

## DOCKETED

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*Comment Received From: Kitty Adams*

*Submitted On: 6/24/2016*

*Docket Number: 15-MISC-04*

**RE: 15-MISC-04: Lead Commissioner Technology Merit Review Workshop: Electric Vehicle Charging Infrastructure Project Success**

*Additional submitted attachment is included below.*



June 20, 2016

California Energy Commission  
Docket Office, MS-4  
1516 Ninth Street  
Sacramento, CA 95814-5512

**RE: 15-MISC-04: Lead Commissioner Technology Merit Review Workshop:  
Electric Vehicle Charging Infrastructure Project Success**

Adopt a Charger (AAC) is grateful to have participated in the CEC Fuels and Transportation Merit Review workshop, and for the opportunity to provide feedback. As advocates for plug in electric vehicles, I support Governor Brown's ZEV Action Plan and the goal of having 1.5 million PEV on the road in California by 2025. I agree with the CEC perspective that ensuring adequate charging infrastructure is a critical step to encourage the mass adoption of PEVs, increase electric vehicle miles traveled (EVMT), and recognize the opportunity for education and outreach at charger locations between owners and the EV curious.

As the CEC continues to assess the need for public chargers, I encourage you to consider low cost, simple solutions to address the need for more charging. Adopt a Charger offers a unique business model. Because we are a non-profit, we can address situations where EV charging is necessary but often times difficult to commercialize. In most circumstances, installing EV charging is cost prohibitive and there are no examples of return on investment for property owners.

The case example that I presented at the 4/25/16 workshop was the Getty Center. Prior to working with AAC, the operations manager had met with six different EVSPs, none of whom offered an affordable solution to their charging needs. The two main drawbacks identified were the differential in upfront cost of equipment and pricey networking service fees. The network option was going to cost \$60,000 for the 16 EVSE, and an additional minimum amount of \$5,760 in networking fees, plus the cost of installation. The AAC approach offered a simple, low cost, non-complex solution where the EVSE expense was only \$9,000 with there was no ongoing obligations. AAC was able to secure grants and rebates from LADWP and AQMD to cover the total budget cost of \$75,500. In addition to the 16 Level 2 chargers installed at the Getty Center and the Getty Villa, we were able to install 13 Level 1 – 120 v plugs, allowing up to 30 cars to

charge at any given time. To future proof the initial installation, we upsized the transformer and installed the Level 2 chargers in every other space, creating a scalable project that could easily be expanded. At the time of installation in 2015, 3 employees drove PEV, one year later 36 employees drive PEV and the Getty is adding 10 more Level 2 EVSE as we speak.

Another successful strategy utilized by AAC is putting a sticker on the EVSE, encouraging drivers to check in on PlugShare, to promote driver communication and direct observation. PlugShare offers the EV drivers a forum to communicate their needs and let others know when it is OK to unplug. This helps better utilize the limited charging resources. PlugShare also offers a direct link to the station operator. AAC receives notification every time a driver checks into one of our stations. The EV driver is able to communicate in real time any issues that may be occurring. Straight data collection does not offer the enhanced information received by direct communication with the EV community. The example given during my presentation was the Los Angeles Zoo, where LADWP and AQMD sponsored 6 Level 2 chargers, and 1 combo DC Fastcharger. To date, we have received 454 check-ins; 418 (92%) of all comments were positive, 15 (3.3%) of comments were regarding the SAE combo charger not working, 12 (2.6%) of comments were regarding the need for MORE chargers at this location, and 8 (1.7%) of comments were regarding the GreenLots network being down on the DCQC.

Adopt a Charger received a grant in August 2014 to install up to 61 EVSE 12 California State Parks. These locations have proven the hardest to “commercialize” and have been neglected by most other EVSPs. Unlike a newer parking lot in a commercial area, the Parks often times do not comply with the new ADA regulations requiring <2% slope and an accessible path of travel from the EVSE requiring expensive parking lot resurfacing. In addition, most Parks require extensive electrical upgrades to accommodate 240 volt, Level 2 charging. Installing EV charging at the Parks is more expensive, and most likely won't have the usage rates of metropolitan areas, but are important destination locations, where folks travel 40+ miles and EV charging is necessary to enable BEV trips and to increase EVMT by PHEV.

Sophisticated networked EVSE is cost prohibitive in remote areas, where the fees exceed the cost of electricity. The network also affects the reliability of the chargers. Instead the Parks is opting for an “iron ranger” approach to EV charging, which they already utilize in remote locations to pay for parking. Visitors will put a few dollars in an envelope and place the receipt on their dash. At Parks in urban areas where they are moving toward pay by phone parking, the plan is to include the cost of charging in the price of the parking spot. It is redundant and expensive to have a visitor use one system to pay for the parking spot, and then another system to pay for the EV charging.

Adopt a Charger utilizes rugged, non-networked EVSE to ensure reliability and decrease maintenance needs. EVSE can be considered a glorified electric outlet. The more complex the process, the higher the likelihood that problems can occur. In 5 years the only issues that have arisen were a few nuisance trips of circuit breakers, which can easily be dealt with on location by the Park personnel. Using low cost \$500 chargers enables quick cheap solutions by just swapping out any defective chargers.

The best way to introduce the public to plug in vehicles is to see these cars charging in the “wild”, and the best sales people are the owners themselves. When seeing a PEV driving down the road, most people don’t realize that they run on electricity. The connection is made when someone sees the cars plugged in and can engage in conversation with the owner about the experience. In the early adoption phase of plug in vehicles, we need to do everything we can to encourage the use of public charging. Education and outreach efforts are not effective if the chargers are under utilized. In the 2012 study “Are Taxpayer and Private Dollars Creating Effective Electric Vehicle Infrastructure?” by Tom Saxton, of Plug in America, the number of cars plugged in dropped by almost 60% when there was a fee involved. Interaction with actual drivers is the most effective way to engage the public in a conversation about electric vehicles, and it is further encouraged by providing free or sponsored charging.

Thank you for considering my comments when planning future funding opportunities. Please let me know if you have any questions.

Always grateful,

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