



## Case Study: Installation of Powerstar at Polyflor, Manchester



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.



## INTRODUCTION

Polyflor strive to be an environmentally and economically sustainable business, being as carbon neutral as possible.

As part of this drive the company turned to Powerstar to determine if voltage optimisation could form a key part of these sustainability strategies.

## THE CUSTOMER

Based near Manchester, Polyflor is a major manufacturer of commercial floor coverings, operating successfully throughout the world.

## THE CHALLENGE

Following a site survey, the Powerstar team were able to identify the ideal solution for the site based on the characteristics and demands of the building – determining the site had a 269,827kWh annual load applicable for savings with voltage optimisation, from which installation of the Powerstar system would **guarantee energy consumption savings of 9%**.

To verify these guaranteed savings Polyflor requested an on/off testing at the site to compare data both with the Powerstar on and without the Powerstar. Both periods were run over duplicate days to ensure like for like comparisons could be made.

## SUMMARY OF SAVINGS

The results from the on/off testing evidences **annual energy consumption savings of 34,619kWh**, representing a **12.8% reduction in Polyflors annual energy consumption**. The testing also evidenced that annual financial savings to Polyflor for installation of the Powerstar system would be **£3,635**.

## CUSTOMER QUOTATION

By quickly identifying the waste and developing the specific solution for our company, the Powerstar team has helped us to reduce our impact on the environment and substantially lower our electricity bills.” John Whitesmith, Manufacturing Director,, Polyflor PLC



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**SAVINGS ANALYSIS**

The below charts graphically present the savings made via the Powerstar installation at the Polyflor site:

Figure 2: Consumption Comparison PowerStar® On (16-19/08/2011) to PowerStar Off (30/08-02/09/2011)

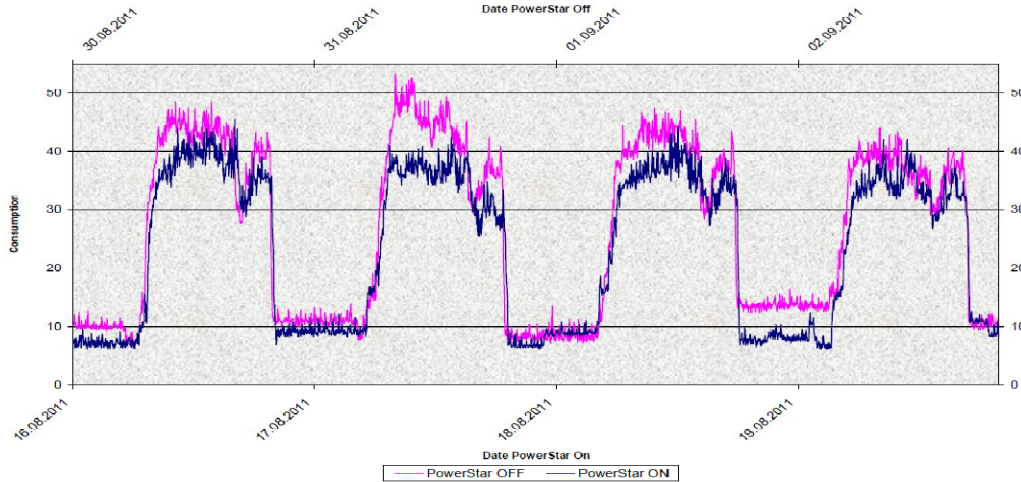


Figure 2 shows that there is a clear and sustained reduction in consumption when the PowerStar® unit was in use at Polyflor.

Figure 3: Average Daily Consumption Pattern Comparing PowerStar® System On and Off

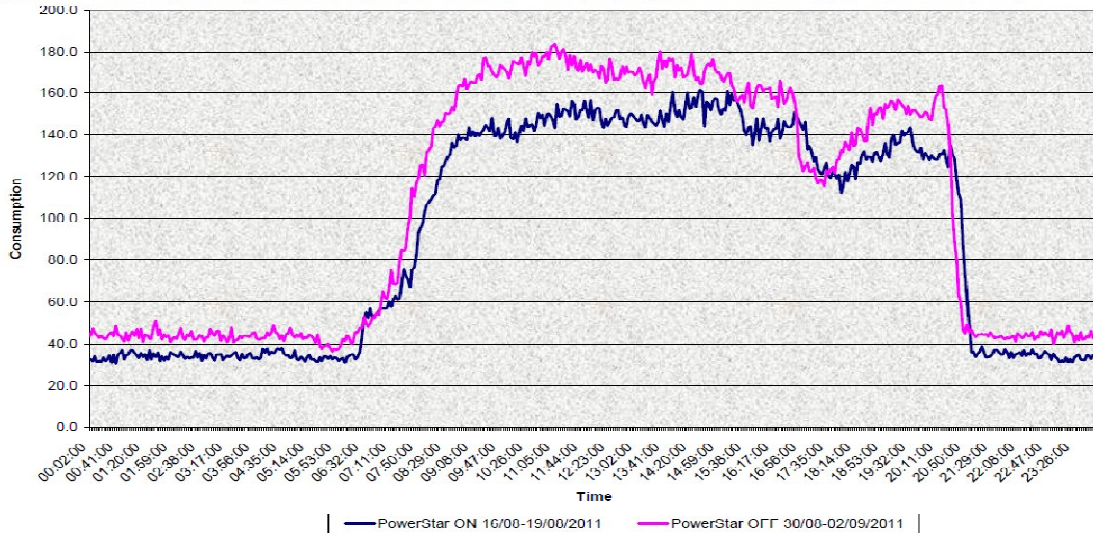


Figure 3 above shows the average daily consumption pattern comparing PowerStar® On and PowerStar® Off.