

**BEFORE THE  
NEW JERSEY BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION OF OCEAN WIND LLC  
PURSUANT TO N.J.S.A. 48:3-87.1(F) FOR A DETERMINATION  
THAT CERTAIN EASEMENTS AND CONSENTS NEEDED FOR  
CERTAIN ENVIRONMENTAL PERMITS IN, AND WITH RESPECT  
TO, THE COUNTY OF CAPE MAY ARE REASONABLY  
NECESSARY FOR THE CONSTRUCTION OR OPERATION OF  
THE OCEAN WIND 1 QUALIFIED OFFSHORE WIND PROJECT  
BPU Docket No. QO22050347**

**Rebuttal Testimony**

**of**

**Pilar Patterson**

**Re: Rebuttal to the Direct Testimony of Maximilian Chang on Behalf of the  
Division of Rate Counsel, to the Direct Testimony of Robert Church on  
Behalf of the County of Cape May, and to Certain Allegations in the  
“Answer” filed by Cape May County**

**Dated: September 16, 2022**

1           **I.       INTRODUCTION AND BACKGROUND**

2       **Q.       Please state your name and business address.**

3       A.       My name is Pilar Patterson. My business address is Orsted North America, Inc.,  
4               399 Boylston Street, 12th Floor, Boston, MA 02116.

5       **Q.       Are you the same Pilar Patterson who submitted direct pre-filed testimony in**  
6               **this matter?**

7       A.       Yes.

8       **Q.       Would you describe the purpose of your rebuttal testimony?**

9       A.       I am testifying on behalf of petitioner Ocean Wind LLC (“Ocean Wind”) in  
10              response to certain issues raised in the pre-filed testimony of Maximilian Chang on  
11              behalf of the Division of Rate Counsel (“Rate Counsel”). I also respond to certain  
12              issues raised in the pre-filed testimony of Robert Church on behalf of the County  
13              of Cape May (“County”). Finally, I respond to certain statements in the “Answer”  
14              filed by the County.

15              As was the case with my direct testimony, this rebuttal testimony supports  
16              Ocean Wind’s petition seeking a determination that certain easements across  
17              properties owned by the County and consents for New Jersey Department of  
18              Environmental Protection (“NJDEP”) permits are reasonably necessary for the  
19              construction or operation of the Ocean Wind Qualified Offshore Wind Project  
20              (“QOWP”).

21           **II.       Rebuttal to Chang Testimony**

22       **Q.       Which issues in Mr. Chang’s testimony are you responding to?**

1 A. I will respond to: (1) Mr. Chang's contention that Ocean Wind should be required  
2 to submit cost estimates for alternative routes considered; and (2) Mr. Chang's  
3 recommendation regarding other potential routes for the onshore line that will  
4 connect at the substation to be constructed at the former B.L. England site.

5 **Q. Mr. Chang criticizes Ocean Wind for not providing cost information on the**  
6 **Preferred Route or alternatives considered, and, for that reason, recommends**  
7 **that the Board of Public Utilities ("Board" or "BPU") find that Ocean Wind**  
8 **has not demonstrated reasonable necessity (Chang Testimony, p. 5, l. 1-4).**  
9 **Please respond.**

10 A. First, I note that Ocean Wind witness Matthew Kaplan explains in his rebuttal  
11 testimony why Mr. Chang's concerns about transmission cost upgrades are wholly-  
12 irrelevant within the context of this matter.

13 Second, Mr. Chang's recommendation is inconsistent with the framework  
14 and standard the Board must apply in the proceeding. There is no requirement (or  
15 reason) for Ocean Wind to have developed cost estimates for each alternative route  
16 it considered. As I discussed in my direct testimony, many of the alternative routes  
17 were eliminated at an early stage of the process and it was not possible (or prudent)  
18 to develop cost estimates for routes that were not feasible. Second, the standard for  
19 the Board to approve this petition is that the proposed easements "are reasonably  
20 necessary for the construction or operation of the qualified offshore wind project."  
21 N.J.S.A. 48:3-87.1(f)(2). The standard is not one of "most cost efficient" as Mr.  
22 Chang suggests. Rather, many other factors are relevant in determining a preferred

