



# CaH2Net – UPDATE

WINTER 2005/2006

## SB 76 Hydrogen Highway Funding

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### DATES OF INTEREST:

- Request for Proposals for Station and Vehicle Funding—Anticipated release in early February
- Zero Emission Bus Regulation Workshop January 27, 2006—El Monte

On July 21, 2005, Governor Arnold Schwarzenegger signed Senate Bill 76 (SB 76) that provided \$6.5 million in funding as well as legislative guidelines in support of implementation of the California Hydrogen Highway Network (CaH2Net) Blueprint Plan. The funds are for state sponsored hydrogen demonstration projects to co-fund the establishment of up to three hydrogen stations and the State lease and purchase of a variety of hydrogen fueled vehicles.

SB 76 required that the State conduct public workshops prior to solicitation for projects and make available draft station siting criteria to the public for comment. The Air Resources Board convened five public workshops and solicited input on SB 76 funding for the California Hydrogen Highway Network. These workshops were held in October and November as follows:

- October 28 in Sacramento (day)
- November 1 in Fresno (day and evening)
- November 2 in Los Angeles (evening)
- November 3 in El Monte (day)

Presentations were made by Analisa Bevan, on the history of the CaH2Net program, Mike Kashuba, on the hydrogen infrastructure component of the funding, and Tony Brasil, on the hydrogen vehicle component. The workshops were well attended and ARB staff received valuable input from all stakeholders. Vehicle manufacturers, vehicle conversion companies, hydrogen equipment manufacturers, energy providers, utilities, state and local government representatives, battery electric vehicle proponents and the interested public were well represented. On November 15, 2005, the California Environmental Justice Ad-

visory Committee provided comments and approved a preliminary draft version of the draft siting and location criteria.

As a result of these workshops and public comments, the ARB released the "Draft Siting and Location Criteria for Three Hydrogen Demonstration Stations," and announced a 30-day public comment period which ended on January 5<sup>th</sup>, 2006. ARB staff will incorporate comments received during the 30-day comment period in anticipation of the release of the Project Solicitation in early February. Staff expects to hold a "bidder's conference in March and receive project proposals by early May. Project selection and contracts should be in place by mid summer.

To access any of the workshop presentations, public comments, or the Draft Siting Criteria, please visit [www.hydrogenhighway.ca.gov/sb76/sb76.htm](http://www.hydrogenhighway.ca.gov/sb76/sb76.htm).

## 2006/2007 State Budget Includes New Funding

The Administration is proposing \$6.5 million in the 2006/2007 State budget for the California Hydrogen Highway Network. This new allocation would fund additional stations and would support demonstra-

tion of fuel cell buses. As described in the Blueprint Plan, development in heavy duty applications, specifically transit buses, provides another opportunity for California to move toward a hydrogen economy. Watch

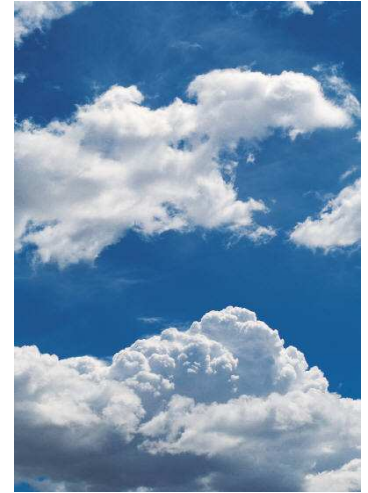
for further information about the proposed funding in future CaH2Net Updates and on our website at: [www.HydrogenHighway.ca.gov](http://www.HydrogenHighway.ca.gov)

