Emerson’s ROC800 Helps Deploy Projects Faster and More Cost-Effective than PLCs

RESULTS
- Reduced total installed cost due to savings without using expensive contractors
- Faster and easier configuration using SmartProcess™ Oil & Gas Application Suite
- Quicker deployment accelerated production
- No issues after initial startup

APPLICATION
Monitor pressure to control a valve and valve shutdown, based on pressure from their SCADA system and local display

CUSTOMER
Largest energy infrastructure company in North America

CHALLENGE
With the challenges of finding quality people, the customer needed to find an easier and faster solution to fully utilize the employees and contractors they had available.

This required minimizing installation and startup time and making changes across the entire field quickly without hiring expensive contractors.

The customer had been using PLCs for this application, which require timely and custom programming from outside contractors.

“Faster field changes and smoother deployment takes the pressure off bringing wells online quickly.”
SOLUTION

The monitoring and control was accomplished using Emerson’s Distributed RTU™ Network this included ROC800-Series RTUs, meters, sensors, control relays, HMIs and software, and services to support installation, configuration and training. The system consisted of four subsystems: wellheads, separators, emissions and tanks.

At the wellhead, the designated ROC800 RTU for the wireless network monitored casing and tubing pressures at each wellhead and if unsafe conditions were detected, the wells will be shut-in. There is one RTU with the Distributed RTU Network for every four wells and it also provided plunger lift control to optimize their production.

At the separator, the ROC800 monitored the health of the separator along with taking measurements and calculations for wellpad allocation and production that reported back via a SCADA system. The system used a well test application for bulk/test pad configuration.

The designated ROC800 at the tanks was used to monitor production with Rosemount wireless guided wave level sensors and wireless tank levels to provide shut-in alarms to the wellheads and separators. The ROC800 also provides multiple remote hauling stations with electronic hauling tickets and a printer.

The ROC800 designated for environmental compliance measures gas produced by the Vapor Recovery Units (VRUs) and monitors the status of the VRUs, Combustors, and the Gas pipeline meters for total sales data.

Emerson’s addressed the producer’s concerns by getting to first oil faster, more efficiently, and keeping their personnel safe.