

Major Hospital Electrical Installation & Upgrade

High-Resilience Power Infrastructure Modernisation in an Active Healthcare Facility

CLIENT SECTOR

Healthcare / NHS Trust

STANDARDS & CODES

HTM 06-01 & BS 7671

SERVICE SCOPE

Infrastructure & UPS
Upgrade

PROJECT STATUS

Completed / Fully
Validated

01 The Challenge

Upgrading electrical infrastructure within an active healthcare environment presents unique operational constraints where continuous power continuity and zero compromise on life-safety systems are non-negotiable requirements.

The facility was experiencing critical operational bottlenecks due to aging power distribution systems, insufficient capacity to handle modern high-draw medical imaging equipment, and outdated emergency backup circuits, creating heightened risk profiles during peak demand periods.

02 The Technical Solution

West One Electrical executed a meticulously planned, high-capacity infrastructure overhaul engineered specifically for critical clinical operations:

- **Main Distribution Upgrade:** Replaced outdated main distribution switchboards and sub-mains to expand system capacity.
- **Dedicated UPS Integration:** Installed dedicated Uninterruptible Power Supply (UPS) feeds ensuring instant failover protection for critical care units.
- **Off-Peak Phased Execution:** Works were scheduled in precise off-peak phases to isolate active circuits without disrupting ongoing patient care.
- **Infection Control & Safety:** Enforced rigorous clinical infection containment measures and strict safety protocols throughout all works.

03 Results & Full Regulatory Compliance

The upgraded infrastructure successfully elevated operational reliability, increased total power capacity for advanced diagnostic equipment, and established redundant backup power lines.

Full testing, inspection, and verification were achieved, ensuring 100% compliance with **NHS Healthcare Engineering Standards (HTM 06-01)** and **BS 7671 IET Wiring Regulations**. Deliverables were achieved on schedule and within budget, with zero unplanned downtime recorded.

"West One Services delivered this project on time and budget and fully compliant. The team's expertise in live-environment critical system upgrades ensured a seamless transition."

Project Delivery Methodology

01.

Strategic Planning

Comprehensive site logistics, risk mitigation, and phased isolation schedules to keep critical hospital operations 100% stable throughout.

02.

Design-Build

Tailored distribution network layout designed for efficiency, resilience, and future scalability for high-load diagnostic systems.

03.

Install & Test

Precision installation of panelboards, UPS lines, and wiring, backed by full HTM 06-01 & BS 7671 verification testing.