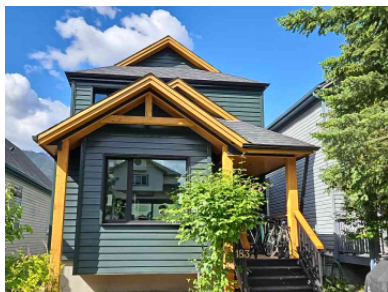
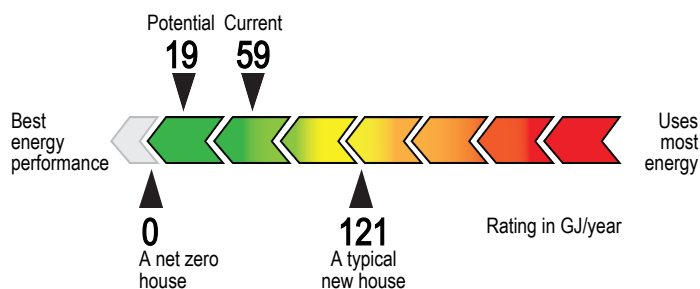


RENOVATION UPGRADE REPORT



Year built: 1990



Assessment date:
June 16, 2026

Evaluated by:

Quality assured by:
VerdaTech Energy Management
4032510683

This report identifies your home's energy savings opportunities by providing you with recommended renovation upgrades. It complements your EnerGuide label and your homeowner information sheet.

Next steps:

- 🏠 Review your customized action plan below to improve the energy efficiency of your home;
- 🏠 You may be eligible for **financial incentives** to support your energy-efficient upgrades. Please visit www.canada.ca/greener-homes-grant to view the financial incentives available.
- 🏠 Need help getting started? Go to our **resources** www.nrcan.gc.ca/kthi.

YOUR ENERGY EFFICIENCY ROADMAP

Your energy advisor has prioritized your recommended upgrades based on the potential energy savings, the life expectancy of your home components, the interactions between systems, your potential renovation plans and the costs to perform the upgrades.



1. Perform air sealing

[Save 0 GJ/year]



2. Add a renewable energy system

[Save 40 GJ/year]



More details on next pages



By implementing all upgrades, you are helping to fight climate change and could **reduce GHG emissions by up to 6.5 tonnes per year.**

RECOMMENDED ENERGY EFFICIENCY UPGRADES

A customized plan to improve the energy efficiency of your home is found below:



1. Perform air sealing

- ❑ Improve the airtightness of your house by 10% to achieve 1.67 air change(s) per hour at 50 pascals.

This upgrade could increase the energy consumption of your house by 0 gigajoules per year.

Did you know?

Air leakage accounts for 20 percent of the estimated annual heat loss of your house.

Useful tips

Air sealing is one of the most cost-effective energy-saving measures you can undertake. It is typically performed before and during other upgrades to ensure optimal benefit. Air sealing can help to minimize potential moisture damage and improve comfort by reducing drafts, heat loss, dust and outdoor noise in your home.

Consult our **resources** www.nrcan.gc.ca/energy-efficiency/homes/make-your-home-more-energy-efficient/keeping-the-heat/15768 to learn more and take action.

Air leakage locations identified by your energy advisor are listed below:



- ❑ Air Sealing
- ❑ We have included detailed comments and explanations in the accompanying auxiliary report. For a deeper understanding, please consult this document.
- ❑ Our decision to utilize this tool stems from its capability to integrate videos and hyperlinks, offering a more comprehensive presentation of supplementary information and reports.
- ❑ Additional Comments
- ❑ The air leakage rate measured in air changes per hour (ACH) can be found in the Home Owner Information Sheet (HOIS) report and is in the range of moderate for air leakage. Specific areas observed during the assessment that could help to reduce air leakage are:
- ❑ 1) window trim seals (weatherstripping along perimeters, or replace as needed) and closure mechanisms. Replacement of older wood frame windows is recommended to help reduce air leakage. Refer also to comments on window upgrades.
- ❑ 2) door sweeps and trim (threshold and lower edge of doors). (especially lower level back door, bottom sweep). Seal trim where there are noticeable gaps and poor closures (especially at corners and middle of paired doors). Replacement of older doors is recommended where closure is not complete to help reduce air leakage. Refer to comments on doors.
- ❑ 3) Long term upgrades to windows and doors to improve sealing and/or reduce condensation issues.
- ❑ 4) The wood stove fireplace chimney piping seal and wall penetration were observed to have minor leakage. Coordinate sealing with final upgrades to walls.
- ❑ 5) Periodically check water floor drain (Ptrap) in furnace room to add water to avoid drying out of drain with potential for sewer gas to leak back into the home under certain conditions. Adding and/or maintaining a humidifier to the furnace during retrofits can generally provide a regular water drain source to keep the Ptrap wet and sealed.



