Digitization of Electrical Distribution

Challenges and Opportunities

EcoStruxure Power Application Overview

EcoStruxure Power Digital Architecture
EcoStruxure Power digitizes electrical distribution

EcoStruxure Power helps facility operations and maintenance teams improve maintenance efficiency

Digitization is changing the game on how facilities ensure maximum power system uptime. Critical power systems can be complex and difficult to manage. EcoStruxure Power leverages the wealth of data available today from the power system to increase visibility and improve decision support.

Save money by reducing energy spend

In large and critical facilities, maintenance can be a tricky and costly activity to manage. With critical assets like motors, backup power systems, transformers, and more, relied upon for business continuity, the need to keep them operational can lead to overspend in maintenance. EcoStruxure Power helps optimize maintenance planning with electrical asset performance.
Challenges and Opportunities
Digitization enables more strategic maintenance strategies

IOT is changing the dynamic between owner/operators of assets and OEMs across many asset-intensive industries.

As APM solutions mature and cloud deployment of APM increases, asset management will become more collaborative. Responsibilities will be shared between owners, operators, service providers, and OEMs.

Successful Asset Management deployments deliver measurable improvements in asset availability. They also reduce maintenance and inventory carrying costs.
Move from reactive, break-fix maintenance to predictive, condition-based maintenance

- Reactive (after failure)
  - I can only react when failures happen
  - I cannot prevent downtime
  - I need to replace my equipment more often
  - Urgent maintenance is expensive: High costs of process loss, urgent

- Preventive (time-based)
  - I can anticipate failures
  - I can mitigate risk, but catastrophic failure is still a risk

- Predictive (condition-based)
  - I predict asset failure and reduce downtime
  - I protect my staff
  - I optimize my maintenance scheduling
  - I will be in position to enhance my...
How can you save money by optimizing maintenance?

Optimizing the total cost of ownership

Modern and up-to-date maintenance practices have become a vital competitive advantage thanks to their use in early detection by identifying problems before they require a major repair. Knowing when scheduled outages will occur also allows managers to staff accordingly. It delivers a unique opportunity to achieve more rigorous cost controls.

Maintenance executed by highly qualified technicians and with manufacturer recommended, condition-based maintenance recommendations is a unique opportunity to optimize Total Cost of Ownership (TCO), as well as CapEx and OpEx. This creates more value for businesses by enhancing availability at lower operating costs.

Example of complete annual costs for an MV switch protection cubicle.
IoT enabled applications for managing asset performance
Asset performance

How can you save money by optimizing maintenance?

I want my critical assets to provide me with the relevant information to tell me when they require maintenance or servicing, instead of blindly servicing them at regular intervals.

Plan for maintenance where and when it is needed

- Move from reactive to preventive to condition-based maintenance strategies for critical assets like breakers, gensets, transformers, etc.
- Gain visibility of their critical asset health and maintain them when necessary
- Use a wealth of data from connected assets and Edge Control software to manage assets across the entire system
- Optimize maintenance planning with expertise through digital services to determine the optimal time to maintain critical assets
Asset performance

Use electrical asset diagnostics data from connected devices along with decision support with on-premise, edge control software and expert recommendations with analytics-based services.
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 warranty 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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