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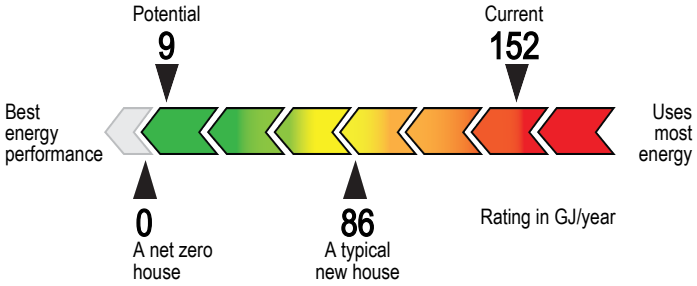
RENOVATION UPGRADE REPORT

ENERGUIDE



Year built: 1955

Assessment date:	Evaluated by:	Quality assured by:
June 14, 2022	Tyler Hermanson 403.250.5514	4 Elements Integrated Design Ltd 403.250.5514

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. Insulate foundation	2. Insulate attic	3. Insulate main walls	4. Upgrade windows	*Additional recommendations on next pages*
[Save 1 GJ/year]	[Save 21 GJ/year]	[Save 9 GJ/year]	[Save 12 GJ/year]	

By implementing all upgrades, you are helping to fight climate change and could **reduce GHG emissions by up to 10.6 tonnes per year.**

RECOMMENDED ENERGY EFFICIENCY UPGRADES

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

1. Insulate foundation

- ❑ Increase the insulation value of 40% of your basement walls (Foundation - 1) from the exterior by RSI 2.82 (R-16.0).
- ❑ Increase the insulation value of 40% of your crawl space walls (Crawlspace - 1) by RSI 3.52 (R-20.0).

This upgrade could reduce the energy consumption of your house by 1 gigajoules per year.

Did you know?

Your foundation accounts for 28 percent of the estimated annual heat loss of your house.

Useful tips

Assess the status of your foundation for water leaks, cracks and flooding and remediate these issues before beginning any insulation job. Foundations can be insulated from the interior, exterior or a combination of both depending on accessibility and the complexity of the building. Refer to your energy advisor's comments to determine which would be best suited for your foundation.

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.

Your energy advisor's comments

Increasing insulation coverage of all exterior basement walls to 100% coverage will have a large impact on energy loss as well as improving occupant comfort and usability of the basement space. Insulation configurations and materials vary, but R10 on top of the stud (thermal bridge free) and R5 to the slab insulation will provide great energy savings.

This upgrade adds 4" of EPS to 12" below grade around the foundation and crawlspace walls on the exterior of the home.

GHG – RUR comments – Foundation (All)

Basement Insulation - Wall

The Canada Greener Homes Grant initiative offers grants of up to $1500 for adding insulation to basement walls. Insulating basement walls can reduce energy costs and improve comfort. Grants are based on the RSI/R-value of the added insulation and the percentage of wall area insulated.

The current amount of insulation does not affect the grant amounts. A minimum of 20% of the exterior basement wall area must be insulated.

Crawl Space Insulation - Walls and headers

Through the Canada Greener Homes Grant initiative, a grant of up to $1300 is available for adding more than RSI 3.87 (R-22) insulation to crawl space exterior walls and headers. Insulating crawl space walls and headers can reduce energy costs and improve comfort in the occupied space above the crawl space. The grant is available if insulation is added to all exterior crawl space walls and headers. A grant is available for adding a minimum of RSI 1.76 (R-10) insulation.

2. Insulate attic

- ❑ Increase the insulation value of your attic (Ceiling - 1) by RSI 8.79 (R-49.9).

This upgrade could reduce the energy consumption of your house by 21 gigajoules per year.

Did you know?

Ceilings account for 20 percent of the estimated annual heat loss of your house.

Useful tips

The following are some of the items to consider before insulating the attic:

- Ensure the roof does not leak.
- Ensure electrical work is up-to-date and that all desired ceiling fixtures have been installed.
- Look for opportunities to air seal before insulation is added.
- Ensure adequate attic venting is installed and that it is not blocked by insulation.
- Ensure all exhaust fans and ducts penetrating the attic are sealed and vented to the outside.

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.

Your energy advisor's comments

Smoothing and adding to the existing attic insulation, or removing and replacing it, will improve energy loss to the attic. Visual review of the poly barrier is suggested to ensure a full airtight seal, as well as ensuring that insulation is installed tight to the edges of the attic space and wind baffles are in place. Ensure bath fans are correctly sealed and vented to the exterior and the attic hatch is insulated and weatherstripped.

