



Case study: Ivanhoe College

Background

Ivanhoe College is at the heart of the community in Ashby-de-la-Zouch, Leicestershire. The school has 878 students aged 11-14 years old and has recently converted to an Academy. The school's main building dates back to 1954 and the footprint of the school covers around 8,000 sq Metres of space. Ivanhoe's vision statement describes their 'Journey to Excellence' which includes their commitment at all levels of the college to reduce their carbon footprint and improve the environment.

Challenge

Escalating energy costs combined with Ivanhoe's new sustainability strategy drove the Principal, Business Manager and Governors to seek a solution that would enable them to effectively monitor their energy consumption and costs in more detail. Lack of energy expertise, time available from the facilities team to analyse energy data and the funding available all have been key challenges to effectively implement an energy efficiency strategy for the school.

Quick facts

26% kWh reduction in electricity and gas

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98 tonnes of carbon saved per annum

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Equivalent to taking 19 cars off the road each year

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Equivalent to the carbon footprint of seven UK citizens for one year

.....

26%
kWh Reduction

See the solution overleaf

Solution

Optimised aM&T platform was selected to take up the challenge of providing the visibility and transparency of where energy was being consumed throughout the site. To minimise installation costs wireless technology was deployed, enabling meters in far reaching corners of the site to be monitored by the system. Synetica Meters and data loggers were installed on 9 electrical circuits and 2 gas meters. The water meter was read manually on a weekly basis by the schools premises officers and entered into the Optimised aM&T platform. All metering channels are logging data every half hour, 24/7 and this data is represented through a site specific dashboard that provides the facilities team, Business Manager and students alike complete visibility of their energy usage. Through these comprehensive dashboards, data is converted into actionable information that can be acted upon.

In conjunction with the software dashboards and reporting, Optimised Buildings also provided the 'Virtual Energy Manager' service to Ivanhoe. The Optimised Buildings Energy Analysts review the Optimised Analytics dashboards on a monthly basis and from their findings drive recommendations in the form of energy conservation measures. This has led to a number of initiatives being implemented at Ivanhoe including; lighting upgrades, lighting controls being fitted and HVAC/BMS controls being optimised.

So what's next?

Ivanhoe has used the data from the Optimised aM&T platform to support funding applications at County and Central Government level for a site wide double glazing windows upgrade. The Optimised Buildings Energy Analysts have also identified savings in gas consumption through optimisation of the Trend building management system.

The Optimised aM&T Platform and the transparent data it provides is now being used by the students who are engaging in energy management to further reduce costs and carbon.

Visualisation of energy usage and carbon footprint on public displays throughout the school are also going to be installed by Optimised Buildings to further engage students in the programme.



“The Optimised aM&T platform in conjunction with the expertise from the Optimised Buildings energy analysts has enabled us to focus on running our school while providing us with specific energy saving initiatives that we have been able to act upon. This has driven a range of operational changes throughout the school along with some capital projects being undertaken. The net result has been measurable and quantifiable business outcomes for Ivanhoe College.”

Tracy Winfield – Business Manager

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