

The Offshore Wind Farm Round-Up

Number 3 July 11, 2022

The Offshore Wind Farm Round-Up endeavors to periodically provide a review of recent research efforts in which the effects of offshore wind farms have been studied. Like the popular FAQ produced by a coalition of researchers and writers last year, the Round-Up points you in the direction of the science and assumes no point of view one way or the other regarding the presence of offshore wind farms off our shore. Read and draw your own conclusions.

This Round-Up edition includes links related to

- o tourism and the presence of offshore wind energy farms
- the <u>comparison</u> of an image recently published in *The Sandpaper* from Save LBI, Inc and a publicly accessible simulation image
- o navigation lights at the base of the offshore wind turbines
- virtual public meetings to discuss the Draft Environmental Impact Statement for Ocean Wind 1 near Atlantic City (<u>Note</u>: This is **NOT** for the Atlantic Shores project)

TOURISM

Unlike the U.K. and some European countries, the United States has produced limited research focused on assessing the impact of offshore wind farms on tourism.

The Round Up research team rejected inclusion of the U.K. and European studies in our work because those studies focused on offshore wind energy farms with turbine sizes and distances from shore that are very different than the sizes and distances of the wind turbines in the Atlantic Shores Offshore Wind project.

Instead, we searched for relatively current research (published within the past four years) that focused on the impact of offshore wind farms on U.S. shore communities and regions. We only found three and the links to them are included below. We are including them at all so you can see the paucity of available studies.

Please note that we could find no studies that focus specifically on our area.

Two focused on the impact of the wind farm on tourism on Block Island. The Block Island Wind Farm, the first offshore wind farm in the United States, is located about three miles off the coast of Block Island RI; it began commercial operations December 2016. The farm consists of five 6-megawatt turbines; each turbine is 589 feet tall. Block Island, previously powered by five diesel generators which burned over 1 million gallons of fuel every year, is now powered entirely by offshore wind.

- 1) "Sustainability and tourism: the effect of the United States' first offshore wind farm on the vacation rental market" Department of Environmental and Natural Resource Economics, University of Rhode Island, published by Resource and Energy Economics, August 2019 https://www.sciencedirect.com/science/article/abs/pii/S0928765518302902 !
- 2) "Beyond the beach: Tradeoffs in tourism and recreation at the first offshore wind farm in the United States" published by Energy Research and Social Science, December 2020² https://www.sciencedirect.com/science/article/abs/pii/S2214629620303017 !

The third study assessed the impact of wind energy farms on recreational beach use along the East Coast from Cape Cod to South Carolina.

3) "Atlantic Offshore Wind Energy Development: Values and Implications for Recreation and Tourism" University of Delaware, March 2018³ Funded by the Bureau of Ocean Energy Management ("BOEM") and the National Oceanic and Atmospheric Administration ("NOAA")

Access the full study by clicking on the following link: https://espis.boem.gov/final reports/5662.pdf

HIGHLIGHTS:

• People were questioned about their reaction to wind power projects from distances ranging from 2.5 to 20 miles offshore. Particular attention in this report is focused on the results ranging from 12.5 to 20 miles although all data are reported.

 At 12.5 miles offshore, 20% of the respondents reported that their experience would have been worsened by the turbines, 13% reported that it would have been improved and 67% reported no effect.

¹ **Authors** were both in the University of Rhode Island's Department of Environmental and Natural Resources Economics ("DENRE") at time of the study's publication. Andrew Carr-Harris Ph.D is currently an Economist at NOAA Fisheries at the Northeast Fisheries Science Center; Corey Lang is Professor and Graduate Program Director at the DENRE

² **Authors:** Dr. Tiffany Smythe, Associate Professor, Maritime Policy, Strategy & Governance, United States Coast Guard Academy; David Bidwell & Amelia Moore, both in the Department of Marine Affairs at the University of Rhode Island; Hollie Smith, Assistant Professor of Science & Environmental Communication, University of Oregon; Jennifer McCann, Director of U.S. Coastal Programs and Extension Programs for Rhode Island Sea Grant, University of Rhode Island Coastal Resources Center, part of the Graduate School of Oceanography.

