

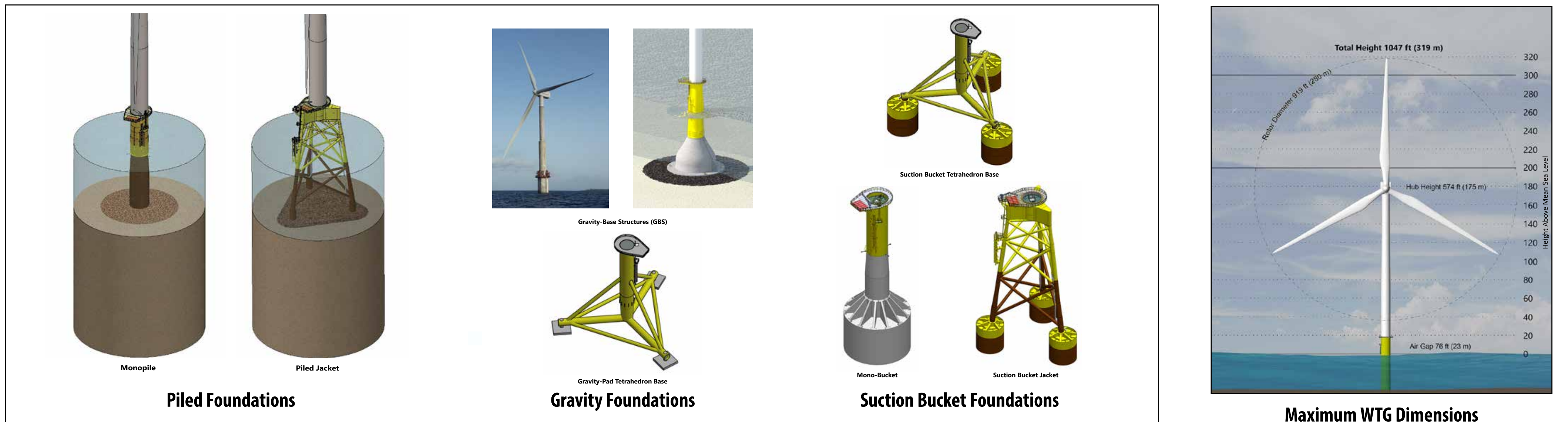


Atlantic Shores Offshore Wind South Project

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 Atlantic Shores South Project are outlined below. Refer to Atlantic Shores Offshore Wind South Construction and Operations Plan for a detailed explanation of the project design envelope.



Project Component	Project 1	Project 2
Foundations	<ul style="list-style-type: none"> The foundation for the wind turbine generators (WTGs) would be monopiles Scour protection would be installed around the foundations 	<ul style="list-style-type: none"> Foundations for the WTGs would be monopile or piled jacket; only one foundation type would be used for all WTGs within Project 2 Scour protection would be installed around the foundations
Wind Turbine Generators (WTGs)	<ul style="list-style-type: none"> 105 to 136 WTGs Rotor diameter up to 918.6 feet (280 meters) Hub height up to 574.2 feet (175.0 meters) above mean sea level (AMSL) Tip height up to 1,046.6 feet (319.0 meters) AMSL Lowest blade tip height 75.8 feet (23.1 meters) AMSL 	<ul style="list-style-type: none"> 64 to 95 WTGs; otherwise, other components are the same as Project 1
Interarray Cables	<ul style="list-style-type: none"> Maximum total cable length 274 miles (440 kilometers) 66 to 150 kilovolt (kV), 3-core cables buried up to 5 to 6.6 feet (1.5 to 2 meters) beneath the seabed Cable installation may involve jet trenching, plowing/jet plowing, or mechanical trenching Proposed protection if target cable burial depth is not achieved includes rock armor, rock bags, concrete mattresses, and protective half-shells 	<ul style="list-style-type: none"> Same as Project 1
Offshore Export Cables	<ul style="list-style-type: none"> Target burial depth of 5 to 6.6 feet (1.5 to 2 meters) 230 to 275 kV high-voltage alternating current (HVAC) cables and/or 320 to 525 kV high-voltage direct current (HVDC) cables Two export cable corridors (ECCs): Atlantic ECC and Monmouth ECC <ul style="list-style-type: none"> Atlantic ECC: maximum total cable length would be 99.4 miles (160 kilometers) Monmouth ECC: maximum total cable length would be 341.8 miles (550 kilometers) Maximum of 4 HVAC cables per corridor Maximum of 1 HVDC cable per corridor Cable installation may involve jet trenching, plowing/ jet plowing, or mechanical trenching 	<ul style="list-style-type: none"> Same as Project 1
Meteorological (Met) Towers and Metocean Buoys	<ul style="list-style-type: none"> Up to 1 permanent meteorological (met) tower and up to 3 temporary metocean buoys (during construction) The foundation for the permanent met tower would be monopile, piled jackets, suction bucket jacket, mono-suction buckets, or gravity-base structure (GBS) Maximum height would not exceed 16.5 feet (5 meters) above the hub height of the largest WTG installed, estimated to be 590.6 feet (180 meters) AMSL 	<ul style="list-style-type: none"> Up to 1 temporary metocean buoy (during construction)
Offshore Substations (OSSs)	<ul style="list-style-type: none"> Up to 5 small offshore substations (OSSs), 2 medium OSSs, or 2 large OSSs Positioned along the same east-northeast/west-southwest rows as the WTGs Minimum distance from shore: small OSS - 12.0 miles (19.3 kilometers); medium and large OSS - 13.5 miles (21.7 kilometers) The foundations for small OSSs would be monopile, piled jacket, or suction bucket; the foundations for medium or large OSSs would be piled jacket, suction bucket jacket, or GBS 	<ul style="list-style-type: none"> Up to 5 small OSSs, 3 medium OSSs or 2 large OSSs; otherwise, other components are the same as Project 1
Onshore Facilities	<ul style="list-style-type: none"> Atlantic Landfall Site would be connected to the approximately 12.4- to 22.6-mile (20.0- to 36.4-kilometer) Cardiff Onshore Interconnection Cable Route that would continue to the potential site for the Cardiff Substation and/or Converter Station and terminate at the Cardiff Substation point of interconnection (POI) Monmouth Landfall Site would be connected to the approximate 9.8- to 23.0-mile (15.8- to 37.0-kilometer) Larrabee Onshore Interconnection Cable Route, which would continue to one of three potential sites for the Larrabee Substation and/or Converter Station and terminate at the Larrabee Substation POI 230 to 275 kV HVAC cables and/or 320 to 525 kV HVDC cables 	<ul style="list-style-type: none"> Same as Project 1
Operations & Maintenance Facilities	<ul style="list-style-type: none"> Atlantic City, NJ 	<ul style="list-style-type: none"> Same as Project 1



For more information, please visit:

<https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-offshore-wind-south-draft-environmental-impact>