

Beach Haven Taxpayers'  
Association Follow-Up  
Questions 4/09/21

02:05:02 Patty Norway: Sounds like size of Project unknown until customers sign up. Who are the target customers?

*The customers are all ratepayers in New Jersey. The New Jersey Board of Public Utilities will work with utility companies to deliver the power to the state's power supply.*

02:05:25 Lawrence Kunz: What is the lifecycle of the turbines and what happens at the end of life?

*Turbine lifespan is typically 25 – 30 years. The Bureau of Ocean and Energy Management (BOEM) lease terms include this lifespan and the BOEM requires all projects to be removed at the end of their lifespan unless otherwise authorized. Atlantic Shores' obligation is to cover this cost over the time and terms of our Lease.*

02:07:07 Cherie Arabia: The public bears ZERO cost except for the kwh they use? Does the consumer get to choose his supplier?

*All regulated utilities must take an amount of offshore wind proportional to the amount of need from their electrical customers and the impact to a consumer is based on cost per kwh equally assessed across all customers. All electrical suppliers will be mandated by the state to be within the 50% clean energy by 2035 and 100% clean energy by 2050 goals. In short, all suppliers will be required to have clean energy on their wires.*

02:07:08 Anne Maxwell: What prevention will be done to prevent the birds from being sucked into the blades of the wind turbine?

*It's important to note that wind turbines do not create a vacuum of air into the rotors like an airplane engine, rather they turn as a result of the wind which blows across the water. The lease areas were established by the Bureau of Ocean and Energy Management (BOEM) to avoid key bird migration areas. In fact, environmental groups such as Audubon have issued statements in support of offshore wind. Additionally, Atlantic Shores will conduct multi-year field surveys to understand the local ecosystem and minimize impacts to the environment as part of the pre-construction permitting process. This will help to inform BOEM's Environmental Impact Statement that will include all mitigation actions that Atlantic Shores will implement to minimize potential effects to birds.*

02:07:22 Cathy Triverio: Noise levels?

*Operating noise from the turbines will not be encountered by people on land given the distance between the closest turbine and the coast will be approximately 10 miles.*

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02:09:29 Brian Tierney: how many turbines will there be in total. How dense (how many per mile)? How high to hub and blades?

*The NJ BPU ultimately determines the final size of the project. Our largest project submitted was 2,300 MW, but NJ BPU may elect a smaller subset of that project instead of the largest amount. As a best practice, wind turbines will be aligned in a uniform grid meaning a uniform distance between turbine rows, and then regular spacing between turbines within those rows. Based on existing vessel traffic patterns in the area, we are spacing our wind turbine rows no closer than 1 nautical mile from one another. The spacing within those rows is still being decided. The current expected height to the blade at its highest point is approximately 850'.*

02:10:09 Wendy Kouba: Why has there not been a comprehensive assessment of the turbine's impact on the marine life under the sea off LBI before the project moves forward?

*A comprehensive assessment has been done. The development of the NJ Wind Energy Area that includes both the Atlantic Shores and the Ocean Wind Lease Areas were delineated by BOEM after years of consultation and data collection involving state and federal agencies that comprised the New Jersey Renewable Energy Task Force and the public. BOEM, NOAA, FWS, DEP, EPA all required environmental review of the lease areas before these areas were available to the offshore space.*

*In addition, the state commissioned the Offshore Wind Power Ecological Baseline Studies (OWPEBS) that provided the foundational material on which the Lease Areas were based. OWPEBS consisted of comprehensive 24-month field surveys and desktop analyses that evaluated sensitive environmental resources (e.g., birds, marine mammals, and sea turtles) and habitats (e.g., reefs and wrecks) along with critical marine uses including commercial and recreational fishing and shipping/navigation.*

*As a result of these studies certain areas were excluded from consideration by BOEM.*

*For our Lease Area, Atlantic Shores is pursuing further analysis of marine life pursuant to Bureau of Ocean and Energy Management (BOEM) procedures. Atlantic Shores has spent the past two years conducting a comprehensive assessment to document presence of marine life and birds and to map habitats in our Project Area. These surveys include collecting digital aerial data and boat-based data to understand and build a baseline of the wildlife species in our Project Area. This data will be used to inform multi-year monitoring for wildlife as we construct, operate and eventually decommission the project. We are also funding multi-year research projects to tag red knots, map and predict the presence and movement of surf clams, and detect the presence and monitor*

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*movement of acoustically-tagged fish and turtles in the Mid-Atlantic. In addition to this data collection, Atlantic Shores is conducting desktop and engineering studies to model the acoustic sounds produced by our turbines above and below water, and we are analyzing any potential impacts to marine life. In combination, this fieldwork and desktop informs how we can avoid and mitigate any adverse effects.*

*In addition, the Commercial Fishing industry has been involved with in the Skipjack lease area relative to the movement of Listed Endangered adult Atlantic Sturgeon but there are many species to study and consider and they have had a roll in starting dialog relative to different Commercial Fishing Gear types and Fisheries and fish movements . Much work and study is currently be talked about at ROSA (responsible offshore science association) l this is an ongoing process.*

02:10:28      John McCormick:      Why would electricity expenses increase as a result of this project?

