

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

VIRGINIA BEACH WORKSHOP REPORT

To: Brian Hooker, BOEM

From: Peggy Farrell, Ecology and Environment

Date: October 12, 2012 (1:00 P.M. to 4:00 P.M.)

Location: Virginia Aquarium & Marine Science Center, Virginia Beach, VA

RE: Development of Mitigation Measures to Reduce Conflicts between Wind Industries and Fishermen – Virginia Beach Stakeholder Workshop



ATTENDEES

Name	Agency
Jeff Deem	Mid-Atlantic Fisheries Management Council
Claudette Twichell	Virginia Beach Bluewater Fishing Club
Michelle Hallowell	Kelly Drye & Warren LLP
Kris Ohleth	Atlantic Wind Connection
Laura McKay	Virginia Department of Environmental Quality
Guy Chapman	Dominion Power
Kim Lanterman	Dominion Power
Carolyn Heeps	RES America Development Inc.
Kevin Lindquist	RES America Development Inc.
Roger Mann	Virginia Institute of Marine Science
Lyle Varnell	Virginia Institute of Marine Science
Ronald Rapp	SubCom
Rhonda Jackson	Fishermens Energy
Daniel Cohen	Fishermens Energy
Ben Riker	Fishermens Energy
Todd Janeski	Virginia Commonwealth University
David O'Brien	National Marine Fisheries Service
George Hagerman	Virginia Coastal Energy Research Consortium
Brian Hooker	Bureau of Ocean Energy Management
Bob LaBelle	Bureau of Ocean Energy Management
Darryl Francois	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.
Cindy Shurling	Ecology and Environment, Inc.
Jamie Budzynkiewicz	Ecology and Environment, Inc.
Patrick Field	Consensus Building Institute

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 Virginia Beach stakeholder workshop.



MEETING SUMMARY

Workshop attendees signed-in and collected handouts at the welcome table. Attendees 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 1:15 pm. Pat Field, the meeting facilitator, welcomed attendees to the meeting. He had attendees introduce themselves and state the industry or agency they represent. This was followed by an introduction of Bob LaBelle, Science Advisor to the Director, BOEM. Mr. LaBelle opened the meeting with a brief description of the purpose of the workshops and gave a Power Point presentation that included:



- A description of the Wind Energy Areas for New Jersey, Delaware, Maryland, and Virginia.
- Current Best Management Practices required by BOEM.
- Opportunities for input.
- A description of BOEM's Environmental Studies Program.

Pat Field then briefly discussed the format for the meeting so that attendees had an understanding of the agenda and meeting rules. This was followed by a short informational wind video that showed an example wind farm installation of an offshore wind turbine.

After the wind video, breakout groups were to work on identifying issues of concern from their perspective. At the request of one attendee, a group discussion was held instead. Pat Field moderated this portion of the meeting as an open discussion but guided topics for discussion. The first session was devoted to identifying potential impacts and concerns from the group. A 15-minute break was held after identifying concerns. The next session focused on formulating reasonable mitigation measures that could be employed during offshore wind energy development to reduce impacts. The group identified potential management strategies to alleviate those concerns.

POTENTIAL CONCERNS AND IMPACTS

Workshop participants identified concerns related to offshore wind energy development, and also provided some suggestions for mitigation measures to address those impacts. For example, as part of the permitting process, many participants agreed that wind developers should prove they reached out to the fishing community and that they took into consideration their concerns and suggestions. In order to get permit approval, the developer should demonstrate that they have abided by the BMPs set forth by BOEM. Please note that the participants gave suggestions for the workshop format and are listed further below. Table 1 lists concerns and suggestions regarding offshore wind development identified at the Virginia Beach Workshop.

Table 1: Virginia Beach Meeting Concerns and Suggestions

Safety	<ul style="list-style-type: none"> • What is the actual distance from sea level to blade tip? • What happens if parts of the turbine or other equipment break off and hurt somebody or another emergency happens at sea?
Health	<ul style="list-style-type: none"> • What are the short- and long-term health effects of fishing near wind turbines and cables producing EMFs to people with pacemakers or other medical conditions?
Exclusion Zones/Access	<ul style="list-style-type: none"> • Who will be excluded from the wind farm itself and around transmission cables? • Can vessels transit through or would they have to go around? • What types of gear or fishing sector would be excluded, or will every fishing activity be allowed within wind farm borders? • How close can vessels approach turbines? • Will the entire area be a closed exclusion zone or will it be just a small exclusion circle around individual turbines? • Tie-ups and trespassing issues – who enforces the rules? Would it be the state or a federal agency, or a combination of both? • Should anchoring be allowed so fishermen can access the reefs, or is that too risky? • The entire area would have to be closed during initial construction, and monitoring can be done to ensure no impact on fisheries.
EMF	<ul style="list-style-type: none"> • What are the effects of EMF on fish and people?
Regulations	<ul style="list-style-type: none"> • How will offshore wind rules overlay and interfere with all the other fisheries management measures that exist?

