NATIONAL ACADEMIES Sciences Engineering Medicine

OCEAN STUDES BOARD

Field Monitoring Program to Evaluate Hydrodynamics Impacts of Offshore Wind Energy on Nantucket Shoals Regional Ecology: A Workshop

July 9-10, 2024

PURPOSE: to design a field monitoring program that would respond to observational and modeling recommendations included in the 2023 NASEM report, *Potential Hydrodynamic Impacts of Offshore Wind Energy on Nantucket Shoals Regional Ecology*.

TUESDAY, JULY 09, 2024 – OBSERVATIONAL NEEDS

9:00 - 9:05 Welcome

Kelly Oskvig, National Academies

9:05–9:30 Workshop Introduction

Set the stage, review major themes, findings, and recommendations from the report, share major goals of the workshop

- How do wind farms affect these processes?
- What do we need to measure and what do we need to model?
- How do wind farms affect right whales?
- What key processes drive aggregation of zooplankton?

Eileen Hofmann, Old Dominion University

9:30–9:40 Welcome from the Sponsor

BOEM will provide a few thoughts on the workshop and what would be most helpful to BOEM going forward.

Thomas Kilpatrick, Bureau of Ocean Energy Management

Part 1: Observational Needs

Goal: Identify the parameters that need to be measured at the turbine and wind energy area scales, specifically what oceanographic and atmospheric parameters do the modelers need, and at what resolution to resolve key physical and ecological processes.

9:40–10:45 Existing or Planned Observations

What are the existing and planned oceanographic observations in the Nantucket Shoals region? In this session we seek to highlight what data is currently being collected, where does the data go, what data can be shared, and potential opportunities for long term monitoring partnerships.

Jake Kritzer and Cameron Thompson, North Eastern Regional Association of Coastal Ocean Observing Systems (NERACOOS)
Doug Nowacek, Wildlife and Offshore Wind
Elizabeth Marsjanik, Vineyard Wind and Laura Morse, JASCO

10:45–11:00 BREAK

WILL NOT BROADCAST THE BREAKOUT ROOMS

11:00–12:30 Observational Needs Breakout Groups

Break out into 2 groups. One will map out observational needs at the turbine scale; the other will map out observational needs at the wind energy area scale.

12:30–1:30 LUNCH

1:30–3:00 Observational Needs Breakout Groups Continued

The group mapping out observational needs at the turbine scale will switch to map out observational needs at the wind energy area scale and vice versa.

3:00–3:30 BREAK

3:30 - 4:00 Breakout Group Synthesis

Return to breakout groups to synthesize observation needs across the turbine and WEA scales

4:00- 5:15 Synthesis and Convergence

Breakout groups report out and in full session, identify the suite of observational needs to fulfill the report recommendations.

5:15–5:30 Wrap Up and Prep for Day 2

END OF DAY 1

WEDNESDAY, JULY 10, 2024 – MEETING OBSERVATIONAL NEEDS

9:00–9:15 Introduction and Recap of Day 1

Goals: *review major themes, findings, and recommendations from the previous day and set the stage for Day 2, exploring field monitoring components that will provide the right data at the right scale to realize the study recommendations.*

WILL NOT BROADCAST THE BREAKOUT ROOMS

Part 2: Components to a Field Monitoring Program

Goals: Define specific components to a field monitoring program at the turbine and wind farm scale needed for assimilation into models that will resolve key physical and ecological features and thus improve understanding of potential effects of the wind development on Nantucket Shoals ecology, including the North Atlantic right whale.

9:15–10:45 Field Monitoring Program Breakout Group

Break out into 2 groups. One will map out field monitoring components to meet the observational needs at the turbine scale; the other will map out field monitoring components to meet the observational needs at the wind energy area scale.

10:45–11:00 **BREAK**

11:00–12:30 **Field Monitoring Program Breakout Group Continued**
Similar to day 1, groups switch scales

12:30–1:30 **LUNCH**

1:30 - 2:00 **Breakout Group Synthesis**

2:00 - 3:00 **Synthesis and Convergence**
Breakout groups report out and in full session, identify the field monitoring program needed to fulfill the report recommendations.

3:00- 3:15 **Meeting Wrap Up**

MEETING ADJOURNS