California Hydrogen Business Council
March 2005 Report

Summarized in this issue (with links to complete articles):

1. Welcome New Members

CHBC welcomes new Silver members Linde AG (http://www.linde.de) and Dynetek (www.dynetek.com); and individual members Seth Seaberg, Clean-Tech LLC; Peter Holoyda; Robert Hayden; and Mitchell Pratt, Clean Energy. We appreciate your support!

2. Santa Barbara Hosts Dedication for Clean Renewable Fuel Cell Power at Its El Estero Wastewater Treatment Facility

FuelCell Energy, Inc., Alliance Power and the City of Santa Barbara announced on February 23 the dedication of two Direct FuelCell(R) (DFC(R)) power plants at the El Estero Wastewater Treatment Facility. The DFC power plants that generate 500 kW of renewable power are now providing electricity and heat for the facility's wastewater treatment system and are reducing harmful emissions by operating on the methane gas generated from the anaerobic gas digestion process. http://www.fce.com

3. VTA Launches Hydrogen Bus Program

On Thursday, February 24, 2005, officials from Santa Clara Valley Transportation Authority (VTA) and San Mateo County Transit District (SamTrans) welcomed the first hydrogen-powered, zero-emission fuel-cell buses (ZEBs) into service. The $18.5-million program includes the purchase and operation of three ZEBs and technological enhancements to VTA's existing Cerone Operations Division. VTA, as the lead agency, contracted with Gillig Corp. of Hayward and Ballard Power Systems of Burnaby, Canada to build the vehicles. Air Products & Chemicals, Inc. supplies the liquid hydrogen. http://www.vta.org/news/releases/2005/02_feb/nr02-19_2005.html

4. May 20 CHBC Meeting at CalEPA Sacramento; Feb 25 Meeting Review

Thanks once again to American Honda, sponsor of our February 25 meeting in Torrance. With a delegation of Finnish Parliamentarians, representatives from the California, Canada and Florida Hydrogen Highways, "Hero of the Planet" Stan Ovshinksy (ECD Ovonics), Pierre Rivard (Hydrogenics) and others, the meeting was a rousing success. Most presentations will be posted soon at www.californiahydrogen.org in the Members Only resource section.

Don't miss out on the next conference – to be held May 20 from 8 a.m. - 5 p.m. at CalEPA. Northern Ca industry members have long asked for a meeting in their area. This one's for you! Register early. http://www.californiahydrogen.org/page.cfm?content=48

5. DaimlerChrysler Reaches 100 Fuel Cell Vehicles Goal

DaimlerChrysler has produced more than 100 fuel cell vehicles, making it the largest fuel cell fleet in the world. The vehicles include 60 Mercedes-Benz F-Cell passenger cars; three Dodge medium-duty fuel cell Sprinter Vans; 33 Mercedes-Benz Citaro fuel cell buses and more than 10 research and development vehicles.http://www.media.daimlerchrysler.com/gms_frame

6. Governor Bush Unveils H2 Energy Technologies Act as Chino Station is Dedicated

February 18 was a good day for hydrogen advocates. Governor Jeb Bush announced the Florida Hydrogen Energy Technologies Act at the groundbreaking of the Orlando International Airport station. If passed, the act will increase capital investment and job creation by reducing the costs of purchasing, manufacturing and developing hydrogen energy technologies. Florida companies will receive temporary corporate tax credits for expenditures and sales tax exemptions on related equipment purchases, making the technology more affordable and prompting increased sales to stimulate investment and job creation. $15 million will be earmarked for matching grants for demonstrations.

http://www.dep.state.fl.us/energy/fla_energy/news/021805.htm

On the West Coast, Hyundai Motor Co. in partnership with UTC Fuel Cells and ChevronTexaco, unveiled a hydrogen energy station at the Hyundai-Kia America Technical Center in Chino, Calif. The project is part of a Department of Energy-sponsored Hydrogen Fleet and Infrastructure Demonstration Validation Program. The new hydrogen energy station will fuel a fleet of five Hyundai Tucson and Kia Sportage Fuel Cell Electric Vehicles (FCEVs) based out of the Hyundai-Kia America Technical Center. Other fleets will be tested out of AC Transit in Oakland, Calif. and Southern California Edison over the duration of the program.
http://www.californiahydrogen.org/page.cfm?content=20&display=26

7. Toyota to Use its Fuel Cell Hybrid Bus at 2005 World Expo

Toyota is providing fuel cell hybrid-electric buses to shuttle visitors between the two Expo sites of the 2005 Aichi World Exposition, which opens March 25. The FCHV-BUS2 fuel cell hybrids use twin fuel cell stacks combined with a version of Toyota's THS-II hybrid drive and management systems (used in the Prius).

