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Reducing costs and increasing reliability

Additional submitted attachment is included below.

08/12/2025

California Energy Commission
Docket 22-EVI-04
RE: Electric Vehicle Charging Infrastructure Reliability

Adopt a Charger, Inc. (AAC) is a 501(c)3 non-profit organization, based in California that has facilitated the installation of over 600 EV charging installations in 16 states. Our mission is to raise awareness of plug-in electric vehicles (PEV) by broadening EV charging infrastructure. Our unique approach matches a funding source with a high-profile destination like National Parks, State Parks, museums, and universities. We specializes in inexpensive, noncomplex, **reliable** solutions, where drivers simply pull up and plug in. There is no need for membership, RFID card, and in most cases no need for authorization of payment. Included in the project budget is 5 years' operation and maintenance. Typically, the only cost to the site host is the relatively insignificant cost of the additional electricity. Because these chargers are offered "free of charge" to the driver, we get high utilization and maximum exposure of PEV.

AAC is grateful to have received funding for projects from the CEC ARFVTP program back in 2014, when we received a grant to install 65 EVSE at 12 California State Parks, **all of which are still in service.** In addition, we assisted the Mendocino Land Trust with their CEC grant proposal for EV charging at 10 California State Parks, which are also still operational. Prior to this grant, AAC worked with South Coast AQMD and LADWP to utilize CEC funding at Leo Carrillo State Beach, Malibu Creek State Park, Baldwin Hills Scenic Overlook, The Natural History Museum of LA County, the Getty Center, and the Getty Villa. AAC has also worked with the National Park Service to install EVSE at Yosemite, Point Reyes National Seashore, Crissy Field, Stinson Beach and Fort Mason. The AAC nonprofit model has proven to be a successful example of public/private partnerships, and all projects we have been involved in resulted in higher than average amounts of match funding.

Since 2014, the CEC and CARB have dramatically increased the requirements to receive CEC funding. I was just reviewing the 14 pages of CARB requirements for EVCS. Well intentioned as they are, the stringent funding requirements not only make the process much more expensive, but affect reliability of the service. When wif-fi and cell service are interrupted, or non existent as in many remote an rural communities, network connections to the cloud to process payment and collect data for reporting requirements makes the projects overly burdensome. Of the 65 EVCS installed by Adopt a Charger with the 2014 grant, all are still in service. Even though this simple, low cost approach has proven successful, the approach does not qualify for Cal EVIP funds. These projects provide insight that should be considered when creating reliability standards.

AAC offers the following recommendations Electric Vehicle Charging Infrastructure Project Funding:

1. **Consider the cost implications of what is being proposed.**

It is very important that the CEC remain focused on policies that incentivize the adoption of plug-in vehicles, and bring down the cost per parking space. In 2014, the average cost of installation and equipment at a State Park was $36,000. In 2017, the California State Parks estimate was increased to $100,068 per park. My estimate is the cost in 2024 would be at least $125,000 per park. The CARB requirements make the cost even more prohibitive for difficult to commercialize charging locations, and emerging markets. The increased burden of satisfying ADA regulations, networking requirements, need for credit card readers, V to G, and standard weights & measurement compliance has dramatically increased the average cost per project. The burden of the escalating cost of infrastructure is passed on to the site host, making them less likely to install EVCS, or to the EV drivers which makes public charging 3-10 times more expensive than home charging.
Also important to consider is who bears the burden if the service should not meet expectations. There are a lot of instances where the EVSP is happy to cash the grant check, but when issues arise it is not their problem. When the 3G network was no longer offered, many site hosts were stuck with equipment that was non-operational, and forced to pay additional money in order to restore service.

2. **Create different reliability standards for networked and non-networked EVCS.**

Adopt a Charger supports creating different reliability standards for networked and non-networked chargers and evaluating how networking and cell/Wi-Fi outages impact reliability. Additionally, we recommend not requiring non-networked chargers to be networked for the sole purpose of data reporting. One of the benefits of non-networked chargers is reduced installation and operating costs, as well as simpler designs that enable faster repairs and less external support. It should be noted that the absence of network connectively does not imply reduced operational reliability."

3. **Default to free**

Overly complicated systems increase the potential for problems, which make EVSE less reliable, and give the message that the electrification of transportation is not ready for prime time. The power is always present, and the point of failure has been shown to be network connectivity, and the inability to authenticate the user or process payment. All EVCS should default to free if there is a disruption in the communication. This measure will also increase the likelihood of timely repairs.

4. **Focus on strategies that have been successful.**

At this time, most Adopt a Charger "sponsored" charging does not require users to download and app, or provide a credit card. As a result, we never have any issues, and have provided a reliable service to EV drivers for over 10 year. We are grateful to PlugShare for providing us

with a site host dashboard, where EV drivers can directly communicate with us directly, and have an over 98% approval rating.

5. **Pricing transparency should include MSRP for equipment, plus networking and payment processing fees.**

I have observed the same equipment billed at different prices depending on the project location.

6. **Allow for flexibility in State funding and CARB requirements to accommodate the special needs of remote/rural areas, and emerging markets.**

Adopt a Charger has not benefitted from CEC funding since the award in 2014, despite a stellar track record of affordable, accessible and reliable options. The CEC awarded funding to the National Park Service to install (8) EVCS at Yosemite in 2018. Adopt a Charger was able to cultivate sponsorship opportunities to expand this effort to over (80) charging stations at eight locations within the park. These charging stations are still being offered “fee-free” thanks to Yosemite Hospitality. Even though there is a cell phone tower in the valley, when over 20,000 visitors a day descend on the valley, there is not adequate capacity to connect to the cloud and process payments without disruption.
It is also difficult and expensive to adhere to standard weights and measures in remote locations. In addition to travel costs to these locations, I was told that the equipment to verify costs $10,000 per month to rent or $120,000 to buy. The rollover cost to customers is $500 per charger because it takes about 45 minutes to verify. For the Yosemite example this equates to $40,000. In remote/rural areas potential revenue from EVCS cannot realistically overcome the cost burden of requirements to enable pay to use charging stations.
Reporting requirements outlined by the CEC only add to the administrative and cost burden at these “useful in their remoteness”, and hinder statewide zero emission travel.

Thank you for considering my suggestions based on 22 years driving electric, and 16 years of working in EV charging infrastructure.

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https://adoptacharger.org/donate/