Offshore Wind Energy Session at the Maine Fishermen's Forum

March 3, 2012, Samoset Resort, Rockport, Maine

By

The Island Institute

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ISLAND INSTITUTE

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I. Overview

On Saturday, March 3, 2012, the Island Institute facilitated a well-attended workshop session on offshore wind energy as part of the Maine Fishermen's Forum at the Samoset Resort in Rockport, Maine. This workshop convened key representatives of state and federal regulatory agencies, wind industry representatives, environmental researchers and marine user organizations. Workshop participation was open to all Fishermen's Forum attendees, and it attracted approximately 150 participants, including a broad cross section of fishermen, other marine users, researchers, staff of non-governmental organizations, state and federal agency staff, members of the press and representatives of fishermen's associations from each of Maine's vital fisheries.

The session was comprised of three sections:

1. Panel 1: Offshore wind energy and ocean planning (1.5 hours)
2. Breakout Discussion: An opportunity for participants to provide input to the Bureau of Ocean Energy Management (BOEM) and the Northeast Regional Ocean Council (NROC) in breakout group discussions (45 minute discussion in three small groups)
3. Panel 2: Responses from fisheries leaders (1 hour)

Approximately 150 interested stakeholders attended the Offshore Wind Energy Session at the 2012 Maine Fishermen's Forum.

Key themes that emerged from the day included:

- Maximizing stakeholder involvement
- Identifying the benefits of offshore wind
- Considering the potential for larger scale development
- Availability of compensation for lost fishing grounds
- Preserving a way of life

This report will explore these themes in greater detail as well as provide a detailed description of the Forum session including:

- The agenda and overall motivation for design of the session;
- A short description and identification of the panelists, including contact information;
- Attendance during each part of the session;
- An overview of the presentations from BOEM and Statoil from Panel 1;
- An overview of the Question & Answer discussion for Panels 1 & 2; and
- Specific notes recorded during breakout discussions (Appendices)

II. Background

The **Island Institute** is a non-profit organization that serves the islands and mainland along the coast of Maine. We recognize the strength and fragility of these communities and the surrounding ecosystems, and we seek to support the islands' year-round communities; conserve island and marine biodiversity; develop

model solutions that balance cultural and natural needs; provide opportunities for discussion over responsible use of finite resources; and assist competing interests in arriving at constructive solutions.

The Institute's ocean renewable energy work, which builds on the efforts of our Community Energy and Marine programs, is aimed at ensuring that any future ocean energy developments are designed and sited in such a way as to minimize harmful impacts and ensure that local communities derive benefits from local projects. Through science translation, outreach and education and technical assistance, we seek to provide fishermen and other island and coastal residents with the tools and information they need to weigh the costs and benefits of offshore energy for their communities.

We are working to:

- Ensure that marine users are involved early and often in any siting and permitting processes associated with efforts to develop offshore wind projects in federal waters;
- Hold public meetings to solicit feedback from potentially impacted communities as a way to play a critical role in the successful siting of offshore wind projects;
- Incorporate valuable information held by current marine users into the planning process to minimize any adverse impact on Maine's coastal communities, including the documentation of island and working-waterfront communities' use and dependence on the marine environment through the Mapping Working Waters project;
- Keep fishermen and other coastal residents fully informed of ways to position themselves to take advantage of opportunities for new jobs or additional work associated with offshore wind; and
- Ensure that appropriate research is done to anticipate and monitor environmental impacts.

In the past year, the Institute's offshore wind programming has focused on the Offshore Wind Energy Information Exchange, a multi-faceted effort to engage a broad range of offshore wind stakeholders to learn from each other and address priority questions, concerns and interests through informative materials and experiences. To date, the exchange has reached over 1,000 coastal residents, fishermen, wind industry representatives, legislators, regulators and researchers, either through our tours, briefings and information sessions or through our series of offshore wind energy fact sheets. For more information about this program, please see:
http://www.islandinstitute.org/OffshoreWindEnergyInformationExchange.php

The **Maine Fishermen's Forum**, founded in 1976, provides fishermen and other members of the fishing industry with opportunities to discuss fisheries and marine resource issues. The annual three-day event held in March at the Samoset Resort in Rockport, Maine brings together thousands of people from the fishing industry, government agencies, and other organizations working within the industry. The organizers of the Forum have identified the following goals for the event:

1. An educated public and industry
2. Interaction and sharing among industry, science, and managers
3. An industry, the segments of which actively listen to one another and understand one another and each other's particular issues. (This would include managers and the environmental community.)
4. Enhanced networks and a sense of community

The topics discussed at the Fishermen's Forum are considered to be high priority, timely issues of interest for Maine's commercial fishing community. Panels are selected through a competitive proposal process overseen by the Forum's Board of Directors which is comprised of representatives of 17 marine-related organizations. For general information about the Maine Fishermen's Forum, please see:
http://www.mainefishermensforum.org/.

