

# Revolution Wind Farm Project

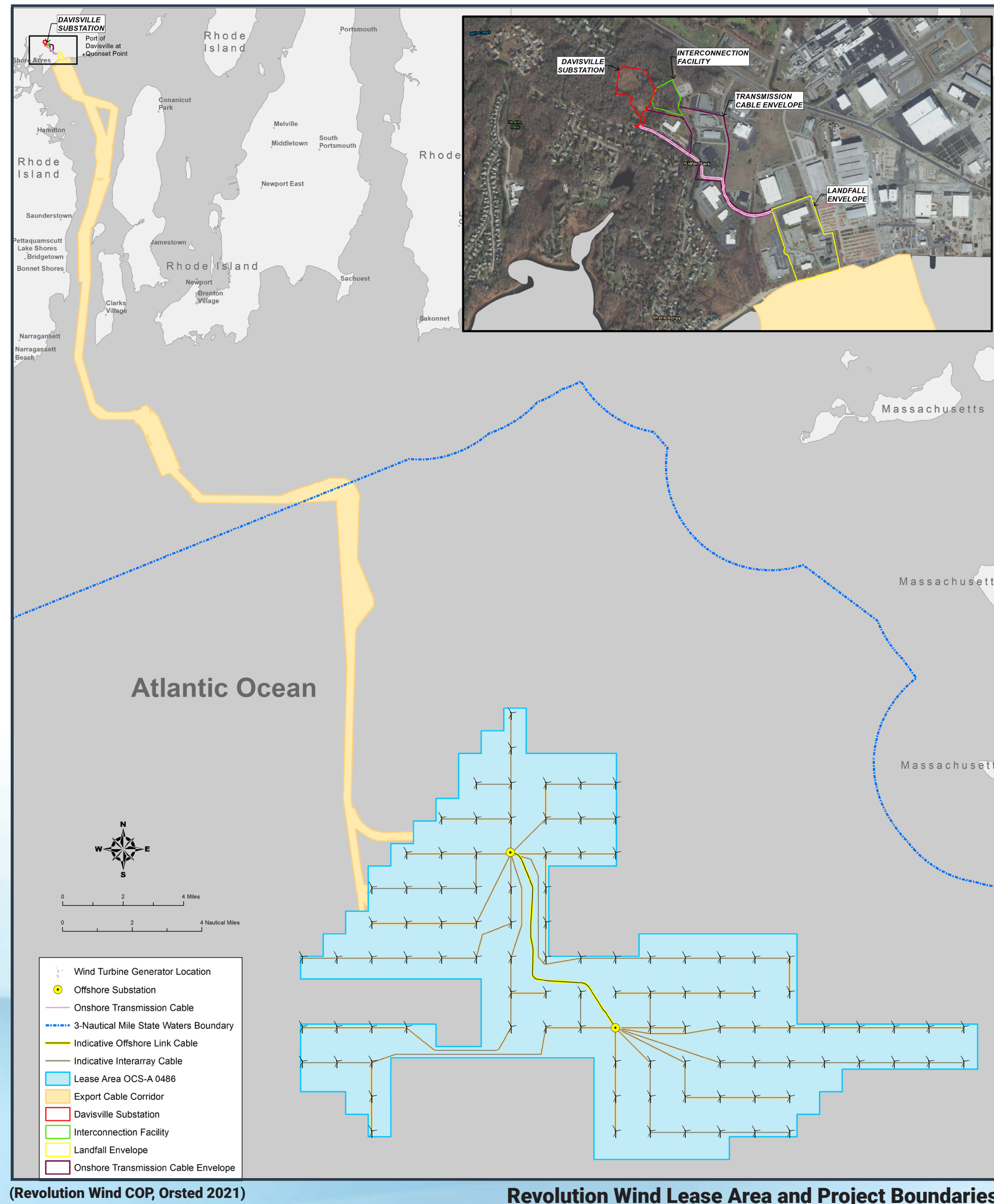
# Project Design Envelope

## Project Description

On July 21, 2022, Revolution Wind, LLC, submitted a revised construction and operations plan (COP) for the Revolution Wind Farm and Revolution Wind Export Cable (RWE) Project (Project). The Project would consist of the following:

