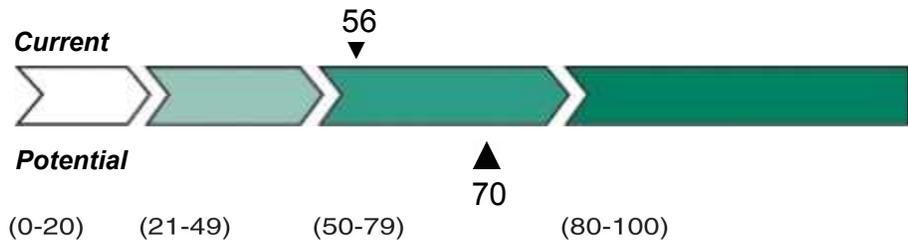


Energy Efficiency Evaluation Report

File number: 9906D02012

Property Owner Name:

EnerGuide rating



House type: detached **Main energy source:** gas
Year built: 1950 **Heating system:** furnace
No. of storeys: 1 **Domestic hot water:** natural gas
Sq. footage: 1905 ft. **Air leakage rate @ 50 Pa:** 6.5ACH
ACH = number of air changes per hour
No. of RO windows: 14
RO = rough opening **Critical Month (total):** 0.26ACH
Air conditioner: yes **Equivalent Leakage Area:** 355 ELA
ELA = units in square inches

The results of your ecoENERGY pre-retrofit assessment indicate that your house rates 56 points on the EnerGuide scale. If you implement all of the recommendations in this report, you could reduce your energy consumption by up to 28% and increase your home’s energy efficiency rating to 70 points. The average energy efficiency rating for a house of this age in Canada is 70; whereas the highest rating achieved by the most energy efficient houses in this category is X.

When you reduce the amount of energy used in your home, you also reduce the production of greenhouse gases (GHG) such as carbon dioxide. If you improve your house’s energy efficiency to 70 points, you will reduce its GHG emissions by 3.5 tonnes per year.

Remember, you have up to 18 months from the date of this report to complete your renovations and qualify for an ecoENERGY Retrofit – Homes grant.

Note: If you notice any discrepancies with the description of your home above, contact your service organization immediately.

Service Organization: Company name

Telephone: (xxx) xxx-xxxx

Date of evaluation: day, month spelled out, year

Date of report: day, month spelled out, year

Certified Energy Advisor: Advisor name

Certified Energy Advisor Signature

YOUR HOME ENERGY ACTION CHECKLIST

Below you will find your checklist of recommendations to improve the energy efficiency of your home. This table shows the grant amounts that you could receive as well as the potential for energy savings and EnerGuide rating improvement. Before you renovate, ask about the appropriate products and installation techniques and be sure that all work meets local building codes and by-laws.

For more information, read the 'Recommended Energy-Saving Measures' section of this report and the NRCan brochure entitled *Retrofit Your Home and Qualify for a Grant!* found in your ecoENERGY kit.

Recommendations	Incentive	Potential for Energy Savings *	Potential Rating Improvement
These upgrades qualify for an incentive (up to a maximum total incentive value of \$5000):			
VENTILATION SYSTEM Install an HVI-certified heat recovery ventilator.	\$300	☀️	X points
COOLING SYSTEM (A/C) Replace with an ENERGY STAR® qualified A/C system.	\$200	☀️☀️☀️	X points
DOMESTIC HOT WATER SYSTEM (DHW) Install a CSA compliant solar DHW system.	\$500	☀️☀️	X points
ATTIC INSULATION Increase the insulation value to RSI 7 (R-40).	\$400	☀️☀️☀️☀️	X points
HEATING SYSTEM Replace gas furnace with a minimum 92% AFUE ENERGY STAR® qualified unit and a DC variable-speed motor.	\$500	☀️☀️☀️☀️☀️	X points
WINDOWS AND DOORS Replace selected windows and exterior doors with ENERGY STAR® qualified units for climate zone [B].	\$420	☀️☀️☀️	X points
AIR SEALING Air seal to meet a 5.9 ACH @ 50 Pa or less.	\$150	☀️☀️☀️	X points
WATER CONSERVATION Replace your toilet with a low-/dual-flush model that meets the required specifications.	\$50	N/A	N/A

