ROBERT LOUGHRAN

Mechanical – Electrical – Plumbing (Operative - Manager – Installer)

18th Edition Electrician | LV & HV Electrical Infrastructure | Project Management

Birmingham • UK & Europe travel **07793 457786 • rob@flowcoremepltd.co.uk**

Professional Profile

Highly experienced 18th Edition qualified electrician and electrical infrastructure specialist with 2391 Inspection & Testing qualification and extensive practical capability across LV and 11kV HV electrical systems. Experienced in 11kV cable jointing, transformer installation, termination, testing, commissioning and maintenance, together with complex single-phase and three-phase installations, large distribution systems, switch rooms and renewable-energy infrastructure.

Hands-on project manager able to plan and deliver multi-discipline projects through several teams of operatives across large and operational sites. Combines technical knowledge with strong site coordination, sequencing, quality control and a safety-led approach. Experienced across commercial, residential, industrial, data-centre, rail, business-park and power-distribution environments throughout the UK and Europe.

Core Technical Expertise

- Single-phase and three-phase electrical installation, alteration, fault finding and maintenance
- LV and 11kV HV distribution systems, transformer connections and associated infrastructure
- 11kV cable jointing, terminations, transformer installation, testing and maintenance
- SWA and power cable installation, jointing and termination, including cables up to 300mm^2
- Three-phase panel boards, Form 4 switchboards, distribution boards and high-capacity distribution
- Switch-room construction, refurbishment, main connections and distribution infrastructure
- Inspection, testing, diagnostics, commissioning, certification and planned maintenance
- Solar PV, commercial rooftop solar, solar farms, inverters, battery-storage support and grid infrastructure
- Containment systems: tray, ladder rack, trunking, risers, ducting and heavy-duty cable cleating
- Mechanical and plumbing installation coordination, plant rooms, pipework, HVAC and water services

Qualifications

- 18th Edition Wiring Regulations qualification
- 2391 Inspection & Testing qualification
- 11kV HV cable jointing and termination competence
- 11kV transformer installation, testing, commissioning and maintenance experience
- Full driving licence; own van and comprehensive range of professional tools

Electrical Installation & Distribution

Experienced in delivering complete installations from incoming supplies and primary distribution through to local panel boards, final circuits, controls and commissioning. Works confidently with copper and aluminium power cables, XLPE and SWA systems, large three-phase supplies, industrial containment and distribution equipment in both new-build and live operational environments.

- Installation and termination of large SWA and XLPE cables up to 300mm^2, including gland selection, lugging, cleating and identification
- Installation of three-phase panel boards, high-capacity distribution boards, switchboards and associated protective equipment
- Large distributed-power projects, including multiple 800A electrical distribution boards across business-park infrastructure
- Main switch-room connections, sub-distribution, shore supplies, control cabling, junction boxes and equipment supplies
- Inspection, insulation resistance, continuity, cable identification, fault location, thermal inspection, functional testing and commissioning

HV, 11kV & Transformer Systems

- Installation, jointing and termination of 11kV cable systems and transformer supplies
- Installation and commissioning of 11kV transformers, HV switchgear connections and associated LV switchboards
- Straight, branch and transition joints; heat-shrink, cold-shrink and resin systems; cable terminations and network reinstatement
- HV fault finding, testing and diagnostics, including insulation faults, failed joints, water ingress and damaged underground infrastructure
- Planned installation, maintenance and emergency repair work across industrial, commercial and critical-infrastructure networks

Selected Major Project Experience

Berlin Data Centre – 11kV Infrastructure Upgrade | Berlin, Germany

Senior involvement in the delivery of critical HV and LV infrastructure for a major operational data-centre power upgrade.

- Installed and terminated four 11kV transformers supplied from HV switchgear
- Managed installation of approximately 1,800m of 240mm^2 11kV cable on ladder rack with heavy-duty triple cleats
- Completed Nexans 11kV termination systems, shear-off lug terminations and associated LV switchboard connections
- Coordinated testing, commissioning, certification and compliant handover of the completed works

Highleadon Solar Farm & Battery Storage | Forest of Dean, Gloucestershire

Electrical infrastructure delivery on a 49.9MW renewable-energy development extending across more than 30 fields.

