PowerLogic®

energy and power management systems

Web based national energy monitoring system
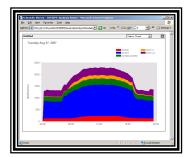
Brief:

Program Name:	The General Services Administration (GSA) web based national energy monitoring system
Process:	Installed 30 advanced meters on main electrical incoming feeds to monitor electricity and power quality in GSA buildings located in Region 11(Washington D.C.). The meters reside on the GSA LAN, and imports consumption and power quality data near real time into a web based operational software. A second layer, web based, enterprise level business intelligence software was also deployed, to provide normalization, benchmarking, validation and estimating, forecasting, defined user experience, and integration of disparate GSA systems.
Benefits:	

- Translate real-time and historical data into actionable information
- Proactively reduce energy related business risk
- Control energy cost
- Unite energy management and business strategies
- Gather, cleanse and unite disparate systems energy information
- Influence positive behavioral change at the operational level

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Overview:
The GSA needed a national web based solution to monitor its top priority buildings nationally, including the installation of advanced metering and integration services, to automate its national energy tracking and reporting capabilities. GSA also needed a solution to bring together relevant energy data stored in disparate energy systems**.**

Background/Project Scope:
In most GSA buildings, consumption data was provided to building management staff by the utility. In most cases, this data would arrive weeks after the monthly usage took place. By implementing a web based national energy reporting system that provides real time energy and power monitoring and reporting, normalization, benchmarking, predictive forecasting, utility bill validation and verification, and a personalized end user experience, GSA is able to make smart energy choices daily.

Intelligent socket based revenue accurate metering is installed on all main incoming electrical feeds in parallel with the utilities metering. The devices are all connected to the GSA local area network (LAN) and transmit collected data to a real time energy operational web based software system located at its Central Office. The software currently monitors, analyzes, and reports on up to 30 different main feeds, and will ultimately monitor in excess of 1,500 main feeds nationally including GSA driven Demand Response, Performance Contracting, and Renewable Energy Projects across the United States.

The U.S. General Services Administration, partnered with Power Measurement USA now part of the Power Management Operation of Schneider Electric North America within the Square D® PowerLogic® product and services portfolio. The system design, advanced metering system implementation and customization of its PowerLogic® ION Enterprise® and PowerLogic® ION® EEM enterprise energy management software (web-based business intelligence software) was tailored to obtain utility consumption data and disparate energy data nationally.

Objective(s):

- Monitor and evaluate energy consumption and costs;
- View data in whatever format best suits GSA staff needs
- Normalize energy usage data for variables such as weather and square footage
- Carry out comparisons between locations to identify best practices
- Compare results over time to measure the effectiveness of retrofits, upgrades, etc.
- Use Rate Wizard® tool for forecasting impacts of new tariffs on current utility budgets

Business Case:
With the ability of continuous monitoring, accountability at the operations level, and converting data into actionable information, GSA anticipates that significant energy and operational savings will result from the systems deployment. The new software systems ability to allow GSA to better understand and control loads per building and per region, to normalize specific building electrical and energy usage data, and the ability to utilize the system Rate Wizard tool to apply current rates and to forecast new tariffs, will all play a key roll in the systems ROI and significant energy savings for the Agency.

Partners:

- **Schneider Electric**
- **GSA Energy Center of Expertise**
- **GSA Maintenance and Operations Branch**
- **Regional Energy Managers and Building Managers**
- **Local Utility Companies**