* One (1) star = lowest savings / five (5) stars = highest savings

THE ENERGUIDE RATING SYSTEM

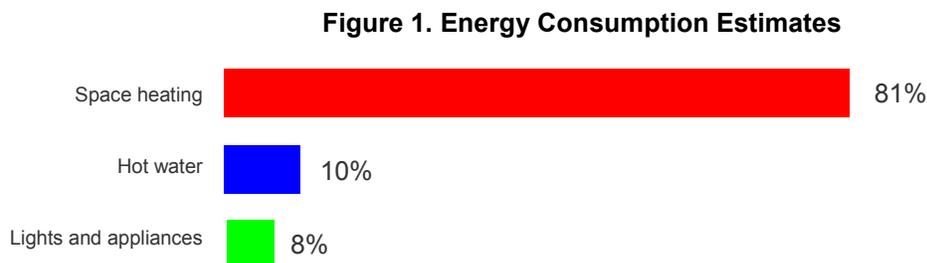
The EnerGuide rating system is a standardized method of evaluation that lets homeowners compare their house's energy efficiency rating to similar sized houses in similar regions. The EnerGuide rating considers the house's estimated annual energy consumption based on an in-depth evaluation of the house's characteristics such as location, size, equipment and systems, insulation levels, air tightness, etc. In addition, standardized conditions are used when calculating the rating in order to compare the efficiency of one house to another. These conditions include: a complete air change approximately every three hours; four occupants; a fixed thermostat setting of 21°C; average hot water consumption of 224 litres per day; average electricity consumption of 24 kWh per day; and the regional weather data that is averaged over the last 30 years.

Figures 1 through 3 show the results of your energy evaluation based on the standardized conditions. The results may not entirely reflect your household since your actual energy consumption and future savings are influenced by the number of occupants, their day-to-day habits and lifestyles.

ENERGY CONSUMPTION

Houses lose heat to the outdoors during the heating season primarily through air leakage and conduction, such as the transfer of heat through the basement and exterior walls, ceilings, windows and doors (the 'building envelope'). Canada's demanding climate and modifications such as drilling holes in the building walls for new wiring, pipes and lights all play a part in reducing the efficiency of the building envelope over time. Houses need to be regularly maintained and upgraded to ensure greater energy efficiency, comfort and savings.

Figure 1 breaks down your house's estimated energy consumption for space heating, domestic hot water heating, and lights and appliances.



SPACE HEATING ANALYSIS

Figure 2 shows the estimated percentage of energy used for the space heating of your home.

- The top bar shows how much energy you would need for performing all of the upgrades recommended in this report, excluding changes to the space heating equipment. You could save up to 45 percent by performing all of the recommended non-space heating system upgrades.
- The bottom bar shows the potential space heating energy use if you were to implement all of the upgrades recommended in this report, including any space heating system upgrades. You could save up to 55 percent by performing all of the recommended upgrades.

Figure 2. Estimated Annual Space Heating Energy Consumption

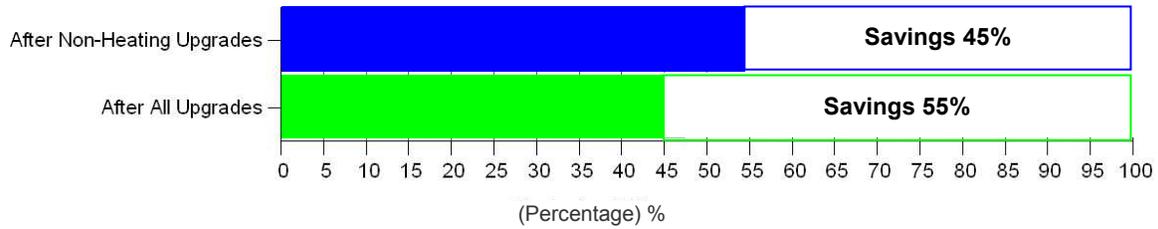
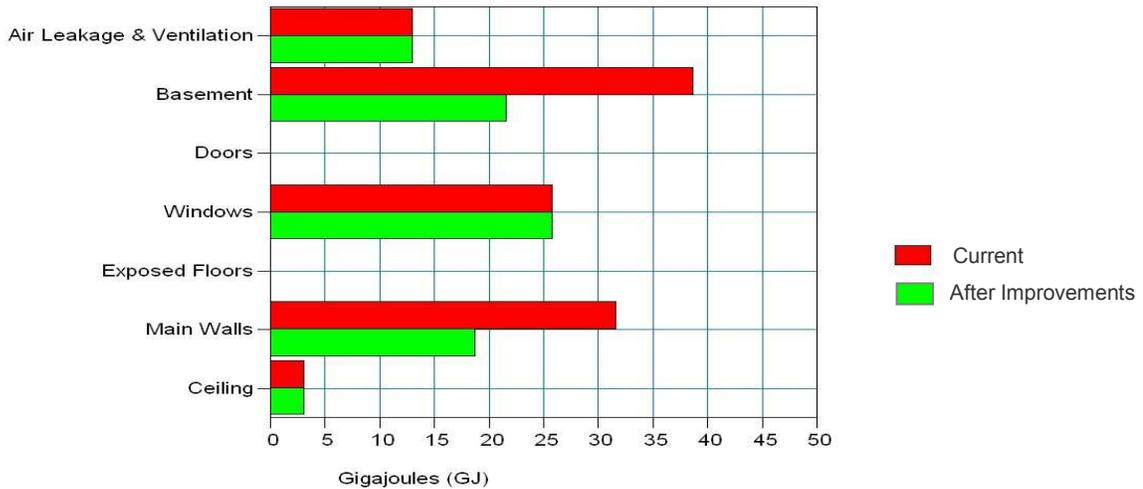


Figure 3 shows where the energy used for space heating actually gets lost in your home. This energy is measured in gigajoules (GJ), where 1 GJ is equivalent to 278 kilowatt-hours (kWh) or 948 MBtu/hour.