- Installed 33kV inverter infrastructure and 400mm^2 single-core aluminium conductors
- Coordinated duct preparation, cable installation and connection of 13 primary and 20+ secondary inverter units
- Installed 500A DC fuse protection systems and completed 2.5kV insulation resistance testing
- Supported testing, commissioning and integration of solar, battery-storage and HV grid infrastructure

National Distribution Co – Solar & LV Distribution | Staffordshire

Complete solar PV and LV distribution package integrating renewable generation with new power infrastructure.

- Installed four solar inverters, solar PV arrays, a Schneider panel board and a Form 4 switchboard
- Installed and terminated more than 500m of 240mm^2 SWA cabling and associated containment
- Coordinated testing, commissioning and integration of the completed renewable-energy system

Network Rail – Tyseley Maintenance Depot | Birmingham

Electrical infrastructure upgrade serving multiple maintenance roads within an operational rail environment.

- Installed shore supplies, power distribution and control infrastructure across multiple maintenance roads
- Delivered 150–450mm tray systems, ladder containment, vertical risers and main switch-room connections
- Installed multi-core power and control cabling, stainless-steel control panels and junction boxes
- Coordinated testing, commissioning and safe delivery within a complex live-site programme

Solar PV, Solar Farms & Renewable Energy

- Commercial rooftop and ground-mounted solar PV array installation
- Large-scale solar farm cabling, inverter systems, DC protection and HV/LV distribution
- Battery energy storage support systems and renewable-energy infrastructure integration
- Cable duct preparation, long-distance pulling, cleating, termination, testing and commissioning
- Coordination of renewable generation with transformers, switchboards, panel boards and grid connections

Mechanical & Plumbing

Broad multi-discipline understanding that supports coordinated MEP delivery. Able to plan, supervise and integrate mechanical and plumbing works alongside electrical infrastructure, working with specialist operatives and subcontractors to meet drawings, specifications and programme requirements.

- Plant-room construction and refurbishment; heating, cooling and general mechanical services
- Hot and chilled water pipework, pumps, valves, pressurisation units and expansion vessels
- Commercial hot and cold water services, boosted supplies, sanitaryware, drainage and welfare facilities
- Copper, stainless-steel, MDPE and HDPE systems; press-fit, welded, threaded, solvent-weld and fusion-weld installations
- HVAC, ventilation, air-conditioning and associated control/BMS coordination
- Pressure testing, flushing, chlorination, commissioning, maintenance and refurbishment coordination

Project & Site Management

- Management of several teams of electrical, mechanical and specialist operatives across large-scale and multi-location sites
- Planning labour, plant, access, materials, cable routes, lifting operations, containment and equipment installation
- Coordination of multiple distribution routes, switch rooms, transformers, inverters, panel boards and final connections
- Daily briefings, allocation of works, progress tracking, quality inspections and resolution of technical or programme issues
- Coordination with clients, principal contractors, consultants, suppliers, subcontractors and end users
- Management of works in occupied and operational environments, including shutdown planning and phased changeovers
- Testing, commissioning, certification, snagging, as-built information and final handover
- Strong focus on safe systems of work, RAMS, permits, isolation procedures, housekeeping and compliance

Sector Experience

Commercial offices and property • Residential installations • Industrial facilities and manufacturing • Data centres and critical power • Business parks and estates • Rail infrastructure • Renewable energy and solar farms • Utilities and power distribution • New-build, refurbishment, maintenance and emergency response

Mobility & Working Arrangements

Based Birmingham. Available to travel and work throughout the UK and Europe. Full driving licence, own van and all own professional tools. Comfortable working away from home, on phased projects, shutdowns and time-critical infrastructure programs and working 24hrs shifts and emergency call out UK Wide.

Professional Approach

Practical, dependable and solutions-focused, with the ability to lead from the front while maintaining control of quality, safety and programme. Equally effective undertaking specialist installation work personally or coordinating several teams across complex MEP and power-infrastructure projects.

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For more work and technical references, please see my website: www.FlowCoreMEP.co.uk

Professional references and project details available on request