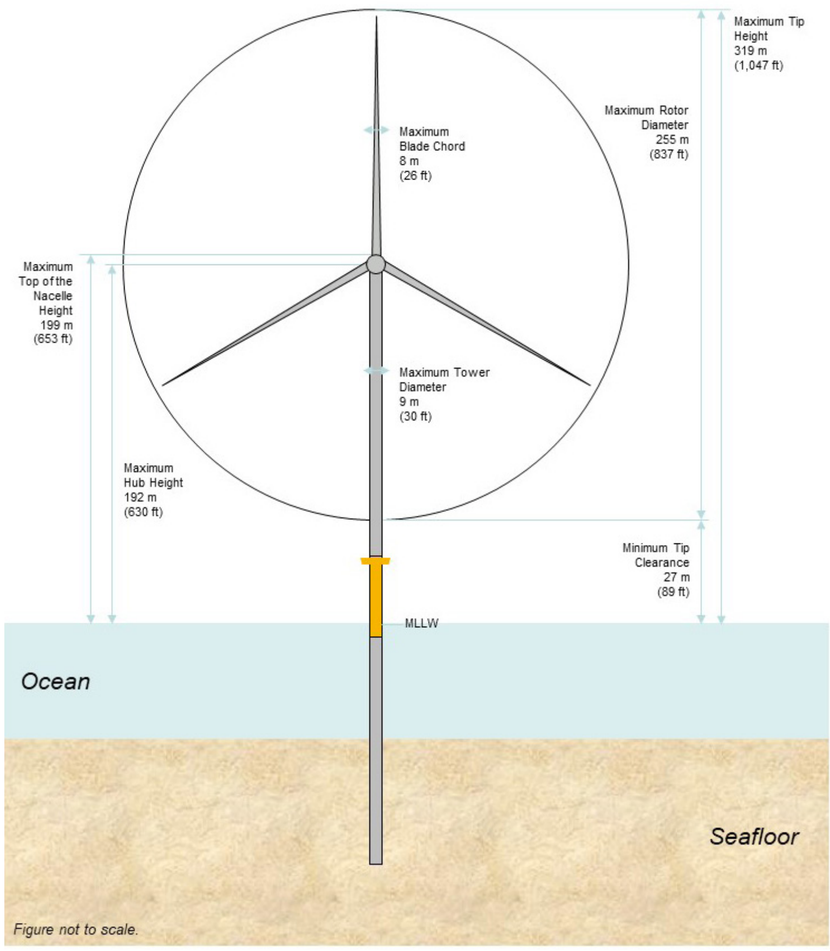
Vineyard Wind South Offshore Wind Project

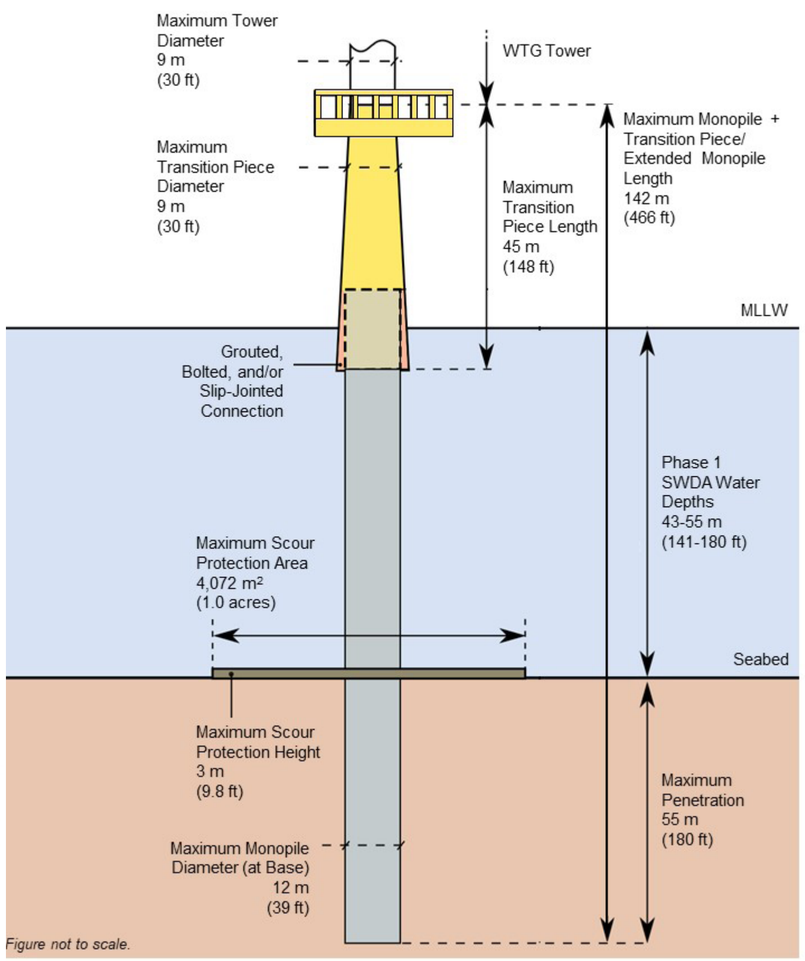
Project Design Envelope - Phase 1

A project design envelope is a permitting approach that allows a lessee to define a range of design parameters within a Construction and Operations Plan. BOEM then analyzes the maximum impacts that could occur within the range of the design parameters — referred to as the "maximum design scenario.

"Representative design parameters for the Vineyard Wind Phase 1 project are outlined below. Refer to Vineyard Wind's Construction and Operations Plan for a detailed explanation of the project design envelope.



Phase 1 Wind Turbine Generators



Monopile Foundation

Typical Foundation Installation Vessel

Project Component	Representative Project Design Parameters
Wind Turbine Generators (WTG)	• Up to 62 WTGs with rotor diameter up to 837 feet. • Upper blade tip height up to 1,047 feet above MLLW; lowest blade tip height 89 feet above MLLW.
Turbine Foundations	• Monopile or piled jacket foundations with scour protection, if requireds. • Installation with jack-up vessel, anchored vessel, or DP vessel and components possibly supplied byfeeder vessels.
Electric Service Platforms (ESP)/Offshore Substations	• Up to two ESPs on monopile or piled jacket foundation. • Installation with jack-up vessel, anchored vessel, or DP vessel. • Maximum 275 kV inter-link cables with target burial depth of 5 to 8 feet, and options for cableprotection
Inter-Array Cables	• Maximum 132 kV inter-array cables with target burial depth of 5 to 8 feet. • Cable protection (rock, gabion rock bags, concrete mattresses, half-shell pipes [or similar]) inareas with minimal cable burial.
Offshore Export Cables	• Up to two 275 kV cables with a target burial depth of 5 to 8 ft. • Cables installed in one offshore export cable corridor to landfall site in the Town of Barnstable. • Cable protection (rock gabion rock bags, concrete mattresses, half-shell pipes [or similar]) in areas withminimal cable burial.
Landfalls and Onshore Export Cable System	• Alternate landfall and onshore cable route options within the Town of Barnstable. • Utilization of HDD to transition the export cable from offshore to onshore.
Onshore Substations and Interconnector Cable	• One new onshore substation with associated infrastructure. • Underground cable transmission options to connect onshore substations to the existing grid.

DP = dynamic positioning; HDD = horizontal directional drilling; kV = kilovolt; MLLW = mean lower low water.

For more information on BOEM's Renewable Energy Program, visit www.boem.gov/Renewable-Energy