Optimise your power network with data-driven decisions

StruxureWare Power Monitoring Expert software delivers the integrated information for maximising network reliability and performance

Power Monitoring Expert

Schneider Electric

The need to clearly
understand your entire
facility's power performance

Flexible, scalable, and
intuitive Power Monitoring
Expert software

Timely access to actionable
data for maximising network
reliability and performance

Enhanced data visibility for improved performance across your facility

Today, facility managers are pushed to the limit with demands on their time, staff reductions, increasing responsibilities, complexity of systems, and capex and opex pressures. At the same time, critical business operations depend on your ability to maintain reliable operations, reduce energy costs, and get the most out of your electrical assets.

StruxureWare Power Monitoring Expert brings your facility together

StruxureWare™ Power Monitoring Expert is a complete, interoperable, and scalable supervisory software dedicated to power monitoring that enables you to maximise operational efficiency, optimise your power distribution system, and improve your bottom-line performance.

Real-time monitoring, alarming, and power quality analysis helps you avoid critical conditions that can cause equipment failures and downtime. Track consumption and the cost of power, gas, and other resources, and allocate costs by building, department, or process. The software helps you uncover energy waste, unused system capacity, and shows new ways to extend equipment performance and life span. Plus, cutting-edge flexibility let you extend your power management system at your own pace, and allows for an open system with the integration of third-party devices and systems. Save thousands of engineering hours with ready-to-use device drivers, preconfigured tables, views, and reports dedicated to power and energy management.

30%

Monitoring and control systems can save you up to 30% of your annual energy consumption

Healthcare   Buildings   Data Centres   Industry

Power management at your fingertips

Power availability and reliability

Verify the reliable operation of power equipment
> Ensure and indicate that operations are normal
> Proactively optimise electrical distribution network
> Monitor breaker status, trip counting, real-time voltage, transformers, ATS, generators, capacitor banks, and tap changers
> Stay alert to adverse trends; take corrective action when necessary

Improve response to power-related problems
> Verify normal activities and provide information to help proactively assess issues
> Quickly review events, trends, and load status before, during, and after a problem

Validate that power quality complies with the energy contract
> Analyse and verify metrics to ensure compliance with agreed-upon levels of quality

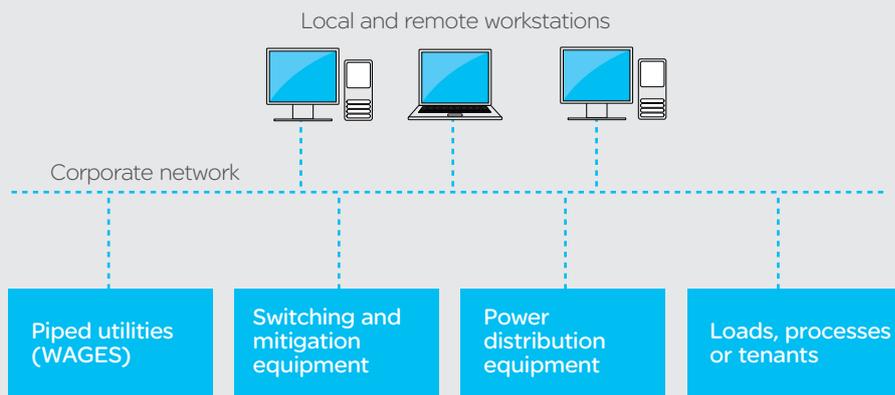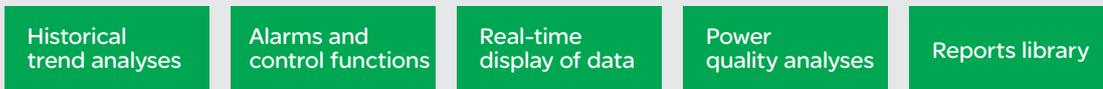## Billing and cost allocation

