

California Hydrogen Business Council

June 2006 Report

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1. Welcome New Members

CHBC welcomes new members Tola Oye, BP; Sean Edgar, Clean Fleets Coalition; Jeff Cox, Fuel Cell Energy. We appreciate your support!

2. Santa Monica H2 Station Opening

Industry members are invited to attend the grand opening of Santa Monica's renewable hydrogen vehicle fueling station, 11 a.m - noon at Santa Monica's City Yard, 2500 Michigan Ave., Santa Monica, CA 90404 (off Interstate 10 @ Cloverfield Blvd.). If you plan to attend, please RSVP whastings@cleanairnow.us.
[Santa Monica](http://www.h2event.smgov.net): <http://www.h2event.smgov.net>

3. CaH2Net Budget Update - Act Now!

If you support funding the Governor's Year 2 Hydrogen Highway request at its full \$6.5 million, act quickly! Contact the Senators and Assembly members listed here. The hydrogen budget was rejected by the state Senate and funded by the Assembly. It will now enter into Conference where Senators Chesbro, Hollingsworth and Ducheny and Assembly members Laird, Keene, and Chu will attempt to come to agreement on the level of funding they will submit to the Governor. If they cannot agree, the item will be included in a group of programs that are negotiated between leaders of the two California houses and the Governor's office (referred to as Big 5). These negotiations are to be completed by June 15 so the Legislature can submit the budget to the Governor per the timeline prescribed by law. We anticipate the hydrogen item will go to Big 5.

4. Fuel Cell Bus Program

The Department of Transportation issued an RFP for the National Fuel Cell Bus Technology Development Program, which seeks to develop commercially viable fuel cell bus technology and related infrastructure for transit revenue service operations. Approximately \$49 million is expected to be available for awards. Up to three projects

will be selected to receive funding through this solicitation. White papers were due May 10, 2006. Proposals are due July 14, 2006.

[DOT FC Bus Program:](#)

<http://www.grants.gov/search/search.do?mode=VIEW&oppld=9008>

5. Hydrogenics and PEI Energy Corp. to Develop Wind-Hydrogen Village Project

Hydrogenics and Prince Edward Island Energy Corporation will lead a consortium of industry and government partners to develop Canada's first wind-hydrogen village demonstration - the Prince Edward Island (PEI) Wind-Hydrogen Village Project. This multi-faceted initiative will demonstrate, in real-life and in real-time, how wind energy and hydrogen technologies can work together to offer clean and sustainable energy solutions across a wide range of applications. As announced in an Industry Canada release, the \$10.3 million project is receiving investments from the Hydrogen Early Adopters (h2EA) program of Technology Partnerships Canada and the Government of Prince Edward Island.

[Hydrogenics:](http://www.hydrogenics.com/ir_newsdetail.asp?RELEASEID=161016) http://www.hydrogenics.com/ir_newsdetail.asp?RELEASEID=161016

6. Clean Energy and ETEC Collaborate on HCNG Dispenser

Clean Energy and Electric Transportation Engineering Corp. (ETEC), have joined forces in the development of a commercial, heavy-duty hydrogen-CNG blending dispenser that provides exceptional operational flexibility and accuracy. The Clean Energy-ETEC HCNG Dispenser will provide accurate dispensing of 100% hydrogen, 100% CNG or a number of pre-defined blending percentages of hydrogen and CNG. The first HCNG production dispenser will be installed at TransLink's Port Coquitlam facility as part of the Canadian Hydrogen Highway's Integrated Waste Hydrogen Utilization Project (IWHUP), a multi-faceted project that will capture waste hydrogen.

[HCNG:](#)

http://www.ngvglobal.com/index.php?option=com_content&task=view&id=686&Itemid=43&lang=en

7. Climate Change Technology Symposium

Save the Dates: June 27-28 for CalEPA's Climate Change Technology Symposium, held in Sacramento. The symposium is hosted by the Climate Action Team and will review climate change emission reduction technologies and California's leadership and innovation in the clean tech industry. Full details will be posted on the web site in a few days. Check it soon.

