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

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## Administration

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

### 1. DOE, NARUC Release Draft DG Interconnection Procedures for Comment

With the support of the U.S. Department of Energy (DOE), the National Association of Regulatory Utility Commissioners (NARUC) is developing two model documents on distributed generation interconnection procedures and agreements for small generators. The effort seeks to harmonize State approaches to distributed generation interconnection. Deadline for comments on the draft models is July 1, 2002. NARUC intends to have a finalized document ready for presentation at the NARUC Summer Meetings at the end of July.

<http://www.eren.doe.gov/distributedpower/news/115.asp>

### 2. NREL Releases Modeling/Simulation Tool for Advanced & Conventional Vehicles

The National Renewable Energy Laboratory (NREL) has released ADVISOR 2002, a flexible modeling tool that rapidly assesses the performance and fuel economy of conventional, electric, fuel cell and hybrid vehicles. The user can change component and vehicle specifications such as electric motors, batteries, engines and fuel cells, and ADVISOR simulates the vehicle's response under different driving conditions.

[http://www.nrel.gov/hot-stuff/press/2102\\_advisor\\_tool.html](http://www.nrel.gov/hot-stuff/press/2102_advisor_tool.html)

### 3. Fuel Cell Power Plant Modeling Tool Available from ANL

Argonne National Laboratory has developed the General Computational Toolkit (GCTool) for designing, analyzing, and comparing fuel cell systems and other power plant configurations. It is a PC-based, total-system fuel cell modeling software that incorporates PEM, solid oxide, molten carbonate and phosphoric acid fuel cell types.

<http://www.techtransfer.anl.gov/software/gctool.html>

### 4. New DG Testing Facility Dedicated at ORNL

The Cooling, Heating and Power Integration Laboratory at Oak Ridge National Laboratory has been designated as a national user facility. The new lab will enable researchers from industries, universities and other institutions to conduct tests on distributed energy products and systems.

[http://www.ornl.gov/Press\\_Releases/current/mr20020620-01.html](http://www.ornl.gov/Press_Releases/current/mr20020620-01.html)

### 5. Latest Report on CG Fuel Cell Installation Is Online

The latest report on the fuel cell installation at Coast Guard Air Station Cape Cod has been posted online, along with photos that show progress at the work site.

<http://www.uscg.mil/systems/gse/energy/default.html>

### 6. Congressional Testimony on FreedomCAR Given by Vice-Chair of PNGV Review Committee

Vernon Roan, vice-chair of the Transportation Research Board's Committee to Review the Research Program of the Partnership for a New Generation of Vehicles, presented a summary of relevant findings and comments to the House Oversight and Investigations Subcommittee, Committee on Energy and Commerce. One of the TRB Review Committee's recommendations is to continue R&D efforts on fuel cells – due to the potential benefits of the technology – even though achievement of performance and cost targets will have to be extended.

<http://www4.nas.edu/ocga/testimon.nsf/d03c70dbda7d2499852565e0004d4a2a/b1c7e880a32d10b985256bd400705d58?OpenDocument>

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*7. Fuel Cell Vehicles Win Event Awards at FutureTruck Competition*

Virginia Tech's efforts to enter a fuel cell powered Ford Explorer in DOE's 2002 FutureTruck competition earned them "The MathWorks Teamwork & Leadership Award." Texas Tech University's fuel cell SUV entry in the competition received second place for the National Instruments LabVIEW Real-Time Award, for its use of a computer-based real-time measurement and automation system for vehicle design.

<http://www.futuretruck.org/competition/2002winners.html>

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*8. FreedomCAR Fact Sheets, Transportation Fuel Cell Studies Available Online*

Fact sheets on the FreedomCAR program are now available on DOE's Cartech web site, along with two reports on development of compressors/expanders for fuel cell vehicles.

<http://www.cartech.doe.gov/new.html>

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*9. ANL Fuel Cell Presentations Posted Online*

Presentations on "Modeling and Control of Fuel Cell Transient Behavior" and "Fuel Cell Testing at Argonne National Laboratory" are now available on ANL's web site.

<http://www.transportation.anl.gov/ttrdc/whatsnew.html>

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RFP/Solicitation News
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*10. PNNL to License Methods for Electrosynthesis of Nanofibers and Nano-Composite Films*

Pacific Northwest National Laboratory is soliciting interest from companies interested in obtaining license rights to commercialize, manufacture and market: electrosynthesis methods for controlling the morphology of nanostructures. The methods are capable of producing arrays of oriented nanofibers and nanofilms that may be useful in a variety of applications, including sensors, fuel cells and advanced batteries. Deadline for response is July 9, 2002.

<http://www.eps.gov/spg/DOE/PNNL/LIC/Reference-Number-13103-E/SynopsisP.html>

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*11. PNNL Solicits Licensing Interest for Solid State Electro Chemical Devices*

Pacific Northwest National Laboratory is seeking interest from companies interested in obtaining license rights to commercialize, manufacture and market solid state electrochemical devices. The technology is related to seals and sealing materials, cell design, interconnect and fuel manifold design and electrode materials and fabrication for solid state electro chemical devices including fuel cells. Deadline for response is July 24, 2002.

