

## Case Study



## Charterhouse School improves sustainability and saves 70% on energy use with LED Lighting and controls.

### About Charterhouse School

Founded in 1611, Charterhouse School is one of the UK's leading independent boarding schools. Set within an inspiring 250-acre campus, they provide education to over 800 pupils aged 13 to 18.

### Benefits of Powercor's project



**Gross savings:**  
£6,287 per annum



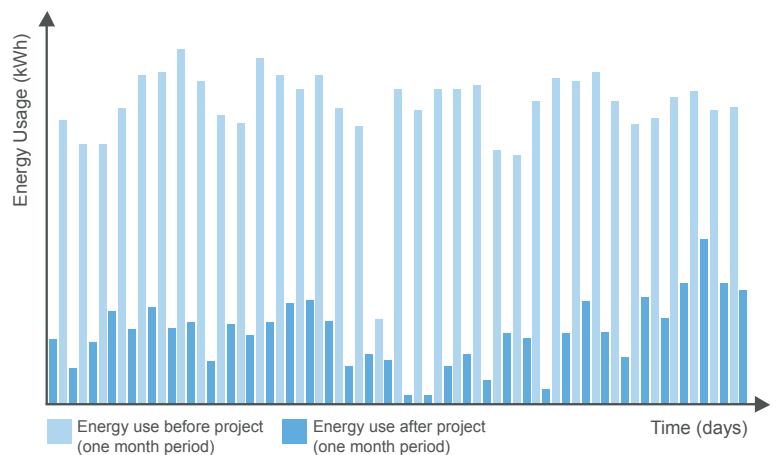
**Carbon reduction:**  
23 TCO2 per year



**Lighting:**  
70% reduction in lighting costs

### Summary of Project

Charterhouse School wanted to improve the sustainability of their energy use and create a productive environment for their pupils. The initial area for review was their busy sports centre which hosts a variety of sporting activities as well as pupil examinations. As a result of the installation of LED lighting and controls, Charterhouse now enjoys improved lighting levels whilst also saving money.



## Project

### Customer Challenge

Charterhouse School asked Powercor to implement a new lighting solution in their extensive sports centre. They wanted to be able to quickly adapt lighting for each sport played across their facilities, as well as optimise the environment for pupils during their exams. They also needed to ensure that their site become more sustainable with less energy wastage, as they were aware that lights were often left on when the sports hall was not in use.

## The Solution



### Smart Metering and Targeting

Powercor implemented their award winning automated metering technology to capture energy consumption data. This technology reports Charterhouse School's electricity and natural gas usage every 30 minutes in kWh, cost and CO2 emissions.



### LED Lighting and Controls

Powercor installed Philips LED Lighting, including Gentlespace Luminaires, and the Philips Dynalite Control System to ensure that the lighting could be easily controlled and quickly adapted to the sports activity taking place. Presence detectors have also enabled Charterhouse to reduce energy wastage and costs as lights were automatically turned off when the halls were not in use.

Before this project, the sports centre was using 74,052 kWh of energy each year. As a result of the lighting and controls installation, energy usage is now just 21,972 kWh per year. A saving of 52,080 kWh per year and a cost saving of £6,287 per year.

## Results

- **70%** energy cost saving.
- Total annual cost reduction: **£6,287 per year.**
- CO2 reduction: **23 Tonnes of CO2 per year.**

“ Powercor has not only improved the quality of lighting across the school but also helped us deliver on our sustainability objectives. ”

Emma Humphreys - Estate Bursar

Contact us today to become energy efficient with fixed monthly payments and no upfront cost.

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