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## **FUEL CELL CONNECTION -- February 2002 Issue**

### **IN THIS ISSUE**

- \* White House Budget Includes Many Fuel Cell, Hydrogen Line Items
- \* BAA Issued for PEM Fuel Cell Demonstration
- \* CERL Awards Fuel Cell Validation Project to Concurrent Technologies Corporation
- \* Massachusetts Issues Renewable Portfolio Regulation for Electric Utility Industry
- \* Japan's First Two Hydrogen Filling Stations Are Completed

### **CONTENTS**

#### **News on U.S. Government Fuel Cell Programs**

1. White House Budget Includes Many Fuel Cell, Hydrogen Line Items
2. Commerce Recommends Limiting Large Companies' Participation in ATP
3. Naval Surface Warfare Center Reviews Technologies for Small Ships
4. DG Monitor Reports on US Armed Forces' Fuel Cell Interests
5. EPA Greenhouse Gas Technology Center to Test & Verify Fuel Cells in 2002
6. PNL Offers Rights to License Gas Separation Membrane Technology
7. Carl Michael Smith Sworn in as Assistant Secretary for Fossil Energy at DOE
8. FEMP Posts Reviews of Sources of Funding for Distributed Energy Deployment
9. Proceedings from NETL Vision 21 Program Review Meeting Posted Online
10. Fuel Cell Portable Power Workshop Presentations Available Online
11. Hydrogen Vision Document Posted
12. Office of Transportation Technologies Posts "Fact Sheets"
13. "How To" Meeting Scheduled for Companies Seeking Federal Funds
14. DOE Schedules E-Vision Conference on Reducing Energy Consumption

#### **RFP / Solicitation News**

15. BAA Issued for PEM Fuel Cell Demonstration
16. DOE Office of Science's EPSCoR Program Invites Grant Applications
17. DOD SBIR/STTR Release Imminent, Fuel Cell Topics Included
18. EPA Landfill Methane Outreach Program Announces Solicitation
19. Pennsylvania Funds Available for Alternative Fuels Grants
20. Fuel Cell Topics in New AQMD Program Opportunity Notice

#### **Contract Awards**

21. CERL Awards Fuel Cell Validation Project to Concurrent Technologies Corporation
22. Pennsylvania DEP Purchases DCH Fuel Cells

#### **Legislation / Regulations**

23. Massachusetts Issues Renewable Portfolio Regulation for Electric Utility Industry
24. FEMP Newsletter Provides "Insights" Into 107<sup>th</sup> Congress

#### **Industry Headlines**

25. Japan's First Two Hydrogen Filling Stations Are Completed
26. Toshiba Demonstrates PDA Running on Fuel Cell
27. Volkswagen Tests Hydrogen Fuel Cell Car

## Administration

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## News on U.S. Government Fuel Cell Programs

### 1. White House Budget Includes Many Fuel Cell, Hydrogen Line Items

On February 4, 2002, the Bush Administration released its proposed budget for FY2003, which included many line items for fuel cell and hydrogen related funding. Some highlights from the DOE request are:

- Hydrogen Research: \$39.9 million; a \$10.7 million increase over the FY02 enacted funding level
- Stationary Fuel Cells: \$47 million; an \$11.1 million decrease from the FY02 enacted funding level
- Freedom CAR: \$150.3 million
- Transportation Fuel Cells: \$50 million; an \$8.1 million increase over the FY02 enacted funding level
- Fuel Cells in Buildings: \$7.5 million; a \$2 million increase over the FY02 enacted funding level

Details on the fuel cell and hydrogen funding can be found in a detailed budget chart on the Fuel Cells 2000 web site at <http://www.fuelcells.org/budget.html>. The budget request includes \$9.1 billion in tax incentives to encourage the use of renewable energy, CHP systems and energy efficient vehicles. The full budget is on the White House web site.

<http://www.whitehouse.gov/omb/budget/fy2003/>

### 2. Commerce Recommends Limiting Large Companies' Participation in ATP

The Department of Commerce has released *The Advanced Technology Program: Reform with a Purpose*, a report that presents six recommendations for improving NIST's Advanced Technology Program (ATP), which has funded several fuel cell and hydrogen projects in past years. One of the report's recommendations is to limit large companies' participation in ATP to joint ventures. The White House FY2003 budget request includes \$107.9 million for ATP.

