

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

**2011-2012 Investment Plan for the Alternative and Renewable Fuel
and Vehicle Technology Program**

Comments of Catherine Dunwoody

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June 06, 2011

Thank you for the opportunity to comment on the staff's proposed 2011-2012 Investment Plan for the alternative and Renewable Fuel and Vehicle Technology Program. The California Energy Commission staff has conducted a thorough analysis of hydrogen infrastructure needs, based on automaker survey results that project when, where and how many fuel cell vehicles will be deployed in California. CaFCP members appreciate the opportunity to work closely with CEC staff to communicate vehicle deployment plans and jointly understand fuel station needs of fuel cell vehicle customers. We are also pleased to see good progress on executing the funding for 8 new and 3 upgraded/expanded retail-oriented hydrogen stations and look forward to the pending 2011 hydrogen solicitation using funds from the 2010-2011 Investment Plan.

The California Fuel Cell Partnership action plan, published in February 2009, details the investments and actions needed to transition to an early commercial market for fuel cell vehicles in California. CaFCP surveys our automotive members annually regarding their fuel cell vehicle plans, and these results repeatedly confirm the phased introduction of hundreds, thousands and then tens of thousands of fuel cell vehicles in California by 2017. CaFCP published the latest survey results in February, 2011 in the [Progress and 2011 Actions for Bringing Fuel Cell Vehicles to the Early Commercial Market in California](#). The report identifies actions required in 2011 to prepare for coming fuel cell passenger vehicles and transit buses, including additional hydrogen stations needed to fill gaps in early market communities.

The 2011-2012 Investment Plan proposes to allocate \$8 million for hydrogen "to address high-priority gaps in fueling infrastructure, as well as funding for transit demonstration opportunities that use fuel cell vehicle technology." This funding will help ensure fuel cell vehicle customers, including transit customers, will have sufficient access to hydrogen fuel for the early commercial market, alleviating many of the gaps in fuel availability between now and 2014. The California Energy Commission's commitment to continued funding of early market hydrogen stations is a key enabler to launching fuel cell vehicle commercialization, and is very much appreciated.

We would like to offer the following minor suggestions and technical edits for your consideration. My staff is available to discuss these points at your convenience.

- SAE TIR J2601 outlines that FCV fueling can be approximately 3-5 minutes per fill for all vehicles, not only for H70 or newer vehicles. (page 51 paragraph 1, last sentence).

- Several automakers are currently leasing FCVs to the public. (page 51 paragraph 2 and page 59 paragraph 3)
- We recommend removing the statement “somewhat affordable” as it refers to lease rates and is subjective. (Page 51, paragraph 2)
- We request a reference or citation when referring to costs of hydrogen production and competitiveness with petroleum fuels. (Page 52, paragraph 1)
- The move away from electrolyzers and onsite-production in the last solicitation is a reflection of the PON structure, not an industry trend or technological opportunity. (Page 53 and page 54, paragraph 1)
- CaFCP and the industry find only four publically accessible stations in California. The other eight cited in the 2010 CEC Station Report have limited accessibility and/or limited hours of operation. (Page 55, paragraph 3),
- Paragraph 4 on page 56 and paragraph 6 of the same page disagree with each other. Paragraph 6 is correct that locations outside the key clusters are important to automakers as a part of a growing infrastructure network necessary for commercialization. (Page 56, paragraph 4)
- Allowing flexibility in the use of the hydrogen allocation funding for both light duty and transit will enable CEC to optimally disperse the monies. (Page 57)
- “Pre-commercial” is a more accurate definition of the current status of FCVs than “current demonstration.” (Page 59, paragraphs 1 and 4)
- The paragraphs on page 59 and page 60 disagree with each other. The statement in paragraph 5 of page 59 is more accurate. Most automakers do not have plans to pursue hydrogen combustion engines. Hydrogen and natural gas infrastructure both need to be built out, negating an infrastructure cost advantage.

Thank you for CEC’s continued support for hydrogen as part of a portfolio of solutions to reduce petroleum dependence, air pollutants and greenhouse gases is vital to the success of the early market for fuel cell vehicles. The “gap funding” that CEC provides through 2014 maintains California’s forward progress in fuel cells for transportation and sends a positive signal to industry that the State of California recognizes the importance of this technology and appreciates their investment.