- Up to 100 wind turbine generators (WTGs) with a capacity to generate up to 880 megawatts (MW) of offshore wind energy
- A network of offshore inter-array cables measuring up to 155 statute miles (miles) in total length
- Up to two offshore substations (OSS) connected by an up to 9-mile-long OSS-link cable
- Up to two offshore export cables measuring up to 42 miles in length
- Up to two underground transmission circuits located onshore and measuring up to 1 mile
- An onshore substation, inclusive of up to two interconnection circuits measuring up to 800 feet in length and connecting an existing substation
- An onshore logistics or operations and maintenance (O&M) facility

The Lease Area is located approximately 18 miles southeast of the Rhode Island mainland coast in federal waters. The offshore export cables (i.e., the RWE) would be generally co-located within a single corridor through both federal waters and state waters of Rhode Island. The RWE would make landfall at Quonset Point in North Kingstown, Rhode Island, and would interconnect to the electric transmission system via the existing Davisville Substation, which is owned and operated by National Grid, located in North Kingstown, Rhode Island.



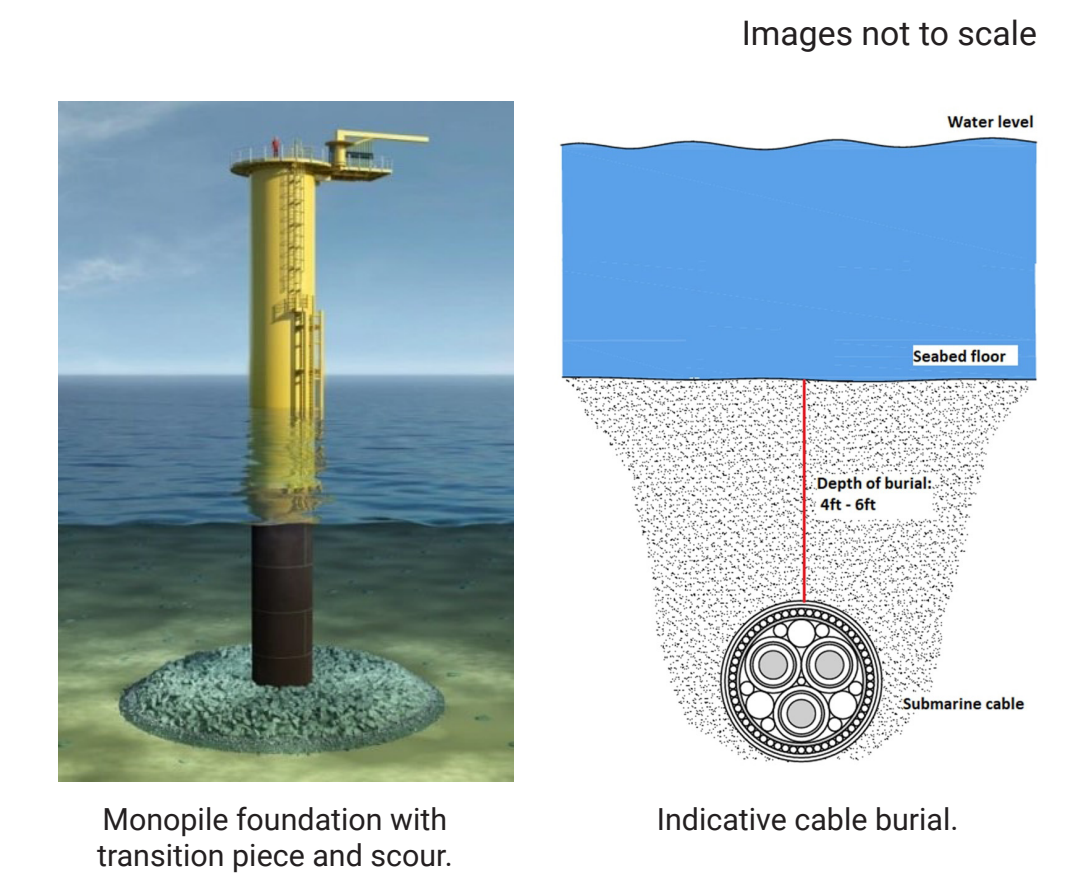
For more information on the proposed project, see the construction and operations plan available at: <https://www.boem.gov/renewable-energy/state-activities/revolution-wind>



