New Buildings Program 2.2
Energy modelling assistance incentive

Overview

An incentive of up to $10,000 is available to eligible building owners who submit a completed design energy model report to Efficiency Manitoba during the project's design phase and then successfully complete the program's Performance Path.

Using energy modelling early in a new building's design process can help identify opportunities for energy efficiency, and can reduce the need for costly modifications and change orders later on in the project. Energy models can simulate a variety of building details, such as roof and wall construction, lighting power densities, domestic hot water usage, heating and ventilation systems, occupancy schedules, and more. Changing variables, such as outdoor and indoor temperature, solar orientation, humidity, energy costs, construction materials, and occupant levels allow the energy modeller to come up with many different scenarios and optimize a building's design to meet energy efficiency objectives.

Design energy model reports will be reviewed for program compliance and, wherever possible, Efficiency Manitoba will collaborate with the project's energy modeller to discuss potential energy efficiency opportunities and building design enhancements.

Financial incentives

The energy modelling assistance incentive provides up to $10,000 to project teams using energy modelling during the design of a new construction project. Up to $5000 will be paid upon approval of the design energy model report and the remaining will be paid upon successful completion of the Performance Path. The total energy modelling assistance incentive is the lesser of $10,000 or the total value of the invoice(s) for energy modelling services.

A detailed copy of the invoice(s) itemizing the total cost of energy modelling services must be provided to Efficiency Manitoba. The energy modelling assistance incentive will not exceed the amount of the invoice(s).

How to participate

1. Complete an energy modelling assistance incentive application form. Forms are available at **efficiencymb.ca/newbuildings**
2. A New Buildings Program representative will review the form and, if accepted, will notify the building owner, energy modeller, and owner's representative via email.
3. A design energy model report along with any relevant reports generated by the energy modelling software program must be submitted to Efficiency Manitoba before the project's tender date and before the project is issued a building permit*. See the following page for requirements of the design energy model report submittal and the energy modelling software-generated reports.
4. An invoice for the applicable energy modelling services must be provided to Efficiency Manitoba. The invoice can be provided directly from the energy modeller, the building owner, or other project contractor or sub-contractor.
5. Once the design energy model report is reviewed and deemed complete, the incentive will be processed and sent to the building owner. Any remaining energy modelling incentive assistance monies (up to a total of $10,000) will be provided upon completion of the program's Performance Path.

*A foundation permit does **not** render a project ineligible. The construction of foundation and structural elements may begin as these elements do not typically have a significant impact on the energy efficiency of a new commercial building.

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Energy modelling software requirements

The energy model must be primarily created with energy modelling software that meets the requirements of the National Energy Code of Canada for Buildings 2011 – Part 8: Building Energy Performance Compliance Path. Copies of the building code are available online at **nrc-cnrc.gc.ca/eng/publications/codes_centre/2011_national_energy_code_buildings.html**.

Design energy model report submittal requirements

The design energy model report must include, but not be limited to, the following information:

- Project description/building overview
- Energy modelling scope
- Inputs and assumptions:
  - Climate data
  - Basis of inputs (proposed and reference cases)
  - Key assumptions
  - System workarounds
- Results and discussions:
  - Energy end-use breakdown (proposed and reference cases)
  - Energy utilization intensity (EUI) comparison between proposed and reference cases
  - Thermal energy demand intensity (TEDI) comparison between proposed and reference cases
  - Annual energy consumption comparisons (split by fuel type and expressed in kilowatt-hours (electric) and cubic meters (natural gas) and totalled)
  - Estimated annual energy cost comparisons (split by fuel type and expressed in kilowatt-hours (electric) and cubic meters (natural gas) and totalled)
  - Discussion of results, providing commentary on the end-use energy savings
  - Supplemental reports

    Provide any relevant reports and results files generated by the energy modelling software program. These output documents typically include detailed information on: modelled envelope assemblies, ventilation values (eg ASHRAE 62.1 inputs), lighting specifications, process and plug load details, zone heating & cooling loads, and hourly schedules.
- Conclusions and recommendations
- Appendix A: Detailed summary of modelling inputs

Eligibility

- The Building Owner must be a Manitoba Hydro customer eligible for the General Service Electricity Rate.
- This Program applies to new construction projects classified as Part 3 buildings that are required to follow the Manitoba Energy Code for Buildings 2013 (MECB), as determined by the Authority Having Jurisdiction. Commercial buildings not required to follow the MECB may also apply; however, Residential, Multi-Unit Residential, Farm, Industrial, and Manufacturing buildings that are not required to follow the MECB are not eligible for this Program.
- The Applicant must be the current registered owner of the property for the building and of the building.
- Incentives are not available for projects completed as of the date Efficiency Manitoba approves this Application.
- To be eligible for Energy Modelling Assistance Incentive, a design energy modelling report must be submitted to Efficiency Manitoba before the project's tender date and before the project is issued a building permit. A detailed copy of the invoice(s) itemizing the energy modelling services must be provided to Efficiency Manitoba. The energy modelling assistance incentive will not exceed the amount invoiced to the building owner.
- Customers must complete and submit all deliverables as outlined in the New Buildings Program 2.2 - Performance Path Program Guide (Appendix A).
- The Building Owner must at all times comply with all applicable federal, provincial, municipal, laws, by-laws, regulations, and codes, which are, or may hereafter become, applicable, to the Building Owner, the building (including, without limitation, its design, construction, operation), the project and/or any of the team member(s) or other contractor(s), and with all requirements of Efficiency Manitoba relating to the Program, Application, Incentive, Incentive Agreement, energy supply and/or account(s).

- Efficiency Manitoba must be promptly notified of any change to the building's design at all times, otherwise the project may be determined by Efficiency Manitoba to be ineligible for any Incentives.
- Failure to qualify for the Energy Modelling Assistance Incentive does not affect eligibility for the remaining New Buildings Program financial incentives or energy efficiency certification.

If you have any questions or require assistance, contact us directly at **newbuildings@efficiencymb.ca** or **204-944-8181**.

efficiencymb.ca/newbuildings

Available in accessible formats upon request.