Maine Offshore Wind Research Consortium
Advisory Board
Meeting Summary

Friday, November 22, 2024
9:00 AM – 12:00 PM EDT

Hybrid meeting
In-person: Department of Marine Resources (DMR), Augusta, ME
Meeting materials are available here.

Meeting Objectives

On November 22, 2024, the Maine Offshore Wind Research Consortium (Research Consortium) Advisory Board (AB) held a hybrid meeting at the DMR in Augusta. The objectives of this meeting were to:

- Receive brief updates on Consortium-funded projects and relevant external research.
- Provide the opportunity for feedback on draft recommendations for Project #2 (Fisheries Coexistence).
- Discuss draft process for reviewing future match funding or leveraging requests.
- Discuss strategy for allocating remaining research funds.
- Allow the AB and other attendees the opportunity to provide comments and ask questions.

Welcome & Introductions

Opening remarks given by Katy Bland, program manager (Maine Sea Grant), who reviewed the meeting agenda and objectives and gave a brief overview of the meeting guidelines. Katy then introduced two new Advisory Board members: Trevor White and Frederick Moore. Trevor White is the Assistant Environmental Director for the Indian Township Passamaquoddy Reservation. Frederick Moore is the Sustainable Energy Coordinator for the Pleasant Point Passamaquoddy Reservation.

Terry Alexander, AB co-chair, welcomed the new members and offered thanks to everyone for continuing to engage in this process. Stephanie Watson (GEO) also offered opening remarks, acknowledging that there are new questions about the advancement of offshore wind in the US with the upcoming change in administration. Regardless, she reminds everyone of the great progress they've made as a Consortium, and she encourages the AB to continue to advance this work.

A list of AB members participating in the meeting and meeting observers is in Appendix A. Chat comments have been integrated into the respective meeting "discussion" segment.

Research Updates

DMR Mapping in the Research Array and Offshore Wind Area
Presenter: Jesse Minor (Program Lead, Maine Coastal Mapping Initiative, DMR)
Overview: As a Consortium-funded project from the first prioritization process, this project mapped the seafloor in the Research Array area. The DMR partnered with the F/V Titan, secured through a competitive RFP, to complete 24-hour surveys to map a total of 337 nmi^2 in 502 hours of sonar time during the time period of August 1 to October 23, 2024. The sonar had a 4m resolution and a 2m resolution backscatter. During the daylight hour of those trips, wildlife surveys were also conducted. The team recorded 98 bats, 2771 seabirds, and 314 marine mammals. These numbers are observed individuals; the number of sightings were much higher counts. In addition to the Consortium-funded

work, the team also collected benthic samples at 25 sites west of the research array. DMR plans to begin processing bathymetric surfaces and properly detangling the backscatter mosaic. The data will be uploaded to Maine DMR Open Data map server, the Northeast Ocean Data Portal, and will also be available by request. In the 2025 field season, the DMR plans to finish mapping the areas in the original scope of work, including the Maine Research Array –region study areas, with plans to complement other planned mapping efforts, and conduct grab sampling withing the Maine Research Array and research strata.

Discussion

- Question pertaining to what frequency was used during the sampling. Response that the sampling frequency was 300kHz which is outside the range of most marine mammals, with the exception of harbor porpoises. Harbor porpoises were not seen during the visual wildlife surveys. Jesse also made a point of mentioning the team is attempting to format the data in a way that will be available on vessels.
- Question pertaining to the map included in the presentation. Minor clarified that red represented shallow depths and dark blue is deeper. The project looked at depth, not bottom hardness.
- Question regarding the location of the benthic grab sampling and the expected sampling that Diamond Offshore Wind will be required to complete as part of the lease. Minor noted that prioritization was given to sample sites inside the state's research lease. This portion of the study is habitat characterization rather than preliminary impact studies. David Cowan, AB member and representative from Diamond Offshore Wind, spoke to coordination with the state and the potential of cost sharing for surveys.
    - Chat comment that lists the types of surveys required by BOEM for offshore wind development: Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585 and BOEM links about acoustic sources for surveys in oil and gas, offshore wind and minerals: Characterizing Anthropogenic Sound Sources | Bureau of Ocean Energy Management
    - Recommendation to ask BOEM to present on the relevant survey requirements.

