



WILLOWS SCHOOL AND EARLY YEARS

ABOUT THE CLIENT

A lighting upgrade couple with the installation of solar PV panels delivered a brighter learning environment and lower energy bills.

The Willows School and Early Years Centre is a thriving infant school providing care for 188 children aged 2 to 7 years old in Fishermead, Milton Keynes. Highly qualified early years practitioners provide care and education for children from 2 years old in stimulating and well-resourced outdoor and indoor learning spaces. They work closely with the local Health Visitor team, who run the Pebbles Children Centre facility onsite.

The school has five classes covering reception, year one and year two, and is rated as 'a good school' by Ofsted and Milton Keynes Council. The Willows has a high pupil mobility rate, poor attendance rate and is ranked in the lowest 20% of schools for deprivation; therefore the teaching time spent with pupils in the classroom is all the more critical to improve on the pupils' below average starting point.

Like all maintained schools, their budgets are under pressure to deliver the education they want with the limited resources they have, so their eagerness to improve their facilities is matched by their desire to limit their outgoings.

The Willows School was keen to improve the learning environment, while also reducing their energy bills. Energy efficient products and designs were paramount to the project. Although their lighting system wasn't old, the inefficiency of their fluorescent lighting, compounded by a high failure rate, was the driver in seeking a more cost-effective solution. The Willows learnt of the opportunity to replace their lighting and install solar panels using government funding from Milton Keynes Council. The brief to Ineco Energy was to deliver a lighting and solar solution using government funding, at no cost to the school, to improve the learning environment, save money from the school's energy bills and help to look after the planet.



THE SOLUTION

Following a comprehensive investment grade lighting audit, Ineco Energy proposed the school should also consider the installation of solar PV panels to compliment the LED lighting project and increasing the financial savings.

Good lighting plays a key role in fostering a stimulating, welcoming learning environment and is proven to assist students in their academic development. While changing to energy efficient LED lighting would make a significant difference to the school in creating brighter classrooms and shared spaces, the addition of solar PV panels would work hand in hand with the lighting in reducing electricity consumption and the associated carbon emissions.

The project was funded with zero capital outlay to the school using government funding in the form of 0% interest free loans. Ineco Energy helped the school with all the relevant administration, successfully obtaining the government funding via Salix Finance. In addition, Ineco Energy were able to secure a £5,000 grant on behalf of the school from the Carbon Trust, who assist organisations in the creation of a more sustainable future through the implementation of low carbon technologies and strategies. The business case was presented to and approved by the local authority, Milton Keynes Council, and Salix Finance's technical team.

The bespoke lighting design was designed with compliance in mind – meeting British Standards, Sport England and CIBSE lighting guidelines. High quality, UK manufactured, energy efficient LED light fittings from Dextra Lighting were specified. Ineco Energy's 'designed for efficiency' methodology provided optimum light levels, minimising the capital required and maximising financial returns to deliver the lowest total cost of ownership.



THE SOLUTION

The complete turnkey installation included:

- Project Management,
- Health & Safety/ CDM,
- Installation
- Testing & Commissioning
- Handover documents and O&M Manuals
- WEEE Certified waste recycling
- Measurement & verification of pre- and post-energy consumption and light levels.

The Results:

- 63% reduction in the electrical lighting load
- 398 tonnes of carbon saved over the lifetime of the project.
- 8 Years project payback (excluding maintenance savings)
- £6,967 year one electricity bill savings
- £203,549 lifetime energy savings

"The lighting has made an immediate impact on the school and learning areas with nothing but good feedback. The Solar panels have been installed successfully and we are looking forward to seeing the savings."

Business Manager, The Willows School



FEATURED PRODUCTS



GRADUATE SURFACE LED

Overview: The Graduate Surface LED is the latest addition to our Graduate range of luminaires.



GRADUATE LED RECESSED

Overview: The Graduate LED Recessed is the latest addition to our Graduate range of luminaires.



AMENITY PLUS LED

Overview: The Amenity Plus range is sealed to IP65 allowing for use in external areas such as under canopies or wall mounting, however is equally suited to a range of internal applications such as corridors, stairways, toilets and storage areas.



AMENITY DECORATIVE LED

Overview: The Amenity Decorative is manufactured from injection moulded polycarbonate with an opal diffuser and comes with a range of optional coloured ring attachments and semi recessing kits.



ECOPAK LED

Overview: The Ecopak LED offers increased energy efficiency and low maintenance of an LED source giving greater return on investment.



HYDRA LED

Overview: An LED IP65 rated weatherproof batten luminaire made from high quality injection moulded GRP.