

Performance and Efficiency Improved on Turbine Units and Power Plant

BENEFITS

- Wireless solution enables cost-effective access to new measurement points where wired was too expensive to justify
- Data integrated into customer's existing Ovation® System
- Predictive maintenance reduced downtime and increased operator efficiency



CHALLENGE

A customer at a power plant wanted to instrument multiple points that previously were too expensive to justify funding, in an effort to reduce downtime and improve plant performance.

SOLUTION

Wireless devices are used to measure steam turbines, pumps, economizers, feed water heaters, boilers, generators, air heaters and other assets. To make these measurements, the customer purchased 117 Smart Wireless devices installed on five turbine units. The order was comprised of 56 Rosemount 3051S Wireless Pressure Transmitters, 61 Rosemount 648 Wireless Temperature Transmitters, and seven Smart Wireless Gateways. The data from the self-organizing network is integrated into an existing Ovation® system.

RESULTS

The customer compared Emerson to the other vendors in ten categories. Emerson was the clear leader in robustness, dependability, security, networking, expandability, polling rate, interface to legacy system and operating cost. Justification for this project became very easy when the customer performed a return on investment (ROI) calculation. Downtime was reduced by getting predictive measurements, operator efficiency has increased and maintenance costs have decreased by eliminating operator rounds. There are many plant performance improvements from improved reporting and increased boiler and turbine efficiency. Total rework and waste was also reduced.