³ **Authors** are both at the School of Marine Science & Policy at the University of Delaware: George Parsons, Unidel E.I. du Pont Professor of Marine Studies, and Jeremy Firestone, Professor

- At 20 miles, 10% reported that their experience would have been worse, 17% better and 73% no effect. A "break-even point" occurred at 15 miles, where the percentage worse and better were about the same.
- The dominant reason reported for a worse beach experience was the visual disruption of the seascape. The dominant reason for why a beach experience would be better was knowing something good was being done for the environment.
- Respondents were also asked about how their trip behavior might change in the presence of an offshore wind power project: trip losses, trip gains and curiosity trips.
- The economic impact of trip gain vs. trip loss varied across all East Coast beaches. Most beaches with wind energy projects 12.5 20 miles off shore experienced a small loss to a net gain.
- Visual impacts were a major concern. Most participants, however, described the project's appearance in neutral or positive terms.

COMPARISON OF IMAGES

THE FIRST IMAGE below is the simulation of what the wind turbines would look like from the perspective a person standing on the beach in Beach Haven and looking east at the turbines.

It is part of the Construction and Operations Plan ("COP") submitted to the Bureau of Ocean Energy Management by Atlantic Shores September 2021.

Access the Beach Haven simulation from the COP by clicking on the link below⁴: https://www.boem.gov/sites/default/files/documents//VIA-South-Attachment-E-Photosimulations-Part-5-BHB01.pdf

THE NEXT TWO IMAGES are what appeared in the June 22, 2022 issue of *The Sandpaper* (spread across the bottom portion of two pages in that issue).

Access The Sandpaper by clicking on the link below https://www.thesandpaper.net/

You may need to have a subscription to *The Sandpaper* to access the June 22 issue. The Long Beach Island Library on Central Avenue in Surf City also has one copy of this issue that you may borrow to read in the library.

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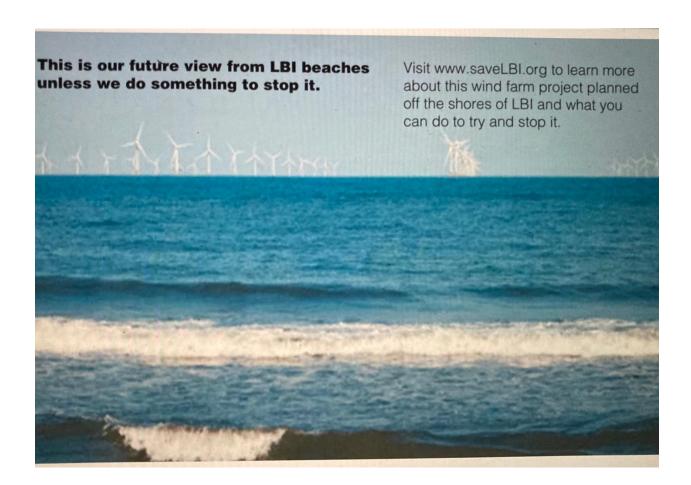
⁴ By clicking the link, you will arrive at Appendix II-M1: Visual Impact Assessment – Wind Turbine Area, Attachment E Visual Simulation, Photo Simulations – Beach Haven Historic District. Scroll down to page 5, which shows the simulation included below.

