Bureau of Ocean Energy Management Massachusetts Renewable Energy Task Force

April 29, 2015

Meeting Summary

U.S. Department of Interior Bureau of Ocean Energy Management Prepared: May 2015

I. Introduction

The Bureau of Ocean Energy Management (BOEM) convened the in-person meeting of the Massachusetts Renewable Energy Task Force at Holiday Inn in Falmouth, Massachusetts on April 29, 2015.

The Task Force meeting included several presentations, each followed by discussion with Task Force members. ¹ These presentations included the following:

- Welcoming remarks by James Bennett, Chief of BOEM Office of Renewable Energy Programs, and Pat Field, Consensus Building Institute
- Presentation of the Massachusetts Auction and Results by Bill Anderson, Economist, Economics Division, BOEM
- Overview of the Commercial Leases including Next Steps by Jessica Stromberg, Project Coordinator, BOEM OREP
- Overview of Environmental Stipulations & Next Steps for Environmental Review of Plans by Brian Krevor, Environmental Protection Specialist, BOEM OREP
- Update on State Initiatives and Studies by Bill White, Senior Director, Offshore Wind Sector Development, Massachusetts Clean Energy Center, and Bruce Carlisle, Director, Massachusetts Office of Coastal Zone Management
- Task Force Member Updates
- Introduction of Commercial Lessees by Carolyn Heeps, RES America Developments Inc., and Erich Stephens, Offshore MW LLC
- Overview of Action Items and Next Steps by Jessica Stromberg, Project Coordinator, BOEM OREP and Patrick Field, Facilitator, CBI
- Closing remarks by James Bennett, Chief of BOEM Office of Renewable Energy Programs

The meeting was followed by a public session.

¹ Presentations from the meeting are available on BOEM's Massachusetts's webpage: http://www.boem.gov/Massachusetts-Task-Force-Meeting-April-29-2015/..

II. Meeting Participants

The following is a list of attendees from the April 29, 2015 BOEM Massachusetts Task Force meeting.

Federal, State, Local, NGO, and Tribal Participants

- 1. Bill Anderson, Bureau of Ocean Energy Management
- 2. James Bennett, Bureau of Ocean Energy Management
- 3. Nils Bolgen, Massachusetts Clean Energy Commission
- 4. Kathy Burton, Town of Oak Bluffs
- 5. Bruce Carlisle, Massachusetts Coastal Zone Management
- 6. Mel Cote, Environmental Protection Agency
- 7. Jennifer Golladay, Bureau of Ocean Energy Management
- 8. Kathryn Ford, Massachusetts Division of Marine Fisheries
- 9. Grover Fugate, Rhode Island Coastal Zone Management
- 10. Brian Hooker, Bureau of Ocean Energy Management
- 11. Cheri Hunter, Department of Interior, BSEE
- 12. Tristan Israel, Duke County Commission
- 13. Richard Knabel, Town of West Tisbury
- 14. Brian Krevor, Bureau of Ocean Energy Management
- 15. Andy Krueger, Bureau of Ocean Energy Management
- 16. Mark London, Martha's Vineyard Commission
- 17. David MacDuffee, Bureau of Ocean Energy Management
- 18. Heather McElroy, Cape Cod Commission
- 19. Megan Ottens-Sargent, Town of Aquinnah
- 20. James Quigley, Office of U.S. Representative Bill Keating
- 21. Seth Rolbein, Office of State Senator Dan Wolf
- 22. Lauren Sinatra, Town of Nantucket
- 23. Jessica Stromberg, Bureau of Ocean Energy Management
- 24. Chris Tompsett, U.S. Navy
- 25. Susan Tuxbury, National Oceanic and Atmospheric Administration
- 26. Bettina Washington, Wampanoag Tribe of Gay Head (Aquinnah)
- 27. Bill White, Massachusetts Clean Energy Commission

