

## **California Hydrogen Business Council November 2004 Report**

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### **1. Welcome New Members**

CHBC welcomes new Silver member HyRadix, and new individual members Michael Arlen, Karen Farrell, and Dr. Woodrow Clark. We appreciate your support!

### **2. California Hydrogen Business Council Meeting on November 12**

Register now for the next General Meeting of the California Hydrogen Business Council on Friday, November 12, 2004 from 9 a.m. - 5 p.m. at the South Coast AQMD facilities in Diamond Bar, Calif. This day-long meeting will bring together corporate and academic hydrogen research and development leaders along with many state and local government officials--all working to build a strong hydrogen industry in California. AQMD Executive Officer Dr. Barry Wallerstein, our keynote speaker, will present an overview of AQMD's extensive hydrogen activities. Eileen Tutt from CARB will discuss the impact of a hydrogen economy on CARB's role. Dr. Shannon Baxter will provide an update about the Hydrogen Highway. Dr. Paul Scott with ISE will present the HICE bus program. Jack Broadbent, the Executive Director of BAAQMD will speak about their hydrogen plans and activities. There will be a panel with speakers discussing various aspects of hydrogen generation from steam methane reforming, electrolysis, and PEM systems and a tour of AQMD's new hydrogen refueling station. Registration begins at 8 a.m. To see the full agenda and register: <http://www.californiahydrogen.org/page.cfm?content=17>

### **3. CHBC Seeks 2005 Web Sponsor**

Thanks in part to Stuart Energy Systems, our 2004 website sponsor, CHBC was able to upgrade its website and offer more information in an easy access format. Now, we're seeking a sponsor (or sponsors) for 2005 to defray maintenance and site hosting costs. For \$3,500, your name and logo can be on every page of our site, with links to your

website. For \$1,500, your name and logo can appear on our Home Page. If you are interested in the 2005 web sponsorship, please contact Managing Director Catherine Rips, (760) 341-2924.

#### **4. CHBC Participates in Joint CaSFCC/CaFCP Meeting**

On October 26, the first joint meeting of the California Stationary Fuel Cell Collaborative and California Fuel Cell Partnership was held at CaFCP headquarters in West Sac. The two groups are seeking ways to increase communication and better work together to achieve the goals of the California Hydrogen Highway. CHBC members, many of whom participate in the Collaborative, Partnership and HH Task Teams, will be key players in implementing the transition to a hydrogen economy. From our view, it's critical to coordinate efforts between these groups. The addition of an energy station (stationary fuel cell providing combined heat and power) at a refueling station may dramatically improve station economics. We look forward to working together with all segments of the industry to advance our common goals. More to come in coming issues!

#### **5. CHBC Support Sponsor of Dec 2 CalStart Conference**

The one-day gathering, held in Los Angeles, Ca. will focus on recent CARB and CEC reports that call for a major reduction in petroleum consumption as a way to provide for a more stable economic climate and protect the environment. Invited and confirmed speakers include California Governor Arnold Schwarzenegger, Senator Diane Feinstein, Assemblymember Christine Kehoe, Commissioner of the California Energy Commission James D. Boyd, and California State Treasurer Phil Angelides. CALSTART will also use the occasion to present its prestigious "Blue Sky" Awards during a luncheon.

<http://www.calstart.org/programs/ca2020/california2020.php>

#### **6. Hydrogen Production and Storage Conference**

H2PS 2004 is an opportunity for developers, producers, and users to discuss the viability and commercial potential of near-term technologies for producing and storing hydrogen, both on a large and a small scale. Speakers and session leaders will provide a close look at the market, addressing economic and technical constraints and stimulants for each production or storage method. Discussion will also address technical and commercial hurdles, the cost of implementing a new infrastructure, market and consumer acceptance issues, and the timetable of events necessary to transition to a Hydrogen Economy. Conference participants will get an up-to-date assessment of the latest hydrogen storage and production methods, while having an opportunity to network and discuss current developments and issues in a relaxed, open-forum format. "Achieving Hydrogen Market Leadership" will be presented as an executive workshop at the conference by John Addison, author *Revenue Rocket* and CHBC board member.

