



Electrical Engineering

CASE STUDY

Formosa 2 Offshore Wind Farm: Termination and Testing of 66kV Array and Export Cables and Transition Joint Bays.

PROJECT OVERVIEW

Jan De Nul executed the engineering, procurement, construction, and installation of both the foundations and sub sea cable scope for the Formosa 2 Offshore Wind Farm, layout 47x 8MW Wind Turbines Generators (WTG's) on jacket foundations.

Correll, Electrical Engineering Division (CEE) was contracted to deliver the Termination and Testing works on the 66kV Array Cables, 66kV Export Cables and Transition Joint Bays (TJB's). TJB's include LS cable system, High Voltage (HV) and Fibre Optic (FO) Transition Joints.

In preparation for the project, CEE conducted training over 5 days in the LS cable system factory in South Korea. CEE also purchased and used product specific tooling to install the LS cable system accessories.

SCOPE OF WORKS

- Pre-project meetings
- Site visits
- Creation of RAMS
- Mock-up trials at Switchgear and TP manufacturers facilities in Indonesia.
- Creation of quality documentation
- Project HIRA meetings

- Post Lay Testing (continuity, insulation resistance, Time Domain Reflectometry and Optical Time Domain Reflectometry).
- Onshore export cable stripping and routing
- Onshore export jointing of the HV & FO cables

On the offshore assets:

- Stripping the export cables to expose the HV cores and FO cable
- Complete the permanent hang-off
- Route the HV and FO cable into the TP/WTG's
- Cleat the HV cores from the hang-off to the GIS
- Terminate and splice the FO cable into the cabinet
- Terminate three power cores into the GIS
- Complete post installation testing from the onshore substation to the offshore assets (VLF, IR, TDR & OTDR)
- Deliver an inspection and test plan for the installed and tested system, forming part of key payment milestone.

ABOUT FORMOSA 2

Formosa 2 is a 376 MW offshore wind power station located near Miaoli County, Taiwan. Completed and inaugurated in May 2023, the OWF supplies power to approximately 380,000 homes in Taiwan every year.



FURTHER INFORMATION

www.correllservices.com/projects or contact: enquiries@correllservices.com