GHG - RUR for Attic / Ceiling Insulation:

The insulation in your attic was assessed at ~R11. Because the amount of insulation in your attic has been assessed as being at or less than R-12, a grant of up to $1800 is available through the Canada Greener Homes Grant initiative for adding insulation to reach R-50 or more.

3. Insulate main walls

❑ **Increase the insulation value of your main walls (1F Wall) by RSI 5.49 (R-31.2).**

This upgrade could reduce the energy consumption of your house by 9 gigajoules per year.

Did you know?

Main walls account for 10 percent of the estimated annual heat loss of your house.

Useful tips

Main walls can be insulated from the interior, exterior or both using a variety of materials and methods. Refer to your energy advisor's comments to determine the best approach.

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.

Your energy advisor's comments

Adding exterior insulation to the walls will help to improve air tightness if correctly installed, as well as improving the overall insulative value of the walls and reducing energy loss due to thermal bridging. Make sure to carry any exterior insulation over the rim joist.

GHG – RUR comments - Exterior Wall Insulation

Through the Canada Greener Homes Grant initiative, a grant of up to $5,000 is available for adding insulation to exterior wall area of your home. Insulation grants are based on the percentage of wall area to which the insulation has been added and the amount of insulation added. A minimum of 20% of the exterior wall area of your home, excluding foundation walls, must be insulated in order to qualify for a grant.

4. Upgrade windows

❑ **Replace 15 windows with ENERGY STAR certified models.**

This upgrade could reduce the energy consumption of your house by 12 gigajoules per year.

Did you know?

Windows account for 19 percent of the estimated annual heat loss of your house.

Useful tips

Replacing windows can improve aesthetics, reduce noise from outside, reduce maintenance, increase property resale value, improve comfort and reduce condensation during cold weather. ENERGY STAR certified windows, patio doors and skylights are among the most energy efficient in the marketplace.

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.

Your energy advisor's comments

Window specifications vary a lot but typically, you want to look for the lowest U-value (U-factor) you can afford, the highest SHGC as possible, triple pane, insulating spacers, with argon or krypton fill, and low-e coating. If possible, purchase casement windows with good weatherstripping instead of sliders as these typically perform better in terms of air tightness.

The window specifications required for the Greener Homes Grant program are very specific and require a very high quality of window. Review the window specifications listed on the NRCan website that you are considering carefully to ensure they meet ALL of the requirements if you are hoping to access the grant for windows.

https://www.nrcan.gc.ca/energy-efficiency/homes/canada-greener-homes-grant/make-your-home-more-energy-efficient/plan-document-and-complete-your-home-retrofits/eligible-grants-for-my-home-retrofit/23504#s3

The window grant is available per rough opening which means that a Bay window with three separate panes, will be considered one opening for the purposes of the grant.

Please note that skylights are not eligible for grants.

Please note that patio doors are classified as windows in this program.

See "Keeping the Heat In", Section 8 "Upgrading Windows and Doors". This is a free download from Natural Resources Canada's website.

GHG-RUR Comments – Windows & Doors

Windows

Through the Canada Greener Homes Grant initiative, grants of either $125 or $250 per window rough opening are available when an ENERGY STAR certified, or ENERGY STAR certified Most Efficient window is installed to replace an existing window. Replacing old, damaged or leaky windows with new ENERGY STAR certified products can help you save on energy, improve comfort and reduce noise. To determine eligibility of the product you are seeking to purchase, confirm that it is included on the list of eligible equipment as found on the Canada Greener Homes Grant webpage.

5. Perform air sealing

- ❑ **Improve the airtightness of your house by 10% to achieve 5.17 air change(s) per hour at 50 pascals.**

This upgrade could reduce the energy consumption of your house by 2 gigajoules per year.

Did you know?

