Are you part of the Fuel Cells group on LinkedIn? Join the discussions today! Also follow us and the latest fuel cell news, trends and events on the Fuel Cell Insider blog, or on Facebook and Twitter! And if you like this newsletter, recommend it to a friend!

Sorry it is a few days late, I was on vacation! Luckily the cruise ship I was on didn't lose power, but the restaurant I went to in Puerto Rico did, and their backup generator blew out, too! Fuel cell, anyone?

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Obama Proposes Energy Security Trust. The Obama Administration has proposed a new Energy Security Trust, a 10-year, $2 billion program designed to invest in breakthrough research into a range of cost-effective technologies, including fuel cell electric vehicles. The infographic released in tandem with the announcement even includes a dedicated image for hydrogen fuel cells. Who knows if this proposal will actually go anywhere, but it’s nice to be singled out instead of left out entirely.

[Link]

TRANSPORTATION APPLICATIONS

German Survey Finds Positive Views on FCVs. Results from a recent survey by HyTrust, a branch of the Independent Institute for Environmental Issues, show that Germans generally hold positive impressions of fuel cell electric vehicles (FCEVs).

[Link]

Ballard Signs Agreement with Volkswagen. Ballard Power Systems has signed an agreement with Volkswagen Group for a major Engineering Services contract to advance development of fuel cells for Volkswagen’s fuel cell automotive research program. The 4-year contract term has an option for a 2-year extension and value is in the range of CAD$60-100 million (almost same in U.S. $). Work will involve the design and manufacture of a next-generation fuel cell for use in Volkswagen HyMotion demonstration cars. Ballard engineers will lead critical areas of fuel cell product design – including the membrane electrode assembly (MEA), plate and stack components – along with testing and integration work.

[Link]

Ballard to Provide Fuel Cell Systems for Buses in Scotland, Germany and Connecticut. Van Hool NV and the Transit Authority in Aberdeen, Scotland will be deploying ten fuel cell buses in revenue that will be powered by Ballard Power System’s 150 kilowatt (kW) FCvelocityTM-HD6 fuel cell module. Throughout 2013, Ballard expects to ship 8 systems to Van Hool, 6 to be used in the Aberdeen bus fleet and 2 for buses to be deployed in Cologne, Germany. The Cologne buses are being procured by the government of North Rhine Westphalia (NRW), with funding support from the German National Innovation Program. The Aberdeen buses are being supported by JT1 funding through the High V.LO-City and HyTransit programs. Ballard also entered into a supply agreement with the Center for Transportation and the Environment for its fuel cell module to be integrated into an All-American fuel cell.
hybrid bus that will be deployed with CTTransit in Hartford, Connecticut in 2015.

**Port of Houston to Receive 20 Fuel Cell Trucks.**
The U.S. Department of Energy (DOE) awarded the Houston Galveston Area Council (HGAC) $3.4 million to demonstrate heavy duty hydrogen fuel cell electric hybrid trucks that will operate at the Port of Houston. The 20 TYRANO™ hydrogen fuel cell-electric trucks from Vision Industries are expected to be operational later this year. The hydrogen will be locally sourced in Houston.

**BMW Expands Hydrogen and Fuel Cell Footprint.**
BMW Manufacturing has expanded its fleet of fuel cell materials handling equipment from 100 to 230. To accommodate the increase in vehicles, BMW added two higher capacity compressors, new storage tubes and distribution piping, and eight new hydrogen dispensers that will deliver 400 kg of hydrogen per day. BMW also entered the second phase of its Landfill Gas-to-Hydrogen Pilot Project with the South Carolina Research Authority (SCRA) to use locally sourced methane fuel for the forklift fleet. The final phase of this project is scheduled to begin later this year when BMW will conduct side-by-side trials of material handling equipment fueled by landfill gas derived hydrogen versus commercially sourced hydrogen.

**Plug Power Sells 65 Fuel Cells for Ace Hardware Fleet.**
Ace Hardware has purchased 65 GenDrive™ fuel cell units from Plug Power for its newest Retail Support Center, located in Wilmer, Texas. Construction on the facility broke ground in mid-March for completion in early 2014. The lift trucks are manufactured by Crown Equipment Corporation.

**STATIONARY APPLICATIONS**

**Honda Installs 1 MW Bloom System at Torrance Campus.**
American Honda Motor Co., Inc. installed a 1 megawatt (MW) fuel cell system on its 1.13 million square feet, 101 acre, Torrance, California campus. The system consists of five, 200-kW Bloom Energy Servers.

