



February 25, 2009

DOCKET	
09-ALT-1	
DATE	FEB 25 2010
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California Energy Commission
Dockets Office, MS-4
Re: Docket No. 09-ALT-1
1516 Ninth Street
Sacramento, CA 95814-5512

Docket No: 09-ALT-1

Subject: 2010-2011 Investment Plan for the Alternative and Renewable Fuel and Vehicle Technology Program

Dear Commissioners:

The California Electric Transportation Coalition (“CaETC”) appreciates the opportunity to comment on the *Draft Staff Report, 2010-2011 Investment Plan for the Alternative and Renewable Fuel and Vehicle Technology Program, January 2010*. CaETC is a non-profit association with a board of directors that includes: the Los Angeles Department of Water and Power, Pacific Gas & Electric, Sacramento Municipal Utility District, San Diego Gas & Electric and Southern California Edison. California is likely to be a major focus of initial mass marketing of a new generation of plug-in electric vehicles (PEVs) that have the potential to provide significant environmental and economic benefits. We have the following comments for your consideration related to the *Electric Drive* section.

- The current allotment of \$3 million for Infrastructure and Related Activities is not consistent with the anticipated fast-growing market for PEVs in California or the CEC’s projected need for PEV infrastructure from the September 2009 workshop. Therefore we recommend increasing the amount allotted to infrastructure to a minimum of \$12 million, so as to at least match the previous funding allocation.

CaETC agrees with CEC’s vehicle projection numbers and infrastructure needs, roughly 5,000 upgraded charging stations and 2,000 new charging stations throughout California. CaETC expects that the number of PEVs coming to California will dramatically increase in the next 5 years, the time for investing in infrastructure to ensure success of this new vehicle market is now. The State cannot afford to reduce this important infrastructure funding, instead, increasing infrastructure investment over time in pace with growing PEV adoption rates will best support PEVs while creating jobs and helping to meet the State’s ambitious environmental and petroleum independence goals.

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A non-profit association
promoting cleaner, healthier air
through the development and use of
zero-emission electric vehicles,
hybrid electric vehicles,
electric mass transit buses and rail.

CalETC members are already in the planning stages and out in the field on infrastructure upgrade and development projects. There is a lot of debate and variability in installation costs. Appendix A provides a set of examples from a variety of sources. The variables include location, charger equipment, labor costs etc. CalETC recommends the CEC closely track proposed projects for cost and possibly adjust its projections and allocations accordingly, including projects from the current *Investment Plan*. The CEC also needs to maintain the flexibility it has in the current *Investment Plan*, as long as sufficient public notice is given when funds are adjusted.

- CalETC recommends that level II and DC fast charging be funded and that workplace, public and home infrastructure is eligible. We believe this is the intent of the CEC and recommend the intent be made clear.
- For clarification purposes, CalETC believes is beneficial to define infrastructure location terms of eligibility in this *Investment Plan*. For example, clarification is needed to determine whether home installation is the same as a residential multi-unit and whether there is a difference between commercial and public charging eligibility requirements. As stated above we believe funding is needed for home, multi-unit, workplace and public charging. In the *Investment Plan* these terms are being used interchangeably. There would be value to clear delineation between these terms, particularly for tracking and assessment purposes.
- There is no prioritization outlined for locations or levels (i.e. Level I, II or DC fast charge) of charging installations in either the *Investment Plan* or by the State at this time. CalETC believes it would be premature to prioritize charging installation at this point. However, CalETC recommends the CEC track the locations for proposed projects, assess whether these projects are strategically located and determine whether there are unmet needs by identifying gaps in the growing network. As the number of PEVs increases in the State, it will be important ensure that the entirety of the state is PEV ready. CalETC would be pleased to work with our members and the CEC to help with this tracking.

Finally, we look forward to attending the March 16 joint workshop with the CPUC, CEC and ARB. We understand the general topic will be Single User Charging for Plug-in Electric Vehicles and are pleased the three agencies are coordinating. CalETC encourages the CEC continue to coordinate with the CPUC and the ARB in the CPUC proceeding especially as it relates to and potentially impacts the Alternative and Renewable Fuel and Vehicle Technology Program and the AB 118 Investment Plan.

Thank you for the opportunity to provide these comments. Please call should you have any questions.

Sincerely,



Eileen Wenger Tutt
Executive Director
California Electric Transportation Coalition

EWT/kmg
Attachment (Appendix A)

APPENDIX A

Historical Average Infrastructure Installation Cost – SMUD

Level 2 Residential installations averaged	\$4000 per charger
• Charger (Inductive with \$500 incentive)	\$1900
• Installation labor	\$1177
• Permits	\$ 150
• Other Mat'ls and freight	\$ 572
• Tax	\$ 193

Level 2 Commercial installations average	\$6300 per charger
• Charger (Inductive w/o incentive)	\$2480
• Installation labor	\$2287
• Permits	\$ 77
• Other Mat'ls and freight	\$1497

Inductive charging hardware shown for reference

- 88 residential installations

- 62 commercial installations

Conductive EVSE was approximately \$1,000 per unit less

Nut Tree Village, City of Vacaville, 2008

The cost breakdown for installing one small-paddle inductive charger was as follows:

Inductive Charger	\$5,600
Pedestal	\$1,103
Shipping and Handling	\$220
Sales Tax	\$494.35
Total for Equipment	\$7,417.35
Installation Cost	\$16,375.90
Total Cost of Installation	\$23,793.25

PG&E Electric Vehicle Charging Station Costs, 1998 - 2009

Elec Vehicle Chargers	1998 L.C.	1998 Stockton	1998 Merced	1999 Modesto	1999 Bkrsfld	2009 Hwy 80	Total	Average
No. of Units	6	4	2	2	5	16	35	-
Labor	\$13,935	\$3,485	\$1,220	\$4,280	\$3,030	\$27,560	\$53,510	\$1,529
Capital	\$18,815	\$11,061	\$5,144	\$5,650	\$13,850	\$68,500	\$123,020	\$3,515
Total Dollars	\$32,750	\$14,546	\$6,364	\$9,930	\$16,880	\$96,060	\$176,530	\$5,044
Unit Cost	\$5,458	\$3,637	\$3,182	\$4,965	\$3,376	\$6,004	-	-

Average Total cost per 1998/1999 EVSE installation = \$4,235 (labor = 32%, capital = 68%)

Average Total cost per 2009 EVSE installation = \$6,004 (labor = 29%, capital = 71%)