Exploring Approaches to Fisheries Coexistence with Floating Offshore Wind

Presenters: Alice Sandzén (ERM) and Chas Van Damme (GMRI)

Overview: Alice and Chas provided an update on the Consortium-funded project examining fisheries and offshore wind coexistence. The research consisted of three phases: the first examined existing regulation, literature, and legal examples that have been established. The second utilized an engineering-based approach to examine compatibility between different mooring systems for offshore wind and different gear types. The final phase will result in official recommendations for fisheries coexistence. As presented at the meeting, the team developed a draft chart showing the predicted compatibility of each combination of mooring technology and fishing gear based on feasibility of existing technologies from an engineer's point of view. This preliminary technical compatibility assessment was informed by the preceding phases of this project as well as by the extensive engagement with the fishing industry and other stakeholders to better understand fishing gear. ERM and GMRI are seeking feedback from the fishing industry and other stakeholders on this compatibility chart and other aspects of the project prior to finalizing recommendations and the report.

Discussion

- Question about the physical boundaries that were used when considering interactions with moorings and fishing gear. Response that the team considered the wind farm arrays as a whole, not as individual turbines.
- Question about how fishermen input was used to inform the preliminary compatibility chart. Response that the chart was developed from an engineering perspective to understand if a combination of existing technology and gear is theoretically compatible. Input from fishermen helped to ensure that researchers understood how particular types of fishing gear works. The researchers are now seeking feedback from the fishing community to learn of their perceptions of this chart.
    - Comment that initial readings of this chart could imply that fishing is technically feasible despite the possibility that it may not be. Comment that the opposite interpretation could also occur.
    - Encouragement to include these details as main points and not buried in appendices.
- Comment from GMRI team that non-fishing industry AB feedback will be included in the final report in a separate section from other fisheries engagement input to highlight on-the-water expertise.
- Question regarding what assumptions were made in terms of cabling – buried or suspended? Response that both are considered, with asterisks indicating that cabling may affect the feasibility of fisheries coexistence.
- Question about whether the researchers plan to include a "fishermen informed" table by which to compare this preliminary product. Response that this is something the team is considering, but there needs to be more discussion on how individual perspectives will accurately influence the latter table.
- Suggestion to consider the feasibility of utilizing particular mooring designs in the region. As it stands now, the table includes technology (TLP) that may not be feasible for the Gulf of Maine.
- Suggestion to include specifics such as the layout of the Research Array, density, and other details. These could be reflected in two different tables to demonstrate two different scenarios and provide more context. Reminder that ability to operate fishing gear in the should also be considered.
- Suggestion that it could be useful to understand industry perceptions of what is or is not feasible. Risk perception from fishing industry is important to capture in this process. Adding another color to the chart could provide that nuance.
- Chas will send around a survey to AB members to solicit further input.

University of Maine 1:4 Scale Floating Wind Turbine Demonstration Unit Update

Presenter: Anthony Viselli (UMaine, Advanced Structures and Composites Center)
Overview: Through existing ARPA-E funding, competitively awarded to innovative energy technologies, the University of Maine Advanced Structures and Composites Center (ASCC) will erect the first 1:4 scale (~120 ft tall), floating offshore wind turbine in the nation. The turbine, already under construction, will be deployed off the coast of Castine, Maine by 2025. The turbine is planned to be deployed for one year.

The ASCC recently applied to the Department of Energy's (DOE) open funding announcement to establish a Floating Offshore Wind Center of Excellence in the US, in partnership with 34 organizations across the nation. The proposal aims to expand the technology advancement funded by the ARPA-E program into other aspects of offshore wind research and workforce development that can occur around the turbine and would extend the turbine's in-water lifespan to 2031. On November 4, 2024, the Steering Committee (SC) approved the commitment of $160,000/year for five years (2026 - 2031) as

match funding for the ASCC proposal to help implement the Consortium's Research Strategy. This commitment implements a strategy to achieve Consortium objectives, "Coordinate, support and leverage funds to commission research and monitoring," as stated in the Draft Research Strategy, and would enable the Research Consortium to access an in-water turbine upon which to conduct research before the Maine Research Array is built. The commitment also implements a key action to advance Maine-based innovation from the Maine Offshore Wind Roadmap.

Discussion

- Question about timeline for turbine deployment. Response that it is expected to be deployed in 2025, Quarter 1.
- Question about FLOAT Academy -- part of the Wind Center of Excellence designed to encourage Maine-based workforce development and education. What interdisciplinary approaches will the ASCC take to ensure the curriculum of the Academy is able to work across problems in a comprehensive way? Response that the focus on technology and engineering responds to specific language in the DOE's funding announcement, with additional opportunity to include social and ecological topics within the curriculum.
- Question about environmental monitoring: What sensors and attachment points are planned for the turbine and how will data be accessed onshore? Is there room for input? Response that the ASCC is planning a base package to monitor the environment (waves, wind, motion sensors). Technology verification of the dynamics of the haul will be run back to shore via ethernet cable. In their proposal, the ASCC laid out deployment of thermal camera and imaging system to detect bats and birds. While that component is not yet funded, this proposal would enable that. Hope to design plug and play for ecological and other monitoring.
- Question about how long the turbine will be deployed. Response that it will be a minimum of 1 year, although it is permitted up to 2 years. The Center of Excellence proposal, if awarded, will allow for deployment to 2031.

