



## IEA WIND TASK 11 TOPICAL EXPERT MEETING #101

ON

## HYBRID POWER PLANTS CHALLENGES AND OPPORTUNITIES

AUGUST 24-26, 2020

### MEETING AGENDA

#### FORMAT

3 sessions, 4 hours each:

- Introductions (recap and relevant survey results)
- Technology talks/snapshots (10 min each)
- Breakout sessions to shape the task - 45 min breakout with 15 min report out

#### PROGRAM

Note: all times are in MT time

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#### Day 1: Benefits of HPP (Kaushik Das, Technical University of Denmark and Eric Lantz, NREL)

##### Introductions

5:00 – 5:15 am – Task 11 Intro: Nicolas El Hayek – IEA Wind Task 11, Planair SA

5:15 – 5:30 am – Intro to TEM and relevant survey results (Katherine Dykes, Technical University of Denmark & Jennifer King, NREL)

##### Technology Snapshots

5:30 – 6:30 am – *Technology talks* from experts on the benefits of hybrid power plants (10 min each)

- Mark Ahlstrom – NextEra Analytics
- Hannele Holttinen – IEA Wind Task 25, Recoginis
- Kaushik Das – Technical University of Denmark
- Thomas Ebel – South Denmark University
- Daniel Dixon/Ellen Phelan – EirGrid

6:30 – 7:10 am – Break

7:10 – 8:00 am – *Technology talks* from experts on benefits of hybrid power plants (10 min each)

- Aaron Barker – National Renewable Energy Laboratory
- Mohammad Amin – NTNU
- Andrew Mills – Lawrence Berkeley National Laboratory

##### Breakout

8:00 – 9:00 am – Breakout and reported results (Breakout chairs and notetakers)

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## **Day 2: Microgrids and Control (Katherine Dykes, DTU and Vahan Gevorgian, NREL)**

### **Recap**

5:00 – 5:10 am – *Recap* from Day 1 and relevant survey results (Kaushik Das, Technical University of Denmark)

### **Technology Snapshots**

5:10 – 6:20 am – *Technology talks* from experts on lessons learned from microgrids (10 min each)

- Peter Lillenthal – HOMER Energy
- Ian Baring-Gould – IEA Wind Task 41, National Renewable Energy Laboratory
- Reo Kontani – Hitachi Power Solutions
- Qian Long – NCSU/DTU

6:20 – 7:00 am – Break

7:00 – 8:00 am – *Technology talks* from experts on control of hybrid power plants (10 min each)

- Vahan Gevorgian – National Renewable Energy Laboratory
- Parangat Bhaskar – National Renewable Energy Laboratory
- Andreas Rettenmeier – ZSW

### **Breakout**

8:00 – 9:00 am – *Breakout* and reported results (Breakout chairs and notetakers)

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## **Day 3: Sizing & Optimization / Storage technologies (Jennifer King, NREL)**

### **Recap**

5:00 – 5:10 am – *Recap* from Day 2 and relevant survey results (Jennifer King, NREL)

### **Technology Snapshots**

5:10 – 6:20 am – *Technology talks* from experts on sizing and optimization of hybrid power plants (10 min each)

- Katherine Dykes – Technical University of Denmark
- Kate Anderson – National Renewable Energy Laboratory
- Mihir Mehta – TU Delft
- Charles Tripp – National Renewable Energy Laboratory
- Caitlin Murphy – National Renewable Energy Laboratory
- Mohamed Laraki - IFPEN
- Jesper Thiesen - CONWX

6:20 – 6:50 am – Break

6:50 – 7:30 am – *Technology talks* from experts on storage solutions for hybrid power plants (10 min each)

- Henry Aszklar – Carbon Sink LLC
- Lionel Perret – Planair SA
- Alvaro Fernandez – Schwungrad Energie
- Paul Lucchese – IEA Hydrogen TCP chair

### **Breakout**

7:30 – 8:30 am – *Breakout* and reported results (Breakout chairs and notetakers)

### **Wrap up**

8:30 – 9:00 am – Wrap up from the TEM and next steps (Katherine Dykes, DTU and Jennifer King, NREL)