

**OFFSHORE WIND, RECREATIONAL AND COMMERCIAL FISHERMAN
MITIGATION MEASURES DEVELOPMENT**

NEW BEDFORD WORKSHOP REPORT

To: Brian Hooker, BOEM

From: Peggy Farrell, Ecology and Environment

Date: December 5th, 2012 (4:00 P.M. - 8:00 P.M.)

Location: Fairfield Inn and Suites
Waypoint Event Center
New Bedford, MA

RE: Development of Mitigation Measures to
Reduce Conflicts between Wind Industries
and Fishermen – New Bedford
Massachusetts Stakeholder Workshop



ATTENDEES

Name	Agency
Jim Kendall	New Bedford Seafood Consulting
Verna Kendall	Fishing Industry
Joe Battaglia	Normandeau
Chip Ryther	CR Environmental
Chuck Digate	Neptune Wind
Anne Hawkins	NOAA
Kathryn Ford	MA Division of Marine Fisheries
Michelle Bachman	New England Fishery Management Council
John Williamson	Seakeeper
Sarah Schumann	ecoRI
Arthur DeCosta	MA Lobstermen's Association
Stephen O-Malley	Fishermen's Energy
Mark Rodgers	Cape Wind
Bryan Sanderson	Anbaric Power
Maddeline Hall-Arber	MIT Sea Grant
Peter Moore	MARACOOS
Kris Ohleth	Atlantic Wind Connection
Ed Washburn	52 Fisherman's Wharf
Tom Gebhard	BlueRock Energy, Inc.
Sue Tuxbury	NOAA Habitat Conservation Division
Mike Pol	MA Division of Marine Fisheries
Daniel Cohen	Fishermen's Energy
John Haran	NE Fisheries Sector 13

Brian Hooker	Bureau of Ocean Energy Management
Peggy Farrell	Ecology and Environment, Inc.
David Trimm	Ecology and Environment, Inc.
William Daughdrill	Ecology and Environment, Inc.
Sarah Bowman	Ecology and Environment, Inc.
Jennifer Harris	Ecology and Environment, Inc.
Pat Field	CBI Institute
Stephanie Moura	SeaPlan

OVERVIEW

The Bureau of Ocean Energy Management (BOEM) is developing best management practices (BMPs) and mitigation measures for reducing use conflicts within portions of the U.S. Atlantic Outer Continental Shelf (OCS) that may be used by the wind energy industry and fishermen. The purpose of the regional stakeholder workshops is to engage fishermen and wind energy developers (plus interested agency representatives) in dialogue that would result in development of BMPs and mitigation measures that would be beneficial to both parties and relevant for inclusion in BOEM NEPA analyses. The outreach workshops do not discuss any specific wind energy development projects, but rather describe general types of practices or studies that could be implemented as mitigation for wind energy development. As projects are proposed, there will also be opportunities for site-specific mitigation measures. This document constitutes the Outreach Report from the New Bedford stakeholder workshop.



MEETING SUMMARY



New Bedford is an active fishery port for both commercial and recreational fishing and is in proximity to an offshore WEA. During BOEM's initial stakeholder consultations, New Bedford, MA was suggested as a good meeting location for potentially interested commercial and recreational fisherman in Massachusetts. This workshop occurred one day after the Osterville, MA stakeholder workshop.

Workshop attendees were greeted upon arrival and asked to sign in. Participants were directed to tables so that different industries and agencies were represented at each table for the breakout sessions.

Several visual displays were placed around the room for attendees to browse. The meeting started at 4:15 pm when Pat Field, the meeting facilitator, welcomed everybody to the meeting and asked each

participant to introduce themselves and state the industry or agency they represent. He then briefly discussed the format for the meeting so that attendees had an understanding of the agenda and meeting rules. This was followed by an introduction of Brian Hooker, BOEM Biologist, who opened the meeting with a PowerPoint presentation that included:

- Different stages of offshore wind facility development.
- Purpose of the workshops.
- Vessel Trip Report and Vessel Monitoring System data for the New England Wind Energy Areas.
- Known fishing and wind energy questions and concerns.
- Current Best Management Practices required by BOEM.
- A description of BOEM’s Environmental Studies Program.
- Various opportunities for input.

The majority of the meeting was spent in discussion during two breakout sessions. Breakout Session #1 began directly after the presentation. Each of the discussion tables represented a distinct breakout group. Groups worked on identifying issues of concern from their perspective, utilizing the list of issues identified from the previous three workshops as a guideline. A 15-minute break was held at 6:00 pm.

Breakout Session #2 followed the break and focused on formulating mitigation measures that could be employed during offshore wind energy development to reduce impacts. Utilizing the handout as a guide, each group identified potential management strategies that would alleviate some of their concerns. At 7:30 pm Mr. Field asked each table facilitator to identify the key points that were discussed in each group and after the final report out, requested feedback and comments from the participants on the workshop format and content (listed further below). The meeting adjourned at 8:00 pm.



IDENTIFICATION OF CONCERNS

Table 1 lists issues and concerns regarding offshore wind development identified at the New Bedford Workshop.

