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**Fuel Cell Investment Tax Credits Extended Until 2016.**
The Emergency Economic Stabilization Act of 2008 has extended the Fuel Cell Investment Tax Credit until 2016. The revised tax credit statute will allow purchasers to write off 30% up to $3,000 per kilowatt for industrial purchasers, and $1,000/kW for residential purchasers, off the cost of a qualified fuel cell unit from their tax liability.

http://thomas.loc.gov/cgi-bin/query/F?c110:6:./temp/~c110wC7wPs:e137874:

**TRANSPORTATION APPLICATIONS**

**Proterra’s HFC35 Bus Utilizing Hydrogenics’ Fuel Cell APUs.**
Proterra LLC showcased the prototype of its new HFC35, a 35’ composite body, battery-dominant hybrid-electric transit bus that incorporates two Hydrogenics 16 kW hydrogen fuel cell auxiliary power units (APUs) at the 2008 APTA Expo in San Diego, California in early October. Proterra developed the HFC35 hydrogen fuel cell hybrid electric bus with funding from the Federal Transit Administration’s (FTA) National Fuel Cell Bus Program.

http://www.proterrallc.com/pressrelease.asp?id=4

**Proton Power Systems’ Fuel Cell Ship Wins Silver Award.**
Proton Power Systems’ Zemship (Zero Emission Ship) has won the silver award at the f-cell conference in Stuttgart. The Zemship, which runs on two of Proton Motor’s 48 kW fuel cell systems and a lead gel battery, operates in Hamburg, Germany, and can carry up to 100 passengers.

http://www.protonpowersystems.com/6.html

**STATIONARY APPLICATIONS**

**Samsung Everland Buys Twelve UTC Units.**
Samsung Everland has purchased 12 UTC Power 400-kW fuel cell systems that will be installed at a GS Power plant in the town of Anyang, located just outside of Seoul, Korea. Electricity produced by fuel cells will provide power for about 5 percent of Anyang's population once the plant becomes operational in September 2009. The 4.8-megawatt plant is expected to produce 40,000 megawatt hours annually.

http://www.utcpower.com/fs/com/bin/fs_com_Page/0,11491,0300,00.html

**Ontario to Receive Multi-Megawatt Hybrid System for Pipeline Operations.**
Satcon Technology Corporation, FuelCell Energy and Enbridge Inc. are partnering to produce a multi-megawatt hybrid energy system for natural gas pipeline operations in Ontario, Canada. The Direct Fuel Cell-Energy Recovery Generation (DFC-ERG™) system combines a 1.2 MW Direct Fuel Cell power plant from FuelCell Energy with a 1 MW unfired gas expansion turbine. Satcon will provide the conditioning system that links between the fuel cell and utility grid. The system will operate at natural gas pipeline letdown stations and will be able to generate 2.2 MW of electricity, enough to power approximately 1,700 residences. The system is also the first multi-megawatt commercial fuel cell to operate in Ontario.


**PORTABLE/BACKUP POWER**

**SFC Sells 10,000 Fuel Cells, Introduces New Line for Remote Industrial Applications.**
SFC Smart Fuel Cell AG celebrated the major milestone of selling its 10,000th EFOY fuel cell to a French motor home owner, during a press conference of the TRIGANO group, France’s biggest motor home and caravanning specialist. In other big news for the company, SFC introduced its new EFOY Pro Series line for remote industrial applications ranging from surveillance cameras to measuring, monitoring and early warning systems and traffic-guidance equipment.


Plug Power Enters Supply Agreement with Rittal.
Plug Power Inc. has entered into a strategic supply agreement with Rittal GmbH & Co. KG, a leading system supplier of enclosure and housing technology. Under the agreement, Rittal will integrate Plug Power’s GenCore® fuel cell technology into their enclosure to create the RiCell 5000. Rittal will manufacture these hydrogen fuel cell units for sale into the chemical production, traffic and tunnel infrastructure, information technology and telecommunications industries.


