



Fall Technical Workshop Agenda – 2020

Opening Session and Keynote Comments

Tues Sept 29, 2 pm Eastern

Chair: Mark Ahlstrom, President, ESIG Board of Directors, NextEra Energy Resources

Introduction

Mark Ahlstrom, President, ESIG Board of Directors, NextEra Energy Resources

Local Welcome

Hala Ballouz, President, Electric Power Engineers, Inc.

Keynote Speaker – Meeting the Challenges

Dan Woodfin, Senior Director, System Operations, ERCOT

Meeting and Industry Overview

Charlie Smith, Executive Director, ESIG

Opening Plenary Session: 100% Clean Energy – The Accelerating Demands

Thurs Oct 1, 2 pm Eastern (1.25 hrs)

Chair: Ric O’Connell, Founding Executive Director, GridLab

From the Towards 100% Workshop to the G-PST

Mark O’Malley, University College Dublin / ESIG

90% Zero-Carbon Electricity by 2035 – Technical Considerations

Amol Phadke, Senior Scientist, University of California, Berkeley

90% Zero-Carbon Electricity by 2035 – Policy and Regulatory Considerations

Mike O’Boyle, Director of Electricity Policy, Energy Innovation

The Last 10%

Paul Denholm, Senior Energy Analyst, NREL



Session 3: Challenges with Weak Grids and Low Inertia Systems

Tues Oct 6, 2 pm Eastern

Chair: Julia Matevosyan, Lead Planning Engineer, ERCOT

Co-chair: Meghan Miller, Planning Engineer, ERCOT

Project MIGRATE - Conclusions and Recommendations

Thibault Prevost, Research Engineer, RTE, France

GB Grid Forming Inverter Requirements

Julian Leslie, Head of Networks, ESO, National Grid, United Kingdom

ERCOT Update on Weak Grid Analysis

Shun-Hsien (Fred) Huang, Manager of Regional Planning, Transmission Planning, ERCOT

Session 4: Hydrogen Production and Flexibility Requirements

Thurs Oct 8, 5 pm Eastern

Chair: Mark O'Malley, University College Dublin / ESIG

Co-chair: Jason MacDowell, Senior Director - Technology, Strategy & Policy, GE Power

Copenhagen Green Hydrogen for Transportation Project

Michael Paludan-Müller Nylykke, Lead Business Developer, Ørsted

Green Hydrogen Production from Massive VG Deployment in Western Australia

Luke Blackburn, Manager, Government & External Relations, Yara Pilbara, Australia

Electrolyzer Cost and Efficiency – Status and Prospects

Bryan Pivovar, Fuel Cell Senior Scientist, NREL

Session 5: Corporate Procurement of 24/7 Clean Energy

Tues Oct 13, 2 pm Eastern

Chair: Devon Swezey, Global Energy Markets and Policy Lead, Google

Co-chair: TBD

24/7 Clean Energy Procurement and Electricity System Decarbonization

Melissa Lott, Senior Research Scholar, Lead, Power Sector and Renewables Research Initiative, Columbia University Center on Global Energy Policy

Google's Path to 24/7 Clean Energy

Maud Texier, Carbon-Free Energy Lead, Google



Creating 24/7 Clean Energy Supply

Dai Owen, VP, Origination and Power Marketing, EDF Renewables

Session 6: Fuels for the Future

Thurs Oct 15, 2 pm Eastern

Chair: Sunita Satyapal, Director, Hydrogen & Fuel Cell Program/Fuel Cell Technologies Office,
U.S. Department of Energy

Co-chair: Bethany Frew, Engineer, NREL

Low Carbon Fuels - How to Achieve the Last 10%-20% Decarbonization

Jeffery Preece, Program Manager, EPRI

Intermountain Power Plant Turbines for 100% Hydrogen

Mike Ducker, Vice President, Renewable Fuels & Western Region, Mitsubishi Hitachi
Power Systems Americas

Hydrogen Injection into Pipelines

Andy Lewis, Future Networks Manager, Cadent Gas Limited, United Kingdom

Session 7: Inter-Regional Transmission – Are We There Yet?

