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#### Automotive Fuel Cell Cooperation

Cal/EPA Air Resources Board  
California Energy Commission  
South Coast AQMD  
U.S. Department of Energy  
U.S. Department of Transportation  
U.S. Environmental Protection Agency

AC Transit  
Air Liquide  
Air Products  
Ballard Power Systems  
CA Dept of Food and Agriculture  
ITS-UC Davis  
Linde North America, Inc.  
NFCRC-UC Irvine  
NREL  
Powertech Labs  
Praxair  
Santa Clara VTA  
SunLine Transit Agency  
UTC Power

## DOCKET

11-ALT-01

DATE \_\_\_\_\_

RECD. FEB 24 2012

### **Comments CEC 11-ALT-1 Staff Draft for the 2012-2013 Investment Plan for the Alternative and Renewable Fuel and Vehicle Technology Program, considered at the February 10, 2011 Advisory Committee meeting.**

Thank you for the opportunity to comment on the Staff Draft of the 2012-2013 Investment Plan (Docket 11-ALT-1). CaFCP acknowledges and appreciates the work that has gone into developing this plan and we appreciate the support hydrogen has received and is proposed to receive.

CEC's funding for hydrogen stations and support to enable the retail sale of hydrogen fuel has helped lay the foundation for the initial rollout of fuel cell vehicles. However, and as mentioned in the draft plan, sustained support will be essential for successful market growth of fuel cell vehicles. Sufficient coverage of stations is needed to ensure customer acceptance. The \$11 million proposed in the 2012-2013 Investment Plan will significantly help grow the station network to support fuel cell vehicle drivers.

Cash flow modeling of revenues and expenses for hydrogen stations shows that hydrogen can be a profitable business for fuel retailers, most of whom are small and medium-sized business owners. Fuel retailers will be challenged to reach profitability while simultaneously ensuring station network coverage to support fuel cell vehicle market launch. Public funds help fill this gap.

Specific comments on page 22 of 2012-2013 Investment Plan:

1. When tallying current and projected hydrogen stations in California, keep in mind that several of the six existing public hydrogen stations are no longer state-of-the-art, provide very low capacity (<50 kg/day) and offer only 35MPa hydrogen. These stations will need to be upgraded and expanded to be counted toward a retail hydrogen network. Also, some stations will not be well-suited to ongoing retail operation due to location or operating entity.

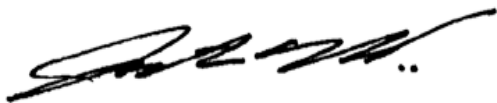
2. Please clarify that the work done by CDFA DMS will allow for hydrogen to be sold as a *retail fuel* on a per kg basis.
3. CEC references CaFCP as stating a need for “approximately 50 stations in critical regions for the successful commercial launch of FCVs.” The CaFCP Action Plan referenced in footnote 28 recommended a balanced approach scenario of 40 new stations by 2014. The number of stations required for adequate coverage in 2015 is currently being finalized by CaFCP. The CaFCP’s OEM members presented their input on this topic at the February 22, 2012 PON-11-609 public workshop.
4. We support CEC consideration of operation and maintenance costs at stations. This is particularly important to support small businesses and less profitable but important locations. Such support could also be applied to currently operating public stations which may close or require an upgrade or expansion to meet retail needs.

Other comments:

1. CaFCP encourages CEC to support station technology required for renewable hydrogen and larger capacity stations, as these are essential to meeting policy goals and commercial market growth.
2. CaFCP supports CEC funding community readiness for hydrogen, as was done for PEVs.

Thank you again for the opportunity to provide comments. Please let me know if you have any questions or need clarification.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin Ward".

Justin Ward  
CaFCP Chair

A handwritten signature in blue ink, appearing to read "Catherine Dunwoody".

Catherine Dunwoody  
Executive Director