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.

LEGISLATION

U.S. Legislators Propose H2GROW Act.
U.S. Senator Ron Wyden (D-OR) and U.S. Representative Christopher Cox (R-CA) have introduced a bipartisan bill called the H2GROW Act – Hydrogen Transportation Wins Over Growing Reliance on Oil. The bill includes tax credits: for the purchase of fuel cell vehicles; for hydrogen fuel; and for building a hydrogen-fueling infrastructure. The goal of the H2GROW Act is to reduce reliance on 30 million barrels of foreign oil a year. The bill also mandates that hydrogen-powered vehicles must comprise a minimum percentage of federal fleets, from five percent for fleets of 100 vehicles or more in 2006 to 50 percent for fleets of 50 vehicles or more in 2012.
http://wyden.senate.gov/media/2002/2003211557.html

TRANSPORTATION APPLICATIONS

Nissan and UTC Sign Development Agreement.
Nissan Motor Co. and UTC Fuel Cells (UTCFC) announced the signing of an agreement to jointly develop proton exchange membrane (PEM) fuel cell technology. Under terms of the agreement, Nissan will obtain rights to UTCFC’s technology, and the two companies will continue to jointly develop this technology for automotive applications. UTCFC will also have rights to any intellectual property jointly developed by the two companies for use in non-automotive applications, including commercial stationary power plants.

Astris, CareAction Form Astris Transportation Systems.
Astris Energi, Inc. and Montreal-based CareAction, Inc. have joined and formed a new company named Astris Transportation Systems, Inc. (ATSI). Their first project will be to adapt the Astris E7-MC250 fuel cell generator to power the Zenn electric vehicle designed for use by the disabled and seniors, as well as the general public. The Zenn is a product of Feel Good Cars Inc., an affiliate of CareAction. The first fuel cell-powered Zenn will be rolled out before the end of this year, followed by volume production of fuel cell power units for both stationary and mobile applications, including use in golf cars, neighborhood electric vehicles and other people and material movers.
The U.S. Environmental Protection Agency has issued the first certification for fuel economy and emissions of a hydrogen fuel cell zero-emission vehicle to the 2003 Honda FCX. EPA’s Ann Arbor (Michigan) laboratory is the first federal facility capable of testing and certifying a fuel cell vehicle for emissions and fuel economy.

GM Increases HydroGen3 FCV Range.
General Motors has increased the range of its HydroGen3 compressed hydrogen fuel cell vehicles by 80 percent with a successful test of a 10,000-psi (700 bar) hydrogen storage system. The HydroGen3 Zafira minivan has a range of 170 miles, up from 95 miles achieved in Summer 2002.

STATIONARY POWER

Plug Power and LIPA Install Fuel Cell at McDonald’s, LIPA to Purchase 45 More.
Plug Power and the Long Island Power Authority (LIPA) have installed a fuel cell to partially power a Long Island, New York McDonalds. The McDonald’s fuel cell was installed by LIPA as part of its alternative energy technologies research and development program, which is part of its Clean Energy Initiative (CEI). LIPA will purchase an additional 45 GenSys™5CS fuel cell systems for installation across Long Island this year. Twenty-five will be installed at LIPA’s West Babylon Fuel Cell Demonstration Site, which currently contains fuel cell systems feeding directly into the Long Island electrical grid. The remaining 20 systems will generate on-site heat and power for single or multi-family residential sites.

FuelCell Energy, Inc. (FCE) announced that a Direct FuelCell® (DFC®) power plant built by its partner in Europe, MTU CFC Solutions GmbH, a company of DaimlerChrysler AG, has begun operating at a Michelin tire plant in Karlsruhe, Germany. The power plant will supply both electricity and process steam for tire vulcanization for the facility. The fuel cells in the power plant were manufactured by FCE and shipped to MTU for incorporation into their power plant known as the Hot Module.

