

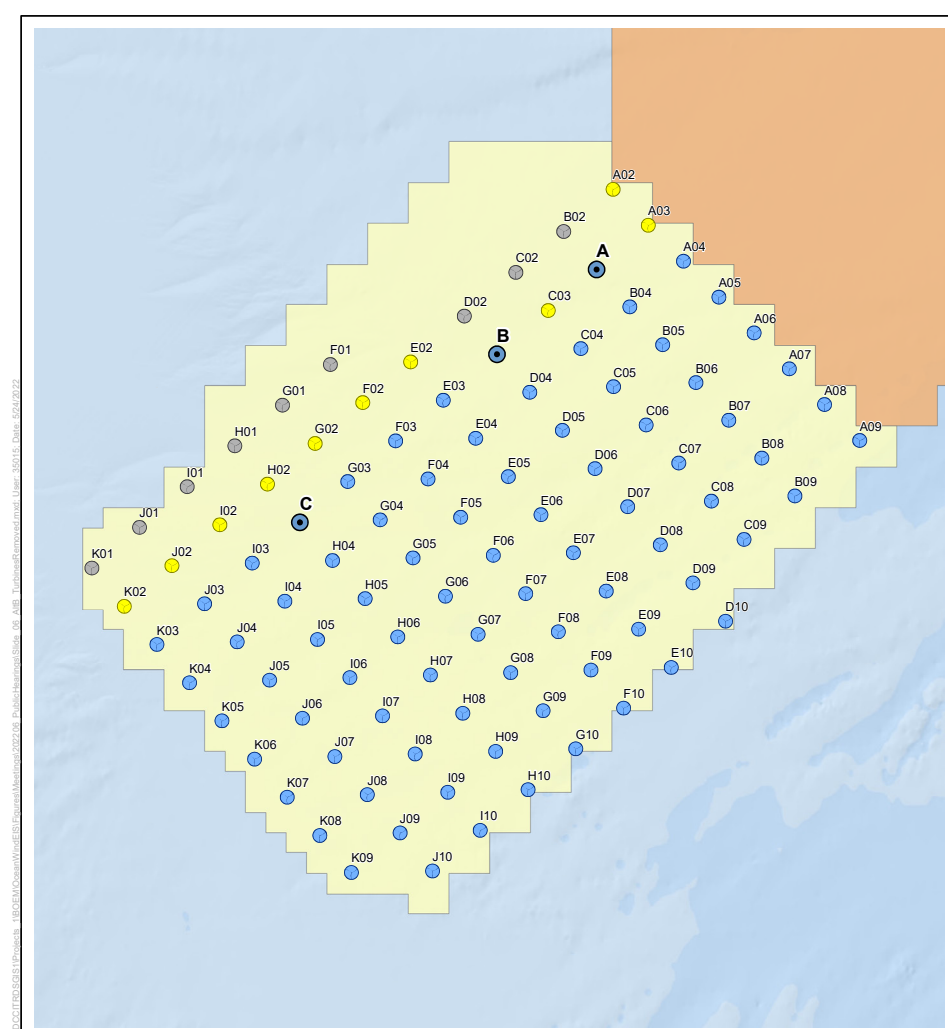
Ocean Wind 1 Offshore Wind Farm

# Alternatives

**Alternative A - Proposed Action:** Ocean Wind, LLC would develop an 1,100 MW wind energy facility that includes up to 98 wind turbine generators (WTG), up to three offshore substations (OSS), two export cable corridors, landfalls, and an onshore cable system with points of interconnection at Oyster Creek and BL England.

**No Action Alternative:** Under the No Action Alternative, BOEM would not approve the COP. Project construction, operation, maintenance, and decommissioning activities would not occur.