Ballard and IdaTech Enter High Volume Agreement with ACME Group.
Ballard Power Systems has entered into a high volume development and supply agreement, with an affiliate of the ACME Group and IdaTech LLC, to supply 5-kW natural gas fuel cell products for telecom backup power applications in India. Ballard will supply fuel cells to IdaTech for integration into natural gas-fuelled systems. ACME and IdaTech will enter into an agreement to form a joint venture in India for the manufacture and assembly of this system, with Ballard as the exclusive supplier. This agreement provides a binding commitment for the purchase of approximately 1,000 units in 2009 and 9,000 units in 2010, subject to meeting product design and acceptance specifications. After that, there is potential for two more orders of 10,000 units each for delivery between 2011 and 2013.

http://phx.corporate-ir.net/phoenix.zhtml?c=76046&p=irol-newsArticle&ID=1208043&highlight=

Hydrogenics to Deliver Fuel Cells to CommScope.
Hydrogenics Corporation will deliver its fuel cell power modules and power conditioning and controller modules, to CommScope, Inc. to provide backup power systems to leading telecom carriers worldwide. The Hydrogenics HyPM fuel cell modules will be embedded as part of Andrew Wireless Solutions’ EcoPower Integrated Fuel Cell Solution.

http://www.hydrogenics.com/ir_newsdetail.asp?RELEASEID=342775

FUELS/REFORMERS/STORAGE

EC Authorizes €67.6 Million for H2E Program.
The European Commission has authorized the €67.6 million in funding that was granted at the end of 2007 by OSEO for the Horizon Hydrogen Energy (H2E) innovation program. The H2E program will be coordinated by the Air Liquide Group, with its group of twenty partners, and will investigate the development of innovative technologies for hydrogen production using renewable energy, hydrogen storage and industrialization of fuel cells. H2E will also contribute to the setting up of a suitable regulatory framework, and will include a program of demonstrations and educational measures for the public.


OSU Researchers Develop New Approach to Produce Hydrogen.
Researchers in the College of Engineering at Oregon State University have developed a new approach to use several types of biowaste, including ordinary municipal sewage, to produce hydrogen at a much lower cost than the traditional "electrolysis" technology. Studies suggest that this approach could reduce the amount of energy needed to produce hydrogen by as much as 75 percent.

http://oregonstate.edu/dept/ncs/newsarch/2008/Oct08/sewage.html

Fourth Annual Student Design Contest.
For the fourth annual Hydrogen Student Design Contest, the Hydrogen Education Foundation has partnered with the State University of New York – Farmingdale to ask teams of students to design a
“green” student union that utilizes hydrogen and renewable energy for the campus. Teams will design the basic structure of the new 45,000 square foot building utilizing renewable energy, energy efficient technologies and hydrogen for its energy needs. Each building design must include a bookstore, meeting rooms, a food court and other amenities which use power from the clean system the student teams will design.
http://www.hydrogencontest.org/

MATERIALS/COMPONENTS/TESTING

Sandvik Introduces New Interconnector Materials.
Sandvik Surface Technology has released its new interconnector materials for use in solid oxide fuel cell (SOFC) technology, which combine excellent high temperature corrosion resistance with good surface conductivity. Pre-coated Sandvik Sanergy™ HT, combines optimum steel grade with tailor-made surface coatings to minimize chromium evaporation and extend operational life.

Alicat Releases Flow Vision™ SC.
Alicat Scientific has released Flow Vision™ SC, a new version of its software package that supports and monitors flow and pressure applications for fuel cell testing.
http://www.alicatscientific.com/

REPORTS/MARKET STUDIES

New DOE Job Study Estimates 675,000 Fuel Cell and Hydrogen Jobs by 2035.
A new U.S. Department of Energy report, Effects of a Transition to a Hydrogen Economy on Employment in the United States Report to Congress, estimates the effects on employment of a U.S. economy transformation to hydrogen between 2020 to 2050. The report includes study results on employment impacts from hydrogen market expansion in the transportation, stationary, and portable power sectors and highlights possible skill and education needs.

REQUESTS FOR PROPOSALS

CHP Funding Opportunity.
The California Energy Commission has a program funding opportunity for "Adaptation of Advanced Mobile Combustion Engine Technologies for Distributed Energy Resources and Combined Heat and Power Applications" that includes fuel cells and hybrid fuel cell-microturbine technologies.
http://www.energy.ca.gov/contracts/pier.html#EPAG

NSF 2009 STTR Program Solicitation.
The National Science Foundation (NSF) has issued its 2009 Small Business Technology Transfer (STTR) Program solicitation, which includes a variety of hydrogen and fuel cell sub-topics. STTR Phase I awards are for up to $150,000 for a 12-month project. The program expects to make approximately 35 awards under this solicitation. A Letter of Intent is required and due by January 14, 2009. The deadline for full proposals is February 25, 2009.