Air leakage accounts for 21 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:

- ❑ When improving overall air tightness, ensure that ventilation requirements are met when reducing air leakage to provide a safe and comfortable home. Mechanical ventilation, such as an HRV or ERV, allows for controlled ventilation to meet fresh air requirements without losing energy due to excessive heating or cooling requirements because of uncontrolled air leakage.
- ❑ Main areas of air leakage are:
- ❑ - Chimney (the hole in the basement)
- ❑ - Furnace
- ❑ - Fireplace
- ❑ - Interior light-switches in the addition
- ❑ - Attic hatch
- ❑ - Back door
- ❑ - Hot water heater flue
- ❑ Compare your home's air tightness result found on the Homeowner Information Sheet to the ones below:
- ❑ 10.35 ACH @ 50 Pa – Very leaky home
- ❑ 7.00 ACH @ 50 Pa – Older, un-improved home
- ❑ 4.55 ACH @ 50 Pa – Average existing home
- ❑ 3.50 ACH @ 50Pa – Existing home after air sealing upgrades
- ❑ 2.50 ACH @ 50 Pa – New Home code required
- ❑ 1.50 ACH @ 50 Pa – Tight house / CHBA NetZero Home
- ❑ Specific air sealing details must be performed to access the grant available for air sealing and an invoice for work must be provided.
- ❑ The target in this RUR is aiming for 10% better than the current air tightness. This upgrade is shown this way as there is an additional grant for exceeding this target. If you achieve your personal goal of 1.50 AH, along with the other proposed upgrades, your home should meet the CHBA NetZero Renovation program requirements.
- ❑ GHG-RUR Comments - Air Sealing

- ❑ Through the Canada Greener Homes Grant initiative, a grant between $550 and $1000 is available for improving the airtightness of your home based on the level achieved. This is one of the most cost-effective energy-saving measures you can undertake. An air-sealing grant is available if the airtightness of your home is improved to achieve or exceed the air change rate target proposed above. Achieving any of the targets defined for your home typically requires that the work be performed by an air-sealing professional.

6. Upgrade heating system

- ❑ **Install new electric baseboard heaters.**
- ❑ **Install a new ENERGY STAR certified air-source heat pump that has a heating seasonal performance factor (HSPF) of 4.73.**
- ❑ **Install a new solid fuel-burning appliance certified to the Canadian Standards Association CAN/CSA B415.1 Standard or certified by the U.S. Environmental Protection Agency (EPA).**

This upgrade could reduce the energy consumption of your house by 58 gigajoules per year.

Did you know?

Space heating accounts for 66 percent of the estimated annual energy use of your house.

Useful tips

Perform any planned building envelope upgrades before your heating contractor begins work since a more energy efficient building envelope may mean that a smaller heating system could be installed. The contractor should first conduct a heat loss calculation before deciding on the capacity and model of your heating system.

Your *Homeowner Information Sheet* provides important details and a reference for this calculation. Inform your heating contractor of any building envelope upgrades performed since your evaluation, or that will be undertaken since these may render certain details in your *Homeowner Information Sheet* inaccurate.

Consider purchasing a system that is ENERGY STAR certified when available. Consult Natural Resources Canada's website at *www.nrcan.gc.ca/energy/products/categories/heating/13740* for information on choosing a heating system.

Your energy advisor's comments

Replacement of the existing fireplace with an airtight unit will save energy in both efficiency of the unit and reduced air leakage. The only space heating option for which a grant is available is a heat pump (air source, ground or water source). Upgrading to heat pump technology should only be done in specific circumstances and may or may not be the right option for you. Speak with a qualified professional regarding your best option for upgrading your space heating or cooling systems. The design heating and cooling load for correct sizing of the system should always take into account all upgrades being performed prior to installing the system. A qualified professional should perform an F280 calculation for correct sizing.

Ensure that combustion air source is capped off correctly once combustion appliances are replaced.

See the Natural Resources Canada publication "Heating with gas". This publication is free to download from NRCAN's website. If you are using a different energy source, we suggest contacting NRCAN at 1800-O-CANADA.

GHG – RUR Comments – Heat Pumps

Heat Pumps - Earth-energy (Ground or Water Source)-whole system

Through the Canada Greener Homes Grant initiative, a grant of $5000 is available for installing a new earth-energy (ground or water source) heat pump – full system. An earth-energy (ground or water source) system will reduce heating and cooling costs, but is not always feasible depending on the region in which you live other considerations. Consult with a professional in this field to determine if this type of system is practical for the region in which you live.

To determine eligibility of the product you are seeking to purchase, confirm that it is included on the list of eligible equipment as found on the Canada Greener Homes Grant webpage.

Heat Pumps - Earth-energy (Ground or Water Source) Systems – Heat Pump Only

Through the Canada Greener Homes Grant initiative, a grant of $3000 is available for replacing the heat pump of an existing earth-energy (ground or water source) system. To determine eligibility of the product you are seeking to purchase, confirm that it is included on the list of eligible equipment as found on the Canada Greener Homes Grant webpage.