[http://www.nist.gov/public\\_affairs/update/upd021102.htm](http://www.nist.gov/public_affairs/update/upd021102.htm)

### 3. Naval Surface Warfare Center Reviews Technologies for Small Ships

Naval Surface Warfare Center, Carderock Division hosted a workshop on "Technology for Small, Fast Ships" where experts explored technologies that could be incorporated into a demonstration vehicle within five years. Technology categories being explored include electric power and hull propulsion.

[http://www.news.navy.mil/search/display.asp?story\\_id=793](http://www.news.navy.mil/search/display.asp?story_id=793)

### 4. DG Monitor Reports on US Armed Forces' Fuel Cell Interests

An article in the January/February 2002 issue of *DG Monitor* reports on various ongoing distributed-generation R&D activities of the US Armed Forces, focusing on fuel cell activities. The article includes info on the Army's examination of fuel cells for portable power generation, the Air Force's interest in fuel cells for base generators and Air Expeditionary Force operations, and DARPA's development of SOFC for distributed power applications.

[http://www.distributed-generation.com/Library/Monitor\\_Feb02.pdf](http://www.distributed-generation.com/Library/Monitor_Feb02.pdf)

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*5. EPA Greenhouse Gas Technology Center to Test & Verify Fuel Cells in 2002*

The EPA Greenhouse Gas Technology Center and the New York State Energy Research Development Authority (NYSERDA) will collaborate on the verification of several new energy technologies installed across New York, including two Plug Power 7-kW residential fuel cells, and two UTC Fuel Cell 200-kW fuel cell systems using anaerobic digester gas from a municipal waste water treatment plant. Verification planning activities should begin in February 2002. On a related note, the GHG Center is interested in identifying other GHG mitigation and monitoring technology verification opportunities for the electrical utility industry and distributed electrical power. Interested companies can submit requests to have their technologies verified by the GHG Center.  
[http://www.sri-rtp.com/Newsletter%20Info/ghg\\_newsletter\\_7.pdf](http://www.sri-rtp.com/Newsletter%20Info/ghg_newsletter_7.pdf)  
<http://www.sri-rtp.com/submit.htm>

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*6. PNL Offers Rights to License Gas Separation Membrane Technology*

Pacific Northwest National Laboratory is soliciting interest from companies desiring to obtain license rights to commercialize, manufacture and market a method for producing a coating that increases the selectivity of membranes used in gas separators. Deadline for emailing/ mailing letters of interest is April 1, 2002.  
<http://www.pnl.gov/hightechcomm/license/programs/advmater.htm#solu>

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*7. Carl Michael Smith Sworn in as Assistant Secretary for Fossil Energy at DOE*

Carl Michael Smith has been sworn in as DOE's Assistant Secretary for Fossil Energy, which oversees DOE's Stationary Fuel Cell program. Smith previously served as Oklahoma's Secretary of Energy, and as president of the Oklahoma Independent Petroleum Association.  
<http://www.energy.gov/HQPress/releases02/febpr/pr02017.htm>

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*8. FEMP Posts Reviews of Sources of Funding for Distributed Energy Deployment*

The Federal Energy Management Program has posted "Deployment of Distributed Energy Resources: Sources of Financial Assistance and Information", which reviews various federal, state, and other sources of funding.  
[http://www.eren.doe.gov/femp/techassist/pdf/der\\_\\$available\\_1\\_24\\_02.pdf](http://www.eren.doe.gov/femp/techassist/pdf/der_$available_1_24_02.pdf)

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*9. Proceedings from NETL Vision 21 Program Review Meeting Posted Online*

The National Energy Technology Laboratory has posted presentations from its Vision 21 Program Review Meeting, which was held in November 2001. Topics of presentations include Fuel Cell/Turbine Ultra High Efficiency Power System, Hydrogen Separation Membranes for Vision 21 Fossil Fuel Plants, Zero Emission Power Plants Using Solid Oxide Fuel Cells and Oxygen Transport Membranes, and Overview of the NETL Onsite Fuel Cell R&D Program.  
<http://www.netl.doe.gov/publications/proceedings/01/vision21/vision21-01.html>

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*10. Fuel Cell Portable Power Workshop Presentations Available Online*