http://www.greencarcongress.com/2005/01/toyota_to_use_i.html

8. GM Unveils New Sequel

General Motors (GM) has unveiled its latest concept vehicle, the Sequel. The Sequel incorporates technologies shown in previous concept vehicles, such as fuel cells, by-wire and wheel hub motors, as well as an 11-inch skateboard chassis. About the size of a Cadillac SRX, the Sequel travels up to 300 miles on its hydrogen supply, and accelerates to 60 mph in less than 10 seconds. http://media.gm.com

9. Quantum Awarded U.S. Patent for Transportable H2 Refueling Station

Quantum Fuel Systems Technologies has been awarded a U.S. patent for portable and transportable hydrogen refueling systems. The patent covers systems that incorporate self-contained hydrogen-producing subsystems or accept low-pressure hydrogen from external sources, and are capable of compressing and dispensing at either 5,000- or 10,000 psi. Quantum has developed two models of transportable hydrogen refuelers -- the HyHauler and the HyHauler Plus. Quantum is currently commercializing these refuelers with the major automakers and the U.S. Army, and is interested in licensing the technology to other manufacturers of refueling stations.
http://www.qtww.com/news_events/index.shtml

10. Chrysalix Energy Announces First Closing of New Fund

Chrysalix Energy recently announced the first closing of its new fund Chrysalix Energy II U.S. Limited Partnership. "We have been following the developments in the fuel cell industry for several years and believe that Chrysalix''s strong management team, coupled with their knowledge base and industry network, has made them a leader," said WestAM director Gregory Oberholtzer. http://www.chrysalix.com

11. Micro Polymer Electrolyte FC Competes with DMFC

Nippon Telegraph and Telephone Corporation (NTT) has developed a prototype micro polymer electrolyte fuel cell (PEFC) that uses hydrogen gas as a fuel and is small enough to directly fit inside of a mobile phone. According to NTT, under tests using a production-model mobile phone, the prototype PEFC successfully powered start-up and signal reception transmission.

http://www.ntt.co.jp/news/news05e/0502/050222.html

12. Delphi Achieves DOE's Fuel Cell Cost Goal

Delphi Corp., a partner in the U.S. Department of Energy's advanced fuel cell development program, has reported that it has exceeded the power density level required to meet the $400 per kilowatt cost goal for fuel cells. Meeting the cost target is essential if fuel cells are to expand beyond their current niche markets into widespread commercial use. At $400 per kilowatt – nearly one-tenth the cost of power-generating fuel cells currently sold on the market – fuel cells would compete with traditional gas turbine and diesel electricity generators.

http://www.fe.doe.gov/news/techlines/2005/tl_seca_delphi.html

13. Canada to Boost Environment Spending C$3.2 Billion Over 5 Years

Canada will increase spending on the environment by C$3.2 billion ($2.6 billion) over five years, including a reduction in greenhouse gas emissions mandated by the Kyoto Protocol, the government said. Companies will receive at least C$592 million in incentives to develop renewable energy sources such as wind turbines and for tax breaks on investment in energy-efficient equipment. A C$1 billion "Clean Fund'' will also be created to develop a domestic market for trading in emission-reduction credits, purchase credits abroad and share the cost of large environmental investments with companies. www.bloomberg.com/apps/news?pid=10000082&sid=a59rFYcN3ptY&refer=canada

14. Clean Cities 2005 and Fuel Cell Technology Institute

CHBC is support sponsor of two key events to be held May 1-6 in Palm Springs, CA. The 11th Annual Clean Cities Conference & Exposition, http://www.afvi.org/palmsprings, will be held May 1-4. Immediately after, and at the same location, the National Fuel Cell Research Center the University of California, Irvine will present the Fuel Cell Technology Institute and optional Hydrogen Workshop, May 4-6, http://www.nfcrc.uci.edu/fcti2005.

The events are held concurrently to reduce travel costs. Send your customers to all three to prepare them for coming transitions in clean power and transportation.

15. Hydrogen and Fuel Cells -- Review of National R&D Programs

This book draws primarily upon information contributed by IEA governments. In virtually all the IEA countries, important R&D and policy efforts on hydrogen and fuel cells are in place and expanding. http://library.iea.org/dbtw-wpd/bookshop/add.aspx?id=191

16. CHBC 2005 Meeting Dates - Save These Dates

May 20 - Sacramento, September 16 – So Cal Location TBD, November 18 – So Cal Location TBD

17. 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

18. 2005 CHBC Board of Directors

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

19. 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.

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