

Case Study

Campus Energy

Company Profile

This company is one of the largest commercial and industrial real estate sites in NYC. Various commercial tenants rent space from the management company and are billed for utility usage. The 300-acre site is home to over 330 industrial tenants employing more than 6,400 people, up from 3,600 in 2001.

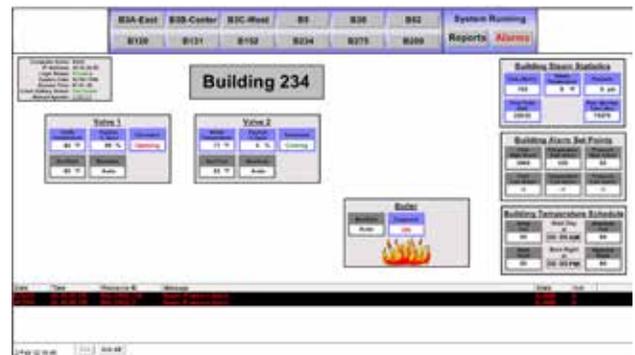
Challenge

Management requires a means to control, monitor, and collect steam pressures, usage, and building temperatures in order to invoice their clients. This is traditionally accomplished by manually opening and closing mechanical valves and retrieving data from gauges and meters throughout a building or site. These procedures are time- and labor-intensive, which makes the system costly to maintain and dangerous to personnel.

Solution

Rawson/Industrial Controls installed a complete system for remote control and monitoring of the existing steam system. The solution consisted of automated valves and actuators, which are controlled by an RTU panel at each building or floor, and a site-wide SCADA system.

Each RTU has a local HMI and PLC which collects and controls steam aspects, such as valve position, building temperatures, steam temperatures, outside temperature, steam pressure, steam flow, and flow totals. The SCADA hosts all this data for remote monitoring and control via PC or mobile device. This allows for advanced functionality, such as scheduled set point control, total steam usage calculation, automatic report generation, and SMS/email alarm notification.



Additional benefits derived from this solution:

- Ability to locate and indicate steam leaks.
- Immediate notification of high steam pressure or component failures, reducing serious safety hazards.
- Instant system control within seconds, as opposed to the hours it would take to manually apply control, including a full system emergency shutdown.
- More complete and accurate system data, which can be used to create better usage reports and accurate billing.

Results

The total investment for this project was \$200,000 and was delivered in 10 weeks. The cost of constant loss of steam, excessive heating, and additional labor to maintain and operate the existing system was over \$75,000 per year, creating a 2.6 year ROI.