

WORKSHOP GOALS

The overall objective is to begin the process of producing a report on a National Offshore Wind Research Agenda, which will provide the rationale and structure for a major nation-wide research initiative in offshore wind energy. The workshop will have less focus on presentations and more of an emphasis on discussion and producing concrete next steps. Given that, the specific goals are as follows.

1. Convene MRP partners, as well as other academic institutions, industry, federal agencies and national lab representatives.
2. Using a draft report outline created before the workshop, have presentation and discussion on the structure of the report, in particular the i) overall report vision and scope, ii) research themes, and iii) integration of the research themes to achieve the overall vision.
3. Pursuant to MCEC contract deliverables, have presentation and discussion on i) models for large scale research networks that could inform our report, ii) summary of reports on research priorities for offshore wind that could inform our report, and iii) summary of existing offshore wind research infrastructure.
4. Discuss process for completing report, growing the effort and partnerships, and next steps.

AGENDA

Thursday

10:30 am – Noon: Intro session

- Welcome and discussion of MRP goals for outside attendees, overview of future workshops (Jim Manwell, Eric Hines, and Chris Niezrecki, 15 minutes)
- Summary of Earthquake Engineering model and process (Dan Kuchma, 15 minutes)
- Discussion of workshop goals (Matt Lackner, 10 minutes)
- Keynote address (Walt Musial, 30 minutes)

Noon – 1 pm: Lunch

1 pm – 3 pm: Discussion of report vision (item 2 above)

- Brief presentation of current report and vision by Dan Kuchma and Matt Lackner, (10 minutes).
- Comments by industry attendees on previously shared discussion questions (20-30 minutes)
 - Chapter 1 of report – motivation, context, and need for a network.
 - What is missing from our argument/how do we strengthen our argument?
 - How do we position a research network relative to current industry practices and development?
- Breakout into 4 groups (50-60 minutes)
 - 4 grand challenges (I – Site characterization, modeling, and learning; II – Decision making and planning; III – Design, analysis, and validation; IV – Development and operation of infrastructure)
 - What are major barriers between current state and future industry with 86 GW?
 - What big picture, strategic research questions need to be addressed?
 - Of these, what questions cannot be answered by industry or national labs, but require the input of a large research network?
 - Why are these questions not appropriate for the current structure (ie. labs, current funding mechanisms, industry)

- What kind of synergies will come out of a network and how will this allow us to address the grand challenge?
 - What pieces of research infrastructure are missing and are crucial for this grand challenge.
- Assign tables beforehand, but option to move.
- Report back: What questions need to be addressed by research network identifying synergies.
- Open discussion and reporting back (30 minutes)

3:30 pm – 4 pm: Break

4 pm – 5 pm: Discussion of models for large scale research networks.

- Presentation of preliminary findings (Arwade, Samimy, Howes, 10 minutes).
- Presentation on Catapult model (Wyatt, 10 minutes)
- Breakout into 5 groups to discuss (15 minutes): report back: what is the optimal structure and why?
- Open discussion and reporting back on models and what may make sense for offshore wind (30 minutes).

5 pm – 6 pm: Cocktails and poster session.

6 pm – ...: Dinner in town, ad hoc. A list of restaurant options will be provided.

Friday

8 am – 8:30 am: Breakfast

8:30 am – 9:15 am: Revisit day 1 discussion

- Discussion of how to align models for a research network with the goals, vision, and grand challenges discussed in day 1.
 - How to ensure interdisciplinary and integrated approaches.
 - How to ensure feedback loops and learning from experience.

9:15 am – 10 am: Parallel discussions

- Discussion of Grand Challenges in context of other research reports and priorities (item 3.ii above).
 - Moderated discussion based on report of preliminary results (Manwell and McGowan)
 - How do our grand challenges align with other reports?
 - Are we missing something?
- Discussion of Grand Challenges in context of offshore wind research infrastructure (item 3.iii above)
 - Moderated discussion based on report of preliminary results (Niezrecki and Courtney)
 - Given grand challenges, what infrastructure needs exist?

10:00 am – 10:30 am: Presentation by Anthony Kirincich reporting back on findings from the WHOI workshop

10:30 am – 11:00 am: Wrap up and discussion of next steps