



I-WEST

STAKEHOLDER WORKSHOP SERIES

# Regional Deployment of Hydrogen Production & Related Technologies

## Workshop Information:

**Date:** January 11, 2022

**Time:** 10:00 am – 2:00 pm MT

**Location:** Held via Webex with no cost to attend

**Registration:** [Click here to register.](#)

The Intermountain West Energy Sustainability & Transitions (I-WEST) project is focused on delivering a regionally relevant technology roadmap to transition six U.S. intermountain west states to a carbon-neutral energy economy. I-WEST encompasses Arizona, Colorado, Montana, New Mexico, Utah, and Wyoming. The project is taking a place-based approach, which prioritizes the geographical attributes, economic landscape, and societal readiness of the region. Learn more online at [www.iwest.org](http://www.iwest.org).

## Why join this workshop?

The demand for hydrogen—which is currently produced primarily from fossil fuels—is currently ~90 Mt per year (globally) and projected to be over 200 Mt by 2030. This global demand represents an important opportunity for the Intermountain West, as hydrogen could be produced regionally using low-to-zero carbon pathways and either be used regionally or exported to other areas. This workshop will focus on hydrogen production opportunities over the next 0-5 years and will assess regional readiness to deploy low-carbon hydrogen production technologies. The objective of the workshop is to gather input to help answer the following questions:

- What potential projects and/or opportunities are emerging in the region for production of low-to-zero carbon hydrogen?
- What are the critical barriers to deployment (i.e., technical, infrastructure, financial, policy, regulations, societal)?
- What policies are needed for energy, equity, and inclusion (i.e., Sovereign Nations)?
- What are the expected economic impacts (e.g., revenue, jobs)?

Outcomes from this workshop will inform the I-WEST technology roadmap, specifically the role low-carbon hydrogen production can play in transitioning to carbon-neutral energy systems. Participants will have the opportunity to connect their capabilities with regional stakeholders and technology providers invested in building pathways to carbon neutrality in the Intermountain West.

A separate workshop will be held January 18, 2022, to focus on hydrogen utilization.

## Informative and Interactive

The format of this workshop will be a series of 15-minute presentations followed by a 15 minute Q&A session from leading experts in hydrogen production or related technologies.

Join the hydrogen industrial revolution!

# Meeting Agenda

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<b>Time</b>	<b>Topic</b>	<b>Presenter</b>
10:00-10:10	Introduction and I-WEST Overview	<b>George Guthrie</b> Los Alamos National Laboratory
10:10-10:25	In a joint venture with Magnum Development and Mitsubishi Power, Chevron is working to produce, store, and transport hydrogen at utility scale for power generation, transportation, and industrial uses in the western US. This presentation will offer perspectives on steam methane reforming (SMR) technologies from the joint venture project, located in Delta, UT adjacent to Intermountain Power Plant. Chevron is also exploring hydrogen production from natural gas, including that which is produced in the I-WEST region.	<b>Al Toweill</b> Chevron, <i>Technology Strategy Developer</i>
10:25-10:40	Oberon Fuels has regional collaborations with LANL (NM) and is working to develop other partnerships in the Intermountain West with companies capable of converting DME into fuel-cell grade hydrogen. This presentation will focus on bio-derived hydrogen carriers (e.g., dimethyl ether) for the long-term storage and transport of hydrogen. Oberon and Suburban Propane are working together to provide blended DME-propane fuel to decarbonize the propane sector with initial market penetration in Southern California. Suburban Propane has distribution networks in AZ, UT, CO & NM.	<b>Jeff Waite</b> Oberon Fuels, <i>Market Development</i>
10:40-10:55	Nel is partnering with NREL (CO) and LANL (NM) on several hydrogen-related consortia and demonstration projects. This presentation will offer perspectives on Intermountain West opportunities to deploy low-temperature utility, residential, industrial, and community scale electrolysis to produce green hydrogen.	<b>Matt Weaver</b> Nel, <i>Business Development Manager</i>
10:55-11:10	The Colorado School of Mines, an I-WEST partner, is addressing regional needs in electricity generation and energy storage. This presentation will focus on opportunities in the Intermountain West region for hydrogen production using high temperature electrolysis.	<b>Neal Sullivan</b> Colorado School of Mines
11:10-11:25	Currently, the bioeconomy represents a growing opportunity space for the Intermountain West. This presentation will discuss technologies for producing renewable natural gas generated from landfills and biomass in the I-WEST region to produce hydrogen. Topics will include end-use applications in the region (e.g., LNG fueled mining equipment, SMR), distribution infrastructure, and export opportunities.	<b>Shaun Davison</b> Pilot NG, <i>Chief Development Officer</i>
11:25-11:35	Break	

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- 11:35-11:50 Williams (WY) handles 30% of the natural gas in the US and works closely with customers to provide the necessary infrastructure to serve growing markets and safely deliver natural gas products to reliably fuel the clean energy economy. This presentation will discuss green hydrogen production using renewable energy and hydrogen transport using the existing natural gas infrastructure in Wyoming.
- Elliot Metzger**  
Williams, *Strategist and Business Developer*
- 11:50-12:05 Newpoint Gas, LLC specializes in the design of modular gas treating and gas processing facilities. This presentation will focus on large-scale hydrogen production through the re-commissioning of a retired coal power plant in NM, while leveraging access to abundant natural gas, carbon sequestration, and electricity grid.
- Wiley Rhodes**  
The Newpoint Companies, *CEO*; eH2 Power, *Co-founder*
- 12:05-12:20 New Day Hydrogen (CO) envisions transforming the transportation sector by on-site electrolytic hydrogen generation using renewable electricity. This presentation will feature perspectives from the Colorado H<sub>2</sub> Network, which has extensive collaborations within and outside the I-WEST region.
- Brian Debruine**  
New Day Hydrogen, *Chief Technology Officer*;  
Colorado Hydrogen Network, *Co-founder*
- 12:20-12:35 Pesco is partnering with Bayotech (NM) to develop and deploy modular hydrogen generating units. This presentation will explore opportunities for distributed, on-site hydrogen production from natural gas, as well as associated water treatment needs for the I-WEST region.
- John Byrom**  
Pesco, *Business Development Manager*
- 12:35-1:45 Roundtable Discussion
- Moderators:  
**Brian Debruine**, Chief Technology Officer at New Day Hydrogen and Founder of the Colorado Hydrogen Network  
**Charles Nye**, Research Scientist, School of Energy Resources, University of Wyoming
- 1:45-2:00 Wrap up
- Troy Semelsberger and Raj Singh**  
Los Alamos National Laboratory

*NOTE: Presentations will be 15-20 minutes followed with 10-15 mins of Q/A*

**Chatham House Rule**— “participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed”