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FUEL CELL CONNECTION – June 2003 Issue

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Administration

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News on U.S. Government Fuel Cell Programs

1. *United States, European Union to Collaborate on Fuel Cell Projects*

U.S. Department of Energy Secretary Spencer Abraham delivered a keynote address to the European Commission's Conference of the High Level Group on Hydrogen and Fuel Cell (HLG-HFC) technologies. At the Conference, the EU and the United States formally agreed to launch cooperative projects in the field of fuel cell technologies, including demonstrations of fuel cell vehicles and refueling structures, and fuel cell code & standard development. The pledge was contained in an annex to the EU-US scientific cooperation agreement for non-nuclear energy, signed on 16 June 2003.

http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/03/846|0|RAPID&lg=EN&display=

http://www.energy.gov/HQPress/releases03/junpr/pr03129_v.htm

2. *Standards Board Approves IEEE 1547*

The Standards Board of the Institute of Electrical and Electronics Engineers (IEEE) has approved IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems. IEEE started work on the standard in 1999. More than 350 individuals participated on the working group that formulated the standard, which can now be used in federal legislation and rulemaking, and by utilities in developing technical requirements for interconnection agreements.

http://www.eere.energy.gov/distributedpower/news/0603_ieee1547.html

3. *U.S. to Cooperate with Brazil on Hydrogen and Fuel Cells*

Energy Secretary Spencer Abraham signed a Memorandum Of Understanding with Brazilian Mines and Energy Minister Dilma Rousseff to formally initiate bilateral cooperation on energy modernization and new technologies. The signing of the MOU has initiated discussions to collaborate on hydrogen and fuel cells, and for Brazil to become the first Latin American country to join President Bush's proposed International Partnership for the Hydrogen Economy.

http://www.energy.gov/HQPress/releases03/junpr/pr03132_v.htm

4. *G8 Summit Develops Sustainable Development Science & Technology Action Plan*

At the G8 Summit in Evian, France, world leaders endorsed an action plan on Science and Technology for Sustainable Development, which includes plans to accelerate the development of fuel cell and hydrogen technologies.

http://www.g8.fr/evian/english/navigation/2003_g8_summit/summit_documents/science_and_technology_for_sustainable_development_-_a_g8_action_plan.html

5. *DOE Fuel Cell, Hydrogen 5-Year Program Plan Available for Review*

The DOE Office of Hydrogen, Fuel Cells and Infrastructure Technologies has posted its Draft Multi-Year RD&D Plan online, and is soliciting comments, which can be submitted through the automated comment form also available online. All comments must be received by July 15, 2003. The final version of the Plan is tentatively scheduled for October 2003.

<http://www.eere.energy.gov/hydrogenandfuelcells/mypp/>

6. Helios Prototype Crashes into Pacific Ocean

The remotely operated Helios Prototype solar-electric flying wing was destroyed when it crashed into the Pacific Ocean June 26. Helios ran on solar power by day and using fuel cell power at night. The crash occurred 29 minutes into a functional checkout flight. NASA will form an accident investigation team to determine the exact cause of the mishap.

http://www.nasa.gov/home/hqnews/2003/jun/HQ_03219_Helios.html

7. Fossil Power Systems Comparison Study Published

A new technical report entitled "Advanced Fossil Power Systems Comparison Study – Final Report" has determined that only hybrid Fuel Cell/Turbine cycle power systems "perform at or near the Vision 21 efficiency goals" of the Department of Energy. The study notes major hurdles include reducing the cost and size of the fuel cell modules to make hybrid systems available for generating electrical power in commercial power plant sizes > 100 MWe.

<http://www.netl.doe.gov/publications/others/techrpts/AdvFossilPowerSysCompStudy.pdf>

8. NETL Direct Carbon Fuel Cell Workshop Scheduled for 30 July 2003

National Energy Technology Laboratory will hold a Direct Carbon Fuel Cell Workshop at its Pittsburgh, Pennsylvania, facility on 30 July 2003. Items on the agenda include presentations on "Coal Processing Prior to Introduction Into the Fuel Cell" and "Potential Market Applications for Direct Carbon Fuel Cells."

