Controls Employing Solid State Devices (If Used)
- UL 1998 Software in Programmable Components (If Used)
- NFPA 70 National Electrical Code Article 625, EV Charging Systems
- SAE J1772 Recommended Practice Electrical Vehicle & Plug-In-Hybrid Electric Conductive Coupler
- EMI Compliance FCC Part 15 Class A or B

### 3. Requirements

At a minimum, the EVSE charger shall meet/include the following:

#### 3.1. General Requirements

- Commercial Grade
- Charger unit, software, and all mounting hardware
- Cord – minimum of one option exceeding 20 feet in length
- Connector – SAE J1772 compliant
- Outdoor-rated enclosure – NEMA 3R, 3S, 3X, 3RX, 3sx, 4, 4x, 6, or 6P (UL50E)

#### 3.2. Functions and Features

- User interface – start/stop mechanism, status indicators
- Cord management system – self-retracting cord or hanger to keep the cord off the ground when not in use
- Fault detect/diagnostic capability
- Capable of installation in compliance with American with Disabilities Act (ADA)

#### 3.3. Operating Environment

- Input voltage 208/240 Volt AC (VAC) single-phase
- Voltage Frequency 60/50Hz
- Power Output 1.4 kW minimum
- Temperature-Operating Condition -22-degree F to +122-degree F minimum range
- Humidity Up to 90% RH, non-condensing
- Regulatory Compliance FCC part 15 Class A or Class B

#### 3.4. Safety Features

- Auto short-circuit and ground fault shutoff
- Auto restarts – in event of power outage and/or ground fault
- Power surge protection
- UL and/or ETL listed (UL 2594, UL 2231, UL 1998, UL 991) and NEC Article 625 (where applicable)

#### 3.5. The responder will provide pricing for the following configurations:

##### 3.5.1. Non-networked

- 3.5.1.1. The charging station will include all hardware, software, and mounting hardware required to install a fully functional charger. Contractor will also provide cost of key replacement components to include the charging cord and handle.
- 3.5.1.2. The Contractor will include pricing for 5-year warranty against defects, maintenance and repair plan.
- 3.5.1.3. The Contractor will indicate the equipment's capability to implement time of use controlled charging.



- 3.5.1.4. The Contractor will include pricing for configurations of non-networked level 2 chargers including:
- Single port, wall mount
  - Single port, floor mount (pedestal, etc.)
  - Dual port, wall mount
  - Dual port, floor mount

### 3.5.2. Networked

- 3.5.2.1. The charging station will include all hardware, software, and mounting hardware required to install a fully functional charger. The charging station will be network-ready for management by a service provider and/or by the owner. Contractor will also provide cost of key replacement components to include the charging cord and handle, and communications hardware. Stations will have functionality for time-of-use controlled charging and activation through RFID.
- 3.5.2.2. The Contractor will provide pricing for 5-year warranty against defects, maintenance and repair plan, data plan, and access to charging data through an online portal. The Contractor will provide pricing for any additional installation costs related to verifying operability on charging networks.
- 3.5.2.3. The Contractor will indicate the equipment's capability for load balancing, time of use controlled charging, configuration as a "gateway-node," operation of Open Charge Point Protocol (OCPP) version 1.6 or later, ability to remotely apply OCPP updates, and ability to be operated on another charge station management platform without replacement of hardware or other on-site reconfiguration.
- 3.5.2.4. The Contractor will include pricing for configurations of networked chargers including:
- Single port, wall mount
  - Single port, floor mount (pedestal, etc.)
  - Dual port, wall mount
  - Dual port, floor mount

### 3.5.3. Networked with Point of Sale System

- 3.5.3.1. The charging station will include all hardware, software, and mounting hardware required to install a fully functional charger. The charging station will be network-ready for management by a service provider or by the owner. Contractor will also provide cost of key replacement components to include the charging cord and handle, and communications hardware. Stations will have functionality for time-of-use controlled charging. The charging station will include a Point of Sale system to accept payment by credit card, debit card and/or smart phone, and/or RFID tag. Contractor will also provide cost of key replacement components to include the charging cord and handle. Stations will have functionality for time-of-use controlled charging and pricing.
- 3.5.3.2. The Contractor will indicate the equipment's capability for load balancing, time of use controlled charging, configuration as a "gateway-node," operation of Open Charge Point Protocol (OCPP) version 1.6 or later, ability to remotely apply OCPP updates, and ability to be operated on another charge station management platform without replacement of hardware or other on-site reconfiguration. The Contractor will provide pricing for 5-year warranty against defects, maintenance and repair plan, data plan, and access to charging data through an online portal. The Contractor will provide pricing for any additional installation costs related to verifying operability on charging networks.
- 3.5.3.3. The Contractor will provide pricing for the following configurations of networked chargers with POS including:
- Single port, wall mount
  - Single port, floor mount (pedestal, bollard, etc.)
  - Dual port, wall mount
  - Dual port, floor mount

### 3.5.4. Networked with Point-of-sale System for Curbside Charging

- 3.5.4.1. The charging station will include all hardware, software, and mounting hardware required to install a fully functional charger. The charging station will be network-ready for management by a service provider or by the owner. The charging station will include a Point of Sale system to accept payment by credit card, debit card, fuel card and/or smart phone. Contractor will also provide cost of key replacement components to include the charging cord and handle. Stations will have functionality for time-of-use controlled charging and pricing.