Produce accurate tenant energy bills
> Automatically collect meter energy consumption data (AMR)
> Calculate the cost for energy (WAGES) usage based on tiered rates, coincidence demand, Time of Use (TOU), Power Factor penalties, taxes, and other charges
> Totalise metering points for accurate energy usage allocation
> Account for changing tenants at any time

Identify billing discrepancies
> Validate utility bills, document errors, and measure energy contract compliance
> Identify false penalty charges and validate benefits of on-site generation

Allocate costs to departments or processes
> Collect, calculate, and report costs for buildings, departments, processes, shifts, lines, or equipment
> Reduce expenses, enable best practices, and validate all your conservation initiatives

Easy-to-implement energy efficiency measures with quick results

| Historical trend analyses | Alarms and control functions | Real-time display of data | Power quality analyses | Reports library |

Local and remote workstations

Corporate network

| Piped utilities (WAGES) | Switching and mitigation equipment | Power distribution equipment | Loads, processes or tenants |

Energy efficiency

Measure efficiency, reveal opportunities and verify savings

> Measure and compare consumption across departments, processes, and industry KPIs to identify the optimal places for improvement or adjustment
> Confirm ROI for system improvements with advanced reporting and analysis

Reduce peak demand, power factor penalties

> Identify locations of poor power factor and justify power factor improvement measures
> Automatically monitor capacitor banks, load tap changers
> Alert on demand levels, analyse trends to identify demand reduction and load shifting opportunities

Participate in load curtailment programs

> Review historical patterns to build a curtailment plan to enable participation in utility programmes
> Automate, aggregate load management to verify curtailment, coordinate backup systems, and ensure contract compliance
> Negotiate to reduce loads in response utility curtailment requests

Electrical distribution monitoring

Leverage existing infrastructure capacity and avoid over-building

> Reveal historical and current load patterns and hidden capacity
> Determine if existing infrastructure will accommodate new equipment

Support proactive maintenance to prolong asset life

> Real-time and historical data reveals relationships between equipment and the conditions affecting system stability
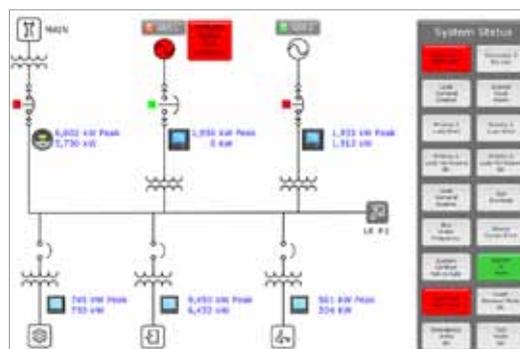
Expand your energy capabilities

Your power monitoring system needs to be an integral part of your business strategy. Power Monitoring Expert software fits in with your objectives and expands its capabilities with flexible deployment options that meet the needs of your IT group. Whether supporting custom solutions and advanced requirements, or through its capability to communicate with third-party devices in your system, Power Monitoring Expert adds value now and especially over the long term.

Designed for step-by-step investment

Integrated data from the whole network

Scalable, flexible architecture
> Grow to hundreds of metering points
> Integrate legacy and third-party devices
> Leverage and optimise existing infrastructure

Interoperable
> Share data with third-party SCADA, automation, building management, and accounting systems
> Open standards-based interoperability via ODBC, OPC, XML, Modbus, OPC Server, OPC Client, and Web Services

Attractive dashboard displays

Alarm and event displays

Historical trends

Power quality analyses

Customised, real-time monitoring

1. Smart dashboards
> Share information with your external stakeholders
> Display any parameter in your power network
> Kiosk or slide-show mode for flexible presentation options
> Combine metering of all utilities (WAGES)
> Integrate content from other web sites

2. Analyse data and power quality
> Trend any parameter to reveal demand peaks and track system-wide energy costs
> Identify patterns in operational usage trends
> Optimise network capacity, avoid over-building

