

# JOB Responsibility – Electrical Engineer

## I. Design Support

- Collaborate with consultants during the schematic and detailed design stages
- Validate electrical load calculations, single-line diagrams, and redundancy layouts
- Recommend cost-effective and scalable electrical solutions

## II. Quality Assurance

- Implement quality control measures during procurement and installation
- Record Material Inspection report
- Share Quality observations to contractor
- Share report on quality assessment to customer / consultant
- Approve electrical components and supervise installation quality
- Conduct mock up and factory acceptance tests (FAT)

## III. Documentation

- Maintain complete records: schematics, technical drawings, test reports, and change logs
- Support preparation of Operation & Maintenance manuals
- Coordinate with BIM/CAD teams for drawing updates and redlines
- Draw AutoCAD drawings in rare case scenario
- Approved design review reports and redlines
- FAT/SAT documentation and test records
- Commissioning and IST protocols with pass criteria
- Final handover dossier and training materials

## IV. Site Execution

- Oversee installation of BMS, Security, Fire Alarm, LV/MV systems, UPS, generators, busbars, earthing, and lighting
- Coordinate with MEP teams to align with project schedule
- Manage subcontractors and resolve site conflicts in real-time

## V. Safety Compliance

- Enforce LOTO procedures, PPE standards, and site safety audits
- Conduct toolbox talks and safety walkthroughs
- Ensure full compliance with NFPA, OSHA, and local electrical regulations

## VI. Project Schedule

Prepare and maintain a detailed schedule using tools like MS Project . Track milestones:

- Design Finalization
  - Material Procurement
  - Installation Start & Completion
  - Commissioning & IST
  - Handover & Closeout
- Ensure schedule alignment with civil/architectural activities and client occupancy goals.

## VII. Material Management

Develop a material tracking log covering procurement, delivery, inspection, and usage.

- Coordinate just-in-time deliveries to optimize storage and reduce site congestion
- Ensure approved materials comply with submittals and standards
- Manage surplus and deficit proactively

## VIII. Quantity Estimation & Reconciliation

Generate accurate BOQs and track consumption against actual usage.

- Update quantity take-offs (QTO) based on IFC drawings
- Monitor site variations and issue quantity variance reports

- Interface with procurement for order adjustments

### 3.4 Contractor Billing & Measurement

Validate monthly progress and certify quantities for interim billing.

- Use site measurement books (SMBs) and Joint Measurement Records (JMRS)
- Ensure billing accuracy against drawings and actual progress
- Coordinate with accounts and project controls for client invoicing

## IX. Testing & Commissioning

- Plan and supervise functional testing and energization
- Lead system startup, load testing, and reliability trials
- Document and validate test results for client sign-off

## X. Integrated System Testing (IST)

- Coordinate cross-disciplinary testing (electrical, mechanical, IT) under simulated loads
- Identify and troubleshoot inter-system dependencies
- Facilitate mock drills and failover simulations for business continuity

## XI. Final Handover

- Provide as-built documentation, O&M manuals, and warranty certificates
- Lead training sessions for client operations staff
- Ensure all punch-list items are resolved and signed off