

Sussex College Energy Survey

Efficiency Direct

The Problem:

A large sixth form college with 1800 students was struggling with ever increasing energy costs on its 10,100 m² site. As part of a strategy to gain control of them it contacted the Carbon Trust for assistance. Efficiency Direct were tasked to conduct an Opportunities Assessment and carbon footprint on behalf of the Carbon Trust. This type of energy survey involved spending a day on site with the college management team examining the site, reviewing how it operates and obtaining detailed information on energy consumption. From this a report was compiled and the college carbon footprint calculated.

The solution:

As a result of the visit some recommendations were made as follows: Develop an energy policy and raise awareness amongst both staff and students on energy consumption at the college; Establish an energy management and reporting system; Sub meter key energy consumers throughout the college; Investigate and reduce a very high base load; Improve control of under-floor heating; Improve BEMS control and install improved lighting controls.

Some additional recommendations regarding minor alterations to college entrances were also made with a view to reducing heat loss through open doorways.

As a result of this assessment the college asked Efficiency Direct to assist with identifying and breaking down their base load. This was achieved by installing portable metering equipment for a period of weeks which allowed circuits which are currently unmetered to be examined in detail. As a result it was possible to advise the college on the following: Areas where energy was still being consumed unnecessarily when the college was closed for business; Significant differences in consumption between similar areas of the college which warranted further investigation to fully identify the reason for the differences; Air conditioning systems being inadvertently left switched on during college closed periods.

The outcome:

The portable metering exercise was so successful that the college decided to install a permanent sub metering system with a computerised monitoring and targeting system. Once again, they asked Efficiency Direct for assistance and we were happy to provide a system to fully meter the colleges' energy use.

The fitted system now not only monitors major electrical circuits, but also the gas supplies to the college used for both heating and catering services in the Refectory. It has enabled the college to clearly see, hour by hour, precisely where and when they consume their energy within the college so that they finally have their energy and carbon emissions under full management control.

About the service provided:

Technical consultancy

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