

New England Wind Project

Alternatives

Alternative A: No Action

Under Alternative A (No Action), BOEM would not approve the COP. The proposed Project construction, operations, and decommissioning would not occur, and no additional permits or authorizations for the proposed Project would be required.

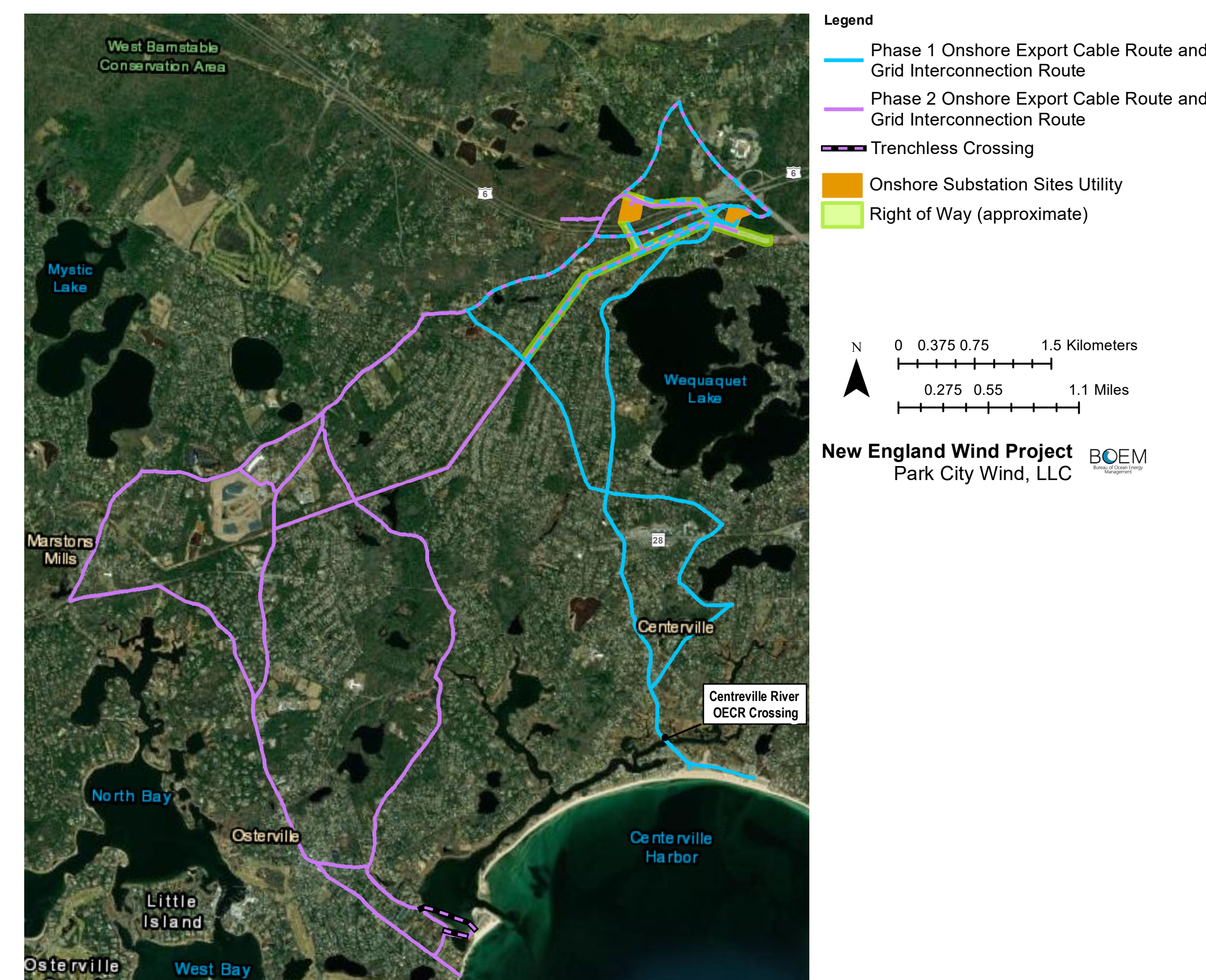
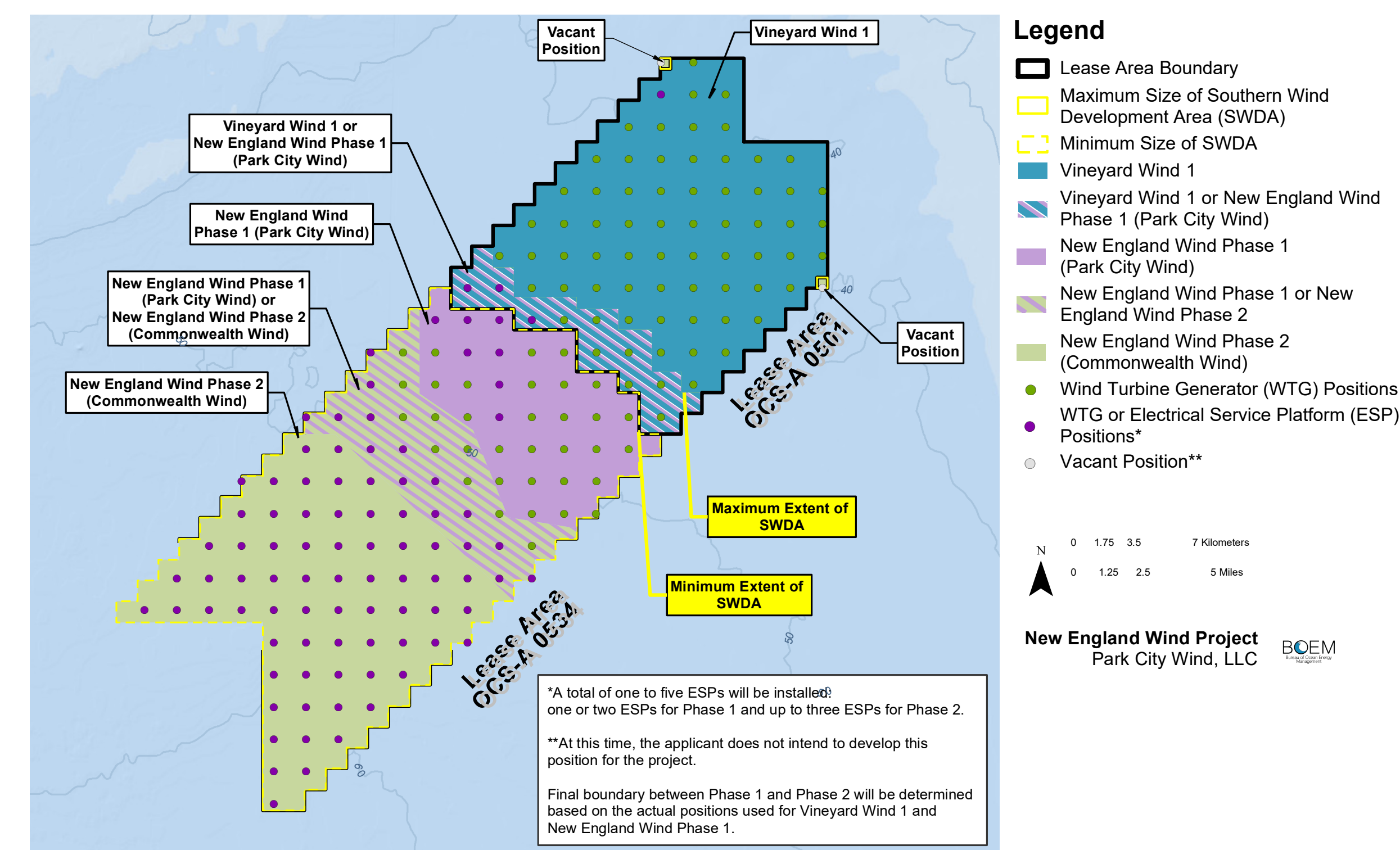
Alternative B: Proposed Action

