

**CALIFORNIA ENERGY COMMISSION**

1516 Ninth Street  
Sacramento, California 95814

Main website: [www.energy.ca.gov](http://www.energy.ca.gov)



## Hydrogen Gas for Transportation -- Measurement and Dispensing Workshop

The California Energy Commission staff will host a workshop on hydrogen gas metrology, standards, and dispensing. The purpose of this workshop will be to discuss the regulations for the commercial measurement of gaseous hydrogen used as a vehicle fuel in refueling applications.

**August 27, 2013**

10 a.m. – 3 p.m.

CALIFORNIA ENERGY COMMISSION

1516 Ninth Street

First Floor, Hearing Room B

Sacramento, California

(Wheelchair Accessible)

Remote Access Available by Computer or Phone via WebEx™  
(Instructions below)

### Background

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology (ARFVT) Program. The statute, subsequently amended by AB 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the California Energy Commission to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies.

The 2011/2012 Investment Plan recognized that "...state support is needed to build regional fueling networks, ensure a reliable supply of [hydrogen] fuel, and establish fueling stations in regions with more modest Fuel Cell Vehicle (FCV) [deployment] commitments through 2014." The Investment Plan directs the ARFVT Program to "match supply to demand" by funding infrastructure projects which meet the fuel demands of FCV drivers in California.

The regional fueling networks will support the alternative transportation fuel and vehicle technology goals of the state of California, such as the Zero Emissions Vehicle (ZEV) Program, which requires 14 percent of certain auto manufacturers' model year-2015 fleets to be zero-emission vehicles, and the Low Carbon Fuel Standard, which is

designed to reduce the carbon intensity of transportation fuels by 10 percent by 2020.

In March 2012, Governor Brown issued Executive Order B-16-12 directing state agencies to help accelerate the market for ZEVs in California. The Executive Order established several milestones on a path toward 1.5 million ZEVs in California by the year 2025. The 2013 ZEV Action Plan identifies specific strategies and actions that state agencies will take to meet milestones of the Executive Order.

The first goal of the ZEV Action Plan is to complete needed infrastructure and planning. The Energy Commission has been tasked to ensure that California's hydrogen fueling infrastructure network can ensure a reliable supply of hydrogen fuels in areas of planned fuel cell vehicle deployment.

A major component of the infrastructure is the commercial measurement and dispensing of gaseous hydrogen for vehicles and other refueling applications. The related techniques and methods include: device accuracy, installation in hydrogen fueling stations, and field testing. Three field test reference standards for commercial, retail dispensers will be discussed by the Energy Commission staff and the staff from the California Department of Food and Agriculture/ Division of Measurement Standards (DMS). Open discussion by the public is encouraged.

## **Discussion Topics**

- Objectives, activities and findings under California Energy Commission contract number 600-09-015,
- The development and promulgation of the National Institute of Standards and Technology (NIST) "Handbook 44, Section 3.39 Hydrogen Gas-Measuring Devices," Tentative Code, and
- Review of a pre-rulemaking discussion draft and proposed changes to the California Code of Regulations (CCR) regarding hydrogen gas-measuring devices.

## **Public Comment**

Oral comments: Staff will accept oral comments before and during the workshop. Comments may be limited to 5 minutes per speaker. Any comments may become part of the public record in this proceeding.

Written comments will also be accepted at the workshop; however, staff may or may not have time to review them before the workshop conclusion. For additional information, see Standing Order re: Proceedings and Confidentiality Procedural Requirements for Filing, Service, and Docketing Documents with the Energy Commission, available at: [www.energy.ca.gov/commission/chief\\_counsel/docket.html](http://www.energy.ca.gov/commission/chief_counsel/docket.html).

Written comments may be posted by August 20, 2013 to the Energy Commission's website for the proceeding. Please note that your written and oral comments, attachments, and associated contact information (e.g., address, phone, email, etc.) become part of the viewable public record. This information may become available via Google, Yahoo, and any other search engines. Comments should be in a downloadable and searchable format such as Microsoft® Word (.doc) or Adobe® Acrobat® (.pdf). Please indicate "Hydrogen Gas Measuring Devices" in the subject line. Send comments to: [Andrew.Hom@energy.ca.gov](mailto:Andrew.Hom@energy.ca.gov)

If you prefer, you may send a paper copy of your comments to:

California Energy Commission  
Andrew Hom, MS-27  
Re: Hydrogen Dispenser Regulations  
1516 Ninth Street  
Sacramento, CA 95814-5512

Following the August 27, 2013 workshop, written questions and comments may be submitted to Andrew Hom by 3:00 p.m. on September 10, 2013. The comments should be in a downloadable, searchable format such as Microsoft® Word (.doc) or Adobe® Acrobat® (.pdf). Please indicate "Hydrogen Dispenser Regulations" in the subject line. Send comments to: [Andrew.Hom@energy.ca.gov](mailto:Andrew.Hom@energy.ca.gov)

## **Public Adviser and Other Commission Contacts**

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission proceedings. If you want information on how to participate in this forum, please contact the Public Adviser's Office at [PublicAdviser@energy.ca.gov](mailto:PublicAdviser@energy.ca.gov) or (916) 654-4489 (toll free at (800) 822-6228).

If you have a disability and require assistance to participate, please contact Lou Quiroz at [lquiroz@energy.ca.gov](mailto:lquiroz@energy.ca.gov) or (916) 654-5146 at least five days in advance.

Media inquiries should be sent to the Media and Public Communications Office at [mediaoffice@energy.ca.gov](mailto:mediaoffice@energy.ca.gov) or (916) 654-4989.

If you have questions on the subject matter of this meeting, please contact Andrew Hom at [Andrew.Hom@energy.ca.gov](mailto:Andrew.Hom@energy.ca.gov) or (916) 651-3000.

## **Remote Attendance**

You may participate in this meeting through WebEx™, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you may listen to audio via your computer or telephone. Please be aware that the meeting may be recorded.

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4. To listen over the computer: If you have a broadband connection, and a headset or a computer microphone and speakers, you may use VoIP (Internet audio) by going to the Audio menu, clicking on “Use Computer Headset,” then “Call Using Computer.”

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If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239.

## **Attendee List**

Attendees should note that an attendee list may be prepared and that participants can choose not to be included on the list. This includes sign-ins, both in-person and electronically.

## **Availability of Documents**

Documents and presentations for this meeting will be available online at: <http://www.energy.ca.gov/altfuels/notices/index.html>

August 2, 2013

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Randy Roesser  
Deputy Director

Mail Lists: AltFuels, Transportation, Opportunity