

BOEM

Bureau of Ocean Energy
Management

Ocean Wind 1 Offshore Wind Farm Draft Environmental Impact Statement (DEIS)

Virtual Public Hearing

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Resources – Posters and Publications

- How to Comment
- Project Overview
- Proposed Action and Alternatives
- Section 106 Review
- Commercial Fishing Impacts
- Fishing Density
- Fishery Landings, Gear Type, and VMS Activity/Revenue by Port
- Project Construction
- Project Design
- The Impacts of Underwater Sound on Protected Species
- Visual Impacts and Scenic Resources
- Visual Simulations
- Planned Activities Scenario
- EMF

<https://www.boem.gov/renewable-energy/state-activities/ocean-wind-1-deis-virtual-public-hearings>



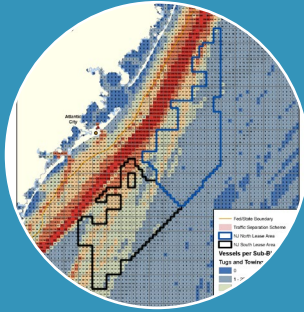
Resources – Videos



Navigating
the DEIS &
Virtual
Meeting
Room



Birds



Navigation
and Vessel
Traffic



Cultural
Resources



Commercial
and
Recreational
Fishing



Scenic and
Visual
Resources



Marine
Mammals
and Sea
Turtles

<https://www.boem.gov/renewable-energy/state-activities/ocean-wind-1-deis-virtual-public-hearings>

National Environmental Policy Act (NEPA)

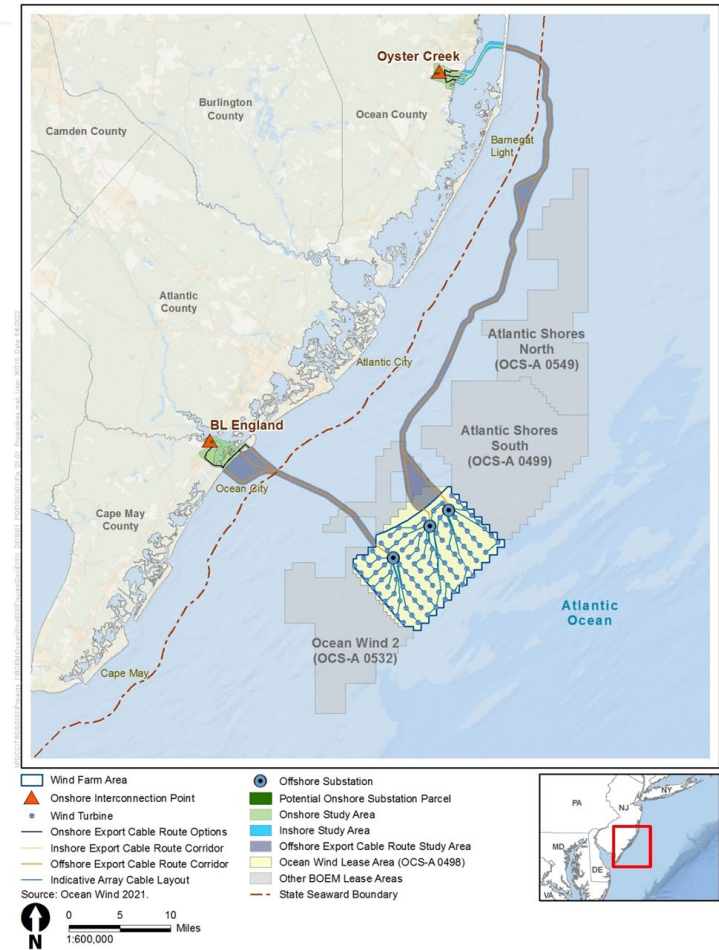
- **NEPA** is a procedural law requiring Federal agencies to assess the environmental effects of their proposed action(s), and reasonable alternatives, prior to making decisions.
- The **NEPA** process collects relevant information for the decision maker to either approve, approve with conditions, or disapprove the plan.

Environmental Impact Statement (EIS)

- Must be prepared if agency is proposing a **major federal action** significantly affecting the quality of the human environment
- Public scoping required prior to DEIS and public comment period required for DEIS with public hearings
- Discussion of the impacts of a proposed project on its surrounding environment including a cumulative effects analysis
- Evaluation of reasonable alternatives, and discussion of the impacts of the alternatives

