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FUEL CELL CONNECTION - April 2009 Issue

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News on U.S. Government Fuel Cell Programs
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1. SRNL Researchers Study Ways to Boost Biological Hydrogen Production
Researchers from the Savannah River National Laboratory (SRNL) are studying ways to boost hydrogen production using Cyanobacteria, also called blue-green algae. Results of studies indicate that the addition of carbon to the process may increase the hydrogen production capacity of many strains of the bacteria. Additionally, researchers have found that glucose also stimulated hydrogen production rates, yielding as much as a 40-fold increase in yields in some strains.
http://www.ornl.gov/info/news/pulse/pulse_v283_09.html

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2. Fuel Cells Power Medical Readiness Training Exercise at Dominican Republic Naval Base
Under a Defense Advanced Research Projects Agency (DARPA) demonstration project, fuel cells successfully provided power for a medical readiness training exercise (MEDRETE) held at a Dominican Republic Naval base in Las Caldares. The MEDRETE offered a free medical clinic in a remote, rural community. The five 25-Watt SOFC units, delivered by Adaptive Materials, used locally purchased propane and provided power for the MEDRETE's mobile computing network, which creates and stores medical records.
http://www.adaptivematerials.com/internal.php?sid=5&nid=53

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3. Fuel Cell Triples Mission Range of TALON Robot in DLA-Funded Demonstration
A 200-Watt Protonex fuel cell system, installed in a Foster-Miller TALON robotic unmanned ground vehicle (UGV), successfully demonstrated record endurance capabilities that increased the mission range of the UGV from 15 km to 45 km. The demonstration was conducted as part of the Next Generation Manufacturing Technologies Initiative, which is funded through the Defense Logistics Agency (DLA) and managed by the Naval Surface Warfare Center Crane Division.
http://www.protonex.com/_assets/pressrelease/f5693295-eba9-4962-b26a-670bc8f5f370.pdf

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4. NIST Project Results in Discovery to Boost Hydrogen Generation from Water
Researchers from the National Institute of Standards and Technology (NIST) and Northeastern University discovered a way to boost production of hydrogen from water by controlling the deposition of potassium on the surface of titania nanotubes. Compared to titania nanotubes without potassium, the potassium-bearing nanotubes required only about one-third the electrical energy to produce the same amount of hydrogen.
http://www.nist.gov/public_affairs/techbeat/tb2009_0421.htm#solar

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5. Defense Logistics Agency Demonstrating Fuel Cell Forklifts at Distribution Depot
The Defense Logistics Agency (DLA) has begun a demonstration pilot project involving 40 hydrogen fuel cell-powered forklifts being used in daily operations at its Defense Distribution Depot Susquehanna Pennsylvania (DDSP). The hydrogen for the forklifts is being provided by a fueling station installed by Air Products. The operation of the fuel cell forklifts will be compared to the operation of traditional lead-acid battery forklifts that are also being used at DDSP.
http://www.airproducts.com/PressRoom/CompanyNews/Archived/2009/01Apr2009.htm

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6. Air Force Announces $400 Million DARPA Project to Develop Fuel Cell Blimp
The U.S. Air Force announced a $400 million project under the Defense Advanced Research Projects Agency (DARPA) for a spy blimp, the Integrated Sensor Is the Structure (ISIS), that utilizes fuel cells and solar power. By generating its own power, the craft would be designed to fly for ten years without landing.
http://www.airforcetimes.com/news/2009/03/airforce_blimp_032809/

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7. DOE to Invest $3.2 Billion in Energy Efficiency and Conservation Block Grant Program
The U.S. Department of Energy (DOE) announced plans to invest $3.2 billion in an Energy Efficiency and Conservation Block Grant Program that would provide formula grants for projects that improve energy efficiency and reduce fossil fuel emissions in U.S. cities, counties, states, territories and tribal lands. Funding will support energy audits and energy efficiency retrofits in residential and commercial buildings, and could also be used towards transportation programs that conserve energy, or renewable energy installations on government buildings.
http://www.energy.gov/news2009/7101.htm

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8. $300 Million in ARRA Funding Announced for Clean Cities Program
Vice President Joe Biden announced $300 million in funding from the American Recovery and Reinvestment Act (ARRA) for the Clean Cities Program, to help state and local governments, as well as transit authorities, to expand their fleets of alternative fuel vehicles and the necessary fueling infrastructure. This funding is in addition to the $11 billion already announced by DOE to boost state and local government energy efficiency programs and to weatherize low-income homes.
http://apps1.eere.energy.gov/news/progress_alerts.cfm/pa_id=163

