MA Fisheries Working Group on Offshore Wind

Virtual Meeting, July 19, 2024

MEETING SUMMARY

Meeting slides are available on the Fisheries Working Group on Offshore Wind website.

Welcome and State Updates

Dan McKiernan, Massachusetts Department of Marine Fisheries (DMF) welcomed participants to the meetings and acknowledged that it had been a challenging week in the offshore wind world due to the Vineyard Wind broken turbine blade incident. Dan and Alison Brizius, Massachusetts Office of Coastal Zone Management (CZM) shared the following updates.

- The Bureau of Ocean Energy Management (BOEM) held a productive meeting on July 17 regarding the Gulf of Maine sale notice. The meeting was attended by hundreds of people and many municipal officials. BOEM engaged the fishing industry prior to the sale notice.
- The process to develop an 11-state Regional Fund Administrator (RFA) and create a "one-stop shop" for compensation continues. Applications for the Design Oversight Committee (DOC) of the RFA are being accepted.
- CZM has created a webpage to host guidance and policy documents on offshore wind. The page includes two best practices documents for monitoring and research plans and wildlife mitigation.

Vineyard Wind Broken Turbine Blade Incident Update

Seong Kim, Bureau of Safety and Environmental Enforcement (BSEE), shared an update on actions being taken by BSEE in response to the incident. BSEE issued a verbal suspension order to Vineyard Wind on July 14, 2024, and provided the suspension order in written form on July 15 to cease power production from all wind turbine generators until it can be determined whether the blade failure affects any other turbines. Operations will remain shut down until further notice. BSEE also issued a Preservation Order to safeguard any evidence that may be relevant to determining the cause of the incident.

BSEE has begun conducting an independent investigation into the incident by gathering information regarding the quality assurance and quality check at installation and conducting interviews.

BSEE participates in Vineyard Wind's information center which includes General Electric (GE), the blade manufacturer.

The following questions (Q) and comments (C) were shared by the working group:

- Q: What authority does BSEE have in looking at cause and effect, identifying a clearcut violation, and taking the source of the violation to court? Do you have regulatory capability to sue a developer for a clearcut violation of their Construction and Operations Plan (COP)? Do you have a legal branch with attorneys that could pursue action under an administrative judge? *A: We have regulatory authority to take enforcement actions, including the suspension and preservation orders we have already issued. BSEE oversees and enforces regulations to promote safety, protect the environment, and conserve resources offshore. Based on the severity of the violations, BSEE has a variety of tools to enforce these regulations, from Notices of Noncompliance to Civil Penalties to referrals for criminal investigation. BSEE will evaluate its options for enforcement as part of the investigation.*
- Q: Does the suspension order include stopping work to retrieve the blade? *A: The suspension order requires cease power production from all wind turbine generators until it can be determined whether the blade failure affects any other turbines. Blade recovery is a consideration within the safety zone established by the U.S. Coast Guard and is a factor of the suspension order.*
- Q: Is monopile installation allowed to continue? *A: The United States Coast Guard (USCG) has prohibited activity in a 500-meter zone around the turbine. The Suspension Order allows for the continuation for Vineyard Wind to perform construction and installation activities of wind turbine generator AW-24, any surveys or studies outside of the safety exclusion zone of wind turbine generator AW-38, and to install inter array cables outside of the safety exclusion zone of AW-38.*
- Q: Is BOEM involved in any of the cleanup or response? *A: BOEM has been engaged in the process; interagency coordination is required.*

Elizabeth Marsjanik, Vineyard Wind, shared an update on the incident. On July 13, the GE Vernova blade experienced damage in the lease area, activating an emergency response plan. Vineyard Wind established a safety zone and deployed mobile resources to recover blade pieces offshore. Currents have brought some debris to land on Nantucket, and Vineyard Wind and GE have deployed personnel there to recover blade debris. Since July 13, a significant portion of the blade has detached from the turbine and crews on Nantucket Island have increased. Federal partners are developing models to predict where to intercept debris, with the goal of collecting a majority of it offshore.

Public statements and notices are available on the Vineyard Wind website and provide the most up to date information.

The following questions (Q) and comments (C) were shared by the working group. Responses are given by Vineyard Wind unless otherwise noted.