Trend, analyse, and report

3. Alarms and events
> Trigger on complex conditions, on-screen alarm notifications
> Log all relevant data and sequence of events for diagnosis
> Flag and avert potential problems
> Acknowledge alarms with authenticated web access and audit trails

4. Power quality analyses
> Monitor events and waveform plotting system-wide
> Monitor harmonics, K-factor, crest factor, symmetrical components
> Diagnose and isolate PQ problems to increase reliability
> Automatically detect and report on voltage disturbances
> Quickly evaluate PQ events plotted on standard ITIC curve
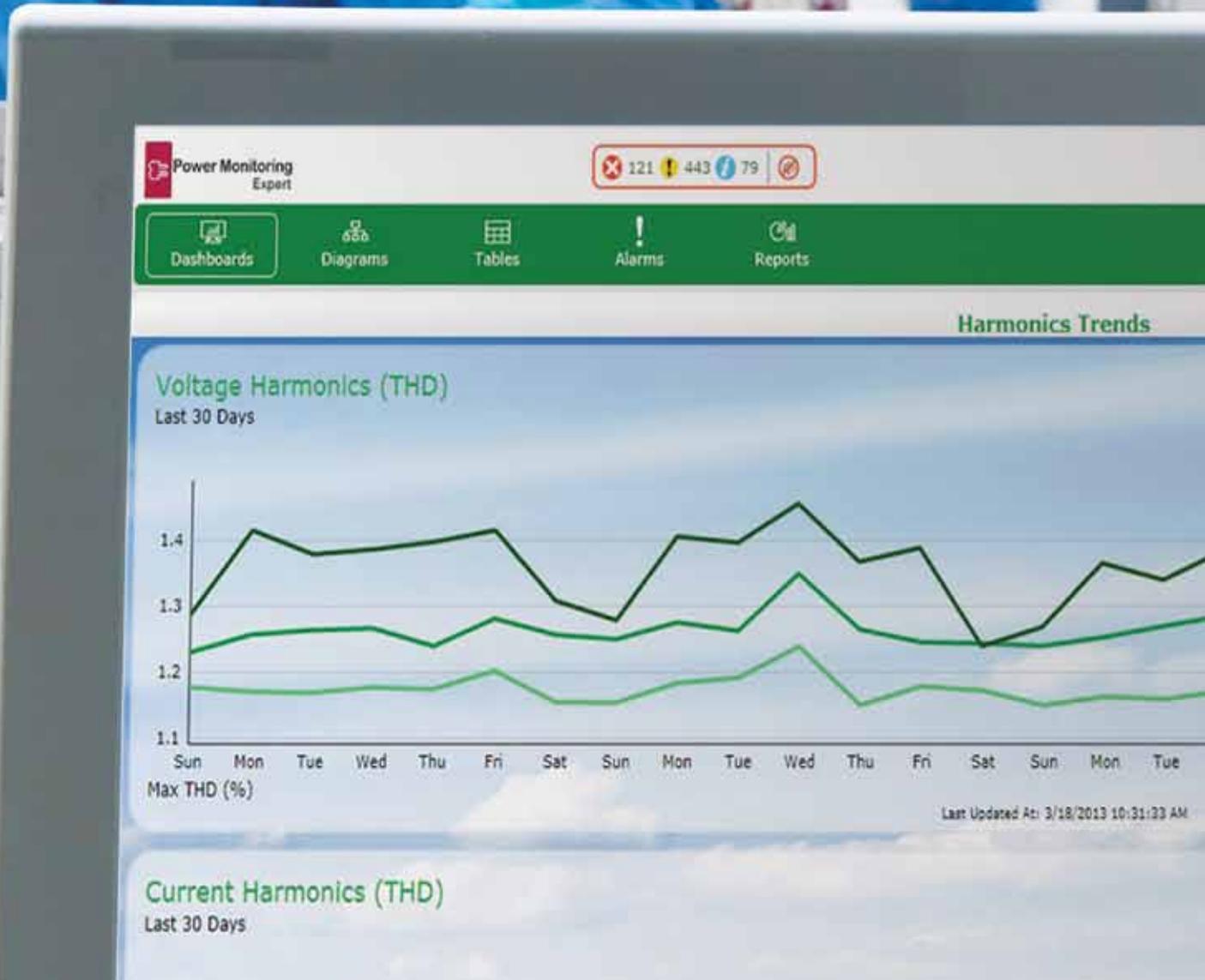
Comprehensive reports

