

powerPerfector is an ethical company with a unique technology that delivers the biggest energy saving on the market from a single installation, cutting on average 13% from energy bills and CO₂ emissions. The appeal of this unrivalled technology lies in its ability to influence your company's bottom line and your commitment to carbon reduction in equal measure.

What powerPerfector does at a glance

- Reduce kWh use by up to 22%
- Reduce electricity costs by up to 22%
- Reduce carbon emissions by up to 22%
- Reduce reactive power by up to 45%
- Protect electrical equipment from power spikes up to 25kV
- Reduce maintenance costs
- Substantially improve power quality and power factor
- Suppress the harmful harmonics that damage sensitive equipment
- Give a 10 year guarantee and a 30-50 year life cycle
- 24/7 operation and NO maintenance

Call **0845 601 4723** or visit www.powerperfector.com

Ethics in practice. The powerPerfector Guarantee

We are an ethical company and transparency is our natural way of doing business – we guarantee our customers' cost savings will achieve a minimum of 80% of the predicted Return on Investment (ROI) percentage as quoted to them on the final cost/value page for a single installation, or the average of multiple installations. In the unlikely event that it is below 80% we will refund such monies as necessary to restore the ROI to that level, or alternatively un-install the technology and refund all money spent.

See who else has been powerPerfected

There are over 60 case studies on our website covering businesses and organisations big and small, global and local. Visit www.powerperfector.com

The Voltage Optimisation™ agenda:

Case study

Good News Press, Essex
Installation: 8 September 2007

'Good News Press are determined to run a sustainable printing business. powerPerfector made a significant contribution to our environmental goals by reducing our annual energy consumption by over 18%.'



Will Greenhill
The Good News Press Limited

90% of British businesses – including printers – pay for more electricity than they actually need because of a little-known fact: the power they receive off the grid is usually at too high a voltage. Everything still works of course, but inefficiently.

Good News Press – powerPerfected

The Good News Press is a high quality digital printing company based in Essex. They run some unique machinery and are well established in the industry.

The challenge, the solution and the savings. A snapshot

Historically, printing has been one of the least environmentally friendly businesses. But Good News Press is an environmentally minded company. They offset all the carbon they are responsible for through Carbon Care and subscribe to ISO14001, FSC and PEFC. They saw the fitting of a powerPerfector unit as a further commitment to the environment and their sustainability as a responsible business. The office electrical load included lighting circuits, heating and ventilation systems and switch mode power supply devices. The press itself operates a number of induction motors. A 150KVA/220A unit was installed in 2007 with a –9% optimisation setting. See figures 1 and 2 for a before and after comparison.

Topline results, technically speaking

The enlightened attitude of Good News Press hasn't just benefitted the environment. Savings relative to previous years have exceeded

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Kavita Bhatt
powerPerfector Energy Consultant

predictions. On top of this, the site's equipment is running more efficiently as a result of improved phase balancing, reduced harmonics and optimised voltage. Equipment lifecycles will be extended too, giving valuable savings in the future. To install the powerPerfector unit, a scheduled shutdown of the site was required, with the work carried out over a weekend. Following installation, all electrical equipment has operated normally and there have been no reports of any problems. The powerPerfector requires no maintenance.

Voltage Optimisation™. The less obvious benefits

Reduced maintenance, longer life

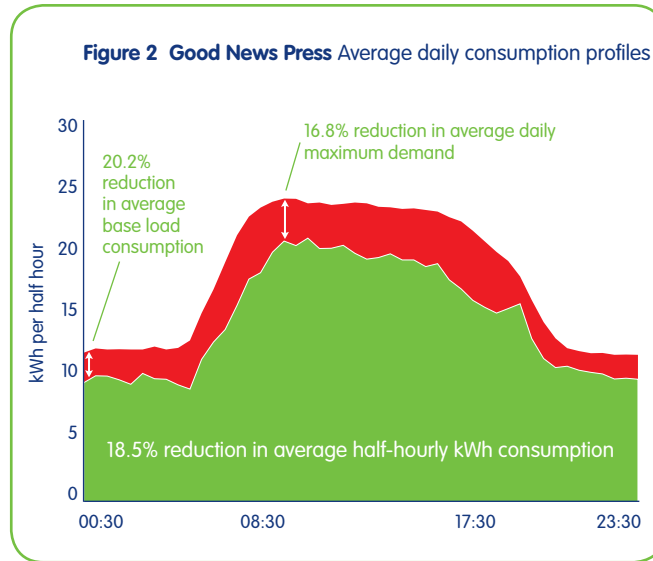
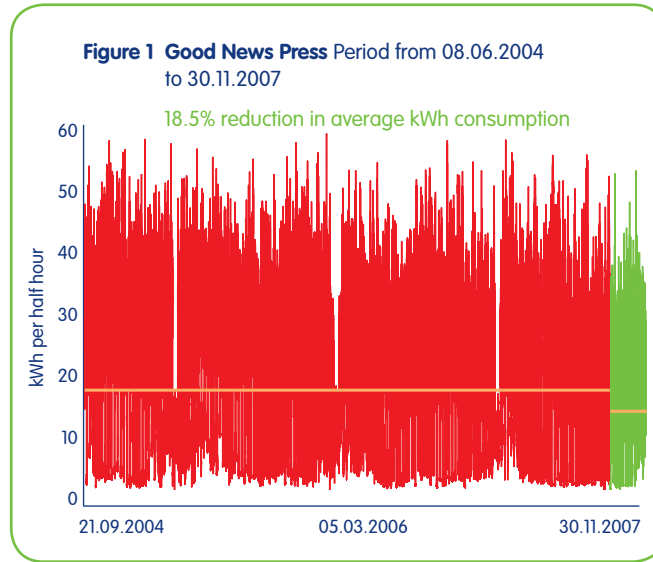
All electrical equipment has an optimum voltage at which it works best. A powerPerfected supply delivers that optimum and reduces the strain on your electrical equipment, leaving it to work more reliably and for longer.

Better quality power supply

Some things you may have accepted for years as product faults can turn out to be caused by a poor quality power supply. For instance, the life of incandescent light bulbs is almost doubled when the supply voltage is optimised. Now imagine that in relation to an IT network or an expensive piece of manufacturing equipment.

Missing the penalty kick

Power factor penalty charges – which are now uncapped in the UK – can be avoided if your power factor is above 0.95. If your power factor is at around 0.9 at the moment, powerPerfector could remove your exposure to these charges by improving the electrical efficiency of your site.



■ Average day before installation ■ Average day after installation

Benefits

Reduction in daily average consumption 18.5%

Annual energy savings £5,439

Projected annual carbon savings 7,862 kg

Immediate consumption reduction 15.1%

Effective base load reduction 20.2%

Reduction in daily average maximum demand 16.8%

Lower harmonic distortion and reduced neutral currents

powerPerfectors are able to filter harmonics on the mains incomer. Harmonic distortion is on the increase and can lead to random failures of electronic equipment – particularly computers.

Protection

Transients – very brief spikes in voltage from the grid – of up to 25,000V are eliminated by powerPerfector. Transients at this level can cause catastrophic damage to equipment, but smaller, more common transient events will also shorten the life expectancy of electrical equipment over time.