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**FUEL CELL CONNECTION -- December 2002 Issue**  
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News on U.S. Government Fuel Cell Programs

1. Navy's First PEMFCs Started Up

An office building and a residence at the U.S. Navy's NAVAIR Patuxent River station in Maryland are now using electricity from PEM fuel cells manufactured by H Power. The fuel cells were installed and will be maintained by Southern Maryland Electric Cooperative and Public Works utilities for the 12-month testing period. The fuel cell installed at the office building is using propane as the fuel, while the other fuel cell is using natural gas.

http://www.dcmilitary.com/navy/tester/7_46/local_news/20347-1.html

2. NETL Researchers Test Hydrogen-Producing Bacteria

Researchers at the National Energy Technology Laboratory have successfully sustained a population of hydrogen-producing bacteria that can produce, on a daily basis, almost as much hydrogen as their containment vessel's volume.

<http://www.netl.doe.gov/newsroom/briefs/rb-0005.html>

3. Labs Patent Hydrogen-from-Water Generation Method

Researchers at Argonne National Laboratory and National Energy Technology Laboratory have patented a "Method of Generating Hydrogen by Catalytic Decomposition of Water," that is less energy intensive than electrolysis of water. The invention produces hydrogen from water by using mixed proton-electron conducting membranes.

http://www.ornl.gov/news/pulse/pulse_v121_02.htm

4. MARAD Reports on Shipboard Fuel Cell Projects

U.S. Department of Transportation Maritime Administration (MARAD) has entered into a Cooperative Research Agreement with SurePower Corporation to test and observe a fuel cell system's response to simulated marine power loads. The tests demonstrated that the system met all regulations as they apply to rotating, alternating and direct current generators, with the exception of the 300% overload test. MARAD also reports that San Francisco's Bay Area Water Transit Authority is actively developing a fuel cell powered ferry that will serve Treasure Island. The ferry design project is scheduled for completion in early to mid-2003, at which time funding for construction will be sought.

<http://marad.dot.gov/nmrec/energy%20&%20emissions/images/Newsletter%20Fall%202002.pdf>

5. "Fort Future" Program to Transform Army Installations

A new U.S. Army program called "Fort Future" will help Army installation planners by providing information on technologies to support emerging forces. Fuel cell technology is included in a series of articles focused on Installation Transformation, published in a previous issue of Army AL&T Magazine. <http://www.cecer.army.mil/td/tips/index.cfm>

6. Army Establishes Research, Development and Engineering Command

The U.S. Army has established a new command within the Army Materiel Command (AMC) incorporating research, development and engineering (RDE) elements of its major subordinate

commands. The initial plan brings together in a single organization the Army Research Laboratory, the Army Materiel Systems Analysis Activity, and each of the AMC Research, Development and Engineering Centers. The new RDE Command will integrate, mature, and demonstrate all emerging technologies.

http://www.dtic.mil/armylink/news/Nov2002/r20021119rde_cmd_news_release1.html

7. Task Force to Examine the Future of DOE Science Programs

DOE Secretary Spencer Abraham named Massachusetts Institute of Technology President Charles M. Vest to head a new high-level Task Force on the Future of Science Programs at DOE. The task force will examine science and technology programs across the department and consider future priorities for scientific research.

<http://www.energy.gov/HQPress/releases02/decpr/pr02262.htm>

8. Fuel Cell Topics Covered at Army Science Conference

Fuel cell technology was one of the topics covered by presenters at the 23rd Army Science Conference, "Transformational Science & Technology for the Army...A Race for Speed and Precision." Presentations from the conference are available online, including "Ammonia-based Hydrogen Generation for Fuel Cell Power Supplies," "Transport Properties of Triblock Copolymer Ionomer Membranes for Fuel Cells," and "High Performance of DMFC for Objective Force: From a Nano-scale Catalyst to a Novel Fuel Cell Stack System."

<http://www.dtic.mil/armylink/news/Nov2002/r20021120m-02-066.html>

9. ANL Well-to-Wheels FCV Fuel Choices Analysis Available Online

"Fuel Choices for Fuel-Cell Vehicles: Well-to-Wheels Energy and Emission Impacts," presented by Michael Wang of Argonne National Laboratory at the 2002 Fuel Cell Seminar in Palm Springs, is now available online.

<http://www.transportation.anl.gov/ttrdc/pdfs/TA/260.pdf>

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**RFP/Solicitation News**  
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10. Minority Institutions Solicitation Seeks Fuel Cell, Related Proposals

DOE has issued the solicitation "Support of Advanced Fossil Resource Utilization Research by Historically Black Colleges and Universities and other Minority Institutions," which includes two program areas of interest related to fuel cells. "Clean Fuels Technology" seeks proposals for research related to the production of hydrogen and other premium fuels and products from coal. "Fuel Cells" seeks proposals focused on SOFC systems as relates to the Solid State Energy Conversion Alliance (SECA) Program goals. It is anticipated there will be approximately four to eight awards of up to \$200,000 each. Deadline for proposals is January 23, 2003. <https://e-center.doe.gov/iips/busopor.nsf/1be0f2271893ba198525644b006bc0be/f0e65f12f0d9028785256c7e00701f8c?OpenDocument>

11. CECOM Program to Test & Compare Fuel Cells

The U.S. Army Communications-Electronics Command (CECOM) has received approval to initiate the Foreign Comparative Test Program for High Power Density Fuel in FY2003. Five candidate fuel cell power systems have been identified by CECOM. Additional fuel cells are sought in several categories, in both the 25-watt and >500-watt sizes: hydrogen-based systems, hydrogen-based hybrid systems (with battery), methanol systems, and alternative fuel systems.

Only technology suitable for testing by July 2003 will receive consideration. Responses to this solicitation are due by January 23, 2003.

<http://www.eps.gov/spg/USA/USAMC/DAAB15/DAAB15-03-R-0004/SynopsisP.html>

12. DOE Issues Request for Information on Climate Change Technologies

In response to President Bush's National Climate Change Technology Initiative (NCCI), DOE has issued a Request for Information and Statement of Interest from parties working on Innovative Climate Change Technologies. If pursued, the competitive solicitation program for the NCCI would involve the award of tens of millions of dollars in research grants or other forms of financial assistance for research over multiple years. Submissions of Statements of Interest should be received or post-marked no later than January 31, 2003. <https://e-center.doe.gov/iips/busopor.nsf/e6458ce53c05cf038525645200788ab8/1050ceb0b7868d5f85256c76004b38d4?OpenDocument>

13. PATH Issues Notice of Public Interest on Cooperative Agreements

The Partnership for Advancing Technology in Housing (PATH) Program has issued a Notice of Public Interest to inform potential applicants of its interest in receiving ideas for cooperative agreements. Proposals should be for cost-shared, industry-led research projects in support of PATH goals, which are presented in a series of roadmaps. Fuel cells are one of two distributed generation technologies listed in the PATH Technology Roadmap: Energy Efficiency in Existing Homes. Funding for projects will vary as a result of available funds and other program requirements. In the past several years, an average of six cooperative agreements have been made each year with most awards in the \$100,000 to \$300,000 range.

<http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/2002/02-31365.htm>

<http://www.toolbase.org/secondaryT.asp?TrackID=&CategoryID=1771>

14. Update on Fuel Cell R&D Solicitation

As of December 20, 2002, the open date for the DOE Fuel Cell R&D Solicitation had still not been announced. Approximately \$7 million is expected to be available for FY2003. Up to 20 projects are anticipated. Proposals will be due 45 days after issuance of the solicitation. DOE advises you to continue to check the Industry Interactive Procurement System for further information regarding this solicitation. The revised or new due date for applications will be posted at the following web site. <http://doe-iips.pr.doe.gov/iips/busopor.nsf/e6458ce53c05cf038525645200788ab8/0d25f3e9b41ce04385256c6000792bc4?OpenDocument>

15. DOD Climate Change Fuel Cell Program Solicitation Expected Soon

The Department of Defense's Climate Change Fuel Cell Program expects to issue its FY02 solicitation in mid-December 2002. As of the date of this writing, the solicitation had not been posted. FY02 funding for the program is \$2.8 million. Applicants must demonstrate a commitment to purchase and use fuel cell power plants with a rated capacity of at least 3 kW. Priority is given to projects sited at DOD installations.

<http://www.dodfuelcell.com/climate/index.html>

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**Contract / Funding Awards**  
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16. NIST Awards Fuel Cell Measurement & Standards Research Plan Contract

The Department of Commerce National Institute of Standards and Technology plans to issue a purchase order on a sole source bases to Mr. Stanley Dapkunas, Annapolis, Maryland, to provide services to develop a plan of measurement and standards research for fuel cell materials to address the needs of SOFC technology through the SECA Program.

<http://www.eps.gov/servlet/Documents/R/513227>

17. Connected Energy Receives Contract for Public Access DG Website

New York State Energy Research Development Authority has contracted with Connected Energy Corp. for the first phase on an energy operations information website for distributed power generating facilities. The Central Operating Management System (COMSYS™) will provide the public information such as monitors and logs of operating data from on-site generator systems including CHP plants, fuel cells, micro turbines and wind and solar generators.