Presentations from the January 2002 Fuel Cell Portable Power Workshop held in Phoenix, Arizona, have been posted on the DOE OTT web site.  
<http://www.carttech.doe.gov/publications/2002FuelCellPPWorkshop.html>

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*11. Hydrogen Vision Document Posted*

The result of the November 2001 Hydrogen Vision Meeting in Washington, DC, "A National Vision of America's Transition to a Hydrogen Economy – To 2030 and Beyond," has been posted on the DOE Hydrogen Program's web site's "Feature" section.  
<http://www.eren.doe.gov/hydrogen/features.html>

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*12. Office of Transportation Technologies Posts "Fact Sheets"*

DOE's Office of Transportation Technologies has posted fact sheets on various technologies, including fuel cells, electric vehicles, ethanol, and natural gas.

<http://www.ott.doe.gov/basics.shtml>

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*13. "How To" Meeting Scheduled for Companies Seeking Federal Funds*

NIST is co-sponsoring "How to Secure Your Share of Federal Funding", a workshop to be held at Hampton University in Virginia, April 3-5, 2002.

<http://www.atp.nist.gov/hamptonu/02tech.htm>

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*14. DOE Schedules E-Vision Conference on Reducing Energy Consumption*

DOE's Office of Energy Efficiency and Renewable Energy (EREN) will host "E-Vision 2002: Shaping Our Future by Reducing Energy Intensity in the U.S. Economy" on May 14-16, 2002, in Arlington, Virginia. Types of technology and market changes that might be needed to achieve different levels of reduction will be examined. For more information, contact Jeff Dowd, DOE, [Jeff.Dowd@ee.doe.gov](mailto:Jeff.Dowd@ee.doe.gov) or John Friel, RAND, [friel@rand.org](mailto:friel@rand.org).

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**RFP/Solicitation News**  
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*15. BAA Issued for PEM Fuel Cell Demonstration*

The US Army Corps of Engineers Engineer Research and Development Center, Construction Engineering Research Laboratory (CERL) has issued a Broad Agency Announcement soliciting proposals for PEM Fuel Cell Demonstration of Domestically Produced Residential PEM Fuel Cells in Military Facilities. Only domestically-produced residential PEM fuel cells between the sizes of 1 kW and 20 kW will be considered. Pre-proposals must be submitted by 29 March 2002 to be considered for the approximately \$3 million funding anticipated to be available for FY2002.

<http://www.mvk.usace.army.mil/contract/docs/FY02FuelCellBAA.pdf>

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*16. DOE Office of Science's EPSCoR Program Invites Grant Applications*

DOE's Office of Science has issued a Program Notice for its Experimental Program to Stimulate Competitive Research (EPSCoR). The purpose of the program is to enhance the capability of designated states to conduct nationally-competitive energy-related research, and to develop science and engineering manpower in energy-related areas to meet current and future needs. The Program Notice seeks to initiate and promote partnering and collaborative relationships that build beneficial energy-related research programs with strong participation by students, postdoctoral fellows and young faculty from EPSCoR states (see Notice for list of eligible states and territories). Approximately \$550,000 will be available in FY2003 for the program. Deadline for applications is April 17, 2002.

<http://www.sc.doe.gov/production/grants/Fr02-04.html>

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*17. DOD SBIR/STTR Release Imminent, Fuel Cell Topics Included*

March 1, 2002, the Department of Defense will begin accepting proposals for its Small Business Technology Innovation Research Programs. Topics specified in the solicitation include Compact Intermediate-Temperature Fuel Cells and Field-Enhanced Carbon Monoxide Tolerance of PEM Fuel Cells. Phase I awards are typically \$60,000 to \$100,000 in size over a period not to exceed one year. Deadline for proposals is April 17, 2002.

<http://www.dodsbir.net/current/current.htm>

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*18. EPA Landfill Methane Outreach Program Announces Solicitation*

EPA's Landfill Methane Outreach Program (LMOP) has issued a solicitation for pre-proposal applications that build upon LMOP's efforts to reduce emissions of greenhouse gases through the development of landfill gas use projects. LMOP anticipates making one or more awards, ranging in value from approximately \$15,000 to \$75,000. Pre-proposals are due by April 19, 2002.

