



Homebuyers' Guide to **Energy Efficiency**





ABOUT THIS GUIDE

Energy efficiency has made huge strides over the past several decades. Manitobans have become more environmentally conscious and knowledgeable about the benefits of reducing our energy consumption.

Efficiency Manitoba is Manitoba's newest Crown corporation devoted to energy conservation. In order to make saving energy and reducing your energy bills easy, affordable, and satisfying, Efficiency Manitoba offers programs to help you make upgrades to your home and save energy, money, and the environment.

The Manitoba Real Estate Association and Efficiency Manitoba have partnered to create this guide filled with valuable information about energy efficiency. This guide provides tips on how to save energy at home, a checklist for hiring a skilled contractor, and resources to learn more about Efficiency Manitoba's programs and rebates.

Keep this guide as a reference so you can save energy and money at home for years to come!



WHY ENERGY EFFICIENCY?

When you make energy-efficient choices and upgrades, you get to enjoy a number of benefits:

- **Lower energy bills**
Using less energy means your monthly energy bills will go down. The more energy-efficient upgrades you make, the more you'll save.
- **Improved home comfort**
Making improvements to your insulation, windows, and doors helps keep warm air in during the winter and cool air in during the summer.
- **Reduced environmental impacts**
Many energy-efficient upgrades can result in reduced greenhouse gas emissions and water use, contributing to a healthier planet.
- **Lower maintenance costs**
Higher efficiency equipment can last longer and requires less maintenance. For example, LED bulbs can last up to 25 years, helping you save on replacement costs.



CHOOSE ENERGY STAR®

You've seen the phrase "ENERGY STAR". But you might be wondering, what exactly does this mean?

ENERGY STAR is an internationally recognized certification program that identifies and labels the most energy-efficient products being sold today. Products with this certification are in the top 10 to 30 per cent of their class in energy performance, and undergo strict testing for quality and long life. This way, you know you're getting the best of the best in energy efficiency.

When you're shopping for appliances, electronics, lighting, windows, or even a new furnace, look for the blue ENERGY STAR logo. It's a symbol of quality and efficiency you can trust.

ENERGY EFFICIENCY TIPS

From simple changes in your behaviour to big renovation projects, everything you do to improve the energy efficiency of your home makes a difference. This section will identify actions you can take on your energy efficiency journey.

SPACE HEATING AND COOLING

- Schedule regular maintenance for your heating and cooling equipment. Your equipment will last longer and run more efficiently.
- Change your furnace air filter every three months.
- Adjust your thermostat at night or when you're not at home.
 - In the winter, lower the temperature by 3°C or more for at least eight hours a day to save up to four per cent on heating costs.
 - In the summer, increase the temperature by 3°C or more for at least eight hours a day to save up to four per cent on cooling costs.
- Consider buying a smart thermostat. It can be controlled remotely to set and adjust the air temperature of your home. It can also learn from your behaviour and adjust the temperature when you're at home or away.
- Take advantage of the sun's energy.
 - In the winter, save energy by opening your shades in the morning on the sunny side of your house and closing them late in the day.
 - In the summer, close your windows and shades during the day to keep warm air out and block heat from the sun's rays.
- Make sure your duct system is clean and all your registers are open to encourage airflow.
- Keep your exhaust fans in good condition. Use them when you're showering or boiling water to help reduce moisture that can lead to the growth of mould.
- Install exhaust fan timers. They help to ensure proper ventilation and save energy.

WATER HEATING

- Install pipe insulation on the hot and cold water lines of your water heater.
- Reduce the amount of water you have to heat by installing low-flow showerheads and faucet aerators. Using less water will also reduce your water bills.
- Repair leaky faucets. Leaking indoor and outdoor faucets can account for up to 10 per cent of your energy bill.
- Planning on being away for an extended period? Turn your natural gas water heater to vacation mode.

WEATHERPROOFING

- The older your home is, the less likely it is to have appropriate levels of insulation. You can reduce your heating and cooling costs and make your home more comfortable by adding attic, wall, basement, and crawlspace insulation.
- Install weatherstripping, caulking, and gaskets around doors, windows, and electrical outlets to reduce air leakage and save energy.
- Caulk the interior side of your window and door frames.
- Upgrade to ENERGY STAR certified windows.
- A low-cost alternative to upgrading your windows from double- to triple-pane is to install a window insulating kit on the interior sides of the windows. This results in energy savings and reduces condensation build-up on windows.



LIGHTING

- Turn off lights when you leave a room.
- Install LED bulbs and fixtures throughout your home. They use up to 80 per cent less electricity than incandescent lighting and can last up to 25 years.
- Install dimmers, timers, motion sensors, and home automation to control your lights and save even more energy.



ELECTRONICS

- Unplug appliances and electronics when they're not in use.
- Unplug battery chargers as soon as your device is fully charged or when the charger isn't in use.
- Use advanced power strips. Unlike regular power strips, advanced power strips work to reduce your energy use by shutting down devices that go into standby mode. Standby power can account for 10 per cent of household electricity use.
- Set gaming consoles to standby mode when they're not being used. When left idle, the average gaming system can use 90 watts of power, which can cost you an extra \$60 in electricity each year.
- Use an outdoor car plug timer to save energy and money. A block heater only needs to be turned on for three hours before starting your car – even on the coldest of nights.