<http://www.eps.gov/spg/DOE/PNNL/LIC/Reference-Number-1740-E/SynopsisP.html>

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*12. Ohio Biomass Energy Program RFP Includes Fuel Cell Projects*

The Ohio Biomass Energy Program has \$40,000 in funding available for bioenergy-related projects, including fuel cells using biofuels as an energy source. The maximum funding available for a single project is \$10,000. The deadline for proposals is July 26, 2002.

[http://www.puc.state.oh.us/ohioutil/BioMass/RFP\\_2002\\_Final.pdf](http://www.puc.state.oh.us/ohioutil/BioMass/RFP_2002_Final.pdf)

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*13. Wisconsin Renewable Energy Grant Topics Include Fuel Cell Demonstration*

Wisconsin's Focus on Energy Renewable Energy Program is soliciting pre-proposals for projects researching and developing renewable energy systems and services. Proposal topics include a demonstration of a fuel cell application that utilizes hydrogen derived from a renewable energy source at a Focus on Energy eligible site in Wisconsin. The project must propose a means to develop a renewable hydrogen infrastructure beyond the demonstration project requirements. Funds of \$200,000 will be available for Round One of the competitive grants program. The maximum grant award will be \$50,000. Deadline for pre-proposals is August 1, 2002.

<http://web.weccusa.org/renewables/pdfs/RDPproposalApp.pdf>

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*14. DOD Issues SBIR, Fuel Cell Projects Among Topics*

The Department of Defense will begin accepting proposals on July 1, 2002, for its annual Small Business Innovation Research solicitation. Phase 1 awards of \$60,000-\$100,000 are available for a variety of fuel cell topics including: Methanol Fuel Cell/Battery Hybrid for the Individual Soldier, High Efficiency Fuel Cell Reformer for Logistics Fuels, and Small Scale Fuel Cells for Ground Personnel. Deadline for proposals is August 14, 2002.

<http://www.acq.osd.mil/sadbu/sbir/solicitations/sbir022/index.htm>

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Contract / Funding Awards
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*15. U.S. Small Business Administration Revises SBIR Subcontracting Policy*

Public Law 106-554 requires the U.S. Small Business Administration (SBA) to modify its Policy Directive (PD) that guides the operations of the SBIR program in Federal agencies participating in SBIR. In the original draft revised PD, government-owned/contractor-operated laboratories were specifically allowed to serve as subcontractors on SBIR projects. However, during the public comment period, respondents were concerned that some agencies may attempt to coerce small businesses into subcontracting with Federal facilities in order to ensure funding dollars were returned to the Federal government. Therefore, the draft language was changed to exclude subcontracting any portion of an SBIR project back to the issuing agency, to any other Federal Government agency, or to other units of the Federal Government. The current draft of the PD does establish procedures for waivers to be issued to allow the use of Federal facilities, but only after the SBIR grants have been awarded. At this time, SBA has submitted the current draft PD to the Office of Management and Budget, which has promised to act quickly on the draft.

[http://www.pnl.gov/edo/SBIR\\_policy.stm](http://www.pnl.gov/edo/SBIR_policy.stm)

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*16. NASA/Glenn Research Center to Purchase Fuel Cell MEA Testing from Teledyne*

NASA's Glenn Research Center has announced its intent to purchase fuel cell MEA life testing from Teledyne Energy Systems.

<http://prod.nais.nasa.gov/cgi-bin/eps/synopsis.cgi?acqid=101895>

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*17. NYSERDA Grants \$4.9 Million to Fuel Cell Projects in New York State*

Seven fuel cell-related projects will receive more than \$4.9 million in funding from the New York State Energy Research and Development Authority through its Combined Heat and Power

Projects solicitation. Projects include installation of fuel cells at a Sheraton Hotel in Manhattan, and development of low-cost ceramics for fuel cells by XYLON Ceramic Materials.  
<http://www.nyserda.com/press/pressoother2002.html#CHP>

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*18. CARAT Funding Goes to Fuel Cell, Auxiliary Motor Projects*

More than \$1 million in funding was awarded to six automotive research projects through DOE's Cooperative Automotive Research for Advanced Technology (CARAT) Program. Three of the six projects are fuel cell-related: Sulfur and Coke Resistant Autothermal Diesel Fuel Reforming Catalysts, Diesel Injector System with Novel Atomizer/Mixer for Hydrogen Generation, and High Power Density Solid Oxide Fuel Cells with Rapid Start-Up Capability for Auxiliary Power Units.  
[http://www.energy.gov/HQPress/releases02/junpr/pr02124\\_v.htm](http://www.energy.gov/HQPress/releases02/junpr/pr02124_v.htm)

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*19. Fuel Cell Projects Receive ATP Funding*

The Advanced Technology Program awarded nearly \$4 million in funding to three fuel cell related projects through its 2001 ATP Competition. A total of \$53.9 million was given to 21 projects through the competition.  
[http://www.nist.gov/public\\_affairs/update/upd20020610.htm](http://www.nist.gov/public_affairs/update/upd20020610.htm)

