

California Hydrogen Business Council January 2005 Report

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1. Welcome New Members, New Board Members

CHBC welcomes new Silver member Westport Innovations. We appreciate your support! We also welcome three new members to the CHBC board of directors: Gene Johnson, Josh Mauzey and Jon Slangerup (see Item 17 for full 2005 board list). And thanks to those candidates who submitted their names for consideration. Please try again next time there is an opening. <http://www.westport.com/>

2. CHBC Meeting on February 25, Sponsored by Honda

2005 is starting off with a bang! Highlights of CHBC's first General Meeting of the new year includes presentations by American Honda; Stan Ovshinsky, ECD-Ovonics; Dr. Alan Lloyd, Secretary, CalEPA; Pierre Rivard, Hydrogenics; Mark Sperry, Plug Power; Dan Rabun, Air Products and Chemicals; Shannon Baxter, California Hydrogen Highway Program Manager; Alison Grigg, Canadian Hydrogen Highway; Allan Bedwell, Florida Department of Environmental Protection, etc. Come at 8 a.m. for a continental breakfast and pre-meeting networking. Register early. Space is limited! Don't be disappointed! Click here to register.

http://www.californiahydrogen.org/page.cfm?content=45&event_ID=18

3. CHBC-Sponsored Pre-Meeting Workshop on Building Alliances

*Building Successful Alliances in the New Energy Economy
February 23-24, 2005 in Torrance, California*

A key skill in the New Energy Economy is an understanding of how to build systems, which requires tapping other peoples' talents and resources and building adaptive alliances. The program will focus on this central question: How effective is your present SYSTEM for negotiating, structuring, and managing these alliances? The goal is provide a practical system that will give you a competitive edge in all your alliances anywhere in the world.

The program will include some fascinating presentations by leading practitioners, including a panel on innovation acceleration technologies by Zion Bar-el, chairman of Ideation International, and a special case involving co-generation where you can test your alliance mediation skills. To register, click http://www.californiahydrogen.org/page.cfm?content=45&event_ID=26

4. Hydrogenics New CHBC Web Sponsor

Many, many thanks to CHBC Silver member Hydrogenics Corp. for answering our plea for a 2005 web sponsor. We greatly appreciate the support. Look for a revised Home Page soon at www.CaliforniaHydrogen.org with more room for industry announcements.

5. Alan Lloyd, PhD, Named Secretary of CalEPA

"Alan shares my commitment to continuing California's tradition of strong environmental protection and balancing the preservation of our environment and resource conservation with economic growth and fiscal responsibility," said Governor Schwarzenegger. "Alan's track record of success and balanced approach as chairman of the Air Resources Board and expertise in environmental policy and management makes him a tremendous asset to the people of California." Dr. Lloyd is co-founder and co-chair of the California Stationary Fuel Cell Collaborative and past chair of the California Fuel Cell Partnership. <http://www.californiahydrogen.org/page.cfm?content=20&display=21>

6. Hydrogenics to Supply Hydrogen Generator to ChevronTexaco for AC Transit

Hydrogenics Corporation has undertaken a second work order with ChevronTexaco Technology Ventures, LLC under the master services agreement signed between the two companies earlier this year. Hydrogenics' contract is for the provision of engineering and product-related services to integrate a fully packaged hydrogen generator based on proprietary natural gas reforming technology being developed by ChevronTexaco. Plans for the facility include ultimately having the capacity to generate 150 kg/day of hydrogen to serve the fueling needs of a fleet of fuel cell demonstration buses at AC Transit in Oakland, CA. The station is under construction and scheduled for completion in the fall of 2005. <http://www.hydrogenics.com/ir_newsdetail.asp?RELEASEID=150341>

7. Fuel Cell Today Releases Survey of 2004 Worldwide Fuel Cell Activity

A new survey published by Fuel Cell Today has shown growth of over 55% in the number of fuel cell systems produced globally in comparison to 2003. Over 11,000 fuel cells are now installed. 65% are PEM. Growth in the portable sector increased 75% in 2004 with almost 3,000 new systems manufactured. The report also features developments in

hydrogen infrastructure, progress in fuel cell transport, large stationary power generation and military markets as well as Fuel Cell Today's expectations for 2005.

http://www.fuelcelltoday.com/FuelCellToday/FCTFiles/FCTArticleFiles/Article_924_WorldWideSurvey2004.pdf

8. Mazda RX-8 with Dual Hydrogen and Gasoline Engine

MAZDA is set to make automotive history with the world's first street legal dual-fuel hydrogen rotary H2RE - Mazda RX-8 Hydrogen RE - which is due on road test in Japan with government offices and companies over the next two years. Japan's transport authorities recently gave Mazda permission to road test the hydrogen-fuelled, rotary-engine version of its head-turning Mazda RX-8 sports coupe. This unique vehicle features a dual-fuel system that allows the driver to select hydrogen or gasoline with the flick of a switch.