3.5.4.2. The Contractor will indicate the equipment's capability for load balancing, time of use controlled charging, configuration as a "gateway-node," operation of Open Charge Point Protocol (OCPP) version 1.6 or later, ability to remotely apply OCPP updates, and ability to be operated on another charge station management platform without replacement of hardware or other on-site reconfiguration. The Contractor will provide pricing for 5-year warranty against defects, maintenance and repair plan, data plan, and access to charging data through an online portal. The Contractor will provide pricing for any additional installation costs related to verifying operability on charging networks.

3.5.4.3. The Contractor will provide pricing for the following configurations of networked chargers with POS including:

- Single port, floor mount (pedestal, bollard, etc.)
- Dual port, floor mount

### 3.6. Network Requirements

3.6.1. The EVSE shall be:

- Network-ready – include hardware/software to communicate with a network management system (NMS)
- Charging data portals will allow for setting time-of-use charging controls, viewing charging data in a time series, allow for programming of RFIDs access (when applicable), and provide charging data downloads in CSV format.

3.6.2. The EVSE may be:

- Available as a "gateway" (a.k.a. hub) and as a "non-gateway" (node) type.
- "Gateway" stations shall communicate directly with a NMS.
- "Non-gateway" stations shall communicate with the NMS via the "gateway" station.
- Contractors will provide pricing for gateway units and node units if they differ, and also the related requirements for operating in gateway-node fashion.

## Direct Current Fast Charger

### 1. Scope

This Specification is for a commercial grade Smart Electric Vehicles Service Equipment (EVSE) charger, a type Direct-Current Fast-Charge (DCFC). This charger shall be suitable for installs at State parking facilities and/or garages.

The charger will include user interface(s) including a display and status indicators. The charger will include all hardware, software and mounting hardware required to install a fully functional charger. The charger will be network ready to be managed by an electric vehicle service provider (EVSP) or by the owner. The charger will have options for point-of-sale (POS), such as paying by credit card and debit card, and radio frequency identification (RFID) reader, or smart phone application.

### 2. Applicable Laws and Industry Standards

- UL Subject 2594 Electric Vehicle Supply Equipment
- UL 2231 Standards for Personnel Protection Systems in EV Charging
- UL 50E Electrical Enclosures, Environmental Considerations
- UL991 Safety Controls Employing Solid State Devices (If Used)
- UL 1998 Software in Programmable Components (If Used)
- NFPA 70 National Electrical Code Article 625, EV Charging Systems
- SAE J1772 Recommended Practice Electrical Vehicle & Plug-In-Hybrid Electric Conductive Coupler
- EMI Compliance FCC Part 15 Class A or B
- CHAdeMO Version 1.0 or later

### 3. Requirements

3.1. General Requirements - At a minimum, the EVSE charger shall include the following:

- Charging unit and all necessary mounting hardware

- Software/hardware – to control, operate, communicate, diagnose, and capture data
- Cord – UL 62 compliant, minimum 7.5 ft. in length
- Connector(s) – CHAdeMO and/or SAE-CCS1 (J1772 Combo)
- Outdoor-rated enclosure - NEMA 3R, 3S, 3X, 3RX, 3SX, 4, 4X, 6, or 6P (UL50E) Configurations
- Include a Point of Sale system.

3.2. Functions and Features – At a minimum, the EVSE charger shall meet the following:

- User interface - start/stop mechanism, status indicators, and a display readable in sunlight and low ambient lighting conditions
- Cord management system - self-retracting cord or hanger to keep the cord off the ground when not in use
- Diagnostic capability
- Capable of installation in compliance with Americans with Disabilities Act (ADA)
- Meter/display of energy consumption - 3% accuracy or better

3.3. Operating Environment – The EVSE charger shall meet the following:

- Input Voltage 400/480 Volt AC (VAC) 3-phase
- Voltage Frequency 50/60 Hz
- Temperature-Operating Condition -10 degrees F to +122 degrees F min.
- Humidity Up to 90% RH, non-condensing
- Regulatory Compliance FCC part 15 Class A or B

3.4. Safety Features

- Auto short-circuit and ground fault shutoff
- Auto restarts – in event of power outage and/or ground fault
- Protect against “Live power” (de-energizes connector if uncoupled from vehicle)
- Power surge protection
- UL and/or ETL listed (UL 2594, UL 2231, UL 1998, UL 991) and NEC Article 625 (where applicable)

4. Contractors will provide pricing for the following, related to:

4.1.1. Configuration

- Single Output, J1772 Combo
- Single Output, CHAdeMO
- Dual Output (2xJ1772 Combo)
- Dual Output (2xCHAdeMO)
- Dual Output (1xCHAdeMO, 1xJ1772 Combo)

4.1.2. Lower Level Categories

- Low Power: 24 – 49 kW
- Medium Power: 50 – 99 kW

- High Power: 100 kW or higher

#### 4.1.3. Cords of

- A minimum 18 feet in length,
- A minimum of 20 feet in length

#### 4.2. Contractors will provide pricing for:

- Five (5) years of communications, warranty, maintenance, and support,
- Any additional fees related to connectivity upon installation,
- Replacement part pricing for cords and handles.

#### 4.3. Contractors will indicate equipment capabilities as it relates to the following:

##### 4.3.1. Networking type:

- Gateway-node
- Non-gateway-node

##### 4.3.2. Open Charge Point Protocol

- Version 1.6 or later
- Ability to be updated remotely

##### 4.3.3. Ability to operate on other platforms with no modification to equipment or on-site reconfiguration.

#### 4.4. Network Requirements

- Network-ready – include hardware/software to communicate with a network management system (NMS)