

news from **FUEL CELLS 2000**

Fuel Cell Technology Update – May 2, 2005

To: Reporters, editors and investors following business, energy, automotive and technology news.
Let us know if you would prefer to receive the full updates via email, or if you wish to be removed from our list. For more information on stories, call (202) 785-4222.

TRANSPORTATION APPLICATIONS

Army Receives First Fuel Cell Military Truck from GM.

The U.S. Army took delivery of a modified Chevrolet Silverado crew cab pickup equipped with two 94-kW fuel cell stacks. The Army will evaluate the experimental truck until July 2006 at a base in Ft. Belvoir, Virginia. The vehicle will be used to deliver packages but will not be used in combat.

http://www4.army.mil/ocpa/print.php?story_id_key=7144

WHUT Unveils Fuel Cell Sedan.

The Wuhan University of Technology has unveiled the ChuTian 1, a fuel cell car currently undergoing durability tests. The vehicle has a 25-kW fuel cell. WHUT is also working on a fuel cell sedan and a fuel cell bus.

<http://www.wutnews.net/news/news.aspx?2005011001> (in Chinese)

April is Hydrogen Bus Month.

The Santa Clara Valley Transportation Authority had a hydrogen-powered Zero-Emission Bus running on two routes during the month of April.

http://www.vta.org/news/releases/2005/04_april/nr04-06_2005.html

STATIONARY POWER

Nuvera Begins Taking Orders for New Fuel Cell System.

Nuvera Fuel Cells, Inc., has begun accepting orders for its new 5-kW PowerFlow™ hydrogen fuel cell system. PowerFlow is being offered to OEMs for stationary or mobile applications or to customers who wish to test Nuvera's latest fuel cell technology. Application pre-approval is required.

http://www.nuvera.com/news/press_release.php?ID=6

Ballard Delivers Fuel Cell to Japanese Prime Minister.

Ballard Power Systems has delivered the world's first commercial fuel cell power generator system to the Japanese Prime Minister's new official residence. The unit, based on the MK1030 one-kilowatt fuel cell module, was manufactured by Ebara Ballard Corporation and delivered by Tokyo Gas. In 2005, the Japanese government committed approximately US\$23 million in subsidies for residential cogeneration systems to support the advancement of the technology and market.

http://www.ballard.com/resources/news_releases/06_Cogen%20Japan.pdf

CFCL and GippsTAFE to Conduct Australian Fuel Cell Field Trial.

Ceramic Fuel Cells Limited (CFCL) and Central Gippsland Institute of TAFE (GippsTAFE) are working together on Australia's first field trial of a fuel cell powered micro-CHP (combined heat and power) generator appliance. The prototype trial will be conducted at GippsTAFE's Chadstone campus by their subsidiary Energy and Telecommunications Training Australia (ETTA).

http://www.cfcl.com.au/Links/CFCL_ETTA_FieldTrial_050419.pdf

PORTABLE/BACKUP POWER

IBM and Sanyo Develop DMFC Prototype.

IBM and SANYO Electric unveiled initial plans for a prototype micro direct methanol fuel cell system (DMFC) for IBM ThinkPad notebooks. Based on a joint design, the companies prototyped a fuel cell system that could supply up to 8 hours per cartridge of power on current and future ThinkPad models
<http://www.global-sanyo.com/news/0504/0411-1e.html>

Jadoo Unveils New Fuel Cell for Video Applications.

Jadoo Power Systems, Inc. presented a new and improved NABII fuel cell power system for professional video applications at the National Association of Broadcasters Convention in Las Vegas.
http://www.jadoopower.com/pdfs/PR_jadoo_PR3.pdf

IdaTech Rolls Out New Portable Product.

IdaTech has introduced its new portable power system providing 250 Watt AC (alternating current) and DC (direct current). The system operates on a methanol-water fuel that can be derived from renewable sources, with an onboard reformer in a compact and lightweight package that can be hand-carried. The entire system weighs about 9 kg (20 lbs) and is smaller than a small desktop computer.
<http://www.idatech.com/media/news.html?article=71>

Neah Achieves Technical Milestone.

Neah Power Systems, Inc. recently demonstrated a fully integrated, multi-cell "stack," functioning as the core engine of the fuel cell. The results support the potential of Neah Power's silicon-based, patented architecture. This architecture is expected to set a new standard in micro fuel cell technology by scaling to higher power densities and improving operating efficiencies, leading to smaller physical form factors.
<http://www.neahpower.com/news/pressreleases/Stack.shtml>

Smart Fuel Cell and Heliocentris Sign Distribution Agreement.

