Role definition

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| Job title: | Senior Engineer - HV |
| Reports to: | Office Lead, Power  |
| Direct reports: | N/A |
| Business unit: | Baker Hicks Limited | Location: | Manchester |

Summary

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| Baker Hicks have grown rapidly in the Transmission & Distribution sector over the last six 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 an Senior Electrical Engineer.  |

Key objectives

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| The Senior Electrical Engineer – HV role will be reporting to the Associate Engineer – Power and will be responsible ensuring the quality and consistency of the team’s output in the production and control of drawings and technical documents. You will also work with the Sector Director - Power to assist during the bid process in order to secure further work.  |

Principal responsibilities and accountabilities

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| The candidate will ideally have experience in the production of all designs, calculations, reports & drawings associated with the new or modification of EHV projects from 11kV – 400kV covering secondary design and protection & control. The candidate must have a reasonable foundation level of maths and science, preferably from a power engineering background and have good communication skills. In the role they will assist with the production of project deliverables, 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. |
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Person specification

Qualifications and training

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| * Minimum BEng / Bsc in Electrical Engineering with Power / HV background
* Ideally MEng / Msc in Electrical Engineering with Power / HV background
* Working toward CEng status, however not essential
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Technical skills and experience

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| * Guiding graduate engineers and CAD technicians
* The candidate shall have experience in either one of the following two areas:
1. Primary Design:

 Delivering primary design requirements, including but not limited to:* + Primary layouts for substations
	+ Transformer, shunt reactors, NER’s, Reactive & Capacitive compensation
	+ GIS & AIS switchgear
	+ Earth Switches, CT’s VT’s, Surge Arrestors, Circuit Breakers, post insulators, Disconnectors, etc
	+ Step & touch potentials
	+ Impressed voltage studies
	+ Earthing study & earth return
	+ Busbar short circuit forces
	+ Insulation coordination
	+ Type registration
	+ FAT of equipment
	+ Writing technical specifications for procurement
	+ Calculations & Technical reports
1. Secondary and P&C Design:

 Delivering secondary design requirements, including but not limited to:* + Secondary layouts for substation
	+ System modelling
	+ First main protection
	+ Busbar protection
	+ CT sizing
	+ DAR lockout – Cable unit protection
	+ Fault calculations
	+ Site electrical interlocking calculations
	+ CT sizing calculations
	+ Protection discrimination studies
	+ Writing technical specifications for procurement
* Preparation of feasibility studies, outline and detailed design technical reports and other written documents.
* Design and checking of detail construction design drawings.
* Production of design concepts, drawings, specifications and other technical documents.
* Delivery of work to programme, budget and specification.
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| * Take part in Design & HAZID (hazards in design) 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.
* 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.
* Supprot technical interface with 3rd parties
* Develop an understanding of IEC, BS and ENA standards.
* Experience in software packages such as MathCAD, ETAP, DigSilent, ERACS, etc
* Experience in guiding CAD technicians working in packages such as Microstation, Revit, AutoCAD, etc.
* Have an awareness of client standards with associated technical specifications from clients such as National Grid, SSE, 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
* Must be competent at creating and laying out quality drawings that contractors, suppliers and fabricators can understand
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