

Uplifting energy savings at Howard Centre

Why it is interesting: One of the main areas of debate regarding Voltage Optimisation is about old equipment. While all CE rated equipment must work at reduced voltages, we find that some engineers remain concerned that voltage optimisation will have an impact on onsite operations. The Howard Centre is an example of how **powerPerfect** works with clients and contractors to ensure a smooth installation.

The Howard Centre, Welwyn Garden City

Annual Savings

kWh:	12%
CO ₂ kg:	99,900
£:	13,090

Don't take our word for it...

*"I was very impressed with the approach that **powerPerfect** took to resolve our concerns. Their team went above and beyond to ensure that when we reopened following the installation, all of our kit was functioning correctly."*

Peter Brooks, Centre Manager



Further information

For information on this, or any of our case studies, please contact:

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The Howard Centre in Welwyn Garden City has been pro-actively reducing its environmental impact since 2007.

It can be a challenge to find projects which don't have an impact during opening hours or, in the

Howard Centre's case, projects which will not impact the retail tenants.

The Centre welcomes around 8 million visitors every year. So, when it was considering VPO[®], of particular concern were the 11 lifts used daily to move people and goods throughout the Centre, which covers two retail floors and a seven storey car park.

powerPerfect arranged an independent report prior to installation which helped to reassure the client that VPO[®] would be compatible with the centre's plant. The Howard Centre agreed for the results to be made public.

Statutory Voltages

powerPerfect deals with the discrepancy between the actual supply voltage you receive (on average 242V) and the optimum voltage your electrical equipment needs (220V).

Whilst most equipment is ideally suited to operating efficiently at a reduced voltage, other equipment is less suited to operating at lower voltages. Older equipment (pre 1980's) and equipment from outside the EU may have been designed to work at the higher voltage level and there is a common assumption that changing the voltage will cause these types of equipment to fail.

powerPerfect's voltage optimiser units simply lower the voltage supplied to a site to around 220V. This is well within the range which can be supplied by the network operators and the range in which CE stamped equipment must operate.



In July 2011, Dunbar & Boardman was asked to visually inspect the Kone Plc lifts and ThyssenKrupp escalators, installed in 1990, to verify their compatibility with any voltage optimisation equipment installed at the centre.

Recommended approach



Following the inspection, Dunbar & Boardman issued a report containing several recommendations.

With regard to each lift and escalator, the report stated that: *“The likelihood is*

that these will function satisfactorily under voltage optimisation.”

It went on: *“The Centre may wish to consider the agreement of a programme of equipment pre-adjustments with its lift and escalator maintenance contractors, in order to alleviate any issues that may arise. The cost of such a programme should be relatively small and should, in the main, involve relatively simple adjustments to control equipment.”*

Such an approach is very much standard practice for every **powerPerfector** installation. A benefit of working with **powerPerfector** is the wide ranging experience of our engineering department. With more installations in the UK than any other voltage optimisation supplier, we have encountered almost every possible type of equipment.

The report concluded: *“In relation to the equipment design, our conclusion is that the majority of the equipment installed in the Centre is rated to operate on the original UK supply voltage of 415 V +/-6%.*

“However, the likelihood is that the equipment may be adjusted to accommodate voltage optimisation, although a conservative approach is recommended in relation to the level of optimisation.”

By working with our clients throughout the installation process, by identifying and rectifying potential issues up front and by providing an in depth engineering response to questions

and concerns, we are able to ensure smooth installations and seamless integration of our voltage optimisation technology.

Smooth transition to savings

Shopping centres are large energy consumers and are good candidates for VPO® because of a high proportion of air conditioning and lighting loads.

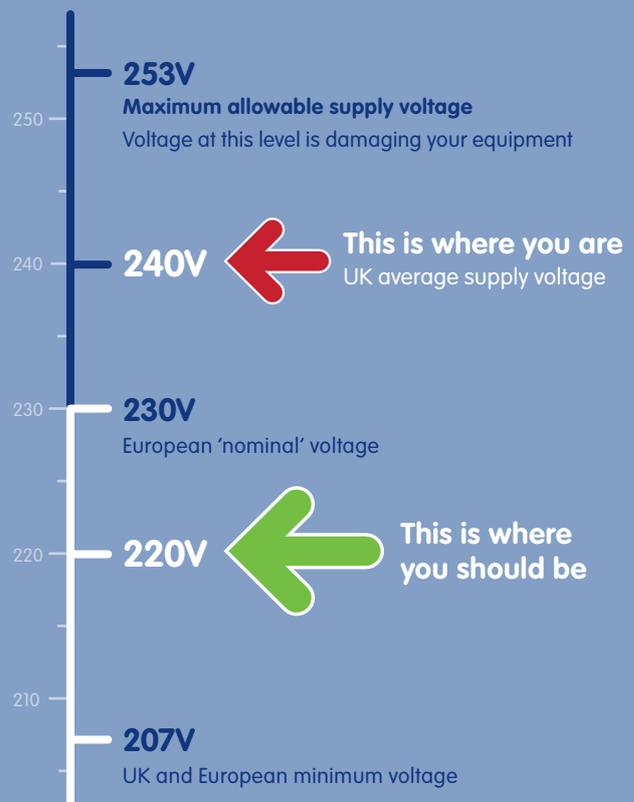
What is more, in a shopping centre, these loads are invariably operated for longer than standard office hours, which means heavier than average electrical use.

These two factors lead to good savings and an improved Return on Investment when installing **powerPerfector's VPO®**.

With an energy saving of 12 per cent, the Howard Centre is seeing a healthy reduction in energy costs and its carbon emissions.

Peter Brooks, Centre Manager, said: *“Not only are we seeing great savings, but all of our lifts and escalators continue to function without incident.”*

UK and European voltages



There are a range of case studies and client testimonials available on our website, please visit www.powerperfactor.com for further information.