

Savings with Wireless Monitoring at a Gas Production Plant



RESULTS

- Installed cost savings of 27 percent over wired solution
- Continuous gas balance data
- Eliminated clipboard rounds to well heads



APPLICATION

Tecpetrol Argentina implemented a Wireless solution at 3 gas satellites plants located on Salta province in Argentina. Customer will be monitoring all pressure, temperature and differential pressure at gas well heads, sending all its information to a SCADA System. AMS was also installed in the system.

CUSTOMER

Tecpetrol is an Argentine company whose principal activities are oil and gas exploration and production as well as the transport and distribution of gas and electricity.

CHALLENGE

Tecpetrol needed to quickly install a network that would closely monitor gas balance at three natural gas compression and delivery facilities because excessive gas venting can impact the company's bottom line through lost product and because its gas venting levels must comply with environmental regulations. It was also necessary to have this data so it could perform the AGA3 calculation, which enables an accurate and complete economic balance of the plants. In addition, it needed to measure the gas sold to third parties.

At some of these points the company had been collecting no data. At others, it had a few local monitors that required staff to go to the field for data collection. And at other points that were difficult to access, it had used other wireless technology.

The installation of new monitoring equipment was complicated because it required access to very difficult-to-reach points located in areas congested with pipes and other equipment.

“We chose wireless technology as we support technology advances coupled with the lowest installation and preparation costs.”

Odín Fernandez,
Production Manager

SOLUTION

The self-organizing network provided with Smart Wireless was the solution for Tecpetrol's needs.

The company installed a total of 10 Rosemount® wireless pressure transmitters, 10 Rosemount® wireless DP 3051 transmitters, and 10 Rosemount® 648 wireless temperature transmitters in the orifice plates on the gas well heads at these three facilities.

A trio of transmitters (one of each type) was installed at five points at its Campo Duran plant, at three points at its Aguarague plant, and at two points at its Lomitas plant. The information collected is sent every 15 seconds/minutes to a Smart Wireless Gateway installed at each of the three facilities. The gateways send the data directly to the company's DeltaV digital automation system via modbus.

RESULTS

Smart Wireless was the only solution for Tecpetrol given its timeline, interest in cost control, and the congested areas where the devices needed to be installed. The wireless applications saved the company a total of \$34,000 in installation costs compared to installing a wired solution, a 27 percent savings.

The installation and commissioning took one day. The devices were easy to set up and have been delivering reliable data every since. The company now receives continuous data that allows them to produce online reports and helps them comply with environmental regulations, track gas venting, measure gas sold to third parties, and determine accurate and complete economic balance of the three plants. "The project had a delivery time of no more than three months to be completed. It took us one day to install and commission the devices. The surprising aspect about this equipment is that it is so easy to configure the operating parameters," Fernández said. "It has had a perfect performance so far and we did not have any communication problem and/or loss information. We're now able to generate online reports."

"One of the advantages in using this equipment is that our process is very variable and involves piping modifications, compressor layouts and primary separation, among others. We can move the measurement points when we need to and do not depend on pipes, cabling, etc.," Fernández said.

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