DRAFT MATCH FUNDING PROCESS DISCUSSION

Overview: Prompted by the ASCC's funding request to the Consortium, the Program Management (PM) team began drafting a match funding process (outlined in Appendix B) to respond to future matching funds requests. The PM team presented this draft process to the AB to gain input and feedback.

Discussion

- Question about how "interested parties" is defined. Who has standing to meet the criteria? Suggestion that requests should be somewhat difficult to make, otherwise money could be quickly spent.
- Suggestion to decide on amount of funding to dedicate to matching funds as a % of the research budget.
- Comment and multiple agreements that AB should be able to provide input on the request before advancing to SC.
- Comment that requests should clearly identify how they will advance the Consortium's goals and the level of input the AB has in defining the proposed project's scope.
- Comment expressing concerns with this draft process, particularly because additional funding can be sought as match without having to refer back to the Consortium or GEO for support. Response that we can make inability to seek match funding a term of the grant.

- Comment that Lobster Research Collaborative is precedent for adding contractual match language.
- Question about timing of these requests – are they first come, first served? Encouragement to ensure fair access and fair evaluation.
- Question about if the match opportunity needs to align with research priorities explicitly before going to a vote. Suggestion to make this a simple process: email stating opportunity, how it aligns with objectives, and asking AB if they are comfortable moving forward with the request.
- Comment that it is important for us to take opportunities to leverage other funding. States have been trying to work through pooled funding for awhile, but this is difficult because of different guidelines around each entity and limited state funding. Other leveraging mechanisms, in addition to a possible matching process, should be proposed to the AB with potential to develop a broader comprehensive leveraging strategy.

NEXT STEPS (PRIORITIZATION)

Overview: Led by Olivia Burke (Carbon Trust), this discussion centered around two separate pieces: 1) how to prioritize funds that we anticipate being available on July 1, 2025, and 2) how to allocate remaining 2024 funds. Olivia reminded the AB of the research prioritization process thus far, and how the Consortium-funded projects and those out for RFA, are distributed across the four cross cutting research areas (reduce co-use conflicts; impact on ecosystems; socio-economic impacts and community benefits; technology development).

Olivia recommended approaching discussion part one (new funds) in a 3-step process. Step 1 involves a research funding review and research gap review to consider potential alignment with other Maine OSW initiatives and different processes for funding research (e.g., matching funds). Step2 will center around mini workshops with AB and Collaborators to refine topic areas and identify research gaps, using previous discussions and information from Step 1 as a starting point. Step 3 involve follow-up discussions with individuals and development of project 1-pagers, followed by Advisory Board prioritization and Steering Committee decision.

Discussion part two centered around ways in which to utilize outstanding funds (~$450,000) from Round 2. While there are some previously identified projects that could be funded, there is also an option to identify new projects. Olivia initially proposed scoping out a project in the topic area relating to groundfish (ranked fourth during Round 2 prioritization). The PM team sought AB input on how to best utilize outstanding funds.

Discussion

- Comment that these funds are tied to the current fiscal year which ends on June 30, 2025. It is important to demonstrate to the legislature that we are using all funds to fund prioritized research. If no one project clearly rises to the top at this time, we could discuss rolling over funds into Round 3.
    - Response from GEO that while rolling over funds may be possible, the preference is to spend funds to demonstrate effective and efficient use of the funds. As part of the project scoping process, the Consortium should ensure other sources of funding are not available for a given project.
- Suggestions to consider putting funds towards additional DMR work to extend the previously-funded benthic mapping project.

- Question about an existing scope for a groundfish project. Response that discussion are continuing with experts to help refine scope and reflect conversations and knowledge of research that is currently taking place.
- Comment that, from a timing perspective, the funds could be used to expand existing bird monitoring efforts (which generally starts in May) by purchasing more monitoring equipment.
- Comment that the Consortium is working under a short timeline to fund research before end of the fiscal year. Multiple comments to consider a project that can be funded quickly, such as bird monitoring, extending DMR's benthic mapping work, or putting sensors on the 1:4 scale turbine.
- Agreement to update 1-pagers over the next few weeks to refine scope and consider feasibility of finalizing a contract prior to the end of the fiscal year.
- GEO noted that the Consortium's Research Strategy is being shared with multiple funding entities such as DOE and BOEM at every opportunity to attract additional funds.

