

# The Marketplace Matters Issue 25: Printer Friendly Version

The printer friendly version of the Marketplace Matters is grouped by Industry sector. In this issue you will find opportunities and information from our partners in the following sectors:

- Transportation Applications
- Stationary Power Applications
- Education and Outreach
- Infrastructure & Hydrogen Supply
- Manufacturing
- Portable and Micro Applications
- Testing & Development
- Balance of Plant, Components, Materials and Sub Assemblies
- Events
- Financial

## Transportation Applications

### **Seeking Partners Involved with PEM and High Temperature PEM Fuel Cells for Auxiliary Power Units and CHP Units**

The operation of polymer electrolyte (PEM) fuel cells at temperatures above 150°C offers very significant advantages. One of the main activities of ADVENT TECHNOLOGIES S.A, is focused on the systematic development and production of polymer membranes and MEAs for high temperature PEM fuel cells. We have identified that high temperature PEM offers significant advantages for the CHP & auxiliary power markets and are interested to talk with companies who would like to evaluate the use of our membranes in their technology.

[http://www.fuelcellmarkets.com/advent\\_technologies/forming\\_relationships/3,1,15017,18,27569.html?TMM=25](http://www.fuelcellmarkets.com/advent_technologies/forming_relationships/3,1,15017,18,27569.html?TMM=25)

## Stationary Power Applications

### **IdaTech is Looking for Distributor and Agent Partners for its ElectraGen™ family of Backup Power Fuel Cell Systems in Korea and Taiwan**

IdaTech, LLC, is looking for partners to assist with the sales and distribution of the company's backup power Fuel Cell systems in Korea and Taiwan. IdaTech's advanced fuel reforming technology means that a wide range of fuels like natural gas or methanol may be used to provide extended run time systems. The ElectraGen™ products are CE, UL, and NEBS3 certified fuel cell systems designed for critical backup power/UPS needs ranging from 1 to 15 kilowatts.

[http://www.fuelcellmarkets.com/idatech/forming\\_relationships/3,1,599,18,27561.html?TMM=25](http://www.fuelcellmarkets.com/idatech/forming_relationships/3,1,599,18,27561.html?TMM=25)

### **Low Cost Alkaline Fuel Cell Generator for Telecoms Continuous Power Applications**

Diesel generator technologies are polluting and require frequent maintenance. This and the rising cost of diesel is creating a demand for more environmentally friendly technologies using alternative fuels. AFC Energy is developing alkaline fuel cells for onsite power applications. Our current market focus is in waste hydrogen markets – including chloride, chlorate and petro chemical – we are interested to investigate market interest in our technology for telecoms continuous power applications.

[http://www.fuelcellmarkets.com/afc\\_energy/forming\\_relationships/3,1,13903,18,27580.html?TMM=25](http://www.fuelcellmarkets.com/afc_energy/forming_relationships/3,1,13903,18,27580.html?TMM=25)

### **Solid Oxide Fuel Cell Natural Gas Stack Modules for Telecom Generator System Integrators in Asian Markets**

Staxera develops Solid Oxide Stack Modules using Natural Gas for generator applications such as telecoms base stations and residential dwellings. Traditional diesel generators require frequent maintenance (servicing and lubrication oil changes) which can cause logistical issues, particularly in remote locations. This coupled with rising diesel costs and environmental concerns is pushing operators to look for alternatives.

[http://www.fuelcellmarkets.com/forming\\_relationships/3,1,15168,18,27584.html?TMM=25](http://www.fuelcellmarkets.com/forming_relationships/3,1,15168,18,27584.html?TMM=25)

## **Gas Utilities: Highly Efficient and Non-Combustion Based System for Natural Gas Utility Letdown Stations**

FuelCell Energy, Inc.™, in cooperation with Enbridge, Inc., introduces the Direct FuelCell-Energy® Recovery Generation™ (“DCF-ERG”) system, a hybrid fuel cell/gas turbine solution for use in gas pipeline letdown applications. The DFC-ERG system is a hybrid power plant ideally suited for urban settings and utilizes energy that would otherwise be lost. The system comes in varying sizes to address a multitude of pressure reduction and flow conditions. The DFC-ERG system offers an electrical efficiency of over 60%, negligible emissions of pollutants such as nitrogen oxides (NOx) and sulphur oxides (SOx), and dramatically reduced CO2 greenhouse gas emissions in comparison to traditional fossil fuel technologies.

