

HOME & HEARTH

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Winter-proof your heating bill

With the rise in fuel prices and a growing awareness of energy conservation, homeowners and apartment-dwellers are scooping up supplies of insulation and plastic to cover patio doors

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THE GAZETTE

At the first nip of frost, Louise Boyer will be ready. Her family's Dorval hardware store, Quincaillerie Boyer, is stacked with piles of plastic sheeting and an assortment of caulking tubes, insulating foams and weatherstripping kits big enough to seal the Northwest Passage.

Lucky for us, the warm weather has lingered longer than usual this fall. But just wait until the thermometer dips and the furnace roars to life.

“People have been really worried

about heating costs this winter, ever since they saw gas prices jump,” Boyer said.

“Homeowners are looking for insulation, apartment-dwellers want plastic to seal up the patio door. Suddenly, everybody is being conscientious.”

There's nothing like the prospect of a long winter and surging oil prices to focus people's attention on energy efficiency. Or, as Philippe Morel, a Montreal energy-efficiency consultant, puts it: “Anybody heating with oil is going a little bit crazy this year.”

Is it any wonder? The average price of heating oil in the Montreal region last week, according to the

Quebec Energy Board, was 74.25 cents a litre. Heating oil bills are expected to be as much as 25-per-cent higher this winter than last. Natural gas prices are also igniting. Analysts warned this week that prices in natural-gas markets have reached record highs due in part to inadequate storage and climbing consumption. And even the nearly 70 per cent of Quebec households that heat with electricity – where rate increases have been more gradual – are winter-proofing.

The federal government introduced its EnerGuide for Houses program in 1999 in a bid to reduce greenhouse gas emissions by pro-

viding homeowners with expert advice and subsidies if they upgraded their homes. In the first five years of the program, a total of 15,000 Canadians signed up for the evaluations. That number has soared – to 7,500 requests in the past six months alone. In Quebec, the newfound interest is piqued, no doubt, by a new Hydro-Québec grant program that doubles the federal subsidies.

Retrofitting a house doesn't have to be a budget-breaking job. Nor do you have to be an experienced do-it-yourselfer.

“You can make a big difference by making fairly minor changes – both in the house and in your own behav-

iour,” said Keir Brownstone, general manager of the Toronto-based environmental group Green\$avers.

The first thing to do is look around, feel for drafts. Shocks from static electricity and laundry that clings are signs of excessive winter dryness, which is caused in part by dry, cold outdoor air leaking into the house.

Basically, heat moves from areas of warmth to areas of cold, so your father wasn't wrong when he used to holler:

“Shut that door, you're heating the whole street!”

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HOW TO KEEP THE COLD OUTSIDE WHERE IT BELONGS

ATTIC

Look for stained insulation or frost in the winter as signs of leakage from the house of warm, moist air that condenses in attic spaces and wall cavities. Make sure the attic is adequately insulated (less than 15 centimetres is not enough).

Seal the attic hatch as if it were an outside door.

UPPER FLOOR

Weatherstripping and sealants around doors and windows stop drafts, improve comfort and protect the structure.

Where possible, insulate empty frame walls. In less accessible places, blow insulation in to fill cavities.

1. Bedroom: Electrical outlets, even those on interior walls, leak hot air into walls and attics. So do ceiling light fixtures. Add inexpensive foam pads designed to fit between the cover plate and receptacle. (Shut off the power first.)

Drafts also enter from the spaces between wood moldings and floors, doors and windows. (If you added up all the cracks, gaps and openings in an average single family Canadian house you would end up with a hole measuring 2.3 square feet.)

Seal baseboards and quarter-rounds with transparent, paintable sealant, using a caulking gun. Interior sealing prevents air from escaping into hidden cavities in the walls and roof, thus saving 10 per cent on the heating bill or the equivalent of up to \$200.

Invest in flannel pyjamas and fleecy slippers.

2. Windows: A quarter of a home's heat is lost through windows. They should be double-glazed at least. (New double-paned glass windows and doors can reduce heating costs in a pre-1990 electrically heated detached house by up to \$831 a year.)