The topic of offshore wind has been discussed at the Fishermen's Forum for the past three years. Shortly after the Maine Governor's Ocean Energy Task Force concluded and the three R&D test site areas were designated in Maine state waters in December 2009, the Forum highlighted the topic during a widely attended panel discussion in March 2010. Panelists included Daniel Cohen of Fishermen's Energy, Des Fitzgerald of Principal Power, Beth Nagusky of the Maine Department of Environmental Protection, George Lapointe of the Maine Department of Marine Resources, Neal Pettigrew of the University of Maine, Gerry Cushman of the Maine Coast Fishermen's Association, Addison Ames of the Fox Islands Electric Cooperative and Rob Snyder of the Island Institute. For more information on this panel, please see http://www.islandinstitute.org/in-the-media/Sharing-the-bottom-Maine-Fishermens-Forum-looks-at-wind-energy/13709/ .

The topic was highlighted again at the 2011 Fishermen's Forum in a session hosted by the Island Institute with the support of Maine Sea Grant. "What's Really Happening with Offshore Wind Energy and Marine Spatial Planning?" covered two topics that fishermen had heard a lot about in the past few years. Panelists included Wright Frank of the Bureau of Ocean Energy Management, Paul Howard of the New England Fishery Management Council, Dave Beutel of the Rhode Island Coastal Resources Management Center and Matt Nixon of the Maine Coastal Program. Their presentations addressed the current status of offshore wind development and spatial planning off the coast of Maine; fishermen's experience with spatial planning for commercial wind energy development in other New England states; and how the permitting process for wind energy projects works in federal waters. For more information on this session, please see Appendix D.

III. 2012 Maine Fishermen's Forum Session on Offshore Wind

News of Statoil North America's offshore wind facility lease application to BOEM in late 2011 increased the profile of offshore wind development within Maine's commercial fishing community. Recognizing that previous Forum sessions and other recent outreach and education efforts had provided a significant amount of background information on the topic, Island Institute staff designed a session that would maximize the opportunity for discussion and exchange of ideas between panelists and audience members. The Forum board, recognizing the importance of the topic, allotted the topic a 3.5 hour double session. Paul Anderson of Maine Sea Grant served as the session's Forum board sponsor.

A fisherman from South Bristol, ME shows offshore wind energy representatives where he fishes using a map produced by the Island Institute as part of its Mapping Working Waters program.

The following session description was posted on the Forum website, the *Working Waterfront* newspaper and the Island Institute website to advertise the session in advance:

Is Offshore Wind Energy Coming to Maine? Where? When? How? Who makes the decisions? And What Will it Mean for Fishermen?

The first application for a submerged lands lease for ocean wind energy in federal waters off Maine has raised questions about ocean wind energy and how it will impact fishing. A moderated panel will answer audience questions about:

- Impacts to fish, wildlife, fisheries, and other human uses
- Engineering, deployment, maintenance, and operations
- Economics of project financing, impacts on electric rates, and the potential for jobs
- State and federal regulatory processes & timelines, and opportunities for engagement
- Marine spatial planning in the Gulf of Maine, and how it interacts with siting of offshore wind energy

A panel of fishermen will respond and attendees will have the opportunity to draft comments to be submitted to the Bureau of Ocean Energy Management about the recent lease application, and generate input to the Northeast Regional Ocean Council about marine spatial planning.

The session included the following three sections which are described in greater detail below:

1. Panel 1: Offshore wind energy and ocean planning (1.5 hours)
2. Breakout Discussion: An opportunity for participants to provide input to BOEM and NROC in breakout group discussions (45 minute discussion in three small groups)
3. Panel 2: Responses from fisheries leaders (1 hour)

Panel 1: Offshore wind energy and ocean planning (1.5 hours)
This panel was primarily intended to update the audience on the current status of offshore wind development in Maine, including the Statoil lease application, and to provide an opportunity for audience questions. Darryl Francois (BOEM) provided context with a 10 minute overview of BOEM regulatory process and the Statoil Hywind lease application and Kari Hege Mørk (Statoil) provided an overview of Statoil's offshore wind development efforts to date.