1 route for the onshore portion of the Ocean Wind 1 project. These factors include  
2 the following:

- 3 • Minimize extreme changes in slope;
- 4
- 5 • Property availability and State-owned and existing utility right-of-way
- 6 (“ROW”);
- 7 • Avoid known Superfund Sites or sites designated as hazardous;
- 8 • Avoid known locations of historic or archaeological resources;
- 9 • Avoid or minimize the number of infrastructure (e.g., roads, bridges, culverts)
- 10 crossings;
- 11 • Minimize impacts to wetlands and floodplains;
- 12 • Minimize the overall length of the route to minimize impacts to terrestrial
- 13 communities, wildlife species, and sensitive habitats;
- 14 • Minimize impacts to aesthetic resources; and
- 15 • Minimize impacts to sensitive receptors such as hospitals, schools, and
- 16 churches.

17 After the initial statewide screening of interconnection points, taking into  
18 consideration the geographic, engineering, and interconnection criteria, a desktop  
19 analysis of the practicable interconnection options was conducted using  
20 geographical information system (GIS) data to identify opportunities and  
21 constraints. Constraints were defined as resources or conditions that could limit or  
22 prevent siting and routing. Constraints also included areas restricted by regulatory  
23 requirements or areas where impacts on resources would be difficult to mitigate.

1 Opportunities were defined as resources or conditions that would facilitate Project  
2 development.

3 The identification of opportunities and constraints were also based on  
4 technical guidelines (i.e., engineering and design requirements). These guidelines  
5 are specific to the Project and provide technical limitations related to the design,  
6 ROW requirements, and reliability.

7 In regard to Mr. Chang's suggestion that the Board not approve Ocean  
8 Wind's acquisition of easements due to the lack of comparative cost information,  
9 such recommendation is completely without merit. Through its Petition and  
10 prefiled testimony and responses to discovery requests in this matter, Ocean Wind  
11 has clearly established that the requested easements are reasonably necessary for  
12 the construction and operation of the Project. Mr. Chang has manufactured an issue  
13 where none exists, and based his recommendation on it.

14 **Q. At p. 13, line 11 through p. 15, line 9 of his testimony, Mr. Chang comments**  
15 **on several aspects of Ocean Wind's alternative route analysis. For example he**  
16 **states "Ocean Wind has not provided a quantitative assessment of the number**  
17 **of residential houses that would abut the Preferred Route versus alternative**  
18 **routes, nor has it provided supporting documentation of the linear feet of**  
19 **existing roadways and right of ways of the Preferred Route relative to the**  
20 **alternative routes." Please respond.**

21 **A.** As stated in my direct testimony, the selection of the Preferred Route was made  
22 based on an assessment of impacts to natural resources, including wetlands and  
23 water bodies, and residential and historic properties, the purpose of which was to

1 identify the least impactful practicable alternative in consideration of factors  
2 including impacts on natural, cultural, and socioeconomic resources. Ultimately,  
3 the Preferred Route was selected as it is sited within existing previously disturbed  
4 road ROW areas, and minimizes impacts on residences, wetlands, water bodies,  
5 and residential and historic properties. Additionally, impacts associated with  
6 construction of the Preferred Route will be temporary.

7 **Q. After acknowledging that the Preferred Route has the shortest length of**  
8 **disturbed roadway, Mr. Chang comments “However, the road mile length**  
9 **does not identify the abutters that would be affected by the Preferred Route.**  
10 **For example, the Railroad Route impacts historic districts, but follows an**  
11 **abandoned railroad right of way. The Great Egg Harbor route impacts**  
12 **shellfish areas, but would have a lesser impact on residential and commercial**  
13 **properties.” Chang Testimony, p. 15, line 17 – p. 16, line 4. Please respond.**