The red bars show the areas of your home where you are losing energy now. The longer the bar, the more energy you are losing. The green bars show the difference in energy loss after you complete your renovations. The larger the difference between the red and the green bars, the greater the potential for energy savings and comfort improvements.

Figure 3. Estimated Annual Heat Loss



Important Considerations:

When you decide to replace your heating system, make sure that your heating contractor performs a heat loss calculation on your home prior to installing the heating equipment. This will ensure that the new system has the correct capacity to heat your home. To get the most out of your retrofit, complete the other energy efficiency upgrades recommended in this report before having your heating system replaced, these upgrades can significantly reduce your home’s heating needs and allow you to install a smaller and less costly system. Grossly oversized heating equipment costs more, takes up more floor space, operates less efficiently and tends to make the house less comfortable.

RECOMMENDED ENERGY-SAVING MEASURES

1. VENTILATION SYSTEM

Wind and temperature differences between the inside and outside of a house greatly affect the flow of air through the building envelope. That flow of air can cause both drafts and a lack of ventilation in areas of the house where it is most needed. It is best to seal the house as tightly as possible and then add a mechanical ventilation system (i.e., which acts as the lungs of the house) to maintain appropriate ventilation levels throughout the home.

Total house ventilation helps remove or dilute the many sources of indoor air pollution coming from furnishings, cleaning products, pets, cooking, smoking etc. Exhaust-only fans that are vented outdoors, such as range hoods and bathroom fans, can reduce localized pollutants but only in rare cases do they perform efficiently enough to maintain adequate air quality in the home. Some indicators of potential indoor air quality problems are a build-up of condensation on windows, static shocks, mold growth and stale air (e.g., lingering cooking odours).

Your Home's Ventilation Rate

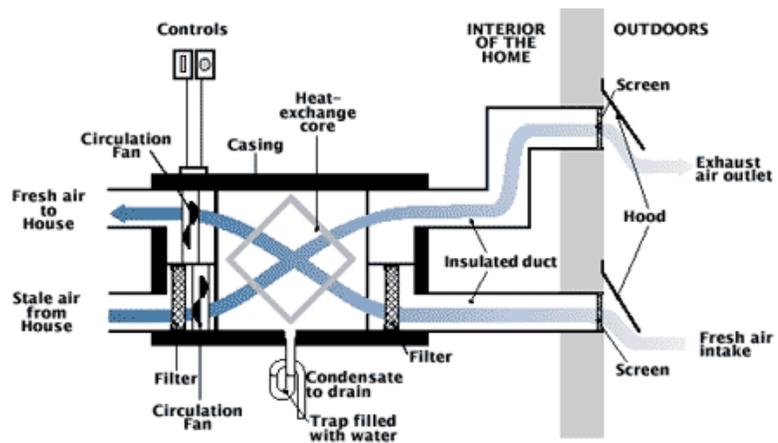
Ventilation rates are shown with a Critical Month (total). The Critical Month (total) is the sum of the *natural air changes per hour (ACH) rate* and the *exhaust flow rate* that comes from your home's existing ventilation equipment. The exhaust flow rate is a measure that uses the calendar month with the lowest natural ventilation rate (i.e., when the temperature difference between the inside and outside of the house is similar, thereby reducing the amount of natural ventilation). This critical month (total) is used to define the ventilation requirements of your home.

Your ventilation rate is greater than 0.2 ACH. At a minimum, energy-efficient and properly-vented exhaust fan(s) should be used between October and April. This practice helps to maintain good indoor air quality when natural air infiltration in and out of the home is reduced and when it is not practical to open windows. Refer to chapter 8 of the NRCan publication entitled *Keeping the Heat In* for additional information.

Recommendation of a Heat Recovery Ventilator (HRV)

Besides exhaust only fans, balanced ventilation from an energy efficient heat recovery ventilator is one of the best ways to control indoor air quality. An HRV reduces the cost of ventilation by recovering most of the heat from the exhausted air. The principle is simple: stale indoor air is drawn into the HRV and passed through a heat exchanger. The exchanger captures most of the heat before the stale air is exhausted to the

outdoors. At the same time, outdoor air is drawn into the HRV, filtered and then passed through the other half of the heat exchanger. As it passes through the exchanger, it collects the heat from the exhausted air before being distributed throughout the house. Two common methods to distribute the warmed ventilation air are through an existing forced air distribution system or a dedicated ductwork system.



