

# Energy efficiency and cost reduction solutions for commercial properties

PowerLogic™ application brochure

**Schneider**  
Electric

# Energy insight to reduce costs and increase energy efficiency

## Introduction

Property managers need to reduce costs, increase revenue and demonstrate environmental leadership, while ensuring a reliable infrastructure is in place to attract and retain the best tenants. Achieving these seemingly contradictory goals is easier than you might think; with the help of PowerLogic technology.

Scalable and cost-effective PowerLogic products provide the precise energy information, analysis and control you need to reduce usage, cut utility costs and manage building operations. Your business can realize energy cost saving of 25% and a net operating income (NOI) increase of 5%, while providing tenants lower leasing rates and superior energy options.

A PowerLogic system is available to help resolve your organisation's toughest energy-related business challenges. With solutions spanning basic sub-billing and enterprise-wide facility benchmarking, through emissions tracking for green house gas reduction, there is a high-quality PowerLogic system to match your needs.

PowerLogic technology enables building owners and managers to reap the benefits of improved energy efficiency, reduced maintenance costs and increased overall productivity.

We have an ideal solution for your organisation:

### **Commercial**

- Office buildings
- Retail operations
- Multi-use facilities
- Industrial buildings

### **Institutional:**

- Universities & colleges
- Health care facilities
- Financial institutions
- Research centers

### **Government:**

- Office
- Military
- Recreational
- Educational

# Intelligent metering, advanced software, an integrated solution

## The right products for the job

Cutting-edge PowerLogic hardware and software provide a detailed view of your organization's energy landscape, whether from a single site or a globe spanning enterprise. A PowerLogic system continuously monitors the energy consumption of buildings, departments, tenants, common areas and your entire electricity infrastructure, enabling you to recover energy costs, identify inefficiencies, and pinpoint areas for improvement.

Class A properties choose proven PowerLogic products to achieve their energy efficiency and cost reduction goals for key reasons:

- Reliability – products are designed for dependable operation in demanding electrical environments
- Accuracy – meters meet or exceed industry standards and accuracy certifications
- Innovation – unique reporting, analysis, communication and integration abilities enable a quick return on investment
- Scalability – flexible systems leverage existing investments and grow to accommodate changing needs
- Cost-effective – extensive form factors lower specification, installation and ownership costs in retrofit and new construction



Schneider Electric, the global specialist in energy management, offers integrated solutions that make energy safer, more reliable, efficient and productive.

PowerLogic technology exceeds traditional energy management to help unite your entire enterprise. We offer the world's largest, most advanced range of software and meters.

### Why should you choose a PowerLogic technology?

Systems can quickly pay for themselves by helping you to reduce costs, enhance profits, and boost asset values:

- Cut energy expenses by up to 25% using energy cost control
- Recover energy costs and improve cash flow with automated billing
- Lower capital expenses through better utilization of your current infrastructure
- Streamline maintenance and implement best practices with more complete information
- Increase uptime and identify the root causes of power quality problems
- Improve labour efficiency with staff-specific information
- Simplify your energy budgeting / forecasting and reduce volatility
- Evaluate energy suppliers to ensure the best rates
- Benchmark buildings and evaluate energy performance to internal and external metrics



Expand your PowerLogic solution with complementary Schneider Electric low voltage electrical network products such as Sepam protective relays, Masterpact breakers and Micrologic control units.

# Applications

## Tenant sub-billing

Empower tenants, improve your competitiveness and manage uncontrolled costs with PowerLogic technology. Automatic bill generation and data retrieval from new or legacy meters drastically improves meter reading efficiency and accuracy, while software that supports complex interval-based tariffs, demand and other utility charges enables your occupant billing to match your facility's utility charges. Data collection across corporate networks, the Internet or wireless lets you accommodate the regulatory requirements of a single site, or a globe spanning portfolio.