[http://www.fuelcellmarkets.com/fuel\\_cell\\_energy/forming\\_relationships/3,1,11275,18,27444.html?TMM=25](http://www.fuelcellmarkets.com/fuel_cell_energy/forming_relationships/3,1,11275,18,27444.html?TMM=25)

## **Hydrogen Fuel Cell CHP Projects**

H2 Seed is keen to hear from hydrogen fuel cell micro combined heat and power technology developers to establish CHP projects. The scale of the projects could vary from single domestic households, groups of domestic households, small public buildings (community halls, satellite Comhairle offices) to large public buildings (sports centres).

[http://www.fuelcellmarkets.com/energy\\_innovation\\_zone/forming\\_relationships/3,1,14514,18,27255.html?TMM=25](http://www.fuelcellmarkets.com/energy_innovation_zone/forming_relationships/3,1,14514,18,27255.html?TMM=25)

## **SEC Telecommunications Batteries standby AGM & Gel deep cycle - 2008**

As the Worlds Telecommunication systems are increasing in coverage it is even more important to have dependable reliable quality Telecom standby batteries. Standby power where the Telecom batteries are continuously charged by the Utility power and only occasionally, in the event of a power outage, are the batteries discharged. For these applications SEC offer a full range of competitively priced Absorbed Glass Mat (AGM) batteries in 6 and 12 volt Monobloc and for larger capacity systems 2 volt cells specifically these Telecom batteries are:

[http://www.fuelcellmarkets.com/sec\\_industrial\\_battery\\_company/news\\_and\\_information/3,1,312,1,27513.html?TMM=25](http://www.fuelcellmarkets.com/sec_industrial_battery_company/news_and_information/3,1,312,1,27513.html?TMM=25)

## **PLUG POWER PARTNERS WITH NATIONAL GRID FOR COMBINED HEAT AND POWER FUEL CELL FIELD TRIAL**

Plug Power Inc. (NASDAQ: PLUG), a leader in providing clean, reliable energy solutions, and National Grid, an international natural gas and electric utility, today announced a partnership with the U.S. Department of Energy (DOE) to conduct the first field trial of Plug Power’s new micro-CHP (combined heat and power) GenSys® fuel cell system. Fueled by natural gas, the 5 kilowatt GenSys will provide electricity and high-quality heat to a National Grid customer in New York State.

[http://www.fuelcellmarkets.com/plug\\_power/news\\_and\\_information/3,1,656,1,27578.html?TMM=25](http://www.fuelcellmarkets.com/plug_power/news_and_information/3,1,656,1,27578.html?TMM=25)

## **Education and Outreach**

### **5% discount\* on all Wiley Books for Subscribers to The Marketplace Matters**

Wiley are delighted to offer all subscribers to The Marketplace Matters a 5% discount on all our books until Christmas Day 2008!

This includes publications listed on the Wiley subsite:

[http://www.fuelcellmarkets.com/wiley/products\\_and\\_services/2,1,431,17.html](http://www.fuelcellmarkets.com/wiley/products_and_services/2,1,431,17.html)

And ALL titles on the Wiley website [www.wiley.com](http://www.wiley.com)!

To receive your discount please enter the following voucher code: **FCM5%**

[http://www.fuelcellmarkets.com/wiley/forming\\_relationships/3,1,431,18,27585.html?TMM=25](http://www.fuelcellmarkets.com/wiley/forming_relationships/3,1,431,18,27585.html?TMM=25)

### **SHFCA Activities Update**

The Hydrogen Office is expected to open early next year and SHFCA will be relocating there permanently. Planning is in hand for a major presence at All Energy in May 2009 where we will be looking to replicate last year 's success, but on a larger platform. SHFCA's first annual conference in collaboration with the Royal Mail Group will be held in Edinburgh in September 2009.

