Siemens power monitoring system improves power quality and reliability

Municipal convention center

Challenge
A convention center in a popular destination sees many large and well attended conventions throughout the year. The city owned facility was expanded over time, and a Siemens power monitoring system was installed for the new space. However, the older space, which housed the central chiller plant and the main utility services, did not have power monitoring.

Recent increases in utility costs, paid by the city, the large number of conventions and meetings scheduled and a new large electronics show was scheduled that has always caused electrical issues in the past. These reasons spurred the convention center management to request an expansion to the power monitoring system to help monitor their total electrical bill and correct the electrical system issues that had caused problems in the past. Siemens was asked to propose a solution and one that could be installed in a few weeks prior to the big electronics show.

Solution
Siemens met with the convention center’s facility manager and electrical contractor to identify the new loads to monitor, specify the necessary hardware, and coordinate a schedule for installation, commissioning and startup. Siemens also worked with the city’s IT department to add new LAN connections for the expanded power monitoring system. Siemens then coordinated materials delivery to coincide with site activity and to minimize disruptions among ongoing convention activity.

After the metering hardware was installed and powered up, it was quickly connected to the convention center’s Ethernet LAN backbone and configured to communicate back to their WinPM.Net software. New graphics were created, including facility plans linked to area energy consumption charts. Reports were set up to capture energy usage data by area and by schedule, and to produce supporting records for allocating energy costs for all events using the convention center.

Finally, alarm set points were established to alert the operations staff of conditions that might cause electrical outages. Along with this, the power monitoring system provided remote web access to enable site managers to monitor the switchgear and central plant – even from their own homes.

Results
The expansion to the Siemens power monitoring system is enabling the convention center to proactively plan for and manage their power systems during large events such as conventions, concerts, and sports events. They are also now able to accurately track and recover facility energy costs associated with these events, eliminating the city’s exposure to unanticipated utility costs.

And remember that big electronics show? With the additional monitoring, the convention center successfully managed all of its power needs at this event producing no outages during the show!
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Reliable and precise monitoring of electrical power systems

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