



Job Description – Primary Plant & Protection Engineer

<b>Job Title</b>	<b>Engineer (Substation Plant &amp; Protection)</b>
<b>Reports to</b>	<b>Technical Director</b>
<b>Function</b>	Detailed Design Office
<b>Location</b>	New Delhi (occasional visit to United Kingdom for short stay)

**Job Purpose**

Senior member of the technical team responsible for delivering design and technical EHV and HV Electrical Substation primary plant projects & Protection scheme, both in the UK and internationally, meeting targets for project profit, quality, safety and environmental measures.

**Dimensions**

<b>Staff</b>	Member of a team of engineers and engineering support staff. Responsible for junior members of the team. Manage appraisals, workload and utilisation
<b>Financial</b>	Project Profitability as sold or better, Target Utilisation for staff
<b>Others</b>	Develop and maintain positive relationships with Clients and other member of staff

**Responsibilities**

Your responsibilities will include the following.

- ❖ **Hands on experience** in Plant Substation, cable sizing and protection designing up to and including 132KV minimum.
- ❖ Responsible to manage his own technical work and assist other subordinates plus CAD designer based in same office (New Delhi) or in UK.
- ❖ Review clients all requirements to make an offer and do detail design after award of contract.



- ❖ Review local DNO's (Distribution Network Operators) document to understand the standard requirement and criteria of acceptance of substation, cable and protection design.
- ❖ Hands on Experience of AutoCAD is must, 3D knowledge will be an advantage.
- ❖ Deliver substation primary plant design projects to targeted levels of profitability, quality and timeliness. This may involve the direction of engineers within the team.
- ❖ Seek out innovative solutions to technical problems.
- ❖ Advice and design work for primary plant, including transformers, GIS and AIS switchgear cables and all substation equipment.
- ❖ Ensure an active safety culture is created and maintain a safe working environment at all times. Operate within the quality assurance manual of BPI or an established project management methodology which ensures the maintenance of equivalent standards.
- ❖ Attend design reviews to ensure that discipline and excellence is maintained.
- ❖ Maintain close working relationship with the Finance Management team. Capture any additional business development opportunities which may arise during project delivery.
- ❖ Preparation, monitoring and delivery of the cost budget for projects
- ❖ Have sound analytical & numerical skills including short circuit forces calculation, cable rating calculations, short circuit current calculations and lightning protection calculations
- ❖ Have a solid understanding of the interface requirements of the civil/structural and OHL aspects of HV substations
- ❖ Producing designs for substation Protection and Control systems from 11kV up to 132kV (Single Line Diagrams, Circuit Diagrams, General Arrangements, Termination drawings, Wiring Diagrams, Block Cable Diagrams/Schedules, cable specification/sizing calculations, etc.)
- ❖ Maintain close working relationship with the Project Management team
- ❖ Working alongside other designers, construction professionals and engineering teams
- ❖ Liaising with the Power Systems, Primary and Civil design departments to ensure that all objectives are met and that the best possible design is submitted
- ❖ Liaising with external stakeholders, including the end client, other design houses and consultancies as well as other internal departments
- ❖ Have a 'can do' attitude, with previous experience in mentoring and coaching junior colleagues
- ❖ Should be responsible for project delivery 80% of times independently.
- ❖ Clearance diagrams, access drawings
- ❖ Earthing experience required but not essential.
- ❖ Writing technical proposals.
- ❖ Good understanding of primary calculations.

#### Training

#### Location within

Based in the New Delhi, India office with a requirement to travel within the United Kingdom and possibly overseas.



<b>organisation</b>		
<b>Environment</b>	Varied. Office based but in a range of environments and cultures, often in developing countries in which the infrastructure, standards of health and hygiene may be less than in the west.	
<b>Knowledge, skills and experience</b>	<b><i>Essential</i></b>	<b><i>Desirable</i></b>
	Degree or equivalent in a numerate discipline.	Ideally an engineering relevant degree, to masters level or higher, with chartered status.
	Good understanding of the power industry, including technical standards relating to substation plant and protection schemes up to and including 132kV.	Thorough working knowledge of the power sectors in target areas (e.g. UK, Middle East, South Asia, Africa). Expert understanding of technical standards relating to substation protection schemes up to and including 400kV.
	Good understanding of engineering contracts.	Experience of delivering projects under appropriate contracts.
	Experience as a consultant and adviser.	Experience as an engineer in the power sector, with an international dimension.
	Experience as a project manager and in project management methodologies.	Track record of delivering high value/complex projects successfully.
	High level communication and influencing skills.	Commands confidence as an expert in his/her field.
	Knowledge of written and verbal communication in English is must	



**APS** Hydro Pvt. Ltd.  
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