Public Observers

- 1. Megan Amsler, Self-Reliance
- 2. Richard Andre, Vineyard Power
- 3. Ron Beck, Tetratech
- 4. Jack Clark, Mass Audubon
- 5. Downing Cless, Citizen
- 6. Neal D. Costello, Citizen
- 7. Jane Courtney, US Offshore Wind Collaborative
- 8. David Dow, Sierra Club
- 9. Paul Dreyer, Citizen
- 10. Ralph Herbst, FAL Planning Board
- 11. Amber Hewett, National Wildlife Foundation

- 12. Aileen Kenney, Deepwater Wind
- 13. Leon Malkin, Citizen
- 14. Joanne Malkin, Citizen
- 15. Laura Maul, Citizen
- 16. John Miller, Marine Renewable Energy Collaborative
- 17. David Moriarty, Citizen
- 18. Matt Morrissey, Offshore Wind Massachusetts
- 19. Tom Neel, Vineyard Power
- 20. Gerry Palano, Citizen
- 21. Erik Peckar, Vineyard Power
- 22. Ann Pembroke, Normandeau Associates, Inc.
- 23. Martin Plass, Citizen
- 24. Deborah Rutecki, Normandeau Associates, Inc.
- 25. Kathy Sherman, Citizen
- 26. Jim Smutt, Offshore Wind Massachusetts

Facilitation Team

- 1. Pat Field, Consensus Building Institute
- 2. Griffin Smith, Consensus Building Institute
- 3. Julie Herlihy, Consensus Building Institute

III. Key Discussion Points

James Bennett, Chief of BOEM Office of Renewable Energy Programs (OREP), welcomed the Task Force members and public audience to the meeting. Mr. Bennett introduced himself and briefly outlined the charge and structure of BOEM. He reviewed the meeting agenda, with BOEM presenting the details of the Massachusetts offshore wind auction held on January 29, 2015 and explaining next steps for the commercial leases, including environmental reviews. The Commonwealth of Massachusetts would also provide an update on studies and other initiatives they have conducted for the Massachusetts Wind Energy Area (MWEA). Following these presentations, Task Force members would have an opportunity to provide updates on their related activities, and the two commercial lessees would provide an introduction. The meeting would conclude with a public comment period.

Bruce Carlisle, Director of the Massachusetts Office of Coastal Zone Management (CZM), welcomed the audience on behalf of the Commonwealth and introduced himself. He thanked BOEM for its efforts, noting its commitment to building the groundwork for the important milestone of the auction through partnership with the Task Force.

Patrick Field, facilitator from the Consensus Building Institute (CBI), explained his role as meeting facilitator and led the Task Force through introductions (see section II for attendance list).

A) Presentation of the Massachusetts Auction and Results

Bill Anderson, BOEM Economics Division, reviewed the January 29 auction. Two bidders, RES America Developments, Inc. and Offshore MW LLC, successfully bid for two of the four available leases, with RES America winning OCS-A 0500 and Offshore MW LLC winning OCS-A 0501. The auction generated \$431,482 in revenue with RES America paying \$281,285 for OCS-A 0500 and Offshore MW LLC paying \$150,197 for OCS-A 0501 (after a 10% non-monetary credit for submitting a qualified Community Benefits Agreement (CBA)). He explained that the leases sold for lower prices per acre than previous commercial lease sales due to the large areas of the tracks and areas of deep-water acreage. He then reviewed the format and process of the auction and noted that the Department of Justice 30-day antitrust review concluded, the commercial leases were offered and executed, and both went into effect on April 1, 2015.

The Task Force asked no additional questions and provided no additional comments about the commercial auction.

B) Overview of the Commercial Leases Including Next Steps

Jessica Stromberg, BOEM OREP Project Coordinator, provided an overview of the commercial leases and explained the next step in the process. She began by reviewing the four stages of the offshore wind authorization process: planning and analysis, leasing, site assessment, and construction and operation. Planning and analysis for wind energy offshore Massachusetts began in 2009 with the identification of initial areas, followed by publication of planning notices to assess interest and obtain additional information, and culminated with the publication of an environmental assessment (EA). The leasing phase followed with the publication of the proposed and final sale notices, the publication of the revised EA and finding of no significant impact (FONSI), and which resulted in a successful auction in January 2015. Following the auction, the commercial leasing process offshore Massachusetts is now in the third phase, site assessment, which is primarily conducted by the lessees.

