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FUEL CELLS 2000

Fuel Cells 2000's Fuel Cell Technology Update – February 2010

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http://www.fuelcells.org/directoryorderform.pdf

TRANSPORTATION APPLICATIONS

Honda Delivers FCX Clarity to Olympic Hockey Captain.
American Honda Motor Co., Inc. delivered one of its FCX Clarity fuel cell vehicles to 2010 Canadian Olympic hockey team captain, Scott Niedermayer.

Ballard Receives Award from SDTC, Order from APTS.
Ballard Power Systems has been awarded up to CAN$4.8 million by Sustainable Development Technology Canada (SDTC) for a project to further develop fuel cell power module technology for the transit bus market. Design improvements will be implemented on test buses to be operated in Metro Vancouver, beginning in the fourth quarter of 2010. The company has also received a sales order for five FCvelocity™ HD6 power modules from Advanced Public Transportation Systems bv (APTS), a specialty bus OEM in The Netherlands, part of the VDL Group. The 150-kilowatt power modules will be installed and integrated by Vossloh-Kiepe with hybrid electric drive systems in 18-meter (60-foot) articulated Phileas buses manufactured by APTS.
http://phx.corporate-ir.net/phoenix.zhtml?c=76046&p=irol-newsArticle&ID=1377864&highlight=
http://phx.corporate-ir.net/phoenix.zhtml?c=76046&p=irol-newsArticle&ID=1373761&highlight=

Hydrogenics Awarded Contract from Canadian Space Agency.
Hydrogenics Corporation announced the award of a contract from a Canadian Space Agency for the development of a next generation power system to be used for surface mobility applications on the moon. The scope of the contract includes an electrolyzer that produces both hydrogen and oxygen using solar power and a fuel cell system to be used for mobility, auxiliary, and life support systems. Hydrogenics has partnered with MacDonald, Dettwiler and Associates Ltd., Routes AstroEngineering, and the University of Waterloo for this contract.
http://www.hydrogenics.com/invest/News_Details.asp?RELEASEID=436440

UTC Power's Bus System Surpasses 5,000 Operating Hours.
One of UTC Power's latest generation PureMotion® Model 120 fuel cell powerplants for hybrid-electric transit buses has surpassed 5,000 operating hours in real-world service with its original cell stacks and no cell replacements. This powerplant is aboard an Alameda-Contra Costa Transit District (AC Transit) bus operating in the Greater Oakland, California area. Three of AC Transit's buses are equipped with UTC Power fuel cell systems and have now traveled more than 213,000 miles, with an average fuel economy that is 65 percent better than the control fleet of diesel buses running the same routes and duty cycles.
http://www.utcpower.com/fs/com/bin/fs_com_Page/0,11491,0325,00.html

USPS Delivers a Million Pieces of Mail in Fuel Cell Vehicles.
The two Chevy Equinox Fuel Cell Electric Vehicles being tested by the Postal Service in Irvine, CA, and Washington, DC, passed a huge milestone. The vehicles have been used to deliver 1 million pieces of mail since entering service in August 2008 and February 2009, respectively.
http://www.usps.com/green/news/100114_fuelcell.htm

Cummins Receives ARRA Funding for Fuel Cell APU.
Secretary Chu announced the selection of nine projects totaling more than $187 million to improve fuel efficiency for heavy-duty trucks and passenger vehicles. Cummins, Inc. received $38,831,115 to develop and demonstrate a fuel cell auxiliary power unit to reduce engine idling.
http://www.energy.gov/news/8506.htm

SFC Smart Fuel Cell Unit Featured in Concept Vehicle.
SFC Smart Fuel Cell's EFOY fuel cell is incorporated in the "Globe4 Cross Country" concept vehicle, developed by Dethleffs.
http://www.efoy.com/en/press-release/11178-efoy-brennstoffzelle-liefert-autarke-stromversorgung-fuer-globe4-cross-country-fahrzeugstudie-von-dethleffs.html

STATIONARY APPLICATIONS

Fuel Cell Projects Receive ARRA Funding.
Department of Energy Secretary Steven Chu announced the selection of five projects to receive more than $20.5 million from the American Recovery and Reinvestment Act to support deployment of community-based renewable energy projects, such as biomass, wind and solar installations. Two of the projects include fuel cells. The Sacramento Municipal Utility District (SMUD) will receive $5 million to install the state's first-ever 'Solar Highway', which will feature three PV system installations on 2 miles of highway right-of-ways. SMUD will also install two low-NOx anaerobic digesters fed by two dairy facilities that will produce 500 kW of combined heat and power, and generate 600 kW of electricity through a molten carbonate fuel cell. The University of California at Davis will receive $2.5 million for a Waste-to-Renewable Energy (WTRE) system that would generate power from a renewable biogas fed 300-kW fuel cell.
http://www.energy.gov/news/8536.htm

