



EMPLOYMENT OPPORTUNITY

Closing Date: 2026/01/26

Generation System Studies 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.
- Nine-day work cycle, typically resulting in every other Monday off to support 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.

Position Overview:

We are seeking a Generation System Studies Engineer to join our Energy Resource Planning Department. Under the direction of the Generation System Studies Lead, perform integrated generation system modelling, life cycle planning studies and economic evaluations for existing and new generation assets, supply side enhancements, load side solutions, non-utility generation projects, gas system projects and generation outages. Develop generation system marginal cost of energy and capacity, and customer energy efficiency assumptions for Integrated Resource Planning processes.

Responsibilities:

- Lead the annual development of the corporation's marginal cost of generation energy and capacity and coordinate development of marginal cost of transmission and distribution, issue to internal departments and Efficiency Manitoba and support their usage.
- Develop production cost modelling parameters for energy efficiency and demand response measures for integrated resource planning studies by interfacing with Efficiency Manitoba, vendors and other utilities.
- Undertake complex studies of the integrated generation and transmission systems, perform economic evaluations and make recommendations to support long term planning decisions for existing and new infrastructure.
- Perform system modelling and economic evaluations for new resource options, transmission upgrades, supply side projects including generating unit overhauls, uprates and replacements, civil improvements and auxiliary system upgrades.
- Undertake economic evaluations of load side projects, non-utility generators, customer fuel switching, gas system improvements, customer loads, energy efficiency and demand response programs.
- Carry out system integration studies for new supply side resources (e.g. solar, wind, battery) and load side measures (e.g. fuel switching, heat pumps, demand response programs, district heat, electric thermal storage).
- Monitor industry by interfacing with vendors and other utilities to develop concepts and cost estimates for load side measures (energy efficiency and load response), develop their system modelling parameters, evaluate and support recommendations for advancement into the integrated resource planning process.
- Annually develop outage costs for all existing hydropower and thermal generating units reflecting the financial impact to the corporation for use by Asset Management and Project Management departments.
- Lead cross-functional teams of internal subject matter experts and consultants to undertake plant level life cycle planning studies for existing and future generation facilities.
- Undertake engineering and economic evaluations and writing to support the development of Integrated Resource Plans and Long Term Resource Plans.
- Support Efficiency Manitoba with the development of their Energy Efficiency plans.
- 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 six years related experience and at least two years of 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.
- Knowledge and understanding of load side energy efficiency and load management measures and associated load analysis would be an asset.
- Demonstrated comprehensive knowledge of engineering economic analysis and evaluations.
- Demonstrated knowledge, understanding and experience with production cost modelling software.
- Experience with computational analysis and programming using Microsoft Excel, Visual Basic and Python would be an asset.
- Demonstrated ability to write technical reports and deliver presentations.
- Analytically minded with a high degree of initiative and be able to work well both independently and in a team environment.
- Must have completed Standards of Conduct training or be willing to complete within two weeks of start date.

Salary Range

Starting salary will be commensurate with qualifications and experience. The range for the classification is \$48.74-\$67.29 Hourly, \$93,398.24-\$128,947.78 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: JANUARY 26, 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.