[CalEPA:](http://www.calepa.ca.gov/) <http://www.calepa.ca.gov/>

8. Hydrogen and Fuel Cell Programs in 47 States

It's nearly universal: 47 states and the District of Columbia have some sort of fuel cell or hydrogen legislation, demonstration or activism taking place. Many are laying the groundwork for these technologies in their regulations and energy standards.

Breakthrough Technologies Institute, the parent organization of Fuel Cells 2000, has just released "State Activities that Promote Fuel Cells and Hydrogen Infrastructure Development," a comprehensive state-by-state analysis of these activities. This report details state programs and incentives that specifically include hydrogen, fuel cells and zero emission vehicles.

[State Activity Report:](http://www.fuelcells.org/info/StateActivity.pdf) <http://www.fuelcells.org/info/StateActivity.pdf>

9. TIAX Report on Home IT Energy Use

TIAX recently released a detailed report on current U.S. residential information technology (IT) energy consumption along with scenario-based projections for 2010. The report, "U.S. Residential Information Technology Energy Consumption in 2005 and 2010," commissioned by the Department of Energy (DOE), suggests that current energy

consumption by IT equipment and systems within the home is significantly higher than previous estimates. The study developed three scenario-based projections of residential IT consumption in 2010 reflecting a number of variables. For each scenario, the TIAX team developed projections of the total power draw by mode, usage patterns, and installed base. Of note, if desktop PCs remain dominant over laptops, as the projections assume, energy consumption is projected to increase to approximately 100TWh.

[TIAX Report:](#)

http://www.tiaxllc.com/aboutus/press_releases/residential_information_technology_energy_consumption_042706.htm

10. Proton Energy Backup Power at the Mohegan Sun Casino

The Mohegan Tribe is now using an advanced system based on fuel cell technology to supply backup power for the Energy, Environment, Economics and Education Center, located within the Mohegan Sun Casino. The system, made possible by a grant from the Connecticut Clean Energy Fund, supports the tribe's vision of an environmentally friendly future. Its location at the educational center will help enhance public awareness of fuel cells and the use of hydrogen as a fuel. The system is based on Proton's UNIGEN(R) Regenerative Fuel Cell System and includes a 1,000 psi high-output hydrogen generator. This newly enhanced system can run for a total of 25 hours on the combination of the Unigen system and storage tanks.

[Proton/Mohegan:](http://www.protonenergy.com/) <http://www.protonenergy.com/>

11. Honda Develops Bio-Fabric

Honda Motor Co., Ltd., announced it has succeeded in developing bio-fabric, a plant-based fabric with excellent durability and resistance to sunlight, for use as a surface material in automobile interiors. Bio-fabric offers the benefit of offsetting CO2 emissions produced during incineration in the disposal stage with CO2 absorption that occurs during the growth stage of the plants that are used as raw materials. Despite this benefit, plant-based fabric has not been used commercially for automobile interiors due to concerns about limited durability and aesthetic issues. The new bio-fabric developed by Honda overcomes such issues. In addition to seat surfaces, this bio-fabric can be used for the interior surface of the doors and roof and for floor mats. Honda will install these bio-fabric interiors to the company's new fuel cell vehicle, which will be introduced to the market within next three years.

[Honda:](http://world.honda.com/news/2006/c060525BioFabric/) <http://world.honda.com/news/2006/c060525BioFabric/>

12. California Hydrogen Fleets on New Web Site

The California Hydrogen Report now provides the latest news about fleets using hydrogen in California. Current H2 fleet news, profiles, forecasts, and links are included. The site is managed by CHBC board member John Addison.

[California H2 Report:](http://www.cah2report.com) <http://www.cah2report.com>

13. California Hydrogen Events Calendar

The state of California has launched the CaH2Net Events Calendar. Industry members are invited to announce hydrogen, transportation, and energy related events that are of interest to the general public as well as those within the industry.

[CaH2Net Events Calendar:](http://www.hydrogenhighway.ca.gov/calendar/calendar.htm) <http://www.hydrogenhighway.ca.gov/calendar/calendar.htm>

14. New World H2 Market Report

Visant Strategies recently released a report on the global hydrogen market which predicts energy and transportation applications will contribute to the doubling of hydrogen use over the next five years -- up to 40 million metric tons globally in 2010. The report's author, Dan Sweeney, points out obstacles remain to a green hydrogen economy, and much competition is expected from other technologies in development.