FCT Receives Purchase Contracts for SOFC Units.
Fuel Cell Technologies (FCT) announced that the U.S. Department of Energy's National Energy Technology Laboratory (NETL) and the Electric Power Research Institute (EPRI) have placed orders to purchase the company’s SOFC units. NETL will purchase one 5kW unit for testing at a facility in Morgantown, WV, after which the system will be delivered to the Environmental Protection Agency (EPA) for installation at an abandoned hardrock mine in Montana to provide electricity for operating instrumentation and communications equipment. FCT will also deliver a five-kW SOFC unit to EPRI.
later this year for performance testing in collaboration with FCT and NETL. FCT also signed a contract with the Gas Technology Institute to "deliver, install and commission a 5kW SOFC unit at the Memphis Botanical Garden in Memphis, Tennessee. http://www.fct.ca/29_01_03.html

CA Certifies FCE DFC for Grid Connection.
FuelCell Energy, Inc. (FCE) has received notice from the California Energy Commission (CEC) that its DFC300A Direct FuelCell® (DFC®) power plant has been certified for grid interconnection under California's "Rule 21" standard. According to FCE, the standard is a collaborative effort of CEC and California's three largest investor-owned utilities that specifies interconnection, operating and metering requirements for distributed electric power generators such as fuel cells.

Caterpillar and FCE Expected to Win Ohio Contract.
Caterpillar Inc. and FuelCell Energy, Inc. (FCE) are expected to win a contract to install one of the nation's first advanced utility-scale fuel cell power plants designed to feed power from a substation into a local electric distribution system. The innovative project award is the first by the state of Ohio, which is investing more than $100 million in a three-year initiative to expand fuel cell research and development, including increased fuel cell generating capacity.

http://biz.yahoo.com/prnews/030227/cgth054_1.html

Nippon Oil to Test Residential Fuel Cell System.
Nippon Oil began testing fuel cells for residential use in a model house in Yokohama's Nishi Ward. The Tokyo-based oil company also plans to begin testing fuel cells in the official residence of Yokohama Mayor Hiroshi Nakada. The experiment, which uses propane as fuel, will last for about a year. Nippon Oil plans to begin sales of the system in 2005, at a cost of about 500,000 yen (approx. US$4,254).

http://www.japantoday.com/e?content=news&cat=4&id=248316

PORTABLE/BACKUP POWER

Axane Fuel Cell Used in North Pole Experiment.
Air Liquide subsidiary Axane’s 300-watt Polar Pac proton exchange membrane (PEM) fuel cell operated for more than 500 hours during a three-month experiment near the North Pole. The Polar Pac fuel cell was used by French explorer Jean-Louis Etienne to power communication, lighting and computer equipment.

Toshiba International and Plug Power Enter Marketing Agreement.
Toshiba International Corporation (TIC) and Plug Power Inc. have entered into a joint marketing agreement to explore the application of fuel cells for industrial premium power markets. The agreement will define a product that combines Plug Power’s proprietary fuel cell technology with TIC’s uninterruptible power systems. The companies expect the joint marketing agreement to lead to subsequent product development and commercialization agreements.

http://biz.yahoo.com/prnews/030219/nyw037_1.html
Ballard to Purchase Fuel Cell Generator Assets from Coleman Powermate.
Ballard Power Systems has entered into a Memorandum of Understanding whereby it will purchase Coleman Powermate’s AirGen™ fuel cell generator assets, acquiring all related inventory, tools and molds, software and intellectual property, including the AirGen™ brand, and will develop its own sales marketing and distribution strategy for the fuel cell generator.
http://www.ballard.com/pdfs/4%20Coleman_F.PDF

FUELS/REFORMERS/STORAGE

Stuart Unveils Intelligent Hydrogen Energy Station.
Stuart Energy unveiled and demonstrated the world's first intelligent electrolytic Hydrogen Energy Station (HES) at its headquarters in Mississauga, Ontario yesterday. Attending the event were industry and government officials, executives from major Stuart Energy’s Asian joint venture partner Cheung Kong Infrastructure Holdings as well as project partners Ford Motor Company and representatives of Ballard Power Systems.

SAWC Develops Hydrogen Fuel Transport Truck.
Sumisho Air Water Company (SAWC) has developed Japan's first truck capable of transporting hydrogen fuel for fuel cell-powered vehicles. The truck, which is expected to retail for between 50 and 60 million yen (between $415,000 and $498,000), will be purchased by Toyota Motor Corporation. This Mobile Hydrogen Station will be driven directly to fuel cell vehicles to provide fuel.

