Case Study - Woolworths

Technology breakthrough cuts electricity bills and improves power management at Woolworths

Challenge

- Reduce operating costs through more efficient power consumption throughout Woolworths' extensive network of High Street stores.

Solution

- Installation of innovative voltage-optimisation ***PowerPerfector*** technology units to achieve measurable energy savings.

Benefits

- Decreased electricity bills, and protect against voltage transients (spikes) that can damage computers and other sensitive equipment.
- Reduced carbon emissions, lessening the environmental impact.
- Better power quality management.

WOOLWORTHS GROUP PLC

Woolworths Group plc is one of the UK's best known retailers, focused on the home, family and entertainment markets. It has more than 800 stores in High Streets across the country, offering a wide range of value-for-money goods.

Like all successful organisations, Woolworths continually looks for ways to operate its business more cost-effectively, including opportunities to reduce the overhead costs of its High Street outlets.

The company also seeks to ensure its facilities meet environmentally-friendly standards, and has appointed a board director to oversee its environmental policies.

Head office pilot

"Electricity costs make up a large element of our overheads", said David Gray, property manager at Woolworths Group. *"So when we heard about a breakthrough technology being marketed in the UK we were keen to find out how it could work for us."*

The company decided to use its flagship head office location on London's Marylebone Road as a pilot scheme to test the new product.

With 100,000 sq ft over seven floors, 800 employees all with PCs, 14 servers - two on each floor – four lifts, a full air conditioning plant and associated chillers, Woolworth's head office is a big user of energy. It also has closed circuit TV, multiple lighting systems, including high frequency, and Uninterruptible Power Supply (UPS) systems to provide electricity in case of a power cut.

After a site evaluation to establish the base power needs and consumption, four ***powerPerfector*** units were installed that 'tapped down' the voltage by 7% and a period of testing commenced. Woolworths reported that comparisons revealed energy consumption was reduced by around 14%.

Improved power quality

Once installed, the ***powerPerfector*** optimises the line voltages to an efficient level, balances the three phases, suppresses damaging harmonics and eliminates transients; so improving power quality in Woolworths' head office.

Woolworths has reported 14% less power is consumed and energy costs are reduced by a corresponding amount, yet all the equipment and facilities operate as normal. Since all equipment operates at a lower voltage (and therefore under slightly less duress), maintenance costs on motors, lighting and other electrical equipment will be reduced and the life expectancy increased, cutting capital replacement costs.

One person who is delighted with the change is the location's building supervisor. For the past ten years, he has had to be the first man into the premises on a Monday morning to reset breakers due to transients (high voltage electrical spikes) which occurred overnight or at weekends. *"After the **powerPerfector** units were installed, instances of this problem due to power spikes totally disappeared, and I have more time available to do the other important maintenance jobs in the building"* said Bill Hopkins. Now, the supervisor knows that if a breaker trips, he has a more significant downstream problem.

Having completed the pilot phase, Woolworths now intends to install ***powerPerfector*** units in a number of its High Street branches.