

Power availability and reliability solutions for industry

PowerLogic™ application brochure

Schneider
Electric

Power should be safe, clean, available, and reliable. Always.

The challenge

Power availability and reliability are among the most critical issues affecting your company's profitability and competitiveness. Increasing demand for power means energy consumption can reach critical thresholds. Unplanned interruptions due to electrical system faults or power outages can result in heavy losses. The challenge is to ensure safe, clean, reliable power, and meet expanding demand without raising production costs.

The solution

Schneider Electric PowerLogic technology aids all phases of your operations. Our system can verify normal activities and provide information to help proactively assess and analyse your network to determine and implement improvements.

At times of event or crisis the system will instantly raise alarms, help maintain the safety of personnel and equipment, then offer possible solutions to avoid or fix abnormalities to minimise effects of the event.

PowerLogic is your first line of defence against potentially dangerous and costly power fluctuations.

PowerLogic technology can help even the best run enterprise to keep people and equipment safe, improve availability and reliability, increase energy efficiency, reduce costs and boost overall productivity.

PowerLogic can provide the ideal solution for industrial energy users, including:

Petro-chemical

Manufacturing

Mining

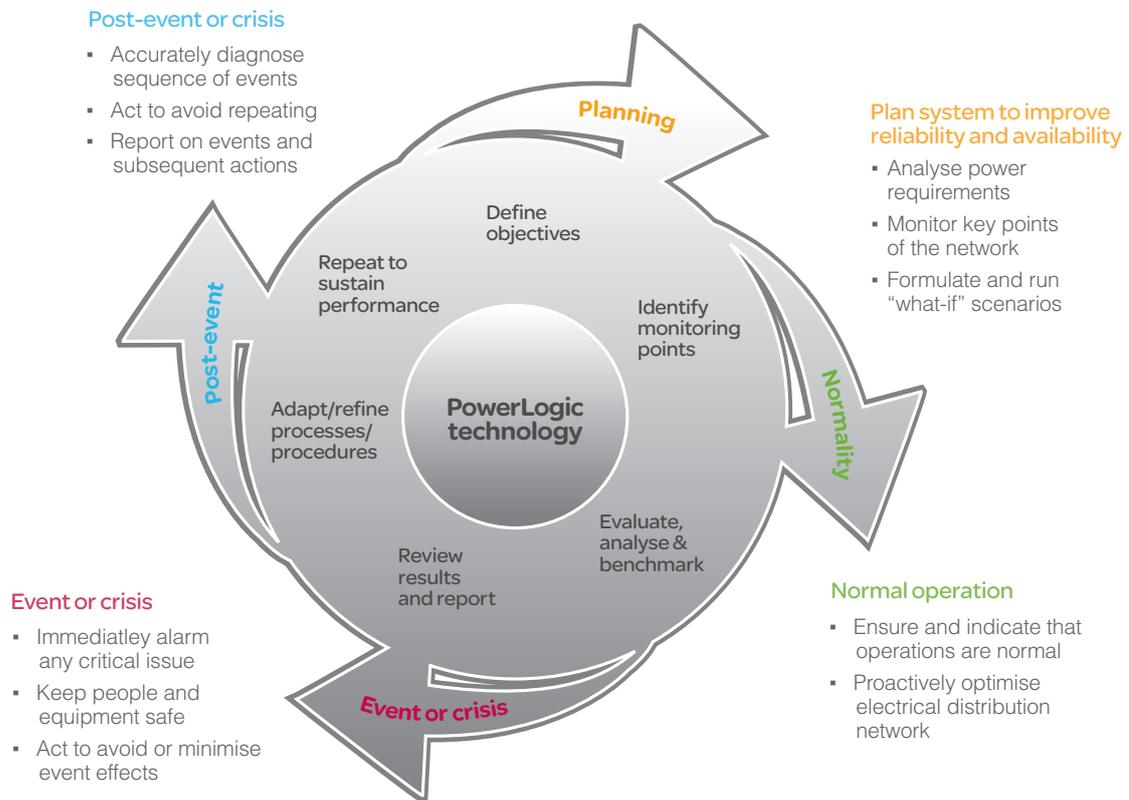
Forest products

Bottling/packaging

Pharmaceutical

Refining

Brewing/distilling



Advanced software, intelligent metering, integrated solutions

The right products for the job

A PowerLogic solution can monitor and control an industrial plant or facility, a nationwide business or a global enterprise through networked intelligent energy meters and relays linked to PowerLogic software. Hardware can be selected to match to the exact requirements of the location being monitored.

Flexible communications connect to software that retrieves, aggregates, and processes meter, relay, and circuit breaker data, records it and notifies operations staff of alarm conditions. Integrate data from existing building and process management systems so you can incorporate energy reliability initiatives, such as power quality monitoring and network asset management.

Remove guesswork and discover which initiatives offer the highest potential of improving energy reliability. Optimise your infrastructure and make the most efficient use of your power distribution system to meet production goals.



Why PowerLogic technology?

Our solutions help you exceed traditional energy management to unite your entire enterprise.

