

ASIF NAZIR

Senior Protection & Control Engineer

Staffordshire, UK

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Professional Summary

Experienced Protection & Control Engineer with a strong background in the design, engineering, and delivery of high-voltage protection and control systems for major UK transmission and distribution projects, including National Grid and Network Rail. Extensive experience across 132 kV, 275 kV and 400 kV networks, as well as offshore transmission and HVDC systems.

Key Skills & Competencies

- Substation Protection & Control (132–400 kV, HVDC, Offshore Transmission)
- Electrical Design: Schematics, SLDs, Cable Schedules, Panel Layouts
- Traction Power (25/50 kV AUT Systems, Rail E&P)
- CAD Tools: MicroStation Bentley, AutoCAD Electrical, E-Plan
- Standards: BS7671, CDM, Network Rail, National Grid
- Project Delivery, Leadership & Design Assurance

Professional Experience

Murphy Group UK – Senior Protection & Control Engineer (May 2026 – Present)

- Receive and interpret the client's design specifications and lead the team to develop the conceptual design for National Grid projects (400 kV)
- Lead the design team to create specifications and Bill of Materials for equipment to enable Bid Managers to send out Requests for Quotations.
- Lead team to assess supplier quotations and engage suppliers to technically align these quotations with specification requirements.
- Produce time estimates for engineering the detailed design.
- Ensure that chargeable work is identified and evaluated including the preparation of adequate records of time spent.
- Lead the design team to ensure that detailed design work undertaken is carried out in accordance with company procedures and that a high level of professionalism is maintained.
- Lead the design team to produce detailed designs, calculations, drawings, diagrams and sketches in accordance with current relevant client standards and current codes of practice.
- Undertake design checks for team members and external designers.
- Provide advice and guidance on design and operational issues.
- Ensure design risks are considered and prepare design risk assessments for any residual risks.
- Manage / supervise members of the design team to ensure the timely delivery of information, checking the quality of the work.
- Manage / supervise subcontractors to ensure the timely delivery of information, checking the quality of the work.
- Provide assistance and mentoring to other members of the design team and contribute to their continued learning and development.
- Interface to extract or provide sufficient information to enable the wider project design team to produce detailed design drawings suitable for construction.
- Undertake site visits and surveys.
- Assist with the development of graduate and junior Engineers.

GE Vernova – UK – Substation Protection Design Engineer (Aug 2024 – April 2026)

- Produce high-level specifications for control, protection, and SCADA systems.
- Design of HV protection and control systems.
- Production of AC and DC schematic drawings, cable block diagrams, cable and termination schedules.
- Support the integration of protection, control, SCADA, and communication systems.
- Work closely with multidisciplinary engineering teams throughout project delivery.
- Attend technical meetings, design reviews and client workshops.
- Provide engineering support during testing, commissioning and energisation
- Oversee junior engineers and CAD specialists to develop designs in E-Plan and other engineering software packages.
- Be responsible for ensuring the designs are safe and adhere to the required electrical standards.
- Define the protection and control equipment specifications and bills of material, to ensure the design are accurately costed.
- Develop designs suitable for 132 kV, 275, 400 kV, offshore transmission and larger transmission including HVDC system.
- Work with other disciplines and subcontractors to ensure designs are compliant to customer expectations and deliverables.
- Ensure compliance with safety, technical and client requirements.

Integrum Power Engineering – UK – Electrical Design Engineer (May 2024 – Jul 2024)

- Actively support the Principal Design Engineer Electrical in the estimating tendering and planning of new projects;
- Produce conceptual designs detailed designs manufacturing specifications operational documentation and validation evidence for electrical engineering solutions in relation to defined requirements.
- Work closely with technical teams to ensure standards & budgets are met
- Coordinate the production and maintenance of electrical drawings;
- Use ComputerAided Design (CAD) software to deliver panel layouts circuit diagrams Single Line Diagrams & Bill off Materials (BoM).
- Contribute to construction configuration baselines.
Deliver highquality technical reports and presentations.
- Identify and support opportunities for cost savings efficiency and business improvement.
- Prepare work schedules and allocate resources as well as supervising junior engineers and subcontractors.
- Provide engineering support to HV projects in order to deliver exceptional engineering solutions for our customers and optimise efficient project delivery for the business