Third Whole Foods to Purchase Fuel Cell.
Whole Foods Market has chosen to power a new store in San Jose, California, with a UTC Power PureCell® fuel cell system clean, bringing the grocery chain's total to three. The new Whole Foods Market is now under construction and will cover approximately 50,000 square feet. The UTC Power fuel cell system will generate 90 percent of the store's electricity needs and its byproduct thermal energy will be used for store heating, cooling and refrigeration.
http://www.utcpower.com/fs/com/bin/fs_com_Page/0,11491,0328,00.html

NYPA Installs UTC Unit at Westchester Office Building.
The New York Power Authority (NYPA) has installed 200-kW UTC Power fuel cell at its downtown White Plains office building to supply approximately 20 percent of the building's annual energy requirement. Waste heat from the unit will be used to heat and cool the office's lobby areas. This is the first fuel cell to be installed at an office building in Westchester County and its operation is expected to offset about 1,116 tons of carbon dioxide annually.
http://www.nypa.gov/press/2010/100113a.html

PORTABLE/BACKUP POWER

Protonex Receives Army Funding.
Protonex Technology Corporation has received a $1.85 million contract award from the U.S. Army CECOM, as part of the American Recovery and Reinvestment Act of 2009, to develop and deliver advanced portable battery charger/APU fuel cell systems. This contract award also includes three option phases which, if awarded, could increase the total value of this contract to $6.4 million and could

include delivery of over 100 production units. Under the terms of this five-month, phase one program, Protonex will develop the next-generation of its existing M250-CX platform by increasing its power output, integrating additional battery management and charging capabilities, reducing overall size and weight, and further ruggedizing the system for field use. At the conclusion of the phase one program, Protonex is expected to deliver multiple portable battery charger/APU systems to the U.S. Army for further testing and field use.
http://www.protonex.com/_assets/pressrelease/cae1ca72-152b-4d47-8193-f3efd2e87b94.pdf

Ballard Acquires Controlling Interest in Dantherm Power.
Ballard Power Systems has acquired a controlling interest in Denmark-based Dantherm Power, partnering with co-investors Danfoss A/S and Dantherm A/S. Dantherm Power develops clean energy backup power systems, utilizing Ballard's hydrogen fuel cell technology, for telecom equipment suppliers including Motorola and Ericsson. The joint investment and partnering support from Ballard, Danfoss and Dantherm is expected to result in accelerated development of fuel cell backup power applications across Europe.
http://phx.corporate-ir.net/phoenix.zhtml?c=76046&p=irol-newsArticle&ID=1376048&highlight=

MICRO FUEL CELLS

FUELS/REFORMERS/STORAGE

South Korea Building Landfill Hydrogen Station.
South Korea is gearing up to build the world's first fueling station generating hydrogen from the natural biogases emitted by landfill. The Korean government signed a memorandum of understanding for the project with SK Engineering & Construction and oil refiner SK Energy, which is expected to be operational by November 2010. The hydrogen station will be located in Nanjido, an island located on the outskirts of Seoul, where it will draw upon methane that is produced by decomposing rubbish at a local former landfill site. The hydrogen station will be used to refuel two buses and two cars boasting hydrogen fuel cell technology. The four vehicles, valued at about 5.2bn won (US$4m), will be supplied free by Hyundai Motors for use on a test-drive basis. The additional energy generated by the site is expected to be used to supply electricity and hot water to the Nanji Art Studio on the island.
http://www.businessgreen.com/business-green/news/2248738/south-korea-build-landfill

Hydrogen Station Opens at Robins Air Force Base.
The Defense Distribution Depot (DDWG) at Robins Air Force Base in Warner Robins, Georgia, has opened its new hydrogen fueling station which will be used to power 20 fuel cell forklifts at the DDWG warehouse. The station is part of the Hydrogen Fuel Cell Project, one of four projects across the country intended to help the Department of Defense and the Department of Energy develop and test alternative fuel sources, and the new 180,000 square foot facility will bring in 200 to 300 jobs during the next few years.
http://www.macon.com/197/story/1003385.html

Hydrogenics and Rosetti Marino Join on Hydrogen Power Plants.
Hydrogenics Corporation and Rosetti Marino S.p.A. have entered an agreement to jointly design, develop and commercialize utility-scale hydrogen power plants for peak shaving and energy management. The plants will incorporate Hydrogenics' electrolyzer and fuel cell systems for turnkey applications that produce hydrogen for energy storage and electricity generation. Rosetti Marino will provide expertise in large-scale gas compression, storage, and facility design; the complete systems are planned to provide for renewable energy, peak shaving, grid optimization and ancillary services. Other potential applications include large-scale fueling and hydrogen production for industrial uses.
http://www.hydrogenics.com/invest/News_Details.asp?RELEASEID=433889

MATERIALS/COMPONENTS/TESTING

REPORTS/MARKET STUDIES

The latest Industry Review from Fuel Cell Today, Fuel Cells: Sustainability, estimates that the global fuel cell industry could create 700,000 green manufacturing jobs over the next decade.
http://www.fuelcelltoday.com/events/industry-review

REQUESTS FOR PROPOSALS

Check out the Fuel Cell RFPs blog for more opportunities.