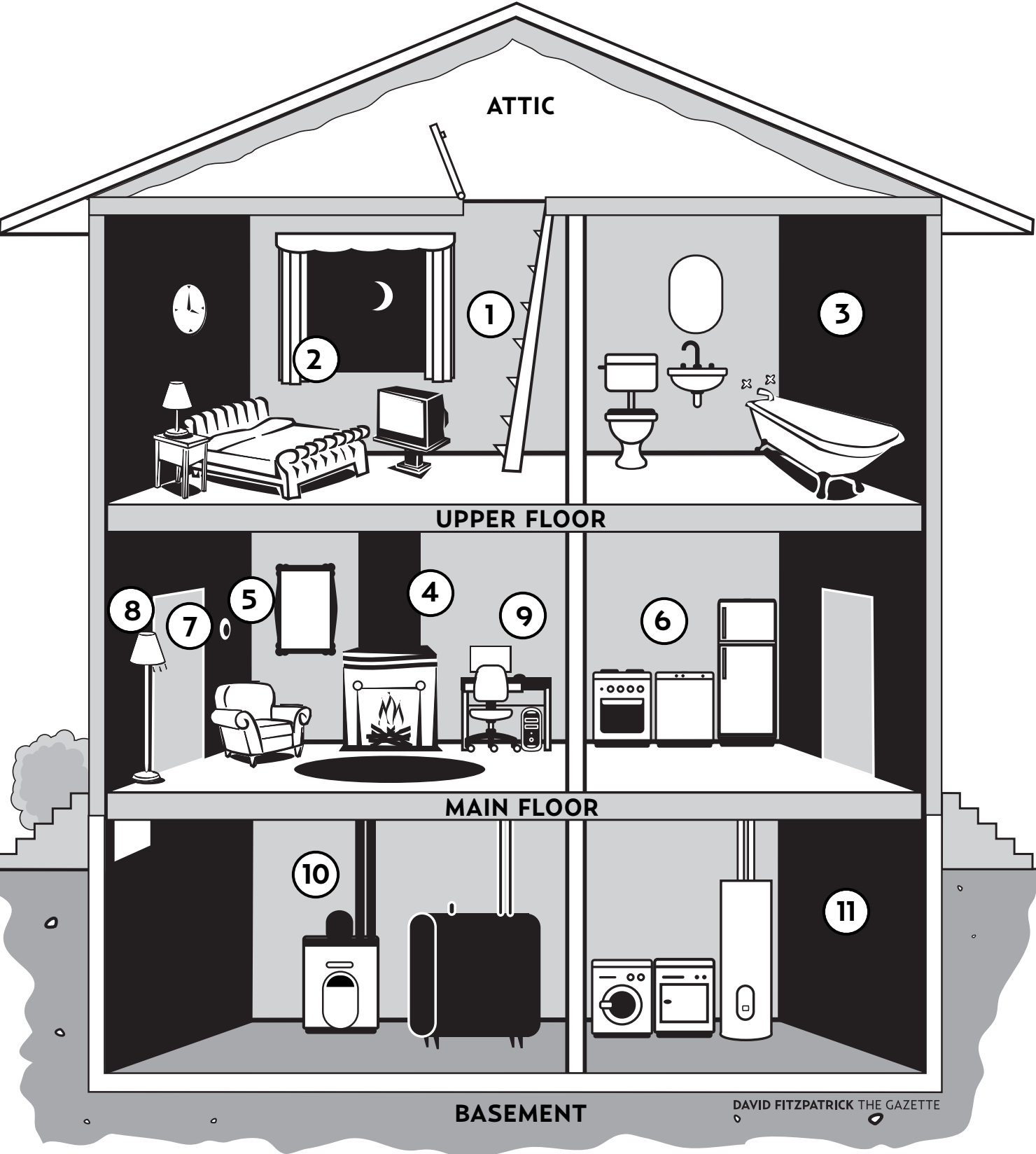
An inexpensive way to improve airtightness and insulating value in windows is to apply a thin plastic film over the entire window and frame attached to double-sided tape on the edge of the frame or the wall. Hardware stores sell kits.

Focus first on upper-storey windows where warm air usually leaks out and basement windows where cold air leaks in, as well as patio doors.

Benefit from sunlight by leaving the curtains open during the day. Draw them at night to reduce heat loss.

3. Bathroom: Exhaust fans and vents should always vent to the outside. Close them properly when not in use. Check behind bathtubs, under sinks and around plumbing pipes for air leakage.

To reduce hot-water costs, install an inexpensive flow restrictor in the showerhead pipe and aerators in the faucets. Fix leaky faucets (one drop per second amounts to 720 litres or



160 gallons a month of wasted hot water).

Take a quick shower. It uses half as much hot water as a bath.

