



Checklist

TAKE CONTROL AND MANAGE ENERGY USE
IN AND AROUND YOUR HOME

Wise Energy Guide



uniongas

A Spectra Energy Company

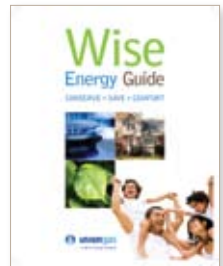
Wise Energy Guide



CHECKLIST

This checklist is part of Union Gas' **Wise Energy Guide**. It is designed to help you carry out many of the energy saving tips contained in the guide. You'll find the information valuable in making your home more energy efficient and in saving you money on your energy bills.

It is important to first read the **Wise Energy Guide**. If you don't have a copy of this guide call Union Gas at **1 888 774-3111** or visit **uniongas.com/energyefficiency**. We'll be happy to send you a copy with our compliments.



HOW TO GET STARTED. IT'S EASY!

- ✔ First, ensure that you have read the **Wise Energy Guide**.
- ✔ Second, simply take the checklist, sharpen your pencil, and give yourself about an hour.
- ✔ As you walk through your home, room by room, check off the jobs and energy-saving measures that are already in place.
- ✔ Put a stroke through the suggestions that don't apply to your home.
- ✔ The remaining tasks are the energy-saving jobs that still need to be done to make your home more efficient and comfortable.
- ✔ Since everyone's home is different, there may be additional energy-saving jobs required that are not listed here. Jot them down at the end of each section in the space provided.
- ✔ When you've completed the sections of the checklist, group similar jobs onto the charts, which are provided at the back of the checklist.
- ✔ To make it easier to group the similar tasks, at the end of each task we have included suggested grouping categories, i.e. Moisture Control, Heating and Cooling Systems.
- ✔ Prioritize the tasks to be done first.
- ✔ Determine which jobs you can do yourself, including products and tools needed, and which ones you need a contractor for.
- ✔ If your project requires the expertise of a professional contractor, make sure you obtain written competitive price quotes to help you make the best decision.
- ✔ To keep motivated, you may even want to put a proposed completion date beside each job!

Although you can complete the checklist anytime, it's ideal to do it on a very cold or windy day so you can feel the drafts better, and also, during daylight hours to see if attic ventilation is blocked.

ATTIC

Check off those items already in place or completed and stroke out those items that are not applicable to your home.

Let's start in the attic. Though it's not always the easiest or most pleasant place to work, it is the first priority when air sealing and adding insulation.

NOTE: You'll need a ladder, ruler, flashlight, and perhaps protective clothing and eyewear – especially if you intend to crawl into the attic. The checklist can usually be completed from the attic hatch. If the attic hatch is in a closet, be sure to clear everything out before opening the hatch. If your home is a side or backsplit, there may be more than one attic space.

- Roof joists look dry and sound with no signs of moisture damage (light frosting on the roof nails is common if it is a very cold day).
(Moisture Control)
- All penetrations into the attic, such as light fixtures, ceiling fans, plumbing stack(s), etc. are air sealed either from the attic side or from the ceiling side. Standard pot lights need to be air sealed, as they are a fire hazard.
(Air Leakage Control)
- The attic contains at least 25 cm of insulation that is evenly distributed throughout the attic floor.
(Insulation)
- Exhaust fans vent directly out of the attic through special roof or soffit vents. Ductwork is insulated.
(Moisture Control)

attic





- Soffit vents are open allowing air to easily enter the attic (should be able to see light coming up through the soffit vents if looking during daylight hours).
(Moisture Control)
- Roof or gable end vents are open and light is coming through.
(Moisture Control)
- Attic hatch is weatherstripped, trim work is caulked, and at least 10 cm of insulation is permanently attached to the backside of the hatch cover.
(Air Leakage Control and Insulation)

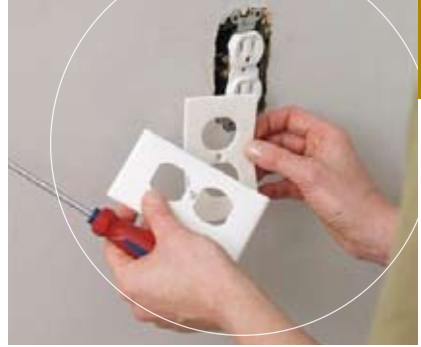
Notes about the attic:

MAIN & SECOND STOREY

- All exterior wall outlets and switch plates are air sealed with foam gaskets behind the cover and child safety caps are in place. The foam gaskets are caulked to the wall before reinstalling the cover.
(Air Leakage Control)
- Baseboards are caulked either from behind the trim work or in front where the trim meets the wall and floor.
(Air Leakage Control)
- Trim work around windows and doors is caulked and weatherstripped inside the home. Caulking and weatherstripping should be done either behind the trim work or in front where the trim meets the wall and window/door frame.
(Air Leakage Control)
- All main floor and second storey windows are air sealed with weatherstripping and caulking and have an exterior storm window or an interior storm window, such as heat-shrink plastic or magnetic-acrylic interior storms, applied in the winter.
(Air Leakage Control)
- Exterior doors are weatherstripped on the sides, top and bottom.
(Air Leakage Control)
- Mail slot is sealed and replaced with an outside mailbox.
(Air Leakage Control)
- Milk chute is weatherstripped and/or filled with insulation and caulked shut.
(Air Leakage Control and Insulation)