PowerLogic technology enables you to:

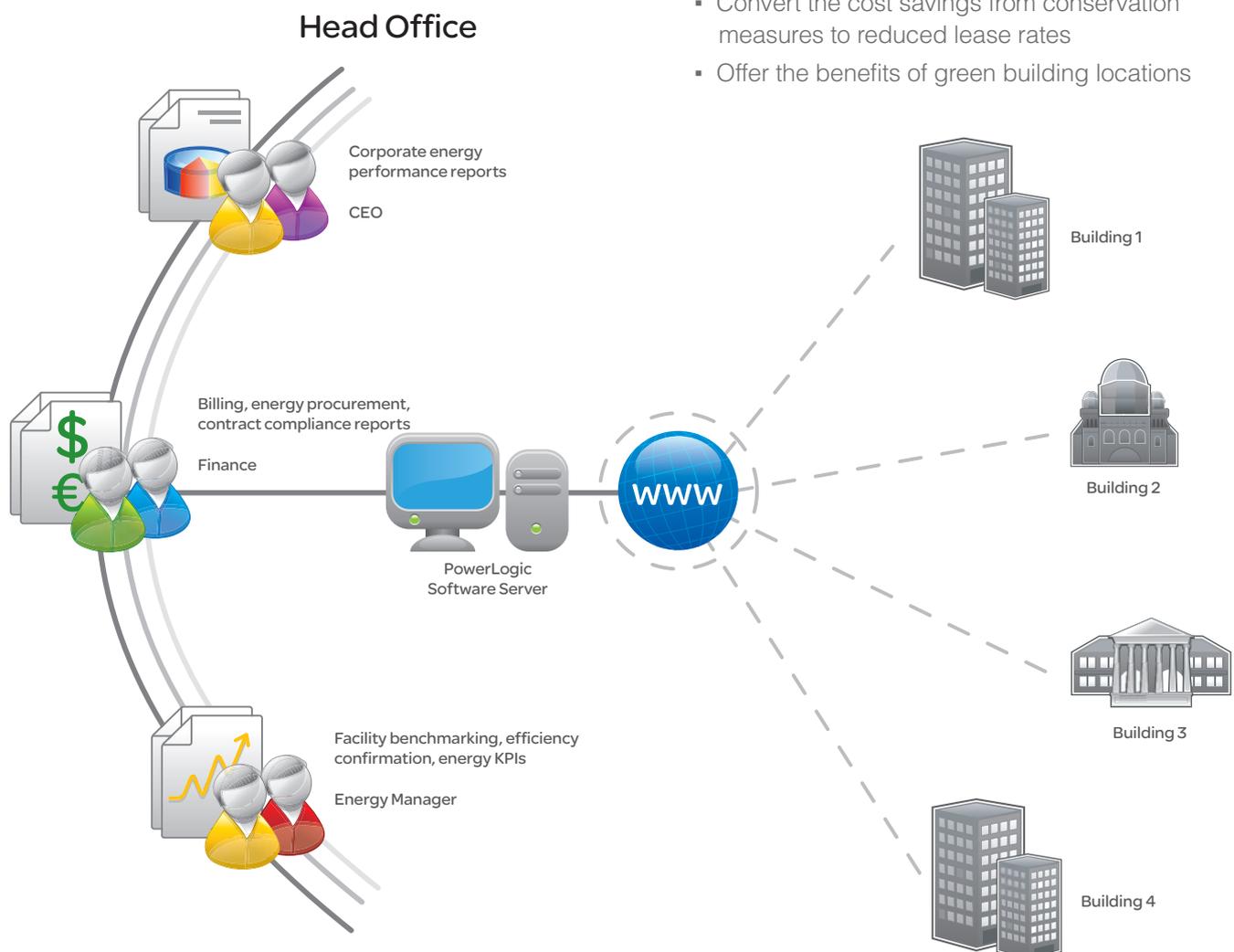
- Integrate all utilities (water, air, gas, electricity and steam)
- Identify and bill for common area consumption
- Separate utilities from lease rates
- Validate energy contract terms and conditions
- Provide occupants energy conservation tools

## Cost allocation

Use detailed energy usage information to reduce expenses, enable best practices and validate all your conservation initiatives. Cost allocation tools enable you to automatically collect, calculate and report costs for buildings, departments, processes, shifts, lines, or equipment. Use the knowledge to manage comfort vs. cost decisions and influence energy conserving behaviours in your organisation.

