

TOPICAL EXPERT MEETING #106 Hydrogen in a 100% Renewable Energy System

Day 1: Wednesday September 6, 2023 Teams Meeting Link for Online Session: JOIN MEETING	
8:30 a.m.	Check-in, Badging, Tea/Coffee
9:00 a.m.	Opening Remarks Sunita Satyapal Director, U.S. Department of Energy's Hydrogen and Fuel Cell Technologies Office
9:10 a.m.	Workshop Objectives and Expectations Genevieve Starke Research Engineer, National Renewable Energy Laboratory
9:15 a.m.	International Energy Agency (IEA) Wind, Hydrogen, and Photovoltaic Power Systems • Jim Ahlgrimm International Energy Agency Wind (IEA) Technology Collaboration Programme (Wind TCP) Leadership Team • Eric Miller Vice Chair, Hydrogen TCP • Daniel Mugnier Photovoltaic Power Systems TCP Chair
9:45 a.m.	 Presentations on Current Clean Hydrogen projects Hydrogen and PtX in Morocco: Ongoing Projects by Nouhaïla NABIL L'Institut de Recherche en Énergie Solaire et Énergies Nouvelles Plug Power Projects by Brenner Brophy Plug Power TNO – Offshore Wind to H2 in the Netherlands by Lennert Buijs TNO – Netherlands REFHYNE 10 MW Electrolyser Project by Wolfgang Kruper REFHYNE (Invited) H2Mare (Invited)

10:45 a.m.	Networking Break
11:00 a.m.	Participant Lightning Round Short presentations from meeting participants summarizing their current work and expertise.
12:00 p.m.	Networking Lunch
1:00 p.m.	Breakout Group Objectives and Expectations Genevieve Starke National Renewable Energy Laboratory
1:15 p.m.	Breakout 1: Infrastructure and Grid Integration of Clean Hydrogen This topic will focus on the infrastructure needed to support clean hydrogen production and grid integration, such as the use of storage or whether the plant is grid-connected or not.
2:15 p.m.	Breakout 2: Policy and Market of Clean Hydrogen This topic addresses policy and market questions surrounding clean hydrogen, such as subsidization, targeted policy measures, monetizing system benefits, encouraging adoption, and protecting consumers from high prices.
3:15 p.m.	Networking Break
3:30 p.m.	Topic 1-2 Group Report and Discussion
4:15 p.m.	Wrap-Up and Adjourn

Day 2: Thursday September 7, 2023 Teams Meeting Link for Online Session: JOIN MEETING		
8:30 a.m.	Check-in, Tea/Coffee	
9:00 a.m.	Breakout 3: Systems Design and Operations of Clean Hydrogen Plants This topic addresses considerations of clean hydrogen on the individual plant level, such as integration with various renewable energy sources and plant design, sizing, and control.	
10:15 a.m.	Topic 3 Group Report and Discussion	
10:45 a.m.	Networking Break	
11:00 a.m.	Group Discussion Discuss key challenges, informational needs, and data sharing across technology areas.	
12:15 p.m.	Networking Lunch	
1:15 p.m.	Group Discussion Discuss collaborative opportunities and cross-linkage areas.	
2:30 p.m.	Networking Break	
2:45 p.m.	Group Discussion Refine conclusions from breakouts and provide input to the Topical Expert Meeting proceedings and discuss interest in a joint task proposal.	
4:00 p.m.	Wrap-up, Next Steps, Q&A.	