<http://www.connectedenergy.com/content/pressreleas13.htm>

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**Legislation / Regulations**  
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18. Bush OKs SUV Fuel Economy Improvements

President Bush has approved a proposed rule by the National Highway and Traffic Safety Administration (NHTSA), which will increase current Corporate Average Fleet Economy (CAFÉ) standards for light trucks by 1.5 miles per gallon over model years 2005 through 2007. An Issue Brief for Congress regarding the CAFÉ standards was recently updated by Congressional Research Service.

<http://www.ncseonline.org/NLE/CRSreports/02Dec/IB90122.pdf>

<http://www.nhtsa.dot.gov/nhtsa/announce/press/pressdisplay.cfm?year=2002&filename=pr75-02.html>

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**State Activities**  
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19. Florida DEP Joins FPL on Fuel Cell Demonstration Project

The Florida Department of Environmental Protection has joined with Florida Power and Light Company on a year-long demonstration project to study fuel cell technology. The 5-kW fuel cell, fueled by natural gas, is the first of five fuel cell installations planned by FPL.

http://www.dep.state.fl.us/secretary/comm/2002/02_1212fpl.htm

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**Industry Headlines**  
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20. Toyota and Honda Deliver FCVs for Leasing in Japan, California

Toyota and Honda have both begun leasing fuel cell vehicles in Japan and California.

<http://media.prnewswire.com/en/jsp/latest.jsp?resourceid=2359126&access=EH>

<http://media.prnewswire.com/en/jsp/latest.jsp?resourceid=2359323&access=EH>

21. ColemanPowermate Introduces AirGen Fuel Cell Power Source

ColemanPowermate has introduced the AirGen™ 1-kW fuel cell generator, which features a Ballard Nexa™ power module and uses hydrogen gas as its fuel.

<http://www.airgen.com/airgenindustrial.shtml>

22. Nissan Unveils X-Trail Fuel Cell SUV

Nissan Motor Company unveiled its new fuel cell powered X-Trail sport utility vehicle. The FCV is powered by a 75-kW PEM fuel cell manufactured by UTC Fuel Cells. The vehicle is able to achieve a top speed of 77 mph (125 kmph) and has a range of more than 124 miles (200 km) between fuelings.

<http://www.utcfuelcells.com/news/archive/121002.shtml>

23. CaFCP Announces 2003 Goals

The California Fuel Cell Partnership has announced its 2003 goals, which include placing additional hydrogen fueling stations, and operating up to 60 fuel cell vehicles, together accumulating up to 265,000 miles.

http://www.drivingthefuture.org/releases/2002_12-11_2002goals.html

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**Administration**  
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Press releases and story ideas may be forwarded to Bernadette Geyer, editor, for consideration at bernie@usfcc.com.

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**About Fuel Cell Connection**  
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The Sponsors

U.S. Fuel Cell Council -- The U.S. Fuel Cell Council is the business association for anyone seeking to foster the commercialization of fuel cells in the United States. Our membership includes producers of all types of fuel cells, as well as major suppliers and customers. The Council is member driven, with six active Working Groups focusing on: Codes & Standards; Transportation; Power Generation; Portable Power; Stack Materials and Components; and Education & Outreach. The Council provides its members with an opportunity to develop policies and directions for the fuel cell industry, and also gives every member the chance to benefit from one-on-one interaction with colleagues and opinion leaders important to the industry. Members also have access to exclusive data, studies, reports and analyses prepared by the Council, and access to the "Members Only" section of its web site.

<http://www.usfcc.com/>

National Fuel Cell Research Center -- The mission of the NFCRC is to promote and support the genesis of a fuel cell industry by providing technological leadership within a vigorous program of research, development and demonstration. By serving as a locus for academic talent of the highest caliber and a non-profit site for the objective evaluation and improvement of industrial products, NFCRC's goal is to become a focal point for advancing fuel cell technology. By supporting industrial research and development, creating partnerships with State and Federal agencies, including the U.S. Department of Energy (DOE) and California Energy Commission (CEC), and overcoming key technical obstacles to fuel cell utilization, the NFCRC can become an invaluable technological incubator for the fuel cell industry.

[\(http://www.nfcrc.uci.edu/\)](http://www.nfcrc.uci.edu/)

National Energy Technology Laboratory -- The National Energy Technology Laboratory is federally owned and operated. Its mission is "*We Solve National Energy and Environmental Problems.*" NETL performs, procures, and partners in technical research, development, and demonstration to advance technology into the commercial marketplace, thereby benefiting the environment, contributing to U.S. employment, and advancing the position of U.S. industries in the global market.

<http://www.netl.doe.gov>