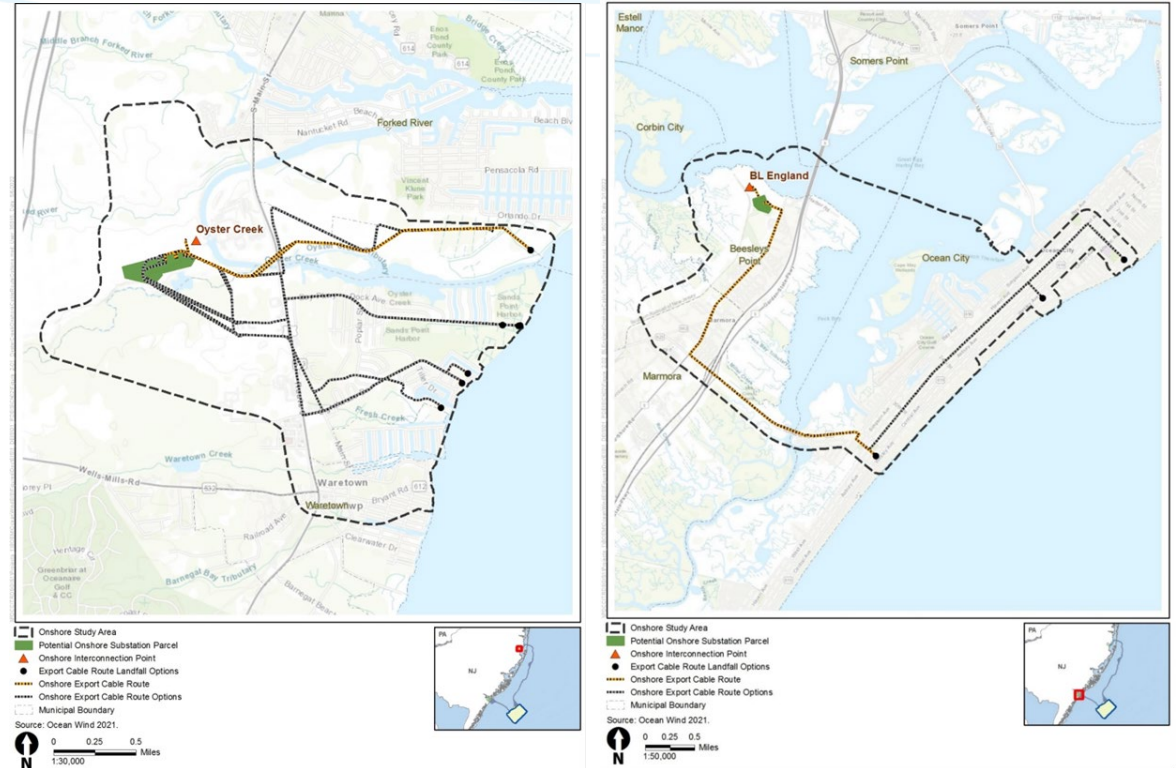
Project Overview

- BOEM issued lease **OCS-A 0498** to RES America Developments, Inc. in February 2016
- BOEM **approved** 100% assignment of the lease to Ocean Wind, LLC (OW), a subsidiary of Ørsted, on May 10, 2016
- NJBPU **awarded** OW a 1100 MW solicitation and OREC in June 2019
- OW **submitted** a Construction and Operations Plan (COP) to BOEM August 2019
- BOEM **approved** partial assignment of lease OCS-A 0498 (now OCS-A 0532) in March 2021