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9. Annual SECA Workshop Scheduled for July 14-16, 2009, in Pittsburgh
The 10th Annual Solid State Energy Conversion Alliance (SECA) Workshop has been scheduled for July 14-16, 2009, in Pittsburgh, Pennsylvania. SECA was created to accelerate the development of solid oxide fuel cells. At the annual workshop, reports on progress of projects will be given by leaders of the Industrial Teams, Core Technology Program Teams, and federal government experts.
http://www.netl.doe.gov/events/09conferences/seca/index.html

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RFP/Solicitation News
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10. Army Seeks Co-Generation and Absorption Environmental Control Technologies
The U.S. Army Communications-Electronics Command Research, Development & Engineering Center (CERDEC) Army Power Division issued a solicitation for “Smaller Lighter Co-Generation

and Absorption Environmental Control Technologies." CERDEC is interested in co-generating cooling, heating and power from waste heat sources, including diesel engine exhaust gases and ambient airstreams. The two topics of interest are Absorption Co-generation and Other Co-generation. The overall budget for this solicitation is $6 million, with individual awards capped at $1.5 million (for projects addressing a single topic), or $3 million (for projects addressing both topics). Pre-proposal white papers are required by May 15, 2009. Selected white papers will be asked to submit full proposals.
https://www.fbo.gov/index?s=opportunity&mode=form&id=4f05b3253e42fa9489a06a99c86b72a8&tab=core&_cview=0

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11. CERDEC Solicitation Seeks Idle Reduction Technologies for Tactical Vehicles
The U.S. Army Communication-Electronics Research Development & Engineering Center (CERDEC) has issued a solicitation titled "Tactical Idle Reduction for Heavy Tactical Vehicles." CERDEC seeks to develop an idling reduction prototype demonstrator, consisting of an auxiliary power unit and an auxiliary environmental control unit, to be integrated on the M915A5 and other Line Haul Tractor Trucks. Deadline for proposals is May 26, 2009.
https://www.fbo.gov/index?s=opportunity&mode=form&id=3c1b5a00c6f16b3e93aae070abfd6ae0&tab=core&_cview=1

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12. PIER Energy Innovations Small Grant Program Issues Grant Opportunity
The California Energy Commission Public Interest Energy Research (PIER) Energy Innovations Small Grant (EISG) Program has opened a Program Solicitation Notice for its Electricity Program. Proposals must target one of the PIER R&D areas, which include Environmentally Preferred Advanced Generation and Renewable Generation. A maximum of $95,000 per project is available for hardware projects requiring physical testing and $50,000 per project for modeling projects. Approximately $2.6 million total is available for EISG grants each year. The deadline for proposals is June 11, 2009.
http://www.energy.ca.gov/contracts/smallgrant/09-01_electricity/index.html

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13. PIER Issues Buildings End-Use Energy Efficiency Solicitation
The Public Interest Energy Research (PIER) Buildings Program has issued a solicitation for Technology Innovations for Buildings and Communities, which targets building-related energy efficiency and renewable energy research areas. Approximately $5 million is available for projects under this solicitation. Proposals shall not request more than $2 million or less than $750,000 in funding. Initial proposals are due June 12, 2009. A pre-bid conference is scheduled for May 5, 2009, at the California Energy Commission office in Sacramento.
http://www.energy.ca.gov/contracts/pier.html#RFP_500-08-503

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14. SSTI Accepting Applications for 2009 TBED Awards
The State Science Technology Institute (SSTI) is accepting applications for its 2009 Awards for Excellence in Technology Based Economic Development. The awards are given each year to recognize outstanding achievement in several categories, including Expanding the Research Infrastructure, Building Entrepreneurial Capacity, and Improving Competitiveness of Existing Industries. Winners will be recognized during SSTI's Annual Conference in October 2009, where they will be provided with a forum to showcase their accomplishments during dedicated breakout sessions. Deadline for applications is June 16, 2009.
http://www.sstiawards.org/

