EtherMeter™ Proves Compatibility with Industry-Standard SCADA Software

15 January 2009 — In a proof-of-concept project undertaken at a major metropolitan Water District, a pair of EtherMeters™ were staged within a 50MGD pump station for the purpose of eliminating SCADA totalization errors from a bank of four parallel Sensus 16 Inch Turbo Meters.

Previously, the Turbo Meters had been outfitted with pulse-output registers, and approximate pulse-counting methods were used to collect totalization and flow rate data.

In the upgrade, Water District engineering personnel performed a seamless integration of the EtherMeters™ into the SCADA system's Ethernet-based communication network. The Water District utilized Telnet and HyperTerminal for device setup, and the MODBUS®/TCP protocol for realtime collection of totalization and flow rate data.

The Water District's overall SCADA system architecture is based upon Allen Bradley PLC's, the HMI software is Genesis, and the OPC server software is KepServerEx.

Only minor modifications to the meters were required, as the legacy "High Speed Pickup" pulse registers on the Sensus Turbo Meters were upgraded to ICE® registers to provide error-free, encoded outputs.

Photo of the 50MGD Pump Station. Four Sensus Turbo Meters (16 Inch), which were outfitted with ICE® registers, are now monitored by two EtherMeters™. The meters (not shown) are located in a below-grade vault several hundred feet from the pump station. The industrial communication protocol used is MODBUS® TCP.

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