

# Case Study: UNIVERSITY OF SURREY



# A UNIQUE VOLTAGE OPTIMISATION SYSTEM



T: +44 (0)1709 836200 E: powerstar@ems-uk.org F: +44 (0)1709 821276 www.powerstar.co.uk | www.ems-uk.org EMSc (UK) Limited 7 Genesis Park Sheffield Road Rotherham, S60 1DX

Powerstar is an approved energy savings system. This product may qualify for an interest-free Energy Efficiency Loan from the Carbon Trust. Powerstar® is a registered Trademark by EMSc (UK) Limited.

Registered with the DTI MAS as a Centre of Expertise in Manufacturing.

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### **INTRODUCTION**

The University of Surrey has held sustainability at the heart of its CSR agenda for over a decade. The campus is home to 17,900 students and 2,597 staff and views investing in sustainable technology as a critical component to reduce its impact on the environment.

#### **THE CUSTOMER**

The University first opened its doors to students in 1894. With a main aim to educate knowledge thirsty men and women whom have a drive to succeed, the University has continued to keep innovation high up on the agenda throughout their establishment.

# THE CHALLENGE

As an education establishment whom specialises in energy economics research, the University are familiar with the effect that energy misuse has on the environment. They are also particularly knowledgeable of the different energy saving technologies on the market. The Powerstar team were therefore under pressure to prove how voltage optimisation was the most suited energy reducing technology suitable for their site, taking both energy reduction and ROI into consideration.

















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## THE SOLUTION

As a company who prides themselves on engineering solutions, Powerstar carried out a full site survey to determine the University's expected energy savings. The free of charge survey holds no contractual agenda and the purchase of a voltage optimisation unit post site survey is entirely dependent upon the institution's decision. The full site survey outlined the expected savings results on the exact equipment that would benefit within the University. The site survey results left the University rather impressed and they decided that Powerstar was the ideal solution for their site.

# THE BUSINESS BENEFITS

Upon installation Powerstar guaranteed the University of Surrey 8.1% savings of annual energy consumption, equating to 189,474kWh savings per year. Financially, the University of Surrey will benefit from £13,911 savings on annual electricity bills and a payback of just over 3 years.

Aside from meeting the initial objectives in terms of suitability, effectiveness and ROI, it was important for the University to further support British manufacturing outside of their own UK focused energy researching expertise. As a UK manufactured voltage optimisation unit with an efficiency rating of 99.1%, the Powerstar system was a deal more appealing to other energy savings products on the market.









