

Case Study:
LONDON CITY HALL



A UNIQUE VOLTAGE OPTIMISATION SYSTEM



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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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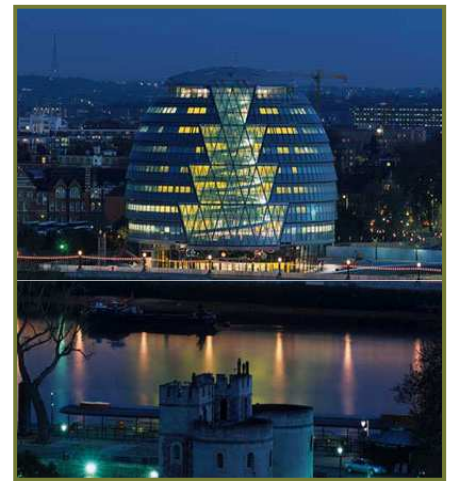
INTRODUCTION

London City Hall is one of the country's most prestigious buildings and due to its predominant stature, environmental commitment and support are considered mandatory measures of practice. Every angle of energy efficiency is looked upon by means of lowering the carbon emissions produced by the GLA and even the shape and alignment of the building contributes to an energy strategy that helps the building run on a quarter of the energy consumed by a typical high specification office building.



THE CUSTOMER

Home of the Greater London Authority accommodates the Mayor of London, the London Assembly and 600 or so permanent GLA employees. Popularly recognised as one of London's modern landmarks, the building sits between London Bridge and Tower Bridge on the south bank of the Thames.



THE CHALLENGE

Being a high calibre building situated in the UK's capital City, the GLA was keen to implement a carbon reduction regime that originated from the UK itself.

This decision came from London City Hall's commitment of supporting UK based companies in regards to innovation, entrepreneurship and environmental excellence.

GLA however were adamant that their sourcing of a UK based company could not compromise on quality, experience, knowledge and expertise and insisted that they opted for one of the most efficient and creditable solutions on the market.

As a UK manufactured company who fly the flag for British innovation, Powerstar were called upon to prove how their voltage optimisation unit would meet the City Hall's set criteria.



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THE SOLUTION

From investigating a range of suitable energy saving solutions capable of delivering the appropriate efficiency, London City Hall were particularly intrigued by the effects of voltage optimisation.

By reducing the average voltage from 242V to a supply that more accordingly matches the electrical start up of equipment used within the building, significant reductions in carbon emissions can and have been achieved.

Powerstar prides itself on delivering an engineering solution that is individually tailored to suit the needs of each customer. With all components designed, manufactured and locally sourced within the UK, the end result of a Powerstar installation is just as impressive as the innovative process of construction. With unrivalled results in energy savings and a dedicated team with over 150 years combined experience in design and manufacturing, the patented Powerstar voltage optimisation unit proved to be the ideal solution for the GLA.



THE BUSINESS BENEFITS

Following the installation of Powerstar at London City Hall **energy consumption savings of 13.6% have been achieved.**

Aside from reducing the GLA's carbon footprint, the established savings have also reduced the electricity costs associated with the building by a considerable amount.



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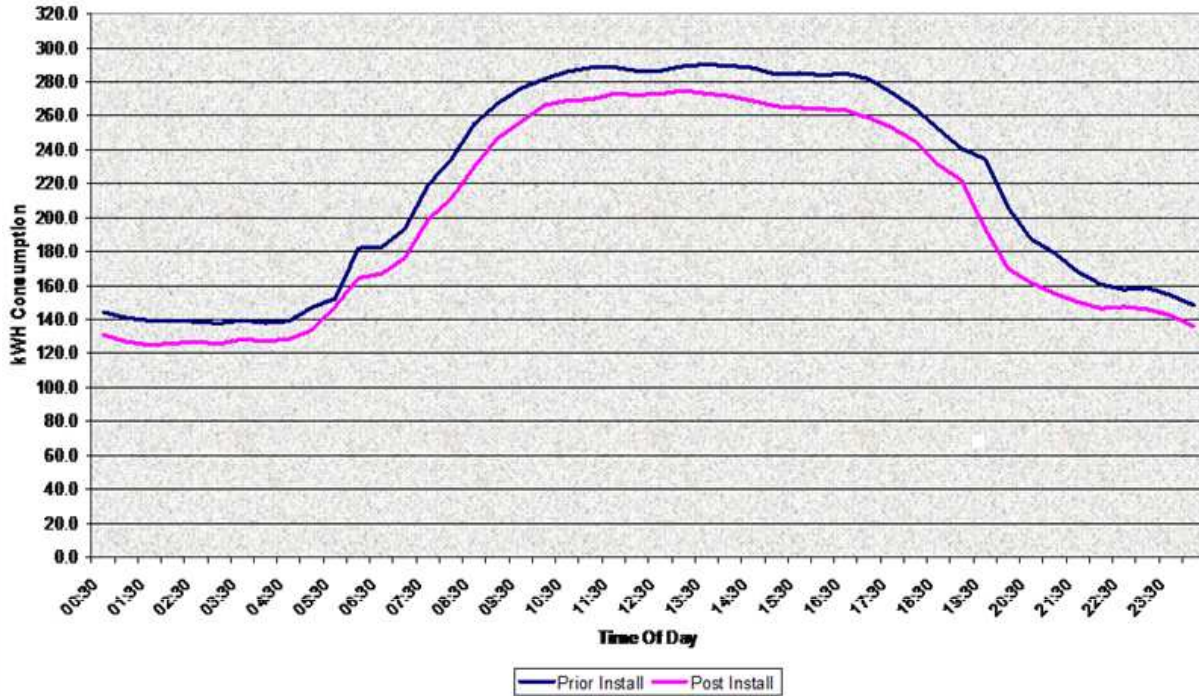
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SAVINGS ANALYSIS

Figure 1: Greater London Authority profile before & after Powerstar installation



The above graph illustrates the difference in energy consumption before and after the Powerstar install. The blue line represents energy consumption pre Powerstar installation and the pink line represents energy consumption post Powerstar installation. The graph clearly shows a distinct difference in consumption.



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