14 **A.** As stated above and in my direct testimony, the selection of the Preferred Route  
15 considered direct and indirect impacts on natural, cultural, and socioeconomic  
16 resources. The Preferred Route minimizes impacts on these resources, including  
17 historic districts, residences, and natural resources. While the Preferred Route may  
18 have greater indirect impacts on adjacent residences than the Great Egg Harbor  
19 Route, the increased potential for direct impacts on natural, cultural, and  
20 socioeconomic resources, as well as engineering and construction constraints, made  
21 the evaluated alternative routes either impracticable or more impactful and these  
22 were thus eliminated from further consideration. Additionally, it is important to  
23 note that the construction impacts associated with the development of the Preferred

1 Route will be temporary. All areas affected by construction will be restored to prior  
2 condition or better following construction. *See* Exhibit OW-1 (Direct Testimony  
3 of Jason Kalwa).

4 **Q. Mr. Chang also states “Ocean Wind describes six routes, but there may be**  
5 **other alternatives that may be longer than the Preferred Route but may**  
6 **impact fewer stakeholders or may be lower cost, and thus should be considered**  
7 **by the Board.” Chang Testimony, p. 15, lines 7-9. Does this statement have**  
8 **any merit?**

9 A. No. As demonstrated in my direct testimony and exhibits, Ocean Wind conducted  
10 a detailed and comprehensive route analysis. That analysis demonstrates the basis  
11 for the selection of the Preferred Route. Mr. Chang’s statement about “other  
12 alternatives” is speculation and in no way impacts the validity of Ocean Wind’s  
13 alternatives analysis.

14 **III. Rebuttal to Church Testimony and Cape May County’s “Answer”**

15 **Q. Which aspects of the Testimony of Robert Church (on behalf of the County)**  
16 **will you respond to?**

17 A. I will respond to several of Mr. Church’s statements about the route selection  
18 process and the Preferred Route. I note that in his rebuttal testimony, Ocean Wind  
19 witness Jason Kalwa is responding to other aspects of Mr. Church’s testimony.

20 **Q. Do you have an overall response to Mr. Church’s testimony in regard to the**  
21 **route selection process and related issues?**

22 A. Yes. Ocean Wind undertook an extensive alternate route and siting analysis, as  
23 described in detail in my direct testimony, for this part of the Project. Mr. Church’s

1 statements do not take into consideration an understanding of the multifaceted,  
2 multi-step approach to route analysis that Ocean Wind used for the Project, nor  
3 does his testimony show an understanding of the various issues and weighting  
4 factors involved in the process.

5 **Q. Can you give an example of one such misguided aspect of Mr. Church's**  
6 **testimony?**

7 A. Yes. On p. 2, lines 41-43, Mr. Church's testimony criticizes the alternatives  
8 analysis by stating that it should have included a "no build" alternative. Such a  
9 statement reveals a lack of understanding of the purpose of this proceeding and of  
10 the alternatives analysis for the onshore portion of the Project. Ocean Wind  
11 acquired the offshore lease for the Project site from the federal BOEM in 2016.  
12 The Board approved the Project as a Qualified Offshore Wind Project in June 2019.  
13 A "no build" option is not relevant in this matter (which concerns only the  
14 acquisition of easements and consents for NJDEP permits).

15 **Q. At p. 2, lines 43-46 of his testimony, Mr. Church suggests that the BPU's**  
16 **determination should await an environmental review by the NJDEP and**  
17 **federal agencies "since that review might result in changes to the route being**  
18 **required." Please respond to this statement.**

19 A. The manner by which the NJDEP will conduct an environmental review of the  
20 project is through the review and issuance of necessary permits, including but not  
21 limited to a CAFRA permit and State and Federal Coastal Zone Consistency  
22 Determination. The NJDEP has determined that such permit decisions may not be  
23 made in advance of a BPU decision. Therefore, the conclusion of any



1 environmental review that would be contained in a permit decision from the NJDEP  
2 cannot be made in advance of the BPU decision. Further, the Federal Coastal Zone  
3 Consistency Determination, which is a pre-requisite to Ocean Wind 1 obtaining its  
4 Record of Decision from the Bureau of Ocean Energy Management, is also  
5 dependent upon NJDEP's issuance of the above-noted permits. As such, the BPU  
6 decision is required in advance of the state and federal agencies concluding their  
7 environmental and alternates reviews, and issuing permit decisions. Therefore, Mr.  
8 Church's recommendation is inconsistent with the permitting process and timeline.