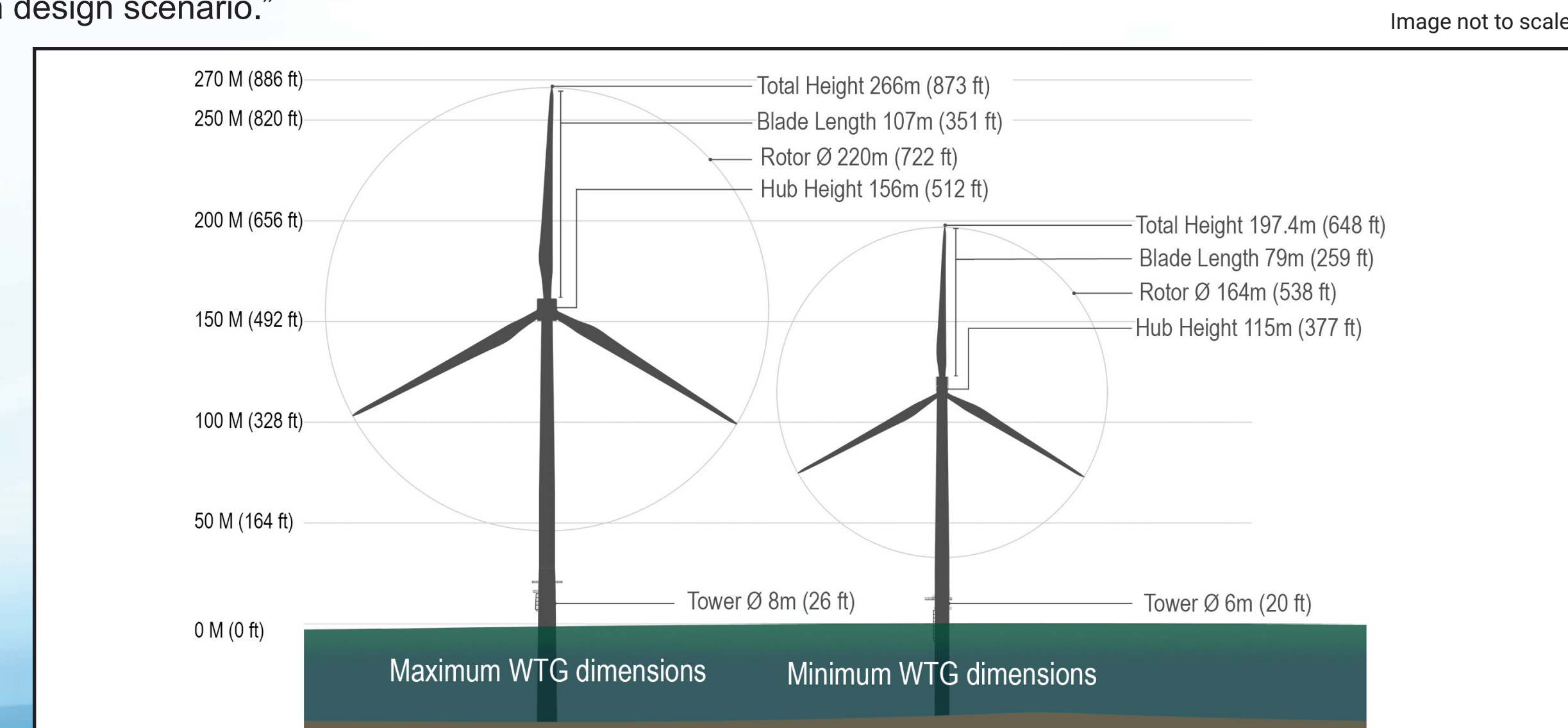
## Definition:

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 Characteristics	
RWF	Foundations	Monopile foundations
	WTGs	Up to 100 WTGs; 8 to 12 MW each Installed with monopile foundations Spaced approximately 1.15 nautical miles (1 statute mile) apart
	Inter-Array Cable	Maximum 72-kV cables buried to a target depth of 4 to 6 feet below seabed Maximum total length of up to 155 miles
	OSS	Up to two OSSs connected by an up to 9-mile 275-kV OSS-link cable Installed atop monopile foundations
RWE	Export Cable (offshore and onshore)	Up to two 275-kV export cables (one per OSS) Target burial depth of 4 to 6 feet Maximum total length of up to 42 miles per cable
	Sea-to-Shore Transition	Landfall at Quonset Point in North Kingstown, RI Landfall will be completed via open cut or horizontal directional drilling techniques
	Interconnection Facility	An onshore substation and up to two interconnection circuits connecting to the existing electric transmission system via Davisville Substation
RWF and RWE	Port Facilities	Potentially located in RI, CT, MA, NY, NJ, MD, and/or VA



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.”



Learn more about the Project Design Envelope at: [www.boem.gov/Draft-Design-Envelope-Guidance/](https://www.boem.gov/Draft-Design-Envelope-Guidance/)

