



EMPLOYMENT OPPORTUNITY

Closing Date: 2026/04/20

Senior Generation System Studies Engineer (Civil, Electrical or Mechanical) 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.
- Nine-day work cycle, typically resulting in every other Monday off to support a balanced approach to work, family life and community.

Position Overview:

We are seeking a Senior Generation System Studies Engineer to join our Energy Resource Planning Department. Under the general direction of the Generation System Studies Lead, lead complex studies including integrated power planning and life cycle studies for existing and new generation assets, generation and transmission system modelling for financial and reliability impact analysis and long-term planning and lead economic evaluations. Develop strategies and make recommendations that maximize supply side enhancements and transmission capacity opportunities. Responsible for coordinating and acting as the generation customer for interconnection tariff requests that impact generation capacity.

Responsibilities:

- Lead complex studies of the integrated generation, AC transmission and HVDC systems, determine financial and generation reliability impacts and make recommendations to support long term planning decisions that are strategic and high impact for existing and new infrastructure. These studies include developing concepts, cost estimates, operating parameters and operational constraints for generation and transmission alternatives.
- Undertake and/or lead generation and transmission studies that support the HVDC Reliability project. These activities include development of potential failure mitigation measures, determining system wide impacts to operations, load serving and revenue impacts of prolonged outages.
- Act as departmental subject matter expert regarding transmission considerations and issues within integrated resource planning studies and act as the interface between transmission and generation modelling within GSPro.
- Lead generation system studies and provide technical direction to staff to assess system capability, generation reliability and operability by utilizing the resource planning modelling tools including SDDP and NCP.
- Ensure that the principles of operation of the Manitoba Hydro generating and transmission system that change over time are reflected in generation system models.
- Responsible for coordinating interconnection requests under the OAIT, represent AP&D as the generation customer and ensure timely achievement of commercial operation designation for capacity projects.
- Develop the transmission and HVDC representation and energy/capacity losses within generation system modelling through collaboration with Grid Infrastructure Planning Department and System Performance Department.
- Manage cross-functional teams of internal subject matter experts and consultants to undertake plant level life cycle planning studies for existing and future generation facilities.
- Lead energy production cost modelling and economic analysis and evaluations for generation resource options, supply side enhancements and transmission upgrades by analyzing proposed performance improvements and/or capacity increases through consultation with external departments.
- Undertake engineering and economic evaluations supporting the Integrated Resource Plan, write reports and technical memoranda documenting results of studies including conclusions and recommendations.

Qualifications:

- A graduate in Civil or Electrical or Mechanical Engineering from a recognized University and have a minimum of seven years related experience with a minimum four years' experience related to energy resource planning.
- Professional member in good standing with Engineers Geoscientists Manitoba (or willingness and ability to attain within a specified amount of time).
- Extensive knowledge of the operation of Manitoba Hydro's integrated system including generation, transmission and HVDC operations and associated loadings.
- A thorough understanding of the MISO market and the Open Access Interconnection Tariff.
- Demonstrated comprehensive knowledge of engineering economic analysis and evaluations.
- Advanced knowledge, understanding and experience with generation system modelling using PSR software or similar software.
- Experience with advanced computational analysis and programming using Microsoft Excel, Visual Basic and Python.
- Demonstrated ability to write technical reports.
- Analytically minded with a high degree of initiative and be able to work well both independently and in a team environment.

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: APRIL 20, 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.

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