

Success Story: Rochester General Hospital, Turner Integrated Systems

Market Served
Data Centers



Eaton helps Rochester General Hospital with Joint Commission accreditation

Location:

Rochester, New York

Segment:

Healthcare

Solution:

Eaton® Foreseer® software,
meters and gateways

Problem:

Required comprehensive monitoring
system for Joint Commission
accreditation

Results:

Built-in reporting capability quickly
generates compliance reports.
Automatic report updates are
e-mailed to facility management
leadership based on accreditation
time lines.

*Foreseer software
with reporting enables
Rochester General
Hospital with more
reliable electrical
services, along with
an enhanced method
to monitor and report
on the effectiveness
and health of facility
systems.*

Background

Rochester General Hospital is a 528-bed tertiary care hospital that has served surrounding residents of Rochester since 1847. The healthcare provider offers primary medical care and a broad range of services through over 1,000 primary care physicians and specialists.

A safe, efficient and reliable electrical system is critical to the hospital, which is home to a number of centers of excellence including the Lipson Cancer Center and Center for Blood Disorders and the Sands Constellation Heart Institute.

In order to focus on the quality of patient care, Rochester General Hospital relies on a local engineering consultant, Turner Integrated Systems LLC, to provide turnkey support and management of all electrical power systems across its campus.

Challenge

As a leading healthcare provider, Rochester General Hospital strives to provide patients with the assurance of Joint Commission accreditation for its services and facilities. The accreditation program is recognized nationwide as a symbol of healthcare quality that reflects an organization's commitment to meeting stringent performance standards.

Preparing for Joint Commission assessment can be a challenging process for any healthcare or engineering services provider. At a minimum, facilities management staff must be completely familiar with the current standards, examine current processes, policies and procedures relative to the standards and prepare to improve any areas that are not currently in compliance.

Additionally, the hospital must be in compliance with all applicable standards during the entire period of accreditation, which means that surveyors will look for a full three years of implementation for standards-related issues.

Fundamentally, monitoring electrical equipment and systems is the first critical step to simplify Joint Commission reporting procedures. In-depth facility monitoring is also crucial to meeting key healthcare objectives such as supporting



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reliable power, addressing rising energy demand, and ensuring systems meet evolving standards and requirements.

In order to simplify oversight of hospital systems, and reduce the time and labor required to compile reports, Turner Integrated Systems turned to Eaton to help develop a more robust, effective facility monitoring and management solution.

Solution

The first step in developing a truly comprehensive electrical system monitoring system was to strategically deploy a network of intelligent meters. Each primary electrical service panel and area of utility connection was equipped with Eaton's Power Xpert® meters. Eaton also applied the intelligent meters to closely monitor all backup and emergency power system components such as automatic transfer switches, generators and uninterruptible power systems.

Additionally, Eaton's Power Xpert meters were installed to collect vital performance data on transformer operation and health. All power system data collected from the meters would then be consolidated through Eaton's Power Xpert Gateway 900 devices, which were connected down to the feeder breaker level to quickly transmit comprehensive data spanning the complex electrical systems.

The data collected from the meters and gateways is then remotely analyzed, recorded and reported through Eaton's Foreseer software platform. The Foreseer platform was chosen to provide Rochester General with a fully scalable solution for monitoring and alarm notification of all infrastructure pieces, including HVAC, UPS, power distribution components, generators, fire-detection, security systems, and other communicating sub-systems from hundreds of manufacturers – all on one screen.

Enhancing patient treatment and safety, improving operational efficiencies, and meeting the latest standards are primary goals for healthcare providers. Turner Integrated Systems recognized that Eaton's Foreseer platform could provide it all, even supporting predictive maintenance with its ability to identify developing issues before they could become major problems.

Foreseer software is designed with a proactive algorithm that gathers data 24/7, enabling Rochester General and Turner Integrated Systems to easily assess equipment performance specifications, as well as cause analysis, impact analysis, capacity planning, preventive maintenance assessments and trending data.

Further, Turner Integrated Systems could assign alarm thresholds – from routine maintenance alerts to system failure, including handling instructions and escalation procedures for each – to help ensure immediate notification of potentially threatening conditions.

To help Rochester General Hospital and Turner Integrated Systems simplify reporting procedures; the Foreseer software platform was integrated with reporting features, which enable a view past individual measurements, trend graphs and events.

With Foreseer's reporting package, the facility management team can consolidate the complex data into easy-to-understand graphical reports for user-defined timeframes or localized electrical systems. The platform can also be set to run the report automatically and send updated reports via e-mail at predefined intervals.



Foreseer dashboard; create your own custom view

Results

For Rochester General Hospital, the new Foreseer software platform with the reporting package is enabling more reliable electrical service along with an enhanced method to monitor and report on the effectiveness and health of facility systems.

By constantly collecting performance information and providing easy remote access, the network of data acquisition solutions and modern software platform provides Rochester General and Turner Integrated Systems with the ability to instantly measure availability, loading, and consumption in real time.

As a result, the solution makes it possible to monitor the operation and status of all of the electrical components that are running in buildings, and trend measurements on those components over time looking for changes. When changes are detected, the information can be used to instantly trigger alarms, prompting investigation and a proactive response prior to costly or service-impacting failures.

The comprehensive solution provides facility management teams with the ability log, benchmark and report on data to help produce required electrical system reports for the Joint Commission accreditation and the National Fire Protection Association (NFPA) certifications.

With embedded Foreseer reporting features, Rochester General Hospital can now run the built-in reporting capability to quickly generate compliance reports and automatic report updates are e-mailed to facility management leadership based on accreditation timelines.

To help with NFPA certifications, the platform allows Rochester General Hospital to audit Emergency Power Supply Systems (EPSS) and monitor key metrics for generators and automatic transfer switches (ATS) during testing at user-defined date/time ranges.

Ultimately, the new capabilities of the system will enable Rochester General Hospital to provide safe, reliable power for its patients while reducing costs by mitigating the risk of downtime, simplifying preventative maintenance and allowing system wide compliance testing to be completed from a single location.

To learn more by visiting
Eaton.com/foreseer



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