- Any other penetrations through the exterior walls are air sealed inside.
(Air Leakage Control)



- Wood-burning fireplace has tight-fitting damper and glass doors, and no soot stains (which could indicate potential backdrafting) above the opening on the brick/stone front.
(Heating and Cooling Systems)
- Wood-burning fireplace draws the smoke up the chimney every time it is used and/or has its own supply of outside air for combustion either from a nearby window or a direct vent from outside.
(Heating and Cooling Systems)
- Exterior walls have sufficient insulation (insulation can often be seen when the electrical outlet cover is removed). Most houses built after 1950 have at least R-7 (about five to six and one half cm of insulation in the walls).
(Insulation)
- In the winter, the thermostat is consistently lowered (no more than 6°C) during the day when no one is home and during the night, while sleeping. This can be done manually or with the aid of a programmable setback thermostat.
(Heating and Cooling Systems)

MAIN & SECOND STOREY continued

- In the summer, if there is central air-conditioning, the thermostat is set between 24°C and 26°C, but never more than 8°C below the outside temperature. (Setting should be set higher when no one is home.) (Heating and Cooling Systems)
- Room air-conditioners, if used, are sized properly and on timers. They only require about 30 minutes to cool and dehumidify a room, so there is no need to have them on if no one is home. (Heating and Cooling Systems)
- Window air-conditioners are removed in the winter (so the window shuts tightly) or sealed in place and covered with a home-made or commercially made insulating blanket for the winter months. (Air Leakage Control)
- Floor heat registers, baseboards, radiators and return air grills are kept clear of obstructions like rugs, drapes and furniture. (Heating and Cooling Systems)
- Kitchen appliances are in good working order, clean, and have tight-fitting seals. (Appliances)
- Kitchen and bathroom exhaust fans are used regularly to vent excess moisture and odours directly outside. (Moisture Control)





- Energy-efficient showerheads are in place. (Water Conservation)
- Energy-efficient faucet aerators are in place in the kitchen and bathroom sinks. (Water Conservation)
- Where feasible, lights that are used for at least three hours per day have been replaced with a more energy-efficient bulb, such as a compact fluorescent or light emitting diode. (LED) (Lighting)
- As they need replacing, all other second storey rooms: standard incandescent light bulbs are switched to reduced-wattage incandescent bulbs. (Lighting)

Notes about the main floor and second storey:

BASEMENT & CRAWLSPACE

Now let's head down to the basement, if you have one. If your home only has a crawlspace, try to take a look into it to complete this section.

- If you have an unfinished basement or crawlspace, check for air leaks by looking for spider webs. Generally, wherever there is a web, there is a draft. (Air Leakage Control)
- Headers (the beams into which the floor joists sit) and the sillplate (the board which rests on the foundation) are air sealed with caulking or expanding foam. (Air Leakage Control)
- Header area is filled with insulation and covered with an air/vapour barrier. The six millimetre poly vapour barrier is sealed at all edges and seams with acoustical caulking to form an air barrier. (Insulation)
- All penetrations through basement walls made by plumbing, electrical, heating services, dryer vent, etc. are air sealed with caulking or expanding foam. (Air Leakage Control)
- All basement windows are air sealed with weatherstripping and caulking and have an exterior storm window or an interior storm window, such as heat-shrink plastic or magnetic-acrylic interior storms, applied in the winter. (Air Leakage Control)





- If there is a dirt floor, it is covered with six millimetres of poly, over-lapped, sealed at the seams and to the basement walls with acoustical caulking to stop excess moisture from entering your home.
(Moisture Control)
- All exterior basement walls have more than five cm of insulation (minimum R-value of R-6 to R-10), running the full height, and there is a sealed air/vapour barrier in place on the warm side of the insulation (facing the room). If you aren't able to see insulation or air sealing behind finished walls, you may want to make a small hole to investigate. Once you have investigated, remember to reseal the hole afterwards.
(Insulation)
- Six millimetre polyethylene vapour barriers are sealed at edges with acoustical caulking to form an air barrier.
(Air Leakage Control)
- Furnace and air cleaner filters are cleaned/replaced every one to two months during the heating and air-conditioning seasons.
(Heating and Cooling Systems)
- Furnace has a regular maintenance check done by a heating contractor.
(Heating and Cooling Systems)
- The joints of furnace ductwork are sealed with aluminum foil tape.
(Heating and Cooling Systems)
- Ductwork which runs through cool or unheated areas is taped, insulated, and covered with an air/vapour barrier.
(Heating and Cooling Systems)

