

Project Construction

Cable Laying Process

Installation of Foundations

- Delivery of monopile foundations to the site by vessel.
- Foundation piles installed using a pile driving hammer, vibropiling, and/or drilling techniques.
- Grouting or bolting for monopiles with a separate transition piece.
- Addition of scour protection by side stone dumping, fall pipe, or crane.



Wind turbine installation.



Installation of offshore substation.

Installation of Wind Turbine Generators

- Turbine pre-assembly and transport of turbine components to the site by vessel.
- At the site, the installation vessel jacks up and connects to a preinstalled foundation via a gangway.
- Installation of the turbine using a crane to lift the tower, nacelle, and turbine blades. Components are fastened together as they are lifted into place.

Offshore Substations

- Topside structure is transported to the site by vessel.
- An installation vessel lifts the topside structure onto the pre-installed foundation substructure.



Cable lay vessel.



Jet plow being lowered.

- The Revolution Wind Export Cable and a network of inter-array cables will be installed either by a pre-trenching process or a simultaneous lay and burial process using tools such as a jet-plow, a mechanical trenching plow, and/or a mechanical cutter.
- The typical target burial depth of the cable is 4 to 6 feet, with maximum trench depth of 13 feet.
- The total width of the disturbance corridor for installation of the Revolution Wind Export Cable and inter-array cable will be up to 131 feet per cable.
- The exact cable lay advance speed depends on final cable type and seabed conditions; however, each inter-array cable will typically take 1 day to lay and bury.
- Construction duration of the Revolution Wind Export Cable will take approximately 8 months. Construction of the inter-array cables will take approximately 5 months.
- The mechanical plow's share cuts into the soil, creating a temporary trench, which is held open by the side walls of the share. At the same time, the cable is lowered to the base of the trench via a depressor.
- The mechanical cutter employs either a cutting wheel or an excavation chain to cut a narrow trench into the seabed allowing the cable to sink under its own weight or be pushed to the bottom of the trench via a cable depressor.

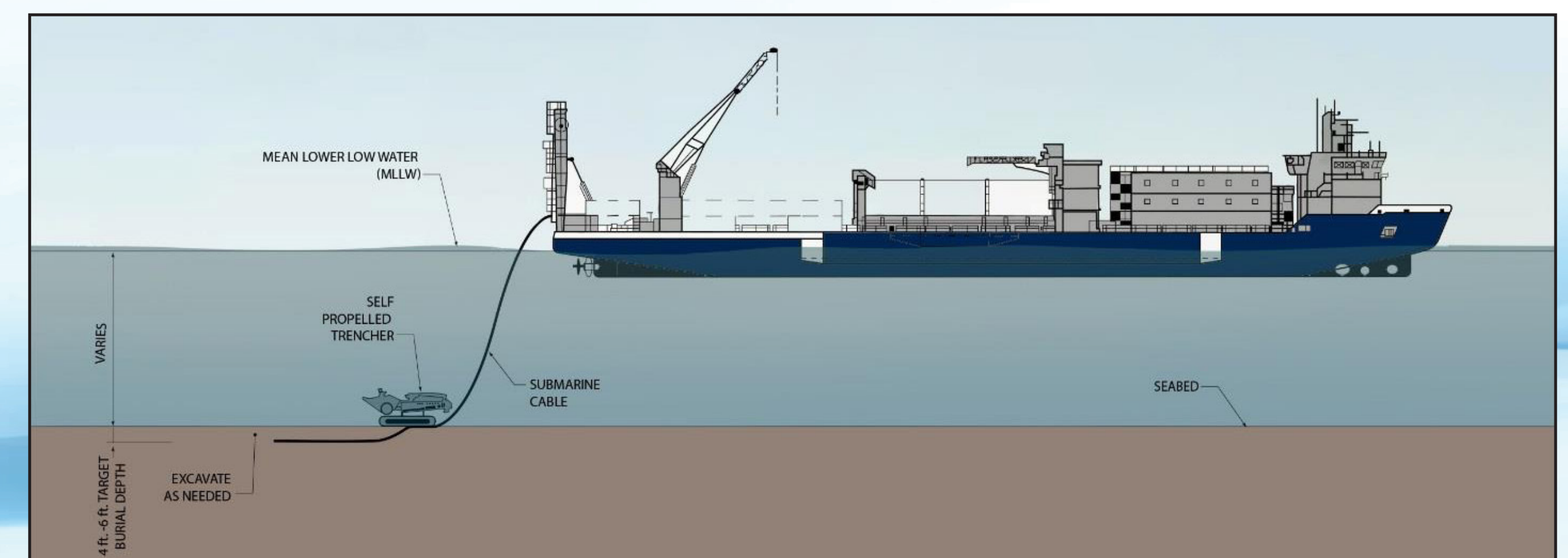


Illustration of cable installation of both Revolution Wind Farm inter-array cables and Revolution Wind Export Cable – Offshore.