CASE STUDY: ENERGY SOLUTIONS

PRECISION UNDER PRESSURE

Restoring critical offshore infrastructure—fast—saving the client £200k in potential downtime and earning a perfect 100% FPAL score..



The Challenge

Balfour Beatty, operator of the Gwynt y Môr offshore wind farm, faced a critical issue: four knife gate valves on two offshore substations were stuck in the open position, preventing essential fire suppression maintenance. Multiple intervention attempts had failed, and the turbines were at risk of extended downtime—potentially costing the client over £200k in lost revenue and replacement parts.

The Solution

EnerMech rapidly mobilised a team of GWO-certified experts to assess and resolve the issue. The team engineered a bespoke solution to safely release the stuck valves, drafting a full risk assessment and method statement to ensure safe execution offshore. Leveraging deep technical expertise and a disciplined approach, EnerMech restored the valves to full working condition—without the need for costly replacements.

The Outcome

The turbines were returned to operational status with minimal downtime, avoiding significant revenue loss and reinforcing the client's confidence in EnerMech's capabilities. The project earned a 100% FPAL score and led to an extended scope of work. This success highlights EnerMech's ability to deliver fast, effective solutions in high-stakes offshore environments.

Key Highlights

Rapid offshore response: Mobilised GWO-certified team to resolve critical valve issue on two offshore substations.

Engineered solution: Designed and executed a safe, bespoke method to release stuck fire suppression valves.

£200k+ client savings: Prevented revenue loss and avoided costly part replacements.

100% FPAL score: Perfect client satisfaction rating and extended scope of work.

Minimal downtime: Restored turbine operations quickly, maintaining energy output and operational continuity.

We Delivered...

Inspection & Diagnosis

Assessed four stuck knife gate valves across two offshore substations that had resisted multiple previous interventions.

Engineering a Safe Solution

Designed a bespoke method to release the valves, including full risk assessment and method statement to ensure safe offshore execution.

Rapid Offshore Deployment

Mobilized a GWO-certified team to execute the solution on-site, restoring the valves to full working condition.

Operational Recovery

Enabled the fire suppression system to be isolated and maintained, allowing turbine operations to resume with minimal downtime.