Attendance: 150

Moderator:

Heather Deese - Vice President of Programs, Island Institute

Panelists, along with the topics they covered in their remarks, included:

Darryl Francois - Branch Chief for Projects and Coordination, BOEM
BOEM submerged lands lease review process; overview of Statoil Hywind application

Kenneth Fletcher - Director, Governor's Office of Energy Independence and Security
Maine state policy and regulatory responsibilities relative to offshore wind energy

Paul Williamson - Director, Maine Wind Industry Initiative
Prospects for jobs and economic development in Maine with offshore wind energy development, especially marine-oriented opportunities

Kari Hege Mørk - Stakeholder Manager, Statoil Hywind
Statoil Hywind project proposal and plans for offshore wind energy in the Gulf of Maine

Dr. Pete Jumars - Director, School of Marine Sciences, University of Maine
Environmental considerations for offshore wind energy, especially related to commercial fisheries species (lobster, groundfish, shrimp, and tuna)

John Weber – Ocean Planning Managing Director, Northeast Regional Ocean Council
National Oceans Policy and oceans planning in the northeast U.S. region

Capt. Rick Bellavance - President, Rhode Island Party and Charter Boat Association
Fishermen's experience with offshore wind energy planning in Rhode Island

Panelist contact info is included in Appendix A of this report.

Panel 1 Presentation Overviews

Darryl Francois, Branch Chief for Projects and Coordination at BOEM, delivered a presentation introducing his agency's work with renewable energy projects in federal waters. The presentation outlined the ways in which BOEM engages stakeholders, government agencies and the public to gather the best available information to guide their decision making process.

- BOEM utilizes a network of intergovernmental task forces in each of the states currently considering offshore wind energy development to collect information and coordinate with agencies at all levels of government.
- BOEM recognizes multiple uses in areas considered for offshore wind development and the importance of engaging the diverse and numerous user groups in these areas.
- The task forces are designed to provide an opportunity for task force members to educate each other about the important issues associated with each area, exchange relevant data, and maintain open communication and dialogue between federal, state and local government officials
- BOEM uses the input received from these task forces to guide its decision making process for awarding leases to offshore wind energy developers in federal waters.

Francois concluded by describing Statoil's proposed project facilities and objectives for the pilot project.

- The project will consist of four 3 megawatt (MW) wind turbines with a total installed capacity of 12 MW.
- It will be located approximately 12 nautical miles off the coast.
- The pilot project is designed to demonstrate the commercial potential of floating wind turbines in the Gulf of Maine and could then be scaled up to a larger, full-scale commercial wind farm.

Kari Hege Mørk, Stakeholder Manager for Statoil then made a brief presentation describing Statoil's experience with offshore wind energy development, including the Sheringham Shoal project in the United Kingdom and the Hywind deep sea floating wind turbine pilot project off the coast of Norway.

Her presentation featured a promotional video produced by Statoil to highlight the

Statoil's Kari Hege Mørk discusses development plans during Panel 1.

development of the Hywind project, from designing the deep sea floating structure, to manufacturing the components, to assembling the turbine and towing it out to be installed and hooked up in June 2009. A version of this video can be viewed on Statoil's website: http://www.statoil.com/en/TechnologyInnovation/NewEnergy/RenewablePowerProduction/Offshore/Hywind/Pages/HywindPuttingWindPowerToTheTest.aspx.

The video also included information about the technical details of the Hywind test project:

- 2.3 MW turbine manufactured by Siemens
- 65 meters (213 feet) high
- 82 meter (269 foot) rotor diameter
- 100 meter (328 foot) draft beneath the sea
- Produced 7.3 GWh of electricity in 2010 and 10.1 GWh in 2011

Following Francois and Mørk's remarks, the remaining panelists offered brief remarks highlighting their perspectives on offshore wind so that audience members would know how to direct their questions.

Panel 1 Question and Answer Session
Discussion with the first panel focused primarily on the regulatory process and timeline of offshore wind energy siting and development, long-term development goals, the relationship between ocean energy development and marine spatial planning (MSP), anticipated environmental impacts, opportunities for community benefit, and anticipated effects to on-water access for commercial fishing.

The majority of audience questions focused on the following:

- How does the siting of offshore wind fit with the timeline of the National Ocean Policy and MSP?
- What is the ultimate goal with regard to the scale of development of offshore wind energy?
- What opportunities exist for community benefit?
- What environmental impacts can offshore wind development be expected to have, in particular as related to underwater acoustics?
- How will offshore wind development affect commercial fishing communities' on-water access? What degree of exclusion can be expected?
- What would be a showstopper from state or federal agency perspective for a particular development?

Representatives from state and federal agencies field questions during the question and answer session following Panel 1.

For a complete list of questions and answers from panel 1, see Appendix B.

<u>Breakout Session</u> (45 minutes)
Three groups of 15 – 20 individuals discussed four key questions in order to provide relevant information for BOEM and NROC processes.

