

Project Construction

Installation of Foundations

- Delivery of monopile or piled jacket 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; jackets are welded or swaged to the piles.
- Addition of scour protection by side stone dumping, fall pipe, or crane.

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 Laying

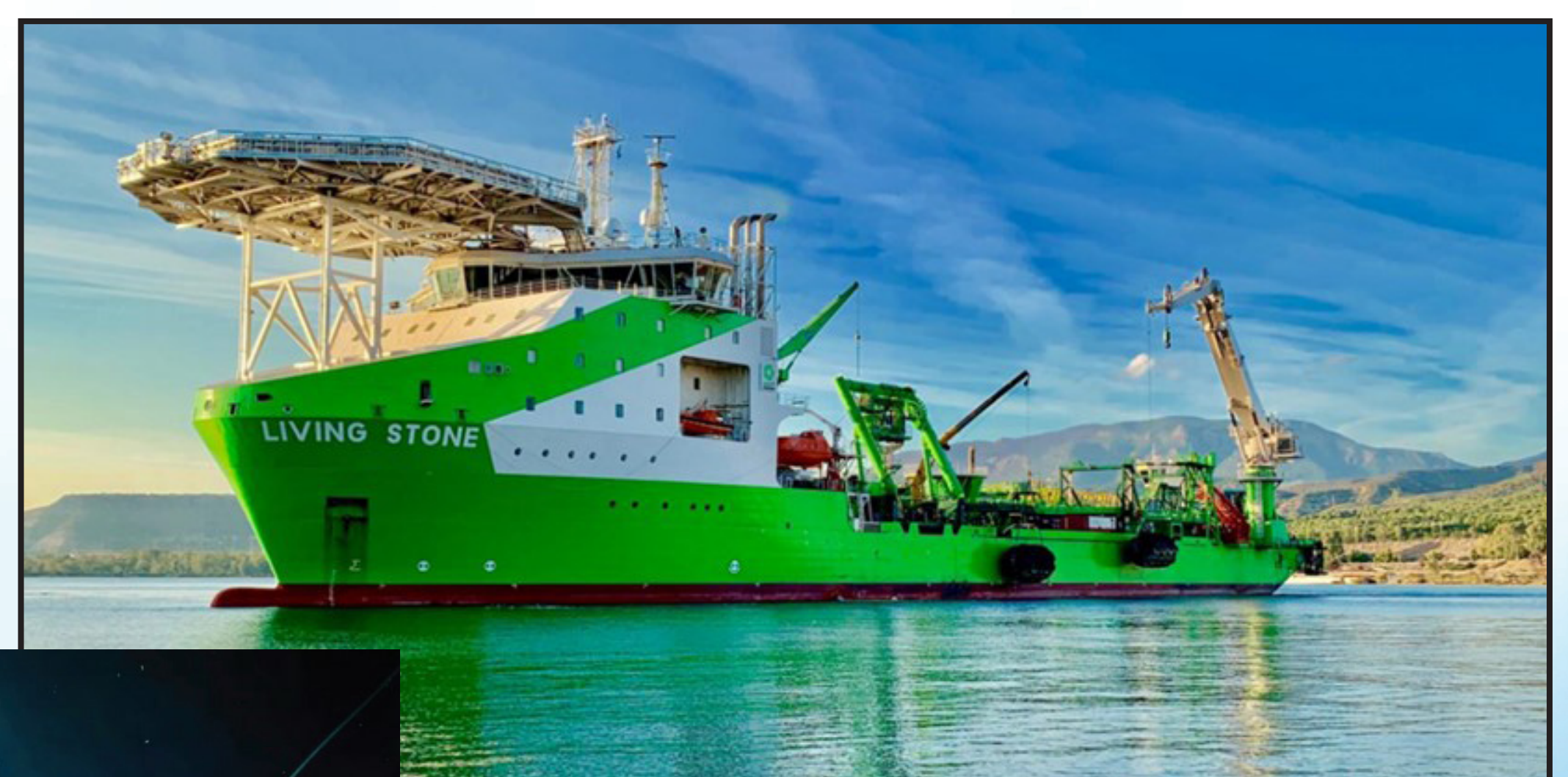
- The target burial depth of the cable is 4 to 6 feet.
- Cables installed using a tool towed behind the installation vessel to simultaneously open the seabed and lay the cable, or by laying the cable and following with a tool to imbed the cable.
- Installation methods for these options include jetting, vertical injection, control flow excavation, trenching, and plowing.
- Cable protection may include rock placement, mattresses, frond mattresses, rock bags, and/or seabed spacers.



Wind Turbine Installation



Installation of Offshore Substation



Cable Laying

