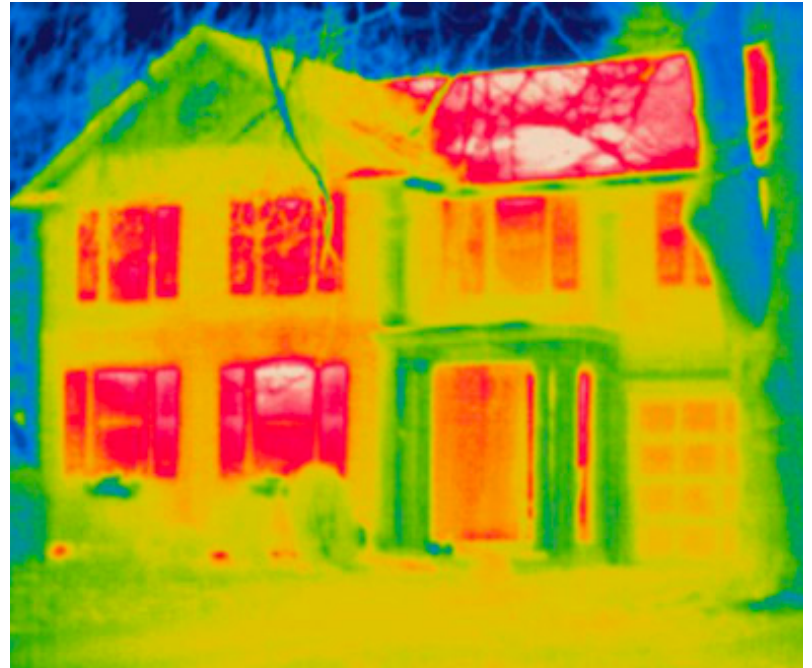


Home Is Where the Heat Loss Is!

A resource for improving your home's efficiency



IMPROVING HOME ENERGY EFFICIENCY AND REDUCING HEAT LOSS

Retrofitting is incredibly important for making our homes more comfortable and efficient, and reducing our greenhouse gas (GHG) emissions in Lanark County. A deep energy retrofit is a complete overhaul of a building that aims to reduce heat loss and energy consumption. These retrofits involve updating components such as windows, heating systems, energy sources, and insulation in walls and roofs.

HOME ENERGY EFFICIENCY AND CLIMATE

Did you know that in Lanark County, 16.6% of the GHGs produced come from residential buildings? This is the second largest source of GHGs in Lanark County, behind transportation.

HOW DO I FIND OUT MY HOME'S EFFICIENCY?

Completing a [home energy assessment](#) in your home is a great step towards understanding your home's efficiency and identifying areas for improvement. These audits identify areas of heat loss and provide suggestions on renovations homeowners should focus on to improve their energy efficiency. Follow the link to find your [NRCAN energy advisor](#).

BENEFITS TO HOMEOWNERS

The benefits of home retrofits are vast for home owners. Some of the benefits include:

- Increasing home value
- Improving comfort
- Reducing your home maintenance
- Reduced costs and better savings over the short and long term
- Reducing your green house gas emissions

Funding Opportunities



Renovate Lanark - A one-time assistance of up to \$15,000 per household for eligible homeowners to assist in financing major home repairs and/or accessibility renovations. To see if you are eligible, visit the Lanark County website or contact the Housing Department at 613-267-4200 ext. 2402.

Canada Greener Homes Grant - \$600 dollars towards a pre-retrofit evaluation, and up to \$5,000 rebate on home retrofits.

To learn more about other available incentives visit [Better Homes Ontario](#)

What Should I Be Upgrading?

