

**DOCKETED**

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**Greenlots Comments on Strategies to Attract Private Investment in ZEV Charging Infrastructure**

*Additional submitted attachment is included below.*



April 10, 2020

Docket No. 20-FINANCE-01  
-Via e-file-

Tim Olson, Senior Policy Advisor  
California Energy Commission  
Docket Unit, MS-4  
1516 Ninth Street  
Sacramento, CA 95814-5512

RE: Comments of Greenlots on Strategies to Attract Private Investment in Zero Emission Vehicle Charging Infrastructure and Other Clean Transportation Projects

Dear Mr. Olson,

Greenlots submits these comments to the California Energy Commission (CEC or the Commission) in response to its February 21, 2020 Request for Information (RFI) on “Strategies to Attract Private Investment in Zero Emission Vehicle Charging Infrastructure and Other Clean Transportation Projects.”

Greenlots is a leading provider of electric vehicle (“EV”) charging software and services committed to accelerating transportation electrification across California, and a wholly-owned subsidiary of Shell New Energies. 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.

California has set pivotal goals for reducing emissions with 50% renewable energy generation and deploying at least five million zero-emission vehicles (ZEVs) by 2030, as well as deploying 250,000 charging stations, including 10,000 Direct Current (DC) fast charging stations by 2025. While much more needs to be done, Greenlots applauds the state’s and CEC’s leadership in making progress and developing programs aimed at achieving these and related goals, and looks forward to continued development and execution of further goals.

An important component of achieving those goals is attracting and unlocking private investment, both directly in infrastructure, but also investment in technologies, services and innovative solutions that are critical to moving the market, supporting EV drivers, and supporting the underlying charging infrastructure. Indeed if one specific goal is charging port deployment, for example, and increasing private investment in developing those ports, it is likely necessary to support the broader industry and address the market dynamics involved in those deployments, and critically, that includes developing healthy, sustainable, market and business conditions for the industry. In other words, to achieve that particular specific result, the state must include a focus on the broader macro environment for sustainably achieving those outcomes in an

ongoing manner, not just the micro-level desired result. Indeed if there is too narrow a focus on the more granular result that is divorced from the broader industry environment and health that is necessary to sustainably achieve those results, potential short term gains will be at the expense of needed medium and long term market sustainability and the achievement of longer term goals.

It is no secret that the market for developing EV charging infrastructure faces many challenges, stemming largely from the lack of a 'closed loop' sustainable market environment where infrastructure, development and technology costs can be fully recouped with a return, let alone a consistently healthy return that can drive private investment, over a reasonable time horizon from infrastructure users. Unfortunately this condition is currently the norm in most market contexts and segments, and reflects the market conditions often described as being a 'chicken and egg' dilemma. For example, while there is a market comprised of a relatively small field of sellers of EV charging products and services to motivated investors/site hosts in some market segments, such as residential and business Level 2 charging, those motivated buyers are relatively few and far between. Additionally, most of those buyers are not making those purchases with the intention of providing charging in a way that covers those infrastructure development costs. Instead, this is generally done for other reasons, including beyond the charging of one's own vehicle(s), such as a value-added service or amenity to residents/customers/employees, perhaps to increase employee satisfaction, bolster their social/environmental responsibility, attract customers or otherwise differentiate themselves in the marketplace. Similarly for non-fleet public charging, we have largely not yet seen a sustainable structure or market for offering these services directly to drivers, or for offering infrastructure to third-party operators outside of certain specific emerging corner cases. This is despite significant manufacturer investment in vehicle production and private investment in a variety of companies engaged in transportation electrification across technology, infrastructure, and services.

While private investment should be encouraged and supported, it is critical that a focus here does not have the unintended consequence of exacerbating the conditions that thus far have largely inhibited private investment in charging infrastructure.

Accordingly, Greenlots strongly encourages the Commission to refocus this discussion around desired outcomes and market conditions, and work back from there, rather than focus on too narrow tools or actions that would necessarily need to be built upon to achieve the desired result. How do we ensure that EV charging hardware, software and technology is appropriately valued, within the marketplace, and that there is incentive for differentiation and innovation? How do we incentivize and value not just quantity, but also quality? And how is the value of particular hardware, software or technology evaluated in relation to its legitimate cost?

It is Greenlots' strong view that the Commission's actions should be guided by a desire to support higher-quality projects or technologies, which inherently incentivizes greater private

investment in those products and services. At this stage of the market, EV charging and related technologies are not ready for commoditization from a value standpoint, and programs that support them should not treat them as commodities.

With these comments in mind, Greenlots suggests several specific areas where the Commission can and should focus:

- Modify or redesign existing programs to incentivize higher-quality projects and technologies. For infrastructure incentive programs, such as CALeVIP, introduce more competitive elements to make state funding go further, while providing an incentive for higher quality products and services. Relying entirely on a site-host focused, rebate-based, first come, first served structure has largely failed to introduce competitive forces into the program both on the project/site selection side, and the charging services procurement side. Relying solely on this program design rewards applicant speed rather than project quality. While speed and access to financing are valuable program elements – and indeed, CALeVIP has been very effective in narrowly deploying charging infrastructure – structures that do not support or incentivize applicants to shop around for charging solutions that are potentially of the greatest value or best fit their needs, and instead favor the solution they can most readily identify, do not seem aligned with the support of an innovative and competitive marketplace for quality products and services. The Commission could also consider mechanisms to aggregate demand for EV charging, similar to community solar programs, or community or neighborhood bulk purchase programs, and then have providers pursue those opportunities through competitive solicitations. This would both drive higher quality solutions, attract greater participation and potentially corresponding participant investment, and further leverage state funds. Requiring that site hosts develop and submit a load management plan, for example, would be another way to introduce mechanisms that values, incentivizes and supports related technology and beneficial charging.
- Focus more on providing capacity resources for the state and other agencies accelerating transportation electrification. While smart funding distribution is critical, so too is supporting a coordinated environment of state and local action in advancing transportation electrification goals. For example, the Commission could serve in an information clearinghouse function for medium and heavy-duty transportation companies looking to electrify, presenting a ‘one-stop shop’ for available incentives, grants and programs, both for infrastructure and vehicles, to support electrification decisions. Electrification of certain medium and heavy-duty market segments can over time significantly leverage private dollars but has tended to need public funding to move forward. Currently this information and these resources are spread across a variety of state, local and utility entities and functions, presenting a challenging environment to navigate, especially when these programs are often fleeting or inconsistent, which itself represents a significant barrier to electrification decision-making and planning.

Additionally, the Commission could support other agencies in the development of other local or state programs in a manner that best fills and addresses market gaps, complements other programs, and results in more consistent and aligned program and participant requirements.

These represent just a few areas where Greenlots sees value in the Commission exploring new and different approaches to supporting and accelerating the market for transportation electrification, including supporting and creating demand, further leveraging private investment and making state funding go further, all while supporting higher-quality projects or technologies, which inherently improves market conditions for private investment in those products and services. This is critical to supporting healthy, long-term development of the market, financial sustainability for the industry, and a future virtuous cycle of investment in that is far less reliant on public funding.

Greenlots looks forward to further participation in this Commission exploration and initiative, hearing the perspective and ideas of other organizations, and the development and refinement of strategies and specific projects that achieve these goals and are focused on attainment of these critical longer-term outcomes. To this end, Greenlots is eager and willing to participate in meetings, workgroups, etc. with the Commission and other stakeholders and agencies as is suggested in the RFI.

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 initial 'T' and 'A'.

Thomas Ashley  
VP Policy, Greenlots  
tom@greenlots.com