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Comment Received From: Jacqueline Piero
Submitted On: 5/27/2020
Docket Number: 19-TRAN-02

Nuvve Corporation Comments on Vehicle-Grid Integration Lab (ViGIL), Docket Number 19-TRAN-02

Additional submitted attachment is included below.
1. Background and Interest

Nuvve is a San Diego-based technology and services company operating in the U.S. and internationally whose bi-directional vehicle-to-grid (V2G) technology transforms electric vehicles (EVs) into grid resources when those vehicles are plugged in, while guaranteeing the expected level of charge at the time the driver needs it for transportation. These benefits can be realized across all types of EVs including light-duty vehicles (both battery-only and plug-in hybrids) and medium to heavy duty vehicles, such as school buses and other short haul fleets while integrating stationary batteries and demand response resources.

Nuvve is involved in development of V2G and smart charging capabilities in the medium- and heavy-duty space, with a particular focus on electric school buses. State funding is accelerating the pace of development, both in terms of standards and new capabilities for EVSEs. This latest ViGIL concept from the CEC is a smart complimentary piece that will help new and smaller entrants to the EVSE industry to keep up with rapidly evolving technical requirements, and Nuvve enthusiastically supports it.

2. Recommendations

Nuvve generally agrees with the list but we suggest some additions. It is possible these are implied in the list but we submit these for completeness:

**OCPP:**

OCPP 1.6: We want to make sure that all the profiles can be tested, specifically:
- Core
- Firmware Management
- Local Authorization List Management
- Reservation
- Smart Charging
- Remote Trigger

OCPP 2.0.1: Here again, we want to make sure that all the profiles can be tested, specifically:
- A. Security
- B. Provisioning
- C. Authorization
- D. Local Authorization List
- E. Transactions
- F. Remote Control
- G. Availability
- H. Reservation
- I. Tariff and Costs
- J. Metering
- K. Smart Charging
- L. Firmware Management
- M. ISO 15118 Certificate Management
SAE J3068:
Additionally, we request that SAE J3068 be added to the eligible interface list to encourage development in the Medium- and Heavy-Duty space. J3068 encompasses both hardware and communications for MV/HV, and CCS-2. Just like J1772, J3068 covers both AC and DC for 3-phase and Type 2 connectors as well as digital communications (LIN).

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