The installation of a new or more efficient Heating and Ventilation Institute (HVI)-certified HRV is eligible for an ecoENERGY Retrofit – Homes grant. It is highly recommended that all ventilation systems be designed and installed by a certified installer with the Heating, Refrigeration and Air Conditioning Institute of Canada (www.hrai.ca or 1-800-267-2231), in Quebec CMMTQ (www.cmmtq.org or 1-800-465-2668) or in B.C. TECA (www.teca.ca or 1-888-577-3818). For more information on HRVs, their maintenance and the need to ventilate a home, refer to the NRCan publication entitled *Heat Recovery Ventilator*.

2. COOLING SYSTEM (A/C)

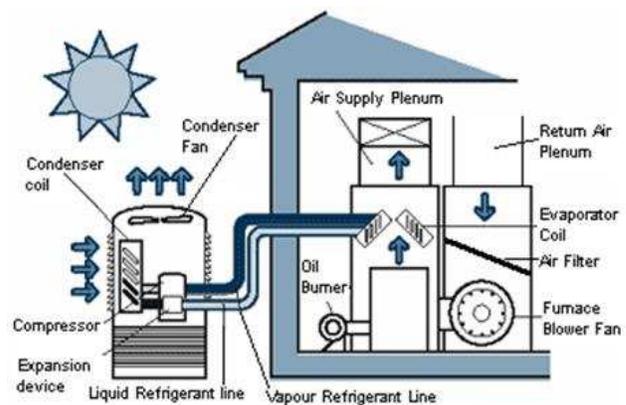
In summer, high relative humidity, elevated air temperatures and bright sunshine can produce an uncomfortable indoor environment. Air conditioning can provide comfort for occupants by lowering both the air temperature and also very importantly, the humidity level in the home.

All air conditioners should be serviced regularly as they can become inefficient when dirty or when the refrigerant runs low. Refrigerant lines should also be replaced to reduce the great risk of damage to the system from contamination of old refrigerants. Check your owner's manual for maintaining your air conditioning system and for more information on air conditioners, refer to the NRCan publication entitled *Air Conditioning Your Home*.

Split System Air Conditioner

Your central air conditioner is a split system, which means it has both an outside and inside component. The outside component is the condenser coil and the inside, the evaporator coil. Replacing your split system air conditioner with an ENERGY STAR® qualified condenser and evaporator coil of SEER 14 will improve your home's energy efficiency.

The evaporator coil is typically hidden in the plenum that is attached to the furnace and refrigerant tubing connects the two cooling components. The furnace blower fan circulates the cooled air throughout the home via the heating ducts.



Just like heating systems, cooling systems should be sized after all other energy efficiency renovations are completed. A properly sized cooling system will reduce cycling and remove more humidity from the air more effectively. Sizing of central AC systems should be determined by a licensed heating contractor who holds certification for Heat Loss/Heat Gain Calculations from the HRAI (www.hrai.ca or 1-800-267-2231), TECA (www.teca.ca or 1-888-577-3818) in B.C. or CMMTQ in Quebec (www.cmmtq.org or 1-800-465-2668).

ENERGY STAR® qualified AC systems use up to 20% less energy than standard new central air conditioners. **To ensure maximum specified efficiency and uncompromised longevity of the new system, the replacement of the matched indoor and outdoor units is critical and mandatory.** The same manufacturer's matched condenser unit and evaporator coil **must** be SEER 14 or greater to be eligible.

3. DOMESTIC HOT WATER SYSTEM (DHW)

Did you know that domestic water heating is the second-largest user of energy in most Canadian homes after space heating? On average, DHW systems account for 20% of the total annual energy consumption. Part of the consumption is a result of direct heat loss associated with *standby* and *wasted* water loss. Heat loss from tank-type water heaters, referred to as standby loss, occurs when heat is lost up its chimney, through the tank walls and through the water piping. Standby losses can be minimized by installing more energy efficient DHW systems that incorporate better burners and venting systems and higher insulation levels. In addition to DHW systems, there are other more simple measures that can be taken around the home to further reduce wasted heat loss from water usage. Fixing any dripping taps, washing laundry with cold water, insulating metallic hot water pipes and installing both low-flow showerheads rated at less than 9.5 litres per minute and faucet aerators also save on energy use.

By insulating the first two metres of your hot and cold metal water pipes with pipe insulation, you will not only save on your water heating costs, the amount of water you use will be reduced. Besides saving energy, water will arrive at the faucets closer to the desired temperature (e.g., warmer or colder) so your taps won't have to run as long. Insulating cold water pipes will also reduce condensation on the pipes that can lead to water stains on the surrounding areas. Note: for fuel-fired water heaters, maintain a 15-centimetre (6-inch) clearance between the pipe insulation and the vent pipe.