**Ballard Sells ClearGen™ System in China.**
Ballard Power Systems has sold a 175 kW ClearGen™ distributed generation fuel cell system to Azure Hydrogen Energy Science and Technology Corporation, its partner in China.

**CFCL Signs LOI With Alliander to Install Up to 600 Fuel Cells in Germany by 2015.**
Ceramic Fuel Cells Limited (CFCL) signed a letter of intent for a strategic partnership with Alliander AG, a distribution grid operator. As a first step, up to 600 BlueGEN systems are to be installed across Alliander's regional grids in Germany by 2015. Alliander was an early adopter of the BlueGEN product and will initially focus on the Heinsberg region (in North-Rhine Westphalia) before moving to the national level in a second phase of deployment.

**IE-CHP Receives CE Certification, Intelligent Recognized.**
IE-CHP Ltd, the joint venture between Intelligent Energy (IE) and Scottish and Southern Energy (SSE), has received CE certification for its 10 kW combined heat and power (CHP) fuel cell system. Intelligent Energy also won “Company of the Year” at the Leicester Mercury Business Awards 2013.
ClearEdge Raises $36 Million; Lays off Good Chunk of Former UTCers.
ClearEdge Power has raised $36 million in equity financing to serve current customers, support manufacturing operations and rapidly expand sales activities. The company also recently let go of a good portion of former UTC employees, most on the transportation side.

Ballard Reaches Record Production in Tijuana; Dantherm Subsidiary Receives $2 Million Investment.
Ballard Power Systems’ Tijuana, Mexico, facility manufactured 215 ElectraGen™-ME systems in Q1 2013, establishing a new record high production level at the plant. The 37,000 square foot Tijuana facility was established in 2007. Ballard assumed management in January 2013 as part of its acquisition of IdaTech LLC. In other Ballard news, Azure Hydrogen Energy Science and Technology Corporation (Azure), Ballard’s partner in China, has acquired a 10% ownership position in Dantherm Power, Ballard’s telecom backup power subsidiary, for $2 million. Following the transaction, Ballard’s ownership position in Dantherm Power is 52% and Dantherm A/S holds the remaining 38% ownership position.

MVS Energy Solutions to be Acta’s Indian Distribution Partner.
Acta S.p.A. has signed a distribution agreement with MVS Energy Solutions, the new business division of MVS Engineering Ltd, India’s largest supplier of industrial gas equipment and solutions, for the distribution of Acta’s electrolyzers in India. The objective of the partnership is to allow the introduction of on-grid and off-grid integrated fuel cell back-up power solution based on on-site hydrogen generation.

FCS to Join AFC Energy’s Alkammonia Project.
Fuel Cell Systems (FCS), a subsidiary of UPS Systems PLC, will form part of consortium led by AFC Energy for the ‘Alkammonia’ project funded by the EU Fuel Cells and Hydrogen Joint Undertaking (FCH-JU) after approval of a €1.96 million (US$2.5 million) grant. The purpose of the project will be to test the efficiency of ammonia-fed, alkaline fuel cell systems in providing power for remote telecommunication base stations, which are traditionally powered by diesel generators. The project is expected to commence this month.
ITM Power Snags First Commercial Sales in Germany and Russia.
ITM Power has won a competitive tender process for a Thüga Group project, to supply a 360kW Power-to-Gas energy storage plant. This is ITM Power’s first major commercial sale in Germany of a large hydrogen production unit based on its unique design of a self-pressurizing rapid response PEM Electrolyzer. The unit produces 125kg/day of hydrogen gas and incorporates AEG power electronics. It will be situated at a Mainova AG site in the Schielestraße, Frankfurt in the state of Hessen. ITM also sold the first reference plant based on the HPac platform to a company in Russia.

Carbon Fiber Technology Facility Opened.
The Clean Energy Manufacturing Initiative (CEMI), a new DOE initiative focused on growing American manufacturing of clean energy products and boosting U.S. competitiveness through major improvements in manufacturing energy productivity, was launched recently. The initiative includes a new Carbon Fiber Technology Facility in Oak Ridge, Tennessee, that seeks reduce the cost of carbon fiber - a critical material for efficient lightweight vehicles, like FCEVs.

FuelCon Launching Swivel Test System.
FuelCon will introduce its newly engineered swivel test system for PEM fuel cell stacks and complete systems at the Hannover Fair next week. Users will now be able to simulate different driving situations under dynamic conditions, for example driving cycles with turns or different heights. This provides a stronger practical reference for optimizing fuel cell applications in driving vehicles.