9 **Q. At page 3 of his testimony, Mr. Church appears to suggest that an alternate**  
10 **route using a portion of the Garden State Parkway in conjunction with what**  
11 **he refers to as the "Sea Isle Boulevard" option might be preferable to the**  
12 **Preferred Route. Can you respond to this suggestion?**

13 A. In the first instance, this matter does not call for the Board to determine whether  
14 some alternative route is "better" than the Preferred Route. Rather, the purpose of  
15 this proceeding is for the Board to determine whether the requested easements are  
16 "reasonably necessary" under the statutory criteria.

17 Second, even if that were the purpose of this proceeding, there were many  
18 reasons Ocean Wind did not pursue a Sea Isle City route, including the following  
19 issues. The Sea Isle City route would make landfall in Sea Isle City then continue  
20 west to Route 625 (Sea Isle Boulevard), then follow Route 625 to Route 9 (North  
21 Shore Road) and continue north on Route 9 to the substation. The Sea Isle City  
22 route was not carried forward because the route would be longer than the Preferred  
23 Route and would result in more impacts as well. The offshore cable route necessary

1 to accommodate a Sea Isle City landing would cross United States Army Corps of  
2 Engineers (“USACE”) and state Sand Borrow Areas, prime fishing areas, an  
3 artificial reef and Carl Shuster Horseshoe Crab Reserve. The onshore route  
4 following Sea Isle City Boulevard and Route 9 would involve require several  
5 stream crossings, including a major tributary of Ludlam Bay (intracoastal  
6 waterway), as well as crossings of underground pipeline connectors. These types  
7 of crossings would not be necessary using the Preferred Route. The onshore cable  
8 route would cross or be adjacent to multiple historic sites and districts including the  
9 Atlantic City Railroad Cape May Division Historic District. The route may abut or  
10 cross through several National Heritage Priority Sites, including Corson’s Inlet,  
11 Corson Sound, Whale Beach, the Seaville Methodist Church Site and the Magnolia  
12 Lake Site. The route would potentially cross or abut Excursion Park and/or JFK  
13 Boulevard Park and Pinelands regional growth and forest areas and would cross a  
14 known groundwater contamination area. Given these reasons, this alternative was  
15 eliminated from further consideration.

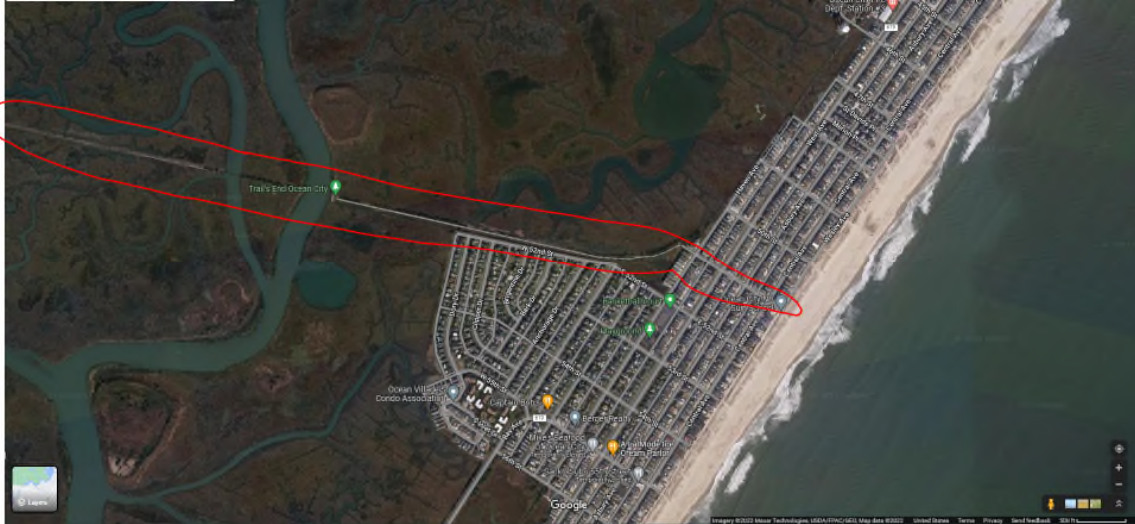
16 In regard to Mr. Church’s suggestion that the Garden State Parkway  
17 (“GSP”) could be used in conjunction with the Sea Isle Boulevard route, that would  
18 result in additional issues that make such an alternative problematic. There would  
19 be additional regulatory and permitting restrictions to install a utility within the  
20 GSP right-of-way (“ROW”) (as opposed to crossing the GSP), along with  
21 engineering and construction limitations to install cable at edge of the GSP ROW.  
22 The GSP is also considered a historic district (Garden State Parkway Historic  
23 District), further complicating the use of this roadway.

