



Title: Intermediate Electrical Engineer / Power System Studies Engineer
Reports To: Engineering Manager / Ownership

Description of Work:

The successful candidate will join a fast-paced and growing engineering department that is looking to sustain and grow with the needs of our expanding cliental. The Intermediate to Senior Electrical Engineer will work in a variety of different facets including:

- Power System Studies
 - Short-Circuit Studies
 - Arc Flash Hazard Incident Energy Analysis in accordance with CSA Z462-18 and IEEE 1584-18
 - Coordination Studies
- Load/Demand Studies
- Feasibility Studies
- Ground Grid Design & Interpretation of Field Test Data
- Grounding Safety Studies (GPR, Step/Touch Investigations)
- Switchgear Protection System Design & Commissioning
- Medium Voltage Switchgear Retrofit Design
- Substation Protection System Design & Commissioning
- Voltage Conversion Vault Upgrade Design

Personal Competencies:

- Proficient written and verbal skills and can communicate at a high or low technical level dependant on the customer.
- Ability to adapt to a fast-paced industry with large work demand.
- Able to adapt quickly to changing work demands without compromising accuracy and quality of work
- Self-motivated and detail orientated.
- Ability to take ownership of one's work and see projects through.
- Ability to work in a team environment.

Responsibilities:

- Development and design of the power distribution and transmission systems (HV/MV/LV), including single line diagrams, three-line diagrams, AC/DC schematics and communication systems
- Perform engineering studies including but not limited to:
 - Incident energy analysis (Arc Flash)
 - Short-circuit
 - Protection coordination



- load flow
- Ground grid safety studies (GPR, step/touch potentials)
- Generator protection schemes
- Motor starting and protection
- Harmonic assessment and filter specifications
- Engineering calculations and analysis for demand load, equipment sizing, voltage drop, motor starting, neutral grounding resistors (NGR's), and system power factor improvement
- Prepare medium voltage equipment specifications for replacement/upgrade projects.
- Interpret technical RFP/RFQs and develop quotes and proposals.
- Interface with vendors, customers, and contractors.
- Conduct technical evaluations and provide thought-out recommendations.
- Provide support to our existing engineering staff as well as our field service division.
- Technical report writing and completion of test sheets
- Working with larger industrial & commercial clients to produce electrical lock-out procedures.
- Assistance on Electrical Safety Programs for large industrial clients.
- Track and be responsible for project costing and profitability

NOTE: Other duties and/or responsibilities may be assigned/changed as demand varies.

Qualifications:

- 5+ years of experience directly related to Power System Studies
- Electrical engineering degree or other applicable certification
- Registration as a Professional Engineer or Engineer-in-Training in BC, or eligibility for registration with EGBC is required
- Knowledge of CEC, CSA and IEEE standards applicable to our line of work
- Excellent knowledge of power distribution, switchgear, generation and substations
- Proficient in ACAD Electrical. Knowledge of ACAD 3D ideal.
- Proficient with using SKM or ETAP engineering software.
- Excellent Microsoft Office skills (Word, Excel, Powerpoint)
- Field experience with electrical power equipment an asset
- Willing to work in the field on large-scaled multi-crew power system shutdowns (rare for this position)
- Willing and able to work out of town as needed (rare for this position)
- Valid Class 5 Driver's License & clean driver's abstract
- Must be legally entitled to work within Canada

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