cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE
A. G. Kawamura, Secretary

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09-IEP-1K
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September 9, 2009

California Energy Commission
Dockets Office, MS-4
Re. Docket No. 09-IEP-1K
1516 Ninth Street
Sacramento, CA 95814-5512

Re: 2009 IEPR – Transportation Energy Forecasts

The Department of Food and Agriculture's Division of Measurement Standard (CDFA/DMS) is responsible for applying uniform standards for fuel quality and fuel dispenser accuracy. CDFA/DMS is also charged with establishing and enforcing method of sale and labeling requirements for commercial transactions, which provide consumers a basis of value comparison and fosters fair competition in the marketplace. A marketplace for renewable and alternative fuels, built on sound measurement codes and standards with consistent fuel quality will have a direct impact on the sustainability of hydrogen, ethanol, biodiesel, and other renewable fuel sources in our future energy economy. Without legally defined standards, confusion and unfair competitive practices can quickly evolve and potentially harm the consumer's perception of these fuels as viable alternatives to conventional fuels. Until resolved, these obstacles are guaranteed to prevent the establishment of a commercially viable alternative fuel infrastructure.

CDFA/DMS offers the following comments and/or corrections to the Draft Staff Report on Transportation Energy Forecasts and Analyses for the 2009 IEPR:

1. Pages 74, E85 Pricing Issues.

CDFA/DMS recommends deleting the following sentence "However, the California Division of Measurement Standards (DMS) should expand their posted retail price standards to include some form of energy equivalent or fuel economy equivalent pricing information at all retail stations offering E85 in California" for the following reasons:

Posting an accurate value of the energy equivalent or fuel economy equivalent price is not possible. The recognized ASTM Specification for E85 allows the concentration of ethanol to vary from 70 to 83%. The energy content of the

gasoline used to blend the E85 fuel will also vary relative to composition of that gasoline. Posting the energy equivalent or fuel economy equivalent price would have to be based on average concentration levels for E85 fuel. This would make the true value comparison with other formulations of gasoline impossible.

The actual fuel economy obtained is dependent on the vehicle type, not just the energy content of the fuel. As a result any posting on the pump as to price equivalence between the fuel being sold and gasoline could misrepresent the actual performance of the fuel delivered to the customer.

CDFA/DMS agrees that educating consumers about the comparative value of all fuels used for automobiles is very important for the acceptance of alternative fuels in California. However, comparative energy value pricing is likely to lead to more customer confusion and great expense for retailers or distributors trying to comply with multiple labeling and advertising requirements.

This issue may best be handled in a forum which studies performance standards for all competitive energy sources; i.e. gasoline, diesel, ethanol, biodiesel blends, biobutanol, hydrogen, and electricity.

2. Page 120, Standards and Infrastructure

CDFA/DMS recommends deleting the following words in this sentence, "National and in-state standards need to be developed for ~~fuel quality,~~ device specifications, testing and certification methods, method of sale, dispensing, and unit of measuring"

Senate Bill 76 (Chapter 91, Statute of 2005) directed CDFA/DMS to adopt statewide fuel quality standards by regulation for hydrogen fuel used both in fuel cells and internal combustion engines. On September 11, 2008, regulations (California Code of Regulations; Title 4, Division 9, Chapter 6, Article 8) were adopted which limit contaminates in hydrogen known to be harmful to fuel cells. When a development organization accredited by the American National Standards Institute (ANSI) has completed national standards the Department will adopt them by reference in lieu of the interim state standards.

National fuel sampling and test procedures for hydrogen fuel have also not been established. The SAE International and ASTM International are taking the lead in the development of national sampling and test procedures for hydrogen but their work is far from finished. It is hoped that this work will be completed before hydrogen fuel cell vehicles become readily available to the general public. However, CDFA/DMS will begin its own research on sampling procedures and

analytical methodology, in the event that California needs to determine compliance with its hydrogen fuel quality standards.

CDFA/DMS recognizes that establishing a comprehensive set of accuracy and advertising standards for commercially available hydrogen fuel is a critical first step in the development of a fair and competitive marketplace in the California Hydrogen Highway infrastructure. Creating codes that specify dispenser accuracy requirements will allow consumers to obtain a full measure at the greatest value. Defining a legal method of sale and advertising requirements is the most practical and efficient way to ensure that a) consumers can make value comparisons between competing retail service stations, b) that sellers will advertise and deliver hydrogen using a single unit of measurement, and c) that a level playing field for competing businesses is established.

CDFA/DMS wishes to thank the California Energy Commission for the opportunity to comment on the Commission's Draft Staff Report. CDFA/DMS looks forward to working with the Energy Commission to establish the commercial infrastructure necessary for emerging alternative fuels to be viable in California's marketplace. If you have any questions, please contact me by calling (916) 229-3000 or via email at ewilliams@cdfa.ca.gov.

Sincerely,

Edmund E. Williams, Director
Division of Measurement Standards