Fuel-fired DHW tanks and instantaneous equipment are rated with an energy factor (EF) or thermal efficiency (ET), and electric DHW equipment is rated in Watts of standby loss. The EF and ET measures the seasonal performance of water heaters – the higher the number, the better the efficiency. For electric heaters, the lower the Watts of standby loss, the higher the efficiency.

Note: there is no ENERGY STAR[®] qualified DHW equipment; however, high efficiency condensing gas-fired DHW equipment is available and is eligible for an ecoENERGY Retrofit – Homes grant. For more information on domestic water heaters, refer to NRCan's publications entitled: *Heating with Gas*; *Heating with Electricity*; and *Heating with Oil*.

Recommendation to Install a Solar Water Heater

The installation of a solar water heater will reduce your hot water heating costs and energy use. There are several factors involved when installing a solar water heating system: the size of the collectors, storage tank type, size and efficiency, amount of sunlight in your region and, very importantly, the amount of water you use. The following should be considered when installing your solar hot water heater: good sun orientation for panels (best orientation would be south, south-west or south-east), low shading (caused by proximity of other buildings and trees). A typical well designed solar hot water system can reduce annual hot water heating costs by as much as 50 percent (by providing 1500 to 3000 kWh of energy per year).

For more information, contact the Canadian Solar Industry Association (CANSIA) for a list of installers and dealers (www.cansia.ca or 613-736-9077). Solar collectors need to meet the standard CAN/CSA-F378-87 Solar Collectors to be eligible under ecoENERGY Retrofit –Homes. Refer to the "Glazed Water Heating Solar Collectors – Flat Plate Collectors" and "Glazed Water Heating Solar Collectors – Evacuated Tube Collectors" information in the ecoENERGY for Renewable Heat section of the Government of Canada's ecoACTION website (www.ecoaction.gc.ca).

4. ATTIC INSULATION

Insulation is manufactured, labeled and sold by its thermal resistance value (called the 'RSI' or 'R'-value) – a measurement of the insulation's resistance to heat flow. RSI is a metric unit whereas R-values are imperial (RSI 1 = R-5.678). The higher the RSI/R-value, the more efficient the insulation is.

The way the insulation is installed plays a significant role in its effectiveness. Compressing the insulation, leaving air spaces around it and allowing air movement through the insulation all reduce the actual RSI/R-value of the insulation.

Recommendation for Open Attic

Increasing the insulation levels in your attic to reach a minimum of RSI 7 (R-40) is recommended for your home.

Effective insulation systems slow the movement of heat and air and reduce chances of moisture accumulation. The following are important points that should be considered when upgrading your attic insulation:

- Perform air sealing measures to prevent the movement of air from the interior space into the attic space. Seal air leakage gaps around ceiling light fixtures, plumbing stacks, wiring and chimneys, and where possible, the tops of interior walls.
- Apply insulation uniformly in the attic and thermal bridging of the ceiling joists to help reduce heat loss. Joists are the structural part of the ceiling and are made of solid material with a lower R-value than the insulation. Thermal bridging allows a greater rate of heat transfer.
- Insulate all cavities to ensure no gaps are left.
- Avoid compressing the insulation.
- Ensure that soffit venting is not blocked by the added insulation. If so, baffles may have to be installed.
- Weatherstrip around the attic hatch or access.

Different materials can be used to insulate your attic. Some examples include blown-in cellulose and glass fibre, glass and mineral fibre, batt insulation and spray-on foam. For more information about installation methods, insulation values and properties, consult chapters 1 through 4 of NRCan's publication entitled *Keeping the Heat In* and Canada Mortgage and Housing Corporation's *About Your House* and *Renovating for Energy Savings* series of fact sheets.

5. HEATING SYSTEM

When replacing your heating system, your heating contractor should perform a heat loss calculation on your home to determine the capacity and distribution flows (air or water) for the new heating equipment. Your best option is to deal with a licensed heating contractor who holds certification for Heat Loss/Heat Gain Calculations from HRAI (www.hrai.ca or 1-800-267-2231), TECA (www.teca.ca or 1-888-577-3818) in B.C. or CMMTQ in Quebec (www.cmmtq.org or 1-800-465-2668).

It's important to complete the other non-heating recommended energy efficiency upgrades before you replace the heating system since proper sizing can result in smaller and less costly equipment. This helps to minimize efficiency losses and potential discomfort caused by oversized equipment.

If possible, heating equipment should be directly connected to an outdoor air supply to provide some air to the equipment for proper combustion. This connection helps to ensure no combustion gases leak into the home

should the house come under strong negative pressure (depressurization), such as when powerful ventilation fans are in use. An alternate option is to install a motorized combustion air damper on the outdoor air supply duct. This damper ensures combustion air is only supplied when required. During the summer, the damper stays closed and prevents humid outdoor air from coming in the house. In winter, the damper also stays closed when your heating equipment is not on, keeping unwanted cold air from entering the house unnecessarily.