<http://www.epa.gov/lmop/pdf/grantsolicit02.pdf>

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*19. Pennsylvania Funds Available for Alternative Fuels Grants*

Nearly \$10 million in alternative fuels grants is available through Pennsylvania's Department of Environmental Protection for funding projects that use alternative fuel sources, including hydrogen, methanol, ethanol, natural gas and propane. Applications for grants must be received by April 19, 2002.

<http://www.dep.state.pa.us/update/default.asp?ID=5453>

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*20. Fuel Cell Topics in New AQMD Program Opportunity Notice*

The South Coast Air Quality Management District has issued a Program Opportunity Notice for Technology Advancement, which covers stationary fuel cells, fuel cell vehicles, off-road alternative fuel vehicles, and other advanced technology topics. Funding for projects will range from \$100,000 to \$1,000,000. Pre-proposals are due by May 31, 2002.

[http://www.aqmd.gov/rfp/pon2002\\_01.html](http://www.aqmd.gov/rfp/pon2002_01.html)

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**Contract Awards**

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*21. CERL Awards Fuel Cell Validation Project to Concurrent Technologies Corporation*

U.S. Army Engineer Research and Development Center, Construction Engineering Research Laboratory (CERL) has awarded a \$4 million contract to Concurrent Technologies Corporation to assess and validate the performance of fuel cell systems.

<http://www.ctc.com/index.cfm?fuseaction=1511&PR=02feb04.htm>

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*22. Pennsylvania DEP Purchases DCH Fuel Cells*

Pennsylvania's Department of Environmental Protection purchased two portable fuel cells from DCH Technology, for powering air toxic monitors at two separate remote field sites. The 30-watt fuel cells will run on hydrogen stored in metal hydride tanks.

<http://www.dep.state.pa.us/update/default.asp?ID=5536>

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**Legislation / Regulations**

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*23. Massachusetts Issues Renewable Portfolio Regulation for Electric Utility Industry*

The Massachusetts Division of Energy Resources (DOER) released the Renewable Energy Portfolio Regulation mandated by the 1997 Electric Utility Industry Restructuring Act. Beginning in 2003, all retail electricity customers will receive a minimum percentage of their electricity supply from renewable energy generation sources. The percentage increases from 1.0% in 2003 to 4.0%

in 2009. Fuel cells are mentioned as an eligible type of generation unit, but only if using eligible fuels, such as "landfill or anaerobic digester methane gas, hydrogen derived from such fuels or hydrogen derived using the electrical output of a Renewable Generation Unit, but not hydrogen derived from ineligible fuels."

<http://www.state.ma.us/doer/rps/pfr-rps.pdf>

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**24. FEMP Newsletter Provides "Insights" Into 107<sup>th</sup> Congress**

The Federal Energy Management Program (FEMP) publishes the newsletter *Insights* the first three weeks of each month while Congress is in session, providing information on the introduction of new and the status of pending energy-related legislative and Administrative initiatives and policy positions. The newsletter also provides a listing and brief description of upcoming hearings and summaries of completed hearings of interest to energy officials.

<http://www.eren.doe.gov/femp/resources/insights.html>

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**Industry Headlines**  
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**25. Japan's First Two Hydrogen Filling Stations Are Completed**

Japan now has two hydrogen filling stations for vehicle fueling. The Osaka station utilizes a natural gas reformer to produce hydrogen, and the Shikoku Research Institute station in Takamatsu uses an electrolyzer.

<http://www.dvv-info.de/wss/wse021.htm#Japan>

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**26. Toshiba Demonstrates PDA Running on Fuel Cell**

Toshiba Corporation has demonstrated a personal digital assistant (PDA) running on a direct methanol fuel cell. The fuel cell has an average power output of 3-5 watts.

<http://www.hydrogen.org/News/gazette.html#Toshiba%20presents%20fuel%20cell%20running%20PDA%20feb%202002>

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**27. Volkswagen Tests Hydrogen Fuel Cell Car**

Volkswagen announced it has conducted a successful long-range test drive of its HY.POWER fuel cell car, which runs on hydrogen stored on-board the vehicle, and utilizes ultra capacitors for additional power.

[http://www.volkswagen-ir.de/download/Q1\\_02/20020103PM\\_Brennstoffzelle\\_eng.pdf](http://www.volkswagen-ir.de/download/Q1_02/20020103PM_Brennstoffzelle_eng.pdf)

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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](mailto:bernie@usfcc.com).

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[\(http://www.usfcc.com/\)](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/)

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