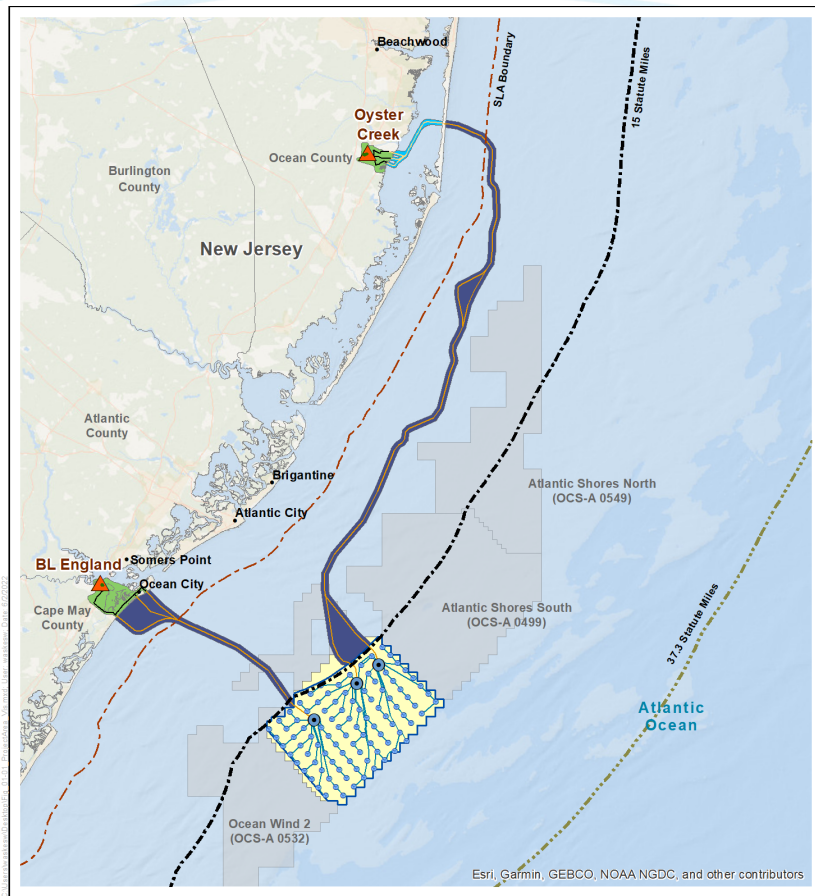


Project Overview Continued

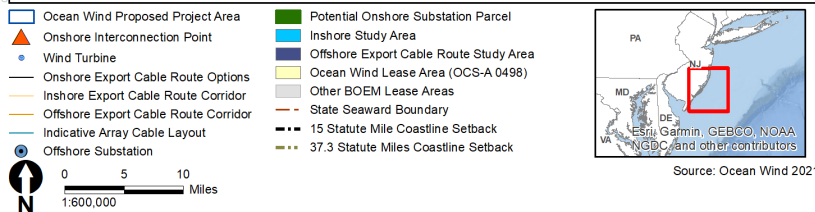
- Up to 98 wind turbine generators (WTGs) and up to 3 offshore substations
- Three export cables located in 2 route corridors (BL England and Oyster Creek); Oyster Creek export cable route corridor crosses Island Beach State Park and Barnegat Bay
- 2 onshore substations at BL England (Ocean City, NJ) and Oyster Creek (Lacey Twp, NJ)



Distance to Shoreline and Maximum WTG Dimensions



- Ocean Wind 1 Project is located on the Outer Continental Shelf (OCS) approximately 15 miles from the New Jersey shoreline
 - 15 miles southeast of Atlantic City
 - 16 miles southeast of Ocean City
- Maximum WTG dimensions:
 - Blade tip height up to 906 feet
 - Hub height up to 512 feet
 - Rotor diameter up to 788 feet



Notice of Intent (NOI)

- NOI to prepare EIS published on March 30, 2021 (30-day comment period)
- Three virtual public scoping meetings held April 13-20, 2021
- Recordings can be found here:
<https://www.boem.gov/renewable-energy/state-activities/ocean-wind-1>
- Scoping Report available on project website:
<https://www.boem.gov/renewable-energy/state-activities/ocean-wind-1>
- Comments can be found here:
<https://www.regulations.gov/docket?D=BOEM-2021-0024>

Government to Government Tribal Consultation

- BOEM conducted a government-to-government meeting with federally recognized Tribes (Delaware Nation and Delaware Tribe of Indians) on June 17, 2021.
- A government-to-government meeting will be scheduled in late summer of 2022 and future meetings will be scheduled as requested.

National Historic Preservation Act (NHPA) Section 106 Review

- BOEM elected to use NEPA substitution to fulfill the agency's Section 106 obligations pursuant to 36 CFR 800.8(c).
- 24 Consulting Parties, including tribal nations, federal agencies, state agencies, local governments, and nongovernmental organizations or groups.
- Section 106 consultation meetings were held on March 8, 2022, and May 4, 2022.
- Future consultation meetings will be scheduled later in 2022 and early 2023.

Notice of Availability (NOA) of DEIS

- NOA published in *Federal Register* **June 24, 2022**
- Three Virtual Public Hearings:
 - Thursday, July 14, 2022 | 1:00 pm
 - Wednesday, July 20, 2022 | 5:00 pm
 - Tuesday, July 26, 2022 | 5:00 pm
- 45-day public comment period closes **August 8, 2022**
- Additional information can be found at:
<https://www.boem.gov/renewable-energy/state-activities/ocean-wind-1>

Public Comment on DEIS

- **Types of information BOEM is looking for:**
 - Accuracy of information
 - Adequacy of methodology or assumptions used in the environmental analysis
 - New information relevant to the analysis or that would change the conclusions
 - Different source of credible research
 - Where clarification is needed

Notable Sections of the DEIS

ES

Executive Summary

A high-level summary of the proposed Project, alternatives, and the potential impacts of the project for each resource and alternative

1

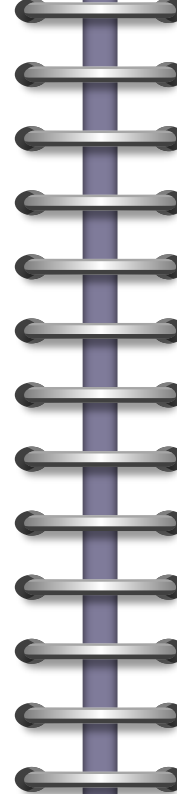
Chapter 1

The purpose and need statement, an introduction to the project, and a summary of the planned activities scenario