<http://www.netl.doe.gov/events/03conferences/directcarbon/directcarbon03.html>

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**RFP/Solicitation News**  
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9. Massachusetts Emerging Technology Demonstration Solicitation

Massachusetts Technology Collaborative (MTC) has issued its Green Power Program Emerging Technology Demonstration Solicitation. MTC counts fuel cells as an eligible technology, as long as the fuel cell uses an eligible renewable fuel as defined in the solicitation. Grants of up to \$500,000 will be awarded. Initial applications are being accepted from June 26, 2003, until \$2 million in funding has been allocated. Deadline for applications is August 1, 2003.

http://www.mtpc.org/Grants_and_Awards/GPP/03ET03Info.htm

10. California Energy Commission Public Interest Energy Research-Environmental Area RFP

The California Energy Commission's PIER Environmental Area Team is requesting proposals for research projects through its Global Climate Change Grant Program. The PER program is made up of six subject areas, including Buildings End-Use Efficiency, Renewable Energy, and Environmentally-Preferred Advanced Generation. A total of \$1.2 million is expected to be available for work under this solicitation, with awards ranging from \$100,000 to \$600,000. Two bidder workshops will be held: July 8, 2003, in Sacramento, and July 11, 2003, in Los Angeles. Deadline for proposals is July 31, 2003.

http://www.energy.ca.gov/contracts/global-climate-change/2003-06-03_notice_grant_ap.html

11. RFP for Novel Greenhouse Gas Management Approaches

The National Energy Technology Laboratory has issued a solicitation for Novel Approaches to the Management of Greenhouse Gases from Fossil Fuel Energy Systems. Sub-topics under this

solicitation include "Novel hydrogen storage concepts" and "Microbial Hydrogen Generation from Fossil Fuels at Depth, with Subsurface Fuel Cell Coupling." Approximately \$4.5 million is expected to be available under this solicitation. Proposals are due July 9, 2003.

<http://www.netl.doe.gov/business/solicit/main.html#41777>

12. Third Frontier Action Fund Seeks Proposals to Develop Ohio's Fuel Cell Industry

The Third Frontier Action Fund seeks proposals in three technology focus areas, one of which is dedicated to supporting Ohio's Governor's Fuel Cell Initiative. Grant awards will typically not be less than \$500,000 or more than 10% of the total amount of funds available for the award.

Deadline for proposals is July 23, 2003

http://www.connectohio.com/3rdfrontier/pdf/TFAF_RFP_2004.pdf

13. NYSERDA Solicitation Funds Projects for Wastewater Technologies

The New York State Energy Research and Development Authority has issued a Municipal Water and Wastewater Technology Program Opportunity Notice (PON). The PON provides \$1.5 million for projects that develop, demonstrate or increase the use of energy-efficient water and wastewater technologies, including projects targeting "Innovative Approaches to Shift Peak Loads" and "Technology Transfer Initiatives to Increase Dissemination of Info on, and Deployment of Energy Efficient Technologies." Proposals are due August 18, 2003.

<http://www.nyserda.org/786pon.html>

14. NYSERDA to Fund Combined Heat & Power, Renewable Generation Projects

The New York State Energy Research and Development Authority (NYSERDA) is seeking proposals to study the feasibility of implementing Combined Heat & Power (CHP) and renewable generation. Up to \$400,000 of System Benefits Charge funds and up to \$100,000 of State Energy Program funds are available for applications under this Program Opportunity Notice. Applications are being accepted through September 17, 2003 for Round I.

<http://www.nyserda.org/783pon.html>

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**Contract / Funding Awards**  
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15. University Coal Research Program Awards Grants for Fuel Cell Projects

The Department of Energy has awarded \$2.8 million in research grants to seventeen universities to advance the study of new clean and efficient coal-use technologies and concepts. Six of the 19 projects focus on fuel cell or hydrogen research.

http://www.fe.doe.gov/techline/tl_ucr03_sel_print.html

16. University of California, Riverside, Receives Funding for Fuel Cell Electrode Research

Through the California Energy Commission's Energy Innovations Small Grant Program, the University of California, Riverside, received \$75,000 for its project titled "Nanostructured Electrodes for PEM Fuel Cells."

http://www.energy.ca.gov/contracts/smallgrant/2003-06-16_awards_02-03.html

17. NSF Selects First Industry/University Cooperative research Center for Fuel Cells

The National Science Foundation has selected the University of South Carolina's College of Engineering and Information Technology to be the nation's first Industry/University Cooperative Research Center for Fuel Cells. NSF funding for the center will total \$210,000 over three years.

