

Role definition

Job title:	Senior / Principal P&C Engineer – HV		
Reports to:	Discipline Lead, High Voltage		
Direct reports:	CAD Technician & Engineer		
Business unit:	Baker Hicks Limited	Location:	UK

Summary

Baker Hicks have grown rapidly in the Transmission & Distribution sector over the last ten years and have been successful in winning a number of major projects within the UK. As the demand to deliver exceptional engineering design from our clients continues to grow, an opportunity has arisen for a Senior/ Principal Electrical (P&C) Engineer.

Key objectives

The Senior / Principal P&C Engineer – HV role will be reporting to the Discipline Lead – HV and will be responsible ensuring the quality and consistency of the teams output in the production and control of drawings and technical documents.

You will also work with the Power Sector Director to assist during the bid process in order to secure further work.

Senior responsibilities and accountabilities

The candidate must have experience (depending on role) in the production of all designs, calculations, reports & drawings associated with new or modification of HV projects from 33kV – 400kV covering protection & control.

This will cover the production of single line diagrams, key line diagrams, wiring diagrams, P&C schematics, circuit diagrams, protection settings and calculations, technical specifications and other design deliverables detailed below.

The candidate must have a reasonable level of maths and science, preferably from a power engineering background and have good communication skills.

In their role, they will manage the production of project deliverables through a robust checking process but must also support the CAD technicians with the development of drawings and support the actual delivery of the outputs.

The candidate must be enthusiastic, mature enough to operate in a diverse team and work without full time supervision. This role can lead to many career paths for the employee as they develop through BakerHicks.

Person specification

Qualifications and training

- Minimum BEng / Bsc in Electrical Engineering, with Power / HV background
- Ideally MEng / Msc in Electrical Engineering, with Power / HV background
- Working toward CEng status is seen as beneficial, however not essential
- Ideally working toward CDAE accreditation by National Grid, however not essential.

General skillset

- Reporting to the HV Director or Discipline Lead.
- Supporting Office / Discipline Leads with Starters and Leavers.
- Supporting Office / Discipline Leads to define resourcing requirements.
- Supporting Office / Discipline Leads with the recruitment of new resources.
- Being responsible for training of younger staff.
- Provide updates to the Business Development Tracker.
- Guiding junior and other engineers in technical tasks
- Preparation, checking and/or approval of feasibility studies, outline and detailed design technical reports and other written documents.
- Design, checking and approval of detail allocation and construction design drawings.
- Production and approval of design concepts, drawings, specifications and other technical documents.
- Management of teams of engineers and external suppliers.
- Delivery of work to programme, budget and specification.
- Understanding of IEC standards.
- Experience in software packages such as MathCAD, ETAP etc.
- Experience in IED Software such as Siemens Digsig, S1 Agile, Enervista GE etc.
- Experience in guiding CAD technicians working in packages such as AutoCAD
- Be proficient with associated technical specifications from clients such as National Grid, SSEN, Scottish Power, UKPN, WPD, ENWL, etc.
- Good computer and report writing skills.
- Good interpersonal skills and the ability to work well within a team.
- Good attitude to obtaining new skills and capable at transferring existing skills to overcome new challenges.

Technical skills and experience

P&C Design:

- Delivering secondary design requirements, including but not limited to:
 - Key Line Diagrams
 - Wiring diagrams
 - Circuit diagrams
 - Transformer protection specifications
 - First main protection
 - Second main protection
 - Backup protection
 - Overall protection
 - Busbar protection
 - DAR lockout – Cable unit protection
 - Setting calculations
 - Site electrical interlocking
 - CT sizing calculations
 - Battery sizing calculations
 - Power system modelling
 - Protection discrimination studies
 - Writing technical specifications for procurement

- Take part in Design & HAZID reviews as appropriate
- The adherence to and control of documents and drawings in accordance with Baker Hicks management procedures.
- Design input/output within the designated risk management process.
- Development of team specific standards to ensure the consistency of the output.
- Development of the team's CAD technicians.
- Accept ownership of work to be done (i.e. being required to undertake specific actions within an agreed job boundary, the execution of a delegated task, activity or process).
- Providing programme updates to the Lead Engineers for the duration of the project life.
- Highlighting any quality and delivery risks.
- Provide a technical interface with 3rd parties.
- Must be competent at creating and laying out quality drawings that contractors, suppliers and manufacturers can understand.