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*20. Medis Technologies to Develop Fuel Cells for U.S. Army*

Medis Technologies is cooperating with General Dynamics C4 Systems on the development of a highly mobile fuel cell battery charger system to meet the battery-recharging needs of deployed soldiers for the U.S. Army.  
[http://www.medisel.com/press\\_view.cfm?press\\_id=103](http://www.medisel.com/press_view.cfm?press_id=103)

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State Initiatives
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*21. MA Dept. of Telecommunications & Energy Seeks Comments on DG*

The Massachusetts Department of Telecommunications and Energy (DTE) has made a request for comments on distributed generation issues in Massachusetts. Specific issues are: interconnection standards, appropriate method for calculating standby rates, and appropriate role of DG in distribution company resource planning. Deadline for written comments is August 1, 2002. A public hearing on DG will be held at the DTE offices on August 21, 2002.  
<http://www.eren.doe.gov/distributedpower/news/116.asp>

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*22. New York State Releases Energy Plan*

The New York State Energy Planning Board announced the release of the 2002 Energy Plan, which is designed to provide statewide policy guidance for energy-related decisions by government and private market participants within the State for the next four years. Policy strategies and recommendations include reducing primary energy use to 25% below 1990 level of energy use by 2010; reducing Greenhouse Gas emissions 5% below 1990 levels by 2010, and 10% below 1990 by 2020.  
[http://www.nyserda.org/press/2002/june19\\_02.html](http://www.nyserda.org/press/2002/june19_02.html)

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*23. Pennsylvania Sustainable Energy Fund Launches Web Site*

The Sustainable Energy Fund of Central Eastern Pennsylvania has a new web site. The fund's mission is to promote and invest in clean and renewable energy technologies, energy

conservation, energy efficiency, and sustainable energy projects and enterprises. The web site includes info on green building initiatives and consumer education efforts.  
<http://www.SustainableEnergyFund.org>

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Legislation / Regulations
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*24. EPA Requests Comments on Fuel Cells for Marine Applications*

The Environmental Protection Agency is now accepting comments on its proposed emission standards for Category 3 marine diesel engines. Fuel cells are referenced in terms of the technology's potential to meet an 80 percent reduction in NOx emissions from marine engines. Of specific interest is the following passage from the Federal Register notice: "At this time, we consider fuel cell technology to still be in the early stages of development. We recognize that a mature fuel cell system could have significant environmental benefits and we will consider this technology in the future. We request comment on the feasibility of using fuel cells for power on marine vessels." (Federal Register, Vol. 67, No. 103, May 29, 2002, Page 37591.) Written comments on the proposed rule must be sent by July 16, 2002. The Federal Register notice and supporting documents are available online.

<http://www.epa.gov/otaq/marine.htm>

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*25. Federal Judge Halts Movement on California ZEV Program*

Leaving the California ZEV mandate in place, a U.S. district court decision has set aside amendments to the program made by California Air Resource Board last year. Those amendments granted flexibility to automakers by allowing them partial credits for fuel cell vehicles and hybrid vehicles, instead of credits for only battery electric vehicles. The regulation left in place requires 4% of all new cars sold in California to emit zero emissions.

<http://www.latimes.com/classified/autos/news/la-000042039jun15.story?coll=la-classifieds-autos-news>

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Industry Headlines
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*26. General Motors Invests in New Fuel Cell Research Facility*

General Motors will construct a new 7,200-square-meter facility in upstate New York for fuel cell research.

[http://www.powerpulse.net/cgi-bin/displaystory\\_new.pl?id=6103](http://www.powerpulse.net/cgi-bin/displaystory_new.pl?id=6103)

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*27. Ford Unveils New Focus FCV*

Ford Motor Company unveiled the new Ford Focus Fuel Cell Vehicle, a hybrid fuel cell/battery electric prototype that features a Ballard Mark 902 fuel cell stack. Ford says the range of the new prototype is between 160-200 miles, with a top speed of 80 miles per hour.

[http://media.ford.com/article\\_display.cfm?article\\_id=12235](http://media.ford.com/article_display.cfm?article_id=12235)

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*28. DaimlerChrysler NECAR 5 Completes Cross-Country Trip*

DaimlerChrysler's NECAR 5 FCV successfully completed a first ever attempt to drive a fuel cell vehicle as far as 3,000 miles or more. The car traveled from San Francisco to Washington, DC, stopping to refuel with methanol about every 300 miles.

[http://wwwsg.daimlerchrysler.com/SD7DEV/GMS/TEMPLATES/GMS\\_PRESS\\_RELEASE/0,2941\\_0-272-31886-1-1-text-2-0-Media,00.html](http://wwwsg.daimlerchrysler.com/SD7DEV/GMS/TEMPLATES/GMS_PRESS_RELEASE/0,2941_0-272-31886-1-1-text-2-0-Media,00.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](mailto:bernie@usfcc.com).

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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.

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