Transportation Energy Futures.
DOE, the National Renewable Energy Laboratory, and Argonne National Laboratory released the “Transportation Energy Futures” study that finds the U.S. has the potential to reduce petroleum use and greenhouse gas (GHG) emissions in the transportation sector by more than 80% by 2050. The study confirmed that there is no "silver bullet" for decreasing carbon emissions and petroleum use in transportation. Instead, deep reductions would involve an inclusive approach, combining strategies to increase fuel economy for all types of vehicles, reduce use of transportation while providing comparable service, and expand use of low-carbon fuels, including biofuels, electricity, and hydrogen.

Transitions to Alternative Vehicles and Fuels.
A new report from the National Research Council, “Transitions to Alternative Vehicles and Fuels,” finds that by the year 2050, the U.S. may be able to reduce petroleum consumption and greenhouse gas emissions by 80 percent for light-duty vehicles -- cars and small trucks -- via a combination of more efficient vehicles; the use of alternative fuels like biofuels, electricity, and hydrogen; and strong government policies to overcome high costs and influence consumer choices.

CaFCP Fuel Cell Bus Roadmap.
The California Fuel Cell Partnership has released “A Road Map for Fuel Cell Electric Buses in California: A Zero-Emission Solution for Public Transit” that looks at the progress of fuel cell electric buses (FCEBs) in California and around the world, and offers recommendations to state and federal policy makers about actions they can take to put FCEBs on the path to full commercial readiness.
Clean Energy Patent Growth Index 2012 Year in Review.
The Clean Energy Patent Growth Index (CEPGI) released its 2012 Year in Review that tracks U.S. patents for fuel cells, solar, wind, hybrid/electric vehicles, hydroelectric, tidal/wave, geothermal, biomass/biofuels, and other renewable forms of energy. The U.S. led all other countries in clean energy patents and once again, fuel cells were the big winner with 1024 patents, topping the solar industry (862) by over 160 patents and growing 8 percent from last year.

Fuel Cells 2000 released our 2012 Policy Activity Wrap-up, an annual report detailing the legislation, initiatives and policies enacted in the U.S. in 2012 including fuel cell and hydrogen.

Hydrogen Storage Technology.
The newly published “Hydrogen Storage Technology – Materials and Applications” book addresses technical issues such as the chemistry of hydrogen storage materials, codes and standards, pressure vessels and engineered hydrogen storage systems.

REQUESTS FOR PROPOSALS
DOE RFI.
DOE’s Fuel Cell Technologies Office has issued a Request for Information (RFI) seeking feedback from stakeholders regarding technology validation and deployment activities aimed at ensuring commercial readiness and stimulating commercialization of fuel cell and hydrogen technologies.

ARPA-E.
DOE’s Advanced Research Projects Agency-Energy (ARPA-E) program is offering $20 million through The Reducing Emissions using Methanotrophic Organisms for Transportation Energy (REMOTE) program. This program seeks to fund the development of bioconversion technologies to convert methane into liquid fuels for transportation. Of interest are biological routes to improve the rates and energy efficiencies of methane activation and subsequent fuel synthesis, as well as approaches to engineer high-productivity methane conversion processes.

MISCELLANEOUS
Hydrogenics Wins Best in Class from CleanEquity Monaco 2013.
An independent panel of judges at CleanEquity Monaco 2013 selected Hydrogenics as best in class for Excellence in the Field of Environmental Technology Commercialization.

CONFERENCES
For a complete list of conferences, please go to http://www.fuelcells.org/newsroom/conferences/.

HANNOVER MESSE 2013.
The HANNOVER MESSE 2013, Group Exhibit Hydrogen + Fuel Cells will be held April 8-12, 2013, in Hanover, Germany. For more information, please go to http://www.h2fc-fair.com.

ACT Expo.
The Alternative Clean Transportation (ACT) Expo will take place June 24-27, 2013, at the Walter E. Washington Convention Center (right near our office!) in Washington, DC. For more information, please visit http://www.actexpo.com/.

f-cell 2013.
The f-cell, Battery+Storage and e-mobil BW Technologietag 2013 will be held September 30 - October 2, 2013, in Stuttgart, Germany. For conference information, please go to http://www.f-cell.de.

Fuel Cell Seminar.

EFC13.
The 5th European Fuel Cell Technology & Applications – Piero Lunghi Conference – EFC13 will be held December 11-13, 2013, in Rome, Italy. For more details on the event, please go to http://www.europeanfuelcell.it/.

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*Fuel cells generate electricity without combustion by harnessing the energy released when hydrogen and oxygen are chemically combined. Fuel Cells 2000 is an independent, nonprofit activity dedicated to the commercialization of fuel cell technologies.*