

2019 Fuel Cell Seminar H2@Scale Meeting Agenda

November 5, 2019
Long Beach Convention Center
Room 103

Objectives:

- Provide an overview of activities and areas of interest under the H2@Scale initiative, including hydrogen and fuel cells for multiple applications.
- Present key accomplishments from H2@Scale RD&D projects and analysis, and obtain feedback from broad stakeholders to guide future work.
- Identify, discuss, and prioritize R&D priorities to advance hydrogen and fuel cell technologies in support of H2@Scale, including potential areas of international collaboration to accelerate progress.

Agenda

1:00–1:40 p.m. Plenary Talks

Moderator: Elizabeth Connelly

- **Opening Remarks**
Michael Berube, U.S. Department of Energy, Acting Deputy Assistant Secretary for Transportation
- **Overview of Federal Hydrogen and Fuel Cell H2@Scale Activities**
Sunita Satyapal, U.S. Department of Energy, Director of Fuel Cell Technologies Office (FCTO)
- **U.S. Hydrogen Study Sneak Peak**
Kimberly Henderson, McKinsey

1:40–2:10 Round Robin—H2@Scale Pilot Project Awardees

Moderator: Elizabeth Connelly

- **Demonstration of Electrolyzer Operation at a Nuclear Plant to Allow for Dynamic Participation in an Organized Electricity Market and In-House Hydrogen Supply**
Ugi Otgonbaatar, Exelon
- **Demonstration and Framework for H2@Scale in Texas and Beyond**
Nico Bouwkamp, Frontier Energy, Inc.

- **Demonstration of Integrated Hydrogen Production and Consumption for Improved Utility Operations**
Roberto Iriti, [Giner ELX, Inc.](#)

2:10–2:40 **H2@Scale Project Presentations**
Moderator: [Elizabeth Connelly](#)

- **Merchant Hydrogen at Scale: A Technical-Economic Case Study of the Potential for Nuclear Hydrogen Production**
[Ugi Otgonbaatar, Exelon](#)
- **Valuation of Hydrogen Technology on the Electric Grid Using Production Cost Modeling**
[Josh Eichman, National Renewable Energy Laboratory](#)
- **Grid Simulation at NREL and INL**
[Jen Kurtz, National Renewable Energy Laboratory](#)

2:40–3:00 **H2@Scale Technical and Economic Analysis**
[Mark Ruth, National Renewable Energy Laboratory](#)

3:00–3:20 **Break**

3:20–4:20 **Panel—Hydrogen and Fuel Cells for Heavy-Duty Applications**
Panelists will discuss heavy-duty hydrogen applications, along with the refueling and infrastructure needs. Panelists will include: [Leslie Goodbody \(California Air Resources Board\)](#), [Rob Del Core \(Hydrogenics\)](#), [Antonio Ruiz \(Nikola\)](#), [Arnab Chatterjee \(Shell\)](#), and [Michael Peters \(NREL\)](#). The panel will be moderated by [Steve Mathison \(Honda R&D Americas, Inc.\)](#).

4:20–5:20 **Panel—Chemical Energy Storage**
Panelists will discuss the role of hydrogen for chemical energy storage. Panelists will include: [Jack Brouwer \(University of California, Irvine\)](#), [Daniel Dedrick \(Clearway Energy\)](#), [Noah Meeks \(Southern Company\)](#), [Surya Prakash \(University of Southern California\)](#), and [Shaun Mann \(Tri-State Generation and Transmission\)](#). This panel will be moderated by [Frank Novachek \(Xcel Energy\)](#).

5:20–5:40 **Closing Discussion—Alignment of H2@Scale with Future Needs**