PES Supplies HOGEN 380 for Fuel Cell Bus Project.
Proton Energy Systems, Inc. (PES) has supplied one of its HOGEN 380 hydrogen generators for use in a new hydrogen and renewable energy project in Barth, Germany. The system, which was delivered late last year, was commissioned and successfully passed acceptance-testing earlier this month. The HOGEN 380 hydrogen generator will be used to compress and store hydrogen at high-pressure to provide fuel for a fuel cell-powered bus. The oxygen byproduct from the unit will be used to increase Barth's wastewater treatment capacity by adding oxygen to its biological wastewater treatment system. The Barth environmental site will also incorporate solar panels for zero emission electricity generation.
www.protonenergy.com

Dynetek to Deliver Storage Systems to MAN, John Deere.
Dynetek Industries, Inc.’s wholly owned European subsidiary Dynelek Europe GmbH will deliver two 5,000-pounds per square inch (psi), or 350-bar, hydrogen storage systems to Germany’s MAN Nutzfahrzeuge AG later this year for use in two fuel cell powered buses that will operate at the Munich Airport. Back in North America, Dynetek has been selected by Deere & Company (John Deere) to supply its 5000psi (350bar) hydrogen storage system as part of a technology demonstrator fuel cell-powered commercial work vehicle. The demonstrator will be a modified John Deere Pro-Gator™ utility vehicle.
EU to Fund Hydrogen Fuel Pumps.
The European Commission is funding a three-year initiative to develop the technology to deliver hydrogen fuel pumps to petrol stations by connecting them to a country’s existing natural gas supply.

QuestAir Wins Research and Development Award.
QuestAir Technologies Inc. has been awarded the 2002 Energy Research and Development Award by the Canadian Institute of Energy (British Columbia.). The Energy Research and Development Award recognizes the efforts of B.C.-based firms that are conducting leading-edge research into energy technology. The evaluative criteria considered in this award include the degree of innovation, commercial market potential, environmental benefits, as well as the indirect benefits (such as productivity increases and product quality improvements) resulting from the research.

FUEL CELL COMPONENTS

SatCon Receives Order for Power Conditioning Systems.
SatCon Technology Corporation has received a $1.2 million purchase order for three megawatts of power conditioning systems for fuel cell power generation. The UL 1741 compliant three phase multi-mode inverters will provide power conversion and conditioning and the electrical balance of plant for a fuel cell power generation system. The units are to be delivered in 2003.

NETL Generates Hydrogen from Water Without Electrolysis.
Researchers at the National Energy Technology Laboratory (NETL) have patented a new method of generating hydrogen from water, without using electrolysis. The method involves “catalytic decomposition of water” using mixed proton-electron conducting membranes.

AMI Launches Third Generation Test Suite Software.
Advanced Measurements (AMI) has launched its third generation Fuel Cell Test Suite software. Possible testing options are reduction tests, power curve tests, fuel utilizations tests, load profiling tests and impedance spectroscopy tests.

REPORTS/MARKET STUDIES


The United Kingdom (U.K.) Department of Trade and Industry (DTI) and Carbon Trust have released a new report, which found that the country’s fuel cell technology industry could become a significant player in the world market, given the right investment. The report, authored by E4Tech, urges the U.K. government to establish an industry forum that will develop a vision for fuel cells in the U.K. and act as a central liaison point for producers, government and academia. http://www.carbontrust.co.uk

BCC Hydrogen Report.
Hydrogen as a Chemical Constituent and as an Energy Source, a recently updated report from Business Communications Company, Inc. claims the total U.S. hydrogen demand will increase by a factor of 1.32, from 10,963 billion cubic feet in 2002 to 14,454 billion cubic feet in 2007. This increase will be equivalent to an average annual growth rate (AAGR) of 5.7%. By 2007, BCC estimates that more than 1,000,000 vehicles fueled by hydrogen will be operating throughout the United States. This will increase the market value of hydrogen for renewable energy production. www.bccresearch.com

