DOE Hydrogen Program

HYDROGEN CODES & STANDARDS

SUPPORTING THE CONSENSUS PROCESS

2007 DOE Hydrogen Program Review

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supporting innovative regulation toward a sustainable world

Project ID #SAP1

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Overview

Timeline

Start: December 5, 2007

End: September 30, 2011

10% Complete

Barriers

- Additional Cost Share Required in 2007
- Transition Year - All Contracts Renegotiated
- Large Number of Local Government Jurisdictions (approximately 44,000
- Limited Govt. Influence on Consensus Process

Large Number of Local Government Jurisdictions (approximately 44,000).

Budget

Total Project: $7.2M

DOE Share: $6.0 M

Cost Share: $1.2 M

General Objectives of DOE Codes & Standards Project

- The overarching objective to facilitate the timely completion of the necessary codes and standards for hydrogen and fuel cell technologies and infrastructure.
- Support consensus based national agenda on domestic and international codes and standards for hydrogen systems in commercial, residential, and transportation applications
- Facilitate development of uniform codes and standards because manufacturers cannot cost-effectively manufacture multiple products that would be required to meet different and inconsistent standards

Objectives (continued)

- Specific project objectives include:
  - Coordinate and facilitate the accelerated development of codes and standards in close collaboration with DOE, National Laboratories and other relevant agencies;
  - Establish strong partnerships with industry, SDOs and CDOs;
  - Facilitate information dissemination to technology developers, implementers and local code officials—ANSI Portal.

Codes & Standards Partners with DOE Hydrogen Program

	Sub Awards (Complete or *in process)*
1	ANSI Contract #RL-2007-002
2	ASME Contract #RL-2007-011
3	CGA Contract #RL-2007-010
4	CSA America Contract #RL-2007-004
5	Glenn Scheffler Contract #RL-2007-003
6	ICC Contract Contract#RL-2007-006
7	Kelvin Hecht Contract #RL-2007-001
8	NFPA Contract #RL-2007-005
9	NHA Contract #RL-2007-008
10	SAE Contract #RL-2007-009
11	USFCC Contract #RL-2007-007

ANSI

ASME Setting The Standard

ICC INTERNATIONAL CODE COUNCIL

CSA AMERICA INC

SAE International

Promoting the Transition to Hydrogen in the Energy Field
NATIONAL HYDROGEN ASSOCIATION
Managed by Technology Transition Corporation

NFPA National Fire Protection Association
The authority on fire, electrical, and building safety

US Fuel Cell Council
www.usfcc.com

Approach

- In close collaboration with DOE Hydrogen Program and Technical Advisors, develop streamlined contracting procedures, including multi-year contracts
- Consistent with DOE requirements, advocate Subawardee Improvement suggestions
- Utilizing modern electronic funds transfers, reduce invoice to payment time to less than 1 week
- Deliver low overhead services with experienced energy and business professionals

Task Schedule

Task Number	Project Milestones	Task Completion Date				Progress Notes
		Original Planned	Revised Planned	Actual	Percent Complete	
1	Task 1.0 Coordinate with DOE, National Laboratory Representatives and Other Relevant Agencies	10/30/06	11/31/06	11/31/06	100%	Complete.
2	Subtask 1.1 Define Criteria for the Selection of Industry, CDO and SDO Participants	10/30/06	12/31/06	12/31/06	100%	Complete
3	Subtask 1.2 Selection of CDOs, SDOs and Industry Organizations	11/31/06	12/31/06	12/31/06	100%	Complete
4	Subtask 1.3 Negotiate with Selected CDOs and SDOs for Contracts	11/31/06	12/31/06	01/30/07	85%	3 Remaining
5	Subtask 2.1 Manage Subcontract Performance	10/01/06	10/01/06	10/01/06	Ongoing	
6	Subtask 2.2 Coordinate Collaboration Between CDOs, SDOs and Industry Organizations	10/01/06	10/01/06	10/01/06		Ongoing
7	Task 5.0 Project Management and Reporting	10/01/06	10/01/06	10/01/06		Ongoing

ANSI WEB PORTAL

http://hcsp.ansi.org

CODES & STANDARD MATRIX

KELVIN HECHT

http://www.fuelcellstandards.com/Matrix.htm

By Application

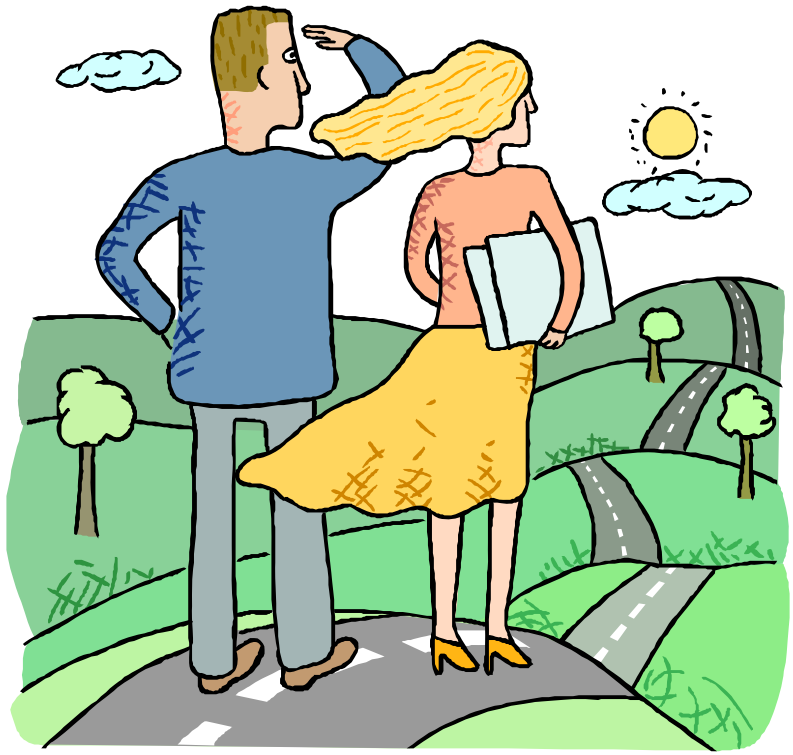
1.0	Stationary Fuel Cell Applications PDF File of Stationary Matrix
2.0	Transportation Fuel Cell Applications PDF File of Transportation Matrix
3.0	Portable / Micro Fuel Cell Applications PDF File of Portable Matrix
4.0	Hydrogen Infrastructure PDF File of Hydrogen Matrix
5.0	Miscellaneous (Other Fuels, Definitions, Marine Fuel Cell Applications) PDF File of Misc. Matrix

By Geographic Location & Organization

A.	International
B.	North America
C.	Europe
D.	Pacific Rim

Future Work

- **Completion of All Remaining SubAwards for 2007**
- **Continue Streamlining Through Electronic Payment Systems**
- **Reduce SubAwardee Transaction Time & Expense Required for Annual Contract Extensions for 2008 and Beyond**



Project Summary

- **Approximately 1/3 through first and transitional year for Regulatory Logic LLC Award Placement**
- **Initial requirement of cost-share with Codes & Standards partners being addressed**
- **Positive response to streamlined electronic payments systems, which have led to invoice to payment times <1 week**

Questions?

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