High-efficiency heating equipment with direct sidewall venting of its combustion gases may require that the existing chimney be capped or relined. Relining allows for adequate air for the remaining systems that are using the existing chimney (e.g., hot water heater). However, it may not be possible to install some types of sidewall vented high efficiency heating equipment because of the location of the mechanical room or if there is no safe place to exhaust combustion gases on the side of your building.

Forced Air Furnace Recommendation

The replacement of your heating system with an ENERGY STAR® qualified gas furnace that has an AFUE of 90% or higher is recommended for your home. A new furnace will provide quick heat and filtered air while it can also be used to humidify, ventilate and cool your home. This type of equipment responds well to thermostat set-back (manual or automatic) as a simple way to save energy. Every degree Celsius of set back overnight and when away during the day saves approximately 2% in energy consumption.

High efficiency gas furnaces condense the water vapour from the combustion gases which increases their efficiency. They do however require a floor drain or optional pump to remove the collected water.

Before installing a new gas furnace and especially if installing a new central air conditioner, ensure that ductwork from the furnace is adequately sized and sealed, the supply and return flows are balanced and return air grills are also adequately sized and properly located (especially on upper floors). Oversized furnaces can give short bursts of hot air that can quickly heat the core of the home while leaving rooms further away under heated. When ductwork is properly installed, the flow of air is more consistent throughout the home, making it more comfortable to live in.

Direct Current (DC) Variable-Speed Motor

When operating the furnace blower fan for long periods of time such as when operating a central air conditioner, an air filtration system, a heat recovery ventilator or just for circulating the air continuously, a DC variable-speed motor has a typical payback period of just a couple of years.

Remember to have your furnace undergo regular maintenance so that it performs at its maximum efficiency. Clean or replace your air filter regularly and purchase only those that are properly sized to fit tightly in their frame.

ENERGY STAR® Qualified Furnaces

Always consider ENERGY STAR® qualified furnaces as they ensure higher efficiencies and are eligible for ecoENERGY Retrofit – Homes grants. Note that the grant amounts differ based on their efficiency levels and the presence of an energy-efficient direct current (DC) variable-speed motor (refer to the NRCan publication entitled *Retrofit Your Home and Qualify for a Grant!*).

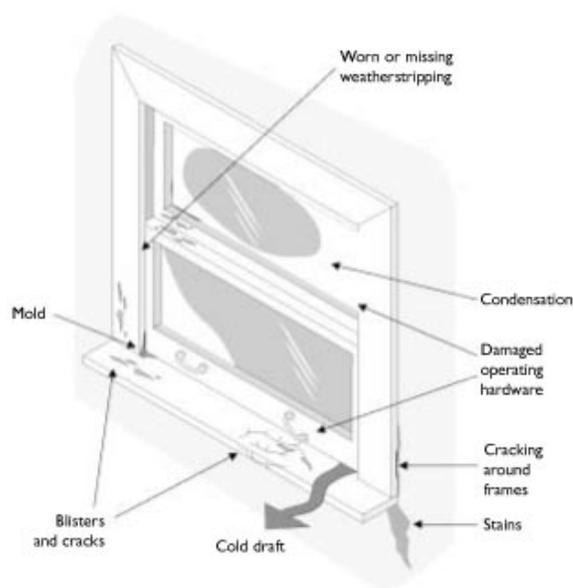
For more information on ENERGY STAR®, go to www.energystar.gc.ca or call 1-800-387-2000. For more information on heating systems, refer to NRCan's publications entitled *Heating with Gas, Choose the Right Condensing Gas Furnace, Heating with Electricity, Heating with Oil or Heating and Cooling with a Heat Pump*.

6. WINDOWS AND DOORS

A typical window will last twenty years or more so your selection of windows can help define energy efficiency and comfort levels in your home for years to come. Technical breakthroughs such as low-E coatings, triple glazing, inert gas fills, and better edge spacers and frames have improved window technology immensely, offering significant improvements in solar control, thermal comfort and energy efficiency.

Recommendation

The replacement of your windows with ENERGY STAR[®] qualified windows is recommended to improve the energy efficiency of your home. When replacing your windows, make sure that all models you select are matched to your climate zone (refer to 'Your Home Energy Action Checklist' on page 2 of your report for your climate zone). Under ecoENERGY Retrofit – Homes, a window is defined as the rough opening (RO) in the wall. The RO is the same as the opening left behind when the entire window unit is removed.



For information on purchasing energy-efficient windows, refer to NRCan's publication entitled *Consumer's Guide to Buying Energy-Efficient Windows and Doors*. For information on ENERGY STAR[®] qualified windows, doors and skylights, go to www.energystar.gc.ca.

7. AIR SEALING

The blower door test provides information about the air tightness of your home. There are three types of calculations from the blower door test: the number of complete air changes per hour (ACH), the critical month (total), and the equivalent air leakage area (ELA), all of which are noted on the first page of your report.