SFC Smart Fuel Cell (SFC) and Heliocentris have signed a distribution agreement whereby Heliocentris will distribute the SFC A50 M, a 50-W fuel cell. Heliocentris will offer the SFC A50 M as part of an educational package for post-secondary educational institutions. Both companies have also agreed to collaborate on further development of direct methanol fuel cell (DMFC) based educational packages.
<http://www.heliocentris.com/news/release.html#>

World Energy Labs and Medis to Develop Fuel Cell Interrogator.

World Energy Labs is finalizing a project with Medis Technologies, Ltd. to develop a handheld "Interrogator" focused on the application of frequency response analysis (FRA) for the manufacturing and quality control of specific fuel cells. The tool will aid in fuel cell optimization, design, and manufacturing processes and lead to field portable systems for assessing the health of fuel cells throughout their operational lifetime.
<http://www.worldenergylabs.com/news/medis.htm>

Protonex Raises \$9 Million in Funding.

Protonex Technology Corporation has raised \$9 million in a second round of institutional funding. The financing was led by existing investors Conduit Ventures Ltd., SAS Investors, Solstice Capital and Commons Capital. New investors are Parker Hannifin Corporation, Contango Capital Management and the Massachusetts Green Energy Fund. The funds will be used to further develop Protonex's patent-pending fuel cell technology, to commercialize and launch products, and to expand the company's operations.
[http://www.protonex.com/\\$9%20million%20release.pdf](http://www.protonex.com/$9%20million%20release.pdf)

FUELS/REFORMERS/STORAGE

Hydrogen Bill Unanimously Passes Florida House.

The Florida Hydrogen Energy Technologies Act (FHETA), the legislative proposal focusing on hydrogen energy technologies and incentives, passed unanimously in the Florida House of Representatives. With

114 representatives approving the bill, it now awaits approval from the Florida Senate. Last month, The Washington Economics Group, Inc. released an in-depth economic analysis of the proposed legislation, projecting that the bill would bring in \$47.3 million in hydrogen energy investments and 142 jobs to Florida in the first year.

http://www.dep.state.fl.us/secretary/news/2005/04/0427_02.htm

Hydrogenics and PEI Energy Corporation to Develop Wind-Hydrogen Demonstration.

Hydrogenics and Prince Edward Island Energy Corporation will lead a consortium of industry and government partners to develop Canada's first wind-hydrogen village demonstration - the Prince Edward Island (PEI) Wind-Hydrogen Village Project. This multi-faceted initiative will demonstrate, in real-life and in real-time, how wind energy and hydrogen technologies can work together to offer clean and sustainable energy solutions across a wide range of applications.

http://www.hydrogenics.com/ir_newsdetail.asp?RELEASEID=161016

Proton Energy Systems Launches New Interactive Website.

Proton Energy Systems, Inc. has launched a new website to help hydrogen users who need solid information on the benefits that onsite hydrogen generation can offer their business. The website offers product information, an intuitive user interface, and a series of calculator tools to help potential customers estimate the economic and process benefits of making hydrogen on-site with Proton's HOGEN® hydrogen generators.

<http://www.protonenergy.com>

ETRI-AIST Develops New Melting Process for Alloys.

The Energy Technology Research Institute's National Institute of Advanced Industrial Science and Technology (ETRI-AIST) has developed a new melting process with high accuracy control ensuring designed composition for hydrogen storage alloys containing low-boiling metals such as magnesium, calcium and lithium to be used as a medium for storing hydrogen in fuel cell vehicles. The process was developed in collaboration with Japan Metals and Chemicals, Co., Ltd.

http://www.aist.go.jp/aist_e/latest_research/2005/20050406/20050406.html

FUEL CELL COMPONENTS

PolyFuel Achieves Membrane Breakthrough.

PolyFuel Inc. announced a new version of its hydrocarbon membrane for portable applications that provides significantly greater manufacturing flexibility than previous versions. This is the first hydrocarbon fuel cell membrane that is a "drop-in" replacement for fluorocarbon membranes such as DuPont's Nafion® in existing fuel cell membrane electrode assembly (MEA) manufacturing processes.

http://www.polyfuel.com/pressroom/press_pr_041205.html

Fideris and HTc Demonstrate SOFC Platform.

