E.ON Energy Solutions Technology Centre, Nottinghamshire, UK

Case Study

CLIENT:
E.ON Energy Solutions Technology Centre, Nottinghamshire, UK

CHALLENGE:
As part of E.ON's Energy Efficient Lighting Programme, energy the goal was to significantly reduce consumption and carbon emissions within an office refurbishment while maintaining required workplace lighting levels. The solution needed to integrate natural daylight effectively with artificial lighting to ensure consistent illumination for office use.

RESULTS:
The installation achieved substantial energy savings while improving the quality of the working environment. Natural daylight now contributes significantly to office lighting, reducing reliance on artificial lighting and supporting long-term sustainability targets.

PRODUCT:
Solatube SolaMaster® Series
6 Solatube 330 DS (530 diameter system)

SOLATUBE DISTRIBUTOR:
Solalighting Limited

GENERAL CONTRACTOR:
Solalighting Limited

BACKGROUND: As one of the UK's leading energy providers, E.ON continually explores ways to improve energy efficiency and reduce carbon emissions across its operations. As part of its Energy Efficient Lighting Programme, the company developed a commercial lighting strategy focused on delivering measurable energy, carbon and cost savings for customers and internal facilities alike.

The E.ON Technology Centre in Ratcliffe-upon-Soar was selected as a pilot project during an office refurbishment, providing an opportunity to demonstrate how integrated daylighting and efficient artificial lighting could enhance workplace environments while supporting sustainability objectives.

CHALLENGE: The refurbishment required a solution capable of maintaining consistent office lighting levels while significantly reducing reliance on conventional artificial lighting. Standard office lighting levels of approximately 400 lux were required at desk height, meaning natural daylight alone would not always be sufficient.

The project therefore needed a balanced approach that could combine natural daylight harvesting with intelligent artificial lighting control, ensuring both comfort for employees and measurable reductions in energy consumption and operational costs.

SOLUTION: To address these requirements, six Solatube 330 DS-C Daylighting Systems were installed The Solatube systems capture daylight at roof level and transport it efficiently into the office interior using highly reflective tubing technology. The daylight dimming system automatically adjusts the LED lighting output to maintain consistent illumination levels, ensuring optimal workplace lighting conditions throughout the day while minimising unnecessary energy use.

Installation was completed in just two days as part of the broader office refurbishment programme.

RESULTS: The projects delivered measurable performance improvements, including significant reductions in energy use, carbon emissions and operational costs. The integration of natural daylight has enhanced the office environment, creating a brighter, more comfortable workspace while supporting employee wellbeing.

Key outcomes included:

- Approximately 82% energy savings compared with the previous lighting system
- Estimated 92 tonnes of carbon savings over 29 years
- Average annual savings of around £1,388 in energy and maintenance costs
- Improved lighting quality with reduced reliance on artificial lighting Solatube E-ON case study final.

Employees reported positive feedback on the improved working environment, highlighting the noticeable increase in natural daylight and overall comfort.

CONCLUSION: This project demonstrates how integrated daylighting and intelligent lighting controls can significantly reduce energy consumption in commercial office environments while improving workplace comfort.

By combining Solatube daylighting technology with efficient LED lighting and automated controls, E.ON successfully showcased a practical approach to sustainable office refurbishment that delivers both environmental and operational benefits.

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