2

Chapter 2

Description of alternatives considered for further analysis and alternatives considered but not analyzed in detail



Chapter 3

Analysis of the environmental consequences of the Proposed Action, Action Alternatives, and the No Action Alternative

Appendix E

Project Design Envelope and maximum case scenario

Appendix F

Planned Activities Scenario

Appendix G

Assessment of Resources with Minor (or Lower) Impacts

Appendix N

Finding of Adverse Effect, Draft Section 106 MOA

3

E

F

G

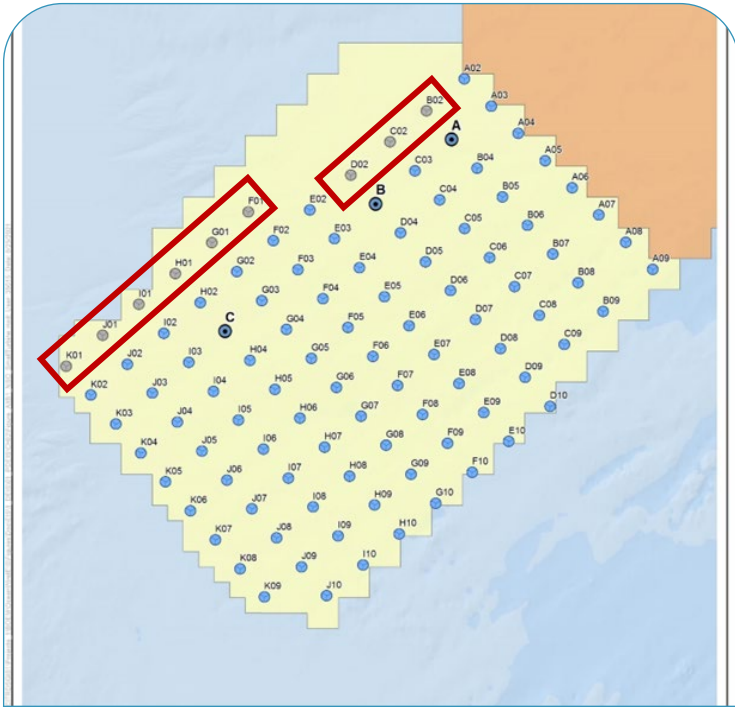
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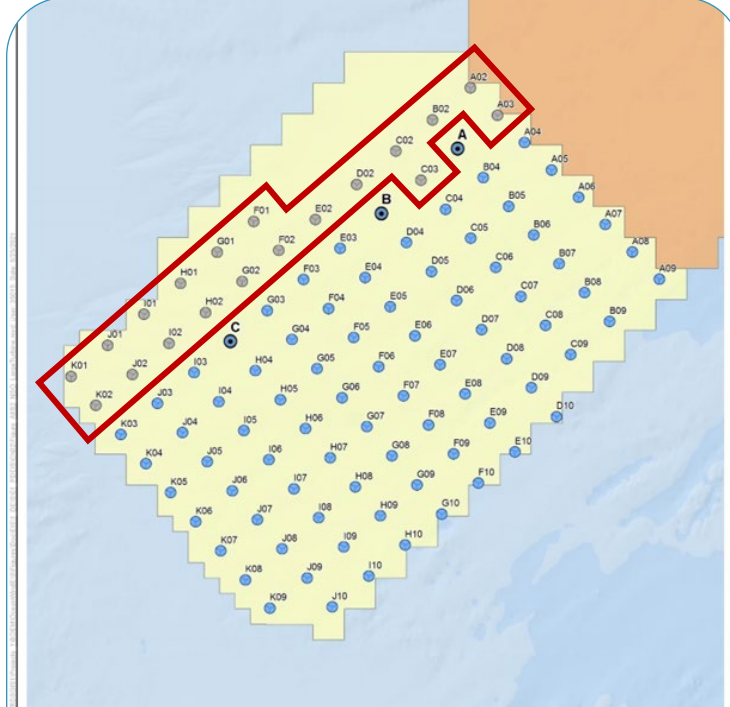
Proposed Action and Alternatives

- **Alternative A - Proposed Action:** Up to 98 WTGs and up to 3 offshore substations in Lease Area OCS-A 0498, two export cable route corridors with points of interconnection at BL England and Oyster Creek
- **Alternative B - No Surface Occupancy at Select Locations to Reduce Visual Impacts**
- **Alternative C - Wind Turbine Layout Modification to Establish a Buffer Between Ocean Wind 1 and Atlantic Shores South**
- **Alternative D - Sand Ridge and Trough Avoidance**
- **Alternative E - Submerged Aquatic Vegetation Avoidance**
- **No Action Alternative**

Alternative B: No Surface Occupancy at Select Locations to Reduce Visual Impacts



B-1: Removal of 9 WTGs (shown in gray)