## Engaging the State Fire Marshal

Ensuring the safe and effective deployment of hydrogen fueling stations relies heavily on input from permitting officials and emergency first responders. To achieve this goal the Hydrogen Highway is developing areas for coordination of activities with the Office of the State Fire Marshal. State Fire Marshal Ruben Grijalva has not only had extensive ex-

perience working hands-on with hydrogen gas, but has expressed an enthusiastic willingness to move the State to develop a safe and sustainable hydrogen infrastructure. Later this month, CaH2Net staff will be meeting with Chief Grijalva, his staff, and the California Fuel Cell Partnership to discuss: 1) strategies for ensuring that the permitting and

response community is kept abreast of technological developments; 2) developing hydrogen handling and safety response training programs; 3) identification, promulgation and compliance with applicable codes and standards; 4) communications efforts to respond to people's questions regarding hydrogen safety.



## Hydrogen Reporter Briefings - A Success!

On August 30<sup>th</sup> and September 1<sup>st</sup> the CaH2Net Implementation Team along with industry stakeholders hosted hydrogen reporter briefings at UC Berkeley and Cal State LA. The briefings were designed to educate the media on the major hydrogen issues, and generate understanding and support for California's pursuit of a hydrogen future. The briefings brought together a diverse mix of experts to speak on hydrogen cost, safety, environmental viability, the CaH2Net, and provided strategy and activity updates from the auto and energy industries.

More than twenty journalists attended the four and a half hour briefings, representing news outlets such as National Public Radio (NPR), The San Francisco Chronicle, Associated Press, the Oakland Tribune, Reuters, LA Weekly and many local news organizations. Feedback from reporters on the event was very positive, with journalists asking many questions and several reporters pursuing speakers for additional information after the workshops.

Although not the intention of the briefings, a few news stories sparked

from the event. The San Francisco Chronicle printed "*Charting the Long Road to Hydrogen Power / Refueling infrastructure for gaseous element holds key to adoption of fuel, experts say*" on August 31<sup>st</sup>, and NPR aired a very positive segment on hydrogen after the briefings on August 30<sup>th</sup>.

Media briefings will be an ongoing part of the CaH2Net's outreach and education strategy. For more information about the media briefings, contact Melissa Meuser at 916.327.2950 or [mmeuser@arb.ca.gov](mailto:mmeuser@arb.ca.gov).

**"Charting the Long Road to Hydrogen Power / Refueling infrastructure for gaseous element holds key to adoption of fuel, experts say"**  
**San Francisco Chronicle**

## State Agencies Accept Keys to Ford Focus FCVs

On October 24, 2005, the California Air Resources Board, California Energy Commission and Department of General Services accepted the keys to three Ford

Focus Fuel Cell vehicles. The vehicles are part of a demonstration program to help improve the design and performance of fuel cell technology. The vehicles will be

used for public outreach and for demonstration with targeted audiences such as policy makers, emergency responders and fleet managers.



Pictured are Ron Joseph, Director of General Services; B.B. Blevins, Executive Officer of the California Energy Commission; Dr. Alan Lloyd, Cal/EPA Agency Secretary; and Todd Suckow of Ford at the Key Hand-Off Event October 24, 2005.

## Hydrogen Hits the Highway Again in Road Rally IV

Kicking off at the State Capitol, the California Fuel Cell Partnership's (CaFCP's) fourth annual Road Rally made its way through the Bay Area this year – demonstrating progress in fuel cells, hydrogen fueling and public and private supportive programs. Public event stops this year included Sacramento, Davis, Martinez, Berkeley, Oakland, San Jose and San Francisco. More than 1600 people were drawn to the events, and 350 of them participated

in fuel cell vehicle test drives.

Analisa Bevan participated in the workshop put on as part of the Road Rally for elected and appointed officials, environmental organizations and educators to discuss funding, hydrogen fueling and fleet programs in the Bay Area. The workshops were well attended, and provided a breadth of information to decision makers in the area.

At each event stop, CaH2Net staff also managed an information booth that promoted the importance of hydrogen in California, and answered questions from the public, the media and workshop attendees about the CaH2Net. Road Rally IV was a great success for all involved, and we look forward to Road Rally V!