Intuitive data formats

5. Comprehensive reports
> Sixteen preconfigured report templates to get you up and running immediately
> Options for fully-customised reports
> Manual, scheduled, or alarm/event-triggered distribution via email or web
> Options for tenant billing and cost allocation reports

6. Intuitive data formats
> Collect system-wide data, display, and perform calculations
> Customise views of your data
> Graphics templates and table libraries provide plug-and-play views of your facility

See, measure, and manage critical energy data like never before

Power Monitoring Expert

⊗ 121 ⚠ 443 ⓘ 79 ⊘

| Dashboards | Diagrams | Tables | Alarms | Reports |

Harmonics Trends

Voltage Harmonics (THD)
Last 30 Days

1.4
1.3
1.2
1.1

Sun Mon Tue Wed Thu Fri Sat Sun Mon Tue Wed Thu Fri Sat Sun Mon Tue

Max THD (%)

Last Updated At: 3/18/2013 10:31:33 AM

Current Harmonics (THD)
Last 30 Days

Going beyond prevention and recovery to EcoStruxture

Introducing a total energy management architecture which can save up to 30% on CapEx, OpEx and energy consumption

The Power Monitoring Expert Solution is an efficient answer for predictive maintenance and safe recovery from electrical failures. For a more powerful energy efficiency solution which is simple to use, ensures reliability and improves the bottom line, the answer is EcoStruxure™ integrated system architecture.

Optimisation through integrated energy management

EcoStruxure is a suite of intelligent energy management systems which guarantees compatibility across all major energy application areas. With a single information dashboard, you have access to real-time data for every element of your energy consumption, from HVAC, lighting, and security to critical power protection systems.

We put the information at your fingertips, so that your staff can make timely and informed choices which will protect your patients and staff, and reduce operating expenses.

For buildings with critical power requirements, EcoStruxure delivers improved margins with:

> **Simplicity** – compatibility among all systems and intuitive, web-base interfaces for real-time control no matter where you are

> **Transparency** – energy is visible and accountable, therefore giving you information you can act on

> **Savings** – modular solutions, simplified installations, and video verifications which reduce the need for physical oversight

+10%

net operating income at facilities with energy conservation measures according to United States Environmental Protection Agency research

UK contact details -

0870 608 8 608

Fax 0870 608 8 606

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Ireland contact details -

01 601 2200

Fax 01 601 2201

As the global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation, and data centres/networks, as well as a broad presence in residential applications.

Schneider Electric is dedicated to making individuals' and organisations' energy safe, reliable, efficient, productive and green from Power Plant to Plug™.

We are changing our brand names and becoming one Schneider Electric.
You'll get the same great quality products, but from one name you can remember and trust. This provides you and your customers with the reassurance associated with Schneider Electric.

Some of our market leading brands have already become Schneider Electric including **Merlin Gerin, Telemecanique, Square D, GET, Mita, Sarel, Himel, Thorsman, Tower** and **TAC**.

Working as one Schneider Electric makes it clearer that our ranges are highly compatible for integrated solutions.

Schneider Electric Ltd

United Kingdom
Stafford Park 5,
Telford
Shropshire
TF3 3BL
Tel: 0870 608 8 608
Fax: 0870 608 8 606
www.schneider-electric.com/uk

Ireland
Head office,
Block a
Maynooth Business Campus
Maynooth, Co. Kildare
Tel: (01) 601 2200
Fax: (01) 601 2201
www.schneider-electric.com/ie

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