

DOCKETED

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Electric Vehicle Charging Infrastructure Reliability Standards Suggestions

Additional submitted attachment is included below.



11/11/2022

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

Adopt a Charger, Inc. (AAC) is a 501(c)3 non-profit organization, based in California that has facilitated the installation of over 300 EV charging installations in 12 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 specialize in inexpensive, noncomplex, **reliable** solutions, where drivers simply pull up and plug in. There is no need for membership, RFID card, or authorization of payment. Included in the project budget is at least 3 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. 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.

AAC is grateful to have received funding for projects from the CEC ARFVTP program. In 2014, we received a grant to install 65 EVSE at 12 California State Parks. In addition, we assisted the Mendocino Land Trust with their CEC grant proposal for EV charging at 10 California State Parks. 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.

Many of our projects are located in remote areas and rural communities, where wi-fi and cell service are not available. These projects provide insight that should be considered when creating reliability standards.

AAC offers the following recommendations:

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. These new requirements will undoubtedly make the cost even more prohibitive. 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 the CalETC suggestion “to create 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 connectivity 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.

4. Focus on strategies that have been successful.

At this time, Adopt a Charger “sponsored” charging does not require users to download an 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 years. 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.

We would like to suggest working with PlugShare, who has a tremendous amount of data on performance, to identify the problems that drivers are experiencing. Along these same lines, having a third party verification system where drivers report issues goes a long way in holding EVSP accountable.

Thanks for considering my suggestions,

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