

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Consider
Alternative-Fueled Vehicle Programs,
Tariffs, and Policies.

Rulemaking R.13-11-007
(Filed November 14, 2013)

**OPENING COMMENTS OF GREENLOTS ON ASSIGNED COMMISSIONER'S
RULING SEEKING COMMENT ON VEHICLE-GRID INTEGRATION
COMMUNICATION PROTOCOL WORKING GROUP ENERGY DIVISION STAFF
REPORT**

In response to the Assigned Commissioner's Ruling of February 23, 2018 filed in this proceeding, Greenlots offers the following comments on the Vehicle-Grid Integration (VGI) Report prepared by CPUC Energy Division and State agency Staff.

Greenlots is a leading provider of electric vehicle (EV) charging software and services. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America, and is increasingly supporting programs in the workplace and residential Level 2 space. 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. Greenlots is a strong advocate for open standards, and is a founding member of the Open Charge Alliance.

As an active participant in the process leading to this report, Greenlots appreciates the significant time and energy that Agency Staff and stakeholders have invested in this effort. The adoption of open protocols and standards is essential to supporting transportation electrification, growing the market for EVs, enhancing the driver/customer experience, integrating with the electricity system, and lowering the cost of ownership of both EVs and EV charging infrastructure. The proliferation of open protocols and standards provides a platform and ecosystem for innovation and customer choice. In the context of utility regulation, adoption of open standards is critical in guarding against stranded assets and protecting the prudence of ratepayer investments.

The organizations participating in the working group process represent a broad spectrum of perspectives and possess various priorities. Greenlots was pleased to participate in the working group process, but like many participating organizations, was not able to participate as fully and with a robustness of personnel necessary to conclude that the process adequately reflected our position or recommendations. The cadence and timing of the use case development was particularly unsustainable and suffered from inadequate participation by this and many other working group members.

Greenlots has pilot experience working with IEEE 2030.5 and is able to appreciate why it was selected for greater consideration than prevailing protocols. However, it is with good reason that Greenlots has focused on the implementation of OCPP and OpenADR 2.0b. While these protocols may not be perfect—indeed, OCPP 1.6 is being improved significantly for OCPP 2.0—they are being widely implemented. With OCPP 2.0 being able to carry and interpret ISO 15118, these protocols represent a complete pathway that already has significant adoption, acknowledging that ISO 15118 is the newest link in the chain.

While there were benefits to the group expanding the original mandate in the 2016 Assigned Commissioner's Ruling which sowed its seeds, in its expansion, the group may have lost sight of the original intent: ensuring the hardware being deployed with ratepayer funding be capable of communicating VGI signals and appropriately stewarding ratepayer investment. Greenlots believes the group's desire to do no harm and maximize flexibility to be admirable (and we share it), but in seeking to maximize flexibility, the culmination of the group in the recommendations of the report could very well set back the progress of the industry. There certainly seems the potential for a perverse outcome: rather than ensuring ratepayer funded charging station hardware be deployed in such a way that it can both communicate VGI signals and protect ratepayer investment by avoiding vendor lock-in and facilitating choice and flexibility, the report instead points to a pathway that could minimize the value of that ratepayer investment by potentially bypassing it almost altogether.

Greenlots has long recognized that increased functionality will be possible at the point of connection with the vehicle, or indeed, within the vehicle. Our experimentation with SEP 2.0 (with EPRI) and precursor ISO 15118 communications (with automakers and utilities), and involvement with the Open Vehicle Grid Integration Platform are indicators of this. However, we do not think it prudent at this point in the development of the market to pick winners and losers, or pick a pathway for picking winners and losers. Continued optionality with greater protection of ratepayer investments seems the more appropriate order of the day.

While it should not significantly impact the Commission's process, it should be noted that the Commission's recommendations will likely significantly impact the treatment of

standards across many jurisdictions, owing to California's longstanding leadership role in supporting clean transportation.

It is for the aforementioned reasons that Greenlots cannot endorse the report, nor the entirety of its recommendations. Greenlots is optimistic that the report will be valued for the process leading to its creation and the participation in that process, but that alternative recommendations may be considered for inclusion in Commission decision-making and rulemaking, or at least in guidance offered by the Commission to its regulated utilities. Greenlots is intrigued by recommendations offered by some parties, including Siemens, and will weigh in more on such possibilities in Reply Comments.

Greenlots appreciates Staff and stakeholders' time and effort invested into this process, and we look forward to continued engagement with the Commission, agencies, and stakeholders on this critical topic.

Respectfully submitted,

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