- Q: What should fishermen do if they come across any blade debris? Who should they contact? *A: Contact the grievance hotline at 833-609-5768 to share the approximate location of debris. We are asking fishermen to leave debris in the water, and not collect it on Vineyard Wind's behalf. Fishermen can also contact vessels offshore via the VHF radio.*
- Q*:* This is an accident, but are the pieces being considered evidence? Are there agencies overseeing the site? *A: We are working closely with our federal partners. BSEE added that the preservation order states that all debris should be safeguarded within the USCG safety exclusion zone.*
- Q*:* Are there any details about the size and characteristics of the debris, which is particularly important with regard to marine life and impacts to the fishing community? *A: The larger chunks offshore and on Nantucket have been removed. The pieces being collected now are a bit smaller, approximately the size of a hand. GE is investigating and will share the blade compounds and content. There is a variety of blade make-up depending on the portion of the blade.*
- Q: Approximately how long do you anticipate the site being shut down? Will you publish copies of the suspension order? *A: BSEE shared that they would not like to estimate a time at this point as the investigation is ongoing. Suspension orders have been shared with interagency partners. We are waiting to hear if they can be shared more broadly.*
- Q: This is raising grave concerns among the fishing industry. Is BOEM considering suspension of further offshore wind development? *A: BOEM shared that this incident is on all of our minds. We are trying to understand the causes, and the information that we gather will inform our process moving forward. Our processes will adapt depending on what the investigation results reveal.*
- Q: Is there a provision that compensates fishermen when an event that closes an area to fishing occurs? *A: It depends on the mitigation program. The Ørsted program has a business interruption option for which fishermen can apply. Vineyard Wind does not have a similar business interruption mechanism, but the compensation mitigation fund is set up so that fishermen who have applied and been deemed eligible will receive compensation regardless of the economic harm experienced.*
- Q: I am concerned about the impacts on the Nantucket squid fishermen due to some of the debris falling to the ocean bottom. If they catch any of the debris and drop it on their vessel, is it harmful and is there a recommended way to handle it? *A: Vineyard Wind shared a factsheet on how to handle debris after the meeting.*
- Q: Did any of the debris sink? If yes, will there be a sonar scan to see where it is on the seafloor? *A: The majority of the debris is floating, and there is not yet clarity as to how much has sunk. If there is sunken debris, we will run something like a sonar scan. Part of*

our contract stipulates that we have to pick up the debris, so we would certainly need to identify where it is in order to do that.

- Q*:* The Town of Nantucket issued a press release this morning stating that a portion of the blade had sunk to the bottom. Can you confirm that, as well as next steps for recovery? *A: The press releases will give you the most accurate information.*
- Q: Can anything be shared at this point, prior to completion of the investigation, as to what caused the turbine to break? Do we know if it broke in operation or during blade installation? *A: The investigations by GE and BSEE are ongoing. There are not more details to be shared at this point, but we can follow-up once more is known.*

Fishing Industry Updates

Beth Casoni, Massachusetts Lobstermen's Association (MLA), shared that her members have a lot of remaining questions regarding the Regional Fund Administrator (RFA) process and how long it will take to vet applicants. She shared the concern that not enough fishing industry representatives will be interested in serving on the DOC. Beth shared that the MLA Annual Weekend & Trade Show will be held January 30 - February 3, 2025 at the Margaritaville Resort on Cape Cod.

The following questions (Q) and comments (C) were shared by the working group:

- C: Dan McKiernan, DMF, shared that fishing industry representatives have applied to the RFA DOC.

Aubrey Church, Cape Cod Fishermen's Alliance, shared reflections on BOEM's information session on the Gulf of Maine offshore wind proposed sale notice. The fishing industry needs to be involved in this process, particularly Cape Cod fishermen as six out of eight lease areas are off Cape Cod. Concerns shared at the meeting included impacts to safety, navigation, marine mammals, and the environment, and turbines en masse potentially creating Nor'easter storms. There was also discussion about electromagnetic fields, vessel trip reports and data, and an overall lack of engagement with the Cape Cod community. Aubrey shared appreciation for BOEM explaining the process well and recognizing the need to minimize transmission impacts. The Cape Cod Fishermen's Alliance website has a new page listing the Alliance's letters on the Gulf of Maine and other offshore wind topics.

Angela Sanfilippo, Gloucester Fishermen's Wives Association, shared that they applied for a grant from Massachusetts and were not selected. Angela is interested in hearing more about why fishermen were not the priority for that grant.

