



The Client

Sheldon School is a successful and popular 11-18 academy trust with more than 1700 pupils and students. Improvements in the school's learning environment, together with a need to take advantage of energy savings from the latest LED technology, was the premise behind a recent upgrade in the school's science block.

It is widely accepted that improved classroom lighting can have a positive effect on children's school experience. With the existing lighting in the science block nearing the end of its life, Sheldon School were keen to get rid of the old fluorescent lighting in favour of modern LEDs; dramatically improving the learning environment and resulting in increased concentration and productivity of students and staff.

How We Helped

Sheldon School engaged with SMARTech energy on a SMARTech energy management service (SEMS); which means our team of energy consultants work closely with the school to help them understand where and when their energy is being consumed. With the use of data analytics, recommendations were made to help identify adjustments needed to optimise cost and energy efficiency within the school. From this, it was quickly understood that a comprehensive LED lighting upgrade to the school's science block would satisfy key objectives to improve the quality of the learning environment and enable substantial energy savings.

Savings Achieved

68% Energy Reduction

- The installation of LED products involved upgrading existing T8 Fluorescent tubes to SMART T8 LED tubes. These are rated at 120 lumens per watt output. The project was completed with minimum disruption to the operational practices of the school and with the quality of the lighting immediately apparent, SMARTech energy predict annual energy savings within the science block to be reduced by 68%, with a reduction in CO2 emissions of 7.5 tonnes per year and a return on investment within 5 years.

Funding

SMARTech energy are a Carbon Trust Accredited Supplier and as such, projects delivered by SMARTech energy are eligible for a capital contribution of up to 15% of the project cost, up to a maximum of £5,000 from the Carbon Trust's Green Business Fund.

SMARTech energy worked with Sheldon School to identify finance solutions to help with the funding of the lighting project and it was successfully part-funded by this initiative.

Additionally, projects that improve a publicly funded organisation's energy efficiency can now qualify for the Government's interest-free energy efficiency finance initiative through Salix Finance. This can help your school to improve energy management and avoid eating into school budgets.

Salix Finance launched a Schools programme in 2012 funded by the Department for Education to provide 100% interest-free loans for schools in England. Since then over £10 million has been allocated to 250 maintained schools and Academies for energy efficiency projects.

SMARTech energy Management Service (SEMS) Benefits

- Year on year energy savings of up to 30%
- Managed service, allowing your team to concentrate on what they specialise in
- 24/7 minute-by-minute real-time energy monitoring
- Quantifiable data to enable accurate measurement of energy savings
- Reduce carbon emissions year-on-year
- Reduce maintenance costs
- Extend equipment life

Benefits of lighting upgrade in schools

- LED lighting is cost effective and easily installed with minimum disruption and significant ROI
- Modern LED lighting can closely mimic daylight, which means student's eyes get less tired. It improves concentration, behaviour and productivity
- Classrooms lit with evenly diffused LED lighting are more engaging environments to learn in; as opposed to illumination by glaring fluorescent strips
- The flickering effect from traditional fluorescent lighting can affect eyes and be a possible cause of headaches.
- A huge benefit of modern LED lighting is that the colour and intensity can be adjusted throughout the day. Brighter lights can be used early in the day, or during tests, which makes children more alert and boosts their concentration
- Better environment for students and staff and school budgets!