Heat Pumps- Air source heat pump- ASHP and ccASHP

Through the Canada Greener Homes Grant initiative, a grant of $2500 is available for smaller Air Source Heat Pumps (ASHP) or cold climate Air Source Heat Pumps (ccASHP). $4000 is available for larger ASHPs and $5000 for large ccASHPs, depending upon the type installed. Speak with an HVAC professional for recommendations on the type of heat pump that is best suited for your home, for example, an air-source heat pump, or if you live in a colder climate, a cold-climate heat pump.

Depending upon the region in which you live and how you heat your home today, the installation of a heat pump in your home may result in higher utility costs. Consult with an HVAC professional in this field to determine if this type of system is practical and the right choice for your circumstances.

To determine eligibility of the product you are seeking to purchase, confirm that it is included on the list of eligible equipment as found on the Canada Greener Homes Grant webpage.

The heating load of your home is: 83.13 GJ. Your new heat pump must be sized to supply heat to your entire home. Ask the professional to size your heat pump according to the heating load of your entire home as indicated above.

For more information: Natural Resources Canada has developed a package of materials related to air source heat pump sizing and selection, intended for use by mechanical system designers and renovation contractors. https://www.nrcan.gc.ca/maps-tools-and-publications/tools/modelling-tools/toolkit-for-air-source-heat-pump-sizing-and-selection/23558

7. Upgrade ventilation system

- ❑ **Install a heat recovery ventilator or energy recovery ventilator certified by the Home Ventilating Institute (HVI) or that is ENERGY STAR certified.**

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

Did you know?

Upgrading your ventilation system can improve indoor air quality and comfort. A heat recovery ventilator (HRV) or energy recovery ventilator (ERV) saves energy compared to conventional ventilation systems by recovering heat from stale indoor air as it is exhausted. An HRV/ERV simultaneously exhausts stale indoor air and brings in outdoor air by passing the two separate airflows through a heat exchanger.

Useful tips

When purchasing an HRV or ERV, choose a model that is certified by the Heating and Ventilating Institute (HVI) and consider models that have a high efficiency motor to help reduce electrical consumption. Ensure that the HRV or ERV system is designed, installed and balanced by a technician certified by a recognized mechanical organization. Select equipment tailored to your needs.

Keep contaminants away from the fresh air intake when your HRV/ERV is operating. For example, avoid putting trash next to the air intake, do not use pesticides and herbicides nearby and keep your barbecue downwind. If you must generate pollutants near the air intake temporarily, turn the HRV/ERV off until you complete the activity.

Consult Natural Resources Canada's publication about Heat Recovery Ventilators at *www.nrcan.gc.ca/energy/products/categories/cooling-ventilating/ventilating/hrv/16197*.

Your energy advisor's comments

While there is no grant money available for ventilation, good ventilation is necessary for occupant health and comfort. Installation of an HRV or ERV will be required to ensure sufficient fresh air supply once air tightness is improved. An HRV allows greater mechanical control over whole house ventilation than a utility fan does. The energy cost of whole house ventilation is more than offset by the savings in air tightness.

8. Upgrade hot water system

- ❑ Install a new ENERGY STAR certified, electric heat pump water heater with a uniform energy factor (UEF) of 2.48.
- ❑ Install a drain-water heat recovery system with an efficiency of 64.7%.

This upgrade could reduce the energy consumption of your house by 9 gigajoules per year.

Did you know?

Water heating accounts for 17 percent of the estimated annual energy use of your house.

Useful tips

The efficiency of fuel-fired water heating equipment is expressed as the energy factor (EF), uniform energy factor (UEF) or thermal efficiency. The higher the number, the more efficient the water heater. The efficiency of storage-tank electric water heating equipment is expressed in watts of standby loss, where the lower the number, the more efficient the water heater.

Look for an energy-efficient model and ensure it is properly sized for your needs. Use manufacturers' sizing charts available from your contractor or retailer. See Natural Resources Canada's website at *www.nrcan.gc.ca/energy/products/categories/water-heaters/13735* for more information.

Your energy advisor's comments

9. Add a renewable energy system

- ❑ Install a photovoltaic system designed to deliver 13271.2 kilowatt-hours per year.

This upgrade could reduce the energy consumption of your house by 49 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

Solar PV is an option for your home. Speak to a qualified professional to determine the appropriate size and type of system.

This upgrade based on the solar information provided as designed by Skyfire.

