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

#### *1. Brookhaven National Lab Develops New Method of Creating Fuel Cell Catalysts*

Scientists at Brookhaven National Lab have developed a new method of creating catalysts that reduces the amount of platinum present in the catalyst. In the new method, platinum atoms are deposited on the surface of tiny ruthenium crystalline particles.

<http://www.bnl.gov/bnlweb/pubaf/pr/2002/bnlpr040702.htm>

#### *2. JPL Develops Portable Fuel Cell Technology*

A team of researchers at NASA's Jet Propulsion Laboratory have designed a compact, flat fuel cell for portable applications. To demonstrate the feasibility of the new design, JPL developed a 5-watt portable power unit that is "the size of two paperback books standing tall, back-to-back."

[http://www.jpl.nasa.gov/releases/2002/release\\_2002\\_94.html](http://www.jpl.nasa.gov/releases/2002/release_2002_94.html)

#### *3. CERL Gets Residential Fuel Cell Under DOD Demo Program*

Avista Labs commissioned a 3-kW PEM fuel cell at the Washington Air National Guard facility at Geiger Field in Spokane, Washington. The fuel cell was installed under the Department of Defense Fuel Cell Demonstration Program, which is managed by the US Army Corps of Engineers Construction Engineering Research Laboratory.

[www.dodfuelcell.com/pr\\_041102.html](http://www.dodfuelcell.com/pr_041102.html)

#### *4. Oak Ridge Tests Hydrogen Generation Technology*

Oak Ridge National Laboratory announced the successful completion of a beta test program designed to evaluate Millennium Cell's Hydrogen on Demand™ technology for potential use in near-term portable power generation applications.

<http://www.millenniumcell.com/cgi-bin/news.pl?function=detail&id=04022002>

#### *5. DOC Secretary Evans Rides in FCV on Earth Day*

U.S. Department of Commerce Secretary Evans test drove a Phoenix fuel cell vehicle developed by a vehicle engineering joint venture of General Motors and Shanghai Automotive Industry Corporation. The Phoenix is based on a Buick GL8 from Shanghai GM, and uses compressed hydrogen as the fuel. The test drive was part of an Earth Day exhibition of U.S. innovations in clean energy technologies.

<http://osecnt13.osec.doc.gov/public.nsf/docs/Secretary-China-Earth-day>

#### *6. DOD Issues New Environmental Policy*

The Department of Defense issued policy requiring implementation of Environmental Management Systems, calling for "systematic integration of environmental management into all missions, activities, and functions."

[http://www.defenselink.mil/news/Apr2002/b04232002\\_bt201-02.html](http://www.defenselink.mil/news/Apr2002/b04232002_bt201-02.html)

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*7. NETL Posts Proceedings of Third SECA Workshop*

Papers and presentations from the Third Annual Solid State Energy Conversion Alliance Workshop are now available online from the National Energy Technology Laboratory.

<http://www.netl.doe.gov/publications/proceedings/02/SECA/seca02.html>

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*8. Fuel Cell Buy-Down Recipient Info Posted by DOD*

DOD has posted a listing of all the recipients of funding for fuel cell purchases through the Climate Change Fuel Cell buy-down program.

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

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*9. Defense Technical Information Center Posts List of Critical Technologies*

The Defense Technical Information Center has posted its new Militarily Critical Technologies List, which assigns values and parameters to technologies that may be critical to U.S. military forces. PEM and solid oxide fuel cells are listed as critical technologies.

[http://www.dtic.mil/mctl/main\\_body.html](http://www.dtic.mil/mctl/main_body.html)

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*10. DARPA Posts Compendium of Summaries of Programs*

Summaries of selected programs sponsored by the Defense Advanced Research Projects Agency are now available online through "DARPA FACT FILE: A Compendium of DARPA Programs." Information on fuel cell programs funded by DARPA is available in the document.

[http://www.darpa.mil/body/NewsItems/darpa\\_fact.htm](http://www.darpa.mil/body/NewsItems/darpa_fact.htm)

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*11. DOE Field Operations Program Posts Overview of Advanced Technology Transportation*

The 2002 Overview of Advanced Technology Transportation is now available from the DOE Field Operations Program. The document gives a snapshot of current vehicle technologies and trends, including info on fuel cells for transportation applications.

