Case Study



Hyde Park Junior and Infant Schools

Customer: Hyde Park Junior and

Infant Schools, Plymouth

Technology: Energys Dynamic Burner

Management Units

Funding: Leasing arrangement with Utility Rentals

Outcomes: Total annual energy saving of 15%, 9.45 tonnes carbon savings and

a 2.5 year payback



Energys boiler management controls boost Devon schools' economy drive

PROJECT OVERVIEW

Hyde Park Junior and Infant Schools in Plymouth were equipped with four Energys Dynamic Burner Management Units in just a single half-day of work. The technology is predicted to save the schools 15% a year on their energy bills.

PROJECT BACKGROUND

From low-consumption lighting infrastructures to more acutely optimised heating systems, schools and colleges of higher education throughout the UK are beginning to reap the benefits of technologies designed to boost operational efficiencies and reduce energy bills. As a company with a variety of solutions in this area, Energys is well-placed to observe this ongoing transition – and has a rapidly expanding portfolio of project credits to prove it.

A recent installation at two related schools in Plymouth, Devon – namely Hyde Park Juniors and Hyde Park Infants – is a case-in-point. Occupying a site dating back to the Victoria era, the schools have lately been engaged in an economy drive that has also included the specification of solar panels and a change in energy service provider.

BOILER OPTIMISATION

During 2015 the schools' attention was drawn to the possible contribution to be made by Energys' boiler optimising technology, which is able to improve the efficiency of a boiler without affecting the temperature of the building. As bursar Stella Copping recalls: "Carl Challinor from the Primary Association of Plymouth Headteachers recommended Energys' Dynamic Burner Management Units (DBMUs) to our team, and it soon became evident that this technology could play a fundamental role in helping us to

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reduce our energy consumption.

The general ease of installation was another factor that made us keen to investigate an installation of this kind."

Regarding the operating principles behind the DBMUs, Energys project and operations director Gavin Skipsey explains that they are "based on a technology that optimises the firing pattern of a boiler – thereby delivering gas/oil consumption savings by extending the cooling curve. It has also been shown to greatly reduce dry cycling as a consequence."

FUNDING SOLUTION

Implementation became even more attractive when the schools were made aware of a leasing arrangement to fund the project, available through Utility Rentals Ltd. This scheme enables educational establishments, council premises and Government departments to enjoy the benefits of this technology without incurring significant upfront costs.

"This scheme made it possible for us to press ahead with a programme of work to bring Energys DBMUs to a total of four boilers on our site," notes Ms Copping.

RESULTS AND OUTCOME

In the case of the Hyde Park schools, Energys estimates that the project's supply and installation costs of £4400 will be recovered in approximately 2.5 years. An annual energy saving of 15% – equating to £1734 per year – is predicted by

Energys, equating to a robust yearly CO₂ reduction of 9.45 tonnes.

"These forecasts are of course greatly encouraging as we continue to develop a programme that will reduce energy bills and carbon consumption across the board. This is very much an ongoing initiative for us, and one that is highly important to the future projection of the schools," remarks Copping.

But equally compelling in the preinstallation period was the assurance that Energys and Utility Rentals were able to provide about the non-invasive nature of the fit-out. The Energys DBMUs can be installed in as little as half-an-hour, and indeed the work at the Hyde Park schoools was carried out during the course of a single half-day.

MINIMUM DISRUPTION

"There was also the fact that the work could be undertaken while the boilers were live, so there was no need to take them offline for a period," notes Ms Copping. "The result was an installation that entailed no disruption in the short-term, but which promises to deliver substantial benefits for our schools over the long-run."

The fact that the energy saving forecasts resulting from the DBMUs are so significant is further magnified by the knowledge that the schools' boilers are actually relatively contemporary in design. It therefore follows that on premises with older, legacy systems, the reductions in energy expenditure can be even more dramatic – frequently as high as 30%.

"Our experiences with the introduction of this technology over the past six months have been hugely positive, and I would consider any school looking to minimise their heating expenditure to investigate the possibility of installing boiler optimisers," concludes Stella Copping. "And whereas modifying or replacing some other systems can be time-consuming and disruptive to daily school life, this was about as easy an upgrade project as you could imagine! I would also highlight the high standard of support offered by Energys throughout the project."

Final word goes to Gavin Skipsey, who remarks that the experience of the two Plymouth schools is "by no means uncommon as education providers become more highly informed about the role of boiler optimisation as part of a broader commitment to reducing their energy bills and carbon footprints."

"Energys boiler optimising technology is able to improve the efficiency of a boiler without affecting the temperature of the building"

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