



Table 6.1.2-4 - Vessels required for substation interconnection cable installation.

Parameter	Maximum Number of Simultaneous Vessels	Maximum Number of Return Trips per Vessel Type
Main Laying Vessels	Included in numbers for export and array cables	8
Main Burial Vessels		8
Support Vessels		12
Helicopter Support - construction		40
Duration: per cable (days)		20
Duration: total (months)		1

6.1.2.8 Offshore Export Cables

Ocean Wind assumes that the onshore and offshore export cables will be fabricated in Europe, the U.S., or from the Asia-Pacific region, and shipped to a staging harbor in Port Elizabeth, New Jersey or Charleston, South Carolina unless transported directly to the Project site from the supplier. From this port, installation vessels will load the cable turntables for transport and installation at the Wind Farm Area.

The cables will be spooled on to the installation vessel in sections, as may be dictated by the vessel's turntable capacity or the specified cable design length (e.g., to accommodate an offshore field-joint at a particular location). The cable installation vessel will transport cable from the load-out port to the barge in the nearshore section.

Offshore export cables would typically be buried below the seabed. The offshore export cable installation area will be prepared, and cables will be installed in a similar manner described in Section 6.1.2.6 for array cables. The installation vessel will transit to and take position at the landfall location and the cable end will be pulled into the preinstalled duct ending in the TJB. The installation vessel will transit the route toward the offshore substation, installing the cable by simultaneous lay and burial (plow/jetting/cutting) or surface lay and burial by a cable burial vessel (jetting/cutting/control flow excavation). It is anticipated that approximately 1 to 3 miles of cable would be installed per day during active installation. The offshore export cables are broken into sections for installation purposes and the length of these sections are determined by the weight or volume capacity of the installation vessels carrying the cable. Where offshore joints or termination at an offshore substation occur, up to 328 yards of cable may remain on the seabed until the foundation is installed or the next cable section is available for installation or jointing. For offshore joints along the export cable route, transponders will be affixed to the end of the cable and the cable will remain on the seabed, to allow the installation vessel to reload for the new cable section and return to the site, after which the joint will be made, the cable will be buried, and installation of the next section of cable will continue. In the case that the cable installation sequence does not allow for immediate jointing, and a significant increase of time is expected between laydown and jointing, then exposed cable ends will be temporarily buried and later recovered prior to jointing process. Where offshore substation foundations are not ready, the cable will remain on the seabed until the substation foundation is ready for a second end pull in. In the unlikely event of unanticipated emergency weather conditions during installation, the cable may be cut, sealed and lowered to the seabed to allow the vessel and crew to seek safety.

Installation vessels for offshore export cable installation include main laying vessels, jointing vessels, and burial vessels in addition to support vessels. Main laying and burial vessels could include barges or DPs, each with three associated anchor handling tugs. Main jointing vessels include barges, DPs, and jack-up vessels, each