



Case Study

Maintenance and Reliability Management

Woodside Energy Limited – NRA Optimisation Study

K2 was approached by Woodside in late 2011 to perform a Preventive Maintenance (PM) optimisation study on the offshore NRA facility. The study was to confirm a robust, justified and validated Maintenance Management System delivering assurance of facility integrity and reliability whilst optimising spending and supporting single-point accountability of maintenance outcomes – *the right work at the right time by the right people for the right price.*

The key activities of the PMO Study are summarised below:

- Reviewed functional locations in the CMMS with no equipment criticality indicator;
- Assessment of functional locations with no Bills of Materials (BOMs);
- Assessment of the last four years of maintenance data in SAP to identify the highest cost systems on the facility. A “PT square” analysis was conducted to identify high priority systems for maintenance review;
- Maintenance strategy review to identify improvement opportunities related to duplication of effort, efficiency of work and accuracy of maintenance instructions; and
- Maintenance review of the job procedures quality and removing unnecessary tasks.

With a collaborative effort across a number of disciplines (i.e. maintenance, supply chain, reliability, engineering, operations), the PMO Study of NRA delivered the following outcomes:

- **Reduced man-hours** due to the optimisation of maintenance plans in the CMMS. This included improving the structure of maintenance plans to improve work efficiency;
- **Increased production** up-time through the ability to plan interventions better and having the right maintenance and spares against critical equipment;
- **Increased tool time** through the reduction of time wasted finding maintenance and material data;
- **Increased data integrity** by improving the quality of information within CMMS; and
- **Promote and simplify continuous improvement** of maintenance and reliability through the completion of a detailed maintenance strategy and task determination process for each maintainable equipment item.