URI Fisheries Study: Fishing Status of Vessels using Automatic Identification System (AIS)

Julia Livermore, University of Rhode Island and Rhode Island Department of Environmental Management, shared ongoing research regarding the use of AIS and machine learning to improve estimates of development exposure for the scallop fishery in Southern New England. This research aims to identify which vessels of all types are fishing based on speed measurements. The study looked at vessels off the coast of Rhode Island and used data from 2013 to 2018. Data came from Fishery Management Plans (FMPs), AIS, Vessel Monitoring Systems (VMS), Vessel Trip Reporting (VTRs), dealer reports, USCG registry records, and NOAA Observer Program data. Julia and team developed a machine learning approach to develop a model trained with National Oceanic and Atmospheric Administration (NOAA) Observer Program data where the fishing status of vessels is known to model the probability of fishing based on vessel activity at the FMP-level. Information on vessel behavior patterns was obtained directly from the fishing industry and commercial fishing research organizations.

Julia shared the results for Atlantic Sea Scallop vessels, for which the model was 98% accurate in predicting whether or not a vessel was fishing. This is significantly higher compared to other predicting tools, e.g., VMS, VTR. These results indicate that fishing footprints previously developed by NOAA using VMS and VTR may overestimate fishing exposure in wind energy areas while underestimating impacts to individual vessels. This is particularly relevant for micrositing layout designs.

Modeling and mapping have been completed for the other FMPs. Next steps for the research include cleaning up maps and writing the project report.

The following questions (Q) and comments (C) were shared by the working group:

- Q: How is this data supposed to be used? *A: These data are useful to avoid areas of higher fishing activity when designing wind farm layouts. We intend to share these products publicly when completed.*
- Q: Where scallops are setting and being harvested is changing so identifying where fishing occurs now may not be so useful. How can we think about where fishing *will* be taking place? *A: This was a proof of concept and we can easily apply these models to updated datasets. We also may be able to build new model variables that reflect the new and changing system.*
- Q: Were the results similar with other species? *A: The model put out results for other species that were more accurate than other tools, but these scallop results showed the most improved accuracy.*
- C: To be eligible for the Vineyard Wind compensation fund, fishermen had to show eligibility for the past seven years. They used AIS data to prove accuracy, and those systems were not the most accurate. A model like this would improve the process of proving eligibility.

- C: This model may be useful for looking at suitability models being used to determine proposed lease areas. The suitability model for the Gulf of Maine proposed lease areas only used VMS data which does not provide a full picture, e.g., shifting fish stocks, and changing fishing behavior due to regulation.
- C: This was one of five regional fisheries studies that MassCEC selected back in late 2019/early 2020. These studies are funded by MassCEC, BOEM and RIDEM. This project has been on a slower track but is making great progress.

Maine Research Array

Erin Wilkinson, Maine Department of Marine Resources (MEDMR), shared that BOEM formally offered Maine a research lease that MEDMR manages. The location is slightly different from their request, primarily to address some coast guard concerns regarding navigation. The research lease is still being processed. MEDMR is working to provide updates and expand the spatial and temporal scale of the project, and include more surveys. The MEDMR work is largely supplemental to what's required for permitting, and the developer will contribute funding to cover the cost if MEDMR conducts the survey itself. Installation and surveys have begun. Erin will continue to provide updates to the FWG.

The following questions (Q) and comments (C) were shared by the working group:

- Q: Do you intend to deploy multiple mooring systems in the array *A: I do not believe the developer Pine Tree Offshore Wind will deploy multiple types of mooring.*

NOAA/Stellwagen Bank National Marine Sanctuary Cable / Transmission Planning

Alice Stratton, NOAA Stellwagen Bank National Marine Sanctuary, discussed the potential for transmission cables to run through Stellwagen Bank National Marine Sanctuary. The sanctuary is located between the Gulf of Maine proposed lease areas and the most likely shoreside points of interconnection, making it a prime location for transmission cables. The Office of National Marine Sanctuaries (ONMS) within NOAA recognizes the threat of climate change to sanctuaries and supports the responsible development of offshore wind as a tool to combat it.

The Outer Continental Shelf Lands Act (OCSLA) gives BOEM the authority to manage offshore energy but prohibits them from issuing leases in national marine sanctuaries. However, NOAA may consider authorizing the installation of cables within sanctuary boundaries under the authorization of the National Marine Sanctuaries Act (NMSA) through general permits, authorizations, certifications, and/or special use permits. Transmission cables would require a federal construction/installation permit authorized by ONMS. A special use permit would then be required for the continued presence of commercial submarine cables on or within submerged lands of any national marine sanctuary.