PowerLogic technology provides tools to:

- Measure energy intensity, per unit of value, occupant, square meter and more
- Remove electricity budgeting guesswork, lower administrative costs and reduce data input errors
- Determine the true impact of energy prices on all your business activities
- Predict, budget and manage facility energy expenses
- Encourage energy efficient behavior and measure the success of savings initiatives
- Convert the cost savings from conservation measures to reduced lease rates
- Offer the benefits of green building locations



Energy information is collected from key locations and distributed to the people who need it



## Energy efficiency and benchmarking

Industry-standard measurement and verification techniques assure your energy efficiency investments realise maximum payback for the long term. You can benchmark processes and locations against internal metrics or industry statistics in order to identify optimal improvement projects. Use key performance indicators (KPIs) to evaluate progress and identify sustainability enhancing adjustments.

A PowerLogic system can also ensure:

- Accurate before and after comparisons with multiple scenarios
- Energy efficiency initiatives that don't adversely effect people or productivity.
- Documented and verified financial benefits
- Performance-based energy service contract baselines are confirmed
- Carbon equivalents are tracked and reduction results confirmed
- Building energy performance metrics are optimised for weather inputs
- Validation of compliance with green building ratings standards such as LEED and Sustainable Building Alliance metrics

## Procurement optimisation

PowerLogic technology can help you make more informed energy procurement decisions. With a complete understanding of your energy profile, you'll be able to compare which purchasing options provide the most benefit. It can help you reduce long-term financial risks associated with price volatility, lower your costs through bulk energy purchasing and manage multiple energy supply agreements.

PowerLogic technology also enables you to:

- Identify discrepancies in your utility bill
- Consolidate cost information into easy to understand reports
- Participate in a spot energy market programs
- Track real-time Internet pricing feeds
- Automatically start generators or shed loads when cost thresholds are reached
- Integrate costs for fuel, environmental levies, maintenance and interconnection
- Monitor renewable energy sources such as wind generation and solar

## Power availability and reliability

Downtime costs money. Power sags/swells, transients and harmonics damage equipment and interrupt your business activities.

PowerLogic technology also enables you to:

- Identify the root cause of power quality issues
- Rapidly communicate critical conditions before they escalate
- Decide if harmonic filters are needed and size them appropriately
- Validate that power quality complies with the energy contract
- Verify the reliable operation of equipment
- Improve response to power quality-related problems
- Leverage existing infrastructure capacity and avoid over-building
- Support proactive maintenance to prolong asset life

## Distribution system optimisation

Minimise capital expenses associated with overstressing or under utilising your power distribution system. A PowerLogic system enables you to design a power system that meets but doesn't exceed the requirements of new facilities, expansions or retrofits.