Tues Oct 20, 2 pm Eastern

Chair: Wayne Galli, Executive Director, NextEra Energy Transmission

Co-Chair: Aaron Bloom, Director, New Product R&D, NextEra Analytics

Critical Success Factors for Inter-Regional Transmission Projects

Jason MacDowell, Senior Director - Technology, Strategy & Policy, GE Power

What Do We Need from FERC?

John Moore, Director, Sustainable FERC Project, Climate & Clean Energy Program,
Natural Resources Defense Council (NRDC)

Planning for the Next Round of Transmission for Renewables

Bob Zavadil, Chief Operating Officer & Co-founder, EnerNex



Session 8: DER Evolution and System Impacts

Thurs Oct 22, 2 pm Eastern

Chair: Obadiah Bartholomy, Manager, Distributed Energy Strategy, Sacramento Municipal Utility District (SMUD)

Co-chair: TBD

DER Integration with Microgrids

Ken Donohoo, Director, Utility Engineering Services, Electric Power Engineers, Inc

A View on the Value of DER

Sam Whelan, Supervisor, Portfolio Planning and Rates, Holy Cross Energy

Overcoming Barriers to Providing Wholesale Market Services from DER

Priya Sreedharan, PhD, Program Director, GridLab

Session 9: System Planning Considerations for High VRE Penetration

Tues Oct 27, 2pm Eastern

Chair: Bruce Tsuchida, Principal, The Brattle Group

Co-chair: Sasha Kuzura, The Brattle Group

Renewables Integration in India

Varun Siveram, Senior Research Scholar, Columbia SIPA Center on Global Energy Policy

Provision of Grid Services from Wind Plants

Clyde Loutan, Principal, Renewable Energy Integration, CAISO

Reducing GHG Emissions in California at High VRE Penetrations

Jimmy Nelson, Managing Consultant, Energy + Environmental Economics (E3)

Session 10: Offshore Wind Developments

Thurs Oct 29, 2 pm Eastern

Chair: Fara Courtney, Principal Consultant, Outer Harbor Consulting

Co-chair: Melinda Marquis, Offshore Wind Grid Integration Lead, NREL

Offshore Transmission in New England: The Benefits of a Better Planned Grid

Hannes Pfeifenberger, Principal, The Brattle Group

Transmission System Regulatory and Policy Consideration for Offshore Wind

Michael Goggin, Vice President, Grid Strategies



Offshore Wind and Hydrogen Hubs

Peter Markussen, Director, Energinet, Denmark

Session 11: Advances in System Operation and Market Design for High VRE Penetration

Tues Nov 10, 2 pm Eastern

Chair: Aidan Tuohy, Program Manager, EPRI

Integrated Dynamics and Scheduling Model - Maui Case Study

Jin Tan, Senior Engineer, NREL

Forecasting and Operating through Extreme Weather Events

Josh Novacheck, Electricity System Research Engineer, NREL

Valuing Hydropower Flexibility in Evolving Electricity Markets: Current Status and Future Outlook

Audun Botterud, Principal Energy Systems Engineer, Argonne National Laboratory (ANL)

Closing Plenary Session - Generation and Storage Technology – Status and Prospects

Thurs Nov 12, 2 pm Eastern (1.25 hrs)

Chair: Alejandro Moreno, Director, Water Power Technologies Office, Department of Energy

Co-chair: TBD

Wind Technology

Paul Veers, Senior Research Fellow, NREL

Solar PV Technology

Becca Jones-Albertus, Director, Solar Energy Technologies Office, Department of Energy

Battery Energy Storage Technologies

Babu Chalamala, Manager, Energy Storage Technology and Systems Department, Sandia National Laboratories

Pumped Storage and Variable Speed Reversible Pump Turbines

David Havard, Head of Advanced Offering, GE Renewable Energy, France