



Bringing the Practical Touch to Business Improvement

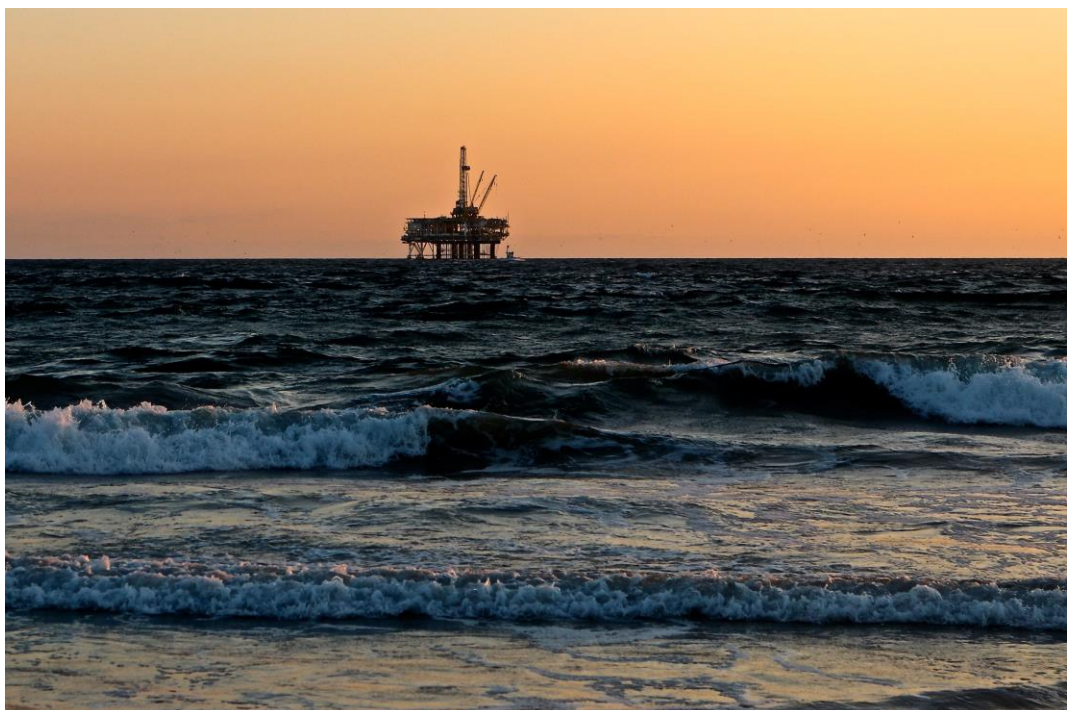
Gas Turbine (GT)

Gas Turbine Set-Up Reduction Kaizen

Success Story

1. Why are we doing it?

- A Campaign on a North Sea Asset included the completion of the installation and commissioning of a Gas Turbine.(GT) The installation included non-standard activity due to the condition of the GT which had been positioned on the installation but not commissioned or operated in any way.
- Parts had been used for spares on other turbines resulting in non-standard items requiring replacement eg. Drive-shaft.
- Stored materials both on- and off-shore required checking and in some instances re-working and replacing.
- The original plan for the GT Installation spanned the full length of the offshore platform campaign from Flotel arrival to departure with no allowance for growth or slippage. This was considered to be very high risk.



2. What was happening before?

- We conducted a Value Stream Mapping session
- 150 issues were identified from the process
- The existing GT installation plan flow was laid out and reviewed in detail
- The GT installation was scheduled to take 21 weeks and 2 days (149 days in total)

3. How is it now?

Installation Refined

- Set-up reduction methodology used to refine plan with a focus on optimisation of parallel working. Complete process / all trades mapped-out and worked to detail of Work pack
- Mapped Process
 - 10 Trades
 - Over 450 Job cards mapped by day ,shift and duration

Accelerated:

- Actions associated with readiness for installation
- Critical Vendor interfaces defined and assessed in detail

Checked & Streamlined:

- Materials and logistics arrangements for all stages of installation process
- Arrangements for equipment including vendor supplied parts and equipment

4. What have we achieved?

- Improved readiness for execution ensures a more robust and reliable plan with potential issues minimised and mitigated
- Installation plan reduced Block of time across multiple trades freed up for other campaign activity.

5. What benefits have we realised?

- Revised plan signed-off and scheduled by Planning for execution.
- Plan successfully executed off-shore during campaign.
- Difficulties encountered with contaminants delayed installation but still completed within campaign window.
- Multiple trades freed up for other activity.

**Installation of
GT4 reduced
by 6 weeks 3
days**

**18,000 hrs
across
multiple trades
executed in
the time saved**

**More robust
and reliable
planning**

6. What was the value of the deliverables?

- Following the event the installation schedule was reduced by 6 weeks and 3 days to a total duration of 14 weeks and 6 days
- (Total reduction of 104 days)
- The saving equated to a 30% in the scheduled time
- A total of 45 days were re-allocated for the off-shore personnel involved across all trades
- Total saving of 2,610 off-shore hours