Attendance: 50

Facilitators:

- Suzanne MacDonald - Community Energy Director, Island Institute
- Chris Bartlett - Marine Extension Associate, Maine Sea Grant
- Paul Anderson - Director and Marine Extension Program Leader, Maine Sea Grant

Breakout group participants were asked to respond to the following questions about MSP and offshore wind energy development:

1. What questions and concerns do you have about MSP? Are there ways you would like to see it used that might be of benefit to fishermen?
2. How would fishermen like to be engaged in MSP?
    a. What information/data are you aware of or have access to that should be incorporated?
    b. What kinds of information/data are missing but should be developed?
3. What kinds of information are you most interested in receiving related to offshore wind energy?
    a. What are the best ways to get you this information?
    b. What kind of information would you want to feed into these discussions?
    c. How can BOEM/task force engage you (i.e., fishermen) in offshore wind discussions?
4. What are the priority factors you would want considered in the siting of offshore wind (both general development blocks and micro siting within those blocks)?
5. Regarding these factors, what would be the best vehicle to provide this information to decision-makers (BOEM and the State)?

Breakout Group 1

The first breakout group focused its discussion on the benefits of MSP, questions about offshore wind energy development and Statoil's proposed project, and ways to get fishermen in the MSP and offshore wind energy development processes. Major questions and themes of the discussion included:

- **Benefits of MSP –** Ocean planning can give fishermen a "voice at the table", an opportunity to influence decision making by providing input on which areas are important fishing grounds. It is important that fishermen be engaged in this process and those responsible for leading MSP efforts should find effective ways to get fishermen involved.
- **Who benefits from offshore wind energy development? –** How will communities and marine users affected by offshore wind energy development in Maine benefit or receive compensation for negative effects (e.g., lost fishing grounds)? MSP can help determine who benefits.
- **What are the best ways to engage fishermen in the offshore wind energy development process? –** What modes of communication work best for connecting with fishermen? How would fishermen like to be represented to developers and marine spatial planners? Participants suggested that local newspapers, working groups for fishermen (reporting to task forces) and local liaisons (hired by developers) to communicate with community members and fishermen would be effective ways to get fishermen involved.

Breakout Group 2

The discussion in the second breakout group focused on the need to compensate displaced fishermen and possible options for doing so. Major questions and themes of the discussion included:

- **Compensating fishermen for lost fishing grounds –** Should compensation be in the form of a one-time payment, which would only benefit current fishermen or should it be put into a fund that

could generate benefits to the industry over the long-term? Will certain fisheries and/or gear types be more impacted that others? If so, will they be compensated more?

- **What are the best ways to engage as many fishermen/affected groups as possible and ensure that the "right people" are at the table? –** Talking to people in the community and getting fishermen and other stakeholders involved early and often is imperative. Participants also pointed to the need to educate involved parties on the appropriate language and translate technical language to make it more digestible for marine users.
- **Losing a traditional way of life –** Many fishermen spoke up throughout the day to say that they are not opposed to the concept of offshore wind energy development or renewable energy, but that they do not want to see their livelihoods threatened by the development of new industries.

To conclude the discussion, the group identified the following questions to ask the panelists:

- What is the process for getting info from fishermen?
- Who is competing for the Maine Public Utilities Commission's Request for Proposals (RFP)?
- How can fishermen take advantage of trade associations and other networks?
- What are the showstoppers/deal breakers for Statoil? What economic loss is the developer willing to take?
- Is Statoil's info/data proprietary? Can other companies besides Statoil learn from whatever Statoil does?
- Can stakeholders get more information about what other companies have tried, the outcomes and their methods?

Breakout Group 3
Highlighting many of the same issues raised in other breakout groups, the discussion in Breakout Group 3 focused on the following:

- **"Catching up" with planning** – Some participants were interested to learn about MSP and ocean energy siting efforts in other states but were left feeling that the limited planning efforts here in Maine left them at a disadvantage, leaving some to wonder what could be done to "catch up."
- **Data needs** – Participants were concerned about the limited amount of marine user data that is available for ocean energy siting and noted the need to capture both spatial and temporal data that reflects how an area is used by primary users, surrounding users, and over seasons and years.
- **Scale of development –** The impacts of 4 versus 100 turbines are likely to be very different. The uncertainty of the future of offshore wind in Maine, along with Statoil's possible interest in a larger project, concerned several participants who feel that in order to build trust, developers and regulators should be up front regarding the potential for broader development.
- **Exclusion zones** – Several participants voiced concerns about the potential for exclusion zones and noted that there was a great deal of uncertainty regarding how ocean turbines might restrict their activities. Fishermen are looking for more detailed information on this topic, with one member of the group noting that the topic should be approached with some creativity and innovation in order to try to balance the needs of multiple uses.