With the world's largest, most advanced range of software, meters, breakers and relays, PowerLogic systems work together to help reveal risks to reliability and new opportunities to reduce energy costs.



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

Start up

During equipment commissioning, the PowerLogic system can compare load characteristics at each level to confirm that connections are correct and new equipment is operating properly. Events during start up are detected quickly. Advanced visualization and reporting tools make the process easy, even for a minimal crew of operations staff. This will:

- Reduce effort and labour costs
- Verify system installation is in accordance with intended design

Normal operation

During normal operations, PowerLogic technology provides real-time status of your electrical distribution network. Knowing everything is OK lets you focus on proactive system management.

Optimise equipment use

Energy assets throughout all facilities must be properly maintained to assure that equipment operates reliably, cost-effectively, and efficiently in terms of energy consumption, to guarantee maximum uptime and productivity.

Real-time and historical data audits reveal relationships between equipment and the conditions affecting system stability.

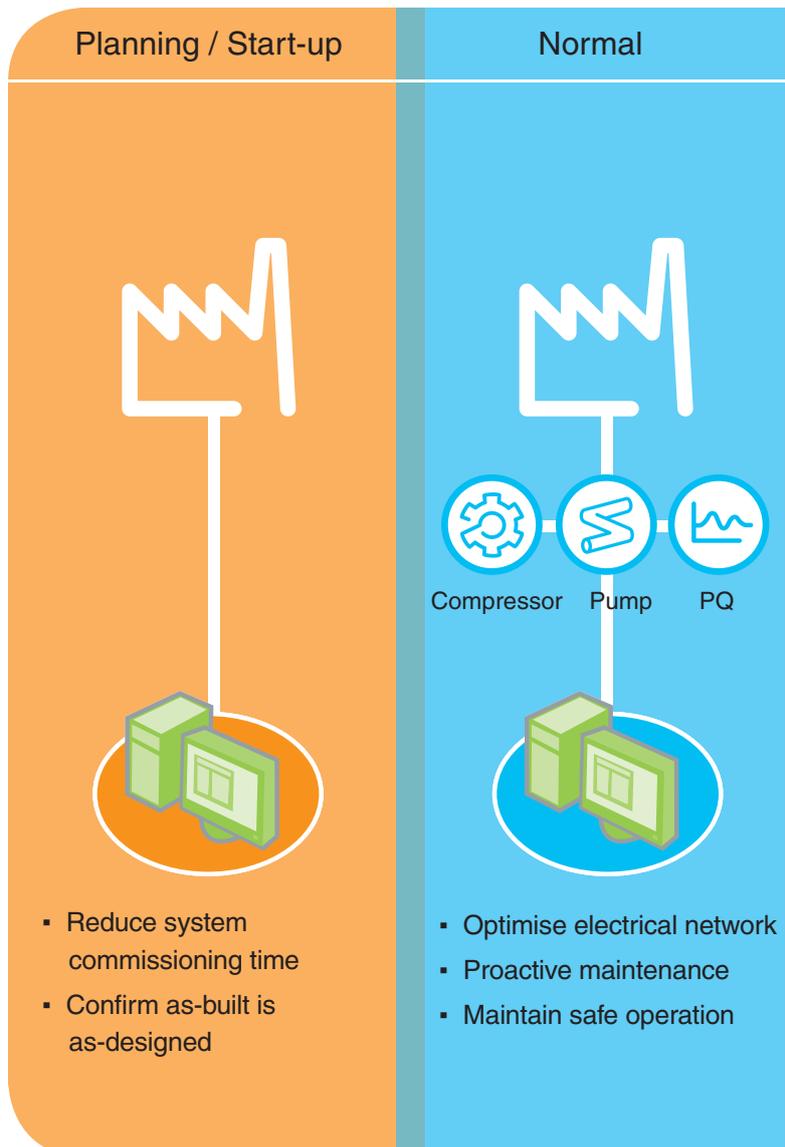
- Optimise timing and frequency of preventive, proactive maintenance
- Automatically track relay or breaker trips
- Alarm on transformer temperatures, motor performance parameters and other wear indicators
- Justify replacement of more energy efficient equipment
- Differentiate between mechanical and electrical power problems
- Justify investment in equipment to improve power quality
- Allow customised, predictive alarming on motor start up, circuit loading, etc.

Optimise power distribution

Minimise the costs of overstressing or under utilising power distribution. PowerLogic technology strengthens your infrastructure by helping you design right-sized power systems for new facilities, expansions or retrofits.

PowerLogic will also help you optimise your distribution configuration.

- Design to fit actual usage patterns, not guesswork
- Reveal historical and present load patterns and hidden capacity
- Determine if existing infrastructure will accommodate new equipment



Evaluate and mitigate risks to network

PowerLogic technology helps evaluate and mitigate risks throughout the power distribution network. You can analyse your network to optimise clean power and ensure that backup systems are ready, should the need for them arise.