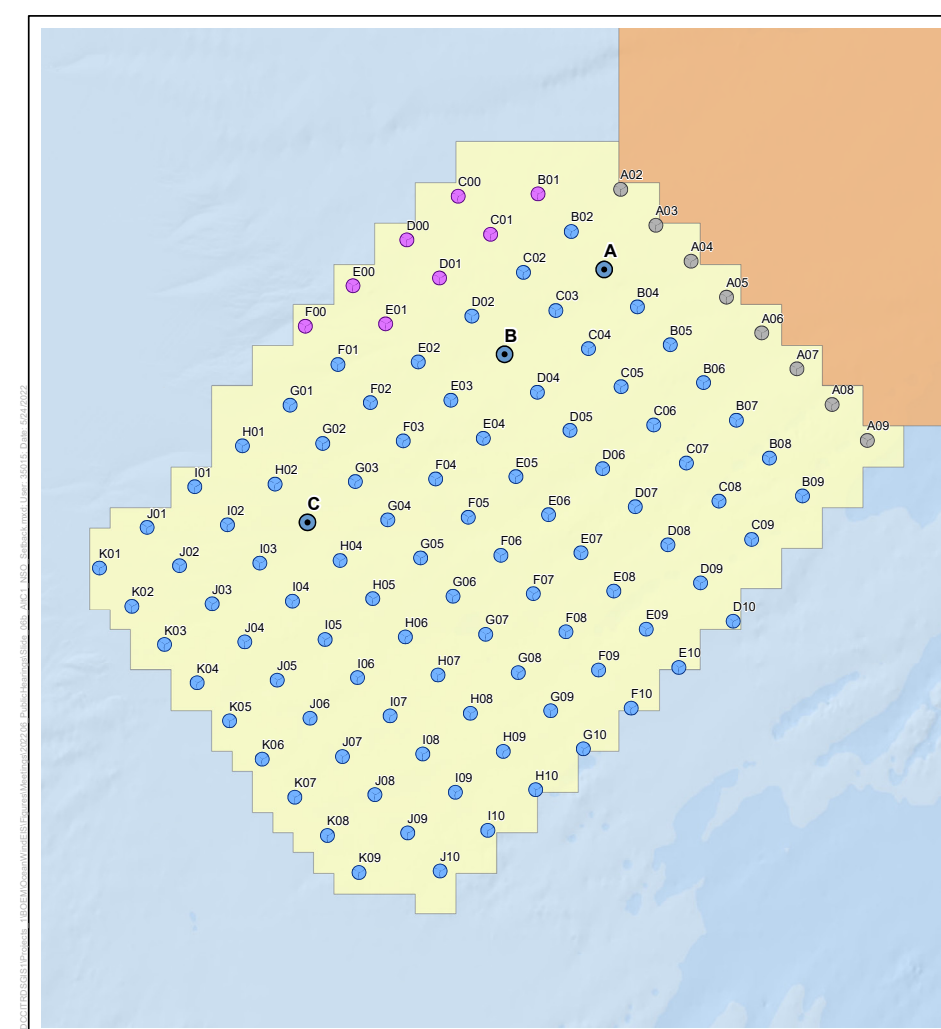
## Alternative B - No Surface Occupancy to Reduce Visual Impacts