Navy Solicitation for Hydrogen Storage and Power Systems.
The U.S. Navy issued a Request for Proposal (RFP) for on-board hydrogen storage and power systems for tractor utility vehicles known as "yard dogs." The RFP is for basic and applied research and development to identify on-board hydrogen storage materials, processes, and power system designs for these vehicles.
https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=a59655169b2dcf884d06f025576ad687&_cview=0&cck=1&au=&ck=

NYPA RFP.
New York Power Authority (NYPA) has issued a Request for Proposals (RFP) on behalf of the Port Authority of New York and New Jersey for the purchase of up to 25 megawatts of environmental attributes from newly constructed renewable generation facilities in Orange County. Only projects that are not yet in operation will be considered. Environmental attributes are environmental, social and economic features of renewable energy that can be sold separately from the energy itself. NYPA is seeking proposals that provide jobs and other economic development contributions, as well as social and environmental benefits to the community in and around Port Authority's Stewart Airport facility in Orange County. The RFP can be accessed from the NYPA Web Site at: http://www.nypa.gov/ppa/login.aspx.

MISCELLANEOUS

President Obama Awards $2.3 Billion for New Clean Energy Manufacturing
The administration has awarded $2.3 billion in Advanced Energy Manufacturing Tax Credits for clean energy manufacturing projects across the United States, provided as part of the American Recovery and Reinvestment Act. UTC Power received $5.3 million to open a new fuel cell manufacturing facility and W.L. Gore received $600,000 to retool a manufacturing facility with next-generation equipment used to produce a key component of fuel cell systems that will be used to improve fuel efficiency in vehicles and other applications.

Fuel Cell Patent Issued.
A new fuel cell patent (Patent No. 6,998,188) has been issued to Phillip J. Petillo. This new patent introduces low cost fuel cells on the technological scene powered by hydrogen. The fuel cell parts are injection molded plastic, common electrical connections are external, that are self contained heat sinks, stamped into shapes with no machining of parts and connect by means of simple attachment to one another. The membrane is coated with selenium compounds and other low cost materials, in place of platinum.
http://www.phil-luinc.com/

Neah Power Systems Receives $10 Million in Investments.
Neah Power Systems, Inc. has reached agreements separately with Ebeling Heffernan (EF) and First Equity Trust to purchase from the company up to $10 million of Neah Power's common stock.
http://www.neahpower.com/home/7-latest-news/45-neah-power-systems-receives-10-million-funding-commitment-from-ebeling-heffernan-and-first-equity

CONFERENCES

For a complete list of conferences, please go to http://www.fuelcells.org/news/conf.html.

RETECH 2010.
ACORE's Renewable Energy Technology Conference & Exposition takes place February 3-5, 2010, at the Washington Convention Center in Washington, DC. For more details, please go to http://www.retech2010.com/.

FC EXPO 2010.
The 6th International Hydrogen & Fuel Cell Expo 2010 will be held March 3-5, 2010, at Tokyo Big Sight in Tokyo, Japan. For details, go to http://www.fcexpo.jp/en/?em=090501fc2000. If you are a U.S. company interested in exhibiting or attending as part of the U.S. Pavillion, please contact Brynne Ward, U.S. Fuel Cell Council, at brynne@usfcc.com.

Green Fuels & Vehicles China 2010.
Green Fuels & Vehicles China 2010: The Innovation & Industrialization in the Coexistence Era of Alternative & Conventional Vehicles will be held April 8-9, 2010, in Shanghai, China. For conference information, please visit http://www.igvision.com/gfvc/.

Small Fuel Cells 2010
Small Fuel Cells 2010: Portable & Micro Fuel Cells & Hybrid Devices for Commercial & Military Applications will be held April 12-13, 2010, in Cambridge, Massachusetts. For details, please go to http://www.knowledgefoundation.com.

HANNOVER MESSE 2010.
The 16th Group Exhibit Hydrogen + Fuel Cells HANNOVER MESSE 2010 will take place April 19-23, 2010, in Hannover, Germany. For exhibition information, please visit http://www.h2fc-fair.com/.

NHA Hydrogen Conference & Expo.
The 2010 NHA Hydrogen Conference & Exposition will be held May 3-6, 2010, in Long Beach, California. For conference details, please visit http://www.hydrogenconference.org/.

Alternative Fuels & Vehicles National Conference.
The Alternative Fuels & Vehicles National Conference + Expo will be held May 9-12, 2010, in Las Vegas, Nevada. For details, go to http://www.afv2010.com.

18th WHEC 2010.
The 18th World Hydrogen Energy Conference 2010 will be held May 16-21, 2010, in Essen, Germany. For more information, please visit http://www.whec2010.com/.

Remote 2010.
The Remote 2010 Conference and Exposition will be held October 19-20, 2010 in Dallas, Texas. For conference details, please visit http://www.RemoteExpo.com.

Fuel cells generate electricity without combustion by harnessing the energy released when hydrogen and oxygen are chemically combined. Fuel Cells 2000 is an independent, nonprofit activity dedicated to the commercialization of fuel cell technologies.