<http://uscnews.sc.edu/engr-rsrc158.html>

18. Massachusetts Technology Collaborative Awards Fuel Cell Installation & Planning Grants

The Massachusetts Technology Collaborative has awarded nearly \$2 million in funding to two fuel cell installation projects and \$551,180 to five fuel cell planning projects.

http://www.mtpc.org/Grants_and_Awards/Awards/ppp/01PP01Pla.htm

http://www.mtpc.org/Grants_and_Awards/Awards/ppp/01PP01Ins.htm

19. Wright Capital Fund Awards Grants to Ohio Institutions

Ohio governor Bob Taft has announced \$20 million in Wright Capital Project funds to support research development and commercialization of fuel cells in the state. Stark State College of Technology will receive \$2 million to establish the Fuel Cell Prototyping Center. Case Western Reserve University will receive \$18 million to establish the Power Partnership for Ohio, to create a competitive advantage for Ohio in power and energy generation and utilization, with a focus on fuel cells. <http://www.state.oh.us/gov/releases/060403fuelcell.htm>

<http://www.state.oh.us/gov/releases/052903cwruwright.htm>

20. TX State Energy Conservation Office Receives DOE Fuel Cell Grant

With funding awarded under a DOE competitive grant process, Texas' State Energy Conservation Office has executed the Texas LPG Fuel Processor Development and Fuel Cell Demonstration Program. Partners for the project include Plug Power, the Railroad Commission of Texas, HyRadix, Southwest Research Institute, and the Texas Department of Transportation. The team proposes to develop, test, and install a prototype propane-fueled residential fuel cell power system at the Texas Department of Transportation's TransGuide headquarters in San Antonio.

http://www.seco.cpa.state.tx.us/seco_news.htm

21. Naval Surface Warfare Center to Purchase Ball Aerospace Fuel Cell

The Naval Surface Warfare Center intends to procure a fuel cell from Ball Aerospace for test and evaluation purposes.

<http://www.eps.gov/spg/DON/NAVSEA/N00164/N0016403Q0246/SynopsisP.html>

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**State Activities**

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*22. Council of State Governments Publishes Report on Renewable Energy*

The Council of State Governments has published a "TrendsAlert" report on Renewable Energy and State Economies, which focuses on the economic potential that renewable energy technologies, including hydrogen fuel cells, holds for the states. In addition, it details states' current renewable activities and outlines policy options available to states when developing their renewable energy sector.

<http://www.csg.org/CSG/Policy/infrastructure/renewable+energy+and+state+economies.htm>

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Industry Headlines

23. Plug Power Introduces Fuel Cell Product for Telecommunications Market

Plug Power introduced the GenCore™5T, a 5-kW fuel cell system designed to provide extended run back-up power specifically for the telecommunications industry in the outside plant market.
<http://www.plugpower.com/news/details.cfm?prid=177>

24. Ford Fuel Cell Vehicles to be Tested in Vancouver

Ford, Natural Resources Canada and Fuel Cells Canada announced plans to place a fleet of hydrogen-fueled Ford Focus fuel cell vehicles on the streets of Vancouver in early 2004.
http://media.ford.com/print_doc.cfm?article_id=15591

25. Showa Shell Opens Tokyo's First Liquid Hydrogen Station

Showa Shell Seikyu KK opened the first liquid hydrogen refueling station in Tokyo, under the Hydrogen Refueling Station Pilot Program. The station is part of the Japan Hydrogen and Fuel Cell Demonstration Project.
http://www.shell.com/home/Framework?siteId=media-en&FC1=&FC2=&FC3=%2Fmedia-en%2Fhtml%2Fiwgen%2Fnews_and_library%2Fpress_releases%2F2003%2Fshowa_shell_liquid_hydro_station_18062003.html&FC4=&FC5=

26. Palcan Showcases Fuel Cell Powered Scooter

Palcan Fuel Cells announced the integration of its 2-kW fuel cell stack system to power a scooter. Palcan's fuel cell uses the company's metal hydride hydrogen storage technology.
<http://www.palcan.com/s/NewsReleases.asp?ReportID=63580& Title=Palcan-Showcases-The-Future-With-Fuel-Cell-Powered-Scooter-For-Global-Masse...>

27. Eighth Grove Fuel Cell Symposium

Eighth Grove Fuel Cell Symposium – “Building Fuel Cell Industries” – ExCeL, London, UK. 24-26 September 2003 – <http://www.grovetfuelcell.com>. Conference: sm.wilkinson@elsevier.com. Exhibition: pamchattin@aol.com.

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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 eight active Working Groups focusing on: Codes & Standards; Transportation; Power Generation; Portable Power; Stack Materials and Components; Sustainability; Government Affairs; and Education & Marketing. 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.

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