

# Advanced Water Splitting Materials Workshop Agenda

Thursday, April 14, 2016

Room

8:00 am	Check-in	Outside Clubhouse Ballroom
<b>Renewable H<sub>2</sub> Production and the Advanced Water Splitting EMN</b>		
8:30 am	Welcome and Mission Overview, Eric Miller, DOE	Clubhouse Ballroom
8:40 am	The DOE Hydrogen and Fuel Cells Program, Sunita Satyapal, DOE	
8:55 am	Motivational Talk on Renewable Fuels: Former Acting Under Secretary of Energy, Arun Majumdar, <i>Stanford University</i>	
9:25 am	Motivational Talk on the Energy Materials Network (EMN): Deputy Assistant Secretary for Transportation, Reuben Sarkar, DOE	
9:50 am	Coffee Break	
<b>Framing Analysis for Applied Materials RD&amp;D in Advanced Water Splitting</b>		
10:05 am	Technoeconomic Studies & Overarching H <sub>2</sub> Cost Targets Brian James, <i>Strategic Analysis Inc.</i>	Clubhouse Ballroom
10:25 am	Lifecycle Analysis & Overarching GHG Emission Targets Amgad Elgowainy, <i>Argonne National Lab</i>	
<b>Breakout Sessions on Framing Analysis and Critical Materials Metrics</b>		
10:45 am	Breakout Sessions Instructions for AE, PEC and STCH Groups	Clubhouse Ballroom
11:00 am	Lunch Pickup / Assemble into AE, PEC & STCH Breakout Groups	
11:30 am	Breakout Session I: Analytical Framework: System and Components Metrics <ul style="list-style-type: none"> <li>Share information about existing TEA and LCA case studies</li> <li>Identify standardized processes for technical and economic inputs and assumptions</li> <li>Recommend refinements to FCTO MYRD&amp;D PLAN metrics</li> <li>Identify needs for further studies and analysis</li> </ul>	<b>Electrolysis:</b> Clubhouse Ballroom <b>PEC:</b> Cardinal Room <b>STCH:</b> Oak East
1:15 pm	Coffee Break	
1:30 pm	Breakout Session II: Critical Materials: Performance Parameters and Metrics <ul style="list-style-type: none"> <li>Identify pathway-specific critical materials (e.g., catalysts, separators, absorbers, heat-transfer media, functional interfaces...)</li> <li>Identify appropriate materials RD&amp;D metrics and targets tied to overarching TEA and LCA requirements</li> <li>Identify critical resource needs in benchmarking materials against metrics</li> </ul>	<b>Electrolysis:</b> Clubhouse Ballroom <b>PEC:</b> Cardinal Room <b>STCH:</b> Oak East
<b>Group Re-assembly and Day One Wrap Up</b>		
3:45 pm	Sessions I & II Report Outs & Panel Discussion of Cross-Cutting Synergies	Clubhouse Ballroom
5:30 pm	Adjourn	

**Friday, April 15, 2016**

**Room**

8:00 am	Check-in	Outside Clubhouse Ballroom
<b>Renewable H<sub>2</sub> Production and the Advanced Water Splitting EMN</b>		
8:30 am	EMN Framework Examples, Neha Rustagi, DOE	Clubhouse Ballroom
8:50 am	Innovative Demonstration Platforms: Electrolysis: Bryan Pivovar, NREL PEC: Frances Houle, JCAP/LBNL STCH: Tony McDaniel, SNL	
9:20 am	Breakout Session Instructions	
<b>Breakout Session on Demonstration and Benchmarking Platforms</b>		
9:30 am	Breakout Session III: Innovative Benchmarking/Demonstration Platforms <ul style="list-style-type: none"> <li>For each of the three technology areas, suggest a realistic near-term demonstration platforms to: serve as a materials benchmarking tool under technology-specific operating conditions; and provide a pathway for advancing TRL and MRL for attracting potential industry investors</li> </ul>	<b>Electrolysis:</b> Clubhouse Ballroom <b>PEC:</b> Cardinal Room <b>STCH:</b> Cypress Lounge
11:00 am	Lunch Pickup and Return to Full Assembly	
11:30 am	Session III Report Outs and Panel Discussion	
<b>Breakout Session on EMN Resource and Gap Mapping</b>		
12:45 pm	Breakout Session IV: EMN Gap & Resource Mapping <ul style="list-style-type: none"> <li>Populate a resource map of state-of-the-art tools in materials theory, computation, synthesis, characterization, analysis and benchmarking relevant to establishing an advanced water splitting EMN consortium, and developing related FOA topics</li> <li>Perform gap analysis of important resources for the EMN consortium</li> </ul>	<b>Electrolysis:</b> Clubhouse Ballroom <b>PEC:</b> Cardinal Room <b>STCH:</b> Cypress Lounge
2:30 pm	Coffee Break	
<b>Group Re-assembly and Workshop Wrap Up</b>		
2:45 pm	Session IV Report Outs and Panel Discussion of Synergistic Opportunities	Clubhouse Ballroom
4:00 pm	Wrap-up and Path Forward	
4:30 pm	Adjourn	