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15. DOD SBIR 2009.2 Includes Fuel Cell, Hydrogen Topics
The Department of Defense (DOD) Small Business Innovation Research (SBIR) 2009.2 solicitation includes several fuel cell and hydrogen related topics. For example, the Army has

posted a topic for “Refillable Liquid Fuel Cartridges for Portable Methanol Fuel Cell Systems,” and the Defense Threat Reduction Agency is seeking proposals for a “Novel High Endurance, Portable Energy Source for Weapons of Mass Destruction (WMD) Sensors.” This solicitation is for Phase I project awards, which are typically $70,000 to $100,000 each for a period of about six to nine months. Technical questions may be submitted to Topic Authors until May 17, 2009. Proposals will be accepted from May 18, 2009, until June 17, 2009.
http://www.acq.osd.mil/osbp/sbir/solicitations/sbir092/index.htm

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16. NIST to Fund Research on Advanced Materials in Manufacturing
The National Institute of Standards and Technology (NIST) announced a competition for research funding in two major areas of interest under the NIST Technology Innovation Program (TIP): civil infrastructure and advanced materials in manufacturing. Technologies eligible for the competition in the materials area of interest include nanomaterials, composites and superalloys, alloys and smart materials. Approximately $15 million for first-year funding is available in the materials area of interest. TIP awards are limited to no more than $3 million total over three years for a single company project. Submissions of proposals are due June 23, 2009.
http://www.nist.gov/public_affairs/releases/20090326_tip_2009_comp_announce.htm

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17. CEC Providing Cost-Share Funds for Applicants to ARRA Solicitations
The California Energy Commission (CEC) issued a solicitation that is limited to applicants who are submitting proposals to the federal government in response to transportation-related American Recovery and Reinvestment Act (ARRA) funding opportunity announcements. Projects must be new, based in California, and address specific fuel/technology categories specified in the recently-adopted CEC *Investment Plan for the Alternative and Renewable Fuel and Vehicle Technology Program*. Deadlines for applications to this solicitation are based on the deadlines for the eligible ARRA funding opportunity announcements, some of which have not yet been released. Check the CEC solicitation for the table of announced and forthcoming deadlines.
http://www.energy.ca.gov/contracts/PON-08-010/

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Contract / Funding Awards
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18. DOE Awards $41.9 Million to Accelerate Fuel Cell Market
DOE has awarded $41.9 million in American Recovery and Reinvestment Act (ARRA) funding to accelerate the commercialization and deployment of fuel cells, and to create jobs in fuel cell manufacturing, installation, maintenance and support services. Funding recipients include FedEx Freight East and Anheuser-Busch, which will use the funding to convert fleets of electric lift trucks at specific facilities from batteries to fuel cell systems. Success in these projects may lead to conversions at other of the companies’ facilities. A full list of selected projects is available at the DOE web site.
http://apps1.eere.energy.gov/news/progress_alerts.cfm/pa_id=160

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19. 3.4-Megawatt Fuel Cell Project Approved by Connecticut Clean Energy Fund Program
The Connecticut Clean Energy Fund “Project 150” renewable energy program has approved the Cube fuel cell project, which will provide 3.4 megawatts of class I renewable power to Connecticut Light and Power. The $20 million project is scheduled to start in early 2010, with project completion expected in the third quarter of that year.
http://www.businesswire.com/portal/site/home/email/headlines/?ndmViewId=news_view&newsLang=en&div=973078938&newsId=20090408005689

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20. DOE Awards Grant to Rensselaer Polytechnic for New MEA Manufacturing Methods
DOE has awarded a $1.6 million grant to Rensselaer Polytechnic Institute for a project to develop new methods for cost-effectively manufacturing fuel cell membrane electrode assemblies (MEAs). Rensselaer's partners on the 42-month project are Arizona State University, BASF Fuel Cell GmbH, Progressive Machine and Design, and UltraCell Corporation.
http://news.rpi.edu/update.do?artcenterkey=2548&setappvar=page(1)

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21. Five Projects Receive Greater Columbia Fuel Cell Challenge Grants
The Greater Columbia Fuel Cell Challenge selected five hydrogen-related projects to receive funding grants. Selected projects include development of a working prototype of an SOFC power unit that can work with portable medical devices, as well as a project to power part of the University of South Carolina baseball stadium scoreboard.
http://www.columbiabusinessreport.com/news/27068-five-projects-receive-fuel-cell-challenge-grants?rss=0

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22. Whole Foods' Fuel Cell Project Receives Grant from MRET Initiative
The Massachusetts Renewable Energy Trust (MRET) Large Onsite Renewables Initiative has approved a $400,000 grant for the installation and operation of a PureCell® Model 400 fuel cell system at the new Whole Foods Market slated to open in Dedham, Massachusetts, in late-2009. The 400-kW fuel cell will generate approximately 90 percent of the store's power and nearly 100 percent of its hot water.
http://www.utc.com/utc/News/News_Details/2009/2009-04-08b.html

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Legislative / Regulatory News
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23. DOT Raises Fuel Economy Standards by 2 MPG for Model Year 2011
The U.S. Department of Transportation (DOT) has raised the Corporate Average Fuel Economy (CAFE) standards for model year 2011 cars and light trucks. The new standard is 27.3 miles per gallon (mpg), which DOT estimates will save about 887 million gallons of fuel over the life of the new vehicles. Petitions for reconsideration must be received by May 14, 2009.
http://www.dot.gov/affairs/dot3609.htm

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24. IEEE Approves Standard for Connecting Fuel Cells, Photovoltaics to National Grid
The Institute of Electrical and Electronics Engineers has approved IEEE 1547.2™, "Application Guide for IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems." The new standard "provides the technical framework necessary to bring surplus energy from fuel cells, photovoltaics, microturbines and other local generating technologies into a national grid."
http://standards.ieee.org/announcements/pr_ieee1547_.html

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State Activities
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25. California Adopts Alternative Fuel/Vehicle Program Investment Plan

The California Energy Commission (CEC) adopted the *Investment Plan for the Alternative and Renewable Fuel and Vehicle Technology Program*, which allocates $176 million over the next two years to "stimulate green transportation projects and encourage innovation to help meet the state's aggressive climate change policies." The Investment Plan specifies $40 million for a minimum of eleven hydrogen fueling stations in California.
http://www.energy.ca.gov//proceedings/2008-ALT-1/documents/index.html#042209

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Industry News
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26. Proton Energy Systems Eliminates Need for Compressor with Hydrogen Generator
Proton Energy Systems demonstrated its advanced high pressure PEM electrolysis technology for more than 18,000 hours of hydrogen generation at 2,400 psi without any external mechanical compression. The elimination of the compressor in the system reduces overall capital cost, the operating cost, and the hydrogen storage footprint of the system. The company's current commercial PEM hydrogen generation systems are capable of running continuously at up to 400 psi and usually require external mechanical compression to achieve higher pressures.
http://www.protonenergy.com/news_01.php?id=75

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University Activities
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27. University of Waterloo Team Wins Hydrogen Student Design Contest
A team of students from the University of Waterloo has won the top prize in the Hydrogen Education Foundation's 2008-2009 Hydrogen Student Design Contest. Teams were challenged to design a green student center powered by hydrogen for the State University of New York Farmingdale Campus. The winning design incorporated wind and solar power, using excess energy to produce hydrogen gas from an electrolyzer. The stored hydrogen gas would be available for use as a transportation fuel for vehicles, or could be used in a PEM fuel cell to generate electricity during peak hours when renewable resources cannot meet load demands.
http://www.hydrogencontest.org/

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28. University Fuel Cell Roundup
(summaries contributed by Kathy Haq, Dir. of Outreach and Communications, National Fuel Cell Research Center, UC Irvine, khaq@nfcrc.uci.edu)

Oregon State University researchers successfully got one type of cyanobacteria – more commonly known as blue-green algae – to live, grow and produce hydrogen while the cells were "encapsulated" in a solid state system, an important preliminary step to controlling this interaction of water, light and bacteria for practical use. Significant progress still needs to be made in making the process more efficient and using light energy more effectively, but the advance demonstrates the feasibility of using these biological processes to produce hydrogen – which could be used directly as a fuel, or in hydrogen fuel cells.
http://oregonstate.edu/dept/ncs/newsarch/2009/Mar09/hydrogenfuel.html

Two Brown University chemists have found a way to create palladium nanoparticles with enough active surface area to make catalysis efficient in fuel cells while preventing particles from clumping together during the chemical processes that convert a fuel source to electricity. Chemistry Professor Shouheng Sun and Vismadeb Mazumder, a graduate student, produced

palladium nanoparticles with about 40 percent greater active surface area than commercially available palladium particles, and the nanoparticles remain intact four times longer.
http://news.brown.edu/pressreleases/2009/03/palladium