Table 1: New Bedford Meeting Issues and Concerns

<p>Exclusion Zones and Access</p>	<ul style="list-style-type: none"> • Concern on gear types and whether they could continue to operate. For example, sea clambers who “blow” out 8 to 10 inches of bottom sand in front of an 8-foot rake or pair trawls with two vessels and a wide berth. • Will exclusion zones be bigger for floating foundation types due to cables that come from the foundation? • What are the different exclusion zones in Europe? • Are cruise ships too tall to safely transit through a wind farm?
<p>Regulations</p>	<ul style="list-style-type: none"> • Having at least three regulators in the same space, Coast Guard, BOEM, and NOAA will be confusing.

	<ul style="list-style-type: none"> • Which agencies will have authority to enact which BMPs/mitigation measures? • Who will be responsible for looking at the “big picture” of cumulative impacts of multiple wind farms offshore, including economic impact? • What agency is responsible for enforcing exclusion zones, if established? What tools/mechanisms will be used? How does this compare with fisheries regulation enforcement, such as on-board observers, etc.? • What is the life cycle of a wind farms? 20 years? 50 years? What will the regulations say about decommissioning? • BOEM should conduct a study of European wind farm mitigation and summarize in a report to see if these measures would be applicable to wind development in the U.S.
Communication	<ul style="list-style-type: none"> • Notice to mariners isn’t that effective due to limits on fishing (e.g., as few as 40 days a year for scallopers). How do you inform them when they are not at sea? • Outreach should include more than the Council. They need to communicate with associations and actually visit the docks. Associations can then reach out to their members. • Fishery Council meetings are important for communication but other methods are needed since many fishermen don’t go to the council meetings. • If different wind farms have different rules, how will that be communicated?
Siting Process	<ul style="list-style-type: none"> • One WEA might have multiple offshore developments. If each has different rules it can become very confusing. • Should wind farms be encouraged in areas that are permanently closed to fishing? In New England, some areas that have been closed are planned to be re-opened. • Pair trawls need room to maneuver so a 1 mile spacing distance might not be enough. If it is not enough room, discuss with those fishermen how the wind farm could be designed to accommodate this type of fishing.
Safety	<ul style="list-style-type: none"> • Ocean debris after a catastrophic event is a concern. Who will clean it up, how fast, and how will obstructions be marked before cleanup? • Do cables as well as turbines have to be removed at decommissioning? An old cable will eventually become exposed and could be a serious hazard years later. • How often will electronic charts be updated? • Transiting through the wind farm will be difficult at night and in fog. • Cables coming off of floating foundations may need a different safety zone because of the potential dangers. Where are they attached to the structure? • Ice “throw” from turbine blades in icy weather could be a safety hazard.
EMF	<ul style="list-style-type: none"> • How are lobster affected by EMF? • Summarize all the data on effects of EMF from studies of European wind farms.
Marine Wildlife	<ul style="list-style-type: none"> • Need studies to identify the effects of wind development on both fishing effort and fish? Monitoring and data collection should be part of the BMPs. • What are the effects on currents from a wind farm?
Liability	<ul style="list-style-type: none"> • How will bankruptcy be handled so that fishing isn’t adversely affected just because a company suddenly is unable to manage its asset? • Who pays for any gear modifications that are needed in order to fish in the farm? • What are the impacts of wind farms on fishing insurance? • Cable breaks might be the biggest source of insurance claims. If a fisherman hits a cable, it should not be his/her fault. The developer should be responsible for burial, maintenance, and re-burial. • What gear modifications might be required or even desirable and who will pay for them to allow fishermen to fish more easily in arrays?

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES

Table 2 contains potential BMPs suggested at the meeting in New Bedford.

Table 2: New Bedford Meeting Best Management Practices and Mitigation Measures

Project Design, Navigation, and Access	
Studies and Analysis	<ul style="list-style-type: none"> Engage fishing vessels in site assessment surveys and other cooperative research (like Deepwater Wind at Block Island). Developer should state which organizations they plan to utilize for research and other activities. If utilizing the fishing industry is not possible, state why. Conduct a review of the West Coast cable committee in the telecommunications industry for examples of mitigation measures and how they are working. Developer should be required to do a full space conflict use study of all gear types used in the area, and include other users such as tourism. Developer should do a baseline study of fish resources and habitat in the area before the farm is built, then re-visit and do the same study every several years (with fishermen's help) to see if turbines are/aren't a fish attractant and if the habitat now supports more fish. Developer should state from the beginning if it is their intention to allow aquaculture in the wind farm. Future modifications for aquaculture would mean larger closed areas.
Spacing of Turbines	<ul style="list-style-type: none"> Require a big-picture map that shows a combination of recommended routes, traffic lanes, and fishing areas through, in, and near wind farms to help mitigate liability issues. With fisherman help, micro-site each turbine in particular spots so as to impact fishing practices as little as possible and avoid important habitat. Work with fishermen from each gear type and discuss turbine spacing issues they might encounter.
Navigational Safety	<ul style="list-style-type: none"> Locations for wind farms, cables, and substations should be available in a timely manner as a downloadable data layer for vessel navigation instruments. Atlantic Wind Connection and Fishermen's Energy both indicated willingness to help fishermen with the cost of navigation software upgrades and other wind developers should do the same. On turbines themselves and for turbines visible on plotters and charts and other technology, display a unique identifier, a contact name, and phone number. Include AIS or a radar transponder on wind turbine foundations, especially on the outer corner turbines or along the outer edge of the wind farm so when a vessel enters the farm, fisherman would know for sure they are in the boundary (will help at night and in fog). Designated traffic lanes and fishing areas should be clearly identified.
Cabling	<ul style="list-style-type: none"> Require a decommission plan that includes a description of cable extraction and removal, scour removal, and how deep below mud line turbine removal will go. Require a 6-foot burial depth for cables. All wind farm plans need to include cable monitoring and re-burial requirements. Developers should identify early in the process which cable areas, because of bottom sediment type or depth, are particularly prone to coming unburied. Monitoring should occur once every year for 5 years to get an understanding of where each cable segment is likely to shift. Then once no more movement is demonstrated, once every 5 years. Look to the rules for communications cables. BOEM should not approve a wind farm application if they do not clearly lay out a cable monitoring and re-burial plan. And BOEM should keep tabs to make sure the