Panel 2: Fisheries Response Panel (1.5 hours)
Panelists each briefly presented their perspectives on offshore wind energy, summarized questions and concerns of the stakeholders they work with or represent and summarized key aspects of breakout group discussions.

Attendance: 110

Moderator:

Rep. Bruce MacDonald - Maine House of Representatives, District 61 (includes Boothbay and Boothbay Harbor)

Panelists:

Pat Kelliher - Commissioner, Maine Department of Marine Resources
Overall perspective of Maine state fishery management relative to offshore wind energy

Chris Wiener - Atlantic Bluefin Tuna Association
Tuna fishery perspective

Patrice McCarron - Maine Lobstermen's Association
Lobster fishery perspective

Mary Beth Tooley - O'Hara's Corporation
Herring and small pelagic fishery perspective

Gerry Cushman - Maine Coast Fishermen's Association and Port Clyde Community Groundfish Sector
Groundfish and shrimp fishery perspective

Panel 2 Question and Answer Session
During the second discussion, panelists voiced some of the primary questions and concerns held by members of the fishery they represent including the following:

- How much of a role can fishing communities have in the process? How is information moving and how are decisions being made? How can you engage the fishing industry well and early on?
- How big will exclusion areas be?
- How can we effectively identify sites that work best for all parties? How can we plan proactively?
- How do we ensure that those who are displaced (immediately or in the future) are compensated?
- Would offshore wind energy development limit the ability of the groundfishing industry to re-establish itself as stocks rebuild in the Gulf of Maine?
- How can we ensure that information will be transparent and outreach will be timely?

For a complete list of questions and concerns voiced during the second panel, please see Appendix C.

IV. Major Themes

Several important themes emerged from the discussions held during the 2012 Fishermen's Forum Offshore Wind Energy Session, including:

- **Maximizing stakeholder involvement** - Members of the fishing industry are concerned about the potential impacts of offshore wind energy development on their livelihoods. They want to be involved in the decision-making process about where and whether wind projects are developed in the Gulf of Maine, but many of them are unsure of how best to get involved. It is important for developers (Statoil), government agencies (BOEM), and other organizations (Island Institute) to work to keep fishermen and other stakeholders well informed and engaged in this process, and to solicit feedback and data from these stakeholders as a way to better inform the siting process.

- **Identifying the benefits from offshore wind energy** - Participants at the session asked repeatedly about how offshore wind energy projects would benefit the communities along the coast of Maine that might be affected by development. These questions have yet to be answered directly and should be addressed by developers early in the process of community and stakeholder outreach to address fears that fishermen and communities will be impacted without benefiting from offshore wind energy projects. A particular focus is on where cables will come ashore and whether or not power generated off of Maine's coast will go directly to Massachusetts.
- **Considering the potential for larger scale development –** Several participants discussed their concerns regarding the uncertainty of how offshore wind may continue to develop in Maine. A small, pilot scale project limits the challenges to Maine's fishing community but larger projects present a host of additional questions and concerns. Many related this back to the topic of ocean planning.

Rep. Bruce MacDonald (D-Boothbay) discusses offshore wind energy with Statoil's Kari Hege Mørk after the conclusion of the session.

- **Availability of compensation for lost fishing grounds** - A persistent question that participants raised throughout the session was how fishermen would be compensated for lost fishing grounds if they are displaced by offshore wind energy development.
- **Preserving a way of life** - Many participants in the session expressed support for offshore wind energy and other types of renewable energy generation, but voiced concerns about sacrificing an important traditional Maine industry for a new and untested industry that could displace marine users.

V. Additional Considerations

A number of factors contributed to the session's success and should be considered when planning future efforts to convene stakeholders around the potential for offshore wind development in Maine.

- **Diversity of panelists -** The questions, concerns and interests most often voiced from the commercial fishing community in Maine span a wide range of topics. Having a diverse group of panelists was key to being able to structure a productive question and answer session.
- **Opportunity for face-to-face conversations –** Providing participants with a chance to have face-to-face, informal conversations with each other was important in helping to build relationships and for stakeholders to better understand each other's priorities. Especially with the topic seeming so foreign to many coastal stakeholders, this opportunity was invaluable.
- **Highlighting the experiences of marine users in other states -** Fishermen in Maine are keen to learn how the ocean energy siting process has worked in other states and how marine user interests have been represented in the process. Rick Bellavance's participation in Panel 1 enabled Maine fishermen to reflect on his lessons learned from the Rhode Island Special Area Management Plan process and continued efforts to develop ocean wind energy in that state.
- **Discussion of community perspectives** - The fisheries response panel provided an important opportunity for fishermen to have their voices heard and share their perspectives on offshore wind

with other fishermen. It also helped several fisheries leaders become more familiar with the topic and engaged in the discussion which will likely mean that they will continue to track the issue in the future. Finally, it also enabled non-fishing participants to better understand fishing concerns and priorities.