Ms. Stromberg reviewed the elements, addenda, and term and conditions of the two commercial wind energy leases. Each lease includes a preliminary term of 12 months in which the lessee must submit a Site Assessment Plan to BOEM. The SAP describes the activities (e.g., the installation of meteorological towers, meteorological buoys) the lessee plans to perform for the characterization of the commercial lease. The SAP must also include the results of surveys conducted by the lessees to support the siting and installation of the site assessment facilities. Site assessment activities are the installation of a data collection device to assess the wind resources and ocean conditions of the commercial lease area. Site characterization activities are site-specific surveys conducted to collect information regarding existing resources and conditions of the commercial lease area. Prior to conducting surveys in support of a SAP or COP submission, the two lessees are required to submit survey plans to BOEM. Ms. Stromberg reviewed the requirements for when survey plans are to be submitted, as well as BOEM's review process for a SAP and COP. The COP describes the construction, operations, and

conceptual decommissioning plans under the commercial lease, including any project easements. Each commercial lessee is required to submit a SAP by April 1, 2016. In the event the SAP is approved by BOEM, the lessees are required to submit a COP 4.5 years after the approval of the SAP. Each lease has a 25-year operations term following the approval of the COPs.

A Task Force member asked what the role of the Task Force would be from this point forward. BOEM explained that they would continue to engage the Task Force, which will meet at major process milestones, including after the submission of the SAPs and COPs.

A Task Force member asked how long the entire process might take. BOEM noted that lessees can request extensions for the preliminary terms to submit a SAP. BOEM also noted that the timeline for the entire process will likely last over 30 years given the one year preliminary term, possible extension requests, SAP and COP review periods, and potential Environmental Impact Statement (EIS) requirements, all of which are necessary to complete before the start of the 25-year operations period. As the 25-year terms starts immediately after the COP approval, lessees have an impetus to build the project as soon as possible at that point.

A Task Force member asked about when the decommissioning information is required to be submitted. BOEM noted that two years before the expiration of the operation, lessees must submit decommissioning applications for review and approval by BOEM. Lessees may also request lease renewals, which are reviewed and subject to approval by BOEM.

A Task Force member asked about the operational lifespan of current offshore wind technology. BOEM responded that current offshore wind technologies normally have 20 to 25 year operational lifespans. As wind technology is changing, BOEM will evaluate the situation to determine an appropriate course of action as the lease terms reach their expiration periods. In addition, SAPs focus on the area of impact by analyzing data provided by met buoys or towers, but lessees can also propose to conduct additional assessment surveys.

Task Force members asked questions about the scope of the environmental assessment for the COPs and the role of climate change in those assessments. BOEM noted that the COPs will likely entail a full EIS with public scoping and involvement. Finally, NEPA review does consider global climate change in terms of a project's overall contribution but not through its potential offsetting capacity.

C) Overview of Addendum C, Environmental Stipulations, and Next Steps for Environmental Review of Plans for Offshore Massachusetts

Brian Krevor, OREP Environmental Protection Specialist, began by explaining the background of the Massachusetts Environmental Assessment (EA), released in June 2014. The EA included a finding of no significant impact following an analysis of lease issuance, site characterizations surveys, and site assessment. The EA did not include

analysis of wind energy facilities. The consultations conducted pursuant to the Endangered Species Act (ESA) and the National Historic Preservation Act resulted in lease stipulations incorporated into Addendum C of the commercial leases. The lease stipulations include vessel strike avoidance measures and observer requirements for marine delphinoids, non-delphinoid cetaceans (including a 500 meter separation distance from North Atlantic right whales), sea turtles, and pinnipeds (seals). In addition, the lessees are required to follow archaeological survey requirements, which include a tribal pre-survey meeting and post-discovery measures. Mr. Krevor then explained specific HRG and Geotechnical survey and reporting requirements. He concluded by covering the next steps for the SAPs and COPs, noting that BOEM will likely require a full EIS. There will be additional opportunities for public comment throughout the process.