[http://www.fuelcellmarkets.com/scottish\\_hydrogen\\_fuel\\_cell\\_association/news\\_and\\_information/3,1,6942,1,27571.html?TMM=25](http://www.fuelcellmarkets.com/scottish_hydrogen_fuel_cell_association/news_and_information/3,1,6942,1,27571.html?TMM=25)

## **Panos Coroyannakis presents on behalf of MHFCA at Hydrogen on Islands in Croatia**

Panos COROYANNAKIS recently presented at the Hydrogen on Islands conference on Croatia on behalf of The Marine Hydrogen and Fuel Cell Association. You can download the full presentation in the attached files section of this page.

[http://www.fuelcellmarkets.com/marine\\_hydrogen\\_fuel\\_cell\\_association/news\\_and\\_information/3,1,12828,1,27562.html?TMM=25](http://www.fuelcellmarkets.com/marine_hydrogen_fuel_cell_association/news_and_information/3,1,12828,1,27562.html?TMM=25)

## **CHANGING INVESTMENT IN ENERGY**

After a century of reliance upon fossil fuels, the world is now changing to more diverse systems of energy production, increasingly employing renewable energy technologies. According to the International Energy Agency (IEA) current energy trends are patently unsustainable, socially, environmentally and economically. Fuel cells can contribute to energy efficiency, they can be powered by a variety of sustainable fuels and, in conjunction with hydrogen, can store intermittent sources of renewable energy.

[http://www.fuelcellmarkets.com/fuel\\_cell\\_power/news\\_and\\_information/3,1,6250,1,27570.html?TMM=25](http://www.fuelcellmarkets.com/fuel_cell_power/news_and_information/3,1,6250,1,27570.html?TMM=25)

## **Infrastructure & Hydrogen Supply**

### **Looking for Partners and Projects for our New Electrolysers**

The Pure Energy Centre has developed a state of the art electrolyser technology, which we believe significantly outperforms the competition. We are looking for additional partners to work with us on taking this to market.

[http://www.fuelcellmarkets.com/pure/forming\\_relationships/3,1,11952,18,27586.html?TMM=25](http://www.fuelcellmarkets.com/pure/forming_relationships/3,1,11952,18,27586.html?TMM=25)

### **Looking to form Partnerships with Methanol Fuel Cell Cartridge Developers**

Hayman Limited specialises in the blending, denaturing, packing and distribution world wide, of a large range of products (including Methanol) to standard or customer specifications. Hayman Ltd has an established worldwide distribution network and is partnering with fuel cell companies using methanol as their fuel, to provide them with packaged global methanol supplies.

[http://www.fuelcellmarkets.com/hayman/forming\\_relationships/3,1,13694,18,14366.html?TMM=25](http://www.fuelcellmarkets.com/hayman/forming_relationships/3,1,13694,18,14366.html?TMM=25)

### **Heliocentris wins electrolyser order for hydrogen fuel cell bus filling terminus**

Heliocentris Fuel Cells AG, the fuel cell system integrator, announced today that the City of Barth in Mecklenburg-West Pomerania has awarded Heliocentris a contract to deliver an electrolyser for the supply of hydrogen to the City's hybrid midi-bus and to optimize the City's wastewater treatment facility. This new contract follows Heliocentris' successful integration of a 32 kW fuel cell system for use in the Barth midi-bus, earlier this year.

[http://www.fuelcellmarkets.com/heliocentris\\_energiesysteme/news\\_and\\_information/3,1,1102,1,27560.html?TMM=25](http://www.fuelcellmarkets.com/heliocentris_energiesysteme/news_and_information/3,1,1102,1,27560.html?TMM=25)

## **Manufacturing**

### **True High Quality Mass Production of Metal Solid Oxide Plates**

Whatever bipolar plate and pattern you need – we deliver. And we do it now. Highly detailed, high quality solid oxide metal plates produced in a new way – at a new rate – and at a better price than any other supplier.