Terry Tamminen Waves the Starting Flag for Road Rally IV in front of the State Capitol in Sacramento.

## Zero Emission Bus Regulation - Status Update

In February 2000, the Board adopted technology-forcing transit bus regulations that included Zero Emission Bus demonstration and purchase requirements. Currently three demonstrations using hydrogen fueled, fuel cell powered buses are underway in California. In March of 2006, Staff will be presenting a status update to the Board, on Zero Emission Bus (ZEB) Technology. In preparation for the status report Air Resources Board held a workshop in Sacramento on October 27 and will be holding a second workshop in El Monte January 27, 2006. The purpose of the workshops is to discuss the

successes and challenges of ongoing demonstrations and to solicit input to guide the next steps leading towards commercial development of ZEBs.

Response from the first workshop was varied, bus technology developers would like to have firm purchase requirements in place while recognizing current costs and the state of the technology are not ready for integration into large scale fleet operations. Transit agencies foresee the potential for integrating ZEBs into fleets but want a delay in upcoming purchase requirements.

A loose consensus developed during the Octo-

ber workshop, everyone wants the program to succeed, more buses are needed to demonstrate the readiness of the technology, partnering between transit agencies is a good way to share experience and demonstrating a larger fleet is needed before the purchase requirement is implemented (10 to 12 at a single property buses to learn about agency wide training, fueling logistics, maintenance, route evaluations, etc.). In addition, transit agencies wanted to wait and learn more from the buses that are now in service before considering if regulatory changes are required.

*Professor Dan Sperling, UC Davis, said the future of fuel cells depends on how committed automakers are to this new kind of power. Then, he said, "the question is, will the rest of the pieces fall in place -- a fuel system, storage technology (for hydrogen) in the vehicle, Gov. (Arnold) Schwarzenegger's hydrogen highway?"*

*San Francisco Chronicle, 9/30/05*

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## Environmental Justice Impacts of Hydrogen Explored

With implementation of the California Hydrogen Highway Network moving into high gear, the community impacts of a transition to hydrogen are generating more attention. Funding authorized by the legislature last summer to help construct three new hydrogen fueling stations (SB 76) requires ARB to consult with the Cal-EPA Environmental Justice Advisory Committee (CEJAC) to gather input on siting criteria and locations as well as to address any other potential environmental justice concerns.

ARB has worked closely with CEJAC in the development of the draft siting criteria. In mid-November, we worked with a number of our partner organizations to conduct a multi-site tour

of existing hydrogen fueling stations representative of the types of stations likely to be built in the near term. CEJAC's designated hydrogen representative was able to visit fueling stations operated by the City of Los Angeles using trucked-in hydrogen, South Coast Air Quality Management District using grid electrolysis with plans to solar assist, ChevronTexaco using onsite natural gas steam reformation, and Honda using electrolysis powered by a Photovoltaic unit. The tour was conducted using the City of Los Angeles Honda FCX vehicles.

Hydrogen experts also took part in CEJAC meetings to share information of interest to the group. Among those

presenting in addition to Air Resources Board staff were Cynthia Verdugo-Peralta from South Coast Air Quality Management District, Jason Mark from the Union of Concerned Scientists, Carl Baust from the Orange County Fire Authority, Dr. Jack Brouwer from U.C. Irvine, and Jon Slangerup from Solar Integrated Technologies. CEJAC approved the draft siting criteria with a few suggested clarifications. We will continue to coordinate with CEJAC as we move forward with implementation.

A number of the materials from the CEJAC meeting are available at <http://www.calepa.ca.gov/EnvJustice/ActionPlan/Phase2/default.htm#PublicMeetings>.

## Meet the CaH2Net Team

The CaH2Net team is growing! In addition to providing funding for stations and vehicles, SB 76 authorized staffing to support implementation. The CaH2Net Team is now comprised of:

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