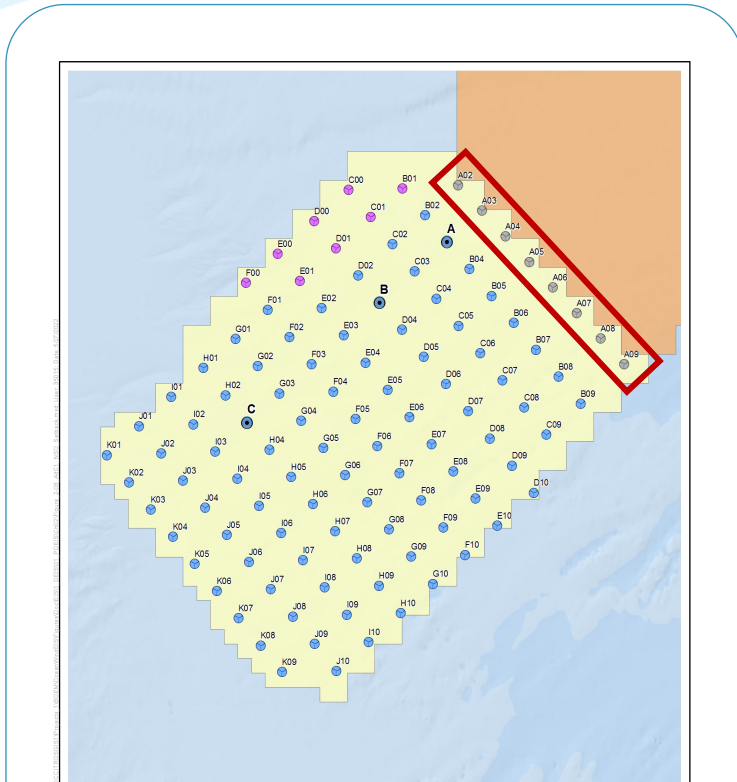


B-2: Removal of 19 WTGs (shown in gray)



- B-1: Remove up to 9 (smaller turbine model) WTG positions nearest to coastal communities
- B-2 Remove up to 19 (larger turbine model) WTG positions nearest to coastal communities

Alternative C: Wind Turbine Layout Modification to Establish a Buffer Between Ocean Wind and Atlantic Shores

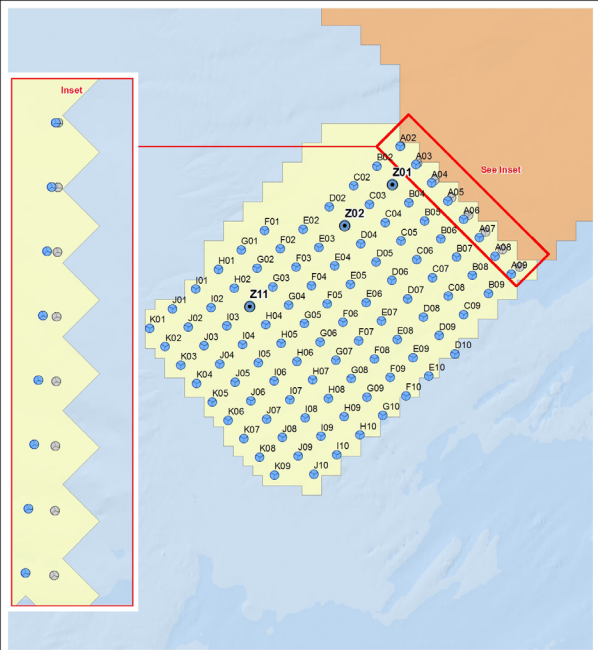


**C-1: WTG Relocation
(WTGs removed shown
in gray, WTGs relocated
shown in purple)**

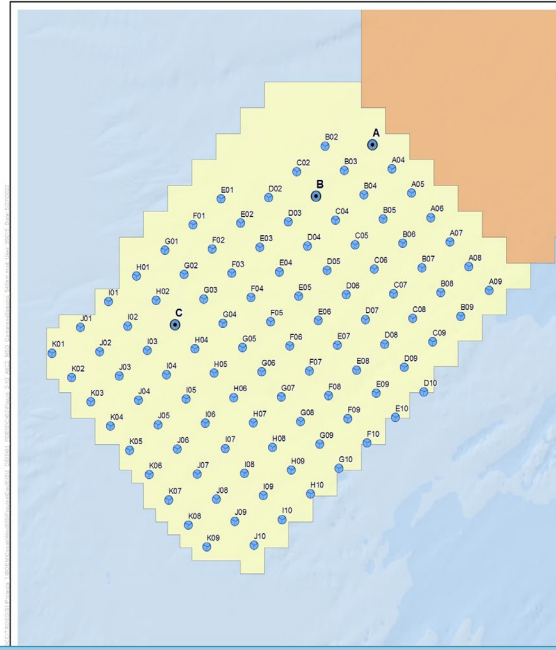


- C-1: Remove or relocate 8 WTG positions along the northeastern lease boundary to allow for a 0.81 nm to 1.08 nm buffer between each project's WTGs