- **Timing and piggybacking** - Finding a time that works for commercial fishermen to attend meetings can often be a challenge. The fact that the Fishermen's Forum takes place in late winter on a weekend that is traditionally known to have some of the worst weather of the season helps to maximize participation from the fishing community that is typically occupied in spring-fall. In addition, adding the topic of offshore wind to an event that is already a priority for many fishermen to attend - as opposed to planning a separate event - also helps to use fishermen's time most effectively and ensures a good turnout

VI. Conclusions

The Offshore Wind Energy Session at the 2012 Maine Fishermen's Forum was the latest in a series of efforts to engage the commercial fishing community of Maine and the Greater Gulf of Maine in discussion regarding the potential for offshore wind development to impact their livelihoods. By providing fishermen with opportunities to both hear directly from experts on offshore wind issues and to voice their own concerns and priorities to the group, the session was considered to be a successful investment in what many hope will be a productive engagement process as ocean wind is considered for the Gulf of Maine.

Appendix A: Panelist Contact Information

Panelist	Organization	Title	Email
Heather Deese	Island Institute	Vice President of Programs	hdeese@islandinstitute.org
Darryl Francois	BOEM	Branch Chief for Projects and Coordination	Darryl.Francois@boem.gov
Kenneth Fletcher	ME Office of Energy Independence and Security	Director	Kenneth.C.Fletcher@maine.gov
Paul Williamson	Maine Wind Industry Initiative	Director	pw@mainewindindustry.com
Kari Hege Mørk	Statoil Hywind	Stakeholder Manager	kahm@statoil.com
Dr. Pete Jumars	University of Maine	Director, School of Marine Sciences	jumars@maine.edu
John Weber	Northeast Regional Ocean Council	Ocean Planning Managing Director	jweber@northeastoceancouncil.org
Capt. Rick Bellavance	Rhode Island Party and Charter Boat Association	President	makosrule@verizon.net

Appendix B: Panel 1 Discussion

The notes that follow in Appendices B and C were taken during the session by Island Institute staff and are meant to capture the general themes and questions raised during the session. They were not recorded verbatim and any statements outlined below should not be considered as direct quotations from the parties attributed to them.

How does the siting of offshore wind fit with the timeline of National Ocean Policy (NOP) and Coastal and Marine Spatial Planning (CMSP)?

Q: CMSP seems useful and productive, but we are taking proposals first and worrying about the planning later on, which seems backwards. How are you working with NOP and tying in CMSP? How do we do this so we aren't chasing information as proposals pop up?

Darryl Francois (DF): The challenge is that there is ongoing activity and development (e.g. CMSP is never-ending as uses change, etc.); CMSP project is something that BOEM feeds into, coordinates with National Ocean Council; there will be ongoing opportunities to incorporate activities.

John Weber (JW): NOP is explicit in saying that life doesn't stop while CMSP is underway; the challenge for us all is getting better information about where fishing happens.

Q: What process was used for siting Hywind? What kind of interactions do you have with the fishing industry?

Kari Hege Mørk (KHM): In Norway there is a different process for permitting – authorities decide which areas will be used for what; it is a very quick process, but it was for only 1 turbine; in the UK, there are lots of fisheries, lots of wealthy second home owners, scenic beauty = experience very relevant to ME; Statoil had dialogues about exclusion zones, compensation, defining shipping lanes, defining rules of how to work together.

What is the ultimate goal for the scale of development of offshore wind energy?

Q: Moving beyond pilot, what is the ultimate goal for development?

Ken Fletcher (KF): We are still in the research and development (R&D) phase; looking ahead, 500 MW installed would be a commercial (2030-2040 we could be up over 1000 MW), but that is all dependent on technology still years ahead of work

DF: This is a pilot project, it will go through a rigorous Environmental Assessment (EA) and will be at least a 2yr process before a permit or lease might be granted; several years for construction and testing.

KHM: Statoil has no specific plans for a big commercial park at the moment, but that is obviously our ultimate goal in the future. We think of 2020 as a timeframe for a commercial park; offshore farms that are built today are 300-500 MW. We have seen examples of 1000 MW. Years ago we were at 100MW, so this goes in steps. Right now 300-500 MW is the norm, (3 MW turbines is typical today, 90 turbines = 300MW), but there is a focus on developing larger turbines (5-7 MW, someone is working on 10 MW).

Pete Jumars (PJ): Scaling is a big issue. The Euro experience with offshore wind is not as useful as you might expect for knowing what to expect from an anchoring system, different technology, rigid structure = probably better structure from a sound perspective; speculations about changing circulation patterns, may cause upwelling.