- Exercise, validate, and document correct usage of backup power systems
- Determine if, where, and what type of harmonic filters and power factor correction devices are required to maintain desired power quality levels

>40%
percentage of the world's
electrical energy used by
industrial consumers

Power quality analysis & compliance

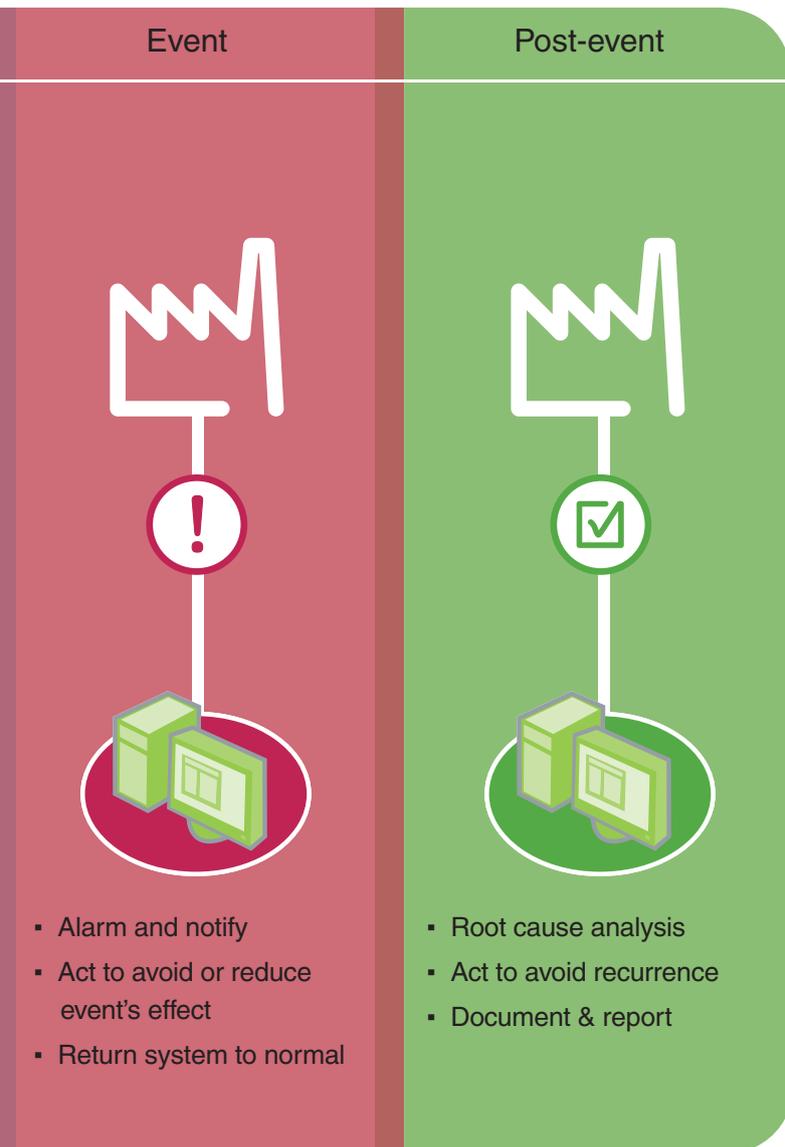
Verify utility-specified power quality and availability

Many energy suppliers are incorporating power quality clauses into their contracts, sometimes based on industry-standard metrics.

If you have critical power requirements, your contract may guarantee a minimum level of power quality and availability, and will likely specify compensation for non-compliance.

PowerLogic technology can help assure you receive the level of power quality and availability specified in your contract. The system:

- Determines the true impact of power quality and availability on your operations
- Monitors and analyses all aspects of power quality, including harmonics, disturbances and other important characteristics
- Presents results as power quality compliance reports consistent with international standards such as EN50160
- Features simple pass/fail indicators on each important metric
- Uses measurement methods certified to IEC61000-4-30 Class A measurement standards, ensuring highest reporting accuracy and reliability
- Indicates whether an electrical disturbance originated inside or outside your facility





Post-event

After an event has occurred and actions have stabilised the network, or returned conditions to normal, the PowerLogic system has a range of powerful tools to support post-event activities, such as:

- Detailed root cause analysis to track the propagation of disturbances
- Event analysis to determine best solution to avoid reoccurrence
- Document systems changes and provide reports

Business advantages

Reduce

- Energy costs
- Downtime and stoppages
- Critical event response time
- Return on investment time

Improve

- Energy efficiency
- Network reliability
- Energy information reporting

Increase

- Productivity
- Profits

Schneider Electric solutions

Recommended products for power availability and reliability

Software:

PowerLogic ION™ EEM
PowerLogic ION Enterprise™
PowerLogic SCADA

Power and energy meters:

PowerLogic ION7650
PowerLogic ION7550
PowerLogic PM800 series

Complementary products

PowerLogic branch circuit power meters
Sepam™ protective relays
Masterpact™ and Compact™ breakers
Modicon™ programmable logic controllers
Altivar™ variable frequency drives
Tesy™ motor controllers
Accusine™ harmonic filters
Varplus²™ 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

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 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

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