Alternative C: Wind Turbine Layout Modification to Establish a Buffer Between Ocean Wind and Atlantic Shores



**C-2: Compression
Layout for 0.81-
nm Buffer**

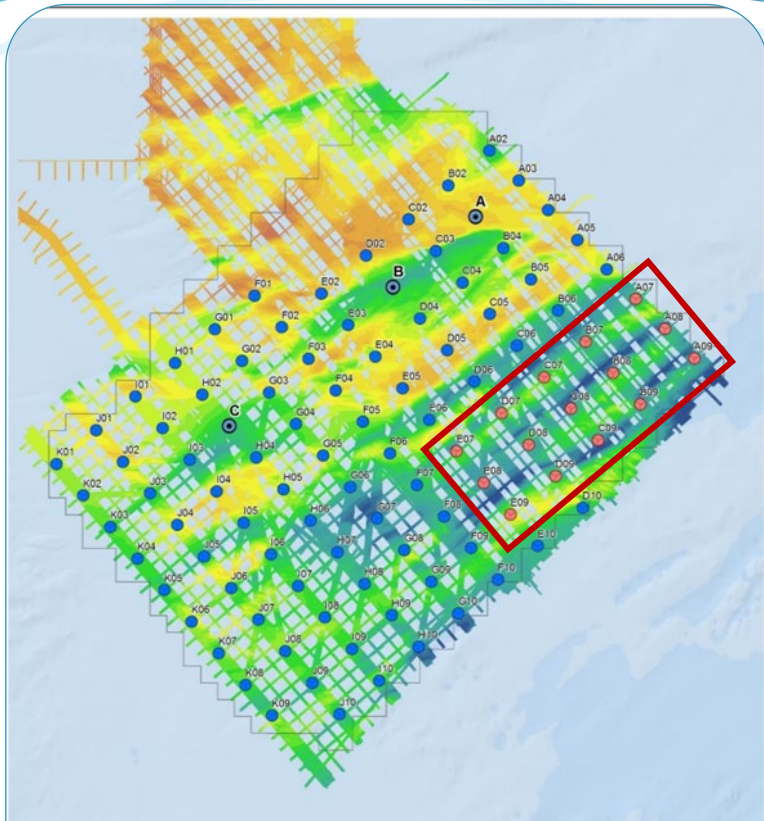


**C-2: Compression
Layout for 1.08-
nm Buffer**



- C-2: Compress WTG array layout to allow for a 0.81 nm to 1.08 nm buffer between each project's WTGs

Alternative D: Sand Ridge and Trough Avoidance



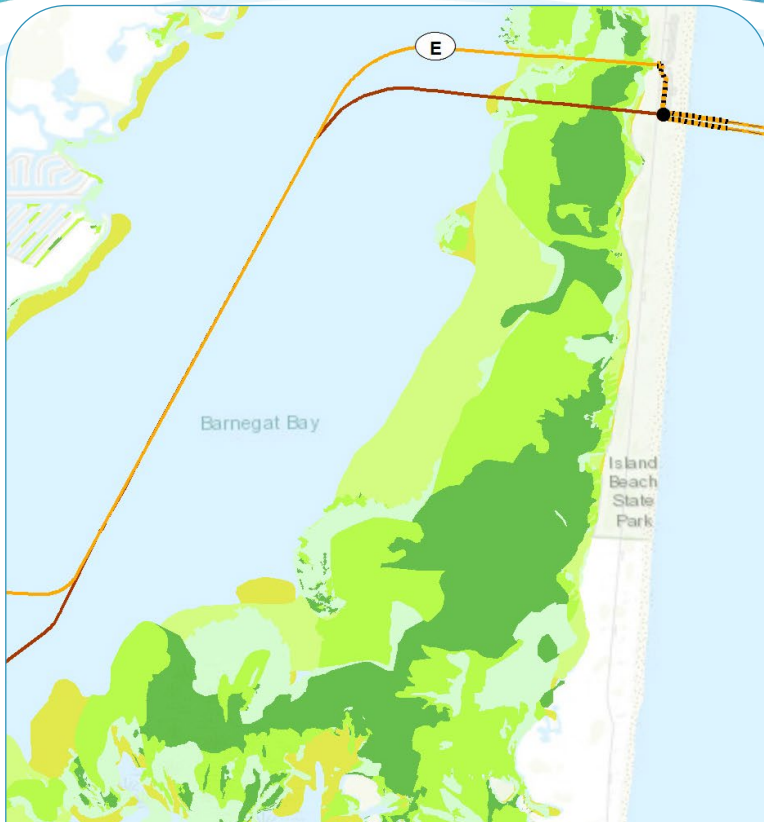
- Remove up to 15 WTGs (shown in red) from the sand ridge and trough habitat area in the northeastern portion of the lease area