[http://www.fuelcellmarkets.com/cell\\_impact/forming\\_relationships/3,1,13659,18,27587.html?TMM=25](http://www.fuelcellmarkets.com/cell_impact/forming_relationships/3,1,13659,18,27587.html?TMM=25)

## **Portable and Micro Applications**

### **Looking for Portable Electronics OEM Partners for Our Eos Direct Ethanol Fuel Cell**

The power requirements of portable electronics devices are increasing every year, and in many cases batteries are struggling to keep up with the pace. To NDCPower, solving the technical challenge of developing a commercially viable Direct Liquid Fuel Cell technology offered the perfect opportunity to leverage our catalyst optimization platform and fuel cell expertise. We are proud to introduce Eos, our Direct Ethanol Fuel Cell Technology, that can be used across a broad spectrum of product applications in a practical and commercially viable manner. No trade-offs.

[http://www.fuelcellmarkets.com/forming\\_relationships/3,1,6899,18,27440.html?TMM=25](http://www.fuelcellmarkets.com/forming_relationships/3,1,6899,18,27440.html?TMM=25)

## **Seeking Partners to Develop the Markets for 200-500 Watt Fuel Cell Power Systems**

With rising fuel prices, health & safety regulations and environmental restrictions there is increased pressure to look at technologies with greater fuel diversity, less harmful emissions, better fuel efficiency, lower weight and quieter operation. ND Energy's solid oxide fuel cell generator provides all of these benefits and more. Having already established our 50 and 60 watt fuel cell products, we are looking for partners to work with us to develop products in the 200 – 500W range across a range of applications.

[http://www.fuelcellmarkets.com/nano\\_dynamics\\_energy/forming\\_relationships/3,1,13868,18,27427.html?TMM=25](http://www.fuelcellmarkets.com/nano_dynamics_energy/forming_relationships/3,1,13868,18,27427.html?TMM=25)

## **First Dutch mobile power generator based on fuel cells**

With the demonstration of the "Purity", firstly at the 'Energy 2008', from 7 up till 9th October, in 's- Hertogenbosch, and secondly at the planned 6th National Hydrogen Conference in Arnhem, the introduction of the first Dutch mobile power generator based on fuel cells has become reality.

[http://www.fuelcellmarkets.com/nedstack/news\\_and\\_information/3,1,1710,1,27563.html?TMM=25](http://www.fuelcellmarkets.com/nedstack/news_and_information/3,1,1710,1,27563.html?TMM=25)

## **Test and Development**

### **Fuel Cell Business Incubation: Access to one of the largest Integrated Laboratory, Technical Development and Office Facilities in Europe**

The Low Carbon Energy Platform is the CPI platform that supports the practical application of fuel cells and new energy technologies through its Low Carbon Energy Development Centre (LCEDC). The LCEDC provides an integrated facility that combines laboratory's, technical developments, manufacturing, testing, design and business incubation ideally suited to assisting SMEs with moving to the next stage of their development.

[http://www.fuelcellmarkets.com/cpi/forming\\_relationships/3,1,7855,18,27446.html?TMM=25](http://www.fuelcellmarkets.com/cpi/forming_relationships/3,1,7855,18,27446.html?TMM=25)

## **Balance of Plant, Components, Materials and Sub Assemblies**

### **Advanced Fuel Cell Development – Working with Cabot**

Cabot Fuel Cells has a range of next-generation fuel cell electrocatalysts and other materials for PEM and DMFC systems under development. These next generation electrocatalysts, as well as other key products and capabilities, are selectively available to leading customers under special arrangement. Cabot works intimately with a limited number of customers to assist them in developing genuine competitive advantage through access to the latest advances in DMFC and PEM materials and component technologies. If you would like to talk to Cabot about the potential of an Advanced Development relationship for your company.

