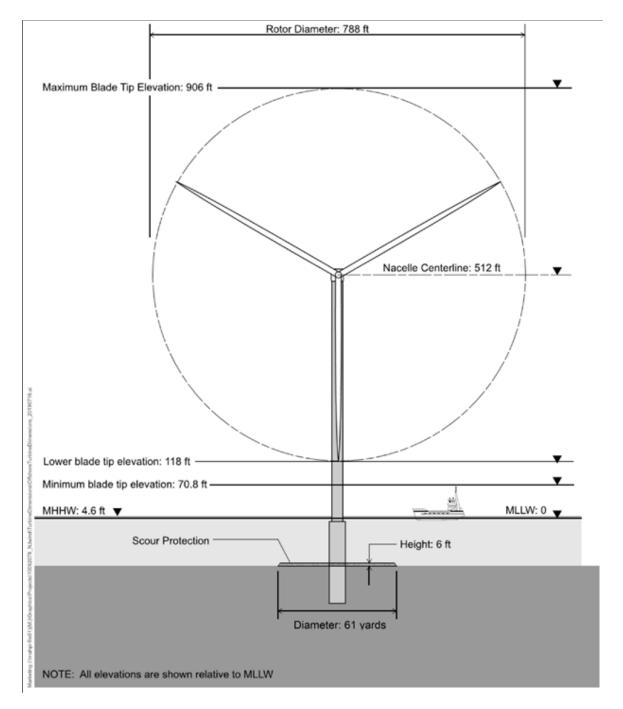
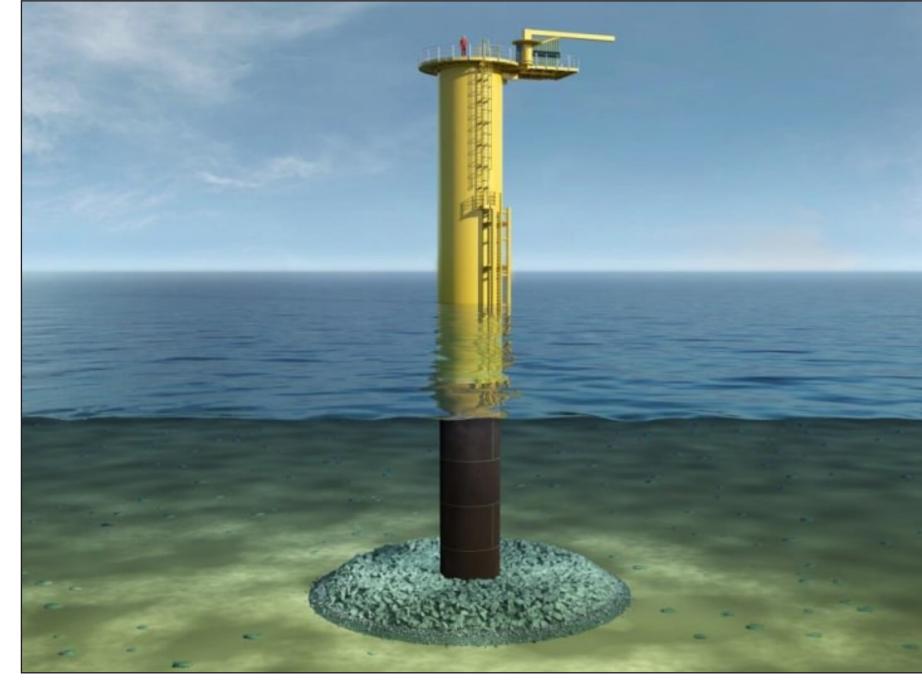
Ocean Wind 1 Offshore Wind Farm

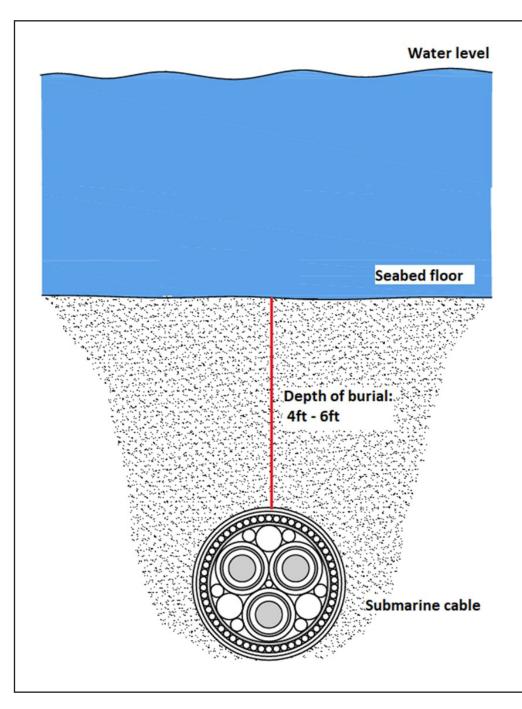
## Project Design Envelope

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 Ocean Wind 1 project are outlined below. Refer to Ocean Wind 1's Construction and Operations Plan for a detailed explanation of the project design envelope.







**Maximum Design Wind Turbine** 

**Monopile Foundation with Transition Piece** 

**Indicative Cable Burial** 

Project Component	Representative Project Design Parameters
Wind Turbine Generators	<ul> <li>Up to 98 wind turbine generators with rotor diameter up to 788 feet.</li> <li>Upper blade tip height up to 906 feet above MLLW; lowest blade tip height 70.8 feet above MLLW.</li> </ul>
Turbine Foundations	<ul> <li>Monopile foundations with scour protection.</li> <li>Foundation piles installed using a pile driving hammer.</li> </ul>
Offshore Substations	<ul> <li>Up to three offshore substations on monopile or piled jacket foundation substructure.</li> <li>Foundation piles installed using a pile driving hammer.</li> <li>Maximum 275 kV substation interconnector cables with target burial depth of 4 to 6 feet, and options for cable protection.</li> </ul>
Inter-Array Cables	<ul> <li>Maximum 170 kV cables with target burial depth of 4 to 6 feet.</li> <li>Cable protection (e.g., rock placement, concrete or fronded mattresses, rock bags, seabed spacers).</li> </ul>
Offshore Export Cables	<ul> <li>Maximum 275 kV cables with a target burial depth of 4 to 6 feet.</li> <li>Two export cable route corridors to Oyster Creek and BL England.</li> <li>Armoring or cable protection may be used.</li> </ul>
Landfalls and Onshore Export Cable System	<ul> <li>Alternate landfall and onshore cable route options.</li> <li>Open cut or trenchless (e.g., HDD, direct pipe, or auger bore) installation at landfall.</li> </ul>
Onshore Substations and Interconnector Cable	<ul> <li>Two onshore substations with associated infrastructure.</li> <li>Underground cables or overhead transmission lines to connect onshore substations to the existing grid.</li> </ul>

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

