SYLWIN ALPHA ICCP RETROFIT

TenneT Offshore GmbH appointed Conbit as the main contractor for Lot 1 of the SylWin Alpha ICCP retrofit project in the North Sea. The project focuses on the design and installation of an Impressed Current Cathodic Protection (ICCP) system to safeguard the platform's jacket structure against corrosion. The system is engineered to achieve a minimum operational lifetime of 25 years and must comply with certification requirements set by Lloyd's Register, ensuring adherence to BSH standards for underwater corrosion protection.

SCOPE

The project execution is divided into two distinct work scopes. Lot 1, managed by Conbit, covers the engineering, delivery, and installation of the ICCP system on the top side of the platform, including removal of the existing ICCP system. Lot 2 encompasses vessel operations, subsea installation, and cable laying activities, and is carried out by Bluestream. For the design and supply of the ICCP system, Conbit engaged Deepwater as a subcontractor. Conbit's responsibilities are further divided into mechanical and electrical scopes. The mechanical scope includes the installation and pull-in of subsea anode power cables through J-tubes and the routing of the dunker and V-string cables through I-tubes. The electrical scope involves all installation activities inside the platform, including dismantling old systems and installing new cabinets, cables, and associated components.

PROJECT

- ✓ ENGINEERING
- ✗ PROCUREMENT
- ✓ CONSTRUCTION

Client
TenneT

Project Number
31818

Project Name
Sylwin Alpha ICCP Retrofit

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SYLWIN ALPHA ICCP RETROFIT

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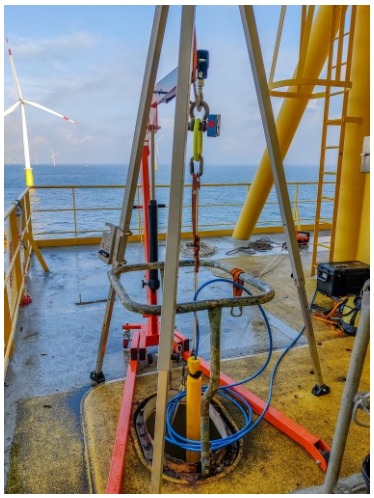

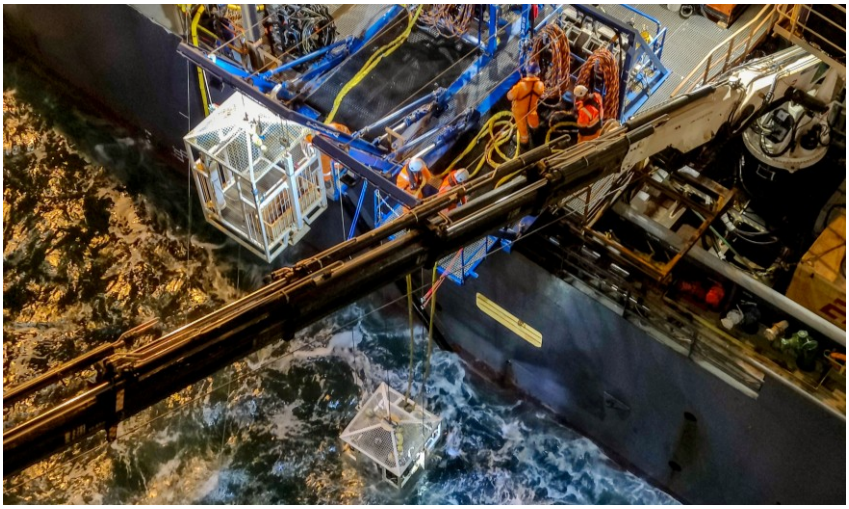

Divers being lowered down into the water

TECHNICAL SOLUTION

The implemented solution centers around the Cable Access Tower located on the north side of the platform. The primary lifting equipment used for cable pull-in operations is installed on the first floor of this structure. The topside ICCP system includes all equipment housed within the platform, while the subsea ICCP components fall under the responsibility of Lot 2. For the electrical installation, Conbit deployed a combination of in-house electricians and external specialists to ensure efficient execution of all works.

KEY CHALLENGES

Several challenges were encountered throughout the project. Mechanical operations required coordination with divers via indirect communication through a dive master, adding complexity. Electrical work involved removing and installing cables through fixed structural openings, requiring precise planning and materials. Limited offshore weather windows also impacted scheduling.

EQUIPMENT AND RESOURCES

A compact 6.4-ton wire rope pulling machine was used for cable pull-in due to restricted access. Electrical work utilized movable scaffolding, engine hoists for cabinets, and standard tools to ensure safe and efficient installation.

PROJECT EVALUATION

All topside installation work was successfully completed. While technical performance was strong, communication issues and some design adjustments led to extra effort. Despite this, the final installation met high standards and integrated seamlessly with the existing platform.

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