2. Add a renewable energy system

- ❑ Install a photovoltaic system designed to deliver 11050.1 kilowatt-hours per year.

RECOMMENDED ENERGY EFFICIENCY UPGRADES - CONTINUED

This upgrade could reduce the energy consumption of your house by 40 gigajoules per year.

Did you know?

Solar and wind energy can be used for electricity generation.

Useful tips

Installing renewable energy systems will offset some or potentially all of the purchased energy required to operate your home while decreasing the greenhouse gas emissions generated.

Your energy advisor's comments



Renewable Energy Systems

We have included detailed comments and explanations in the accompanying auxiliary report. For a deeper understanding, please consult this document.

Our decision to utilize this tool stems from its capability to integrate videos and hyperlinks, offering a more comprehensive presentation of supplementary information and reports.

Additional Comments

As part of the modeled potential upgrades for this home, a generalized solar PV system with 5 kW additional capacity was included for reference purposes with estimated energy savings not including potential future \$ savings due to electricity rate increases. It is recommended to obtain an independent assessment from a professional solar system consultant and/or vendor/installation contractor for a customized feasibility assessment and to obtain quotations from more than one vendor.



Additional energy advisor comments

Canada Greener Homes Initiative

We have included detailed comments and explanations in the accompanying auxiliary report. For a deeper understanding, please consult this document.

Our decision to utilize this tool stems from its capability to integrate videos and hyperlinks, offering a more comprehensive presentation of supplementary information and reports.

ELIGIBILITY INFORMATION

For full details on eligibility requirements, eligible measures, potential grants and/or loans for the recommended measures, please consult the Canada Greener Homes website at canada.ca/greener-homes-initiative.

CEIP (Alberta)

Clean Energy Improvement Program (CEIP)

How to apply:

- Check if your municipality is participating (<https://ceip.abmunis.ca/residential/locations/>)
- Review your municipality's terms and conditions
- Submit a pre-qualification form
- Once pre-qualified, complete your EnerGuide Evaluation and chose your upgrades. Select a qualified contractor from the directory. Complete and submit project application form.
- Once project is approved, sign the CEIP Agreement and Project Agreement

RECOMMENDED ENERGY EFFICIENCY UPGRADES - CONTINUED

- Instal your Upgrades
- Complete your post-project EnerGuide evaluation

For more detailed information, visit: <https://ceip.abmunis.ca/>

Additional Services available from the VT Group of Companies

We have included detailed comments and explanations in the accompanying auxiliary report. For a deeper understanding, please consult this document.

Our decision to utilize this tool stems from its capability to integrate videos and hyperlinks, offering a more comprehensive presentation of supplementary information and reports.

Hiring a contractor is required for several of the home retrofits and strongly recommended for the others. The contractor is responsible for complying with local bylaws and relevant provincial, territorial and federal legislation and guidelines.

NRCan does not endorse the services of any contractor, nor any specific product, and accepts no liability in the selection of materials, products, contractors or performance of workmanship. Before undertaking retrofits, find out about the appropriate products, safety and installation techniques, and ensure that all retrofits meet local building codes and by-laws.

Additional Comments

If there was no access to attic or vaulted ceilings, default insulation values were used for the purposes of the report based on the age and construction of the home. Generally it is very costly to add insulation to sealed or vaulted areas of the roof.

NOTES:

- 🏠 Energy use reductions are calculated with each upgrade taken on its own. Combinations of upgrades may produce slightly different results.
- 🏠 If negative savings are shown, please see your energy advisor's comments for an explanation.

