BOEM
Bureau of Ocean Energy Management

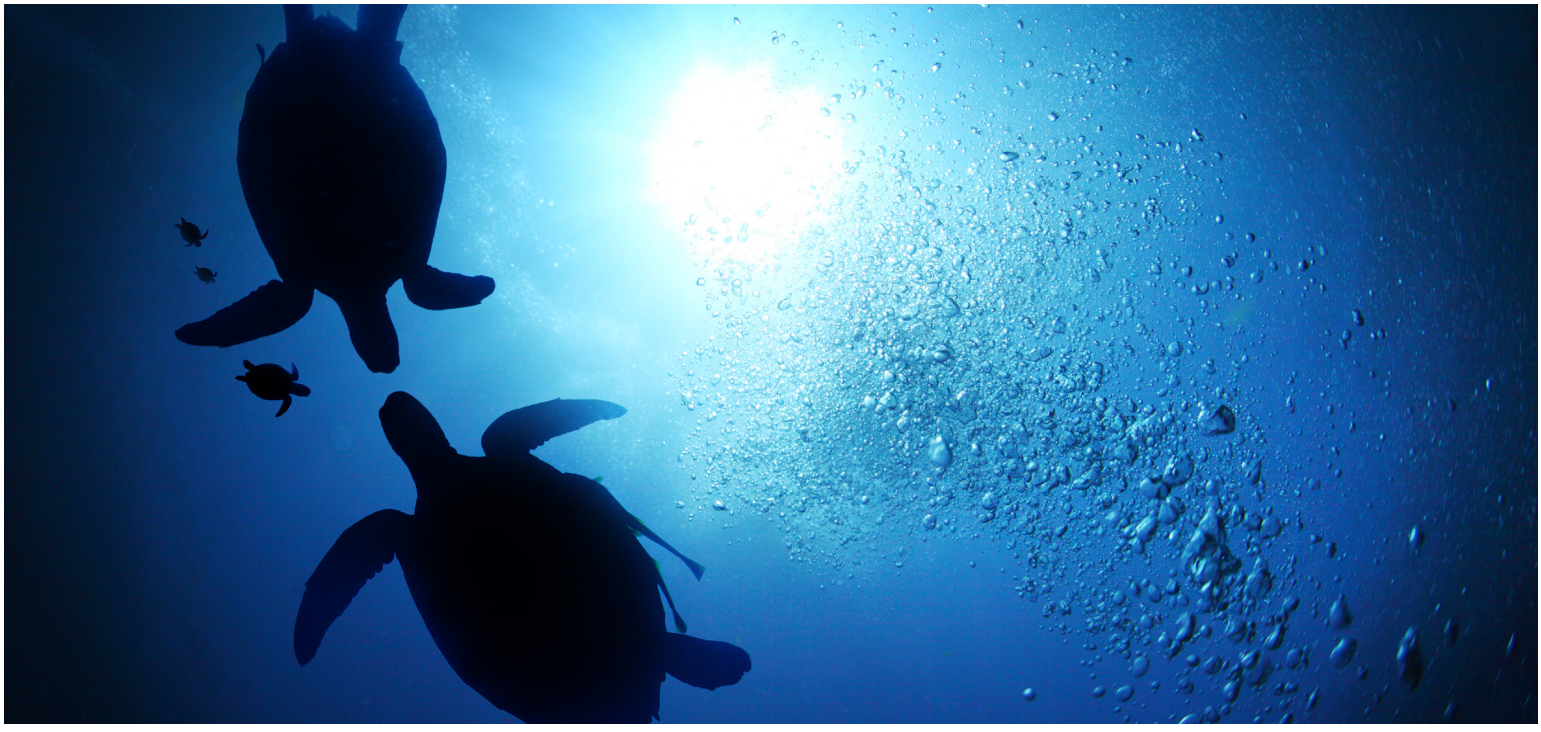
Navigational, design, and decommissioning concerns for offshore wind facilities
Fact Sheet

Will areas in and around wind turbines and other structures exclude vessel traffic and fishing activity?