Paul Williamson (PW): Economics depends on supply chain developments; if you look at 500 MW, apply job modeling = 1500 jobs, but not all will be created locally; 25% related to installation, 75% related to manufacturing, etc. That does not necessarily have to be local; currently there is no company in Maine that could roll the steel, but we do have good steel fabrication. If we invest in supply chain, a higher % of jobs will be created here locally.

Q: How much space will this all take up; is there a cap on how far we will go with this all? Are we replacing fishing with support/maintenance jobs or will there be space for fishing too?

KF: The reason we are looking at offshore renewable energy is to be more sustainable in the long term; ocean wind is looking ahead to say can we generate our own energy in a cost effective way so we can enhance our economic development; our goal is to get the installation cost down so it can compete with other forms of energy. Sooner or later it has to fit into the electric grid. What we are really looking at are effective alternatives to replacing other sources of energy for transportation and home heating.

Rick Bellevance (RB): It is up to us as industry participants to work to keep fisheries active on the waters by participating and feeding information into the process; if info is accurate and sincere and presented in a good way, areas will be removed from consideration for development. The process is frustrating and long but there is no one better than those who work on the water to provide that information and work on collaborative agreements at the same time.

KHM: The pilot project lease is 22 square miles. We have no intention to use all of that area. In the next year or two we will learn about the area – socio-economic, environmental and seabed conditions… we expect to use less than four square miles.

What opportunities exist for community benefit?

Q: Assuming this all goes through and a major commercial wind farm is developed, you can start looking at community benefit agreements (CBAs) as a way to create investment in supply chain and indirect benefits to community with the revenue created by the project – is that conversation in play?

PW: It is included in the PUC RFP that local benefits have to be calculated within project scale; but you don't want to set up an artificial market place that is going to ratchet up the price of the project/energy.

RB: In Rhode Island, we have a developer proposing a pilot and also a larger offshore commercial project. There has been discussion related to R&D using fishing vessels to do that research and also as transport.

Environmental impacts of offshore wind development: underwater acoustics.

Q: Will there be underwater acoustic work done as part of the environmental review process? Will this include research on spawning fish communications?

PJ: The University of Maine is doing studies off Monhegan. We have pre-turbine acoustic records and plan to deploy a small turbine in June 2013 and we will gather acoustic data then as well.

KHM: For the Hywind project, we have started to survey the noise and we will know more in one year and will use that data in environmental studies.

How will offshore wind development affect commercial fishing communities' on-water access? What degree of exclusion can be expected?

Q: What about exclusion around anchoring cables?

KHM: This will be discussed with US Coast Guard. The reason for our concern is not out of damage for our equipment, but damage to fishing gear and safety of those using the area. Anchor lines will be 600m from the turbines in each direction (diameter of less than one mile around each turbine).

We do not anticipate that there will be an exclusion zone on the transmission line. There will be during the construction of the cable, but in UK there are no exclusion zones and at much higher voltage.

Q: In highly territorial areas, how will we address issues of historical use and territoriality if there is displacement?

KF: Ideally, the effect will be a minimal effect, but that is the work we have ahead of us. We have not addressed this by establishing a policy, but remedial actions will need to be included in permitting.

DF: Through the task force process, we would want to bring as much info about impacts to the table as possible.

Brian Hooker (BH) – Environmental review will look at displacement. We also have studies looking at best management practices (BMPs) that will help inform the Environmental Impact Statement (EIS).

The test site has potential to impact up to 1/3 of the coast of ME.

Q: What would be the impact to fisheries' role in the state of MEs economy, impacts from cabling, etc. be?

KHM: We would like to respect the activities already active in the proposed area. If you have ideas on which parts of the area we should avoid, please bring your voice to the table.

KF: With this objective to look at ocean energy, we are not looking to make a decision that fishing or energy is better than the other, but that both can be enhanced.

What would be a showstopper?

KHM: Pilot will be a balance, we would need to balance expected income and the costs. As to the cost impact, we have our estimates. We will use the next two years to learn more about development and then make a financial investment decision. This project won't necessarily be held to commercial standards.

DF: Are there no conditions/mitigations that would allow the development to proceed? There are no specific environmental show stopper examples. We just made a decision to exclude some areas off of Rhode Island to respond to fishing concerns.

KF: This is R&D work, so you have to be willing to put something into a project. So we established a cap ($10million/year for a 20yr contract; investment of up to $200million to move a project forward) and other additional criteria in the RFP.