[http://www.intertehusa.com/Division\\_Energy/Hydrogen/12\\_06\\_Hydrogen\\_introduction.html](http://www.intertehusa.com/Division_Energy/Hydrogen/12_06_Hydrogen_introduction.html)

#### **7. Calstart Report Covers over 100 Clean Vehicle Companies in California**

In the past, new emission standards created new markets for emission control technologies. For instance, California's LEV II automotive emission standards (adopted in 1998) served as the model for national standards. LEV II spurred innovation that resulted

in an estimated \$550 million in additional revenues to the California air pollution control industry from 1999-2002, equaling nearly \$140 million per year. If California's proposed standard to reduce greenhouse gas emissions by 30 percent is adopted nationally, it would create an annual automotive pollution control market of about \$20 billion. Further growth opportunities are created by the increasing interest and involvement of developing countries in solving their pollution and petroleum dependence problems. China has a rapidly growing car market that will equal current U.S. sales by 2015 and the country already has policies in place to promote clean and efficient vehicle technologies. With global market and regulatory trends driving new technologies to market, California's clean car cluster is well positioned to add high quality jobs and investments to California's economy. <http://www.calstart.org/>

### **8. H2Gen Announces Award of US \$5.4 Million From US Department of Energy**

H2Gen Innovations, a developer of small-scale on-site appliance for generating highly pure hydrogen, has been selected by the US Department of Energy as prime contractor for a \$5.4 million grant program. The award was made through a solicitation DOE conducted which focused on Distributed Reforming Production Technologies. H2Gen's long-standing development partners at Sud-Chemie, Inc. and the Naval Research Laboratory will also participate in this program, which requires cost-sharing from the participants. H2Gen expects that it will begin drawing funds next year for this two year program.

### **9. Hydrogen from Offshore Wind**

A former coastal tanker is being adapted in Bremerhaven for a new role as a wind plant-fitted, hydrogen production ship. The innovative project could provide the template for a fleet of such vessels, financed through the German investment fund system. Following the anticipated completion of the conversion scheme by the end of 2004, the 66 m Hydrogen Challenger will be put into service in the German Bight. It will lie off the wind-scoured Niedersachsen coast or in the vicinity of the island of Helgol, and produce hydrogen and oxygen through electrolysis, and then transport the gaseous cargo to industrial buyers on the mainland.

<http://www.californiahydrogen.org/page.cfm?content=20&display=16>

### **10. Tax Breaks for Green Vehicles and Fuels in Massive Bill**

Congress passed the JOBS (Jumpstart Our Business Strength) bill. This bill incorporates numerous amendments to the tax code, to the benefit of businesses in many sectors, including energy, transportation and tobacco. Eliminates the phase-out of the tax credit for electric vehicles, increases the tax credit for electric vehicles (\$1,500 to \$40,000 based on weight, range and carrying capacity) and expands the definition of electric vehicles eligible for the credit. Fuel cell motor vehicles (\$4,000 up to \$40,000, based on vehicle weight, with an increase for fuel efficiency over a baseline also based on weight).

<http://www.californiahydrogen.org/page.cfm?content=20&display=16>

### **11. Stuart Station Opens at DTE Energy Hydrogen Technology Park**

DTE Energy has officially opened a hydrogen fueling station in Southfield, Michigan as part of the Hydrogen Technology Park. The Stuart Energy Station SES-f provides high-

purity hydrogen fuel to vehicles as well as fuel cells that utilize hydrogen to generate electricity.  
[http://www.stuartenergy.com/media\\_center/press\\_releases/press\\_oct\\_19\\_2004.html](http://www.stuartenergy.com/media_center/press_releases/press_oct_19_2004.html)

**12. NHA Now Accepting Papers for the 2005 Conference**

NHA Annual Hydrogen Conference 2005 will be held in Washington, DC March 29 - April 1, 2005. The NHA is now accepting abstracts from prospective speakers in the areas of hydrogen and fuel cell technologies as they relate to stationary, portable, and transportation applications. <http://www.hydrogenconference.org/callforpapers05.asp>

**13. *The Freedom Element*, by Dr. Addison Bain**

"Life springs from hydrogen, and as fate has dictated, the subject of hydrogen has permeated my life." So opens the new, book length memoir, *The Freedom Element* by Dr. Addison Bain, a rocket scientist/engineer who was one of the chief architects of the hydrogen propellant and life support infrastructure at Kennedy Space Center and other NASA facilities around the country. - Book Review by Geoffrey Holland  
<http://www.californiahydrogen.org/page.cfm?content=55>

**14. CHBC 2005 Meeting Dates - Save These Dates**

February 25, May 20, September 16, November 18

**15. 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:

**16. CHBC Board of Directors** To contact the board members, please click [info@californiahydrogen.org](mailto:info@californiahydrogen.org)

**17. 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](mailto:info@californiahydrogen.org). Thank you for helping build a great organization.

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