1   **Q.     At page 3 of his testimony, Mr. Church makes a similar suggestion that the use**  
2       **of the so-called “abandoned railroad” option, along with the Garden State**  
3       **Parkway, might be a good alternative. Please respond.**

4   **A.     As I stated above, this matter does not call for the Board to determine whether**  
5       some alternative route is “better” than the Preferred Route. Rather, the purpose of  
6       this proceeding is for the Board to determine whether the requested easements are  
7       “reasonably necessary” under the statutory criteria.

8               Second, even if that were the purpose of this proceeding, there were many  
9       reasons Ocean Wind eliminated the so-called “abandoned railroad” alternative  
10      from consideration. Assuming Mr. Church is referring to the historic railroad ROW  
11      area depicted in the graphic below, there are many reasons why it was not advanced:

- 12      •   This route would not obviate the need for a Green Acres division. The  
13          associated beach landfall parcels at 51st and 52nd Street are all owned by  
14          Ocean City and thus are encumbered; and a portion of the old railroad ROW  
15          may be owned by Ocean City and would also be Green Acres encumbered.
- 16      •   This route would result in a much longer cable route with greater overall  
17          impact – especially in the impacts to wetlands and waterways surrounding the  
18          ROW and on Route 9 in Upper Township. A significant amount of wetlands  
19          would be impacted.
- 20      •   It is more difficult to construct underground electric lines in wetlands
- 21      •   This alternative would impact a NJ State Historic Property Office  
22          registered/eligible historic district and historic property (Atlantic City  
23          Railroad Cape May Division Historic District.



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I addressed Mr. Church's suggestion to install part of the line within the

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GSP ROW in my response to the prior question.

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**Q. On p. 4, lines 4-6, Mr. Church advocates for the use of the so-called "Great Egg Harbor" route instead of the Preferred Route. Please respond.**

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**A.** Again, Mr. Church's only reason for endorsing the Great Egg Harbor route is that it would be "completely out of the County right of way." *Id.* Such a parochial position reveals that the County's preference is to avoid the use of its own property, whether or not the alternative has significant barriers. As I have testified in both the Ocean City proceeding in Docket No. QO22020041 and in my direct testimony in this matter, there are a number of reasons the Great Egg Harbor Route was eliminated from further consideration.

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The Great Egg Harbor Route was extensively evaluated and eliminated for the following reasons:

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- Cable burial depths within the inlet are a concern due to annual changes in bathymetry and shifting sediments;

