



HORNSEA 1 OFFSHORE WIND FARM

Fabrication of 4 Jackets for Offshore Substations

Client:



Location: North Sea

Construction Site: Cadiz - Spain

Completion Date: February 2018

Contract Type: Lump Sum

Total weight: 10,000 tons

Project Description: The Hornsea Offshore Wind Farm (HOW) is located in United Kingdom, approximately 120 km east of Grimsby. It comprises the construction of an Offshore Substation (OSS formed by Z11, Z12 & Z13) and a Reactive Compensation Substation (RCS), located between the offshore wind farm and shore, at 60 km east of Grimsby. The water depth at the location is approximately 31m to 23.3m w.r.t. LAT.

The purpose of the offshore substation is to transfer power from the incoming wind turbines' medium voltage radial cables, transforming the power to high voltage and exporting it to UK National Electricity Grid through export cable(s) to the Reactive Compensation Substation. The purpose of the RCS is to compensate for the reactive power generated in the wind farm power system.

Scope of work: Complete procurement, fabrication, delivery, load-out and sea fastening of the 3 jackets for the OSS (Offshore Substation) and 1 jacket for the RCS (Reactive Compensation Substation), with a total weight of 10.000 tonnes including piles.

All jackets are double battered and have four (4) legs, and four (4) piles i.e. one pile sleeve/pile per leg. The jackets will accommodate up to twelve (12) j-tubes for array cables and up to three (3) j-tubes for export/interlink cables. The jacket has one (1) boat landing with access to the topside via stairs. The interface between the jacket and the topside is at level (+) 20.10 m LAT.