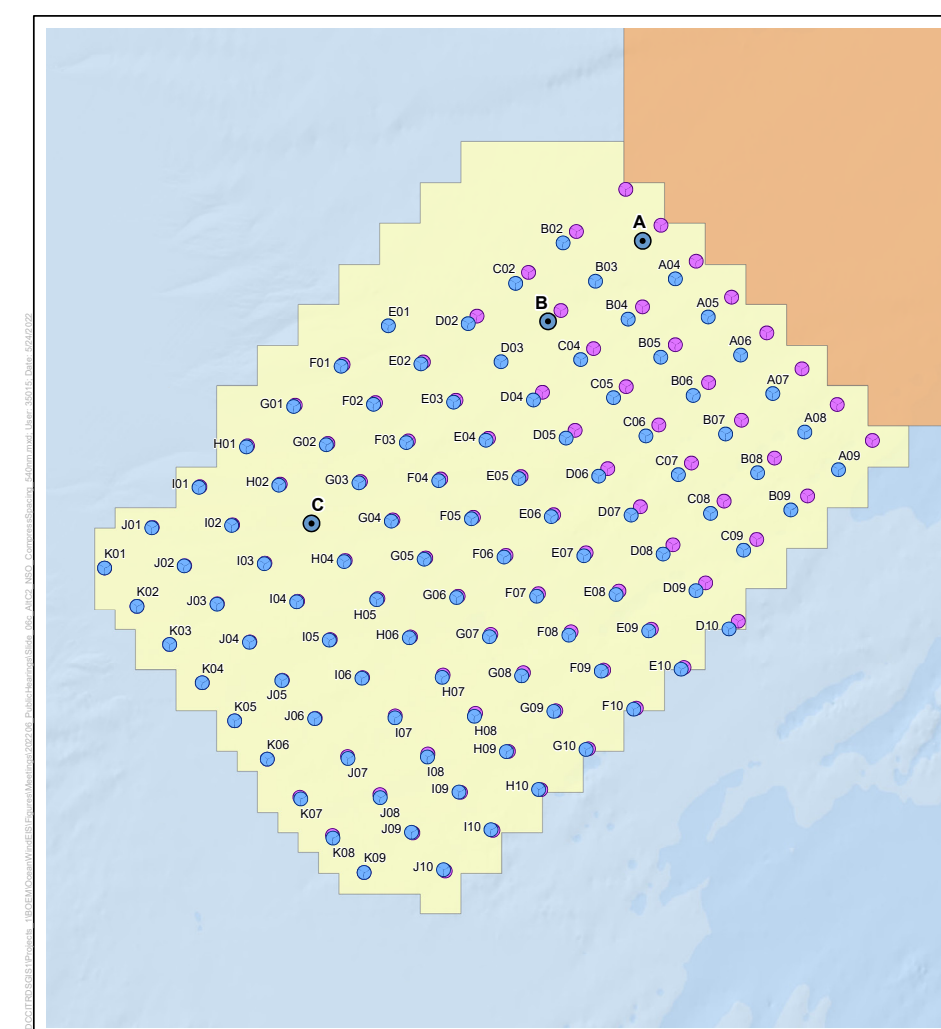
Ocean Wind Alternative Layout  
● Eliminated Turbine (A1, B1 and B2) (9)  
● Relocated Turbine (A1, B2 Only) (10)  
● Eliminated Turbine (7)  
● Offshore Substation  
■ Ocean Wind Lease Area (OCS-A 0498)  
■ Atlantic Shores South Lease Area (OCS-A 0499)  
Source: Ocean Wind 2021.

No surface occupancy would occur at WTG positions located nearest to coastal communities to reduce the visual impacts of the Ocean Wind 1 Project. **B-1** would exclude up to 9 WTG positions and **B-2** would exclude up to 19 WTG positions. Selection of B-2 would be contingent on a larger WTG with a 240-meter rotor diameter being commercially available when BOEM issues the Record of Decision.

