



The Offshore Wind Farm Round-Up

Issue #5

September 12, 2022

This edition addresses readers' questions and makes available the final version of the Rutgers study, per readers' requests.

The Offshore Wind Farm Round-Ups periodically provide a review of recent research efforts in which the effects of offshore wind farms have been studied. In addition, in response to readers' suggestions and questions, Round Ups occasionally include factual, clarifying information,

Research included in Round-Ups points you in the direction of the science and assumes no point of view one way or the other about the presence of offshore wind farms off our shore. Likewise, clarifications are provided without editorial comment; they are there for you to consider so you can draw your own conclusions.

Click on the link to jump to a section:

- [Questions](#) about the relationship between Atlantic Shores Offshore Wind, Atlantic Shores NY Bight and Hudson South
- [Questions](#) about moving the Atlantic Shores project farther out
- [Questions](#) about statements published in The Sandpaper
- [Final version](#) of the Rutgers study of visibility

[“How many offshore wind farms are being built off LBI?”](#)

How many are there? There is one: Atlantic Shores Offshore Wind Farm, LLC, more commonly referred to as Atlantic Shores.

Why do I think there are two wind farms? Not sure why, but maybe because the Atlantic Offshore Wind Farm is being developed in two phases, so it may seem like there are two separate lease areas but there are not. The Atlantic Shores Offshore Wind Farm covers an area in the ocean of 183,253 acres.

The first area being developed within those 183,253 acres is the southern portion of the leased area. That southern portion – about 102,000 acres – has been further divided into two sections called Project 1 and Project 2.

The remaining acres in that leased area – approximately 81,000 acres -- is a separate project called Project 3. Unlike Projects 1 & 2, no Construction and Operations Plan (“COP”) has been submitted yet to the Bureau of Ocean Energy Management (“BOEM”) for Project 3.

Then what is the Atlantic Shores Bight area I keep hearing about? That would be the Atlantic Shores NY Bight project. Note the inclusion of “NY” in the name.

What does “NY Bight” mean? Below is an explanation copied from the website created and maintained by two Ph.Ds in Earth & Environmental Sciences from City University of New York (CUNY):

“A *bight* is a general term for a bend or curve in the shoreline of an open coast. In the New York region it refers to the great expanse of shallow ocean between Long Island (to the north and east) and the New Jersey Coast (to the south and west). Because Long Island trends generally east to west in relation to mainland of New Jersey it creates a great right angle in the general geometry of the Atlantic coastline. . . .”

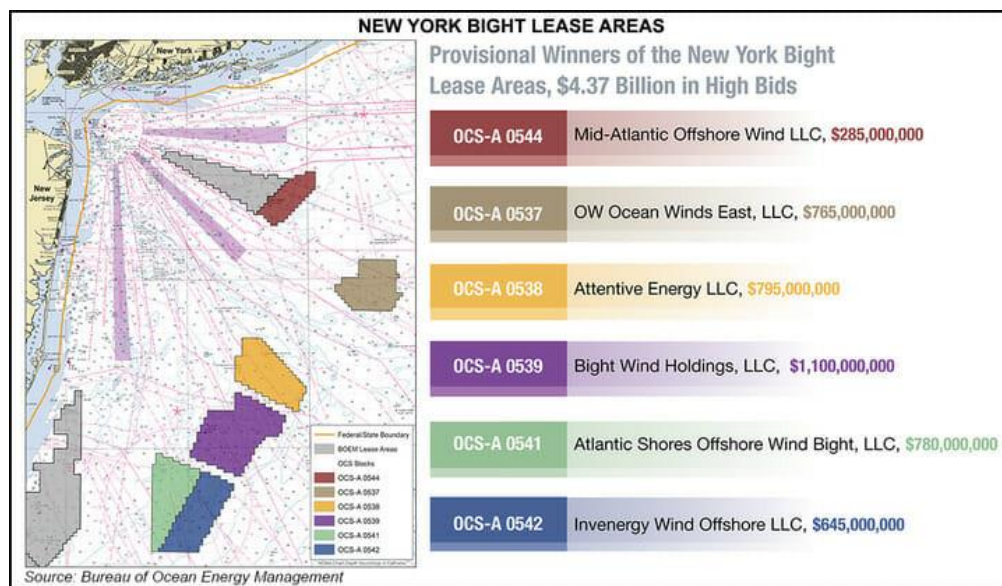
Access more information about bights from this website by clicking on the following link: <http://www.geo.hunter.cuny.edu/bight/>

The Bureau of Ocean Energy Management (“BOEM”) further clarifies: “The New York Bight is defined as an offshore area extending generally northeast from Cape May in New Jersey to Montauk Point on the eastern tip of Long Island.”¹

What does the NY Bight have to do with Atlantic Shores? The following answer has been lifted from an article in *National Fisherman* published February 25, 2022. The link to the full article is included below.

