



# Fuel Cell and Hydrogen Pathways to Clean Cities: A Stakeholder – Government Engagement



## Hotel Shattuck Plaza

Friday, May 20, 2016

2086 Allston Way, Berkeley, CA

### Overview:

Cities and large metropolitan areas are on the front lines of deploying integrated, scalable technologies that support the transition to sustainable transportation and energy systems. This event brings together leading industry, academic and civil society organizations with government representatives working to increase the adoption and integration of clean transportation and energy systems. The focus will be on highlighting the policy, regulatory, and market drivers for this change; the strategies adopted by cities and utilities, including the use of fuel cells and hydrogen technologies, and the actions needed to support further deployment to meet sustainability objectives.

### Expected Outcomes:

- Examples of best practices and lessons learned in the deployment of innovative clean energy solutions and policies, with potential to meet emissions and petroleum reduction goals.
- Potential opportunities for applying these best practices to fuel cell and hydrogen technologies with a focus on commitments under COP21.
- Identification of key non-R&D barriers that governments (federal, state and local) can potentially address to accelerate the deployment of clean energy technologies, with a focus on fuel cells and hydrogen.
- Potential actions for industry and governments to accelerate the deployment of fuel cells and hydrogen technologies, including the integration of clean transportation and energy systems.
- Ideas for an initial network of leading cities, utilities, and companies working to integrate clean transportation and energy systems using technologies including fuel cell and hydrogen technologies.

### Participants:

- Government representatives from countries leading in fuel cells and hydrogen technology development and deployment;
- Leading sub-national government representatives addressing the issues and barriers to technology deployment and market adoption;
- Private sector stakeholders deploying technology to meet the environmental and economic goals of cities and regions; and,
- Thought leaders on policies, incentives, technology development, and deployment.

# IPHE Policy Forum Agenda

**8:00AM**      **Registration, Coffee and Tea**

**8:30AM**      **Welcome and Foreword**

Welcome and Introduction: Bernard Frois, Chair of the IPHE

Keynote Addresses:

- Reuben Sarkar, Deputy Assistant Secretary for Sustainable Transportation, U.S. Department of Energy
- Wade Crowfoot, Deputy Cabinet Secretary, Governor's Office, State of California

**9:30AM**      **Role of Fuel Cells and Hydrogen Technologies to Promote Renewable Energy**

*Hydrogen at Scale: Enabling Deep Decarbonization Across all Energy Sectors Through Increased Renewable Energy Penetration*

- Bryan Pivovar, HFC Group Manager, National Renewal Energy Laboratory (NREL)

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**9:50AM**      **COFFEE/TEA BREAK**

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**10:10AM**      **SESSION 1: Clean Transportation and Energy Objectives**

*This session provides insights from representatives of globally leading regions on their key policy drivers and approaches to meet clean systems objectives. Panelists will also provide their views on key barriers and what further measures could be taken in their jurisdictions. This will be followed by a moderated discussion with audience Q&A.*

Moderator: Dr. Sunita Satyapal, Director, Fuel Cell Technologies Office, U.S. DOE

- Yokohama, Japan: Tsubasa TOMITA, Climate Change Policy, City of Yokohama
- Hamburg, Germany: Heinrich Klingenberg, Managing Director, HySOLUTIONS GmbH
- California, U.S.: Alberto Ayala, Deputy Executive Officer, California Air Resources Board
- Paris, France: Bernard Frois, Scientific Advisor, Technology Research Division, CEA
- Munich, Germany: Mike Beckman, Vice President, Hydrogen Fueling, Linde

**11:30AM      SESSION 2: Policy Actions for Industry and Government**

*This session will present perspectives on policy examples and options for driving deployment of clean energy technologies and systems. Panelists will also discuss the issues they are encountering and what measures may contribute to more rapid integration. This will be followed by a moderated discussion with audience Q&A.*

Moderator: Klaus Bonhoff, Managing Director, National Hydrogen Program, Germany

- Robert Dixon, Director, Office of Strategic Programs, Energy Efficiency and Renewable Energy Office, U.S. DOE
- Alan Lloyd, President Emeritus, International Council on Clean Transportation
- Anat Bonshtien, Prime Minister's Office, Israel

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**12:30PM      LUNCH**

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**1:25PM      Stakeholder Co-Sponsor Session**

- Bud Beebe, Senior Advisor, California Hydrogen Business Council
- Morry Markowitz, President, Fuel Cell and Hydrogen Energy Association
- Gary Flood, Vice President, Plug Power

**1:45PM      SESSION 3: Integrating Energy Systems**

*This session will present innovative opportunities in the integration of clean transportation and energy systems from a market-based perspective. Panelists will also discuss the issues they are encountering and what measures may contribute to more rapid integration. This will be followed by a moderated discussion with audience Q&A.*

Moderator: Charles Hanley, Manager, Photovoltaic and Distributed Systems Integration Department, Sandia National Laboratory

- Tony Leo, Vice President, Fuel Cell Energy, Inc.
- Mark Duvall, Director, Energy Utilization, Electric Power Research Institute
- Hector Maza, Director, Business Development and Technical Sales, Giner
- Nicolas Pocard, Director of Marketing and Channel Management, Ballard Power Systems
- Jeff Reed, Director, Business Strategy and Advanced Technology, Southern California Gas Company / San Diego Gas and Electric

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**3:15PM      COFFEE/TEA BREAK**

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**3:40PM      SESSION 4: Meeting Clean Transportation Objectives**

*This session will present the strategies by leading organizations and firms on meeting the increasingly stringent environmental performance requirements to meet regional, national, and international objectives. Panelists will present their views and discuss what further measures would help increase the pace and scale of technology deployment to meet clean transportation needs. This will be followed by a moderated discussion with audience Q&A.*

Moderator: Joan Ogden, Professor, University of California Davis

- Janea Scott, Commissioner, California Energy Commission
- Dr. B.K. Hong, Global R&D Director, Fuel Cell Vehicle Group, Hyundai Motor Company – *Fuel Cell Bus Development and Dissemination Strategy*
- Ole Hoefelmann, CEO, Air Liquide Advanced Technologies U.S. LLC
- Richard Battersby, Executive Director, East Bay Clean Cities Coalition
- Geri Yoza, National Manager, Fuel Cell Vehicles, Toyota Motor Sales, U.S.A., Inc.

**5:15PM      SESSION 5: Roundtable on Takeaways**

*Highlights and identification of the actions and measures articulated throughout the day for governments, industry, and the IPHE; a moderated discussion.*

Moderator: Tim Karlsson, Executive Director, IPHE

- Don Hillebrand, Director, Center for Transportation Research, DOE's Argonne National Laboratory
- Cosmas Chiteme, Department of Science and Technology, South Africa
- Anat Bonshtien, Prime Minister's Office, Israel

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**5:45PM      ADJOURN**