APPENDIX A – ATTENDANCE

Advisory Board Members

Terry Alexander, F/V Jocka, Co-Chair
Alison Bates, Colby College, Co-Chair
Damian Brady, University of Maine*
Jack Cunningham, Maine Lobstering Union Local 207
Dave Cowan, Diamond Offshore Wind *
Julian Fraize, NOWRDC*
Wing Goodale, Biodiversity Research Institute
Sarah Haggerty, Maine Audubon
Bob Humphrey, Sport-Ventures
Ben Martens, Maine Coast Fishermen's Association*
Laura Morse, JASCO*
Fred Moore, Pleasant Point Passamaquoddy Reservation*
Walt Musial, NREL*
John Perry, IFW*
Jocelyn Runnebaum, The Nature Conservancy Maine
Daniel Salerno, Fisheries Scientist, Limington, Maine*
Graham Sherwood, GMRI
Kanae Tokunaga, GMRI*
Mary Beth Tooley, O'Hara Corp
Anthony Viselli, University of Maine*
Stephanie Watson, GEO
Trevor White, Indian Township Passamaquoddy Reservation
Carl Wilson, DMR
Ann Zoidis, Tetra Tech*
Gayle Zydlewski, Maine Sea Grant

Advisory Board Members – Not Present

Bill Needelman, Portland Waterfront Coordinator

Collaborators

Morgan Brunbauer, NYSERDA*
Todd Callaghan, MA Coastal Program*
Doug Christel, NOAA*
Jennifer Couture, New England Fisheries Management Council*
Gabriella DiPreta, BOEM*
Hollie Emery, MA Office of Coastal Zone Management*
Lisa Engler, MA Coastal Program*
Fiona Hogan, RODA*
Libby Jewett, BOEM*
Dan McKiernan, MA Division of Marine Fisheries*
Cheri Patterson, New Hampshire Fish and Game Department*
Tricia Perez, ROSA*
Marianne Randall, BOEM*

Tribal Communities

Marvin Cling, Pleasant Point Passamaquoddy Reservation*

Devon Gleason, Penobscot Nation*

RFP#1 Awardees
Tayebeh Tajalli Bakhsh, ERM*
Alice Sandzén, ERM
Hannah MacDonald, GMRI*
Jesse Minor, DMR*
Chas Van Damm, GMRI

Program Management, Advisors, and State Agency Staff
Beth Bisson, Maine Sea Grant*
Katy Bland, Maine Sea Grant
Olivia Burke, Carbon Trust*
Julia Hiltonsmith, Maine Sea Grant
Jessica Jansujwicz, Maine Sea Grant*
Meredith Mendelson, DMR*
Caitlin Shanahan, NERACOOS*
Laura Taylor Singer, SAMBAS Consulting LLC*
Meghan Suslovic, GEO
Erin Wilkinson, DMR*
Casey Yanos, DMR

Maine's Congressional Delegation, State Representatives
Jeanne Christie, US Congresswoman Chellie Pingree*
Adam Lachman, US Senator King*
Zach Schmesser, US Representative Jared Golden*

*Denotes online attendance
Additional observers attended in person and online.

APPENDIX B – DRAFT MATCH FUNDING PROCESS

Draft process and criteria for reviewing match requests 11/18/24
For feedback from Maine Offshore Wind Research Consortium Advisory Board

1. Interested parties submit application to Consortium program management team as soon as possible, and at least 4 weeks before proposals are due
    a. Application should include:
        i. Project summary that includes the scope, team, and project timeline, and proposal review timeline
        ii. Brief written narrative of how the project aligns with the Maine Offshore Wind Roadmap and the Consortium's goals and objectives (see Research Strategy)
        iii. Match request (amount, in-kind or cash) and overview of entire budget and other match sources
2. Consortium program management team conducts initial review of application for completion and overall fit. Can reach back out to applicant with clarifying questions- which could lead to a revised application.
    a. Criteria includes:
        i. Alignment with Consortium goals and objectives
        ii. Level of impact/national interest
        iii. Return on investment
    b. If program management team agrees the application meets the baseline criteria, convene a Steering Committee meeting and include a summary of how this match requests impacts the overall Consortium budget and aligns with the Consortium objectives.
3. Steering Committee reviews match request and aims to reach consensus
4. If Steering Committee decides to commit research funds, program management team sends memo to the Advisory Board.