



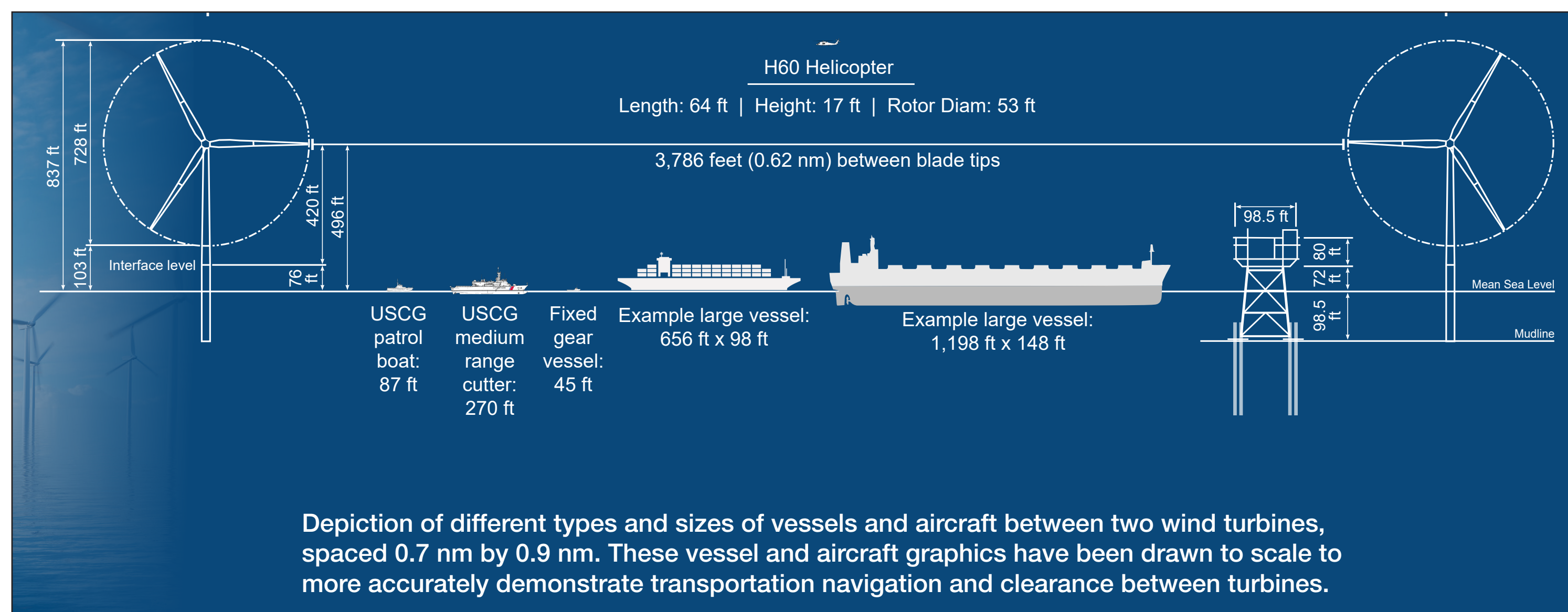
CVOW-C Offshore Wind Farm

# 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 CVOW-C project are outlined below. Refer to CVOW-C’s Construction and Operations Plan for a detailed explanation of the project design envelope.

### Vessel and Aircraft Clearance



Project Component	Representative Project Design Parameters
Wind Turbine Generators	<ul style="list-style-type: none"> <li>• WTG generating capacity 14 – 16 MW; up to 205 wind turbine generators with rotor diameter up to 761 feet.</li> <li>• Turbine tip height from mean sea level (MSL) up to 869 feet; hub height from mean sea level (MSL) up to 482 feet.</li> </ul>
Turbine Foundations	<ul style="list-style-type: none"> <li>• Monopile foundations with scour protection.</li> <li>• Foundation piles installed using a hydraulic hammer while guided by a pile gripper..</li> </ul>
Offshore Substations	<ul style="list-style-type: none"> <li>• Up to three offshore substations installed atop piled jacket foundations.</li> <li>• Foundation piles installed using a hydraulic hammer.</li> <li>• Maximum 230 kV substation interconnector cables with options for cable protection.</li> </ul>
Inter-Array Cables	<ul style="list-style-type: none"> <li>• Inter-Array cable target burial depth of 4 to 6 feet.</li> <li>• Post-lay surveys will determine the need for additional cable protection.</li> </ul>
Offshore Export Cables	<ul style="list-style-type: none"> <li>• Maximum 230 kV with target burial depth of approximately 3 to 16 feet.</li> <li>• Three export cable route corridors to Virginia Beach, Virginia.</li> <li>• Up to three layers of cable protection may be used.</li> </ul>
Landfalls and Onshore Export Cable System	<ul style="list-style-type: none"> <li>• Alternate landfall and onshore cable route options.</li> <li>• Utilize a combination of open trench (e.g., HDD) and trenchless installation techniques at varying depths along the selected route.</li> </ul>
Onshore Substations and Interconnector Cable	<ul style="list-style-type: none"> <li>• Onshore substation to be expanded and upgraded (e.g., safety fencing, erosion controls and stormwater management system).</li> <li>• Interconnection cable would be installed either overhead or a hybrid of overhead and underground to connect to the onshore substation.</li> </ul>

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