<http://www.fuelcelltoday.com/FuelCellToday/IndustryInformation/IndustryInformationExternal/NewsDisplayArticle/0,1602,5338,00.html>

9. Honda and Plug Power Move Ahead with the Home Fueler

The Home Energy Station and a second-generation version of the system were unveiled last month by Honda Motors and partner Plug Power. The station aims to take advantage of the fact that natural gas has become the fuel of choice to run homes. A natural gas connection plugs into the station, which extracts hydrogen from the gas. For the home, hydrogen is run through a fuel cell stack inside the station to produce electricity. For the car, hydrogen is pumped in like gasoline. Honda makes its own fuel cell, which is able to start in sub-freezing temperatures and extends auto mileage up to 190 miles per tank.

<http://www.msnbc.msn.com/id/6578442>

10. ISE Delivers First Hybrid Hydrogen ICE Bus to SunLine Transit Agency

Last month, ISE Corp. (ISE) delivered the world's first transit bus using a Hybrid Hydrogen Internal Combustion Engine (HHICE) drive system. The HHICE system uses a variant of ISE's proven ThunderVolt® hybrid-electric drive system that generates power with a Ford hydrogen-burning internal combustion engine. A 40-foot New Flyer bus using this unique drive system was unveiled December 16 by SunLine Transit Agency, which used the bus in route service for several weeks before sending it to Manitoba Transit, where it will be tested for cold weather operation.

http://www.isecorp.com/ise_news/ev_bulletins/dec-04-hhice-rollout-sunline-transit.php

11. Hydrogen Solar Awarded \$400,000 for Demonstration

Hydrogen Solar Ltd. has been awarded \$400,000 by the University of Nevada Las Vegas Research Foundation for the first year of a multi-year project to demonstrate solar hydrogen production using Tandem Cells™. The project involves joint research and development on a hydrogen refilling station in Las Vegas, Nevada.

<http://www.hydrogensolar.com/november24.html>

12. Tokyo Gas to Begin Leasing Residential Units in 2005

Tokyo Gas Co., Ltd. plans on introducing the world's first commercial Residential Polymer Electrolyte Fuel Cell (PEFC) Cogeneration System jointly developed with Ebara Ballard Corporation and Matsushita Electric Industrial Co., Ltd. into the market on limited scale in February 2005. The system generates electricity by extracting hydrogen from city gas and is capable of producing around 1 kW, about 60% of the electricity needs of a four-person household. The system will be offered on a 10-year contract with a total leasing charge of 1 million yen (US\$9,707).

http://www.tokyo-gas.co.jp/Press_e/20041206-2e.pdf

13. Hydrogen Test Chamber Now Open at NRC-IFCI

A \$2 million hydrogen technology environmental chamber (HTEC) is now open at Canada's NRC Institute for Fuel Cell Innovation (NRC-IFCI) on the University of British Columbia campus in Vancouver. The only public facility of its kind, the HTEC allows companies and researchers to test and evaluate hydrogen vehicles and stationary power systems under a wide range of climatic conditions – all from one location. The HTEC will simulate extreme temperature, humidity, and altitude to create conditions ranging from an arid desert to the coolness of high altitudes or the heat and humidity of the tropics. The HTEC is large enough to hold a complete vehicle and is equipped with a chassis dynamometer. http://www.nrc-cnrc.gc.ca/newsroom/news/2004/hydrogen04-nr_e.html

14. CalStart Clean Heavy Duty Vehicle Conference

CalStart's Clean Heavy Duty Vehicle Conference 2005 will be held February 22-24, 2005, at La Quinta Resort, La Quinta, CA. Please click for details.

<http://www.calstart.org/>

15. CHBC 2005 Meeting Dates - Save These Dates

February 25 - Torrance, May 20 - Sacramento, September 16 - Location TBD, November 18 - Location TBD

16. CHBC Silver Members

CHBC gives a big thanks to our growing list Silver Members who are major contributors to our growth and success. To learn about our [Silver Members](#),

<http://www.californiahydrogen.org/page.cfm?content=33>

17. 2005 CHBC Board of Directors

- President - Henry Wedaa
- Vice President - Paul Scott, PhD
- Secretary - Josh Mauzey
- Treasurer - John Williams, PE
- Managing Director - Catherine Rips
- Membership Chairman - Gene Johnson

- Dinner Meeting Chairman - Elias Azrak
- Communications Director - Jerald Cole
- Newsletter Chairman - John Addison
- Program Chairman - Henry Wedaa
- Director at Large - Gary Dixon
- Director at Large - Jon Slangerup
- Ex-Officio Government Liaison - Shannon Baxter, PhD

To contact the board, please click info@californiahydrogen.org.

18. Be a Member of the California Hydrogen Business Council

Be involved with the leaders in making the hydrogen economy a reality. CHBC is a non-profit organization, which offers a common meeting ground for discussing the technologies, methodologies, and opportunities in the hydrogen economy. Silver Membership is \$1,000 per year and allows organizations to send five people to each meeting at reduced member rates, plus provides valuable marketing opportunities. Individual membership is \$200 per year. To join, visit our website or call (760) 341-2924 with your credit card.

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.

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