*Atlantic Shores cannot give the exact price of the electricity generated by our project at this time, since our project is under evaluation by the NJ BPU and they will make the final decision on project size and price. All applicants who are interested in building a wind farm project must apply to the NJ Board of Public Utilities for an Offshore Renewable Energy Credit (OREC) Award in order to get paid for each hour of electricity they generate for the life of the project. To receive an OREC Award, Atlantic Shores must demonstrate a net benefit to ratepayers in the form of jobs, environmental gains, transmission system upgrades, and in the supply of electricity. There will be an impact on the bill of the average ratepayer, and that determination is made by the Board of Public Utilities. We don't expect a significant increase, and we can share more on potential amounts later this spring. We expect increase to ratepayers bills to be about a 1 – 2% increase, meaning at most, a few dollars.*

02:10:58      Anne Maxwell: Who assumes the cost of removal of the wind turbines after their lifetime?

*Atlantic Shores assumes the cost of removal and must post financial security before building the project.*

02:12:25      Anne Maxwell: What type of protective equipment will be used to manufacture these turbines for winter conditions?

*In colder climates turbines are be equipped with additional equipment to keep them operational in extremely cold temperatures. This equipment enables turbines to operate in places like the upper Midwest, Canada, and the North Sea. These packages will be necessary for Mid-Atlantic projects and are part of the project design.*

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02:13:45 Suzanne Messina: Will the COP include a visual impact analysis? When will the visual impact study that Jessica mentioned be posted to the Atlantic Shores website?

*Yes, the COP includes a visual impact analysis. We will share visualizations at our open house in July. The visualization study Jessica mentioned was a study of visibility off the New Jersey coast to assess how far an unaided eye can see on a given day. We expect to post the results of that study in the coming weeks. But to reiterate, it is not a visual impact study, it is a study of the visibility climate off the coast.*

02:16:05 Wendy Kouba: How can you credibly state that several hundred turbines that are 800 feet tall will not be constantly visible from our shoreline?

*Humidity creates a haze that can limit how far an unaided eye may see. Visibility also depends on cloud cover and angle of the sun. While not directly related to our wind farm, this study provides an explanation: <https://www.nap.edu/read/2097/chapter/6#82>*

02:16:12 Anne Maxwell: What research has been done to see the impact of larger fish species such as shark and whales?

*From 2008 to 2010, the state of New Jersey has funded ecological baseline study to document what types of marine species occur to inform early lease identification in nearshore waters off New Jersey. Atlantic Shores is also conducting and will continue to conduct additional studies to further understand the Project's potential effects on larger marine species such as sharks and whales. We have completed an assessment of marine fish and wildlife to determine the presence and abundance of certain species in the vicinity of the Project. We have also completed an impact analysis for those species likely to occur in the vicinity of the Project, including a highly specialized modeling exercise to evaluate the potential exposure risk of underwater noise for marine fish and wildlife. Looking ahead, Atlantic Shores will perform passive acoustic monitoring before, during and after construction to detect whales in the area, as well as employ trained observers to look out for marine life during offshore project activities.*

*One study is being conducted by Dr Jeff Kneebone from the New England Aquarium tagging juvenile Thresher Sharks. He is currently doing acoustic tagging and tracking for baseline data on large Pelagic species and Sharks in the New England lease areas and our hopes are to deploy the acoustic receivers in all lease areas to study the movements of the animals. As for Whales NOAA is always monitoring movements with aerial survey and some acoustics on Right Whales.*

02:17:59 Michael Vitiello: When the pipeline goes under the shoreline at 27-49' below the surface will the pipes go along or under easements or under property owners' homes? What is the pathway to the substation?

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*Offshore, our cables are buried at a target depth of 6 feet. As we get closer to shore that depth increases as we go under the beach. Once onshore, the underground path we are taking to reach substation will typically stay within existing right of ways and does not go under homes.*

02:21:35 Wendy Kouba: BPU will make the final call on the power level agreement based upon a proposal from Atlantic Shores. By definition this means you know exactly how many turbines and their size that you have recommended. Please provide the details that we have been asking for, for months..

*The NJ BPU ultimately determines the final size of the project. Our largest project submitted was 2,300 MW, but NJ BPU may elect a smaller subset of that project instead of the largest amount.*

02:25:50 Rand Pearsall: You noted that Atlantic Shores does not have a PAC but certainly your owners Shell and EDF do, so I think it is important to be fully transparent in this area. Please explain.