A Task Force member asked about the role of observers and marine mammal protection and their ability to shut down work if they deem it necessary. BOEM team explained that BOEM-approved observers on-board project ships are normally sufficient to monitor compliance with marine mammal stipulations. BOEM can also request a berth on project vessels to conduct further monitoring if necessary. The number of observers required depends on a project's plan, though there must be at least one observer with professional experience for protected species observations. The leases require mandatory shut down procedures upon observer request, for example, if an operator incurs into an exclusion zone. In other offshore projects, observers have shut down operations off of met towers, but there are no reported mammal strikes. In addition, while the presentation only highlighted several acts, operators will need to comply will all applicable environmental laws and executive orders, including the Marine Mammal Protection Act and the Migratory Bird Treaty Protection Act.

A member of the Task Force asked if there were other COPs under review. BOEM noted that while Cape Wind is the only project in the country with a submitted COP, commercial lease operators in Delaware and Maryland submitted SAPS, which are currently under BOEM review. In addition, US Wind in Maryland and Deepwater Wind in Rhode Island have submitted SAP survey plans. BOEM has also received a Research Activities Plan (RAP) for a research lease offshore Virginia, and project plans for interim policy leases offshore New Jersey.

A Task Force member asked how many met towers were approved under the EA. BOEM noted that EAs assume that each lease area will use one met tower or two met buoys. Cape Wind manages the only constructed met tower in the country. Two interim policy leases offshore New Jersey deployed meteorological buoys, which are now under decommissioning.

A Task Force member asked about the sources of data for an EIS. BOEM noted that EISs rely on the best available information and incorporate a number of data sources. As the Commonwealth operates a robust environmental monitoring program, it will provide valuable data. In addition, lessees have to report their survey results with their SAP and COP submittals. In terms of partnering with other agencies to respond to site-specific data collected during SAPs and COPs, BOEM will engage in consultations with other

agencies to review and determine what aspects fall within their scope. The National Marine Fisheries Service will evaluate this data as well. For the NEPA review process specifically, BOEM invites multiple cooperating agencies in preparing the EIS, including the Army Corps of Engineers, the Commonwealth of Massachusetts, the State of Rhode Island, the Coast Guard, and NOAA.

A Task Force member asked if the EPA was typically part of that consultation process. BOEM stated no, but BOEM and EPA could discuss whether to involve EPA in the NEPA process.

D) Update on State Initiatives and Studies

Bill White, Massachusetts Clean Energy Center Senior Director of Offshore Wind Development, updated the Task Force on the Commonwealth's initiatives. The Commonwealth has conducted marine resource surveys in the MWEA for the past three years in partnership with BOEM. These include benthic studies as well as aerial surveys of several keystone marine species, including whales, sharks, and sea turtle species, with the goal of providing data to support the SAPs. Mr. White showed the Task Force previews of the data outputs and noted that the Commonwealth will finalize these reports by the end of 2015.

Mr. White then gave a transmission planning update and commented that new offshore wind projects could potentially generate enough power for half of the Commonwealth's homes. Transmission planning has focused on identifying interconnection points and transmission cable routes that minimize environmental impacts and other conflicts in state waters. The report, which is publically available, identifies 345 kV substations, highlights HVDC as the likely transmission option, over HVAC, for MWEA build-out, and notes potential interconnection locations, including Brayton Point, Massachusetts.

