Montrose Alpha BLP (Repsol Sinopec)

Case Study: HV interconnector Commissioning – Montrose Alpha Platform

Client: Repsol Sinopec (via ABB)

Project Partner: WJ Project Services

Location: Montrose Alpha Platform, North Sea

Scope: HV interconnector commissioning, protection testing, IEC 61850 engineering, and SCADA integration

Project Overview

WJ Project Services was commissioned to support renovation works on the Montrose Alpha platform, part of the wider Montrose Field redevelopment programme. The project aimed to extend asset life and improve operational resilience.

Our scope included commissioning a new HV interconnector installed between two bridge-linked platforms.

Approach

Commissioning methodologies were developed covering primary and secondary systems. Site Acceptance Testing included CT analysis, primary and secondary injection testing, arc protection verification, ductor testing, and high-voltage pressure testing.

IEC 61850 engineering was implemented to extend interlocking and tripping schemes, including island detection functionality. All procedures and results were formally documented.

Commissioning & Training

Protection relays were tested in line with approved settings, including transformer differential and restricted earth fault schemes. SCADA interfaces using Modbus over Ethernet were prepared to support synchronising and load management across both platforms.

Equipment

HV switchgear and integrated IEC 61850 protection and control systems were commissioned to support secure inter-platform power transfer.

Outcome

The project delivered a fully commissioned HV interconnector with validated protection and control systems, supporting extended operational life and reliable long-term performance.