In February 2002, the BOEM offered up for bid six wind energy leases spread out over 480,000 acres of ocean within the NY Bight area.

There were six different successful bids for these leases. Atlantic Shores Offshore Wind Bight was one of them. [See *the area in green on the map below*]



¹ From Announcement Of Wind Energy Area Identification, Commercial Wind Energy Leasing on the Outer Continental Shelf in the New York Bight, March 29, 2021 available on the BOEM website. Click the following link to access: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NYBight-Wind-Energy-Areas-Summary.pdf>

Atlantic Shores NY Bight is a wholly owned subsidiary of Atlantic Shores Offshore Wind, LLC. Atlantic Shores Offshore Wind, LLC is a 50:50 partnership between Shell New Energies US LLC and EDF Renewables North America².

Click the link below to access the full article from *National Fisherman* by Kirk Moore published February 25, 2022: “New York Bight wind auction shatters U.S. records”

<https://www.nationalfisherman.com/mid-atlantic/new-york-bight-wind-auction-shatters-u-s-records>

What is Hudson South? “The New York Bight consists of 5 distinct Wind Energy Areas (“WEA”): Fairways North, Fairways South, Hudson North, Central Bight and **Hudson South**.”³

The map below from the BOEM website (link in footnote #3) shows the location of Hudson South. It looks like one large project, but there are actually four separate ones within that area. There will be more about Hudson South in future Round Ups.

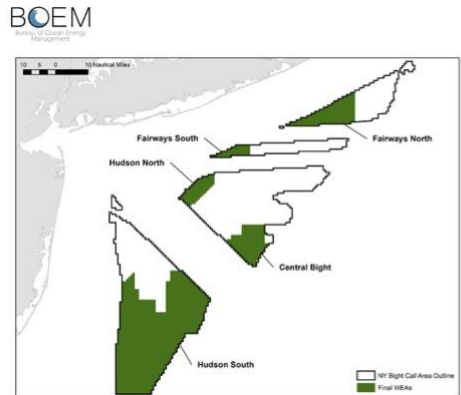


Figure 1: NY Bight WEAs & Descriptive Statistics

	Fairways North WEA	Fairways South WEA	Hudson North WEA	Central Bight WEA	Hudson South WEA	Total
Acres	88,246	23,841	43,056	84,688	567,552	807,383
Installation Capacity (MW) ¹	1,071	289	523	1,028	6,890	9,802
Homes powered ²	374,975	101,305	182,954	359,857	2,411,644	3,430,734
Power Production (MWh/yr) ³	3,754,037	1,014,210	1,831,628	3,602,678	24,143,998	34,346,551
Max Depth (meters[m])	56	46	45	61	59	--
Min Depth (m)	42	39	41	52	32	--
Closest distance to NY (nautical mile [nmi])	15	15	21	38	45	--
Closest distance to NJ (nmi)	69	45	36	53	23	--

¹ Megawatts (MW) based upon 3MW/seqkm

² Based upon 350 homes per MW

³ Megawatt hours per year (MWh/yr) Formula = Capacity (MW) * 8760 (hrs/yr) * 0.4 (capacity factor)

² Per the February 25, 2002 press release from Atlantic Shores as well as numerous other independent sources which confirm the data. Click the following link to access the ASOW press release <https://www.atlanticshoreswind.com/atlantic-shores-offshore-wind-secures-lease-in-new-york-bight-auction/>

³ From Announcement Of Wind Energy Area Identification, Commercial Wind Energy Leasing on the Outer Continental Shelf in the New York Bight, March 29, 2021 available on the BOEM website. Click the following link to access: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NYBight-Wind-Energy-Areas-Summary.pdf>

Questions About Moving the Atlantic Shores Wind Farm Farther Out

Can Atlantic Shores be moved 35 miles out into the Hudson South? No. Atlantic Shores has a lease for a specific area of seabed. The lease is a legal binding contract and similar to a property deed. The Bureau of Ocean Energy Management (“BOEM”) and Atlantic Shores cannot simply amend the lease to change the current seabed area and replace it with another location. The only alternative is to cancel the current seabed lease that Atlantic Shores has.

Why can’t BOEM just give Atlantic Shores another section in the Hudson South area? Atlantic Shores paid for the leasehold rights to this current seabed. Another seabed location might be more or less valuable and the Federal government is generally required by law to bid out any sale or lease of seabed and is prohibited from awarding it to a company without a competitive auction process.