ONMS is working with NOAA's National Center for Coastal Ocean Sciences and MA CZM to proactively map sanctuary resources to avoid or minimize impacts. ONMS strongly supports the development of shared transmission in order to minimize the impacts to sanctuary resources. A mapping initiative is also underway in order to complete a side-scan sonar survey of as much of the sanctuary as possible.

The following questions (Q) and comments (C) were raised by the FWG:

- Q: Are there other approved cables that run through the sanctuary? *A: There is one cable in operation now; the EFA telecommunication cable cuts across the sanctuary and was installed in 2000 or 2001. The sanctuary conducts ongoing monitoring and surveying of the cable.*
- Q: Does the sanctuary charge a fee for cables cutting through it? One participant at the recent BOEM Cape Cod meeting suggested that Stellwagen would permit a cable in order to obtain revenue. *A: We do have the authorization to collect fees from developers and permittees, and did so for the cable currently running through the sanctuary. We collect a fair market value fee for the life of the permit. Some of that money pays for a contractor to monitor any effects from the cable. I would envision that we would collect similar fees for a transmission cable.*
- C: There are multiple offshore wind lease areas and multiple shoreside connections, so there needs to be a collaborative effort on transmission. The Gulf of Maine is a lot more complex than Southern New England, and shifting bottom sediment needs to be considered in transmission planning. I appreciate that the sanctuary is being proactive and it is a good idea to keep everyone involved. *A: We got involved at this early stage so we can be proactive and plan. We are trying to get ahead of the game and let developers know that they will have to deal with us if they want to run a permit through the sanctuary.*

Responsible Offshore Science Alliance (ROSA)

Mike Pol, ROSA, shared updates on ROSA's work. ROSA is bred out of a partnership between the Responsible Offshore Development Alliance (RODA) and offshore wind developers, and is uniquely positioned to coordinate across various funding sources, research institutions and organizations, and data infrastructures. ROSA is working on a strategic plan to study offshore wind and fisheries coexistence. Key objectives are to (1) administer regional offshore wind and fisheries research and monitoring, (2) facilitate the assessment of regional and cumulative impacts, and (3) build coordination through engagement.

ROSA is focused on maintaining Fish FORWARD, a database that includes research projects related to offshore wind and fisheries. ROSA is updating and maintaining the ROSA Offshore

Wind Project Monitoring Framework and Guidelines, intended to create alignment in experimental designs, tools and methods, data sharing, analysis, and governance. They are also conducting listening sessions to identify and document inconsistencies and challenges in monitoring efforts, and to identify possible solutions to increase coordination. The sessions target fishing industries, offshore wind developers, regulators, and the science and research community independently. A cross-sector session was held at the recent NYSERDA State of the Science workshop.

Developer Updates

Ørsted

John Mansolillo presented updates on South Fork Wind and Revolution Wind. South Fork Wind has 12 turbines installed that will power 70,000 homes. Revolution wind will have 65 turbines with 26 monopiles installed so far. Seabed preparation for export cables from Revolution Wind will begin in mid-July, as will turbine installation, and inter-array cables will be installed beginning in August. Sunrise Wind, located off the coast of New York, will have 84 turbines to power 600,000 homes. Cable landfall work will begin in the fall or winter of 2024, while installation is anticipated to occur in 2025. Ørsted is also currently bidding on the Lease 500 project, located off the coast of Massachusetts.

Fisheries compensation funds are established and fishermen are able to submit gear loss claims for gear lost in Rhode Island and Massachusetts. The Navigation Enhancement and Training Program is now open. A public engagement session on export cables will be held on August 22, 2024 from 7 - 8:30pm at the North Kingston, RI Community Center.

BP

Will Shoup shared that BP took full ownership of the Beacon Project. He will be serving as the fisheries liaison for the project. Will and Joe Jackson can be contacted with any questions.

Equinor

Elizabeth Marchetti shared that Equinor is currently working on cable removal and marine debris collection in the Empire Wind lease area. There will be a boulder removal campaign in New York state waters from August to September.

Ocean Winds

Sam Asci is the fisheries manager for the SouthCoast Wind and Bluepoint Wind projects. Ocean Winds will conduct a geotechnical survey at the end of July off the coast of New Jersey.

Action Items

A number of action items were identified to be addressed moving forward:

- An update will be sent out on the RFA application
- DMF will follow up with CZM on boulder work
- The next FWG meeting will be in person in October.