	<p>developer is actually re-burying exposed cables and should have a penalty for not following the requirements.</p>
<p>Safety, Liability, and Insurance during Operations</p>	
Safety Procedures	<ul style="list-style-type: none"> • Install cell signal boosters on turbines to improve at-sea communications capabilities. • Developers will not allow tie-ups to turbines; however, they should offer some way for vessels to fish near turbines, perhaps tie-up buoys.
Gear	<ul style="list-style-type: none"> • With fishermen’s help, site the location of each turbine with bottom contours and regular traffic lanes in mind. Fishermen like to hug bottom contours when fishing and do not normally go in a straight line.
<p>Natural Resources</p>	
Impacts to Fisheries	<ul style="list-style-type: none"> • Locate wind farms in areas that are already closed to fishing and most conflict between developers and wind industry disappear. • Require a habitat enhancement plan that includes components such as making the footprint under each turbine attractive habitat and foundation design with scour and other filters that retain sand, etc. • Require developer to examine the cumulative impacts of multiple wind farms offshore, including an economic assessment. • Developer needs to clearly state, by gear type, where fishing is and is not allowed. • Coordinate wind farm development with other longer term closures, such as for fisheries. If you are going to close a large area to fishing for long periods of time, then at least use that period of time for construction in that location rather than in another area still open to fishing.
<p>Stakeholder Engagement</p>	
Communication	<ul style="list-style-type: none"> • Developer should create a matrix of key audiences, messages, or activities needed for each stage of development. • Engage gear and species associations to reach deep into the community. For Massachusetts, Massachusetts Fishermen’s Partnership (MFP) includes most of the individual associations. • Sector managers, settlement houses, the MA DMF, and trade publications with articles, ads, and notices are all ways to get information out and back. • The fishery liaison is a great idea but the liaison should be from the fishing community and hired through an existing trusted association, not directly by a wind developer or the federal government. • Having a one stop regulatory shop for all issues on and around one wind farm (an agency permitting coordinator for instance) would be helpful. • Require an over-arching BOEM website that lists and maps each offshore development with links to the rules for each wind farm and the exact location of each turbine. • Utilize the Fishery Management Councils to communicate with fishermen. Give regular in-person presentations and updates.
<p>Liability</p>	
Mitigation	<ul style="list-style-type: none"> • Developers should be required to reveal the different mitigation programs they have discussed with fishermen affected by their wind farm. For example, clearly state which gear types might be pushed out of the area, and developers can opt to pay these fishermen not to fish in the area anymore. • Developers can require fishermen to leave gear behind if caught on cables or other offshore structures, and then developers will reimburse or replace lost gear. Use Europe as an example. • Developers could be required to purchase and distribute updated nautical chart

chips every year to all users.

SUGGESTIONS FOR FUTURE WORKSHOPS



Suggestions from previous workshops were taken into account for the New Bedford meeting. For this workshop, each table facilitator explained its purpose so that the distinction between the two sessions was clear. Facilitators continued to devote special attention in leading the groups during the second breakout session in trying to formulate usable, concrete mitigation measures.

Most comments were similar to those suggested at the Osterville workshop. One participant requested better outreach to fishermen and better timing with other fishery-related meetings so that more fishermen would attend these workshops. Participants at this workshop would also like to see the informational displays around the room contain data that are more local to the area the workshop is being held in. For example, the vessel transit routes from New Bedford south of Martha's Vineyard in Nantucket sound are not represented on the current slide in BOEM's presentation.

Many participants, including fishermen and developers, expressed curiosity at what the offshore policies and fishermen interaction is like in other countries such as Ireland and Germany. It was suggested that BOEM synthesize available information from European offshore wind farms in a condensed and useful report. Fishermen are particularly looking for guidance on science and research, exclusion zones, best management practices, insurance policies, cable breaks, and fishing gear conflicts, and would like to learn what mitigation measures were implemented and successful in these wind farms.