REFRIGERATORS

- Set your fridge thermostat to 4°C and your freezer to -18°C.
- Clean your refrigerator coils regularly to ensure efficient heat dissipation. Vacuuming the grill beneath or behind your refrigerator regularly will help extend the life of your refrigerator compressor.
- Put a piece of paper in your fridge door and close the door. If the paper slides out when you pull it, there's a good chance the seal isn't tight and should be cleaned or replaced.
- Keep your fridge away from heat sources, including stoves, sunlight, heaters, and hot rooms.
- Let hot food cool slightly before putting it in the fridge. This will keep your fridge from having to work too hard to stay cold.



CLOTHES WASHERS AND DRYERS

- Make sure to run full loads of laundry (but don't overfill – this can damage the machine).
- Wash your laundry in cold water when possible. Try a laundry detergent that's specifically formulated for cold-water washing.
- Shake out damp, crumpled laundry before putting it in the dryer to increase airflow and decrease drying time.
- Clean your dryer filter after each load to improve air circulation and drying efficiency.
- When possible, air-dry clothes instead of using a dryer. Use a drying rack, or hang clothes outside.



OUTDOORS

- Well-placed trees and shrubs will provide your home with shade in the summer and act as a windbreak in the winter.



DISHWASHERS

- Air-dry dishes instead of using your dishwasher's drying cycle. Open the door after the final rinse to let the dishes air dry (humidity permitting).
- Always run full loads of dishes.
- Use an energy-saving cycle if your dishwasher has one. Your dishwasher will run at a lower temperature, use less hot water, and save energy.



INFORMATION FOR NEW HOMES

If you bought or are thinking of buying a new home, you may find that these homes have equipment you've never used before. We've compiled some information about three technologies that are now common to new homes: heat recovery ventilators, electric hot water tanks, and drain water heat recovery units.

HEAT RECOVERY VENTILATORS

Heat recovery ventilators (HRVs) are a key component of healthy, comfortable, and energy-efficient new homes.

An HRV system uses fans to exhaust humidity, odours, and carbon dioxide from the home while drawing in fresh air from the outside. In winter, the HRV uses heat from the stale air it exhausts to warm up incoming cold air. That transfer of heat saves you energy and money. The air exchange also improves indoor air quality and reduces condensation problems

by replacing stale, humid air with fresh, dry air from outside.

Don't turn your HRV off; use a control instead. Because your HRV is integral in maintaining safe and comfortable humidity levels in your home, it's important to allow it to run.

Humidity and condensation

Your home's humidity level affects the comfort and quality of your indoor air. This chart provides recommended maximum humidity levels, but each home operates differently.

Outdoor temperature	Practical humidity level
-35°C	20%
-30°C	25%
-25°C	30%
-18°C	35%
-10°C	40%
-5°C	45%
0°C	55%

Too much humidity can cause window condensation, icing issues, and the growth of mould. If your home is too humid, try these tips:

- Turn humidifiers down or off.
- Run the exhaust fan for an extra 10 to 15 minutes after taking a shower or bath. Install a timer switch to prevent it from running unnecessarily long.

Another way to keep the air fresh in your home is to keep outdoor pollutants away from your HRV's intake vent. Keep garbage bins and idling cars at least three metres away from the intake vent. In the fall and winter, monitor the intake and exhaust vents to make sure they're not blocked by leaves or snow.

ELECTRIC HOT WATER TANKS

Most new homes in Manitoba have electric hot water tanks. These tanks keep water hot, regardless of whether hot water is being used. The tank's thermostat controls the internal water temperature and activates the heating element.

It's important to maintain a temperature that's not too high or too low. Excessively hot water results in higher energy bills, a shorter lifespan for your water heater, and potential danger for those using the hot water. Temperatures that are too low can lead to a shortage of hot water during periods of heavy usage,

and poor performance from a clothes washer or dishwasher. The National Building Code of Canada requires an electric water heater to be set at 60°C.

DRAIN WATER HEAT RECOVERY UNITS

New homes will have a drain water heat recovery unit installed on the main waste line. These passive, maintenance-free, long-lasting devices harvest heat from the wastewater leaving your home and transfer the heat back into your water supply (don't worry, though – your clean water won't come into contact with your wastewater). This recycling of heat helps you save money on water heating costs.

EFFICIENCY MANITOBA'S CURRENT OFFERS

Whatever stage you're at on your energy efficiency journey, Efficiency Manitoba is here to help, offering programs and incentives when you are making energy-saving upgrades to your home.

For a full list of Efficiency Manitoba's current offers, visit efficiencyMB.ca.



CHOOSE THE RIGHT CONTRACTOR FOR THE JOB

Thinking about a bathroom mini-makeover? How about a full-scale kitchen renovation? Or maybe you're finishing your basement? Whatever the scale of the project, you'll likely need some help. That's where a contractor comes in.

To ensure the job goes smoothly, it's worth doing some planning and research to stay on budget and get the results you want. A signed contract can also help to resolve any disputes if the work is lagging or unsatisfactory.

Here's a handy checklist to get you started:

- Before you start any project, see if Efficiency Manitoba is offering rebates to assist with the cost of the upgrade. Visit efficiencyMB.ca/my-home to check out current offers.
- Obtain at least three estimates in writing. The estimates should specify the materials and products to be used, labour requirements, cost of subcontractors, a detailed schedule of when the work will be done, and a payment schedule (including details about a deposit).
- When you decide on a contractor, read the contract to make sure all the details are in place.
- Read the fine print and never sign an incomplete contract.
- Verbal agreements can be very difficult to enforce. Always obtain a signed contract and ensure that any changes to it are made in writing.
- Keep in mind that estimates typically have a 10 per cent contingency, meaning the final cost can be as much as 10 per cent more than the estimate.



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