

# LED Lighting Upgrade

Quartzelec delivers a smart lighting solution design to optimise energy efficiency and operational costs at 25 NHS community health facilities across the Northwest, UK

ASSURA | HEALTHCARE | UK

## Our Customer's Challenge

Assura plc is the UK's leading specialist healthcare property investor and developer and they continually strive to make a greater impact on the communities they operate in a sustainable way. They were facing significant challenges due to inadequate lighting at 25 NHS community health facilities in the UK, which was adversely affecting energy efficiency and operational costs.

Assura aimed to achieve an Energy Performance Certificate (EPC) band B rating or higher on all these properties, which range from a 250-square-metre surgery in a converted Victorian terrace to a 4,000-square-metre purpose-built centre. To accomplish this, a comprehensive solution for upgrading their lighting systems was essential, all while minimising disruption in continuously staffed medical environments.

## The Quartzelec Solution

Quartzelec, as the primary electrical delivery partner for this project, was tasked with conducting a comprehensive site survey of the buildings to evaluate the quality of the electrical installations. They collaborated closely with Centric Energy, who developed a smart lighting design based on the building plans to meet client specifications.

Following approval for the submitted design and quotation, Quartzelec coordinated directly with each of the site's practice managers to schedule installation dates. Within a tight timeframe of just five months from start to finish, Quartzelec successfully installed 20,000 LED lights across 25 sites while working in facilities continuously staffed by medical teams engaged in sensitive and time-critical tasks.

Quartzelec collaborated closely with the wider project team, including;

Energy assessors *Murton & Co* and specialist software providers *Arbnco* who were providing energy performance analysis and data simulation to provide detailed EPC readings, carbon savings and future improvement opportunities.



## The Quartzelec **Solution** (continued)

*Centric Energy* who developed customised lighting solutions tailored to meet CIBSE requirements.

Additionally, *Pulse Systems*, an innovative technology vendor specialising in smart building control solutions, designed a cloud-connected system to accommodate and enhance the functionality of the new lighting hardware.

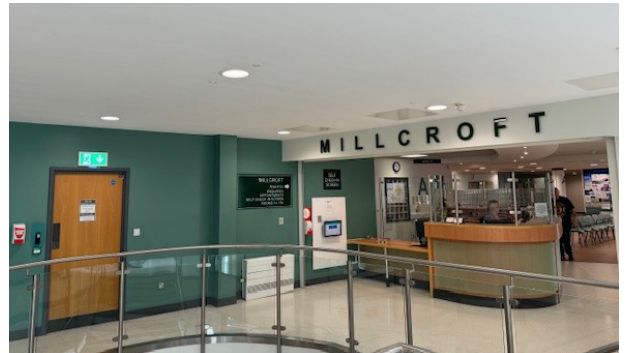
The management of and collaboration between Quartzelec and these contractors resulted in the successful installation of new lighting systems that not only achieve the energy efficiency targets but also align with the unique requirements of each medical location, enabling healthcare staff to easily manage timer settings in consultation rooms and allowing for adjustments to hue and intensity in areas accommodating light-sensitive patients.



## Key Benefits

The LED lighting replacement project across the 25 retrofitted sites delivered several significant advantages for Assura and the NHS:

- **Financial Savings:** projected to achieve annual savings of £400,000 through reducing energy consumption by 1,303,028 kWh and cutting emissions by 693,036 CO<sub>2</sub>e tonnes
- **Rapid Implementation:** successfully installing over 20,000 LED lights in just five months, demonstrating efficiency in managing large-scale projects without disrupting medical operations
- **Future-Proofing Technology:** implementing a cloud-based system for real-time monitoring and adjustments to lighting, enhancing overall operational efficiency
- **National Coverage:** allowing multiple sites to be monitored in real-time which will highlight potential improvements over time
- **Carbon Reduction Targets:** the new smart lighting system forms a springboard to bring future smart technology into the building by providing full integrated coverage of a wireless network via smart sensors within each lighting outlet. Helping meet programs such as B-corp, Nabers, and others.



*Significant cost savings in terms of energy consumption combined with a real push for CO<sub>2</sub> emissions reduction has driven this UK wide project forwards and with Quartzelec in the role as our chosen electrical delivery partner we're delighted with the results* - Martin Dawson, Project Manager for Assura

Order Value  
£2.3m

25 sites  
with 5 month  
delivery

£400k  
energy cost  
savings

T: +44 (0)1788 512512  
E: info@quartzelec.com  
www.quartzelec.com