**D: WTG Removal
(WTGs removed
shown in red)**



Source: Ocean Wind 1 Construction and Operations Plan (2022)

Alternative E: Submerged Aquatic Vegetation Avoidance



E: Export Cable Route Option (shown in orange)



- Limit the export cable route option traversing Island Beach State Park to the northern option developed to minimize impacts on submerged aquatic vegetation (SAV)
- Northern option makes landfall in Island Beach State Park Swimming Area #2 Parking Area, travels north along the parking areas, turns west following a prior channel in Barnegat Bay
- Mapped SAV shown in shades of green

Environmental and Socioeconomic Resources

Biological

- Marine Mammals
- Sea Turtles
- Finfish, Invertebrates, and Essential Fish Habitat (EFH)
- Coastal Habitat and Fauna
- Benthic Resources
- Birds
- Bats



Physical

- Air Quality
- Water Quality

Socioeconomic

- Scenic and Visual Resources
- Commercial Fisheries and For-hire Recreational Fishing
- Cultural Resources
- Other Uses: Marine Minerals, Military Uses, Aviation
- Navigation and Vessel Traffic
- Environmental Justice
- Land Use and Coastal Infrastructure
- Recreation and Tourism
- Demographics, Employment, Economics

Impact Analysis

DEIS Table 3.13-1, Impact Level Definitions for Finfish, Invertebrates, and EFH

Impact Level	Impact Type	Definition
Negligible	Adverse	Impacts on species or habitat would be so small as to be unmeasurable.
Minor	Adverse	Most impacts on species would be avoided; if impacts occur, they may result in the loss of a few individuals. Impacts on sensitive habitats would be avoided; impacts that do occur would be temporary or short term in nature
Moderate	Adverse	Impacts on species would be unavoidable but would not result in population-level effects. Impacts on habitat may be short term, long term, or permanent and may include impacts on sensitive habitats but would not result in population-level effects on species that rely on them.
Major	Adverse	Impacts would affect the viability of the population and would not be fully recoverable. Impacts on habitats would result in population-level impacts on species that rely on them

Resource-specific impact level definitions are presented in each resource section



Summary of Impacts

- **Proposed Action**

- Most adverse resource impacts are negligible to moderate
- Potential major adverse impacts on: Commercial Fisheries; Marine Mammals; Navigation and Vessel Traffic; Scientific Research and Surveys; and Scenic and Visual Resources
- Potential beneficial impacts to: Air Quality; Benthic Resources; Birds; Demographics, Employment and Economics; Land Use and Coastal Infrastructure; Recreation and Tourism; Sea Turtles

- **Alternatives**

- Alternatives B, C, and D would reduce the number of turbines
- Alternative E would limit the Oyster Creek export cable route corridor to reduce impacts to SAV
- Alternatives reduced impacts to many resources; however, did not always result in a change to the resource's impact level conclusion. Minimization of impacts is identified and quantified where possible in the DEIS

Summary and Comparison of Impacts Among Alternatives

DEIS Table S-2 (3.13 Finfish, Invertebrates, and Essential Fish Habitat)

Resource	No Action Alternative	Alternative A Proposed Action	Alternative B Visual Impacts	Alternative C Buffer Between Lease Areas	Alternative D Sand Ridge and Trough Avoidance	Alternative E Submerged Aquatic Vegetation
Finfish, Invertebrates, and EFH <i>Alternative Impacts</i>	Minor to Moderate	Negligible to Moderate	Negligible to Minor	Negligible to Minor	Negligible to Minor	Negligible to Minor
Finfish, Invertebrates, and EFH <i>Alternative Impacts with Alternatives</i>	Moderate	Negligible to Moderate	Negligible to Moderate	Negligible to Moderate	Negligible to Moderate	Negligible to Moderate

DEIS Table 2-4 provides a narrative summary and comparison of alternatives table

Final Environmental Impact Statement (FEIS)

- DEIS comments will be assessed and considered by BOEM and the cooperating agencies during preparation of the FEIS
 - Necessary changes will be made in response to comments and/or new information
 - Responses to comments will be provided in an appendix
- Preferred alternative will be identified

