

III. Areas of Interest

Members have expressed interest in acquiring electric vehicle charging equipment and network service to enhance the Electric Vehicle (“EV”) charging infrastructure in their respective service territories. These interests include both networked and non-networked charging equipment of all “sizes” or charging capacity that could be used indoors or outdoors to meet the needs of Member utilities or their customers. Increasing the charging capabilities for light-, medium- and heavy-duty EVs is seen by Members as a critical component of their collaborative efforts to facilitate the electrification of the transportation sector in California and meet the needs of the communities that they serve.

To this end, in addition to utility-funded projects, Members are considering multiple options to develop a comprehensive charging infrastructure network including grants to help fund development and looking for other funding sources and partnerships as well.

In association with this desired equipment procurement, SCPPA is requesting proposals or bids for “back office” or support services to manage and maintain the operation and implementation of the charging infrastructure using network services that operate under the “open protocol” standard.

Respondents may propose any combination of: Level 1, Level 2 and DC Fast chargers; and/or Support Services, but Respondents are not required to offer all these elements to be eligible for consideration and possible award of a contract.

Suppliers may work in combination with one or more firms, in a contractor/sub-contractor relationship, to provide a comprehensive package or suite of equipment and services under one Proposal. An outline of the equipment and services expected under this solicitation is presented below.

1) **LEVEL 1 and/or LEVEL 2 RESIDENTIAL and/or COMMERCIAL-GRADE ELECTRIC VEHICLE CHARGING STATIONS (“EVSE”)**

a) **The EVSE shall meet all of the following requirements:**

- i) UL Listed or approved NRTL Testing Agency and compliant with SAE J1772
- ii) Compliant with NEC article 625 and FCC Part 15 Class A.
- iii) If proposed for outdoor usage, the units must be rated NEMA 3R or better.
- iv) AC Input (110 to 240VAC) @ minimum 20 Amps
- v) ADA compliant
- vi) Charge connector shall be SAE J1772 with a preferred minimum length of 25-foot cable
- vii) Induction charging options are also encouraged as an option to plug-in connectors
- viii) Operating temperature range: 0° to 122° F
- ix) LED status indicators
- x) If pedestal is required for mounting and installation, pedestal shall be offered and pricing specified
- xi) Extended warranty will start from the date of installation for a term of five years.

In addition, Respondents must specify if any non-networked EVSE being offered includes electronic payment capability (credit card swipe, RFID...) and any pricing for supplemental, “after-market”, addition of such capability. Similarly, Respondents should specify if any EVSE is ENERGY STAR-approved or if such approval is “in-process”, what the projected approval date is.

The successful Respondent shall identify any and all local contractor(s) who will be providing all warranty and service to the EVSE’s.

b) Network Communications Requirements for Network Capable Level 2 EVSE

All network capable equipment shall be network payment enabled and have an integrated cellular 3G router or better for communications. Such equipment shall be in accordance with Specifications SAE J2847-3. Specifically, all communications will be based on the Internet Protocol Suite which is the set of communications protocols used for the internet and similar networks - and is generally the most popular protocol stack for wide area networks. It is commonly known as TCP/IP, because of its most important protocols: Transmission Control Protocol (TCP) and Internet Protocol (IP). An alternative model is the Open Systems Interconnection (OSI) model which characterizes and standardizes the functions of a communications system in terms of seven abstraction layers.

The networked communications system shall monitor the EVSE's for any error or malfunction. The 'service provider' shall be notified of the malfunction and the provider will have the capability of notifying SCPPA and/or its Members of such malfunction or operating error within 30 minutes of the malfunction.

c) Service Provider(s) Requirements

The network communications, controls and back office support service, shall provide to Members, at a minimum, the following information for each charging transaction, at each charging location:

- date and time of usage;
- total kWh; and
- total kW draw.

Additionally, SCPPA is requesting incremental pricing proposals to receive the following supplemental information for each charging transaction, at each charging location:

- Volts versus time;
- Amps versus time; and
- kWh versus time.

The supplier shall identify any and all local contractor(s) who will be providing all warranty and service to the level 2 EVSE's.

2) DIRECT CURRENT COMMERCIAL-GRADE ELECTRIC VEHICLE FAST CHARGING STATIONS (“DCFC”)

a) The Fast Charging EVSE shall meet all of the following requirements:

- i) UL Listed or approved NRTL Testing Agency and compliant with SAE J1772
- ii) Compliant with NEC article 625 and FCC Part 15 Class A
- iii) Rated for outdoor usage, NEMA 3R or better
- iv) DC Output (300 V expected minimum) w/ no maximum Amperage,
- v) ADA compliant
- vi) Dual charge connector is not required but could be considered favorably, recognizing that chargers should be equipped with a minimum capability of at least one of the following capabilities:
 - a) 1 Charge connector shall be CHAdeMO with a preferred minimum of 25-foot cable; and
 - b) 1 Charge connector shall be SAE J1772 with a preferred minimum of 25-foot cable or a stub must be available to add the potential SAEJ1772 “combo” standard
- vii) Induction charging options are also encouraged as an option to plug-in connectors
- viii) Operating temperature range: 0° to 122° F
- ix) LED status indicators
- x) If pedestal is required for mounting and installation, pedestal shall be provided and pricing specified
- xi) Extended warranty will start from the date of installation for a term of five years.
Optional and not required:

- xii) Network Payment Enabled: see below for specific requirements per Specifications SAE J2847-3
- xiii) Integrated cellular 4G router or better for communications; but all networked equipment must be operable under SCPPA-approved, open protocol standards.

The supplier shall identify any and all local contractor(s) who will be providing all warranty and service to the level 2 EVSE's.

b) Network Communications Specifications for DCFCs

When applicable, all equipment shall be in accordance with Specifications SAE J2847-3. Specifically, all networked communications will be based on the Internet Protocol Suite which is the set of communications protocols used for the internet and similar networks, and is generally the most popular protocol stack for wide area networks. It is commonly known as TCP/IP, because of its most important protocols: Transmission Control Protocol (TCP) and Internet Protocol (IP). An alternative model is the Open Systems Interconnection (OSI) model which characterizes and standardizes the functions of a communications system in terms of seven abstraction layers.

The networked communications system shall monitor the EVSE's for any error or malfunction. The 'service provider' shall be notified of the malfunction and the provider will have the capability of notifying SCPPA and/or its Members of such malfunction or operating error within 30 minutes of the malfunction.

c) Service Provider(s) Requirements

The network communications, controls and back office support service, shall provide to Members, at a minimum, the following information for each charging transaction, at each charging location:

- date and time of usage;
- total kWh; and
- total kW draw.

Additionally, SCPPA is requesting incremental pricing proposals to receive the following supplemental information for each charging transaction, at each charging location:

- Volts versus time;
- Amps versus time; and
- kWh versus time.

The supplier shall identify any and all local contractor(s) who will be providing all warranty and service to the DCFCs.