Appendix C: Panel 2 Discussion

Chris Weiner (CW): I'm concerned that a lot has already been thought through and put into the process. How much of an impact can we have at this point? Will there be a large commercial site down the line? The area in question is one of the most important places to the tuna industry off the coast of Maine. How is information moving and how are decisions being made? We need real answers to questions like how big is the exclusion area going to be? I don't believe fish aggregation will be significant for bait species. The State of Maine has the right intentions, but you need to work with fishermen early on and try to find the least important areas.

Patrice McCarron (PM): We fear the unknown. We can wrap our heads around a pilot, but we have concerns about a commercial scale project. There is a lack of data on the fishing side. It is a cultural shift to think about drawing fishing areas on maps. In terms of compensation – how do we ensure that those displaced are compensated? What about future displacement? We have less flexibility because of territoriality. How could we use compensation to build up the industry?

Mary Beth Tooley (MBT): The herring industry moves around. We don't know the impact of the proposed site. How can you engage the industry well and early on? Industry reacts poorly to being put in a defensive position at public hearings.

Gerry Cushman (GC): Maine is losing groundfish boats all the time. We are on the brink of collapse. Rebuilding groundfish may not align with offshore wind development.

Pat Kelliher (PK): One issue is the lack of information. We need more info and ability to understand the uses in those areas and impacts to the resources in those areas. The Department of Marine Resources (DMR) will comment through the Department of Environmental Protection (DEP) on impacts to resource and industry. The key will be outreach. Statoil needs to be upfront and honest, sooner rather than later. The Ocean Renewable Power Company (ORPC) is a great model for outreach in local communities.

Q: Is there a way to represent ourselves (fisheries working group, etc.)?

Paul Williamson (PW): We can use geographic information systems (GIS) to model what could happen in an area under various scenarios around economics, safety, etc.

PK: It is the role of the applicant, not the state, to be involved in outreach. Need to plan for large scale as much as pilot scale.

PM: Are there other proposals pending from the PUC's RFP?
Ken Fletcher (KF): The Statoil project is that project.

Q: Could you seed scallops in a wind farm exclusion area?

Participant: You need to include historical groundfish information in order to look toward rebuilt stocks.

Participant: We need a good sense of size of various scale commercial developments.

Participant: Need to continue to proactively plan even if Statoil doesn't move forward. We should have an area in mind if this comes up again.

Participant: Outreach needs to be grassroots. You have to walk the docks and know the people involved. You have to earn their trust.

Participant: Just because fishermen come and growl, doesn't mean we are unaware of the need for renewable energy.

Q: Why can't the question be where should the box be, not where in the box? What are the constraints for Statoil? How much flexibility is there to move the box?

Kari Hege Mørk (KHM): The site was picked based on info from the University of Maine study (fishing activity).

Surveys for this area will start this spring. It is not that important to be exactly where we are right now.

We need to be close to a grid connection and consider environmental and stakeholder impacts.

Looking at another area would mean starting the process over again which would cost a lot.

Q: If the Maine Lobstermen's Association (MLA) approached and wanted to buy stock, could we get a reduced rate stock sale? Could we create shareholders out of displaced fishermen?

Appendix D: Fishermen's Forum 2011 summary from Island Institute website

http://islandinstitute.org/FishermensForum2011.php

Fishermen's Forum 2011

From 1:00 to 2:30 p.m. on Friday, March 4, 2011 at the Maine Fishermen's Forum, Heather Deese, the Island Institute's Senior Program Director, moderated "What's Really Happening with Offshore Wind Energy and Marine Spatial Planning?", a panel discussion hosted by Paul Anderson, Director of Maine Sea Grant.

This session addressed two topics that fishermen have heard a lot about in the last few years: offshore wind energy and marine spatial planning. Building off discussion in the National Oceans Policy session, the panelists covered such questions as:

- Is wind energy really going to happen off of Maine?
- What is the relationship between wind energy siting and MSP?
- How will decisions be made about offshore wind farms?
- How can fishermen get involved?

Speakers addressed the current status of wind-energy development and spatial planning off the coast of Maine; fishermen's experience with spatial planning for commercial wind energy development in other New England states; and how the permitting process for wind energy projects works in federal waters.

Panelists included:

Matt Nixon, Senior Planner, Maine State Planning Office, who provided an overview of ocean energy initiatives in Maine;

Dave Beutel, Fisheries and Aquaculture RI Coastal Resources Management Center, who addressed how fishermen participated in Rhode Island's Special Area Management Plan;

Wright Frank, Energy Program Specialist, Office of Offshore Alternative Energy Programs, U.S. Bureau of Ocean Energy Management, who provided an overview of the federal leasing and permitting process for offshore wind energy developments;

Paul Howard, Executive Director, New England Fishery Management Council who discussed offshore wind and marine spatial planning from a fisheries management perspective.