Access the Atlantic Shores lease by clicking on the following link:
<https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/OCS-A 0499 Lease.pdf>

Note that US Wind Inc was the original owner of the lease, which was transferred to Atlantic Shores Offshore Wind, LLC.

Questions About Statements Published in The Sandpaper

?? Several were curious about the Canadian wind farm referenced in the letter to the editor in the July 27, 2022 edition of The Sandpaper titled “Industrial Impact.”

The letter’s author did not state where his lakefront Airbnb rental was located on Lake Erie other than he was 20 miles away from the “outline of a substantial number of wind turbines built on the Canadian side of the lake near Port Colborne, Ontario.” Many inquired if this wind farm was offshore and wondered, if so, why they had never heard about it before.

Below is what our research yielded. Without knowing the author’s location, anything else would be only speculation.

There are two wind farms near Port Colborne. Neither are offshore wind farms.

The closest is the Wainfleet Wind Farm, which is situated about 2- 3 miles inland next to an airport. This wind farm has 5 Vesta V100 wind turbines with a total production capacity of 9 megawatts. The maximum height of the turbines with the blade fully extended is 476 feet (145 meters.)

The second wind farm, 15 miles west of Port Colborne, is called Niagara Region, with 100 turbines running south to north and generating 230 megawatts of power. The maximum height of the turbines with the blade fully extended upward is 609 feet (187 meters)

The letter's author also noted that "As darkness fell, the turbines all had red lights at the top, blinking in unison every three seconds, and they stretched on for miles."

In spite of diligent online searching, no information was discovered about the aviation lighting used on the wind turbines in these two wind farms. Nor were any data unearthed about Canadian regulations regarding the use of the aircraft detection lighting system ("ADLS"), which was first approved for use in the United States by the FAA (Federal Aviation Administration) in December 2015.

The Offshore Wind Round Up #2 published June 13, 2022 included a section about aircraft detection lighting systems. Several LBI taxpayer associations have posted prior Round Ups on their websites.

?? Several questioned why the claim that no day time renditions of what the turbines would look like from shore locations on LBI continues to be circulated. They pointed out that photo simulations of what the turbines would look like from beaches in Beach Haven and Loveladies have been available for public scrutiny in Atlantic Shores' Construction and Operations Plan ("COP") that was submitted to BOEM more than a year ago.⁴ The following photo simulations are from the COP, updated August 2021:

Photo simulation of the view of the turbines from the beach directly east of the LBI Foundation of the Arts & Sciences:



Photo simulation of the view of the turbines from the beach east of Beach Haven Historical area:

⁴ Access the full COP by clicking on the following link: <https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-offshore-wind-construction-and-operations-plan> From the next screen, scroll down until you find Attachment E of Appendix II-M1-Visual Simulations and find these two locations on the list.



?? True or False? Atlantic Shores Offshore Wind (“ASOW”) project would be the world’s largest wind farm in the world (357 turbines).

- It is true that when all 3 sections of the ASOW wind farm (Projects 1, 2 and 3) are completed, the total number of wind turbines would be 357 and capable of producing 3 gigawatts (GW) of power. There are 200 wind turbines in Project 1 and Project 2 combined.
- As of August 31, 2022, Hornsea 1 & Hornsea 2 are both operational in the North Sea off the U.K. coast. Built by Ørsted, they are connected to each other like Project 1 and Project 2 are connected in the ASOW project. Together, Hornsea 1 & Hornsea 2 have 339 wind turbines and produce 2.5 gigawatts (GW) of power.
- They are part of the Ørsted project that will eventually include Hornsea 1, Hornsea 2 and Hornsea 3 (consent to build was granted December 2020).
- When all 3 sections of the Hornsea project are built, the total number of wind turbines will be will be 570 and produce about 5 gigawatts (GW) of power.

[Final Version of the Rutgers Visibility Study](#)

If you are interested in seeing a final version of this study, please email RoundUpLBI@gmail.com so a copy may be sent to you. There are no changes from the earlier version.

The earlier, draft version of this study has been available for public scrutiny for over a year as part of the Constructions and Operations Plan (“COP”) submitted to BOEM by Atlantic Shores. Past Round Ups have included several mentions of this study as well as the link to it in the COP and related research.

This Round-Up was prepared by an independent group of writers and researchers from Long Beach Island, New Jersey. Round-Ups are distributed to the voting representatives of the eleven member organizations of the Joint Council of Taxpayers Associations of LBI (JCTA). Each taxpayer and property owners association then distributes this information to its members via its regular communication methods, e.g., through newsletters; posted on 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.