

Gorgon LNG OFR metering system upgrade



Client:

Kellogg Joint Venture Gorgon

End User:

Chevron Australia

Facility:

Gorgon LNG Plant, Barrow Island
Australia

Equipment:

Metering system upgrade

Project background

This project is a Liquefied Natural Gas metering system upgrade for the Gorgon LNG Plant. The original metering system did not incorporate a metering supervisory computer and therefore lacked the supervisory functionality required for real-time monitoring and control of the metering system.

Project scope

The objective of this project was to provide a metering supervisory computer (MSC) and a dedicated metering panel to house the MSC and associated accessories, in order to facilitate effective monitoring and control of the entire metering system from a single location. This project also involved reconfiguring the flow computer applications to make them compatible with the MSC and to improve system functionality.

System features

Proserv supplied and integrated a PC-based, dual-redundant metering supervisory computer system running the eXlerate SCADA package for real-time control and supervision of the metering systems.

The system comprises of 18 KROHNE Summit 8800 flow computers, 8 chromatographs for gas composition analysis, 7 ultrasonic meters and data handoff to the Platform Control System (PCS). The system was mounted in a dedicated metering panel assembled in Australia and project managed by Proserv.

The system provides displays to initiate and monitor verification and allows for running multiple verification sessions for the following devices:

- Temperature Transmitters
- Pressure Transmitters
- Differential Pressure Transmitters
- Ultrasonic Flowmeters
- Gas Chromatographs

System functionality

- Flow calculations
- Verification and diagnostics
- Graphical operator displays with data entry, alarm-handling and trending capabilities
- Reporting and logging functions
- MODBUS data handoff to the PCS
- OPC data handoff to Energy Component System
- Web-browser access to flow computer data

Key successes

The customer stipulated the panel build should be undertaken in Australia. Proserv agreed to this requirement and despite the challenge posed by the multi-site nature of this project, provided effective project management that ensured the project was successfully delivered to the customer's satisfaction.

Gorgon LNG Plant is located in a nature reserve with strict quarantine policies to protect the environment. Proserv ensured that the delivered system complied with all quarantine policies provided by the customer.

The Summit 8800 flow computer technology was relatively new to the market. Proserv acquired, within a short time, the necessary skills required to reconfigure the flow computer applications.