Remaining EIS Schedule

July 2022



DEIS Public Hearings

March 3, 2023



Publish FEIS

April 14, 2023

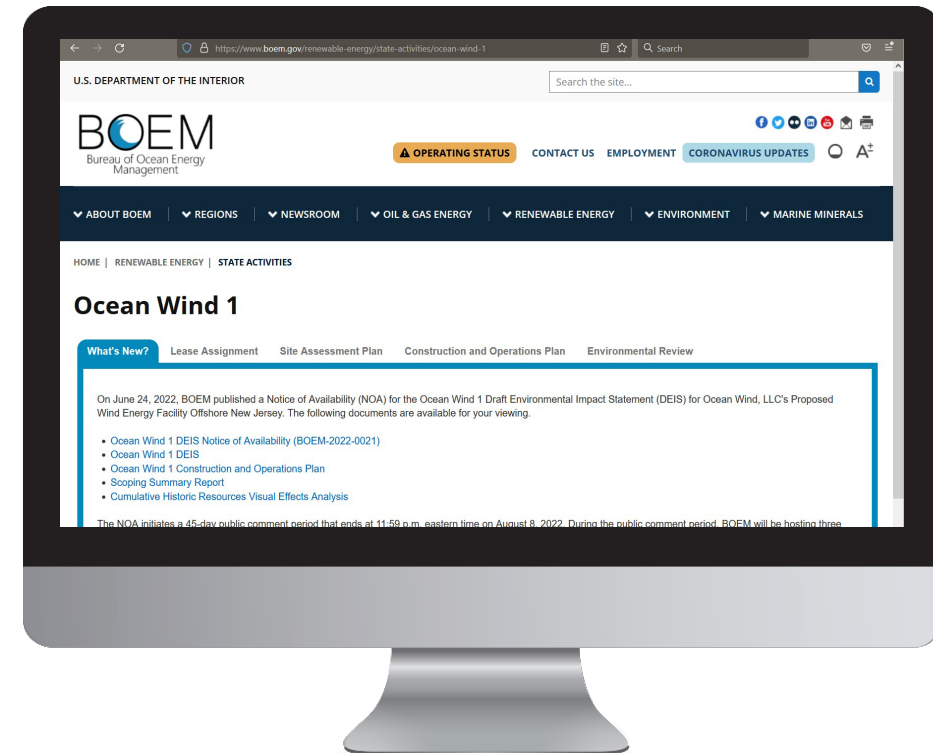


Issue
Record
of
Decision



Where Can I Find More Information?

- <https://www.boem.gov/renewable-energy/state-activities/ocean-wind-1>
- Ocean Wind 1's Construction and Operations Plan
- DEIS
- Scoping Summary Report
- Virtual Meeting Room webpage
 - Posters
 - Presentations
 - Meeting registration link
 - FAQs



How to Comment by August 8, 2022



At this public hearing through verbal testimony.



In writing to:

Program Manager, Office of Renewable Energy Programs, Bureau of Ocean Energy Management, 45600 Woodland Road, VAM-OREP, Sterling, VA 20166



Online at www.regulations.gov: Search for Docket No. BOEM-2022-0021. Click on the “Comment” button. Enter your information and comment, then click “Submit Comment.”

OCEAN WIND 1 OFFSHORE WIND PROJECT

Todd A. Schaible

Chief, Regulatory Branch

Philadelphia District

July 14, 2022

July 20, 2022

July 26, 2022

“The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.”



US Army Corps
of Engineers®



PUBLIC HEARINGS

Conducted by the Bureau of Ocean Energy Management
(BOEM) / United States Army Corps of Engineers (USACE)

PUBLIC HEARINGS

- The BOEM is hosting three virtual public hearings and has invited the USACE to participate
- These public hearings will also serve as USACE public hearings

USACE REGULATORY AUTHORITIES

Section 10 of the Rivers and Harbors Act of 1899

Section 404 of the Clean Water Act

Section 14 of the Rivers and Harbors Act of 1899



USACE REGULATORY AUTHORITIES

- Section 10 of the Rivers and Harbors Act of 1899
 - Outer Continental Shelf (Structures Only)
 - Turbines
 - Cables
 - Substations
 - Traditional Navigable Waters (Structures and Work)
 - Cables
 - Dredging
 - Discharges of Dredged and Fill Material
- Section 404 of the Clean Water Act
 - Traditional Navigable Waters, Tributaries, and Adjacent Wetlands (Discharges of Dredged and Fill Material)



USACE REGULATORY AUTHORITIES

- Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408)
 - New Jersey Shore Protection, Great Egg Harbor Inlet to Townsends Inlet, New Jersey Federal Flood and Coastal Storm Damage Reduction Project
 - Ocean City Cable Route
 - New Jersey Intracoastal Waterway Federal Navigational Project at two locations
 - Ocean City Cable Route
 - Oyster Creek Cable Route
 - Oyster Creek Channel portion of the Barnegat Inlet Federal Navigation Project

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

USACE as a Cooperating Agency

NEPA

- BOEM is the lead federal agency
- USACE is a cooperating agency, along with several other federal and state agencies
- The Environmental Impact Statement (EIS) will inform the USACE decision on the Application for a Department of the Army Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act
- The EIS will also inform the USACE decision on the Application for a Department of the Army Permission pursuant to Section 14 of the Rivers and Harbors Act (i.e., Section 408 Permission)

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