

DOCKETED

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Reliable Rural Charging Solutions

Additional submitted attachment is included below.



July 13, 2021

Mr. Spencer Kelley
California Energy Commission
Docket Number: 20-TRAN-04
Project Title: Electric Vehicle Infrastructure Project Funding
1516 Ninth Street
Sacramento, CA 95814

Re: Reliable Rural Charging Solutions Draft Concept Document

Dear Mr. Kelley:

Paired Power, Inc. is a leading manufacturer of 100% solar powered EV chargers, products that deliver a critical solution to the overall EV charging ecosystem. Our patented SEVO SunStation™ is a solar canopy that is used as a DC power source to charge battery electric vehicles (BEVs) exclusively from on-site solar (direct DC to DC). Paired Power's technology bypasses many of the challenging capital, operating, and grid infrastructure soft costs required for grid-connected EV chargers. SEVO SunStation™ provides highly scalable, on-site solar power systems for multiple use cases. As our team has over 5 GW of designed and installed solar and energy storage project experience, we are committed to transportation electrification with 100% renewable energy.

Paired Power appreciates that the California Energy Commission (Commission) staff has recognized distributed energy resources (DERs) as a critical solution for charging light-duty battery electric vehicles. The integration of DERs onsite can optimize EV charging strategies and business models for many different target use-cases and eliminate greenhouse gas (GHG) emissions and associated air pollutants, potentially reducing California's transportation GHG emissions by 43.2 MMT of CO₂ per day and accelerating the state's goal (SB 100) of 100% renewable electricity by 2045.^{1,2}

Paired Power respectfully submits the following comments and recommendations to the Commission staff in regards to its Clean Transportation Program's *Reliable Rural Charging Solutions Draft Concept Document*:

We applaud the Commission's attention to expand charging access for rural drivers in California, and to demonstrate replicable and scalable EV charging business and technology models that support rural and low-income disadvantaged communities. To enable a successful EV charging infrastructure deployment with DERs in these communities, we make the following recommendations regarding EV charger interface standards:

¹ p.12, <https://ww3.arb.ca.gov/regact/2013/hdghg2013/hdghg2013isor.pdf>

² <https://www.latimes.com/business/la-fi-100-percent-clean-energy-20190110-story.html>

- 1) Allowing the flexibility to support the following EV charger interface standards – CCS, CHAdeMO, Tesla adapters, and J1772 – is an essential requirement for the project.
- 2) Along with these EV charging interface requirements, we recommend that the final solicitation released **not contain** power requirements by DC or AC charging interfaces. There are many existing business/technology case examples for public and workplace EV charging where the DC charging interface is utilized at an equivalent power rating of AC charging in order to maximize DERs benefits. To be clear, some DC chargers can deliver power below 25 kW, and some AC chargers may be deemed to be “fast chargers” with a power rating above 19 kW, so it becomes limiting if you associate a power level with a particular type of charger or interface. By **not** listing the power requirement, this solicitation will enable more flexible and cost-effective EV charging solutions with DERs to be deployed in these communities and truly support rural EV drivers.

As for project site requirements, we make the following recommendations:

- 1) By encouraging DC fast chargers to determine planned installation distance between EV charging sites, this would preclude an opportunity for a workplace DC charger (at L2 rates) to be installed when a DC fast charger is located within 10 miles. Since DC chargers can be utilized for either L2 or DC fast charging rates when integrated with DERs, the *DC charging interface should not exclusively determine the distance to another existing or planned DC charging site, but rather the project site use case should be the determinant.* For example, a rest area charging site can be required to be at least 10 miles from an existing or planned rest area charging site, but it shouldn't be required to be 10 miles from a workplace charging site. This will avoid duplicate project sites from being clustered together but allow the flexibility of different types of sites with different use cases to be located near each other.

Paired Power appreciates the opportunity to provide feedback to the Commission on the initial *Reliable Rural Charging Solutions Draft Concept* for utilizing California State funds to demonstrate light-duty BEV charging infrastructure with DERs to expand access in rural and low-income disadvantaged communities. We look forward to continuing to work with Commission staff and other stakeholders to enhance the proposal prior to this grant opportunity announcement. This upcoming solicitation reflects a desirable investment in DERs related light-duty EV charging technologies that sets a clear pathway for California to meet its 250,000 public EV charging infrastructure goals by 2025.³

If you should have any questions regarding our comments, please contact us at (650) 701-7247 or via email at tom.mccalmont@pairedpower.com.

Sincerely,

Paired Power, Inc.



D.T. McCalmont, CEO

³ California Energy Commission staff. 2018. “California Plug-In Electric Vehicle Infrastructure Projections: 2017-2025.” California Energy Commission. Publication Number: CEC-600-2018-001.