

# Take backup power system reliability to the next level

Square D PowerLogic Emergency Power Supply System Test Solution

Automated testing, monitoring, and reporting



**SQUARE D**™

by Schneider Electric



You need to maximize power availability, streamline backup system testing, enhance organizational efficiency, and verify regulatory compliance.

The Emergency Power Supply System (EPSS) Test Solution from Schneider Electric is a revolutionary automated analysis and reporting tool with unique capabilities and advantages.

## Allows more reliability that your back up power system will perform in an emergency

Innovative engineering and advanced design bring a new level of speed, accuracy, and performance to backup power system testing

# Efficient, accurate, and reliable testing

The well-being of your patients and your facility's EPSS go hand-in-hand. Ensuring your EPSS is always ready to perform and is compliant with all maintenance and testing regulations demands rigorous analysis, meticulous reporting, and complete power system information. The Square D™ PowerLogic™ EPSS Test Solution from Schneider Electric is an automated analysis and reporting tool that transforms how backup power systems are evaluated and reported. It significantly increases the speed and accuracy of EPSS testing and provides comprehensive reports to validate the results, all while ensuring a minimum level of disruption to staff and patients.



Our solutions stand apart because we combine transfer switch, generator and utility power in one solution, quantifying the (amount and quality) of electrical power for all of the areas.

## Key benefits

### Dependable backup power

- > Boosts EPSS reliability by exercising generators at manufacturer's ratings for load or exhaust gas temperature (EGT) or both
- > Validates the responsiveness of automatic transfer switches (ATS) or transfer schemes
- > Raises mean time between failures (MTBF) rate and spot faults before real-world outages occur
- > Reduces the effect of human error throughout the EPSS test process
- > Supports load bank testing

### Superior staff efficiency

- > Eliminate inefficient manual testing
- > Automatically measure and monitor your EPSS 24/7
- > Reduce labor-intensive data gathering, formatting, and reporting, all customized to the needs of individual stakeholders

### Traceability and accountability

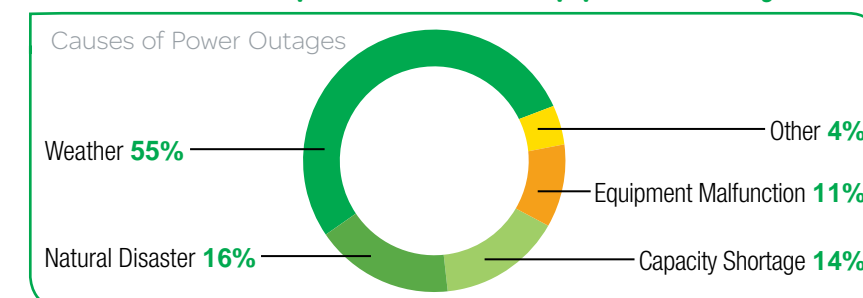
- > Collect data during real outages; use as test data when it meets testing criteria
- > Precisely tailor the content of reports to match regulatory and management requirements
- > Eliminate information gaps by collecting key outage data in a central location for analysis
- > Validate conclusions and verify analysis
- > Reduce your organization's risk with EPSS testing reports

### Improved energy efficiency

- > Evaluate load shedding, peak shaving, and/or demand response with detailed electrical distribution system information



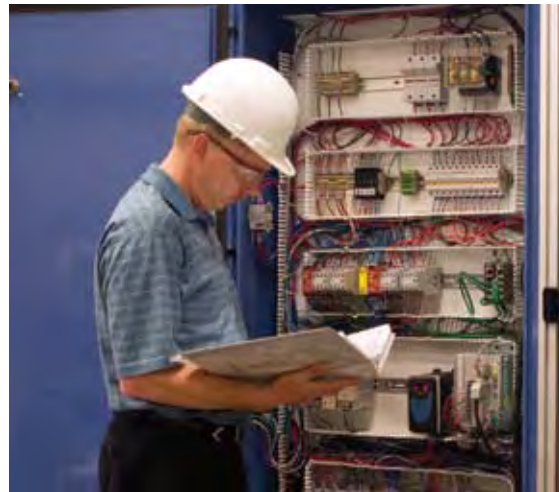
## Power interruptions can happen at any time



# Reduce risk, eliminate inefficiency, and make manual testing obsolete

Comprehensive manual testing of the power supply system status is extremely difficult to coordinate and even more challenging to validate. Monitoring load levels, recording the precise timing of transfer switches, and measuring actual generator operating temperatures can tax even the most skilled expert. Inadequate manual testing routines are a primary cause of backup power system malfunction. Exercising a generator below recommended loading can reduce its reliability and result in 'wet stacking,' the buildup of unburned fuel and/or carbon in the exhaust system. Left undetected, this could affect generator dependability and render your EPSS useless when you need it most.

Deploying the Square D PowerLogic EPSS Test Solution from Schneider Electric reduces these risks, cuts the adverse effects of system testing on key stakeholders, and enhances system reliability.