Researchers at Purdue University have developed a critical part of a hydrogen storage system for cars that makes it possible to fill up a vehicle's fuel tank within five minutes with enough hydrogen to drive 300 miles. The system uses a fine powder called metal hydride to absorb hydrogen gas. The researchers have created the system's heat exchanger, which circulates coolant through tubes and uses fins to remove heat generated as the hydrogen is absorbed by the metal hydride.
http://news.uns.purdue.edu/x/2009a/090402MudawarHydrogen.html

Researchers at the University of British Columbia have developed a microbial fuel cell that can generate power from a drop of human blood, according to an April 3 report in the *Edmonton Journal*. The discovery means pacemakers and other implanted medical devices may one day be able to run on electricity generated by a patient's blood, rather than on batteries that require regular surgical replacement. The research is discussed in the December 2008 edition of the *IEEE Journal of Microelectromechanical Systems*.
http://www.edmontonjournal.com/Health/Blood+fuels+vampire+battery/1459780/story.html
http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4671110&isnumber=4681904

The Singapore Institute of Manufacturing Technology will collaborate with the Golisano Institute for Sustainability at the Rochester Institute of Technology on joint research projects and other academic partnerships to advance the development of sustainable manufacturing technologies. Other areas of interest include renewable energy and fuel cells, clean production process technologies, clean technologies, reverse logistics and green supply chains, intelligent testing and diagnostics and sustainable design for remanufacturing.
http://www.simtech.a-star.edu.sg/simcorp/loadFeaturedNewsDetail.do?pid=14974977
http://www.acnnewswire.com/article.asp?art_id=1220&lang=EN

Chemistry Professor David Ramaker and his research group at The George Washington University have developed a new measurement technique called Delta X-ray Absorption Near Edge Structure that provides adsorbate information that enables researchers to understand why some catalysts in fuel cells work better than others, why some get poisoned more than others, and why some deteriorate more than others.
http://www.gwu.edu/~media/pressrelease.cfm?event_id=16400

Carmeline Dsilva, a chemical engineering major, is one of three Carnegie Mellon University juniors who received Barry M. Goldwater Scholarships to encourage their pursuit of careers in the sciences. Dsilva, of Lansdale, Pa., was among 278 sophomores and juniors nationwide chosen from more than 1,000 nominations to receive scholarships this year. While at Carnegie Mellon, she has worked with engineering faculty to study the properties of catalysts used with methanol fuel cells in an effort to make the catalytic process more efficient. Dsilva is currently investigating the adsorption behavior of oxygen on a gold-palladium surface.
http://www.cit.cmu.edu/media/press/2009/pr_09_apr09.html

Vasilios Manousiouthakis, a professor of chemical and biomolecular engineering at the UCLA Henry Samueli School of Engineering and Applied Science, has been awarded $2.1 million in grant funding to build a state-of-the-art hydrogen fueling station on the UCLA campus. A $1.7 million grant from the California Air Resources Board and a $400,000 grant from the state's Mobile Source Air Pollution Reduction Review Committee will go toward the construction of one of the largest hydrogen fueling stations in California, with a capacity to produce 140 kilograms of hydrogen a day for use in hydrogen-powered vehicles.
http://newsroom.ucla.edu/portal/ucla/ucla-engineering-professor-awarded-88112.aspx

Canada and China recently announced the launch of six new joint research initiatives in science and technology worth a total of $6.87 million, to be provided by Canada. The initiatives encourage

partnerships between universities and industry. Under the Canada-China Science and Technology Cooperation Agreement, signed in January 2007, the two countries have chosen to focus on four sectors: (1) energy, including fuel cells; (2) environment, life sciences and biotechnology; (3) agricultural foods and bioproducts; and (4) information and communications technologies and nanotechnology.
http://w01.international.gc.ca/MinPub/Publication.aspx?isRedirect=True&Language=E&publication_id=387049&docnumber=98

The *Los Angeles Times* reported in its April 16 edition that Los Angeles Mayor Antonio Villaraigosa announced a partnership with three local universities aimed at positioning the city to compete for hundreds of thousands of federal dollars for clean technology research and a proposed state institute to study climate change. “The partnership with Caltech, UCLA and USC is part of the agenda Villaraigosa outlined in his State of the City speech to lure and retain companies that focus on green endeavors such as solar, wind, battery and hydrogen fuel cell technologies,” according to the paper.
http://www.latimes.com/news/local/la-me-clean-tech16-2009apr16,0,705950.story
http://www.lacity.org/mayor/pressroom/MultimediaArchives/index.htm