Fideris Inc. and HTceramix SA (HTc) demonstrated an SOFC research and development platform that will allow researchers to install an SOFC system in approximately four hours. The unit includes an HTc 5-cell SOFC fuel cell stack and a Fideris test system.

<http://www.fideris.com/DesktopDefault.aspx?tabid=2592>

REPORTS/MARKET STUDIES

Stationary Fuel Cells.

Research and Markets has released "Stationary Fuel Cells: Market Opportunities, Strategies and Forecasts, 2005 to 2009."

<http://www.researchandmarkets.com>

REQUESTS FOR PROPOSALS

Climate Change Fuel Cell Program Issues Solicitation.

The Bonneville Power Administration, in coordination with the Department of Defense, has issued a solicitation for the DOD FY04 Climate Change Fuel Cell Program. Solicitations for this project are due June 1, 2005.

http://www.bpa.gov/Energy/N/projects/fuel_cell/dod_climate_change/

US Army Seeks 10-kW Fuel Cell Auxiliary Power Unit.

The U.S. Army Tank Automotive Research Development and Engineering Center (TARDEC) issued a Broad Agency Announcement for a 10-kW fuel cell auxiliary power unit that utilizes JP-8 fuel. TARDEC anticipates awarding up to 3 contracts with combined total funding of approximately \$24 million.

<http://contracting.tacom.army.mil/research/fuelcell/fuelcell.htm>

MISCELLANEOUS

Rolls-Royce and Singapore Consortium to Invest \$100 Million.

Rolls-Royce has signed an agreement with EnerTek Singapore Pte Ltd., a Singaporean consortium of companies, to invest US\$100 million to develop a commercially viable power system based on fuel cell technology.

http://www.rolls-royce.com/media/showPR.jsp?PR_ID=40196

Fuel Cell Seminar Student Award.

At the 2005 Fuel Cell Seminar, a student award will be presented. The Bernard Baker Student Award is to encourage and recognize exceptional students in the field of fuel cell related technologies. The award will consist of a medal, a \$2,000 monetary award and a complimentary registration to the Fuel Cell Seminar to present your poster presentation. The applications will be received and evaluated prior to the Fuel Cell Seminar and the award will be announced and presented at the Fuel Cell Seminar.

http://www.fuelcellseminar.com/student_award.asp

Colorado Chooses Team to Lead Fuel Cell Center.

The Colorado Governor's Office of Energy Management and Conservation (OEMC) has selected a proposal for the Colorado Fuel Cell Center (CFCC) from the Gas Technology Institute (GTI), the Colorado School of Mines (CSM), DOE's National Renewable Energy Laboratory and Versa Power Systems, Inc. (VPS). The CFCC will be located at the CSM and GTI will manage its daily operations for the two-year period. GTI will provide technical advice on fuel cell research, development, demonstration, and commercialization, as well as provide public education.

<http://www.state.co.us/oemc/press/050406.pdf>

CONFERENCES

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

Fuel Cell 2005.

Fuel Cell 2005 will be held June 7-8, 2005, at the Hyatt Regency Minneapolis in Minneapolis, MN.

For conference details, please go to http://www.fuelcell-magazine.com/fc_conf_index.htm.

Renewable Energy Finance Forum 2005

The 2005 Renewable Energy Finance Forum will take place from June 23-24, 2005, at the Waldorf Astoria in New York. For more information, go to <http://www.acore.org/>.

Lucerne FUEL CELL FORUM 2005.

Two international fuel cell conferences, Fuel Cells for a Sustainable World and the 3rd European Polymer Electrolyte Fuel Cell Forum, will be held July 4-8, 2005, at the Kultur- und Kongresszentrum Luzern in Luzern, Switzerland. For registration information, please visit <http://www.efcf.com/>.

Grove Fuel Cell Symposium.

Review the latest technological advances and developments in fuel cell applications across all market sectors at the Ninth Grove Fuel Cell Symposium – October 4-6, 2005, in London, United Kingdom.

Over 50 expert presentations are supplemented by a major exhibition and fuel cell demonstration area. Book your delegate place and free exhibition tickets now at www.grovefuelcell.com.

Solar Power 2005.

Solar Power 2005 will take place October 6-9, 2005, at the Hyatt Regency Capitol Hill in Washington, DC. For details, go to <http://www.solarpowerconference.com/>.

EDTA Conference 2005.

The Electric Drive Transportation Association (EDTA) conference and exposition will be held December 6-8, 2005, in Vancouver, Canada. For more information, please go to <http://www.edtaconference.com/>.

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.