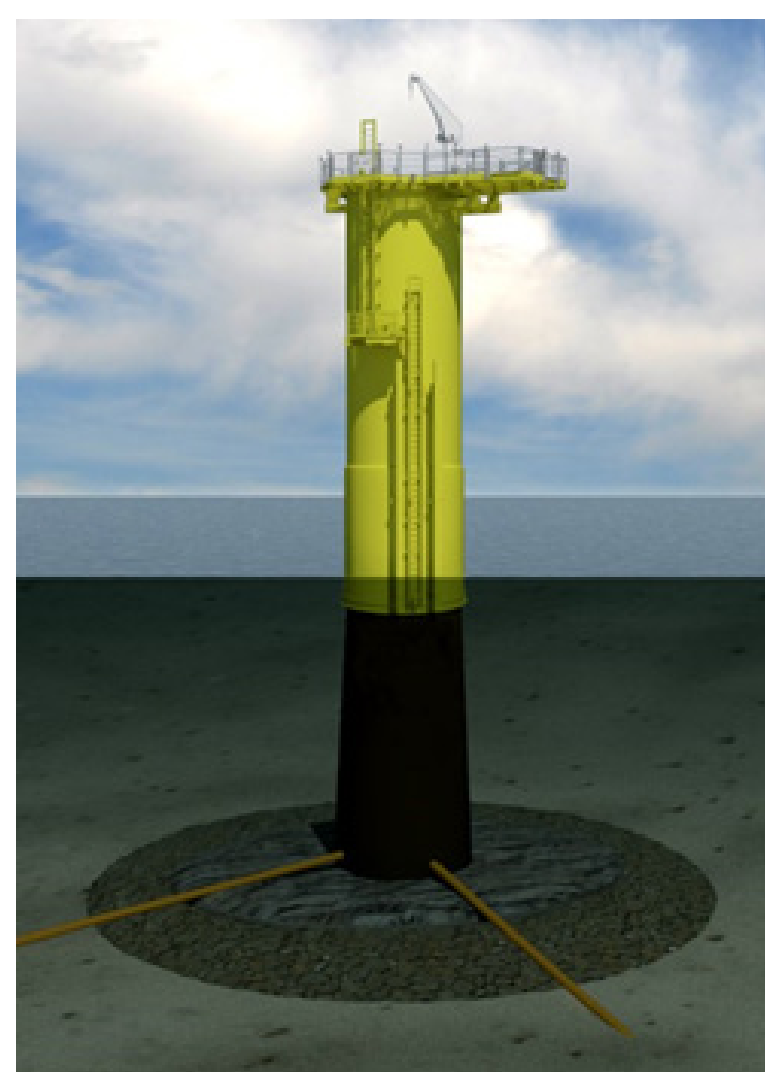


Design Envelope

Definition:

A project design envelope (PDE) approach is a permitting approach that allows a project proponent the option to submit a reasonable range of design parameters within its permit application, allows a permitting agency to then analyze the maximum impacts that could occur from the range of design parameters, and may result in the approval of a project that is constructed within that range.

Project Component		Project Envelope Characteristic
RWF	Foundations	Monopile or piled jacket foundations
	WTGs	Up to 100 WTGs; 8 to 12 MW each; Installed with monopile foundations; Spaced approximately 1.15 miles (1.93 km) apart
	Inter-Array Cable	Maximum 72-kV cables buried to a target depth of 4 to 6 feet (1.2 to 1.8 m) below seabed; Maximum total length of up to 155 miles (250 km)
	OSS	Up to two OSSs connected by an up to 9-mile (15 km) 275 kV OSS-link cable; Installed atop monopile or piled jacket foundations
RWECC	Export Cable (Offshore and Onshore)	Up to two 275-kV export cables (one per OSS); Target burial depth of 4 to 6 feet (1.2 to 1.8 m); Maximum total length of up to 50 miles (80 km) per cable
	Sea-to-Shore Transition	Landfall at Quonset Point in North Kingstown, RI; Landfall will be completed via open cut or HDD techniques
	Interconnection Facility	An onshore substation and up to two interconnection circuits connecting to the existing electric transmission system via Davisville Substation
RWF & RWECC	Port Facilities	Located in RI, CT, MA, NY, NJ, MD, and/or VA



Typical monopile foundation.



Typical jacket foundation.

BOEM uses the PDE approach to assess potential impacts on key resources (e.g., marine mammals, fish, benthic habitats, commercial fisheries), focusing on the design parameters that represent the greatest potential impact to each resource—referred to as the “maximum design scenario.”