ENERGY EFFICIENCY FORECAST

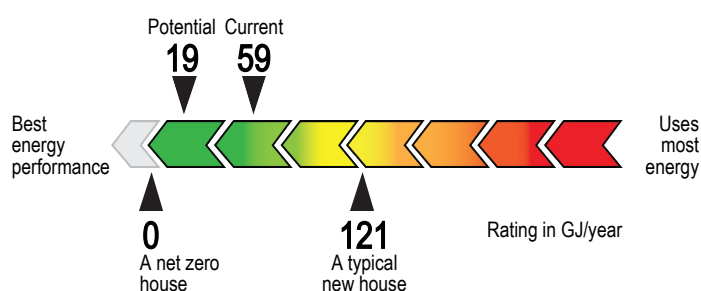
YOUR HOME'S ENERGY POTENTIAL



By implementing the recommended upgrades, you will not only see an improvement in your EnerGuide Rating but you might also reduce greenhouse gas (GHG) emissions.

Note that the energy consumption indicated on your utility bills may be higher or lower than your EnerGuide Rating. This is because the EnerGuide Rating is based on standard assumptions regarding how many people live in the home and how it is operated. Refer to your *Homeowner Information Sheet* for details on the EnerGuide Rating System standard operating conditions.

EnerGuide Rating



A **gigajoule (GJ)** is a unit of energy that can represent all energy sources found in Canadian homes such as electricity, fossil fuels and wood.

A **typical new house** is a reference point for comparing your rating to that of a similar house built to current energy efficiency requirements.

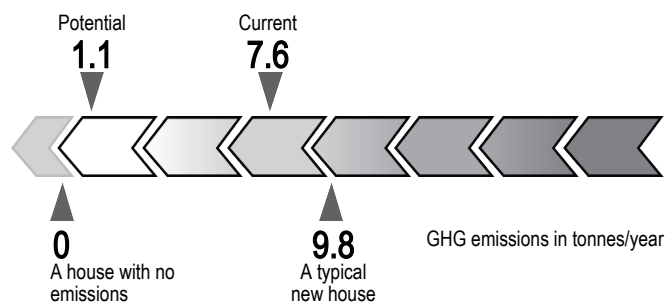
Rated energy intensity

Potential: 0.34 GJ/m²/year

Current : 0.34 GJ/m²/year

The **Rated energy intensity** is an estimate of your home's annual energy use relative to its size. It allows you to compare the energy used by homes of different sizes on a "per square metre" basis.