1. The ACH is a standard measure of the rate of air leakage that occurs when a *simulated pressure* difference between the inside and outside of the home is set at 50 Pascals (Pa). A 50 Pa pressure difference between the inside and outside of the home is the simulation of a wind blowing on your home at 56 kilometres per hour (or 35 miles per hour).

2. The Critical Month (total) is the sum of the *natural air change* rate and the *exhaust flow rate* generated by any existing ventilation equipment and is also measured in the number of air changes per hour (ACH). If the Critical Month (total) ACH is less than 0.3 ACH, mechanical ventilation would be required in your home to reduce the potential for conditions such as stale air, high humidity levels, and condensation buildup on window frames. A natural air change rate over 0.5 is usually an indication that the house is drafty and has a large amount of uncontrolled air leakage, therefore resulting in unnecessary energy loss. NRCan suggests levels of around 0.30 ACH (natural and mechanical) as a good rate to maintain good indoor air quality in the home.

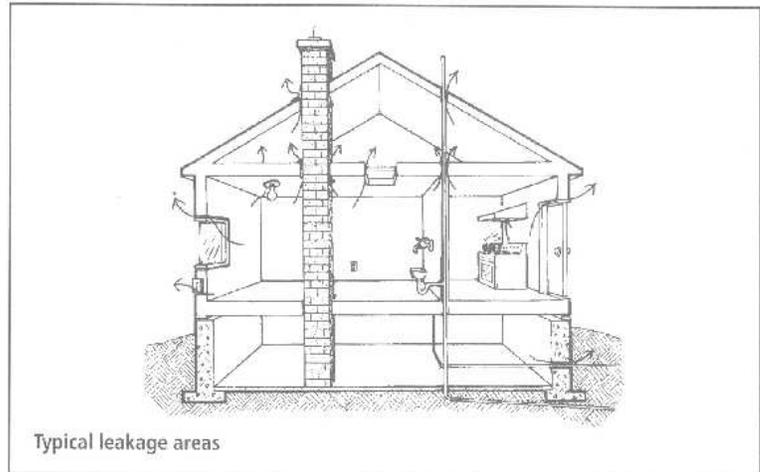
3. The Equivalent Air Leakage Area (ELA). The ELA represents the sum of all air leakage areas in the building envelope of the home, in square inches. The larger the ELA, the leakier the house is. An energy-

efficient house might have an ELA as low as 40 square inches (sq. in.), while a leaky house may have an ELA of more than 500 sq. in.

Recommendations

Air leakage areas found in your house affect the overall amount of energy used to heat and cool your home. The following are the air leakage areas that were discovered during the blower door test:

- electrical outlets
- electrical ceiling fixtures
- electrical box and wire penetration
- exterior pipe penetration
- baseboard trims
- window frames
- door frames
- mouldings
- fireplace
- chimney
- attic hatch
- basement header (rim joists)
- other _____



Air Sealing Options

Weatherstripping is an inexpensive and important detail of the air sealing process. It can be used to air seal the gaps that can occur around windows and doors. It comes in various shapes, lengths, sizes and qualities. When installed correctly, it is an effective product that can reduce air leakage.

Caulking is another way to air seal small cracks and penetrations on the inside surface of your walls, ceilings and floors. There are two main types of caulking: for interior air sealing and the other for exterior air sealing. Interior air sealing prevents air from escaping into hidden cavities such as walls and roof, whereas exterior sealing keeps weather elements such as rain, snow, wind, as well as insects and rodents out!

You may decide to do the air-sealing job yourself if you have the time, patience and skills and are conscientious about air sealing in areas that can be difficult and uncomfortable to work in (e.g., the attic). However, professional air sealers can usually do a much better job because of their experience in locating and sealing leaks. Professional whole-house air sealing costs vary depending on the size and complexity of the house and work required. If you hire a contractor to do the work, the contract should specify each area to be sealed and the materials to be used and when possible, the performance level to be attained.

For information on improving the airtightness of your home, refer to chapter 3 of NRCan's publication entitled *Keeping the Heat In* and the publications entitled *Air Leakage Control* and *Improving Window Energy Efficiency*.

8. WATER CONSERVATION

Water conservation is an important part of a home energy saving plan. Whether you are on municipal water or a well, water savings can lessen your impact on the environment and can reduce costs associated with water treatment and delivery. Toilet usage can account for approximately 30 percent of indoor water use.

The amount of water you save depends on the flush volume of the toilet, how often the toilet is flushed and its condition (e.g., adding dye to the toilet tank water can reveal a leaky flush valve if the colour shows up in the bowl without flushing). For example, if you are replacing a toilet that commonly flushes with 13 litres of water with a new 6-litre model, you will save more than half of the water you and your family normally use.

Additional water economy can be achieved by installing a dual-flush toilet as dual-flush toilets can save about 25 percent more water than a 6-litre toilet.