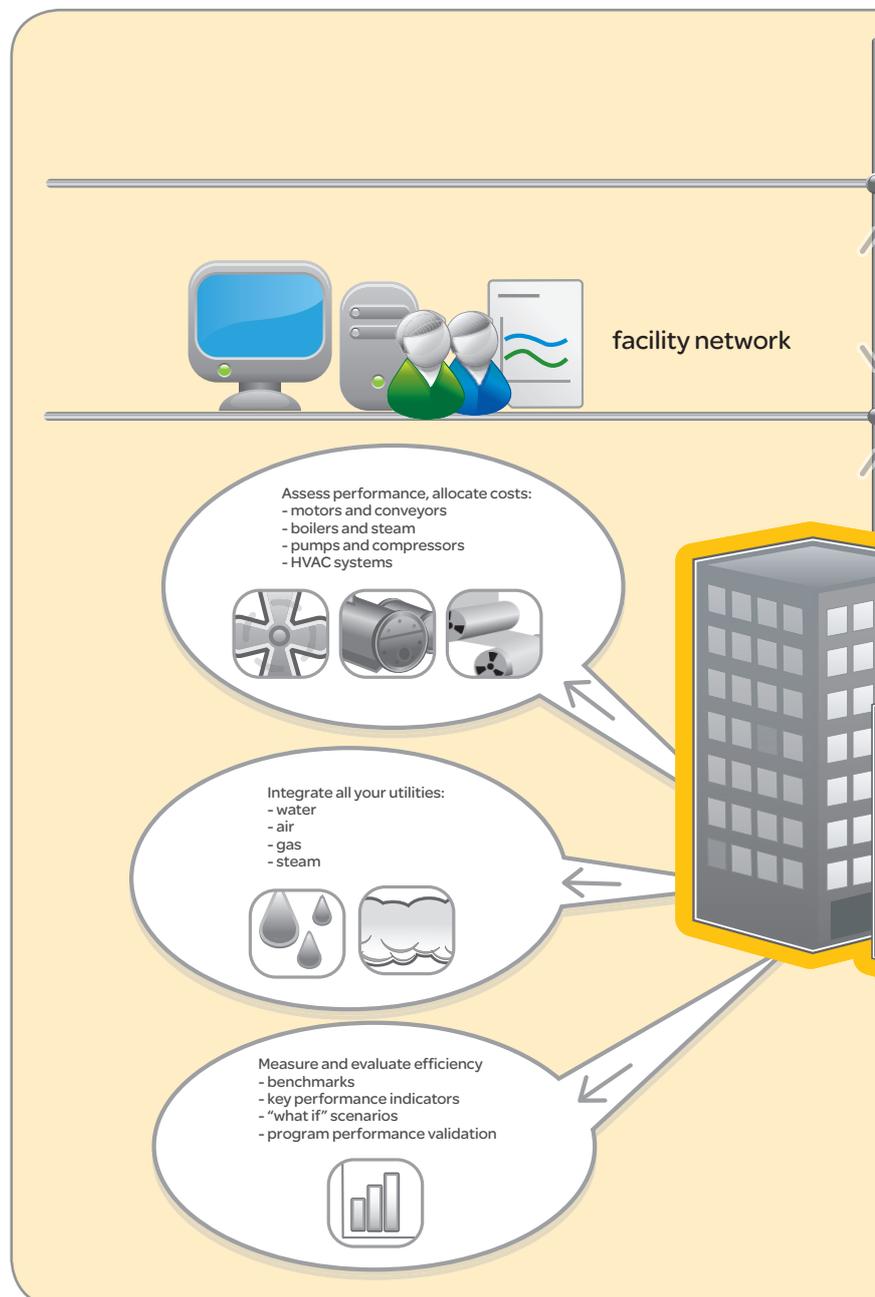
- Design power systems according to actual usage patterns and accurate forecasts, not guesswork
- Automatically generate load profiles to reveal historical and present load patterns and hidden capacity
- Determine if your existing infrastructure will accommodate new processes

## Demand response and load curtailment

Demand response programs enable you to negotiate lower rates by agreeing to reduce loads in response utility curtailment requests. A PowerLogic system provides the timely load profile, forecasting, and cost analysis information you need to participate. It will first help you decide when participation is economically advantageous and where and how much load you may be able to reduce for each curtailment request.

PowerLogic technology makes possible:

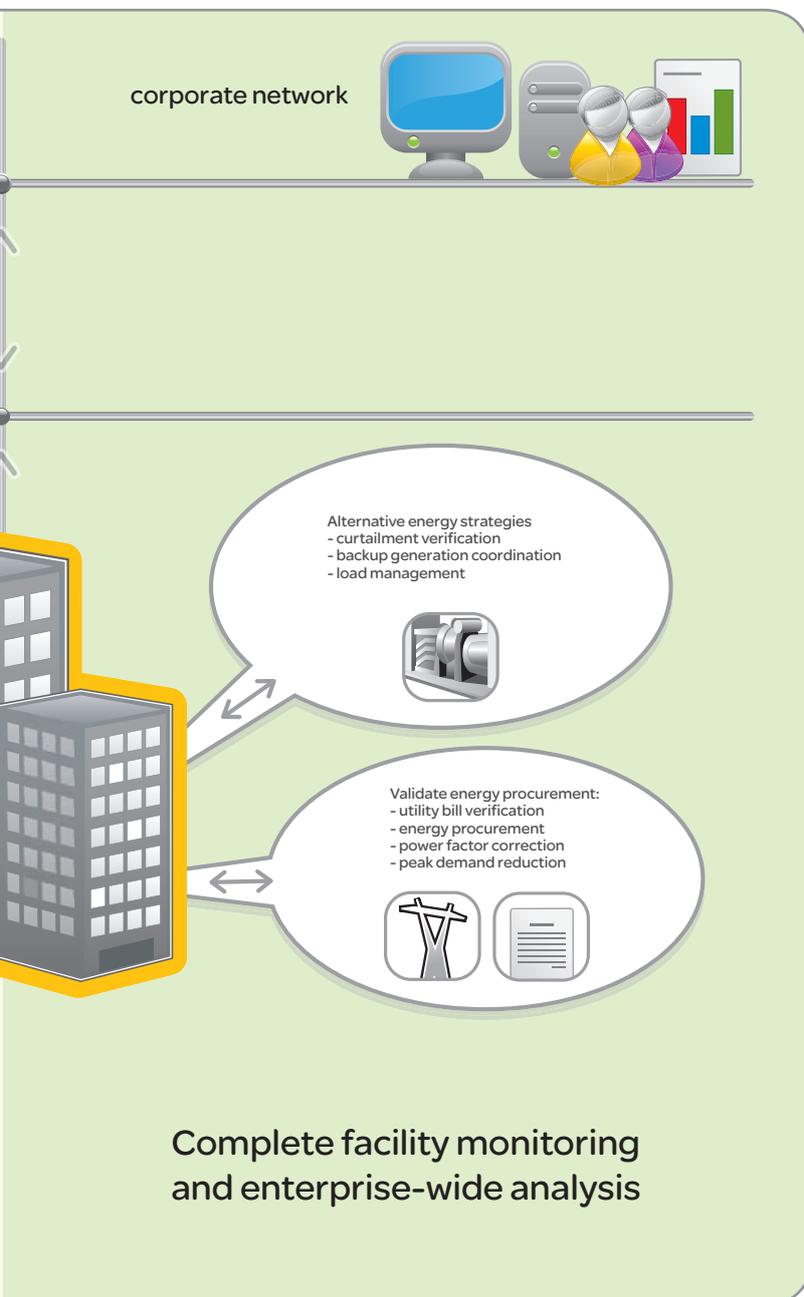
- Real-time verification of curtailment
- Coordination of backup systems
- Remote, automated and aggregated load management
- Contract verification to ensure compliance by all parties



## Peak demand reduction

Reducing peak demand is one of the easiest ways to quickly lower your electricity bill. PowerLogic technology helps you “smooth out” your demand profile and avoid peak demand surcharges through:

- Automatic forecasting of energy consumption and demand
- Alerts that warn you when demand thresholds risk being exceeded
- Isolating specific power-intensive activities that you may choose to reschedule to off-peak hours
- Automatic load shedding or on-site generation start-up
- Sequencing of motor and HVAC to start-up to reduce instantaneous demand



# Schneider Electric solutions

## Recommended products for energy efficiency and cost reduction

### Software:

PowerLogic PowerView™

PowerLogic ION™ EEM

PowerLogic ION Enterprise™

PowerLogic EnergyView Online™

### Power and energy meters:

PowerLogic ION8800

PowerLogic ION8600

PowerLogic ION7650 | ION7550

PowerLogic PM800 series

PowerLogic PM700 series

PowerLogic ION6200



## Complementary products

PowerLogic branch circuit power meters

Sepam™ protective relays

Masterpact™ and Compact™ breakers

Modicon™ programmable logic controllers

Altivar™ variable frequency drives

Tesys™ motor controllers

Accusine™ harmonic filters

Varplus<sup>2</sup>™ capacitors

Varpact™ power factor correction modules

PowerLogic technology is your key to achieving sustained results. PowerLogic products together with Schneider Electric services and expertise will help you align strategic decision making and energy management best practices for a lower total cost of ownership.

Please visit  
[www.powerlogic.com](http://www.powerlogic.com)

## The global specialist in intelligent energy management

Schneider Electric provides innovative, integrated solutions that make energy safer, more reliable and more efficient while making your operations more productive and sustainable.

From power distribution and building automation to expert services and support, our unique solutions are focused on energy efficiency, reliability and safety. We help you reduce costs and emissions, stay connected at all times, and tap into a clean, secure and uninterrupted power supply.

Let us help you discover new opportunities to make the most of your energy.

Visit [www.schneider-electric.com](http://www.schneider-electric.com)

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