MISCELLANEOUS

We Want to Hear from You!
Have you visited the Fuel Cell Insider blog yet? If not, we want to hear from you. The Fuel Cell Insider (www.fuelcellinsider.org) has attracted visitors from all around the world, but we need your help to keep it thriving. If you work in the fuel cell industry, your expertise would be useful to answer reader’s questions or respond to negative comments. If you are just interested in fuel cells, simply post a comment to show
your support or start a discussion. If there is an area of research or fuel cell application that you want to see covered or want to contribute an article on, please let us know.

**Fuel Cells and Hydrogen Joint Technology Initiative (FCH JTI) Launched.**
The Fuel Cells and Hydrogen Joint Technology Initiative (FCH JTI) was officially launched in Brussels as part of a new European approach to foster technology innovation and accelerate the commercialization of fuel cell and hydrogen technologies. This public-private partnership will facilitate funding for RD&D, codes and standards, as well as potentially providing a level playing field, market-based incentives and the potential for procurement opportunities. For an insider look at what it all means, go to [http://www.fuelcellinsider.org/2008/10/public-private-partnership-launched-in-europe/](http://www.fuelcellinsider.org/2008/10/public-private-partnership-launched-in-europe/).

**UTC Power Acquires AEC.**
UTC Power has acquired Architectural Energy Corp, (AEC) a Colorado-based privately held energy engineering firm that offers services and products to optimize the energy and environmental performance of buildings.
[http://www.utcpower.com/fs/com/bin/fs_com_Page/0,11491,0295,00.html](http://www.utcpower.com/fs/com/bin/fs_com_Page/0,11491,0295,00.html)

**SFC/DuPont team Wins First and Third Prize in DoD Competition.**
SFC Smart Fuel Cell AG with its U.S. partners DuPont and Capitol Connections LLC won first and third prizes in the U.S. Defense Department’s Wearable Power Competition. The new SFC electrical power system, the M-25 Portable Fuel Cell, won the $1 million first prize and the company’s JENNY fuel cell, won $250,000 for third prize in the competition.

**Adaptive Materials Wins Second in DoD Contest.**
Adaptive Materials placed second in the Department of Defense Research & Engineering’s Prize, winning $500,000.

**Proton Energy Receives $2.62 Million from Army.**
The U.S. Army’s Engineer Research and Development Center (ERDC) has awarded a $2.62 million contract to Proton Energy Systems to develop a regenerative fuel cell system for a “Silent Camp™” Operation, which will provide quiet and efficient power for military operations.

**India to Bottle Fuel Cell Water.**
India’s state-run Bharat Petroleum plans to bottle water produced as a by-product from a 1,000 MW fuel cell plant that the company plans to build. Bharat anticipates producing 1 million metric tons of water for every 1,000 MW of energy produced by the fuel cells. The bottled water will be sold at the company’s own fueling stations. The fuel cell plant will be constructed in the next three to five years.

**CONFERENCES**


**2nd China International Hydrogen & Fuel Cell Expo.**
The 2nd China International Hydrogen & Fuel Cell Expo (HFCE 2008) is scheduled for 18-20 November 2008, in Shanghai, China. The main focus of HFCE 2008 is fuel cell applications in the telecom industry with a focus on the industrialization of 1-10-kW fuel cell systems. If there are still companies interested in participating in HFCE 2008, you can enjoy a special discount via Fuel Cells 2000: USD $1000 per booth (3M X 3M) and additional color page ads in the show catalogue (size: 210mmX140mm). For a colored page ad only – USD $500. Email Chris Lian at chris.lian@tiansheng.com.cn and mention Fuel Cells 2000 to take advantage of this generous offer. For conference information, please visit [http://www.hfce.cn/index.asp](http://www.hfce.cn/index.asp).

Hydrogen Works Training Course.
The Hydrogen Works Training Course will be held February 17-19, 2009, at the San Diego Marriott Hotel and Marina in San Diego, California. For more information, go to http://www.undeerc.org/H2Works.

FC Expo 2009.

Hannover Messe 2009.
The 15th Group Exhibit Hydrogen + Fuel Cells, Hannover Messe 2009 will be held April 20-24, 2009, in Hannover, Germany. For information, go to http://www.fair-pr.com/.

2nd NEST.

HFC2009.

ASME Conference.
The American Society of Mechanical Engineer’s (ASME) 7th International Fuel Cell Science, Engineering & Technology Conference will be held June 8-10, 2009, in Newport Beach, California. For information, please go to http://www.asmeconferences.org/fuelcell09/.


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