BASEMENT & CRAWLSPACE continued

- Hot water pipes are insulated for at least two metres and cold water pipes are insulated at least one metre from the water heater. For safety reasons, avoid placing any pipe wrap insulation within the first 15 cm of the exhaust vent at the top of the water heater.
(Insulation)
- The water heater temperature should be set no lower than 54°C and not higher than 60°C. Refer to current Ontario Building Code for water temperature at that tap/water fixture. For general household use, the water heater temperature should be set no lower than 54°C. Check the temperature of the water by holding a cooking thermometer under a running tap.
(Appliances)
- Dehumidifier operates in the spring, summer and fall to reduce humidity levels in the basement.
(Moisture Control)
- Wood-burning fireplace has tight-fitting damper and glass doors, and no soot stains (which could indicate potential backdrafting) above the opening on the brick/stone front.
(Heating and Cooling Systems)

Notes about the basement & crawlspace:



OUTSIDE THE HOME

- Wood-burning fireplace draws the smoke up the chimney every time it is used and/or has its own supply of outside air for combustion either from a nearby window or a direct vent from outside.
(Heating and Cooling Systems)
- Clothes dryer vents directly outside.
(Moisture Control)
- The dryer's exhaust hood closes tightly after each use (if it is not closed, and it is cold outside you may feel a draft inside the dryer chamber). Check the exhaust hood from outside to make sure the flap closes tightly.
(Air Leakage Control)
- Where feasible, lights that are used for at least three hours per day have been replaced with a more energy-efficient bulb, such as a compact fluorescent.
(Lighting)
- As they need replacing, all other standard incandescent bulbs are switched to reduced-wattage incandescent bulbs.
(Lighting)
- Brickwork and wood siding is in sound condition with no crumbling brick or peeling paint. If you do encounter crumbling brick or peeling paint, it indicates that excessive moisture is escaping through the walls, instead of exiting through the exhaust fans.
(Moisture Control)



OUTSIDE THE HOME

- There is a bead of caulking around outside door and window frames (where the frame meets the brick or siding) and is in good condition and complete. (Moisture Control)
- Exhaust hoods (dryer, kitchen and bathroom) are in good condition and clear of lint or dirt. (Air Leakage Control)
- If it is a dull winter day and there is snow, it is not melting on the roof or around the foundation. (Insulation)
- Downspouts are connected and drain well away from the foundation wall. (Moisture Control)
- Landscaping around the foundation is graded to encourage water drainage away from the wall. (Moisture Control)

Notes about outside the home:



COMPARING FUEL COSTS

You may also be interested in fuel cost differences. Comparing the cost of fuels can be a difficult thing to do as fuels are measured in different units.

One simple way to make this cost comparison is to convert the different fuels into Btu per dollar (Btu/\$1.00). The British thermal unit (Btu) is the basic energy unit in the Imperial system. Heating appliances are generally rated in Btu/hour which is the maximum amount of energy that the unit will consume or produce in one hour.

The samples provided are only relevant for the efficiency of the appliance and fuel cost as noted. If you want to compare equipment at different efficiencies or with your local fuel cost simply insert the new numbers into the formula and recalculate the Btu/\$1.00.

Visit uniongas.com/residential/rates for current and up to date rates and cost comparisons information.

The screenshot shows the Union Gas website's 'Current Residential Rates' page. The page is titled 'Effective October 1, 2009' and includes a navigation menu with options like 'Home', 'Business', 'Large Business', 'Energy & Transportation', and 'Contact Us'. The main content area is divided into 'Rate Information' and 'Current Residential Rates'. Under 'Current Residential Rates', it states 'Effective October 1, 2009' and provides a link to view the full rates. A note mentions that some small commercial customers may be served under residential rates. Below this, there is a section for 'Related Links' which includes links to 'Energy Savings Tips', 'Thermostats that help you save energy and money', 'How to save energy', 'Incentives and rebates', 'Energy conservation', and 'Contact us'.

CONGRATULATIONS!

Now that you've completed the checklist, it's time to prioritize the energy-saving jobs left to do in your home. Fill in the chart below, noting the jobs you can do and the jobs needing a contractor. Once a job is completed, check it off inside the pages of the Home Energy Checklist. When you start your home on its Energy Reducing Plan, we are confident you will be pleased with the results – lower energy bills and greater comfort. Remember, if you have a natural gas or oil furnace, natural gas water heater, and/or natural gas appliances, you must be sure to continue providing them with sufficient combustion air. If you have any questions or concerns regarding your natural gas equipment or their operation, please contact your local heating contractor.

Energy-Saving Tasks

	I Can Do	Need a Contractor	Completion Date
Air Leakage Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Moisture Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Heating and Cooling Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Appliances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Water Conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

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