

CASE STUDY

Energy Surveys and Project Implementation

CUSTOMER

A large, four-campus
college north of London

BRIEF

Energy survey and detailed
study of energy saving
initiatives followed by
project implementation

OUTCOMES

A 28% reduction in annual
electricity consumption
and a 21% reduction in
gas consumption

OVERVIEW

Following discussions with a large, four-campus college north of London, Concept carried out a preliminary energy survey of one of the sites, to assess the current level of performance.

When we work with new clients, we recognise the need to demonstrate our capabilities and not rely solely on our reputation. Where appropriate, we will carry out a preliminary survey to provide an expert, independent view on the opportunities for energy reduction...



Energy Surveys and Project Implementation

The survey was carried out at our cost, giving the College the opportunity to assess the quality of our work and the benefits we could bring, without initial financial outlay on their part.

ACTIONS

The preliminary survey identified four particular areas where there were significant issues and we were able to give a broad but realistic indication of the savings that were achievable. From this, the College commissioned Concept to carry out detailed studies in order to confirm the savings potential and to draft a specification for the work required, so that quotations could be obtained to implement the necessary projects.

We had identified a number of smaller issues which could be implemented by the maintenance team at minimal cost, but the main areas to be addressed were:

- **Full review of BMS function** – to ensure that plant (which was mostly modern and in good condition) was operating as per design.

“The initiatives represented a **28% reduction in annual electricity consumption and a 21% reduction in gas consumption.**”

- **Inverter control** – some of the benefits of a modern sophisticated BMS control strategy were lost when pumps and motors could not run at variable speed, as conditions dictate. Installing inverters has overcome this.
- **De-centralised hot water services** – in a large building such as this, point of use water heaters bring significant benefit over running the central boilers for extended periods to serve all areas.
- **Lighting upgrade** – the building contained a number of older lamp types which could be upgraded as a project with a good payback on investment.

BENEFITS

Collectively, the initiatives identified and agreed as feasible represented a **28%** reduction in annual electricity consumption and a **21%** reduction in gas consumption. All of these measures had a reasonable payback, and we were instructed to project manage the implementation works, which were successfully completed on time and within budget. Concept staff include experienced project managers - Prince2 practitioners - and we were able to oversee the projects from the tendering process through to final handover.

The College was keen to see that the expected level of savings has been achieved and maintained and we are currently in the process of installing Aspect software to monitor performance and protect the savings.

“Concept carried out the survey for free, giving the College the opportunity to assess the benefits we could bring, without initial financial outlay on their part.”

