

BPA Fuel Cell Program Update

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Program Update:

Due to BPA's financial situation, the Fuel Cell Program will be leveraging funding for all future projects. We are pursuing US DOE grants and working with National Laboratories to find potential fuel cell projects to collaborate on. We're also focusing on education and outreach. Already this year we've presented "Fuel Cell 101" to Portland State University mechanical engineering seniors, "Fuel Cells and the Energy Web: Power for the Future" at a regional conference and "Business Strategies for Fuel Cell Distributed Applications" at the Fourth Annual SECA Meeting.

BPA has acquired a fuel cell model car, designed for hands-on experimentation by high school students. This small car uses a photovoltaic module and a reversible PEM fuel cell to generate hydrogen. Then the fuel cell is reversed and the car is propelled using the hydrogen. The car will be unveiled during the 2003 Earth day celebration at the Oregon Zoo on Sunday April 27 from 10 am to 4 pm. We hope to use this car for education and outreach, including a US DOE grant which has an emphasis on fuel cell education. If awarded, this grant could provide interactive workshops to all high schools in BPA territory.

Code Workshops:

Last fall, BPA co-sponsored three Distributed Generation Code Workshops in Portland, Eugene and Seattle with US DOE. We'd like to know if you are interested in another series of workshops this fall. Please let Mira Vowles know if you're interested, have suggestions, preferences for other technologies, or ideas on how to increase attendance.

Global Thermoelectric Update:

Field-testing of Global's 2 kW AC, natural gas fuelled, grid-parallel Aurora SOFC prototype units will begin late this year. Global has field-tested early prototypes for over 4,000 hours and have demonstrated efficiency capability of 29% net AC. Long-term tests indicate a projected SOFC cell life of over 25,000 hours backed by ongoing continuous tests of over 10,000 hours. SOFC stacks have been tested for over 3,000 hours with indications of a 15,000-hour life.

Plug Power Update:

BPA is part of a Combined Heat and Power Consortium, spearheaded by Northwest Natural, which will be installing a 5 kW Plug Power GenSys PEM fuel

cell at the Harkins House Juvenile Detention Center in Hillsboro, Oregon this month. This one-year demonstration project will include heat recovery for pre-heating domestic hot water and will demonstrate remote dispatching. Watch for a special announcement of the “Open House” and dedication ceremony for this demonstration project. The Consortium has already installed a 30 kW Capstone microturbine in the 200 Market Street building in Portland, Oregon. For more info, go to <http://www.bpa.gov/Energy/N/projects/200market/>.

Upcoming Events:

BPA will be sharing a booth with the American Hydrogen Association at the Oregon Convention Center Expansion on April 18th and 19th. The National Fuel Cell Research Center will be featured during a FEMP conference May 13th to 15th, in Newport Beach, California. The Fuel Cell Summit is May 28th and 29th, in Maryland. The Hydrogen and Fuel Cell Conference is June 8th through 11th in Vancouver, Canada.