BOEM does not have the authority to restrict vessel traffic in and around offshore wind facilities, and the USCG has stated that safety zones and buffers would be evaluated on a case-by-case basis. The USCG has also indicated that they intend only to implement restrictions during construction, but specific final determinations will be made at a later stage when more information is available. As an example, the USCG implemented a 500-yard safety zone around the wind turbine locations at Block Island Wind Farm during that project's construction activities.

Will electrical transmission cables be buried under the seafloor?

The standard commercial practice is to bury submarine cables 3-10 ft deep in waters shallower than 6,562 ft (2000 m). However, cable depths may vary by project and depending upon bottom type and other factors. For example, cables may be buried as deep as 32 ft under the seabed to mitigate local hazards, depending on water depth and bottom type. Other mitigation measures include adding protective covering, such as concrete mattresses (concrete block sections connected by metal braided cables).

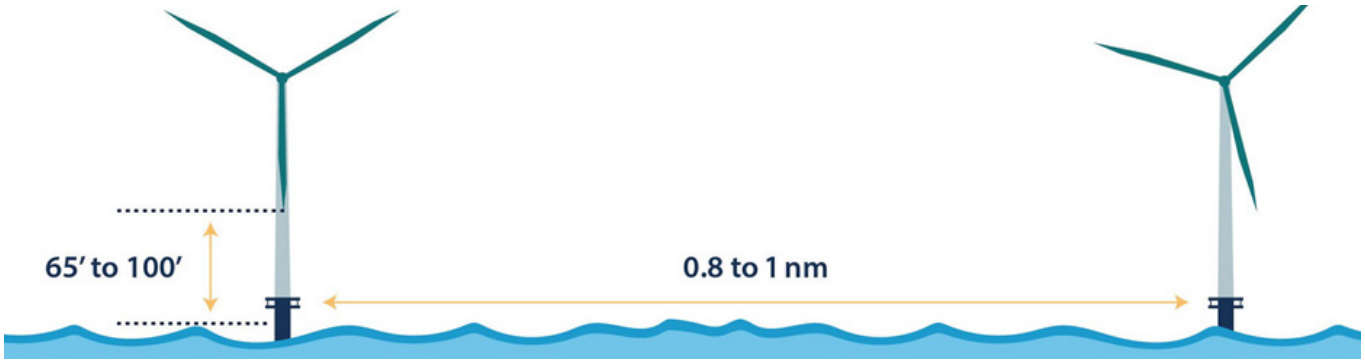


OVER ►

What is the average height above sea surface and distance between wind turbines?

Project parameters, such as the turbine height, vary from project to project and are described within the Construction and Operations Plan (COP). In the operator's COP, an 'air gap' (the distance between the mean high sea level and the lower sweep of the turbine blades) is also defined and fishers and other offshore users may use this information to ensure avoidance of the blades. Based on current technology, the lowest point of the rotor sweep would be 65-100 ft above the surface. If taller turbines are installed, rotor sweep would be approximately 200 ft above the surface.

Spacing between turbines is determined on a project-by-project basis weighing multiple variables, including minimizing wake effects between turbines. Current projects along the U.S. Atlantic coast propose spacing of 1 x 1 nautical miles between turbines to optimize safety for vessels navigating through offshore wind facilities.



How long is the typical lifespan of an offshore wind farm and will structures be removed after the expiration of a lease?

A typical offshore wind lease is valid for approximately 30 years. Before facilities may be installed under an approved COP, a lessee must provide financial assurance that covers the decommissioning of all structures, cables, and obstructions.

Within two years of cancellation, expiration or other termination of the lease, the lessee would be required to remove all devices, works and structures from the site and restore the leased area to its original condition. Bottom-founded structures and related components are typically removed at least 15 feet below the mudline to avoid interference with future lessees and other activities in the area. Rights- of-way facilities (such as electrical transmission cables) may stay in place as long as they are being used and properly maintained, pending BOEM approval.

Do cable from floating windmills heat the water column?

Unburied cables have a limited ability to heat the water column because constant water flow dissipates any generated heat. Likewise, buried cables have a negligible capacity to heat the water column. Lastly, impacts to marine life from the heat created by cables are expected to be negligible. Design and installation mitigations may be employed to reduce potential heating impacts, such as cable burial and increasing conductor diameter.