REQUESTS FOR PROPOSALS

CaFCP Seeks Fleet Vehicle Demonstration Interest.
The California Fuel Cell Partnership has started a new website-based questionnaire to gather information from those interested in helping to test and operate fuel cell electric vehicles and related infrastructure in real-world conditions. http://www.caafcp.org/releases/2003_2-03_2003_fleets.html

NYSERDA Funding Available for DG/CHP Projects.
$10 million in funding is available from the New York State Energy Research and Development Authority (NYSERDA) for distributed generation (DG) and combined heat and power (CHP) projects, including fuel cell feasibility studies, technology transfer studies, and demonstration projects. Proposals are due by April 16, 2003.
Climate Change Fuel Cell Buy-down Program.
The Department of Defense, through the Department of Energy’s National Energy Technology Laboratory, has issued its 2003 Climate Change Fuel Cell Buy-Down Solicitation, to provide grants of up to $1,000/kW for the purchase & installation of fuel cell power plants with a combined capacity rated between 3 and 3,000 kW. $2.8 million is available under this solicitation. It is anticipated that there will be between 10 and 14 awards resulting from the solicitation. Applications are due on June 1, 2003.

MISCELLANEOUS

DOE EERE Web Site Renamed, Moved.
The web site for DOE’s Office of Energy Efficiency and Renewable Energy (EERE), formerly known as EREN, has moved to a new address. The site’s new address places greater emphasis on the reorganized office’s 11 technology programs – including the Hydrogen, Fuel Cell and Infrastructure Technologies Program – and reflects DOE’s move from doe.gov to energy.gov. The new EERE web site is http://www.eere.energy.gov.

CONFERENCES

Fuel Cell Investment Summit.

Pennsylvania Fuel Cell Workshop.
“The Path to a Fuel Cell Economy in Pennsylvania and the Mid-Atlantic Region” will be held on March 18, 2003, at the Sheraton Rittenhouse Square in Philadelphia, Pennsylvania. For more information, please go to http://www.cleanair.org/fuelcell.

Aspen Clean Energy Roundtable.
Montreux Energy’s 10th annual Aspen Clean Energy Roundtable will be held March 26-28, 2003, at the Hotel Jerome in Aspen, Colorado. For registration information, please visit http://www.montreuxenergy.com/aspen.htm.

Excellence in Fuel Cells Summit.
The “Excellence in Fuel Cells” Conference and Workshop will be April 9-11, 2003, at the Hannover Fair, Germany. For details, go to http://www.eyeforfuelcells.com/events/hannover2003/.

The 5th Annual Small Fuel Cells conference – Small Fuel Cells for Portable Power Applications will be May 7 - 9, 2003, at the Hyatt Regency New Orleans in New

**Industrial Short Course.**
"An Introduction to the Science and Engineering of Fuel Cells and Fuel Processors" will be May 7-9, 2003, at the University of Michigan in Ann Arbor, Michigan. For details, go to http://www.engin.umich.edu/dept/cheme/fuelcellcrse/index.html.

**Fuel Cell Fundamentals.**
The Fuel Cell Fundamentals Short Course will be May 8-9, 2003, at the WPI Worcester Campus in Worcester, Massachusetts. For course information, go to http://www.ce.wpi.edu/FC/.

**Hydrogen and Fuel Cells 2003.**
Join over 700 delegates to discuss the latest developments in hydrogen, fuel cell research and product developments in Vancouver, British Columbia, Canada on June 8-11, 2003. Also available will be an exciting array of industrial and product demonstrations. For more information, please visit www.hydrogenfuelcells2003.com.

**Grove Fuel Cell Symposium VIII.**
Join international delegates to discuss developments in fuel cell technology and commercialization at the **Eighth Grove Fuel Cell Symposium**, in London, England on September 24-26, 2003. New for 2003 is a large exhibition area featuring over 100 exhibitors, vendor presentations and live demonstrations. Find out more at www.grovefuelcell.com or contact sm.wilkinson@elsevier.com.

**EPRI DR Conference.**
EPRI's Eighth Annual DR Conference will be October 15-17, 2003, at the Intercontinental New Orleans in New Orleans, Louisiana. www.epri.com

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*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.*