**Facility managers** gain peace of mind knowing their EPSS testing process is reliable, accurate, and is backed by a local sales and installation support organization that is second to none.

**Doctors and nurses** can focus on patient care, rather than mitigating the disruption manual testing can cause to surgical schedules and critical medical equipment.

**Hospital administrators and managers** are able to reap the benefits of enhanced accountability, traceability, and return on their investment.



"Accurate power system information gives me the edge I need to make sure our power systems perform in any and all circumstances."



Two to three percent of preventable adverse patient events are related to electrical system faults.

# Comprehensive, scalable, and customizable to your needs

## Test, evaluate, document, and report system status



A six-hour power failure can cost a 200-bed hospital \$1M or €800 000.

The Square D PowerLogic EPSS Test Solution from Schneider Electric offers features that enable critical facilities to save more time, realize greater operational and personnel efficiencies, and get more from their entire power system.

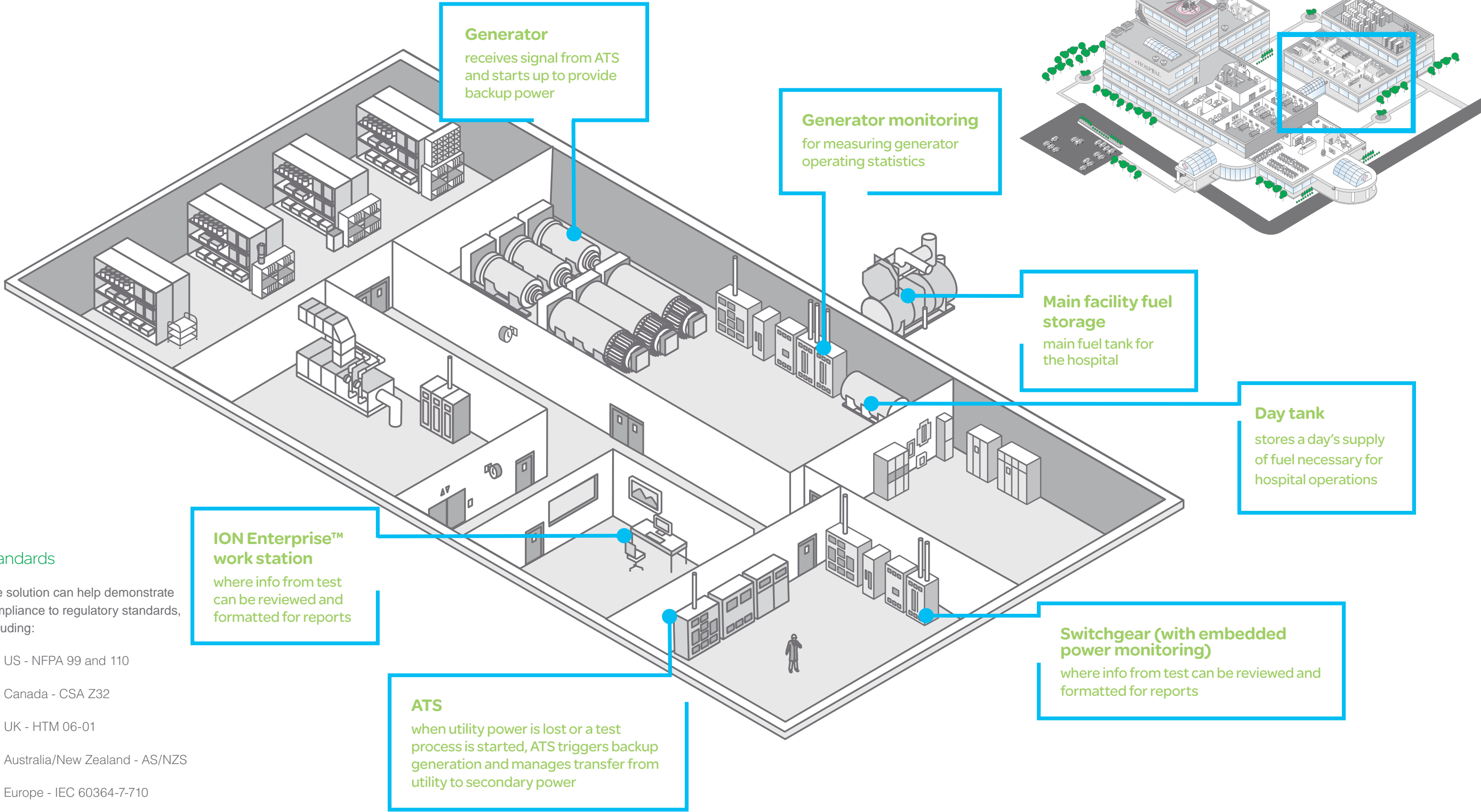
Comprising hardware and software elements, the solution monitors and controls your EPSS testing through metering and I/O devices. It allows you to monitor not just the ATSS and generator, but your entire electrical distribution system, from the utility service entrance through to final distribution. It records engine start times and parameters, plus electrical parameters from generators and transfer times from ATSS. After testing, it reports all necessary results in both tabular and graphical format. It can also document waveforms from critical equipment and generate detailed reports that can be e-mailed to anyone requiring vital system information.