GHG-RUR Comments – solar

Renewable Energy Systems

Through the Canada Greener Homes Grant initiative, a grant of $1,000 per KW is available for installing a photovoltaic solar panel. If you choose to install a photovoltaic (PV) system, it is strongly recommended that a full assessment by a professional solar photovoltaic installer, including the measuring of solar irradiance (how much sunlight falls on the roof) is undertaken to provide detailed information on considerations for your home and specific installation recommendations, including the size and related energy production of the system. The rated PV panel must have peak power capacity higher than or equal to 1.0 kW. The system must be composed of photovoltaic (PV) panel and inverter certified to CSA Standards.

Batteries Connected to Photovoltaic Systems to Provide Standby

Power for Home

Through the Canada Greener Homes Grant initiative, a grant of $1000 is available for the installation of battery storage and an inverter to connect to a photovoltaic system to provide standby power for the home for an existing PV system or a new install. This resiliency measure must be combined with an energy efficiency retrofit from the Canada Greener Homes Grant in order to be eligible. This grant may be combined with the new PV installation grant for a maximum grant of $5000.

Additional energy advisor comments

Achieving all the the planned upgrades for this home should meet the CHBA NetZero Home Renovation program requirements.

NOTES:

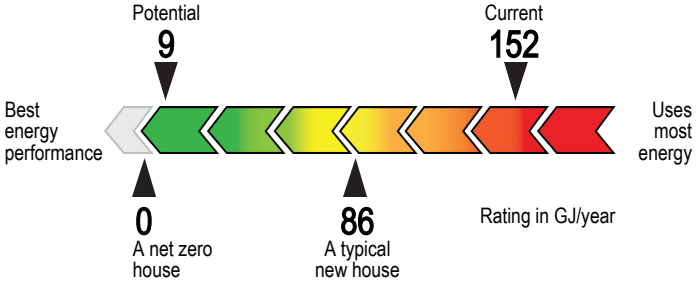
- Energy use reductions are calculated with each upgrade taken on its own. Combinations of upgrades may produce slightly different results.
- If negative savings are shown, please see your energy advisor's comments for an explanation.

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



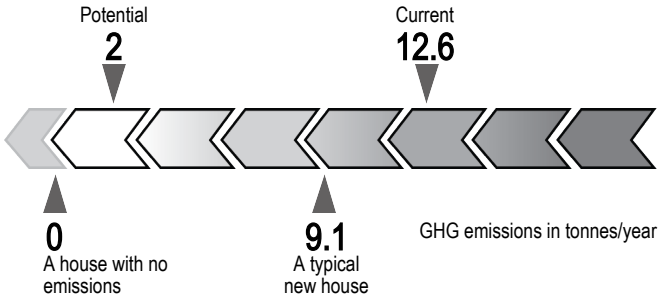
A **gigajoule (GJ)** is a unit of energy that can represent all energy sources found in Canadian homes such as electricity, fossil fuels and wood.