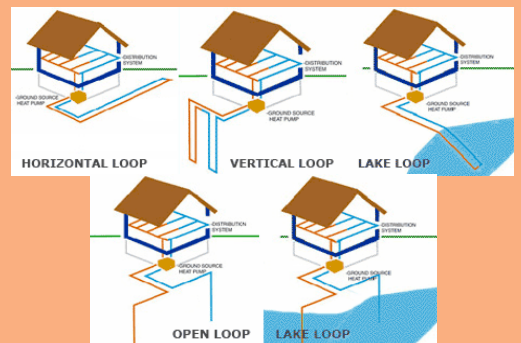
This guide will provide you with some key deep retrofitting ideas to consider and further upgrades for energy savings. For more information on additional ways to improve your homes efficiency visit: [Hydro One](#) and [Better Homes Ontario](#)

HEATING AND COOLING

Switching your heating system from oil, propane, or natural gas to electric heat pumps is a great way to save money over the longer term and reduce your GHG emissions. Heat pumps can be used for both heating and cooling. Two common types of heat pumps include:

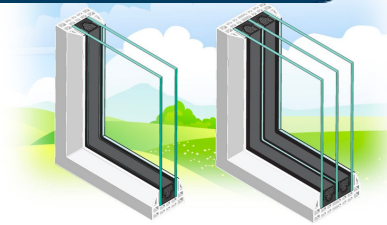
Ground Source Heat Pump - Geothermal

Works by circulating a thermally conductive liquid solution through the ground loops. After absorbing the ground's thermal energy, that solution then goes back into the heat pump and exchanges its heat (or cold) energy with liquid refrigerant inside the heat pump.



Air Source Heat Pump

Works by extracting heat from cold air to warm your home in the winter months, and vice versa in the summer months.



WINDOWS AND DOORS

Fibreglass doors - Switching your doors to well insulated fibreglass can help keep your heat inside your home. Fibreglass is both durable and a poor conductor of heat and cold, making it the ideal candidate for your door.

Triple paned windows - Poorly insulated windows are one of the top causes of heat loss in homes. If you are looking to replace your windows, check out triple paned windows. The added pane of glass makes a huge difference in reducing your home's heat loss and improving its energy efficiency.

INSULATION

Is your home hard to heat and chilly during the winter months? Consider adding additional insulation to attics, basements, or exterior walls. Many older homes were not built with adequate insulation or the insulation has become outdated. Adding and replacing insulation will not only increase your comfort, but will also save you money!



RENEWABLE ENERGY SOURCES

Harness the power of the sun by installing solar panels on your roof or in your yard. You can go completely off grid, or this can be a great way to supplement your current energy consumption.

Follow the link to learn more about installing solar at your home!

[Installing Solar Panels on Your Ontario Home](#)

LANARK COUNTY RETROFITTING IN LANARK COUNTY



WATER HEATING SYSTEMS

Tankless hot water systems provide hot water on demand, taking up less space in your basement and reducing your energy consumption. Depending on your water consumption, a tankless hot water system can save you between 8%-34% compared to conventional hot water tanks. There are two types of these units: point-of-use (for single fixtures) and whole house.

Heat pumps can be used in a stand alone form for hot water. Or, if you already have a heat pump for space conditioning, you may be able to use it for hot water as well. Talk to your installer or a plumber to learn more about using heat pumps for hot water.

Follow the link to learn more about hot water systems and to find out which one is right for you:

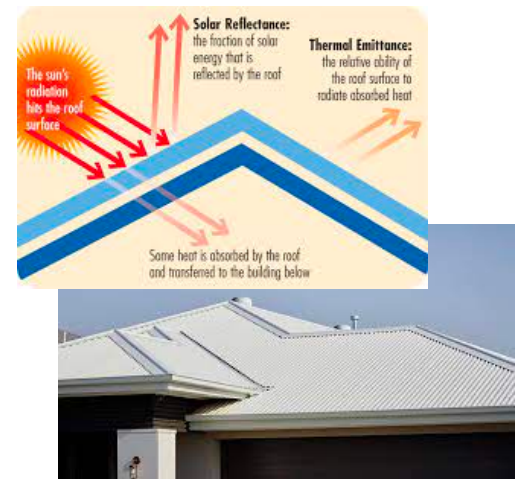
[Water Heater Guide - Natural Resources Canada](#)

ROOFING

If it is time to replace your roof, consider replacing it with a cool roof. Cool roofs are light in colour and made with materials that have a high solar reflectance. This decreases the temperature of your roof, making it easier to cool. A dark roof in the summer means your air conditioner is working harder to keep your home cool, therefore costing you more. Cool roofs work well in urban and populous areas where the urban heat island effect occurs.

