

## Case Study

# BSix Sixth Form College

**Energys  
delivers heating  
& lighting  
efficiencies  
for London's  
BSix Sixth  
Form College**

- **Customer:** BSix Sixth Form College, Hackney
- **Technology:** LED lighting & Boiler Controls
- **Funding:** Salix Scheme (part funded)
- **Outcomes:** Improvement to quality and efficiency of lighting and heating technology, expected annual savings of £25,000



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### PROJECT BACKGROUND

**Located in the East London borough of Hackney, the BSix Sixth Form College has consistently won approval locally and nationally for its educational excellence and emphasis on skills development. It has also maintained a focus on innovation and the quality of its facilities, and it was in this context that the college recently undertook a multi-project initiative to overhaul its lighting and boiler optimisation provision.**



Bob Herring, Premises Manager of BSix College, explains that the desire to “reduce expenditure on energy and maintenance” was a primary driver of the upgrade. “We realised that with the latest boiler control and LED lighting systems we could achieve a dramatic reduction in our energy costs, as well as further minimising our carbon footprint and improving the environmental ambience of the college,” he says.

The viability of such a large-scale project was given a critical boost by the securing of energy efficient funding, via the Salix scheme, for at least part of the proposed upgrade. This was just one area in which next-generation lighting technology specialist Energys Group was able to provide invaluable assistance, having been appointed to the project after Herring received a recommendation regarding Energys’ similarly extensive programme of work at the nearby Hackney Community College.

### SOLUTION

“We wanted to achieve a greener, more carbon-efficient college, and thanks to the collaboration with Energys that has been possible – and all in a mere three weeks of work that was carried out in a way that had very minimal impact on the day-to-day activities of the school,” says Mr Herring

#### Optimisation and efficiency

The lighting component of the project was particularly extensive and involved the latest LED solutions from the Energys range. Down-lighters, hi-bay lights, tubes, flood lights, wall lights, emergency lights and more, were installed as part of an overhaul that included the upgrading of both lamps and fittings to the latest LED technology. In total, nearly 1000 lights were modernised during a project that spanned classrooms, communal areas, corridors, staircases, the gym, the library, the car park and other primary spaces.

The total value of the new lighting was £83,830, but thanks to substantial projected annual cost savings of £19,731 the return on investment is expected to be as little as 4.2 years. Rounding out the positive impact on the college and its activities, the headline statistics also included projected annual energy and CO<sub>2</sub> savings of, respectively, 164425 kWh and 80.57 tonnes per year.

“Movement sensors have also been implemented in some areas of the school, further increasing our ability to use lighting only when and where it is required,” notes Mr Herring, adding that the overall end-result of the upgrade has been to “achieve much more consistent lighting across the campus”.

The college has also called on Energys’ long track-record of installing boiler optimisation technology. A total of four of the company’s Dynamic Burner Management Unit (DBMU) Boiler Optimisers have been installed in the college’s plant rooms in a move that will improve the efficiency of the boilers without affecting the temperature of the building.

Once again, the benefits of the new installation are likely to be dramatic and long-lasting. Annual energy and cost savings of £3,258 and 155885 kWh, respectively, have been forecast, while the return period on the total investment of £6,960 is expected to be

just 2.14 years. Significantly boosting the college’s ongoing carbon reduction initiatives, the CO<sub>2</sub> saving resulting from the boiler optimisation exercise will be around 28.66 tonnes per year.

The final primary component of the project was the application of ‘valve-wrap’ insulation to internal heating pipes in multiple plant rooms. Another measure designed to minimise heat-loss from the heating infrastructure, the valve-wrap project cost £8400 and has a projected RoI of 4.98 years. Annual cost and energy savings are expected to be in the region of £1685 and 80622 kWh, whilst the college stands to reduce its carbon footprint by an impressive 14.84 tonnes per year as a result of this aspect of the project.

Backed by five-year warranties, the college is also set to benefit from substantial peace of mind about the long-term support and maintenance requirements – or relative lack thereof – surrounding the new installations.

**The implementation of LED lighting and dynamic boiler control technology at the East London college is expected to deliver annual energy savings of around £25,000**

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### CUSTOMER FEEDBACK

Completed and signed-off in just three weeks of on-site work, primarily conducted out of school hours, the end-result has been described by Mr Herring as "a dramatic improvement to the quality and efficiency of our lighting and heating technology. In particular, staff and students have commented positively on the quality of the new lighting, so we are really delighted by the impact of the investment and our cooperation with Energys."

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**Bob Herring,**  
Premises Manager



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