



Job Description

Title:	Electrical Designer Engineer	Date Modified	March 29, 2023
Reports To:	Manager /Associate Power Systems Engineering and Utilities	Wage Range	TBD
Team:	Power System Engineering and Utilities		

ABOUT THE ROLE

The Electrical Designer Engineer will be responsible for applying their technical expertise to specific project work to ensure our clients are getting technically sound, quality information to support the needs of their project. The Electrical Designer Engineer will be a team player, supporting peers, and participating in growth initiatives for co-workers.

The Electrical Designer Engineer may have opportunities to exhibit leadership and project management skills as they take the lead of a certain project. Organizational skills, determination and professionalism will be at the forefront of ensuring these tasks are done successfully.

As an Electrical Designer Engineer, you will provide services to clients in Power and Nuclear industry sectors, and you will have significant involvement in:

- Power system design.
- Medium voltage distribution system.
- Medium voltage substations.
- Low voltage and medium voltage generation stations.
- Low voltage cogeneration connections.
- Short circuit coordination, arc flash, load flow, system assessment.
- Switchgears replacement design.
- Electrical feasibility studies, including system upgrades and equipment assessment.
- Technical documentation: Specification / Bill of Material / Inspection plan / Reports.
- Project management: Exercise schedule and cost control.
- Project administration: Change notice / addendum / site visits / meetings / reports / RFIs.



ABOUT YOU

- Work Ethic – You understand what hard work and dedication lead to success.
- Adaptability - You are not only a contributing member of the team, but you are a go-to person. People feel comfortable coming to you because they know you will listen and act accordingly.
- Professional Expertise - You are the expert in Electrical Engineering and are passionate about staying on top of building code requirements, forward-thinking initiatives, and progressive Engineering offerings.
- Innovative- You value change and are continuously looking for new ways to do things to ensure that the project management and delivery will support the business strategy for the sustainability of the organization.
- Accountable - you don't shy away from accountability. You like to get your hands dirty to get things done and take full responsibility to ensure the quality of work is high and deadlines are met.

KEY RESPONSIBILITIES

TECHNICAL DESIGN (50-75% of time)

- Prepare power layout drawings, single line diagram, schematics, wiring drawings, details, and harness drawings.
- Medium voltage distribution system.
- Medium voltage substations.
- Low voltage and medium voltage generation stations.
- Low voltage cogeneration connections.
- Short circuit coordination, arc flash, load flow, system assessment.
- Switchgears replacement design.
- Prepare electrical feasibility studies, including system upgrades and equipment assessment.
- Create Specification, Bill of Material, test procedures, Inspection plan for components and system, and Reports.

PROJECT MANAGEMENT (15-25% of time)

- Lead assigned projects to ensure quality standards and timelines are met.
- Complete all required project management and sign offs tasks, as required.
- Exercise schedule and cost control.
- Coordinate the billing cycle of the projects.
- Prepare documentation to support Electrical Site Plan Approval and Building Permit processes.
- Lead the compliance testing and certification of the equipment.
- Participate in quality assurance process, including design inputs/outputs verification.



PROJECT ADMINISTRATION (10-20% of time)

- Provide full cycle of engineering assistance and field support during installation, commissioning, and project close out.
- Complete project administration documentation/records as required, including change notice / addendum / site visits / meetings / reports / RFIs.

EDUCATION/QUALIFICATIONS:

- University Degree in Electrical Engineering – This requirement is mandatory.
- A valid P.Eng. Designation in the Province of Ontario is an asset.
- Experience in AutoCAD; ETAP is required.

TECHNICAL EXPERTISE REQUIRED:

Excellent experience and understanding of:

- Ontario Electrical Safety Code.
- Fire Code.
- Building Code.
- Proficient with electrical engineering design process.
- Solid understanding and proof of experience in electrical Engineering.

OTHER REQUIREMENTS:

- Displays a high level of accuracy and attention to detail of their work.
- Has experience leading a team, or a project is an asset.
- Demonstrates care for the work they do.
- Open to collaboration and teamwork
- Possess excellent communication skills