[http://www.otf.doe.gov/out/field\\_ops/prog\\_info2.html](http://www.otf.doe.gov/out/field_ops/prog_info2.html)

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*12. OSTI Unveils Fuel Cells Technology Subject Portal on the Internet*

The Office of Scientific and Technical Information has announced new "Subject Portals" for renewable energy and energy efficiency technologies, including "Fuel Cells Technology." The portals provide full-text DOE scientific and technical reports, links to journal literature, and other information sources. Portals are updated biweekly.

<http://www.osti.gov/flc/>

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RFP/Solicitation News
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*13. Biomass Solicitation Includes Hydrogen Production Topic of Interest*

The Department of Energy's solicitation for Biomass Research and Development includes an interest in applications for production of hydrogen. Total funding available for this solicitation is expected to be \$20 million. Pre-applications are required and due by May 14, 2002.

<http://www.eps.gov/spg/DOI/MMS/PO/86382/SynopsisP.html>

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*14. DOE Issues Master Solicitation for Energy Efficiency/Renewable Energy*

The Department of Energy has issued a master solicitation, Competitive Financial Assistance for the Office of Energy Efficiency and Renewable Energy. Proposals for the solicitation should be submitted under appropriate program areas, which include several hydrogen and fuel cell topics. Funding of approximately \$1.2 million will be available for renewable energy programs and an additional \$3 million will be available for energy efficiency programs for awards. Applications for the various program areas are due May 15, 2002.

<http://e-center.doe.gov/iips/busopor.nsf/Solicitation+By+Number/16FEED83E99E8C0B85256B8E0053C95B?OpenDocument>

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*15. RFP for Hydrogen Generation from Electrolysis*

DOE's Office of Power Technologies is soliciting applications for the development and demonstration of an integrated renewable hydrogen generation system that will electrolyze water to produce hydrogen. Approximately \$3 million in funding is expected to be available under this solicitation. Deadline for proposals is May 30, 2002.

<http://e-center.doe.gov/iips/busopor.nsf/e6458ce53c05cf038525645200788ab8/bd72510b8b19f55785256b9700623ea6?OpenDocument>

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*16. FEMP Issues Call for DER Projects*

DOE's Federal Energy Management Program has up to \$500,000 available to support cost-effective Distributed Energy Resources projects at federal facilities. All proposals are due on or before June 14, 2002.

[http://www.eren.doe.gov/femp/techassist/der\\_resources.html](http://www.eren.doe.gov/femp/techassist/der_resources.html)

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*17. ATP Announces FY2002 General Competition*

NIST's Advanced Technology Program has announced it's now accepting proposals for funding under its FY2002 General Competition, which is open to all technologies and all applications. A total of \$60.7 million is available for the first year funding of new awards. In FY2001, 5 new fuel cell R&D projects received funding amounting to \$18.8 million. Deadline for proposals is September 30, 2002.

[http://www.nist.gov/public\\_affairs/update/upd20020415.htm](http://www.nist.gov/public_affairs/update/upd20020415.htm)

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*18. NASA to Give Course on "Winning NASA Contracts"*

NASA has designed a course focusing on areas of business management that are critical for success in competing for NASA contracts and subcontracts. The basic course will be held May 14-16, 2002 at the Sheraton Uptown Albuquerque, New Mexico. Classes are limited to 50-55 participants. <http://prod.nais.nasa.gov/cgi-bin/eps/synopsis.cgi?acqid=101005>

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*19. SBIR Spring Conference Scheduled for June 11-13*

The National Small Business Innovation Research program will hold the National SBIR Spring Conference 2002 in Washington, DC, June 11-13. The conference will provide information about this year's funding requirements and proposal submission deadlines.