Recommendation

When replacing your toilet(s), purchase a toilet that will save on your water consumption. To be eligible for a grant under ecoENERGY Retrofit – Homes, new toilets must meet certain performance criteria for water savings sustainability and long-term water saving performance. Information on qualified makes and models is available at www.veritec.ca. Note: you must keep sufficient documentation on the make and model number of the replacement model to ensure compliance.

Here are the requirements for the toilets.

Low-flush or dual-flush models must be:

1. rated at 6 litres per flush or less;
2. meet the Los Angeles Supplementary Purchase Specification (shown as SPS on the list); and
3. have a flush performance of 350 grams or more.

ENERGY SAVING TIPS

Although these actions are not eligible for an incentive, they will help you save energy and money!

- Install programmable electronic thermostats. Set the heating temperature to 20°C while you are at home and 17°C at night and when you are away. For each degree Celsius of setback, you can save up to 2 percent on heating bills.
- When replacing lighting, appliances, electronics and office equipment, look for ENERGY STAR® qualified products. ENERGY STAR® qualified products use less energy overall and when in standby mode (i.e. when they are turned off), they only use half the amount of energy. For more information, go to energystar.gc.ca.
- Use a timer on the outlet being used for your vehicle's block heater. Set the timer so that it turns on one to two hours before you plan on starting your vehicle.
- Install ENERGY STAR® qualified kitchen or bathroom exhaust fans.
- Install a timer or dehumidistat switch on the bathroom exhaust fan(s).
- Replace light bulbs with energy-efficient ones, such as ENERGY STAR® qualified compact fluorescent lights. They last longer, emit less heat and reduce electricity consumption.
- Install a photovoltaic power system that will supplement the building's energy use with environmentally friendly electricity.
- Install a solar wall heating system to ease the load on the primary heating and ventilation systems.
- Plug home office equipment into a power bar that can be easily turned off when equipment is not in use. Refer to the NRCan fact sheet *Standby Power – When “Off” Means “On”* for information on standby losses.
- Install a timer on the pool pump and use a thermal blanket or a pool solar heater to heat the water in your pool.

INFORMATION RESOURCES

Home Energy Efficiency

Natural Resources Canada publishes a variety of publications that can help you improve the energy efficiency of your home. These publications are available online at oee.nrcan.gc.ca/publications or by calling the order desk at 1-800-387-2000.

Renovation Publications

Canada Mortgage and Housing Corporation (CMHC) maintains a large number of renovation planning fact sheets that are available at no cost. There are also some excellent in depth publications for sale. Visit cmhc-schl.gc.ca or call 1-800-668-2642 to order your material of interest.

Hiring a Contractor

Before you have any work done, request quotations in writing from professional contractors and obtain a written contract. CMHC has a very useful fact sheet on this subject, *Hiring a Contractor*, which includes a draft contract. Visit cmhc-schl.gc.ca or call 1-800-668-2642 to order.

Mold

If you suspect mould growth in your home, it is recommended that the mould damaged area(s) be cleaned thoroughly or removed and properly disposed of. To control and reduce the potential for mould growth, maintain indoor humidity at appropriate levels, and remedy water infiltration and leakage issues. Refer to the CMHC fact sheet *About Your House: Fighting Mold – The Homeowner's Guide* for information on proper mould identification and cleaning procedures. Visit cmhc-schl.gc.ca or call 1-800-668-2642 to order.

Humidification

A relative humidity (RH) level of between 30 and 55 percent is recommended in the home. If you have a humidifier or dehumidifier, ensure that it is regularly cleaned and maintained, and that the humidistat is set at an appropriate humidity level. You can use a hygrometer to measure relative humidity and the CMHC fact sheet *Measuring Humidity in Your Home* gives good advice. In addition, dehumidifiers can help reduce moisture levels especially in basements.

Wood Burning

For information on residential wood combustion, visit Environment Canada's Clean Air Online Web site at ec.gc.ca/cleanair-airpur and select 'Home Heating and Wood Burning' or call 1-800-668-6767.

Vermiculite and Renovation

Older vermiculite insulation installed in homes may contain amphibole asbestos. If the insulation is in the walls or attic spaces and is not disturbed, it poses very little risk to the health of the occupants. However, if vermiculite is found during a renovation, or if you suspect it might be in your home and you plan to renovate (including insulation or air sealing work), contact professionals who are qualified to handle asbestos before you proceed with the renovation. For a listing of qualified professionals, look in the Yellow Pages™ under 'Asbestos Abatement & Removal'.

GET STARTED TODAY!

Now that you have the tools to improve your house's energy efficiency, you can look forward to enjoying the added comfort of your ecoENERGY improved home. Not only will you benefit from increased comfort, you will also save on your energy bills year after year. And let's not forget your reduction of greenhouse gases!

Remember, you have up to 18 months to complete your retrofits and qualify for an ecoENERGY Retrofit – Homes grant.