Rated greenhouse gas (GHG) emissions

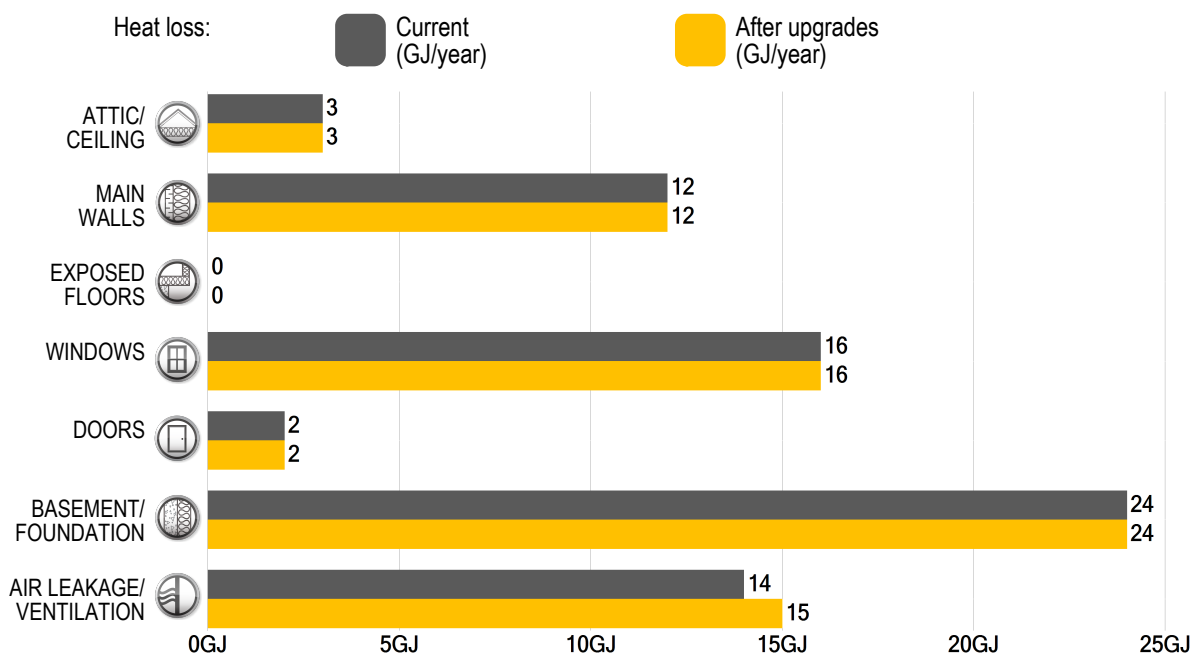


Every time we use energy from fossil fuels such as oil and gas, we produce **greenhouse gas (GHG) emissions** that contribute to climate change. We can reduce these emissions by making homes more energy efficient and lowering energy use.

ENERGY EFFICIENCY FORECAST - CONTINUED

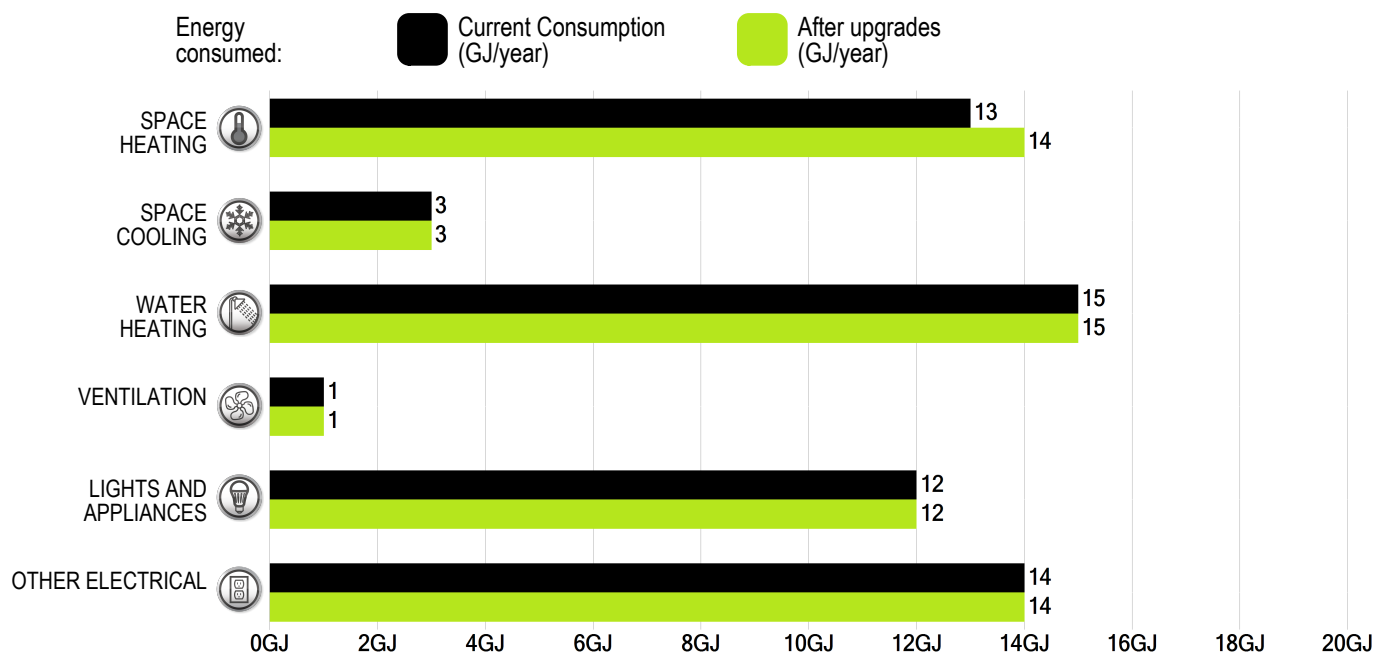
BEFORE AND AFTER: Estimated heat loss through the building envelope*

This bar chart shows where heat is lost from your house. The dark bars show the areas where you are currently losing heat. The longer the bar, the more heat you are losing. The light bars show the estimated heat loss if you were to complete all the recommended upgrades as outlined.



BEFORE AND AFTER: Estimated energy use*

This bar chart shows the potential for improving the energy performance of your house. The dark bars show your current rated consumption. The longer the bar, the more energy you are using. The light bars show the rated energy consumption if you were to complete all the recommended upgrades as outlined.



