

**PERENCO  
DAVY LOAD MANAGEMENT SYSTEM REPLACEMENT PROJECT**

CSE Servelec successfully provided the replacement of an existing Load Management System with no disruption to our clients critical operations and a system changeover strategy designed to eliminate the requirement for a plant shutdown.

The Davy Field development consists of one offshore platform that is designated as a Normally Unmanned Installation (NUI). Facilities are provided to accept and separate gas, condensate and water phases from six producing wellheads. The North Davy sub sea well is tied back to Davy via a pipeline and flexible riser system. From the Davy installation, the gas is transported by a sub sea pipeline to the Inde 49/23A installation and combined with production from the Inde field. Following compression, it is then exported from the Inde 49/23A via a pipeline to the Bacton Terminal.

The existing Dulas Data Logging and Load Control Systems were installed in the early 1990's.

Early in the operation of the platforms the two wind turbines designed to provide power to the secure 24V DC battery system failed and were removed. The logging part of the system became largely redundant and over the last few years, general support for the system, both in terms of hardware/software and human resources diminished considerably. As the system was of bespoke manufacture it became increasingly difficult to source spare parts/components. In addition the operation of the system suffered from lack of detailed understanding of its operation by the maintenance teams and by the absence of a clear operator interface.

Following a platform shutdown the system proved to be difficult to restart as battery charging levels were lost and had to be manually re-entered.

Over the years both the Data Logging and Load Control System and the associated systems being monitored and controlled suffered from a number of modifications that were made to overcome operational issues, but only succeeded in moving the system further away from its original design, reducing the systems reliability and effectiveness.

In light of this background the platform operator Perenco decided to replace the existing Load Management system with a new system to provide a modern, reliable,

maintainable and easily expandable system of appropriate complexity to the number of field I/O and their associated criticality.

Perenco subsequently chose CSE Servelec to provide a new Load Management System based a hardwired relay and timer solution incorporating a Honeywell Paperless Graphic Recorder for data display, recording, and alarm derivation.

**Project Strategy**

CSE Servelec carefully reviewed the requirement to minimise risk of disruption to production. A detailed site survey was carried out and the limited space available in the existing system's cabinet was considered carefully before a solution offered.

A new Load Management System was built as a 'portable system' and tested at CSE Servelec and then installed in the cabinet space vacated by the old system components. New field wiring from the Load Management System was wired to the existing field terminations.

Control changeover to the Load Management system was carried out after carefully planning to ensure the work could be performed during normal platform operations.