[http://www.fuelcellmarkets.com/cabot/forming\\_relationships/3,1,6270,18,12339.html?TMM=25](http://www.fuelcellmarkets.com/cabot/forming_relationships/3,1,6270,18,12339.html?TMM=25)

### **Looking to Partner with Fuel Cell Catalyst Developers**

Ilika is a science-led materials discovery company that uses high throughput techniques to significantly accelerate the discovery of new and patentable materials. Ilika provides R&D collaborations as well as technology development and materials licensing services. Ilika's technology is based upon the work of world-class scientists in the field of combinatorial chemistry and Ilika's customers have enjoyed significant increases in the productivity of their materials research programmes, typically by a factor of 10-100.

[http://www.fuelcellmarkets.com/ilika/forming\\_relationships/3,1,11223,18,13606.html](http://www.fuelcellmarkets.com/ilika/forming_relationships/3,1,11223,18,13606.html)

## **Events**

### **Fuel Cells: Then and Now It's been a long 32 years, but my how things have changed!**

It's 1976 and the Fuel Cell Seminar is in its first year of fruition as a government funded forum on the fuel cell community. There are only 150 participants in total, and as the name would suggest, no exposition in sight. This first conference was a means for fellow scientists and industry leaders to talk shop, review the latest research developments within fuel cells, and network with colleagues. While the fundamental goals of the conference have not changed in its 32 year history, 2008 brought about exciting improvements within the conference structure and moved toward solidifying a place for fuel cells as an alternative energy source.

[http://www.fuelcellmarkets.com/news\\_and\\_information/3,1,9141,1,27574.html?TMM=25](http://www.fuelcellmarkets.com/news_and_information/3,1,9141,1,27574.html?TMM=25)

## **Top 5 Reasons to Exhibit and Sponsor at Hydrogen + Fuel Cells 2009**

Hydrogen + Fuel Cells 2009 is Canada's premier hydrogen and fuel cell event and attracts hundreds of visitors from around the world to Vancouver's internationally recognized hydrogen and fuel cell cluster. And if that isn't reason enough to convince you to attend, we present our Top 5 Reasons to exhibit at HFC2009.

[http://www.fuelcellmarkets.com/news\\_and\\_information/3,1,27544,1,27573.html?TMM=25](http://www.fuelcellmarkets.com/news_and_information/3,1,27544,1,27573.html?TMM=25)

## **Registration is OPEN: NHA Conference and Hydrogen Expo**

Building on the success of the 2008 event, the NHA Conference and Hydrogen Expo will feature the latest announcements, a growing roster of expert speakers, a huge array of leading-edge sessions and the latest advancements and technological innovations available on the Expo floor. Plus, network with colleagues and exchange ideas at NHA sponsored events and experience the latest technology in action at the Hydrogen Expo, Ride & Drive and local site tours. As the need for alternative energy continues to gain traction with the media, policy makers, environmentalists and the general public—you can't afford to miss this event. Join more than 1,500 industry professionals who already know the value NHA Conference and Hydrogen Expo and register today.

[http://www.fuelcellmarkets.com/national\\_hydrogen\\_association/news\\_and\\_information/3,1,27253,1,27564.html?TMM=25](http://www.fuelcellmarkets.com/national_hydrogen_association/news_and_information/3,1,27253,1,27564.html?TMM=25)

## **Booth space is filling up fast in Hannover! Over 80 exhibitors have already registered for the 15th Group Exhibit H2 + FC at Hannover Messe 2009**

MTU Onsite Energy, Hydrogenics, Ballard Power, Plug Power, SFC Smart Fuel Cell, BASF, FuelCon, Fraunhofer ISE, StatoilHydro, Agfa and many more will be showing off their products and technology at Europe's biggest H2 + FC exhibition. An all-new Ride + Drive as well as a Technical Forum will give exhibitors even more opportunities to connect with international visitors in Hannover.