Mr. Carlisle then overviewed the Massachusetts Ocean Plan Update. The update includes a review of offshore wind energy transmission options in state waters. The plan examines potential transmission routes using compatibility analyses and optimization to avoid critical areas while also minimizing the length of the transmission cables. The plan also identifies areas of soft seafloor substrate to ease cable installation and minimize environmental impacts and recommends horizontal drilling techniques to mitigate impacts on near-shore resources. The 2015 Ocean Plan identifies preliminary areas for transmission routes, appropriate for additional site characterization. Mr. Carlisle showed a map of these preliminary corridors and emphasized that the Commonwealth will sync its survey work with the next steps in BOEM's process. The Commonwealth identified survey and characterization work as one of the top science priorities in the 2015 Ocean Plan.

A Task Force member asked about impacts of transmission cables on seafloor habitats. The Massachusetts representatives explained that the state has conducted extensive seafloor mapping to characterize substrate conditions for laying transmission cables in partnership with USGS, NOAA, DMF, and other agencies. The state also has a moderate

understanding of sediment thickness. While more research on substrate thickness will be required, the state is already partnering with USGS at Woods Hole to study benthic bed mobility to identify more and less dynamic areas.

A Task Force member asked about the various corridors for transmission that were identified in the presentation and the ability to coordinate across projects. A state representative noted that the analysis of transmission line routes has focused on state waters, including the area around Nomans Island given the scope of the Commonwealth's planning authority. However, the Commonwealth will conduct a similar planning effort in federal waters, including analyzing the viability of a transmission line in Rhode Island. While the transmission routes are still preliminary and require further review, the Commonwealth did not receive any major negative comments about these routes. Furthermore, while the two developers would ideally share a single transmission line, there are coordination, timing, and technological barriers to this approach. Transmission lines can only carry around 500MW, and New England ISO also prefers to distribute power transmission into 500MW units to ease management of the grid and reduce risks. The Commonwealth will build mitigation considerations into its transmission planning process, and municipalities and other stakeholders will have opportunities to discuss key issues with the lessees. BOEM will also review the entirety of the transmission plan in both state and federal waters prior to construction. A Task Force member supported starting transmission planning within the Commonwealth, given that is where the lines will likely make landfall and also expressed support for analyzing the area around Nomans Island.

The Massachusetts representatives also noted that habitat surveys are integrating data from a variety of sources, including the North Atlantic Right Whale Database and the Integrated Bird Database. Massachusetts has partnered with BOEM to develop more detailed data for habitat characterization. In addition, NROC and the Northeast Regional Planning Council have aggregated habit and other data layers on the Northeast Data Portal, which will be a good source of data for the lessees. BOEM officials lauded the partnership with Mass CEC, noting that its wildlife surveys have produced a large quantity of quality data that has informed the bureau's understanding of local wildlife.

E) Task Force Member Updates

Task Force member Susan Tuxbury, NOAA fishery biologist, noted that Julie Crocker, NOAA Protected Resources Division, wanted to inform the Task Force that the Protected Resources Division issued a proposed rule in February 2015 to expand right whale critical habitat. The rule is now under review following the comment period and will be published in one year, and, under ESA rules, there will be a conference to discuss the impacts of this action. In addition, the New England Fishery Management Council passed an omnibus amendment that would categorize two regions, totaling 30,000 square nautical miles, in the Gulf of Maine and George's Bank as essential fish habitat areas.

F) Introduction of Commercial Lessees

Carolyn Heeps, RES America Developments Inc., thanked BOEM and the Task Force for working to move the project to this stage. Dr. Heeps highlighted RES America's experience as a leading renewable energy project developer and explained its role in the development, operation, and maintenance of renewable energy projects. The RES Group has developed offshore projects in Britain and Europe since the 1990s and also has experience with the U.S. Pending approval by BOEM, RES America will transfer commercial lease OCS-A 0500 to DONG Energy while continuing to provide development and support services. DONG is a leading offshore wind developer with multiple offshore projects and over twenty years of experience in the industry. In preparation for the project, DONG is establishing a Boston office and developing a local recruitment process. In response to a Task Force question about local employment, Dr. Heeps, explained that it is too early in the development process for RES America to identify future employment opportunities on Cape Cod and Martha's Vineyard, but it will conduct substantial stakeholder engagement.

