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EcoStruxure Power helps facility operations teams avoid downtime and power failures

Large buildings and critical facilities are expected to ensure business continuity. Fortunately, digitization has fundamentally changed the facility management landscape. With accurate data now available from the electrical distribution system, EcoStruxure Power can help ensure maximum uptime through:

- Electrical Distribution Monitoring & Alarming
- Power Events Analysis
- Capacity Management
- Breaker Settings Monitoring

EcoStruxure Power helps avoid downtime and power failures through optimized power system performance.

Read the white paper
Challenges and Opportunities

Digitizing Electrical Distribution

Application Overview

Digital Architecture
IIoT for electrical systems is a reality

Power systems are more dynamic than ever

Digitization is becoming a competitive necessity as the majority of businesses eye top-to-bottom digital strategies for their enterprise. In the same way, infrastructure is getting the same treatment with communications becoming commoditized in facility field devices.

Every facility can now be a smart facility. But as ever-greater options for optimizing efficiency and cost with alternative sources of energy, power systems are quickly becoming more complex and difficult to manage.

With this complexity and the availability of data from field devices, the power system must simplify operations, provide insights into efficiency and operational processes, and provide the flexibility and scalability required by enterprises’ fast changing needs.

By 2025 there will be 10x more connected devices than people.
Why electrical power management?

Use the right tools for the job

With many options available on the market for measuring, monitoring, and analyzing devices installed in facilities – for example a BMS or generic SCADA – it is important to know that these systems are developed for a specific purpose.

Electrical Power Management Systems are no different. They are designed specifically for acquiring, processing, and visualizing data from electrical power systems.

It is this purpose-built approach that allows the more optimized cost and greater performance of a power management system, rather than attempt to adapt a generic BMS or SCADA system to go beyond its intended design.
IoT enabled applications for optimizing power system performance
Power system performance

How can you avoid downtime by preventing power failures?

Avoid downtime by preventing power failures

- Gain visibility the status of the entire electrical system with a real-time, digital representation of your electrical one-line
- Alarm on abnormal electrical conditions or events in the facility and group-related incidents in an easy-to-understand way.
- Notify relevant personnel via email or SMS
- Monitor and report on peak demand and loading of equipment like breakers, UPSs, transformers, generators, etc
- Share data with your BMS, SCADA or other 3rd party systems

I want to monitor and detect anomalies in real time and analyze and track the state and parameters of the electrical distribution network over time.

Watch a customer video
Power system performance

How can you avoid downtime by preventing power failures?

Avoid downtime by preventing power failures

- Record high resolution, high accuracy event sequences to find origins of fault
- Cross system event correlation to help reconstruct sequence of events
- Speed the diagnosis of power incidents by automatically creating a visual timeline of the incident showing related events, waveforms, and trends
- Gain deeper insight about causes and impacts of incidents by seeing a visual timeline before, during, and after an incident
- Record your analysis for later viewing, with custom annotations and custom filters to show only what is most relevant
Power system performance

How can you avoid downtime by preventing power failures?

Avoid downtime by preventing power failures

- Save time and money by automatically collecting all breaker settings into a single report
- Create an audit trail by exporting as a permanent record
- Detect changes and trigger automatic updates of report
- Be cost-effective in reducing risk by checking breaker settings more often
- Peace of mind due to complete breaker hierarchy oversight

I want to continuously monitor breaker trip settings, analyze and compare breaker trip curves, audit breaker trip setting changes, and alert when breaker discrimination is lost.
Power system performance

How can you save money by maximizing uptime?

Avoid downtime by preventing power failures

- Monitor system-wide or individual circuits of electrical loads, and combine electrical metering with system software
- Trend and report on historical capacity loading with trending, dashboards, and reporting
- Generate pre-defined historical reports for generator, UPS, and branch circuit capacity planning
- Inform operations or process decision-making for site or process expansions or modifications

I want to prevent disruption to business from electrical overload with load management and capacity planning.
Architectures

Power System Performance (IEC)

Use real-time views of the state and parameters of your electrical distribution network, including failure or deviation from normal operating conditions. Alarming and event notification help to quickly identify causes and reduce outage duration.
This document presents general, non-binding information regarding the potential value that digitized power distribution products and solutions can bring to the user. Due to varying user situations and goals, Schneider Electric does not warrant or guarantee that the same or similar results represented in this document can be achieved. Please refer to Schneider Electric product and solution catalogs for actual specifications and performance.

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