

HYDROGEN INFRASTRUCTURE MARKET READINESS WORKSHOP

NREL/DOE Workshop at the Gaylord National, Washington D.C., February 16-17, 2011

Transitioning to an economically viable hydrogen infrastructure requires near-term cost reductions in hydrogen fueling equipment. This workshop will convene stakeholders and technology experts to review and discuss fueling equipment costs, market readiness, and business strategies for early markets such as fuel cell electric vehicles, material handling equipment, and fuel cell transit buses.

The focus of the workshop is reducing the cost of hydrogen stations while increasing availability for market readiness. The goal of the workshop is to identify and collect stakeholder feedback on the following:

- Cost reduction opportunities from economies of scale (e.g., station standardization, number and size of installations) and learning-by-doing resulting from growth in material handling equipment (MHE), backup power, transit bus and light duty vehicle markets.
- Cost reduction opportunities from focused R&D areas and priorities.
- Specific examples through which early markets, such as MHE, backup power, and transit buses, can provide increased demand and reduce hydrogen infrastructure costs.

Feb 16th: Infrastructure Developments and Market Readiness Issues

2:00 – 2:15 PM *Opening Remarks (Sunita Satyapal , DOE)*

2:15 – 3:15 PM *Discussion Panel: Early Market End User Experiences*
Moderator: Pete Devlin, U.S. Department of Energy

- Roberto Cordaro, Nuvera
- Jamie Levin, AC Transit
- Alex Keros, General Motors
- Kevin Kelly, Sprint

15 minute break

3:30 – 4:30 PM *Discussion Panel: Outlook for Infrastructure Cost Reductions*
Moderator: Matt Fronk, Matt Fronk & Associates LLC

- Nikunj Gputa, Shell
- Steve Eckhardt, Linde
- Joan Ogden, University of California Davis
- Ed Heydorn, Air Products
- James Cross, Nuvera

4:45 - 5:00 PM *Closing Remarks (Fred Joseck, DOE)*

February 17th, 8:30 AM to 4:30 PM: Expert Workshop on Cost Reduction Issues

- 8:30 – 8:45 AM *Welcome remarks and hydrogen cost overview, Fred Joseck, DOE*
- 8:45 – 9:30 AM Station Costs and Vehicle Deployments
California Station Deployment, Gerhard Achteik, CARB
Early Station Cost Questionnaire, Marc Melaina, NREL
- 9:30 – 9:45 AM *Goals and agenda for Breakout Groups, Shawna McQueen, Energetics*
- 15 minute break*
- 10:00 – 12:15 PM *Breakout Session #1: Cost Reduction Opportunities*
- 12:15 – 1:15 PM Lunch
- 1:15 – 3:30 PM *Breakout Session #2: Actions Needed to Achieve Cost Reduction Opportunities*
- 15 minute break*
- 3:45 – 4:15 PM *Report back from Breakout Groups*
- 4:15 – 4:30 PM *Closing remarks and discussion, Fred Joseck, DOE*