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

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

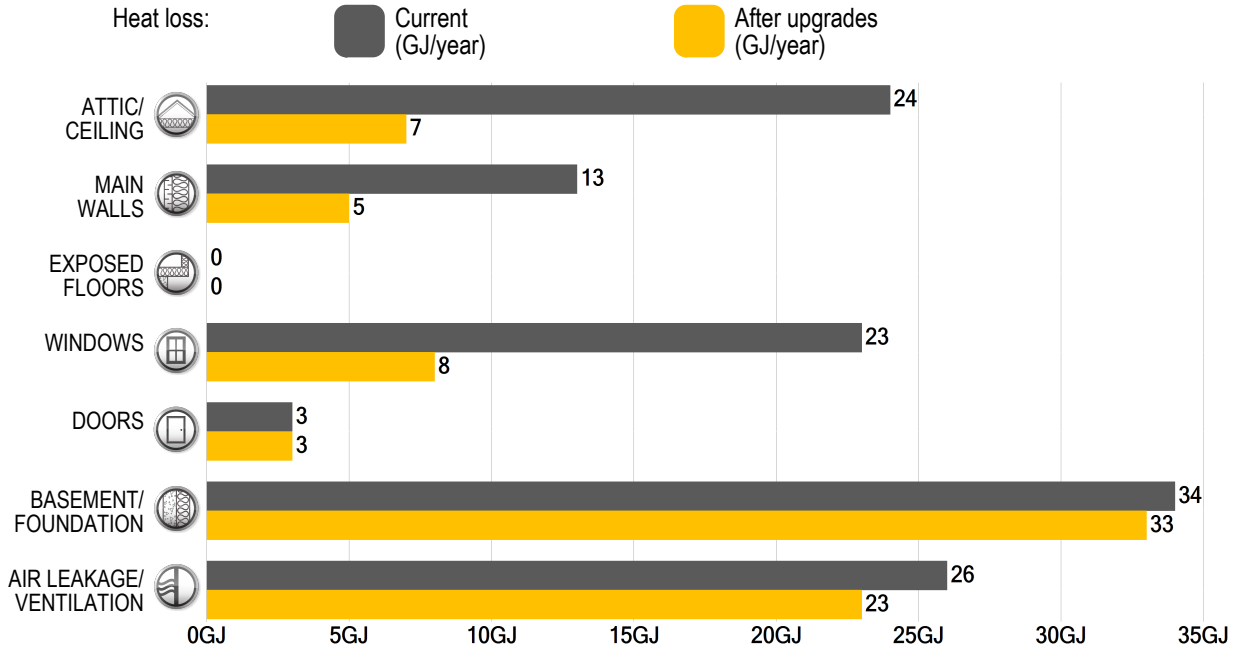


Every time we use energy from fossil fuels such as oil and gas, we produce **greenhouse gas (GHG) emissions** that contribute to climate change. We can reduce these emissions by making homes more energy efficient and lowering energy use.

ENERGY EFFICIENCY FORECAST - CONTINUED

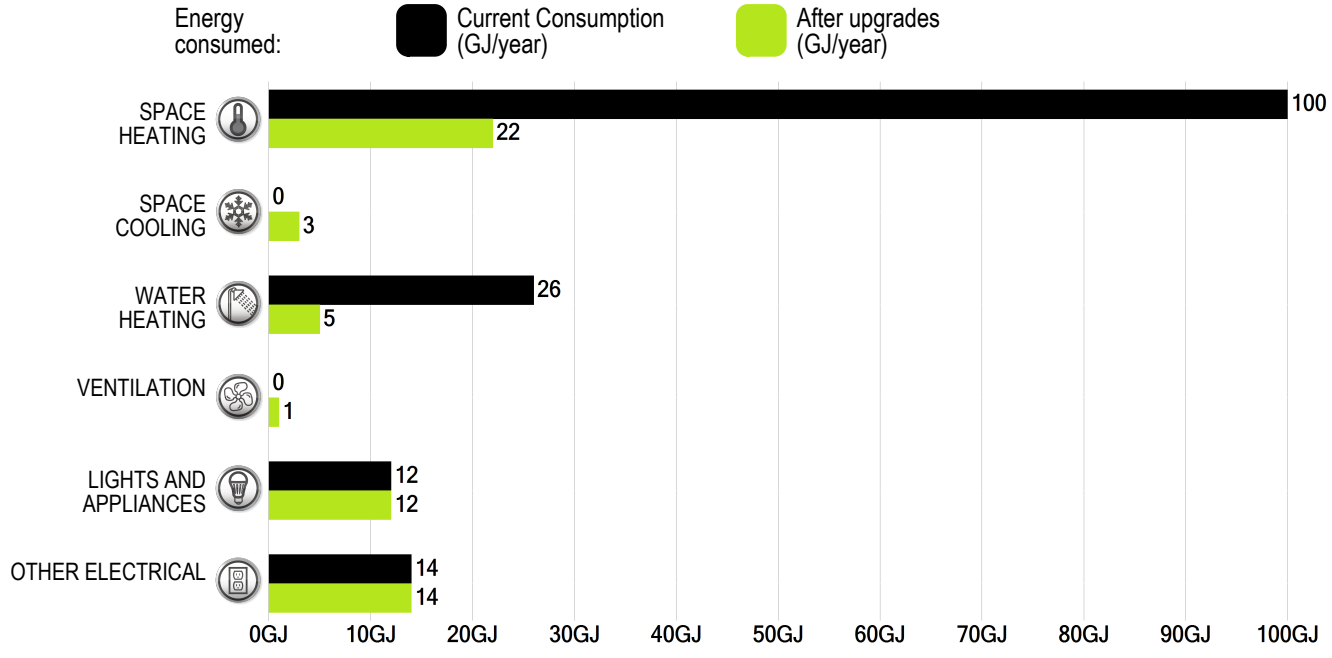
BEFORE AND AFTER: Estimated heat loss through the building envelope*

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.

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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.