This image is the simulation in the Atlantic Shores Construction and Operations Plan:



Next two images are from The Sandpaper, published June 22, 2022, on pages 16 & 17:





NAVIGATION LIGHTING

(Lighting for ships located at the base of the turbines, <u>not</u> lighting for planes See Round Up #2 for a section about aviation lighting)

♦ From Section 5.3 Lighting and Marking in the Construction and Operations Plan ("COP") submitted to the Bureau of Ocean Energy Management ("BOEM") by Atlantic Shores Offshore Wind, September 2021.⁵

Access the COP by clicking on the following link:

https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Atlantic-Shores-COP-Volume-1-Project-Description.PDF

When you click on the link above, you end up at the COP's cover page. Unfortunately, this writer did not have any luck jumping to Section 5.3 by using the Find field. Scrolling rapidly by dragging the gray elevator bar on the right side of the screen did the job nicely, however.

 5 The COP is the **C**onstruction and **O**perations **P**lan. The COP must be approved by BOEM before Atlantic Shores may proceed.

HIGHLIGHTS

- All wind turbines and related equipment will be equipped with marine navigation lighting in accordance with the United States Coast Guard and BOEM guidance.
- Atlantic Shores expects to include yellow flashing lights, visible in all directions, on the base of each wind turbine foundation.
- \circ These lights would be visible on turbines along the perimeter of the wind farm at a range of three to five nautical miles (3.5 5.75 miles) and visible on interior wind turbines at a range of two nautical miles (2.3 miles).
- ♦ Here is what yellow navigational lighting looks like on the base of an offshore wind turbine: From sabik-offshore.com⁶ and From michiganseagrant.org⁷, respectively:





The yellow portion at the bottom of the turbine in the daylight image is the color of the base, not a light

⁶ **From its website**: "Sabik Offshore has been providing aids to navigation and safety lighting for over 20 years. . . . Since 2008 we have been providing aids to navigation, ID marking and aviation obstruction solutions to offshore wind farms which has turned into our primary focus and core competence."

⁷ **From its website:** "Michigan Sea Grant is a cooperative program of the University of Michigan, Michigan State University, and the National Oceanic and Atmospheric Administration. . . . Michigan Sea Grant supports a variety of research projects led by research teams based at universities in Michigan."

VIRTUAL PUBLIC MEETINGS TO DISCUSS THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR OCEAN WIND 1

Note, please, that this is NOT the Atlantic Shores project

Rather, it is the Draft Environmental Impact Statement ("DEIS") for a separate leased area to the south being built by Ørsted called Ocean Wind 1. This project started before Atlantic Shores' development and Ocean Wind 1 is farther along in the approval process.

We are including mention of it at all because many people have told us that they follow Ocean Wind 1's progress.

On June 24, 2022, BOEM⁸ published a Notice of Availability ("NOA") for the Ocean Wind 1 Draft Environmental Impact Statement (DEIS) for Ocean Wind, LLC's Proposed Wind Energy Facility Offshore New Jersey.

The following documents are available for viewing.

- Ocean Wind 1 DEIS Notice of Availability (BOEM-2022-0021)
- Ocean Wind 1 DEIS
- Ocean Wind 1 Construction and Operations Plan
- Scoping Summary Report
- Cumulative Historic Resources Visual Effects Analysis

The NOA initiates a 45-day public comment period that ends at 11:59 p.m. eastern time on August 8, 2022. During the public comment period, BOEM will be hosting three virtual public hearings where you can learn more about the project, ask questions, and provide oral testimony.

The virtual public hearings will be held on:

- Thursday, July 14, 2022 at 1:00 PM ET
- Wednesday, July 20, 2022 at 5:00 PM ET
- Tuesday, July 26, 2022 at 5:00 PM ET

This Round-Up was prepared by a group of writers and researchers from Long Beach Island, New Jersey.

Round-Ups are distributed by the Joint Council of Taxpayers Associations of LBI (JCTA) to the voting representatives of its eleven member organizations, who distribute this information to the members of their individual taxpayers associations via newsletters, websites and social media.

Questions about the content of Round-Ups and suggestions for topics to be covered in future issues can be directed to RoundUpLBI@gmail.com. The Round Up research and writing team welcomes questions and comments.

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⁸ BOEM is the Bureau of Ocean Energy Management