

CBM Producer Improves Remote Well Field Automation with ControlEdge™ RTU Solution

Case Study

“With the latest Remote Terminal Unit (RTU) technology for our wellhead operations, we have benefitted from safe, reliable and efficient remote monitoring, diagnosis and asset management, while ensuring a low total cost of ownership.”

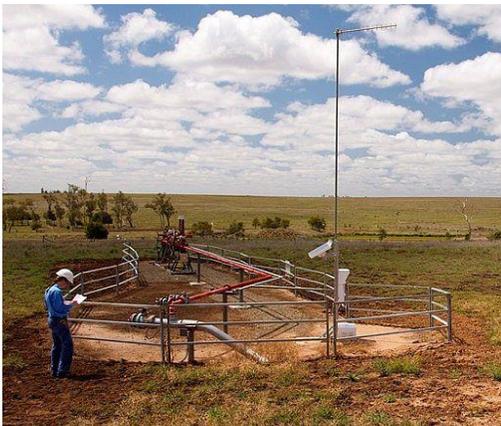
- Project Manager, Major Asia-Pacific Coal Bed Methane (CBM) Producer

Background

Unconventional gas producers must drill a large number of wells to produce a sufficient amount of gas to ensure profitability. With dispersed gas fields, effective solutions are needed for remote operations. Data are collected at hundreds of well sites for monitoring and analysis. In addition, wells must run autonomously to reduce headcount for field operators.

Challenge

Gas producers are faced with collecting streams of real-time data from wellhead operations spread across hundreds of miles. To achieve this, measurement and control equipment is required to withstand harsh operating conditions while providing low power consumption.



The key to attaining a high level of equipment dependability and profitability from distant sites is to remotely monitor vital equipment. At gas wellheads, automation systems are tasked with controlling key process variables such as flow,

temperature and pressure, and integrating multiple controllers with supervisory control and data acquisition (SCADA) systems.

Today, operators seek access to operational data from a single, centralized source, as well as effective solutions to enhance device diagnostics and improve asset management. Furthermore, they need to leverage the same technology across different field applications.

Solution

A major Coal Bed Methane (CBM) producer sought to implement a cost-effective controller, which could handle crucial remote monitoring tasks such as metering gas and water flows, and measuring process temperature and pressure at remote well sites. These particular gas fields are planned to feed gas to multi-train LNG plants. Around 2,000 CBM wells are required per each LNG train.

To meet these requirements, the customer contracted with Honeywell to supply the Wellhead automation skid, featuring Honeywell's ControlEdge™ RTU solution. This advanced, IEC 61131-3-compliant RTU handles demanding high-temperature environments and offers low power consumption. The controller's modular design also makes it easy to employ additional processing functionality.

Along with the Experion® SCADA, ControlEdge RTU helps users visualize what they need to know to simplify management of field assets. The controller has been enhanced with native redundancy, expanded

In the gas producing sector, the ability to remotely monitor and manage the status and operation of field assets such as wellheads is invaluable. Staff members are frequently required to travel to remote areas to assess and manage operations.

With Honeywell's process controller, users can achieve the best utilization of their distributed assets through efficient remote monitoring, diagnostic and asset management capabilities.

input/output (I/O) modules, and wireless I/O.

ControlEdge RTU helps facilities effectively manage remote automation and control applications while converting data from complex automation systems into relevant, actionable information. In particular, it meets multi-well needs in gas fields where additional I/O modules are required. The RTU minimizes travel to the field, and reduces equipment monitoring and diagnostic time from hours to minutes.

Thanks to its scalability, ControlEdge RTU can be installed at new well sites with minimal effort – allowing gas producers to expand their operations with greater agility. The controller's smart functionality also supports the Industrial Internet of Things (IIoT), whereby operators can utilize remote diagnostics to monitor HART® instrument data, deploy advanced analytics, and reconfigure devices "on the fly" as part of maintenance routines.

Key to the selection of Honeywell's solution was a vertical slice test meant to confirm control systems running compressor sites and gas processing plants could easily integrate SCADA systems used for well fields, and then collect all of the data into a single repository. The test also verified that Honeywell could replicate its solution across multiple well installations.

For More Information

To learn more about how Honeywell's ControlEdge RTU can optimize performance, visit www.honeywellprocess.com or contact your Honeywell Account Manager.

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ControlEdge RTU's smart functionality supports the Industrial Internet of Things (IIoT).

Honeywell's robust RTU solution helped the CBM producer achieve operations that are safe and efficient. Transmittal of real-time data eliminated the need for trips to the field for asset information gathering and lowered the risks to personnel. Field staff can now monitor around 5 times the number of wells compared to previously.

In addition, ControlEdge RTU enabled increased equipment reliability and availability. Important well operating variables such as flow, temperature and pressure are now closely monitored and controlled.

With Honeywell's local presence and proven natural gas industry experience, the CBM producer is assured of fast response to problems and complete on-site support.

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