

U.S. Department of Energy Hydrogen Program

Hydrogen and Fuel Cells Interagency Task Force (ITF) Update

Hydrogen Technical Advisory Committee Meeting

May 13, 2008





ITF Overview

Background:

- Established by EPACT 2005, Section 806
- 15 Federal agencies (or departments within agencies) are represented
- Selected members are Assistant Secretary-level or functional equivalent
- Complements existing, staff-level Interagency Working Group (IWG) and Manufacturing IWG Hydrogen Community of Interest

August 1, 2007

December 18, 2007

- Reviewed agency activities
- Agreed to focus on Federal leadership of early adoption

- Reviewed commercially available fuel cell products
- Heard from current Federal users
 - Prime power/critical load
 - Material handling equipment
 - Backup/remote power



Meeting – April 15, 2008

Focus and presentations

- **How can early adoption actually drive down costs to achieve the economies of scale that lead to cost competitiveness?**
 - David Greene, ORNL: “Estimating the Impacts of a Government Acquisition Program for PEM Fuel Cells”
 - ***Government acquisition – even at a relatively modest level – appears to be enough to drive down fuel cell system costs***
- **Growing needs for Federal power reliability**
 - James Fama, EEI: “Prospects for Future Grid Reliability”
 - Jack Taylor, DOD: “Defense Science Board Assessment of Off-grid Power Requirements and On-site Power Generation”
 - ***Grid reliability is growing uncertain; agencies should assess their power needs and consider fuel cells for helping to ensure reliable power***
- **Models and tools for project financing**
 - Patty Walters, DOE/GFO: “Energy Services/Power Purchase Agreements”
 - Oanh Tran, Washington Gas: “Utility Energy Service Contracts”
 - David Frantz, DOE/CFO: “Loan Guarantee Program Overview”
 - ***There are a number of ways to finance fuel cell projects; participants were given sample agreements***



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Discussion and next steps

- DOE suggested forming working groups to coordinate bulk purchases for specific applications
- *Following discussion, ITF members agreed to continue coordination and discussion of deployment projects through the IWG, COI, and one-on-one relationships between DOE and other agencies*
- DOE will create an action guide with project financing information and an agency-by-agency list of potential activities
- Next meeting: fall/winter 2008



Interagency Collaboration

DOE Interagency Agreements



DOD/Defense Logistics Agency

99 fuel cell forklifts in four locations

- Defense Distribution Center – New Cumberland, PA
- Fort Robins Air Force Base – Warner Robins, GA
- Defense Distribution Center – Tracy, CA; includes hydrogen production by solar-electrolysis
- Fort Lewis Army Base – Pierce County, WA; includes hydrogen production using biogas from a wastewater treatment plant; includes fuel cell bus



U.S. Postal Service

3 fuel cell vehicles (GM/Chevy Equinox) in NYC, DC, and LA for mail delivery



Federal Aviation Administration (FAA)

20 to 30 emergency back up power systems at various FAA sites in the northwest region





Interagency Collaborations

Ongoing Projects

GSA/Fuel Cell Industry Roundtable – Co-hosted with USFCC

- Week of DOE Hydrogen Program Annual Merit Review
- Goal: to make it easier for agencies to find/purchase fuel cell products and services on the GSA schedule
- New “Innovations and Energy Services” category for turnkey services (fuel cell products and installation services)

DOI/National Park Service

- Hydrogen ICE shuttle bus on the Federal Mall (target: June 08)
- 5 backup/remote systems and 1 primary power fuel cell at Yellowstone National Park (target: TBD)

Federal Transit Administration and DOI/National Park Service

Hydrogen via electrolysis for buses at Volcano National Park in Big Island, Hawaii (target: TBD)

U.S. Air Force

Hydrogen ICE shuttle bus at Hickam AFB in Oahu, Hawaii (target: Aug 08)

National Science Foundation/ Office of Polar Programs

Water electrolysis at McMurdo Station in Antarctica (target: Nov 08)