Manitoba Hydro
energy for life

EMPLOYMENT OPPORTUNITY

Closing Date: 2024/07/30

PROFESSIONAL ENGINEER

WINNIPEG, MB

Manitoba Hydro is consistently recognized as one of Manitoba's Top Employers!

Great Benefits

- Competitive salary and benefits package.
- Defined-benefit pension plan.
- Nine-day work cycle which normally results in every other Monday off, providing for a balanced approach to work, family life and community.
- Flex-time and partially remote work schedule (providing the option to work remotely 3 days per 2 week period), depending on nature of work, operational requirements and work location.

Manitoba Hydro is a leader among energy companies in North America, recognized for providing highly reliable service and exceptional customer satisfaction. Join our team of Manitoba's best as we continue to build a company that supports innovation, commitment, and customer service, while actively supporting a diverse, equitable and inclusive workplace.

We are seeking a Professional Engineer to join our Station Design department. Under the general direction of the Automation & Controls Engineering Section Head or delegate, act as a specialist providing technical expertise and guidance to stakeholders and designers on the technical standards and requirements for Protection, Control, Metering and Auxiliary systems in Transmission, Distribution, Converter station as well as diesel generation stations. Provide direction, leadership, and technical expertise to staff responsible for design, specification, purchase, commissioning, and training activities associated with high voltage ac transmission and distribution station control Converter Stations monitoring, protection, and automation systems.

Responsibilities:

- Perform and/or lead teams responsible for the design, specification, tender analysis, acceptance testing and support commissioning of complex integrated Station Automation Systems (SAS), and protection, control, metering (PCM) associated with high voltage ac distribution, transmission, converter, and diesel generating stations, ensuring design deliverables meet all the requirements of project stakeholders and owners.
- Provide expertise and consulting services in the field of substation controls and automation design to other Business Units.
- Lead and direct work group deliverables and maintain accountability in terms of meeting committed schedules and estimates. Establish clear statements for stakeholders and design staff on the scope, schedules, priorities, and deliverables for assigned projects. Lead, direct and mentor to facilitate the development of junior staff.
- Design, from concept to in-service of complex integrated Station Automation Systems (SAS), and protection, control, metering (PCM) associated with high voltage AC distribution, transmission, converter, and diesel generating stations, ensuring design deliverables meet all the requirements of project stakeholders and owners. Develop Automation & Control Reports that specify the concepts, technology, architecture, and requirements for substation automation systems at new and existing substations.
- Direct and participate in the research and development of techniques, concepts and standards related to design of station controls, plus the adherence to existing standards, practices, and procedures, to ensure they meet all the desired performance objectives.
- Review and accept consultant's designs and reports ensuring compliance with project specifications and standards.
- Consult and coordinate with internal project managers, contract management specialists and stakeholders throughout the corporation and external consultants on project activities to ensure that all share a common understanding of project requirements and deliverables.
- Coordinate design philosophy and implementation details between ACE work groups to ensure efficient delivery of maintainable and consistent standardized designs.
- Responsible for communications network concepts, standards, and detailed implementation related to SAS while accounting for network security and network management technologies. Implement communications interfaces between automation and protection equipment using IEC 61850, DNP3, Modbus, SNMP.
- Development and testing of application software code on integrated SA platforms including but not limited to HMIs, RTUs, Gateways, Bay Controllers, Ethernet Switches, Digital Protective IEDs, Metering IEDs, Network Access Servers, Satellite clocks, I/O hardware, and like devices.

- Represent Manitoba Hydro externally as required concerning the development, design and use of protection, control, metering, and Station Automation Systems.

Qualifications:

- A BSc in Electrical/Computer Engineering from a University of recognized standing with a minimum of seven years of directly related experience, including the design and deployment of RTUs, SCADA systems, substation control, protection and metering systems, and substation automation applications and including a minimum of two years' experience directing Engineers, Technologists, Technicians and Engineering Aids.
- Professional member in good standing with Engineers Geoscientists Manitoba.
- Must obtain and maintain a current Personnel Risk Assessment and a "Clear" security rating in accordance with Manitoba Hydro policy P513.
- Critical Infrastructure Protection (CIP) Training is required, must be completed prior to transfer date, and renewed annually.
- Advanced knowledge of software programming languages such as IEC 61131 in the development and deployment of electric power system control, protection, data acquisition and monitoring equipment.
- Advanced knowledge of control, metering and the application of protective relaying and digital communications associated with major ac transmission and distribution stations, converter stations and diesel generating stations.
- Advanced knowledge of SAS architectures and related communication networks.
- Advanced knowledge of communications technologies and their interfaces to SAS/SCADA systems including demonstrated experience with SAS and SCADA communication protocols such as 61850, DNP3, Modbus, and SNMP.
- Proven interpersonal skills and ability to provide direction and leadership at an advanced level.
- Working knowledge of the operation of the Manitoba Hydro System.
- Working knowledge of major apparatus to include application and interfacing with station control, protection, metering, and annunciation circuitry.
- Working knowledge of the Canadian Electrical Code.
- Field experience with installation and maintenance of above mentioned systems would be an asset.
- Working knowledge in construction or maintenance of substation facilities would be an asset.
- Membership in Engineers Geoscientists Manitoba.
- Possess and maintain a valid Province of Manitoba Driver's Licence.

Salary Range

Starting salary will be commensurate with qualifications and experience. The range for the classification is $49.97-$68.46 Hourly, $95,747.86-$131,177.28 Annually.

Apply Now!

Visit www.hydro.mb.ca/careers to learn more about this position and to apply online.

The deadline for applications is JULY 30, 2024.

We thank you for your interest and will contact you if you are selected for an interview.

This document is available in accessible formats upon request. Please let us know if you require any accommodations during the recruitment process.