<http://www.dodsbir.net/conference/springconf.htm>

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Contract / Funding Awards
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20. *DOD Funding to Support Fuel Cell Research at Universities*

The Department of Defense plans to award \$15.7 million to 29 academic institutions to perform research in science and engineering fields important to national defense under the 2002 Defense Experimental Program to Stimulate Competitive Research (DEPSCoR). University of New Mexico's Chemical and Nuclear Engineering department received an unspecified amount for its proposal to research Non-Platinum Electrocatalysts for Fuel Cells. Montana State University's Center of Biofilm Engineering received an unspecified amount for its proposal to research Microbial Fuel Cells.

[http://www.defenselink.mil/news/Mar2002/b03222002\\_bt136-02.html](http://www.defenselink.mil/news/Mar2002/b03222002_bt136-02.html)

21. *DOE Funds Fuel Cell Distributed Energy Project for High-Tech Industry*

DOE selected five industry teams to receive a total of \$9 million for research, development and testing of DER resources in the data processing and telecommunications industries. Verizon in Harrisburg, Pennsylvania, has been awarded up to \$3 million as part of its Central Office of the Future Project, which will use multiple fuel cells and reciprocating engine generators to power a large central office facility in New York.

[http://www.energy.gov/HQPress/releases02/aprpr/pr02056\\_v.htm](http://www.energy.gov/HQPress/releases02/aprpr/pr02056_v.htm)

22. *NYSERDA Award Funds Micro DMFC Research*

NYSERDA has awarded \$500,000 in funding to MTI MicroFuel Cells, Inc., to advance the development and commercialization of micro direct methanol fuel cell technology for portable electronic devices.

[http://www.mtimicrofuelcells.com/article.cfm?a\\_id=3519](http://www.mtimicrofuelcells.com/article.cfm?a_id=3519)

23. *MARAD to Fund Demonstration of Hydrogen Fuel System*

The U.S. Maritime Administration (MARAD) is funding a program to demonstrate Millennium Cell's Hydrogen on Demand™ fuel system for providing power to ships and facilities in ports. Seaworthy Systems is the lead company on the project, and will provide system integration and engineering for Millennium Cell's technology.

<http://www.millenniumcell.com/cgi-bin/news.pl?function=detail&id=04152002>

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State Initiative
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24. *Michigan Governor Unveils NextEnergy Center*

Surrounded by fuel cell vehicles, Michigan Governor John Engler unveiled NextEnergy – a comprehensive economic development plan to make his state a world leader in the research, development, commercialization and manufacture of alternative energy technologies such as hydrogen fuel cells. The plan proposes the creation of a 700-acre, tax-free NextEnergyZone in York Township, building a NextEnergy Center there, and attracting alternative energy companies from around the world to the zone.

<http://www.nextenergy.org>

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Industry Headlines
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25. *First Fuel Cell/Gas Turbine Hybrid Now Operating*

The world's first fuel cell/gas turbine hybrid power plant is now operating at the National Fuel Cell Research Center in Irvine, California. The system features a Siemens Westinghouse solid oxide fuel cell combined with an Ingersol Rand microturbine to produce approximately 190 kilowatts of electricity. [http://www.fossil.energy.gov/techline/tl\\_fuelcellhybrid\\_startup\\_print.html](http://www.fossil.energy.gov/techline/tl_fuelcellhybrid_startup_print.html)

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**26. Fraunhofer Institute Integrates Fuel Cell Into A Laptop Computer**

The Fraunhofer Institute for Solar Energy Systems has presented a fuel cell system fully integrated into a laptop computer. The entire system – featuring a mini fuel cell, hydrogen tanks, and electronics – is located where the batteries used to be.  
[http://www.ise.fhg.de/english/press/pi\\_2002/pdf/0402\\_ise-pi\\_bz-system\\_in\\_laptop\\_e.pdf](http://www.ise.fhg.de/english/press/pi_2002/pdf/0402_ise-pi_bz-system_in_laptop_e.pdf)

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**27. Japan's Prime Minister Wants Government to Lead in Purchase of FCVs**

Japan Prime Minister Junichiro Koizumi wants relevant ministries, such as the Environment Ministry, to allot money for purchase of several fuel cell cars, based on auto industry plans to begin selling limited production runs of FCVs in 2003.  
<http://www.japantoday.com/e/?content=news&cat=4&id=213324>

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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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**The Sponsors**

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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/>

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