Four California colleges and universities have won national recognition in the National Wildlife Federation’s annual competition *Chill Out: Campus Solutions to Global Warming*. This award program is the nation’s only campus competition to promote sustainability and honor U.S. schools that are advancing creative solutions to global warming on their campuses. Among the winners is California State University, Northridge, which has a 1-megawatt fuel cell power plant, the largest such installation at any university in the world. The ultra-clean plant produces 18 percent of the campus' electricity, and simultaneously eliminates associated heating, cooling, and maintenance costs.
http://www.nwf.org/news/story.cfm?pageId=AA36346D-5056-A868-A022A03C7A233B00

NASA's Glenn Research Center is leading a team of industry and university partners in demonstrating a prototype of a commercial hydrogen fueling station that uses wind and solar power to produce hydrogen from water. This initial installation will produce hydrogen from Lake Erie water to fuel a mass transit bus powered by fuel cells. Cleveland State University's Nance College of Business Administration will work alongside the collaborators to develop a business template for the electrolyzer and station. The designs for both will be treated as intellectual property and placed in a trust benefiting Ohio citizens.
http://www.nasa.gov/glenn

The National Fuel Cell Research Center at the University of California, Irvine, will partner with Plug Power Inc. and Southern California Gas Company on field tests to verify the durability and commercial readiness of Plug Power’s combined heat and power GenSys fuel cell system. The fuel cells, designed for residential and small commercial applications, will be installed in highly visible locations in Southern California. The $3.4 million partnership is a beneficiary of the $42 million in American Recovery and Reinvestment Act funding for fuel cell technology.
http://today.uci.edu/news/release_detail.asp?key=1889

The Penn State University team from University Park, Pa., achieved 1,912.9 mpg (813.2 km/l) in its “Blood, Sweat & Gears” vehicle to win the Prototype Fuel Cell/Hydrogen category in the 2009 Shell Eco-marathon Americas challenge. This year’s competition attracted more than 500 students from North and South America who worked in teams to design, build and test fuel-efficient vehicles that could travel the farthest distance using the least amount of fuel. The Prototype entries included 28 vehicles powered by combustion engines, five by fuel cell/hydrogen technology, three by liquified petroleum gas, three by solar power, and two by diesel fuel.
http://www.shell.us/home/content/usa/aboutshell/media_center/news_and_press_releases/2009/2009shellecomarathonamericas_finalresults.html

The 2009 Rice [University] Business Plan Competition awarded more than $800,000 in cash and prizes at the conclusion of the three-day contest held April 16-18. The competition attracted 42 teams that pitched their new technology business plans to more than 200 judges who themselves are successful venture capital investors, entrepreneurs, and business leaders. The 2nd Place Sustainability Award was awarded to Ikanos Power, a University of Michigan spinoff. This $5,000 cash award from HFBE Investment Bank was presented to Ikanos Power for developing a disruptive fuel reforming technology that enables the conversion of a wide variety of fuels for use in a fuel cell to produce electricity. Ikanos claims its end product, a generator, is 30-3,000 percent more efficient than current alternatives. Ikanos also won 3rd Place in the Wildcard Round sponsored by Murphree Venture Partners, for a total cash prize of $6,000.
http://www.alliance.rice.edu/alliance/NewsBot.asp?MODE=VIEW&ID=85&SnID=177899104

Engineering students from the National University of Singapore have designed and built what is hailed as the first-of-its kind eco-friendly urban concept car in the island city-state. The Kent Ridge Urban Concept Ecocar (KRUCE) is powered by a 1.2-kilowatt hydrogen fuel cell and costs $40,000, according to an April 21 report in *The Straits Times* (Singapore). It will compete against 66 teams from 37 countries at the Shell Eco-marathon to be held May 7-9 at the EuroSpeeday Lausitz, a race track located near Klettwitz in Eastern Germany.
http://newshub.nus.edu.sg/headlines/0409/ecocar_20Apr09.php

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Press releases and story ideas may be forwarded to Bernadette Geyer, editor, for consideration at fuelcellconnection @ yahoo.com.

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About *Fuel Cell Connection*
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The Sponsors

US Fuel Cell Council -- The US 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/)

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/)

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)