[http://www.fuelcellmarkets.com/fair\\_pr/news\\_and\\_information/3,1,828,1,27582.html?TMM=25](http://www.fuelcellmarkets.com/fair_pr/news_and_information/3,1,828,1,27582.html?TMM=25)

## **Fuel Cells are Ready to Walk the Walk as Advanced Tools for a Greener World Take Center Stage in 2008**

The 2008 Fuel Cell Seminar & Exposition: Fuel Cells for a Greener World, will be held October 27-30, 2008 at the Phoenix Convention Center, in Phoenix, Arizona. "It is an exciting time in the history of fuel cells. The promise of fuel cells for efficient, eco-friendly power generation has become a reality. Fuel cells are here today and increasingly available to address the needs of an environmentally conscious, global community." ~ Valerie Browning, ValTech Solutions, LLC, 2008 FCS&E Technical Program Chair.

[http://www.fuelcellmarkets.com/news\\_and\\_information/3,1,9141,1,27441.html](http://www.fuelcellmarkets.com/news_and_information/3,1,9141,1,27441.html)

## **Financial**

### **Demand Drives Doubling of Capacity through £3 million Equipment Investment**

Ilika's project capacity has more than doubled through a £3 million investment in new "second generation" high throughput equipment for making and testing materials. Demand for innovation of cleantech materials in particular, has created the need for Ilika to invest in this additional capacity.

[http://www.fuelcellmarkets.com/ilika/news\\_and\\_information/3,1,11223,1,27468.html?TMM=25](http://www.fuelcellmarkets.com/ilika/news_and_information/3,1,11223,1,27468.html?TMM=25)

### **H2 Logic A/S elected as board member in European €470 million Joint Technology Initiative for hydrogen & fuel cells**

The European hydrogen and fuel cell industry has appointed H2 Logic A/S Business Development Manager, Mikael Sloth, as new board member of the €470 million large European Union Joint Technology Initiative (JTI) for hydrogen and fuel cells. The European Commission, the European Industry and the European Research Community, which compose the JTI, will invest together nearly 1 billion Euros over six years in fuel cells and hydrogen research, technological development and demonstration. The European Union alone contributes with €450 million to the JTI. The goal is to achieve mass-market roll-out of these promising technologies before 2020.

[http://www.fuelcellmarkets.com/h2\\_logic/news\\_and\\_information/3,1,6459,1,27528.html?TMM=25](http://www.fuelcellmarkets.com/h2_logic/news_and_information/3,1,6459,1,27528.html?TMM=25)

### **Change in Shareholding Notification**

Ceramic Fuel Cells Limited, (AIM / ASX: CFU) has been notified that one of its shareholders, KBC Asset Management Ltd, has increased its stake in the Company to 20,254,354 shares, or 6.01% of the Company's issued shares. The notification received from KBC Asset Management Ltd – attached – is being released to the London AIM market on 19 November 2008.

[http://www.fuelcellmarkets.com/ceramic\\_fuel\\_cells/news\\_and\\_information/3,1,443,1,27579.html?TMM=25](http://www.fuelcellmarkets.com/ceramic_fuel_cells/news_and_information/3,1,443,1,27579.html?TMM=25)

### **MTI REPORTS THIRD QUARTER 2008 RESULTS**

Mechanical Technology, Incorporated ("MTI") (NASDAQ: MKTY), a company primarily engaged in the development and commercialization of Mobion® off-the-grid portable power solutions through its subsidiary MTI MicroFuel Cells Inc. ("MTI Micro") and in the design, manufacture, and sale of test and measurement instruments and systems through its subsidiary MTI Instruments, Inc. ("MTI Instruments"), today announced its financial results for the quarter ended September 30, 2008.

[http://www.fuelcellmarkets.com/mti\\_micro\\_fuel\\_cells/news\\_and\\_information/3,1,1062,1,27568.html?TMM=25](http://www.fuelcellmarkets.com/mti_micro_fuel_cells/news_and_information/3,1,1062,1,27568.html?TMM=25)