



Positive displacement pump with VFD controller



Completed panel ready to ship



JERSEY ELECTRIC COMPANY

Problem

The Jersey Electric Company operates three Rolls Royce Olympus Turbine Packages. The units are employed in a power generation application and operate as peaking units and also for black start in the case of loss of power from an undersea connection to the French Electric Grid.

The associated engine control systems were Woodward Micronet. These were the original control systems implemented during the installation and commissioning of the packages which was over 15 years ago. The age of the existing control system gave the client issues with limited visibility of the system functionality, along with decreasing spares availability.

The turbine fuel delivery systems were also in the as installed condition, and consisted of HP pumps and control valves which were now deemed unreliable and obsolete

The HPI Energy Services Solution

Due to a sound legacy of success in upgrading Olympus engines and its familiarity supporting the Micronet controllers, HPI Energy Services Limited (HPI) was approached to offer its upgrade solution.

HPI carried out a full onsite survey of the units, and designed and implemented a full upgrade of the control systems of the turbines. HPI implemented Allen Bradley ControlLogix with open architecture components, giving the client access to the program to assist in trouble shooting and maintenance requirements. Utilisation of Allen Bradley components within the design allows the client a greater availability of spare parts.

HPI also designed and implemented a replacement of the existing fuel delivery system pumps (external and on engine) and the liquid fuel valve, with an HPI positive displacement pump and VFD controller. This new pump and motor configuration delivers the required fuel to the turbine at any time by modulating the speed of the motor, resulting in increased and decreased flow to the turbine.

KEY BENEFITS

- Access to the control system
- Greater visibility of package performance, reliability and functionality.
- Enhanced troubleshooting capabilities
- Greater availability of spares
- Commonality of parts across the turbine generation plants
- Reduced fuel delivery system maintenance.

To see how HPI Energy Services can help you, please call us on +44 (0)1522 519944 or email info@hpienergy.com