*We are a different entity than our parent companies. Nevertheless, in the interest of full transparency, only EDF Renewables has a PAC (EDF Renewables Inc. PAC) and all contributions made from this PAC are reported to the Federal Election Commission. Shell New Energies US LLC (as part of the global Shell entity) is governed by Shell's [General Business Principles](#), which among other things does not allow it to make payments to political parties, organizations or their representatives. In addition, Shell companies do not take part in party politics. Under its corporate policies, which are similar to Shell's, Atlantic Shores is expressly prohibited from taking part in party politics. Further, Atlantic Shores may not use Atlantic Shores funds or resources (nor can it allow any funds or resources to be paid on its behalf including by its shareholders) to fund political campaign, political parties, political candidates or anyone associated with them, nor can it use its funds to support political action committees (PACs).*

02:28:49 Suzanne Messina: On 3/30/21 the Federal Register posted a notice of BOEM's intent to prepare an environment impact statement for the Ocean Wind COP. Public scoping meetings are scheduled for April 13, 15 and 20. Do our comments and questions need to be submitted by these dates?

*The dates you listed above are when you will have a chance to ask questions or make comments to BOEM about the Ocean Wind Project, which is a completely separate project, by separate companies, than Atlantic Shores.*

02:32:04 Wendy Kouba: Why is Long Beach Island being faced with the largest modern windfarm in the world that is also closer to shore than any others??

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*The US East coast is an expanding center of growth for the offshore wind industry. Wind farm leases area located along the coast from North Carolina to Massachusetts and were identified by federal and state governments based on offshore wind resources that could support electricity demands for large population centers. The closest point to shore from many of these lease areas ranges from approximately 10 to 13 miles. The Atlantic Shores lease area is not significantly closer than most other wind farm lease areas. This lease provides an opportunity for the state of New Jersey to secure large volumes of renewable energy to meet the state's clean energy targets.*

*As stated above, the development of the NJ Wind Energy Area that includes both the Atlantic Shores and the Ocean Wind Lease Areas were delineated by BOEM after years of consultation and data collection involving state and federal agencies that comprised the New Jersey Renewable Energy Task Force and the public. BOEM, NOAA, FWS, DEP, EPA all required environmental review of the lease areas before these areas were available to the offshore space. The identification of these lease areas included input from the state as an area that could provide significant and reliable renewable energy generation to meet state's clean energy targets.*

*In addition, the state commissioned the Offshore Wind Power Ecological Baseline Studies (OWPEBS) that provided the foundational material on which the Lease Areas were based. OWPEBS consisted of a comprehensive 24-months of field surveys and desktop analyses that evaluated sensitive environmental resources (e.g., birds, marine mammals, and sea turtles) and habitats (e.g., reefs and wrecks) along with critical marine uses including commercial and recreational fishing and shipping/navigation.*

*As a result of these studies certain areas were excluded from consideration by BOEM.*

02:35:15 Wendy Kouba: The Hudson South call area is a very viable location that can actually provide more wind energy. It was originally recommended as the location of a windfarm by the federal government. Why are you ignoring that option?

*BOEM has not formally identified and auctioned a lease area in Hudson South, and has to meet the requirements of the Outer Continental Shelf Lands Act before opening it for auction. Developers have not had a chance to bid on that lease area or determine how large a project can be built there. An Intergovernmental Task Force, led by BOEM that the state of New Jersey participated, on leasing the Hudson South areas and others in the NY Bight, was held (4/14 and 4/16). This meeting will inform BOEM on which areas in the NY Bight should be identified to move forward towards establishing lease areas for auction. Once BOEM puts it to auction, a winning developer will have the right to begin surveying the lease area for the construction of an offshore wind project. The only lease area Atlantic Shores has rights to is lease is OCS-0499. We acquired that lease in 2018.*

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02:39:32 Mary Jane Mannherz: Thank you Beach Haven Taxpayers for arranging and presenting such an informative program.

02:42:15 Bill Walsh: Thank you to BHTA and the panelists. Very informative session

02:44:00 Anne Maxwell: I may have missed this, how far out will the wind turbines be set up? Is there a source for this information?

*Our turbines will be located 10 – 20 miles from the shore, depending on where you are located.*

02:46:40 Tim Feeney: Thank you BHTA & panelists.

02:47:23 Wendy Kouba: Thank you!

02:47:44 Anne Maxwell: Thank you for doing this.

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Additional questions from email

- 1) What safeguards are in place should Atlantic Shores walk away from the project whose responsible to decommission and remove the equipment?

*BOEM requires all projects to be removed at the end of their lifespan unless otherwise authorized. Atlantic Shores' obligation is to post financial security to cover this removal cost. Atlantic Shores cannot build the project until we commit funding for the decommissioning of the project.*

- 2) Have any scientific studies been done comparing on shore vs. off shore wind generation in our coastal geographic area? And if so, what is would be efficiency differential between these options?

*The National Renewable Energy Laboratory (NREL) worked to create wind resource models depicting the different wind regimes along the coast and water that can be found here <https://windexchange.energy.gov/maps-data?category=residential>. Offshore wind provides a*

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*more consistent energy resource than onshore in New Jersey and is not limited by land constraints.*

- 3) Any reason you plan to start close to shore as opposed to the most distant location? Gives all an opportunity to adjust to the new view.

*Based on the predominant wind direction, expected undersea cable layout, and location of both onshore and offshore substations, the project is built in an east-west manner. The grid pattern layout is designed to maximize the amount of renewable energy produced for New Jersey, and to accommodate input from other ocean users and view concerns.*