Power Supply Projects Ltd – UK – Design Engineer (Dec 2020 – April 2024)

- Creation of 25 kV & 50 kV autotransformer scheme designs for Network Rail.
- Preparation of calculations, reports, specifications, schematic, and layout drawings for Railway E&P projects.
- Collaborating with multidisciplinary teams, project managers, and engineering managers for integration of electrical systems with other railway infrastructure elements. This includes, Telecom, Civils, OLE engineering.
- Preparation of design specifications that comply with company and Network Rail, British and European Standards.
- Production of Low Voltage designs, including Points Heating, DNO Cubicle, RR and MOS Switches.
- Production of electrical protection schemes for traction power substations.
- Technical review and verification of third-party design submissions
- Liaise with Engineering Team together with the Construction and Commissioning Team, as well as clients and suppliers.
- Be pro-active in identifying and reviewing best practice and value engineering topics.
Ensure activities comply with HSQE Policies, Network Rail, and Railway Group Standards.

Capula Limited – UK – Electrical Design Engineer (Dec 2018 – 2020)

- Design protection and control systems for electrical power transmission and distribution networks.
- Develop protection philosophies in line with DNO / National Grid standards
- Develop detailed engineering drawings, specifications, and design documentation using software tools such as AutoCAD and ETAP.
- Perform technical calculations and analysis to ensure the reliability and performance of protection and control systems.
- Ensure designs comply with industry standards, safety regulations, and environmental guidelines.
- Conduct site surveys and assessments to gather data for design purposes.
- Collaborate with project managers, electrical engineers, and construction teams to integrate protection and control design requirements into project plans.
- Review and approve design modifications and provide technical support during installation and commissioning.
- Conduct design reviews and quality assurance checks to ensure accuracy and completeness.

Carillion PLC Ltd – Electrical Design Engineer (May 2014– Jan 2018)

- Prepare Protection & Control engineering designs for HV/EHV substations (11 kV–400 kV)
- Develop Protection Single Line Diagrams (SLDs), AC/DC Schematics, Wiring Diagrams, Terminal Plans, Cable Schedules, and Interconnection Diagrams
- Design Protection Relay Panels, Control Panels, Annunciation Panels, Metering Panels, and RTU/SCADA interfaces
- Prepare Protection Relay Settings philosophy and coordinate with system studies where applicable
- Perform protection coordination and review relay configurations
- Prepare engineering calculations, cable sizing, voltage drop calculations, and battery sizing .
- Coordinate with Civil, Primary, Telecom, and SCADA engineering teams
- Review vendor drawings and ensure compliance with project specifications
- Support FAT, SAT, commissioning, and technical issue resolution
- Ensure designs comply with IEC, IEEE, National Grid, and client-specific standards
- Support project execution by meeting quality, safety, and schedule requirements

Carillion PLC Ltd – Graduate Engineer (January 2012 – May 2014)

- Establish SLD KLD 3LD AUX SLD for Basic design Package.
- Evaluate engineering workload and deliverable dates with PM, and commit to budget and timelines.
- Ensure on-time delivery of design documents with suitable quality.
- coordinate with design team leader, through basic and detailed execution Phases.
- Request and attend the technical meetings with partners or suppliers as needed.
- Highlight scope or design changes, issues, and propose solutions.
- Ensure compliance with customer technical requirements and look for cost optimizations.

Qualifications

- MSc Electrical Engineering (Merit) – Staffordshire University, UK (2015)
- BEng (Hons) Electrical & Electronic Engineering – University of Glamorgan, UK (2010)

Professional Memberships

- Member, Institution of Engineering & Technology (IET)