Coal Bed Gas Producer Relies on Emerson’s ControlWave® Express Remote Terminal Units (RTUs) to Acquire Key Wellhead Data

RESULTS

- Real-time data collected remotely at 400 wellheads
- RTU functionality saves manpower and promotes personnel safety
- Efficient management of production information

APPLICATION

Remote coal bed methane production wellhead data collection

CUSTOMER

Chinese oil and gas company producing coal bed methane

CHALLENGE

Coal bed methane (CBM) extraction has become a viable alternative to coal mining in China. To extract the methane gas resident in subsurface coal seams often requires a large number of closely drilled wells pad sites in remote locations. The gathering lines transport gas through the valve stations where Control Wave Express RTUs are located. Collecting complete wellhead data to monitor production can be difficult. If done manually, it can be time consuming and labor intensive as well locations can be not only in remote locations, but require travel over a wide region. Manual information gathering and reporting is delayed and can be inaccurate. Worker safety can also be a potential problem on wellheads where exposure to methane gas is possible.
SOLUTION
Forty ControlWave Express units were deployed at multiple well locations to acquire data on more than 400 wells, 391 drilled vertically and 10 horizontally. The RTUs monitor and collect power generator on/off, real-time and cumulative temperature, flow and pressure information from the gathering lines and production pipeline. The pre-engineered Supervisory Control and Data Acquisition (SCADA) RTU reduced integration of the hardware and, with RS485 serial communication ports, allowed the end user to transmit data and information from the wellheads via swirl meters. The explosion-proof panel, low power solar capability, and battery backup provided reliable operation in remote areas.

Transmittal of the real-time data dramatically reduced manpower to collect and report the data and lowered the risks to personnel in this potentially dangerous environment.