## Report highlights

- > Generator loading pass/fail indication
- > Minute-by-minute generator run table and trend plot
- > Minimum, maximum, and average voltage and current readings during test period
- > Generator runtime information — engine hours, cooldown, etc.
- > Engine data — automatic collection of EGT, oil pressure, water temperature, DC amps, and DC volts
- > Ability to run reports for real outages as well as test scenarios
- > Event log showing date/time stamping of ATS and generator status
- > Configurable pass/fail option to indicate if emergency power transfer occurred within configurable priority levels and associate transfer times

# The Square D PowerLogic EPSS Test Solution from Schneider Electric merges seamlessly with your hospital's backup power system



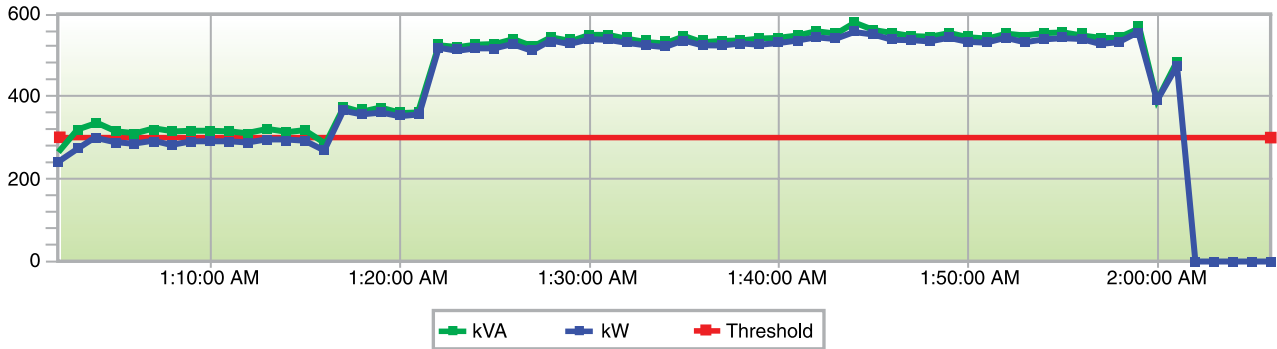
**Standards**

The solution can help demonstrate compliance to regulatory standards, including:

- > US - NFPA 99 and 110
- > Canada - CSA Z32
- > UK - HTM 06-01
- > Australia/New Zealand - AS/NZS
- > Europe - IEC 60364-7-710

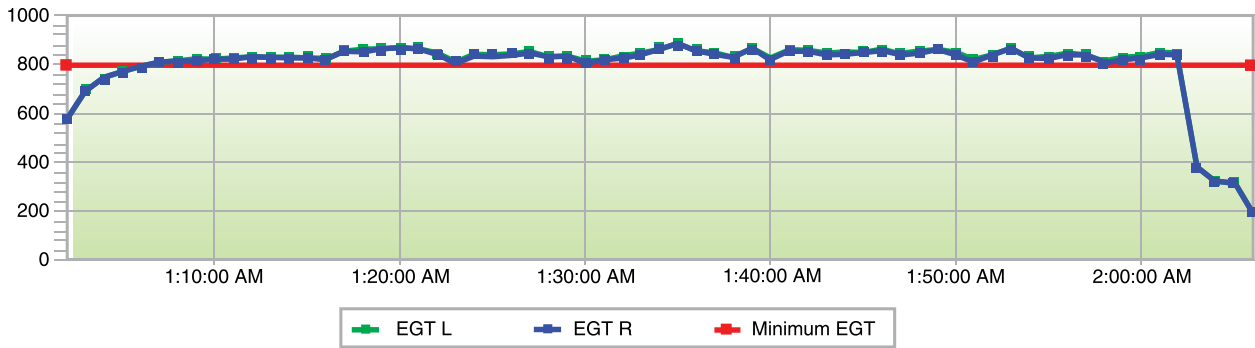
## Generator load summary – example report

Longest Continuous Load	Nameplate %	Threshold	Actual Run Duration	Required Run Duration	Test Status
5/3/2010 1:17:00 AM - 5/3/2010 2:01:00 AM	30%	300 kW	44.0 min	30 min	PASS



## Generator exhaust gas summary – example report

Longest Continuous EGT	Minimum EGT	Actual Run Duration
5/3/2010 1:07:00 AM - 5/3/2010 2:02:00 AM	477 F	55.0 min



## Minimum, maximum, average readings for the longest continuous EGT – example report

Measurement	Min	Avg	Max	Units
EGT left	1491.85	1551.88	1631.84	F
EGT right	1477.4	1536.84	1616	F

Schneider Electric USA  
 295 Tech Park Dr.  
 LaVergne, TN 37086  
 615-287-3500  
[www.PowerLogic.com](http://www.PowerLogic.com)