"World Hydrogen 2006: Established and Emerging Markets" also examines annual sales and revenues of electrolyzers, large and small steam reformers, along with annual production levels of methanol, ammonia and hydrogen through 2010.

[World H2 Report](http://www.visantstrategies.com): <http://www.visantstrategies.com>

15. Student Award for Fuel Cell Research

Please pass along the news that applications are accepted until July 14, 2006 from currently enrolled graduate and undergraduate students for fuel cell research. The winner will receive a medal, \$2,000 and complimentary registration to the Fuel Cell Seminar, where he or she will present the winning poster. The award ceremony will be held November 14, 2006.

[Fuel Cell Research](http://www.fuelcellseminar.com): <http://www.fuelcellseminar.com>

16. Chevron Invests in Large-Scale Biodiesel Plant

Chevron Corp. announced it has invested through a subsidiary, Chevron Technology Ventures LLC (CTV), in a Texas-based company that is building one of the first large-scale biodiesel plants in the United States. The facility will have the potential to produce 100 million gallons per year of this renewable fuel -- an amount that would more than double the current production volume of biodiesel in the United States. CTV has taken an equity position in Galveston Bay Biodiesel LP (GBB). The Houston-based company is constructing a biodiesel production and distribution facility in Galveston, TX, scheduled for completion by the end of 2006. GBB will produce biodiesel from soybeans and other renewable feedstocks.

[Chevron](http://www.chevron.com/news/press/2006/2006-05-11.asp): <http://www.chevron.com/news/press/2006/2006-05-11.asp>

17. Technip Awarded Biodiesel Project in France

Technip has been awarded by Diester Industrie a turnkey contract for a new biodiesel unit, based on the Axens process, to be built in Montoir-de-Bretagne, near Saint Nazaire, France. This project is part of a program set up by the French authorities for the development of biofuels, intended to reduce transportation-related air pollution and the dependence on imported energy. This new unit, with a future capacity of 250,000 t/y, will start-up in the spring of 2007.

[Technip](http://www.technip.com/english/press/pr_press.html): http://www.technip.com/english/press/pr_press.html

18. Silver and Gold Member Benefits

CHBC gives a big thanks to Gold Member Hydrogenics and to our growing list of Silver Members, all major contributors to our growth and success. Gold Membership includes two free registrants to all CHBC meetings for one year as well as five reduced-price registrations and other marketing benefits. To inquire about membership, contact Managing Director, Catherine Rips, info@californiahydrogen.org.

[Gold Members](http://www.californiahydrogen.org/page.cfm?content=61): <http://www.californiahydrogen.org/page.cfm?content=61>

[Silver Members](http://www.californiahydrogen.org/page.cfm?content=33): <http://www.californiahydrogen.org/page.cfm?content=33>

19. Attendance Pays Off!

Congratulations to Steve Mathison, Honda, on winning the \$300 digital camera given as an attendance door prize at the May 19 CHBC General Meeting in Diamond Bar. Other winners included Fred Silver, CalStart, who won a \$50 gift certificate to Best Buy and Barbara Heydorn, SRI, who won free registration to the next CHBC meeting. If you want to play you must attend. Mark your calendars now for September 15. A Dinner Meeting/Holiday Party will also be held on December 7. More details to follow.

20. 2006 CHBC Board of Directors

President - Henry Wedaa; Vice President - Paul Scott, ScD; Managing Director - Catherine Rips; Secretary - Josh Mauzey; Treasurer/Communications Chair: Jerald Cole;

Membership Chairman - Mark Abramowitz; Northern California Membership Chair & Newsletter - John Addison; Central California Membership Chair - Gene Johnson; Program Chairman - Henry Wedaa; Director at Large - Gary Dixon; Director at Large - Jon Slangerup; Director at Large - John Williams, PE; Ex-Officio Government Liaison - Shannon Baxter-Clemmons, PhD. To contact the board, please email: info@californiahydrogen.org.

21. Send Us Your News

We welcome important news from our members for inclusion on our website and in next month's report. Please send to: info@californiahydrogen.org. Thank you for helping build a great organization.

*John Addison, CHBC Report Publisher
Catherine Rips, Editor*