



Maryland Offshore Wind Project

Project Construction



Offshore WTG installation Vessel
(Source: ESS Group, Inc)



Dynamically Positioned Cable Installation Vessel
(Source: Deutsche Bucht and Van Oord)



Tower Sections Onboard the BBC Chartering and Logistic Ship M/V BBC Konan
(Source: gcaptain.com)

Installation of Foundations

- Foundations will be transported offshore to the installation site by self-floating or by using feeder vessels or direct installation vessels.
- Installation of the foundations offshore will be conducted using either a dynamically positioned crane vessel or a jack-up style installation vessel equipped with a hydraulic hammer to drive the monopiles into the seabed.
- Prior to or following installation of a monopile into the seabed, scour protection rocks will be deployed.

Installation of Wind Turbine Generators (WTGs)

- Turbines will be transported to the site, either preassembled or in sections.
- If pre-assembled, a heavy-lift vessel will lift the turbine onto the foundation and secure it in place.
- If transported in sections, the tower will be secured first to the foundation, then the nacelle will be placed on top of the tower and secured, then each blade will be attached to the nacelle.
- Once installation is complete, the turbine will be connected to the inter-array cables.

Installation of Offshore Substations (OSSs)

- Feeder or installation vessel transports the foundation to site.
- Piled Jacket Installation: jacket foundations are typically installed in two ways, either pre-piled or post-piled.
- Suction Bucket Installation: jacket foundations on suction buckets are delivered to installation vessel, lifted from feeder vessel, and lowered in the target area on the seabed.
- OSS Topside: OSS topside (assembled onshore) is lifted from the feeder vessel and lowered onto the foundation or Modular Support Frame.

Installation of Offshore Export and Inter-Array Cables

- Cables will be loaded at the manufacturing facility onto the cable installation vessel, which will then transit to the installation location.
- Construction of temporary cofferdams, if required, and installation of HDD ducts at landfall.
- Installation and simultaneous jetting of cable.
- Post-lay burial and cable protection mattresses, if needed.