Follow the link to learn more about cool roofs:

[Cool Roofs- US Department of Energy](#)



ENERGY STAR-APPLIANCES

Major appliances use a lot of energy. If you are on the market for new appliances and electronics, look for the **ENERGY STAR** logo. ENERGY STAR certified models have been shown to be up to 70% more efficient than conventional models. Rebates and tax credits may be available depending on the product.

Note: Switching appliances is not considered deep retrofitting and would not be covered under most funding opportunities. Only switch appliances if needed.

LOW FLOW FAUCETS AND FIXTURES

Switching your shower heads, toilets, and faucets to low flow models can help conserve water and energy. There is a common misconception that low flow can mean low pressure, however, modern low flow models have been made to have more effective pressure. Check out the criteria of low flow models:

- A low flow showerhead must not exceed 2.5 gallons per minute
- A low flow sink faucet must not exceed 1.5 gallons per minute
- A low flow toilet must not exceed 1.5 gallons per flush



Green Home Design

Are you planning on building a new home? Here are some design concepts to consider when planning your build. Incorporating the above retrofitting ideas into your plans can help you save now and later.

PASSIVE HOMES, NET-ZERO, AND POSITIVE ENERGY HOMES

Passive Homes

Passive homes allow for heating and cooling related energy savings of up to 90% compared to typical homes, and over 75% compared to average new homes.

[What is a Passive House / Passivhaus? Benefits & Principles Explained](#)

Net-Zero Homes

Net-zero homes produce as much energy as they consume and are up to 80% more energy efficient than a home built to conventional standards.

[Why live in a Net Zero Home?](#)

Positive Energy Homes

Positive energy homes are built to produce more energy than they consume. A home can be built to be positive energy, or an existing net-zero home can be transformed into one.

[Pathways to Positive Energy Homes](#)

Follow the links to learn more about green home designs!



TINY HOMES

Tiny homes are homes with all the amenities of a regular living space with a downsized footprint. This can help cut your building expenses and operating costs. Due to their size, less waste is produced from the construction process. Tiny homes are a great option for single person dwellings, couples, or small families!

Small Steps Towards Better Efficiency



If deep retrofits aren't in your budget, here are some tips to help you improve your home's efficiency.

Windows & Doors

- Shut and lock your windows and doors to ensure that they are sealed properly.
- If your windows are old, you can purchase a window insulator kit at your local hardware store. These kits are easy to use and only require a heat gun or a blow dryer to apply.
- Curtains can be effective at breaking drafts that come from windows.
- Putting blankets or towels under the bottom of your exterior door can help cut drafts. You can also purchase door snakes at various retail stores that accomplish the same goal.
- Check weather stripping of exterior doors to ensure that contact is made with the frame of the door.

Exterior walls

- Check around outlets of exterior walls for drafts. These drafts can be air sealed using caulking or foam. Consult an electrician before doing any electrical work.

Heating

- Ensure ducts and returns are not covered by rugs, couches, or other furniture. Purchase duct extenders for those that are.
- Set the temperature of your house slightly lower at night, or when you aren't in the house.
- Ensure your furnace filter is clean; dirty filters restrict airflow and make your furnace work harder.
- Reverse your ceiling fan to push the warm air down from the ceiling in the winter months.
- Install a Smart or programmable thermostat

Water

- Wrap your electric hot water tank with an insulated blanket to help it run more efficiently.
- Lower the temperature on your hot water tank.
- Turn your hot water tank off when you are away on vacation.

Electricity & Lighting

- Unplug items not in use to reduce "phantom energy" being used while they are inactive. Timers, smart outlets, or shutting off power bars can make this easier.
- Replace incandescent light bulbs with LED.
- Install dimmer switches or sensors for outdoor lighting.
- Use solar lighting for outdoor lights.
- Turn off the lights when you are not in the room.

Appliances

- Use cold water for laundry.
- Use smaller appliances for heating and cooking meals.
- Ensure your fridge has space at the back for sufficient airflow to allow the compressor to operate at optimal efficiency.
- Vacuum and clean coils on the back of your fridge to help it run more efficiently.

Chimney

- Keep your damper and flue closed on your fireplace when not in use.