

University Track Record: selection from over 80 projects for 29 universities

Technical Insulation

The **University of Cambridge** has energy costs of £15m per year. Through their Environmental Sustainability policy they aim to reduce carbon emissions by 34% against a 2005 baseline.

Technical site surveys informed the business case and the energy, carbon and cost savings of technical insulation. Anthesis manufactured and installed 1,900 bespoke insulation jackets and lagged all pipework across ten plantrooms.

The insulation will save over 14,000 tCO₂e of lifetime carbon, equivalent to 7.8MWh gas savings. The expected payback is 1.5 years with a ROI of £195,000 over 12 years.

Metering, Monitoring and Targeting

We worked with the **University of Reading** to optimize the energy use of their student services building.

The relatively efficient design of the building meant that building fabric measures were less viable so the University commissioned us to perform metering, monitoring and targeting to identify and rectify excessive energy use.

Through this process we identified several areas where technical improvements could be made and introduced a behaviour change programme to help shape building user's attitude towards energy use.

The combined approach resulted in 25% less energy being used in target areas and out-of-hours energy use was reduced by up to 40%.

"The monitoring and metering exercise has been a huge success and the University is considering rolling out this approach to other buildings across the campus." The University of Reading



Carbon Management Plan

We produced a comprehensive carbon management plan for the **Courtauld Institute of Art**, giving clear direction on how to reduce carbon emissions and meet reduction targets over a five year period. As part of the project we also identified energy efficiency measures achieving annual savings of £50,000 and 230 tCO₂e.

To help the Institute fund the installation of the measures we also supported them in applications for more than £40,000 of funding.

"Anthesis are very knowledgeable within this field, completing in-depth and detailed behind the scenes analysis which has resulted in the development of a robust and meaningful carbon management plan." Courtauld Institute of Art

For further information

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Lighting Design and Installation

We supported Schneider Electric by designing and project managing the installation of an energy efficient lighting scheme across two campuses at **Bath Spa University**.

The project began with surveys of the existing lighting schemes, we went on to design and install a new LED lighting scheme which delivered the desired level of luminance whilst minimising energy usage. Finally we optimised the lighting controls in order to further reduce energy usage.

Whilst on site, we also identified a number of buildings which had inadequate emergency lighting provision so we made recommendations to ensure compliance.

Heat Network Regulations

We worked with the **University of Bristol** to collate and submit the necessary data to the administrators of the Heat Network (Metering and Billing) Regulations 2014.

The Regulations require all companies or individuals who supply and charge for heating, hot water or cooling through communal or district heating networks, to complete a data notification exercise for each heat network site

Energy Performance of Buildings Directive

We produced Display Energy Certificates (DECs) and Advisory Reports (ARs) for 20 buildings occupied by **Royal Holloway, University of London**.

The project involved energy surveys of each building and face-to-face interviews with building occupiers.

The resulting data was processed using Government approved software and completed documentation lodged on the official Government register with copies displayed in each building in accordance with the Directive.

Energy Savings Opportunity Scheme (ESOS)

We worked with **Unite Students** to identify energy saving measures to ensure compliance with ESOS. The process identified approximately £150 million in lifetime savings.

From this we were able to provide Unite with a robust business case for executive approval, placing carbon and energy savings at the centre of their operational activity. We then produced a user-friendly stock model which includes extensive asset level data to allow cost effective re-modelling in future

Minimum Energy Efficiency Standards (MEES)

We also worked with **Unite Students** to produce an energy simulation tool to help achieve compliance with MEES.

The initial stage of the project involved identifying the properties that were at risk of non-compliance. We created a tool which allowed Unite to simulate the effects of a range of Energy Conservation Measures (ECM) across their vast portfolio of properties. Using the simulation tool, Unite could assess the effect that each ECM, or package of ECMs, would have on the EPC rating, carbon emissions and energy costs of each property.

"Anthesis' commitment to delivering a detailed and comprehensive carbon management tool has been nothing short of remarkable and the tool will, I'm sure, be used for years to come in pursuit of our carbon reduction targets." Unite Students.

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