Under Alternative B (Proposed Action), the construction, operations and maintenance, and conceptual decommissioning of the up to 2,600 megawatt (MW) Project within Lease Area OCS-A 0534 and potentially a portion of Lease Area OCS-A 0501, along with associated export cables, would occur within the range of design parameters outlined in the COP, subject to applicable mitigation measures. The proposed Project would consist of up to 129 wind turbine generators (WTGs) and up to 5 electrical service platforms (ESPs) in 130 positions and would be developed in two phases:

- Phase 1: 804 MW, 41 to 62 WTGs, 1 or 2 ESPs, and 2 offshore export cables.
- Phase 2: at least 1,232 MW, 64 to 88 WTGs, 2 or 3 ESPs, and 3 offshore export cables.

The landfall locations for the Phase 1 and Phase 2 OECC would be in the Town of Barnstable, Massachusetts. Onshore export cable routes (OECR) (one for each phase) would carry the export cables to one or more substation sites in the Town of Barnstable for interconnection with the regional electrical grid.

If all Phase 2 export cables cannot be installed in the proposed OECC, the applicant would develop and use the Western Muskeget Variant for one or more cables. If all Phase 2 export cables from interconnecting in the Town of Barnstable, the applicant would develop and use the South Coast Variant (SCV) for one or more export cables. The SCV would have a landing site and OECR in Bristol County, Massachusetts. The applicant has identified six potential scenarios, including contingencies, for the Phase 2 OECC—see the Phase 2 Variants poster.



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Alternative C: Habitat Impact Minimization Alternative

Under Alternative C (Habitat Impact Minimization), construction, operations, and decommissioning of the proposed Project's WTGs and ESPs would occur within the range of design parameters outlined in the COP, subject to applicable mitigation and monitoring measures. Compared to Alternative B, this alternative would minimize impacts on complex fisheries habitats—areas of seafloor that are stable, exhibit vertical relief, and/or provide rare habitat compared to the broad sand flats that characterize much of the OCS—from Phase 2 export cable installation. Complex habitats include gravel or pebble-cobble beds, sand waves, biogenic structures (e.g., burrows, depressions, sessile soft-bodied invertebrates), shell aggregates, boulders, hard-bottom patches, and cobble beds, among other features. Alternative C has two potential sub-alternatives, as described below.

Alternative C-1: Western Muskeget Variant Avoidance

Alternative C-1 would preclude the use of the Western Muskeget Variant for Phase 2 export cable installation. This would avoid a crossing of a proposed OECC route for the Mayflower Wind Energy Project (Lease Area OCS-A 0521) within the Western Muskeget Channel. This would avoid the need to lay cable on the seafloor, which would damage or destroy more complex habitat features than buried cables. By avoiding a cable crossing within the Muskeget Channel, Alternative C-1 would limit the total number of potential crossings of the Mayflower Wind cable to a single crossing south of Muskeget Channel, where complex fisheries habitat is rarer.

Alternative C-2: Eastern Muskeget Route Minimization

This alternative would minimize, to the degree practicable, the use of the Eastern Muskeget route and maximize the use of the Western Muskeget Variant and/or the SCV for all Phase 2 export cables. Under this alternative, the two Phase 1 cables would be installed in the Eastern Muskeget route, along with a maximum of one Phase 2 cable. This eliminates options for two or three Phase 2 cables to be installed in the Eastern Muskeget route. This alternative could potentially reduce impacts on productive complex habitats along the Eastern Muskeget route compared to Alternative B. This option could require significant delays to Phase 2 due to the need to upgrade onshore substation that are not currently planned for upgrade. Alternative C-2 would require more Phase 2 dredging for cable installation than under Alternatives B and C-1.