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- 1       •       Increased risk for cable damage, operation and concerns, and feasibility of  
2       laying cable within the shifting inlet shallow waters;
- 3       •       Design and cable protection challenges associated with shifting sands at  
4       mouth of inlet;
- 5       •       Access to the inlet by other vessels would be restricted during construction,  
6       which would result in additional impacts to other marine uses and  
7       navigation. Due to low water depth within the Great Egg Harbor, the cable  
8       would need to be buried within the limits of the authorized federal and state  
9       channel. If the cable were installed into the Great Egg Harbor Inlet there  
10      would be a safety zone around the cable laying vessel while within the inlet  
11      and channel and could result in disruptions to typical vessel traffic.
- 12      •       Once in the estuary, shallow water limits which barges can be utilized for  
13      cable burial, presenting installation challenges including potential  
14      requirements for specialized equipment or a reducing in the number of  
15      spools of cable;
- 16      •       Installing the cable to the required burial requirements within the inlet may  
17      not be practicable. There is an existing USACE borrow area at the mouth of  
18      the inlet. USACE typically does not authorize crossing of borrow areas, and  
19      where it does allow crossing would require a cable burial depth of 80 feet,  
20      which is not technically feasible for the Project; and
- 21      •       An in-water route through the Great Egg Harbor Bay and Shipping Channel  
22      would result in 5.8 miles of cable burial within designated shellfish habitat.

1   **Q.**     At p. 4, lines 29-32 of his testimony, Mr. Church states “The directional drill  
2           that is proposed for the PPAR may require a USCG permit, which could  
3           trigger section 106 compliance. This is relevant since due to the objection of  
4           the county on the project route, section 106 compliance would not be positive.”  
5           **Please respond to these statements.**

6   **A.**     It is unclear which portion of the route Mr. Church is referring to. In any event,  
7           Ocean Wind is not required to obtain a permit from United States Coast Guard  
8           (“USCG”) associated with the horizontal directional drills proposed for the Project.  
9           However, Ocean Wind has been coordinating with the USCG as part of the  
10          environmental review process and will submit Local Notices to Mariners to the  
11          USCG for all in-water work.

12                 In regard to Mr. Church’s reference to Section 106 compliance, BOEM, as  
13          the lead federal agency, is overseeing implementation of the National Historic  
14          Preservation Act (NHPA) Section 106 review process. As described in the Draft  
15          Environmental Impact Statement issued by BOEM, any potential impacts resulting  
16          from the Project on cultural resources would be reduced through the NHPA Section  
17          106 consultation process as a result of the commitments made by Ocean Wind and  
18          implementation of mitigation measures to resolve adverse effects on historic  
19          properties.

20   **Q.**     At p. 6, lines 3-10 of his testimony, Mr. Church claims that New Jersey  
21           Turnpike Authority approval may be required for the Preferred Route. Please  
22           **respond to these statements.**

1 A. In January 2022 Ocean Wind submitted draft plans and a sectional plan of the  
2 proposed duct bank profile for the cables as they pass under the Garden State  
3 Parkway to the New Jersey Turnpike Authority (“NJTA” or “Authority”). The  
4 NJTA responded confirming that Ocean Wind’s proposed cable route is not located  
5 within the Authority’s Right of Way and that a license to cross application would  
6 not be required. However, the Authority would still require a third-party review of  
7 the utility crossing to ensure there is no impact to Garden State Parkway overpass.  
8 Ocean Wind intends to submit those detailed plans and documents for the  
9 Authority’s review once construction-detail plans are produced. Ocean Wind is  
10 designing the cable route so as to not impact the overpass, and the provision of  
11 plans does not equate to the need for NJTA approval.

12 **Q. In the County’s “Answer” to the Petition, it states that “on information and**  
13 **belief, the Ocean Wind, LLC submission to NJDEP was deemed**  
14 **‘administratively deficient’ on August 24, 2022 and will need to be corrected**  
15 **and revised and subject to new publication of notices.” Please address this**  
16 **statement.**

17 A. On August 24, 2022, the NJDEP did issue a notice that Ocean Wind’s Land Use  
18 Permit application was administratively deficient. However, the County’s  
19 suggestion that this will result in delays or modifications to the Preferred Route is  
20 incorrect. In fact, it is not uncommon for the NJDEP to deem permit applications  
21 administratively deficient and Ocean Wind is confident it will not cause a delay in  
22 the process.

1                   On September 7, 2022, Ocean Wind responded to the NJDEP notice and  
2                   provided the additional information requested. This occurrence is a normal part of  
3                   the NJDEP permit review process and provides no reason for the BPU to delay a  
4                   decision in this matter.

5   **Q.     Does this conclude your rebuttal testimony at this time?**

6   **A.     Yes, it does.**