Manitoba Hydro
energy for life

EMPLOYMENT OPPORTUNITY

Closing Date: 2026/11/24

HVDC Design Engineer (Electrical/Computer Engineer)

Winnipeg, MB

Manitoba Hydro is consistently recognized as one of Manitoba's Top Employers! We are 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 champions safety, supports innovation, and delivers on our commitment to customer service - while actively fostering a diverse, equitable, and inclusive workplace reflective of the communities we serve.

Great Benefits

- Competitive salary and comprehensive benefits package.
- Defined-benefit pension plan for long-term financial security.
- Enjoy a work schedule that typically provides every second Monday off (subject to location and operational requirements), supporting a balanced approach to work, family life and community.

Position Overview:

Manitoba Hydro operates one of the largest and most sophisticated HVDC transmission systems in North America and is recognized as a global leader in the transmission of renewable hydroelectric energy.

We are seeking a Senior HVDC Design Engineer to join the Station Design Department and help design, modernize, and support critical HVDC converter and transmission station infrastructure.

Under the general direction of the Automation & Controls Engineering Section Head or delegate, you will provide engineering leadership, technical expertise, and consultant management services for complex capital projects supporting Manitoba Hydro's HVDC system.

This role offers a unique opportunity to contribute to nationally significant infrastructure projects while working alongside industry-leading engineers, consultants, manufacturers, and technology providers. The successful candidate will lead and support complex design initiatives, provide technical guidance to multidisciplinary teams, and help ensure the continued reliability and evolution of Manitoba Hydro's HVDC assets.

Responsibilities:

- Perform and/or lead teams responsible for the design, specification, tender analysis, acceptance testing, and support commissioning of HVDC systems and controls & protection for the Corporation's HVDC facilities.
- Develop Conceptual Design Reports that specify the concepts, technology, architecture, and requirements for HVDC systems, controls, protection, and auxiliary equipment.
- Prepare and direct preparation of engineering packages for the installation or modification of HVDC controls, protection, and auxiliary equipment.
- Review and accept consultant's designs and reports ensuring compliance with project specifications and standards.
- Lead and direct project team deliverables and maintain accountability in terms of meeting committed schedules and estimates.
- Provide technical expertise in the design of HVDC systems to stakeholders in AP&D and Operations.
- Prepare scope and cost estimates for input into capital project justifications associated with the proposed modification, replacement, or addition of HVDCs systems, control, protection, and auxiliary equipment.
- Design custom electronic equipment, supervising the preparation of drawings and other design documentation.
- Liaise and coordinate with other groups within the Corporation, external consultants, manufacturers, suppliers, and contractors.
- Develop and prepare specialized commissioning and acceptance test procedures for the installation or modification of HVDC systems, control, protection, and auxiliary equipment.
- Provide technical leadership and mentorship to engineers, technologists, and project team members.

MANITOBA HYDRO IS COMMITTED TO DIVERSITY AND EMPLOYMENT EQUITY

Qualifications:

- We recognize that specialized HVDC experience is relatively uncommon. Candidates with strong experience in power systems, transmission, protection and control, industrial automation, power generation, renewable energy, or other complex utility environments are encouraged to apply.
- A BSc in Electrical/Computer Engineering from a University of recognized standing with a minimum of seven years of directly related experience including a minimum of two years' experience directing Engineers, Technologists, Technicians, and Engineering Aids.
- Professional member in good standing with Engineers Geoscientists Manitoba (or willingness and ability to attain within a specified amount of time).
- Experience with HVDC systems, power transmission systems, utility protection and controls, industrial automation, or related complex electrical infrastructure.
- Advanced knowledge of HVDC technology, controls including digital and legacy analog electronics. Direct HVDC controls and protection experience would be considered a strong asset.
- Advanced knowledge of control, protection and auxiliary systems for synchronous condensers. Experience with synchronous motors, generators, generator controls, or similar electrical plant would be considered an asset.
- Experience with industrial control systems, sequence control, programmable logic controllers (PLCs), automation systems, monitoring systems including software and hardware design experience or related control technologies.
- Field experience with installation, commissioning, and maintenance of the above-mentioned systems.
- A working knowledge in construction or maintenance of HVDC facilities would be an asset.
- Demonstrated ability to independently plan, organize and direct complex engineering work involving a high degree of specialization.
- Possess and maintain a valid Province of Manitoba Driver's Licence.
- Required to travel by all modes of transportation i.e. air, land and water.

Salary Range

Starting salary will be commensurate with qualifications and experience. The range for the classification is $52.88-$72.45 Hourly, $101,332.40-$138,828.30 Annually.

Apply Now!

Ready to join a team that energizes Manitoba and puts safety, innovation, and inclusion at the heart of everything we do? Visit www.hydro.mb.ca/careers to learn more about this position and to apply online.

Application deadline: NOVEMBER 24, 2026.

We appreciate your interest in Manitoba Hydro and thank all applicants. Only those selected for the next stage of the selection process will be contacted.

If you require accommodations during the recruitment process or need this posting in an accessible format, please let us know - we're committed to a barrier-free experience for all candidates.