## Alternative C - Wind Turbine Layout Modification to Establish a Buffer Between Ocean Wind 1 & Atlantic Shores South



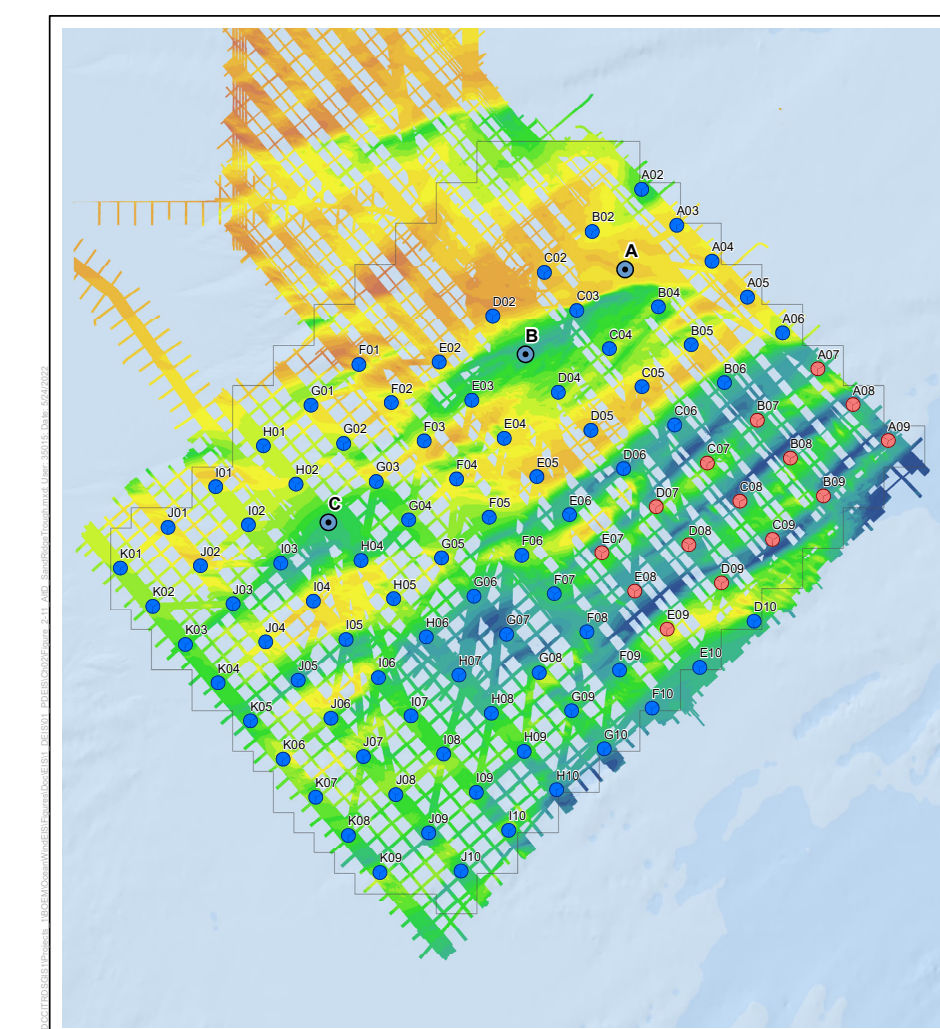
Ocean Wind Alternative Layout  
● Unaltered Turbine (26)  
● Relocated Turbine (8)  
● Eliminated Turbine (8)  
● Offshore Substation  
■ Ocean Wind Lease Area (OCS-A 0498)  
■ Atlantic Shores South Lease Area (OCS-A 0499)  
Source: Ocean Wind 2021.



Compression Layout for 1.08 Nautical Mile Buffer  
● Turbine (8)  
● Substation (2)  
● Relocated Turbine  
● Ocean Wind Lease Area (OCS-A 0498)  
● Atlantic Shores South Lease Area (OCS-A 0499)  
Source: Ocean Wind 2021.

Modifies the turbine array layout to create a 0.81-nm to 1.08-nm buffer between WTGs in Lease Area OCS-A 0498 (Ocean Wind 1) and Lease Area OCS-A 0499 (Atlantic Shores South). **C-1** would exclude 8 WTG positions and/or relocate up to 8 WTGs within the lease area. **C-2** would compress the turbine layout to achieve the buffer.

