

# CASE STUDY



## VOLTAGE OPTIMISATION IN HEALTHCARE

### Introduction

Low House Health Care Resource Centre in St. Helens, Merseyside is home to the 'Central Surgery' part of the NHS St. Helens Clinical Commissioning Group.

The surgery offers the highest standard of patient-centred healthcare and runs many clinics for chronic disease care and offer a wide variety of other medical services.

### The Challenge

According to the National Health Service's latest report, the carbon footprint of the NHS, public health and all local authority commissioned and provided adult social services in England is estimated at 32 million tonnes of carbon dioxide. This is the equivalent of 40% of public sector emissions in England. The 2008 Climate Change Act was introduced to ensure the UK carbon account for the year 2050 is at least 80% lower than the 1990 baseline.

To protect the wellbeing of the UK population the NHS has set an ambitious goal to reduce carbon dioxide equivalent emissions across building energy use, travel and procurement of goods and services by 34% by 2020 to help ensure the 2050 goal is met.

### The Solution

Powerstars have been installed in many NHS buildings in the UK and help them save thousands of £'s and have also made each site Greener. Low House HCRC are now saving 9% kWh and 22.6 tonnes of carbon CO<sub>2</sub> per year.

A Powerstar 288kVA system was installed at the site which has saw a reduction in energy consumption with significant savings achieved on the high frequency lighting, motors with variable speed drives and a multistage chiller/compressor at the site.

### Savings & Benefits

#### Key Figures

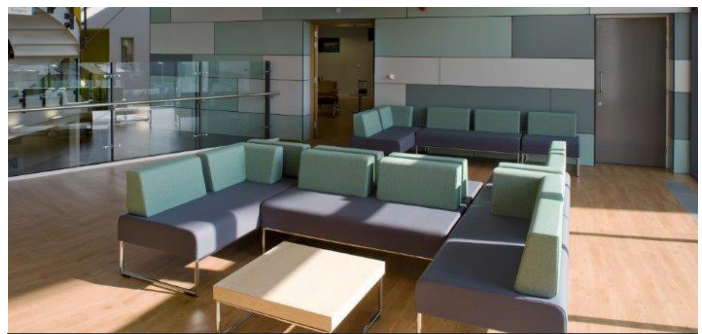
Tonnes of Carbon Dioxide saved: **22.6 tCO<sub>2</sub>**  
Annual financial savings: **£4,296**  
kWh savings per annum: **41,710kWh**

#### Benefits

The unique Powerstar system, the only voltage optimisation system with a patented design has no moving parts meaning no maintenance is required.



Low House HCRC, St. Helens



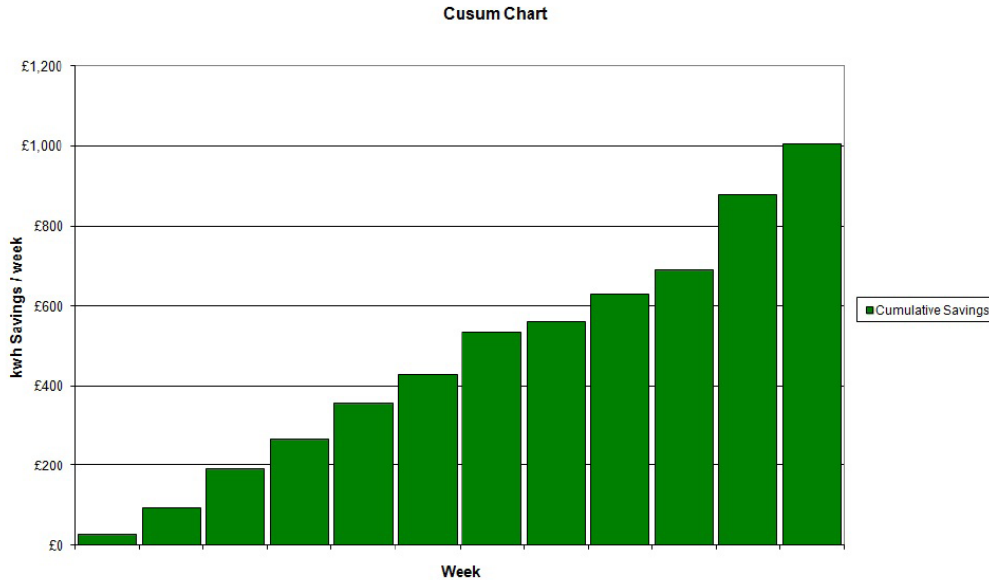
The NHS has set ambitious CO<sub>2</sub> reduction goals



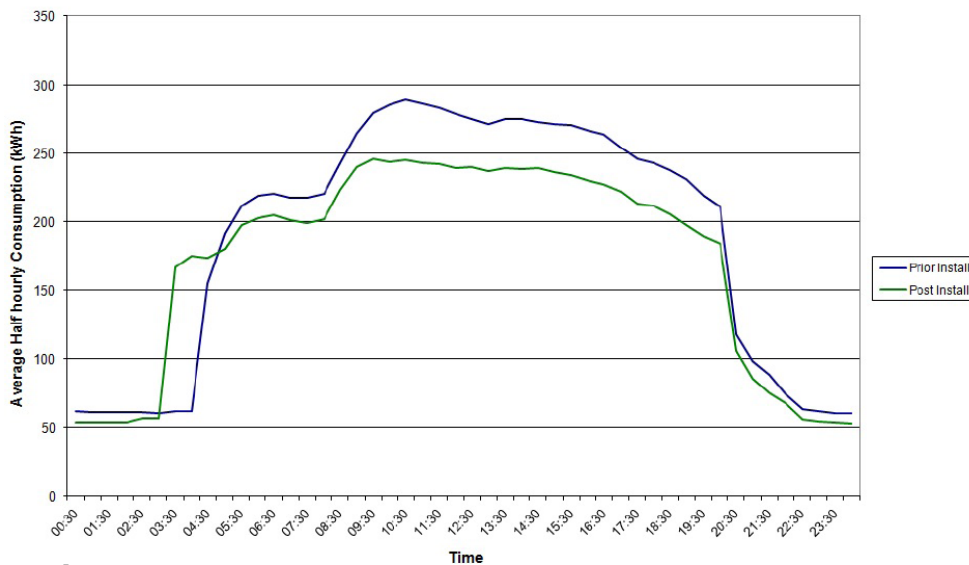
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## Savings Graphs

**Table 1.** Cumulative cost saving by week post Powerstar (comparing to costs pre Powerstar)



**Table 2.** Average consumption by half hour comparing pre and post Powerstar install



## Other Case Studies

There are a range of case studies and client testimonials available on our website, please visit [www.powerstar.com](http://www.powerstar.com) for further information.

## Further Information

Please contact the Powerstar Marketing department on 0114 2576 200 or email [marketing@powerstar.com](mailto:marketing@powerstar.com)

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