

DOCKETED

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Greenlots Comments on Vehicle-Grid Innovation Lab (ViGIL) Draft Solicitation Concept

Additional submitted attachment is included below.



May 27, 2020

Matt Alexander
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: ViGIL Draft Solicitation Concept – Docket 19-TRAN-02

Dear Matt,

Thank you for the opportunity to submit comments to Docket 19-TRAN-02 in regard to the Vehicle-Grid Innovation Lab (ViGIL) concept solicitation. Greenlots (a wholly-owned subsidiary of Shell New Energies) is a leading provider of electric vehicle (“EV”) charging software and services and is committed to accelerating transportation electrification. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America and a growing amount of Level 2 charging infrastructure. Greenlots’ smart charging solutions are built around an open standards-based focus on future-proofing while helping site hosts, utilities, and grid operators manage dynamic electric vehicle charging loads and respond to local and system conditions.

The Energy Commission has long been a global leader in supporting transportation electrification and identifying key areas of research, technology development, and deployment needed to accelerate adoption and help scale the market of EV charging products and services. As the Commission has recognized, there is a significant need to support an open, interoperable, and standards-based charging technology and user ecosystem if we are to accelerate EV adoption across all weight classes. A core element of this is the need to be able to rapidly test and validate the communications and functionality of EV charging hardware and software, including with vehicles. Indeed, the lack of sufficient testing within the broader marketplace has led to a lot of electric vehicle charging hardware being deployed before being truly ready—souring the experience of end users and leading to charging station downtime.

Greenlots has been supporting and directly performing elements of this testing and validation in California since establishing its headquarters in the state nearly a decade ago. These activities have been performed at Greenlots’ facilities in San Diego and Los Angeles Counties and at a range of hardware manufacturing facilities. Such support and testing was some of the first of its kind in North America and has been needed to facilitate development of the market and greater success and reliability of infrastructure investment and deployment. However, during this period, Greenlots and the industry have been hampered by space and financial constraints that put limits on the type and amount of testing that can be done. Performing testing to not only keep pace with the market but also with innovative trends has taken a significant investment from Greenlots, even prior to the acquisition by Shell. And the ante will continue to be raised; as EV

charging functionality, grid needs, and customer expectations increase with EV adoption, so too will the importance and need for testing and validation, with the stakes and implications for deficiencies also increasing.

We commend the Energy Commission for once again showing leadership in recognizing this challenge and proposing a solution to address it. The vision the Commission contained within the ViGIL concept recognizes the importance of this testing and development but also recognizes the scale of investment needed to drive successful testing at a facility for California-based organizations. We can attest firsthand that the development and maintenance of a testing lab that can accommodate the testing of chargers and vehicles across weight classes is a significant investment.

We also appreciate that the solicitation concept recognizes the appropriateness of maximizing potential investment by focusing on funding the entities that are already active and leading in this area, in an industrial, non-academic, non-government lab setting. Indeed, such entities are poised to be able to best leverage this potential investment and maximize the value to others in the industry and the market as a whole. Frankly, setting up the lab is the easy part, but maintaining the facility and ensuring it is taken seriously by industry as a valuable resource necessitates significant past industry experience, expertise, and peer respect—something that is needed from the beginning and not simply acquired after establishing a site.

With over a decade of hardware testing in place including prior to headquartering in California, Greenlots has been a trusted partner to a multitude of hardware manufacturers (including but not limited to ABB, BTC, Control Module Inc., Eaton, Efacec, EVBox, Siemens, and Tritium), providing valuable recommendations and information to improve product offerings and compliance with interoperability and open communications protocols and standards. A firm with this right blend of experience, expertise, and peer respect can be both a private sector EV charging service provider *and* a trustworthy resource for the industry. Indeed, we acknowledge and accept that the hardware testing and validation activities we do today also benefits our competitors in the software space. Experience and expertise should be key here and should not be displaced by a perceived “independence” factor—the industry needs expanded testing immediately, especially testing that can support the burgeoning medium and heavy-duty market. The industry cannot afford to wait a few years while a new lab that has no experience testing interoperability and open standards gets established.

The ViGIL concept as a whole is well designed and thought out, and Greenlots would not recommend modifications to the concept as originally drafted. Even well-meant modifications could have significant implications for the targeted applicant pool and success of the investment. For instance, physical and even virtual access to such a lab facility is and should be tightly controlled so as to protect the intellectual property being tested at the sites and any changes to the concept could result in different accessibility standards that may be unworkable for many companies.

While Greenlots discourages modifications to the strong vision already set forth, should the Commission seek to support or fund an independent lab targeted less at product development, testing and validation, and more specifically towards providing testing results via a voucher program or similar mechanism, and/or should the Commission be inclined to pursue multiple awardees, Greenlots strongly encourages retaining the current vision as articulated in the ViGIL solicitation concept document as a separate and significant component of the overall solicitation. In this scenario, Greenlots would strongly recommend that the Commission increase overall funding so as not to decrease the value of the articulated ViGIL concept. That concept is poised to help fill a key gap in the industry and position California further to be the leader in supporting job growth in clean transportation.

Greenlots appreciates the Commission's consideration of these comments, and its ongoing efforts to support transportation electrification and advanced mobility.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas Ashley', with a stylized, cursive script.

Thomas Ashley, VP Policy
tom@greenlots.com