*Calculated using standard operating conditions. Refer to your *Homeowner Information Sheet* for more information.

HEALTH AND SAFETY INFORMATION

If your energy advisor has identified a potential health or safety concern related to insufficient outdoor air, risk of combustion fumes being drawn into the home or the presence of vermiculite, a warning has been included in your *Homeowner Information Sheet*. However, energy advisors are not required to have expertise in health and safety matters, and it is the sole responsibility of the homeowner to consult a qualified professional to determine potential hazards before undertaking any upgrades or renovations. Visit Natural Resources Canada's webpage *Health and safety considerations for energy-efficient renovations*.

Humidity control

A relative humidity level of between 30 and 55 percent is recommended for optimal health and comfort. For more information on assessing moisture levels in your house, visit the Canada Mortgage and Housing Corporation's website.

Radon

Radon is a naturally occurring radioactive gas that is colourless, odourless and tasteless. It is formed from the radioactive decay of uranium, a natural material found in some soil, rock and groundwater. When radon is released into the outdoor air, it gets diluted to low concentrations and is not a concern. However, in enclosed spaces like houses, it can sometimes accumulate to high levels, which can pose a risk to both your or your family's health. For more information, visit Health Canada's website.

Asbestos and vermiculite insulation

Vermiculite insulation installed in homes may contain asbestos. This can cause health risks if inhaled. If you find vermiculite insulation during renovations, avoid disturbing it. If you suspect the presence of asbestos in your home and plan to undertake renovations (including insulation or air sealing work) that may cause the vermiculite insulation or asbestos to be disturbed, contact professionals who are qualified to handle asbestos before you proceed with the renovations.

Combustion gases

The use of fuel-burning heating equipment can inadvertently lead to hazardous combustion gases being drawn into your home. Always consult a qualified heating and ventilation contractor when servicing or replacing this type of equipment and ensure you have a functioning carbon monoxide detector. Refer to the publication entitled *Combustion gases in your home: What you should know about combustion spillage* on Natural Resources Canada's website to learn more about combustion spillage.

DISCLAIMERS

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Natural Resources Canada does not endorse or make any representation of warranty as to the accuracy or applicability of the energy advisor's comments with respect to your particular home.

Natural Resources Canada does not endorse the services of any contractor, nor any specific product, and accepts no liability in the selection of materials, products, contractors nor the performance of workmanship.

The rating and potential savings in this report are based on the conditions of your home at the time of the evaluation and the use of EnerGuide standard operating conditions.

ADDITIONAL INFORMATION - CONTINUED

Along with the upgrade recommendations, here are some simple actions you can take to be more comfortable, save money and reduce GHG emissions:

ENERGY-SAVING TIPS

- ☐ Install and set-up programmable electronic thermostats to reduce the heating temperature at night and when you are away. For each degree of setback, you can save up to 2 percent on your heating bills.
- ☐ When replacing appliances, electronics and office equipment, look for ENERGY STAR® certified products. ENERGY STAR certified products are among the most efficient and use up to less than half as much energy in standby mode (i.e. when they are turned "off") than non-certified products. You can also look for the EnerGuide product label to help you select the most energy efficient model. For more information, go to energystar.gc.ca.
- ☐ Replace your light bulbs with ENERGY STAR certified ones, such as light emitting diodes (LEDs). They last longer and use less electricity.
- ☐ Insulate the first two metres of the hot and cold water pipes starting from the water heater with insulating foam sleeves or pipe wrap insulation. By doing so, you will save on your water heating costs and reduce your water consumption. For a fuel-fired water heater, maintain a 15 cm (6 in.) clearance between the water piping insulation and the vent pipe.
- ☐ If you use a block heater for your car, use a timer. Set the timer to turn on one to two hours before you plan to start your vehicle.
- ☐ Replace your kitchen and bathroom exhaust fans with ENERGY STAR certified exhaust fans vented to the outside.
- ☐ Install a timer on your bathroom exhaust fans so that the fans are not left running for extended periods of time.
- ☐ Install low-flow shower heads (rated at 7.6 litres per minute or less) and faucet aerators.
- ☐ Fix leaky faucets and outside hose bibs.
- ☐ Plug your entertainment systems and office equipment into power bars that can be easily turned off when equipment is not in use.

NOTES:

Questions about this report?

Please contact your energy advisor.