Transitioning the Transportation Sector: Exploring the Intersection of Hydrogen Fuel Cell and Natural Gas Vehicles

September 9, 2014
American Gas Association, 400 N. Capitol St., NW, Washington, DC 20001

Organized in partnership by:
Sandia National Laboratories, AGA and Toyota, in support of the U.S. Department of Energy

Agenda

8:00a  Registration and Continental Breakfast

8:30a  Welcome and Introductions
Dawn Manley, Senior Manager for Chemical Sciences, Sandia National Laboratories
Kathryn Clay, Vice President for Policy Strategy, American Gas Association

9:00a  Workshop Goals, Objectives, and Desired Outcomes
Reuben Sarkar, Deputy Assistant Secretary for Transportation, U.S. Department of Energy

9:15a  Federal Perspective on Opportunities for Hydrogen for Transportation – Including a Natural Gas Perspective

9:25a  Federal Perspective on Opportunities for Natural Gas for Transportation – Including a Hydrogen Perspective
Mark Smith, Clean Cities Program, Vehicle Technologies Office, U.S. Department of Energy

9:35a  Workshop Primer: Summary Highlights and Group Discussion
Todd West, Technical Manager, Sandia National Laboratories

10:15a Panel Discussion #1:  For what markets are natural gas and hydrogen in direct competition, and how might they be better suited for different transportation applications?
Joan Ogden, Associate Professor of Environmental Science and Policy, UC Davis
Jim Bruce, Senior Vice President of Corporate Public Affairs, UPS
Jim Kiesch, Environmental Regulatory Affairs Manager, Honda

11:00a Panel Discussion #1 Follow-On Breakout Discussion
  o  For what markets are natural gas and hydrogen in direct competition, and how might they be better suited for different transportation applications?
  o  What are best practices and policies for infrastructure rollout? (Hydrogen has been proposed in “clusters” to enable a critical mass of stations & vehicles in close proximity, whereas natural gas infrastructure is being built to support long-haul trucking. Both may compete for fleets with centralized refueling.)
  o  How should hydrogen and natural gas contribute to the diversity of transport needs?

Meeting Objectives:

• Convene industry and other stakeholders to explore infrastructure requirements, regional trends, and tradeoffs and opportunities at the intersection of hydrogen fuel cell and natural gas use for on road transportation. Identify synergies between natural gas and hydrogen fuels.

• Identify key challenges (both technical and non-technical, such as policies and standards) preventing or delaying the widespread deployment of natural gas and hydrogen.

• Identify and prioritize opportunities to address these challenges, and determine roles and opportunities to partner across both government and industry stakeholders.
12:00p  Lunch

1:00p  Panel Discussion #2: How do we get fueling stations built? Are there business models that can simultaneously support hydrogen and natural gas?
Frank Wolak, Vice President, Fuel Cell Energy
Jeff Reed, Director of Business Strategy & Advanced Technology, Southern California Gas
Prabhu Rao, Vice President & Chief Commercial Officer, Nuvera

1:45p  Panel Discussion #2 Follow-On Breakout Discussion
o  What are the intersections between natural gas and hydrogen infrastructure development for use in natural gas and hydrogen fuel cell vehicles?
o  How are they synergistic, and how do they compete?
  o  What technological and policy developments can influence this?

2:30p  Report-Out from Breakouts

3:15p  Panel Session #3: Case Studies and Lessons Offered at the State Level
Catherine Dunwoody, Chief, Fuel Cell Program, California Air Resources Board
Lynn Lyon, Fuel Market Development Director, Pioneer Natural Resources
Glen Andersen, Energy Program Director, National Conference of State Legislatures

4:00p  Panel Discussion #3 Follow-On Plenary Discussion

4:45p  Summary and Report Next Steps
Dawn Manley, Sandia National Laboratories

5:00p  Workshop Conclusion

5:30p  Reception
Charlie Palmer Steak DC
101 Constitution Ave, NW
Washington, DC 20001

6:00p  Dinner