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Comments of VGIC on Charge Yard Pre-Solicitation Workshop

Additional submitted attachment is included below.

November 22, 2024

Email to: docket@energy.ca.gov

Docket Number: 22-EVI-06

Subject: California Energy Commission Charging Interoperability and Collaboration Yard

RE: Comments of the Vehicle Grid Integration Council on the Charging Interoperability and Collaboration Yard Pre-Solicitation Workshop

Dear Sir or Madam:

The Vehicle-Grid Integration Council (VGIC) appreciates the opportunity to provide comments on the California Energy Commission's (CEC) Charging Interoperability and Collaboration Yard Pre-Solicitation Workshop. VGIC supports the forthcoming Grant Funding Opportunity (GFO) to establish a Charge Yard, a dedicated facility to conduct interoperability testing, support the development of industry standards, and foster knowledge sharing to enhance electric vehicle (EV) charging and vehicle-grid integration (VGI).

VGIC is supportive of the Charge Yard solicitation overall and is excited to see the development of a dedicated space to improve the EV charging experience and unlock additional VGI capabilities for California and beyond. VGIC believes that the general structure of the Draft Solicitation put forward by the CEC is reasonable, but we offer the following feedback:

- VGIC supports requiring at least one bidirectional testing event per year, including for light-, medium-, and heavy-duty vehicles.
- Testing for flexible service connection use cases should be prioritized, particularly for medium- and heavy-duty applications.
- Redundant non-testing event requirements should be eliminated.

VGIC SUPPORTS REQUIRING AT LEAST ONE BIDIRECTIONAL TESTING EVENT PER YEAR.

VGIC strongly supports the requirement for at least one annual testing event for bidirectional charging technologies. The CEC has long supported efforts to unlock the benefits of utilizing bidirectional charging systems. Bidirectional charging systems can provide backup power during outages, help customers manage their electric bills, and provide capacity to the grid during times of grid stress. However, vehicle-to-everything (“V2X”) bidirectional charging systems still occupies a relatively nascent state compared to unidirectional EV charging industry. Additional testing of technical standards and further exploration of V2X bidirectional charging configurations

can help California unlock the full value of V2X. The Charge Yard provides a critical venue for advancing these efforts.

To ensure the one-event-per-year provision can be enabled in practice, the forthcoming Solicitation should require applicants to detail their approach to utility interconnection. All previous interoperability testing events in North America have been restricted to unidirectional charging in part because the event hosts did not hold completed generator interconnection agreements with their electric utility. Applicants should specify whether they plan to go through the Rule 21 interconnection process for the semi-permanent bidirectional EV supply equipment (EVSE) that will be located at the site, pursue a special arrangement with their utility that allows them to interconnect semi-permanent bidirectional EVSE, invest in an islanded microgrid configuration that foregoes the need for Rule 21 interconnection, or seek some other pathway. To the extent possible, the CEC should outline possible interconnection pathways applicants can consider in the Solicitation Manual. Applicants should be encouraged to coordinate with the relevant electric utility and should receive preferential scoring if the utility provides a support letter or other document clearly indicating its commitment and provisional plan to support interconnection that would enable the bidirectional charging to occur. Generally, VGIC recommends the Solicitation encourage competency and intentional planning as it relates to utility interconnection to ensure that bidirectional charging testing can be implemented in practice.

Lastly, the CEC should require the Charge Yard to test V2X bidirectional charging systems for both light-duty and medium- and heavy-duty vehicles (MHDVs). All vehicle classes can provide V2X benefits and may be best suited for different use cases. For example, school bus fleets are currently the most common users of bidirectional EVSE. The CEC should, therefore, require that MHDVs are included in V2X bidirectional charging testing events.

TESTING FOR FLEXIBLE SERVICE CONNECTION USE CASES SHOULD BE PRIORITIZED, PARTICULARLY FOR MEDIUM- AND HEAVY-DUTY APPLICATIONS.

VGIC also supports the testing of flexible service connection solutions (alternatively referred to by California state agencies as “automated load management (ALM)” technologies) at the Charge Yard. These solutions offer critical tools for shaping EV charging load to significantly reduce the lengthy energization timelines currently faced by many fleet customers. Technologies that enable flexible service connections include ALM/EV EMS software, certified power control systems, and DER-paired EVSE. Testing can include power sharing, changing import limits according to a pre-set schedule, responding dynamically to signals from Advanced Distribution Management Systems (ADMS) or Distributed Energy Resource Management Systems (DERMS), or other

potential pathways. Both PG&E and SCE are conducting flexible service connection pilots for MHDV customers.

Charge Yard can provide an important venue for testing these new technologies, standards, and interoperability for this use case, and this capability should be included by the CEC in the final solicitation.

REDUNDANT NON-TESTING EVENT REQUIREMENTS SHOULD BE ELIMINATED.

The Draft Solicitation requires the Charge Yard to host at least two non-testing events annually, such as workshops or conferences. VGIC recommends removing this requirement and instead encouraging coordination with existing events hosted by California agencies (CEC, CPUC, CARB) and industry stakeholders.

VGIC appreciates the vision to utilize the Charge Yard as a space for stakeholder convening and collaboration beyond specific interoperability testing events. However, there are already many stakeholder convening events in California and nationally related to EVs, VGI, and V2X, including the CPUC's annual Vehicle-Grid Integration Forum, the CEC's and IOUs' EPIC Symposiums, the Smart Grid Observer's twice-annual V2G Business, Policy & Technology Forum, the EV Charging Summit and Expo, VGIC's annual EVolve event, among other industry and regulatory stakeholder workshops and events that share similar programming and audience. There is no need to add additional regular conferences or events for stakeholders, especially given the limited pool of deep technical experts in the industry.

Instead of hosting new events, the Charge Yard should seek to collaborate with existing events, such as serving as a hosting venue. The Charge Yard should also share public reports and data from testing activities to enhance industry learning and collaboration. This approach would ensure that the Charge Yard remains focused on its core mission of advancing interoperability testing while contributing to – though not duplicating – broader stakeholder discussions and knowledge sharing.

CONCLUSION.

VGIC appreciates the opportunity to provide these comments on the Draft Solicitation and looks forward to collaborating with the CEC and other stakeholders in this docket.

Respectfully submitted,
/s/ Zach Woogen
Zach Woogen



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