Erich Stephens, Offshore MW LLC, introduced his firm, which is part of the Blackstone Group that runs three offshore wind enterprises. These three related entities pool their management and technical expertise. Mr. Stephens highlighted the Meerwind project, operated by WindMW in Germany, as one of the firms' many successful offshore projects. The Meerwind project further demonstrates Blackstone's experience with nonrecourse project financing, multi-contract construction operations, and operations and maintenance bases, all of which will likely be employed for the Massachusetts commercial lease. Mr. Stephens also pointed to Offshore MW's community partnership and benefits agreement with Vineyard Power, a local non-profit cooperative. A Task Force member who sits on Vineyard Power emphasized Vineyard Power's excitement to work with Offshore MW and RES America and noted its goal to develop a cooperative model that could inform future offshore projects in the United States. In response to Task Force questions, Mr. Stephens explained that the Meerwind project did not involve an energy storage component, though Europe has plans for large transmission projects involving hydroelectric storage. He also noted that the Meerwind project could not immediately distribute power, since the government fell behind schedule while building the grid out to the project. In Europe, unlike the U.S., the utility is responsible for transmission from these offshore projects.

IV. Overview of Action Items and Next Steps

Ms. Stromberg informed the Task Force that the presentations from the meeting will be available on BOEM's website and that a summary of the meeting prepared by CBI will be available to the Task Force. Ms. Stromberg also requested that the Task Force send her any membership updates. Ms. Stromberg can be reached at: jessica.stromberg@boem.gov or 703-787-1730.

Next steps for BOEM included:

- Engaging with the Task Force at major project milestones
- Updating the Task Force on the projects' process

• Re-engaging with the Task Force and re-initiating the process if there is new interest in the two unsold lease areas

V. Public Comments

Five participants in the public session offered comments and posed questions. Their comments are summarized below.

David Dow with the **Sierra Club** thanked BOEM and the Task Force for their efforts. He noted that it would help the participants to receive copies of the PowerPoint slides in advance of the meeting. He then noted that climate change affects the base of the food chain and the productive capacity of essential fish habitats. He thus supported baseline monitoring and site assessment efforts focusing on the impacts of climate change, so wind developers are not incorrectly blamed for climate change's effects on wildlife. He also suggested developing an offshore power grid to connect power projects off of the coast before transmission to the regional grid, which could reduce permitting and other issues. Finally, he supported implementing a science translation project to ensure that monitoring and site specification data is accessible to the public

Kathy Sherman, **ratepayer**, expressed appreciation for recognition of New England ISO's concerns regarding grid stability, noting that even 100 MW projects create grid transmission issues which need to be addressed. She also supported science translation for power issues. In addition, she suggested conducting a detailed study on available wind resources to determine how well it fits the publics' needs. Finally, she noted that the public should have a chance to provide input earlier in the development process of the two commercial leases.

David Moriarty, **Falmouth resident**, asked if the Department of Environmental Management had issued permits in Massachusetts to erect industrial wind turbines and inquired who has the authority to stop project operations if infrasound is found to negatively affect right whales. Mr. Bennett explained that BOEM does have an approved COP for Cape Wind but only has jurisdiction offshore, not on state land. He also responded that BOEM holds the authority to end its relationship with operators if they violate the terms of their lease or act in a manner that is not in the public interest. BOEM has review processes in place to analyze situations and identify the best course of action. Any action would depend on the specific situation.

Amber Hewett with the **National Wildlife Federation** expressed her support and enthusiasm for the process, which responsibly cited offshore wind, considered the needs of right whales, and includes environmentally responsible development.

Martin Plass, **consultant**, asked if it could be possible to expedite the permitting process for offshore wind projects to support their development and ensure they are competitive with other renewable energy projects. Mr. Bennett responded that BOEM does not want the permitting process to take longer than necessary but also has obligations it needs to meet. BOEM would consider modifying or eliminating steps to facilitate a better process

if possible. In addition, increasing the efficiency of offshore wind projects without other measures might not sufficiently change the economic environment to make unviable projects viable.