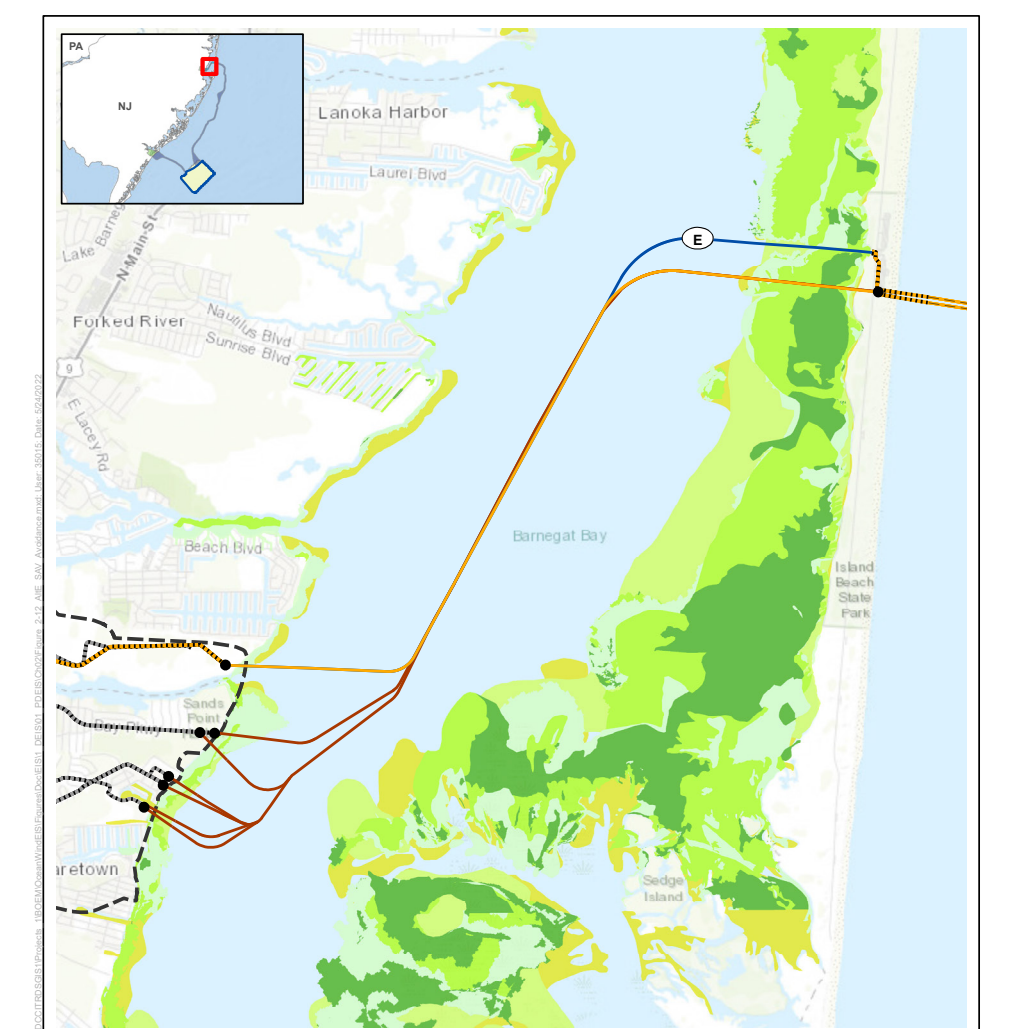
## Alternative D - Sand Ridge and Trough Avoidance



Ocean Wind Alternative Layout  
● Unaltered Turbine (83)  
● Eliminated Turbine (15)  
● Offshore Substation  
■ Ocean Wind Lease Area (OCS-A 0498)  
Source: Ocean Wind 2021, Inspire 2021.

Excludes up to 15 WTG positions to minimize impacts on sand ridge and trough features in the northeastern corner of the Lease Area. Exclusion of more than 9 WTGs would be contingent on a larger WTG with a 240-meter rotor diameter being commercially available when BOEM issues the Record of Decision.

## Alternative E - Submerged Aquatic Vegetation Avoidance



Export Cable Route Landfall Options  
■ Onshore Study Area  
■ SAV Dense (80-100% cover) (Rugiers 2003, 2009; Ocean Wind 2019)  
■ SAV Moderate (40-80% cover) (Rugiers 2003, 2009; Ocean Wind 2019)  
■ SAV Sparse (10-40% cover) (Rugiers 2003, 2009; Ocean Wind 2019)  
■ SAV Emergent (NDEP 1985)  
■ SAV (NDEP 1979)  
Source: Ocean Wind 2021, 2019; Rugiers 2003, 2009; NDEP 1985, 1979.

Limits the Oyster Creek export cable route corridor traversing Island Beach State Park to the option developed to minimize impacts on submerged aquatic vegetation in Barnegat Bay.