	<ul style="list-style-type: none"> • There is a general feeling that fishermen don't have the opportunity to comment on issues for fisheries impacts in the current NEPA structure because the current EA being discussed may only be covering the site assessment activities to be undertaken, for example.
Communication	<ul style="list-style-type: none"> • Often there is a communication breakdown especially with vessels that are home-ported elsewhere. • Can the Harbor Masters and Dock Masters play a role in information dissemination? • How can fisherman be notified that an area is closed for inspection or maintenance? • USCG Notice to Mariners can be used but are not sufficient. Can a new communication process be created with the Coast Guard? • What happens if there is an emergency at sea due to wind turbine equipment?
Siting Process	<ul style="list-style-type: none"> • Some fishermen may not feel like they are included in the process and wonder if it is too late to have any real input. • Some feel that this process should have happened during creation of the WEAs and not now after they are already developed. • How can they be sure that NGOs who would like to close large areas of the ocean to fishing don't jump on board and have significant input? • Turbines can be spaced so nets can be pulled around them and so transit can be done through it, but the spatial orientation sometimes depends on sediment.
Radar Interference	<ul style="list-style-type: none"> • Will there be any radar interference from turbines?
Maintenance	<ul style="list-style-type: none"> • How often, who does it, and what does it involve? • Will underground cables be inspected or replaced?
Fish	<ul style="list-style-type: none"> • Will wind turbines, cables, EMF, and/or noise affect fish migration? • Will fish decide to avoid the entire area and go around? • Will fish actually be attracted to the scour and other areas? • Can wind turbines be installed in areas already closed off to fisheries?
Liability	<ul style="list-style-type: none"> • Fishermen have vessel insurance and gear insurance concerns. Who pays when there is a loss of gear or that got caught on cables or turbines? • Are there innovative ways that developers can make wind structures and farms more fishing friendly so that gear doesn't get snagged? This would involve exchange of ideas and information between fishermen and wind industry. • How to ensure cables stay buried with natural changing topography and storms.
Enforcement	<ul style="list-style-type: none"> • If exclusion zones will exist, who will monitor the area and enforce penalties?

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES

Table 2 contains potential BMPs suggested at the meeting in Virginia Beach. With the addition of BMPs from Europe and other studies, a handout for future workshops could look similar to this outline.

Table 2: Best Management Practices and Mitigation Measures

<p>Baseline requirements and basic guiding principles</p>	<ul style="list-style-type: none"> • Specifications for siting (e.g., outside of heavily used fishing areas) • Minimum spacing distance between turbines • Monitoring effects on fisheries • Creation of new usable fish habitat
<p>Construction and maintenance guidelines</p>	<ul style="list-style-type: none"> • Size of scour protection • Use a jacket foundation so scour protection is not needed • Maintenance schedule and frequency • Creation of usable fish habitat
<p>Access, transit rules, and enforcement</p>	<ul style="list-style-type: none"> • Maximize access by commercial and recreational fisheries in the wind farm • Anchoring guidelines (e.g., scour protection or turbines areas) • Transit allowed through the wind farm • Exclusion zone only around individual turbines for safety
<p>Communication</p>	<ul style="list-style-type: none"> • Engage fisherman in siting process (e.g., fisheries liaison) • Procedure for emergencies at sea • Notice to Mariners plus other notification procedures • Method to notify vessels homeported elsewhere

It was suggested that some sort of draft BMP framework or straw man be created, just as an example, so that future workshop participants can go through and either agree or disagree. The theory is that this type of format will work better in generating BMP ideas instead of having nothing concrete to provide and requesting that attendees come up with them on their own from scratch. This draft framework should then be sent out before meeting and be available at the meeting as a handout.

Examples can be taken directly from wind farms currently operating in Europe, which has many examples of lessons learned, current BMPs, and mitigation measures. According to an attendee from the UK, there was a complete exclusion during the construction process but once operation commenced, smaller exclusion safety zones were implemented around each individual turbine and there is NOT a complete exclusion from the wind farm as a whole. Wind farms in Europe do not exclude fishing activities within wind farm borders, and the wind industry met with fishermen early on to discuss their concerns. Fisheries liaisons were used in Europe to facilitate communication. Initially the developers have a very large area and then they talked to the fishing community to help decide exactly where in the larger area the wind farm should go to reduce fishing impacts.

SUGGESTIONS FOR FUTURE WORKSHOPS

The meeting ended with suggestions from the attendees for the remaining workshops. Attendees were given a Comment Form and email address so that they could provide feedback. One comment sheet was handed in at the meeting.

Attendees gave suggestions on the workshop format including: 1) why limited attendance by fishermen; 2) use of information on both concerns and BMPs developed over the last several years, so as not to start from scratch; 3) more coordination with the regional Fisheries Council. In summary, attendees suggested that this workshop can be used as an example to learn from and make future workshops better. The concerns, mitigation ideas, and suggestions developed from the Virginia Beach meeting should be provided at future workshops and have those future participants agree or disagree on each.



- Change the format of the meeting and reframe the questions to get more concrete answers. Present examples of what has already been determined in the US for permits from other agencies like US Army Corps of Engineers – for example, is there already a legal precedent set for submarine cables (telecommunications industry)? What is the standard already used? Also look to oil and gas industry in the Gulf of Mexico for examples of BMPs. What can we learn from Europe’s experience?
- Change the meeting schedule – this is too many meetings for fishermen and no commercial fisherman in attendance in Virginia Beach. Arrange meetings around fisheries and council meetings so people are already in the area. It was noted that the next meeting in RI is in conjunction with the NEFMC meeting.
- Don’t show the video or show only parts of it. Show more examples of wind structures and scour, especially what it looks like underwater.
- Provide a handout depicting the layout of Cape Wind as an example.
- For a presentation, go through a more detailed review of the construction process. Use UK as an example.
- For a fact sheet, cover what are current BMPs from the most recent BOEM 2012 report (Identification of Outer Continental Shelf Renewable Energy Space-Use Conflicts and Analysis of Potential Mitigation Measures).
- Several participants requested an opportunity to comment on the draft report from this workshop to make sure their ideas were captured correctly.