MAIN FLOOR

4. Living room: Open chimneys and fireplaces exhaust lots of air, which is replaced by outside air drawn in. That's why the room often feels drafty with a fire lit in the fireplace. So take a flashlight and check that the damper closes properly. Also, check for air leaks where the fireplace meets the wall; caulk if necessary.

A rug on any floor over a cold part of the house helps.

5. Thermostat: Get a good quality programmable thermostat. It automatically turns the heat down at night after you go to bed and up again in the morning before you wake. It can also be programmed to

Heating with electricity, oil, natural gas: What's the bottom line?			
The figures below reflect the total annual energy bill (including heating, hot water and basic electricity) for a 1,700-square-foot Montreal house built in 1983 or later:			
	2004	2005	% increase
Electricity	\$1,557	\$1,575	+1.2%
Heating oil	\$1,672	\$2,030	+21.4%
Natural gas	1,703	\$1,804	+5.9%

SOURCE: GAZ MÉTROPOLITAIN

turn heat down during the day if everyone is away at work or school.

Lowering the thermostat by one degree Celcius in the average electricity-heated Canadian house built before 1990 can result in savings of about \$74 a year.

6. Kitchen: Avoid opening the oven door too often. As much as 20

per cent of the heat escapes every time you take a peek. Use the convection oven setting when possible, reducing baking times by up to one-third.

The fridge uses more energy than any other appliance in the house. Don't buy one bigger than you need. Consider replacing a fridge bought before 1993 with a newer, more en-

ergy-efficient model that uses up to 40-per-cent less energy.

Avoid running small loads in the dishwasher. Choose the air-drying rather than heat-drying setting. Or just open the door to let the dishes air dry.

7. Front door: Seal the mail slot if it's no longer in use. Otherwise, make sure there's a spring, and that it works properly.

The bottoms of doors can be sealed using rubber sweeps or vinyl or rubber strips attached to the threshold.

8. Lighting: Always turn off the lights when leaving a room, even if it's only for a few minutes. The old myth that it takes more energy to turn a light on than to leave it on is just that – a myth.

9. Computer: Log off and shut down when finished. A continuously running computer and monitor can add between \$75 and \$120 to the yearly electricity bill.

BASEMENT

Basements typically account for as much as a third of a home's total heat loss. Few basements have any insulation at all. Add insulation combined with damp-proofing on exterior walls. Repair cracks in the foundation wall.

Use sealant to fill any interior holes or gaps where the electricity lines, gas lines or oil fill pipes enter the wall. On the outside, caulk only those cracks that allow water entry; the outside of the walls need to breathe and dispel moisture.

The nearly empty second fridge in the basement might be costing \$100 to \$150 a year to run. Is it worth it?

10. Furnace room: Just cleaning the furnace filter every two months can increase its efficiency by 50 per cent. Use vinyl or foil duct tape to seal the seams of heating ductwork, especially where the ducting passes through unheated parts of the house

If your furnace is more than 20 years old, the old behemoth is probably worth replacing. The average 10-year-old furnace wastes as much as 45 per cent of the heat it produces. Newer natural gas furnaces are up to 98-per-cent efficient.

11. Laundry room: The water heater consumes more energy than all the lights and appliances combined. Insulate an electric hot water tank with a store-bought insulation kit containing a vinyl-covered jacket and pre-cut tape.

Wash laundry in cold water. (Hot water doesn't make them any cleaner.)

Do one large load rather than several smaller ones.

In the market for a new washer? Front-loading or tumble-action washers use 40-per-cent less water than other washers, and extract more water during the spin cycle, thus reducing drying time.

Use an outdoor clothesline. When using the dryer, do two or more loads in a row to make the most of the heat already generated by the dryer.

SOURCES: TORONTO HYDRO, HYDRO-QUÉBEC, OFFICE OF ENERGY EFFICIENCY OF NATURAL RESOURCES CANADA, ÉQUITERRE

Grants for homeowners

Natural Resources Canada's Office of Energy Efficiency runs a program called EnerGuide for Houses. For a fee of \$172.48, a consultant is sent to evaluate your home. Grants are available to homeowners who carry out the recommended retrofits like adding insulation. On average, this grant is \$650 per home. In addition, Quebecers are eligible for twice the amount of the Natural Resources Canada grant for any home heated by electricity or dual energy, from Hydro-Québec.

Call 1-(866)-266-0008 or visit <http://oeenrcan.gc.ca/residential/energiguide-for-houses.cfm>

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