



# Look for



to Identify the Most  
Energy-Efficient Products



Natural Resources  
Canada

Ressources naturelles  
Canada

Canada 

**Look**  
for



**Everybody is a winner!**

ENERGY STAR® is the symbol of ultimate energy efficiency recognized around the world.

Products bearing the ENERGY STAR symbol help

- save energy
- save money
- protect our environment

It is estimated that products displaying the ENERGY STAR symbol can help reduce energy and operating costs by 30 to 50 percent.

In addition to helping save money, high energy efficiency household appliances and other everyday-use products help protect our environment by reducing greenhouse gas emissions that contribute to climate change. It also helps lower other pollutants that cause urban smog and acid rain.

Perhaps you have already seen the ENERGY STAR symbol but did not know what it meant. Any product or piece of equipment that displays the ENERGY STAR symbol means that it is a top energy performer and meets stringent energy-consuming specifications.

Natural Resources Canada's Office of Energy Efficiency promotes the international ENERGY STAR symbol in Canada and monitors its use. You can find products bearing the ENERGY STAR symbol for the kitchen, the laundry and furnace rooms, the family room and the home office as well as for lighting throughout the house.

## EnerGuide and ENERGY STAR – A winning team

For over 25 years, Canadian shoppers have relied on the EnerGuide label to compare the energy consumption of major electrical household appliances and heating and cooling equipment. Now, EnerGuide has a powerful new ally – the ENERGY STAR symbol. When the ENERGY STAR symbol appears with the EnerGuide label or in product literature, it means that you will save money on your energy bills.

Canada

# ENERGUIDE

Energy consumption / Consommation énergétique

## 416 kWh

per year / par année

▼ This model / Ce modèle

296 kWh 701 kWh

Uses least energy / Consomme le moins d'énergie

Uses most energy / Consomme le plus d'énergie

Similar models compared

Type 3  
16.5 - 18.4  
volume in ft.³ / volume en pi³

Modèles similaires comparés

Model number AC 00000

Numéro du modèle

Readme of this label refers to model number AC 00000 (E.C. 1994, n. 26).  
En lire cette étiquette aussi le premier article au détail constitue une référence (E.C. 1994, n. 26).

**Better Buy**  
High Efficiency / Haute efficacité

The Better Buy® mark on this EnerGuide label signifies that this is an energy-efficient appliance, its energy performance meets or exceeds the Government of Canada's High Efficiency Mark. Use the EnerGuide rating to determine how this appliance compares to other similar models.  
La marque ENERGY STAR® sur cette étiquette EnerGuide signifie que l'appareil est écologiquement de haut rendement énergétique, même ou dépasse les niveaux de haute efficacité du gouvernement du Canada. Utilisez l'étiquette EnerGuide afin de comparer le rendement de l'appareil avec celui d'autres modèles similaires.

# Look for



## Compact fluorescent lights



**Compact fluorescent lights use 70 percent less energy and last 10 times longer.**

Many styles of compact fluorescent lights, also called CFLs, look like they are twisted or can look like regular incandescent light bulbs. CFLs last longer and consume 70 percent less energy than standard bulbs – and that makes a whole lot of difference on your energy bill!

Energy efficiency pays. The average Canadian home has 30 light fixtures that consume close to \$200 worth of electricity every year. Replacing just five bulbs with ENERGY STAR® qualified CFL bulbs in areas that require more than three hours of light a day saves approximately \$30 a year.

**CFLs have undergone many changes since they were first introduced 15 years ago. New designs mean that they will fit in almost any light fixture.**

Compact fluorescent bulbs that meet ENERGY STAR specifications have an extended life – they are rated to last up to 10 times that of regular incandescent light bulbs of equivalent power.



**The next time you need to replace some light bulbs, remember that each ENERGY STAR qualified CFL bulb you purchase is equal to 6 to 10 regular incandescent light bulbs and uses 70 percent less energy.**

Regular incandescent light bulbs have changed very little since their invention in the 1800s. They waste a lot of energy – less than 10 percent of the energy they consume is used for lighting. The remaining 90 percent is wasted in the form of heat.

When purchasing light bulbs, it is important to know that the wattage rating listed on the bulb and packaging isn't a measure of light output, but a measure of the energy the bulb uses.

**General wattage equivalency guide for replacing incandescent with CFL bulbs**

Standard incandescent bulb (watts)	ENERGY STAR qualified CFL (suggested watts)
40	10
60	15
75	20
100	29
150	38

This table is provided as a guide only. Check the product packaging to determine the equivalent wattage.

ENERGY STAR qualified compact fluorescent light bulbs produce the same light output as regular incandescent light bulbs, but they use less energy.

When you think in terms of energy conservation, this is where the big difference is!

# Look for



Household appliances – from  
the kitchen to the basement



## Your refrigerator is the single biggest energy user of all your household appliances.

That is a good reason to look for the ENERGY STAR® symbol on high energy efficiency household appliances.

ENERGY STAR qualified household appliances use less energy than conventional appliances, offer equal or superior performance, and save you money – sometimes a lot of money.

**A 100-kilowatt hour (kWh) saving represents sufficient energy to operate an 18-cu.-ft. ENERGY STAR qualified refrigerator free for approximately three months!**

**If you were to replace your 1984 model refrigerator with an ENERGY STAR qualified 2002 model, you would save more than 1026 kWh of energy, for a total saving of up to \$82 a year.**

ENERGY STAR qualified refrigerators, refrigerator-freezers and freezers offer remarkable advantages over conventional models: they are better insulated, have high-efficiency compressors, are better equipped to limit heat loss and boast more precise temperature and defrost mechanisms. Most of them use 50 percent less energy than models manufactured in the 1980s.

This can mean a saving of up to \$82 a year. Of course, you can reap this benefit **only** if you get rid of your old refrigerator.

**Average annual energy consumption of top-mounted (16.5–18.4 cu. ft.) refrigerators (in kWh/year)**

	1984	1990	1997	2002
Standard	1457	1067	666	526
ENERGY STAR qualified	–	–	–	426



**ENERGY STAR qualified dishwashers are 25 percent more economical to operate.**

Today's dishwashers are much more energy efficient than those of past years. Believe it or not, some of them even use less hot water than when you do the dishes by hand.

If your current dishwasher is at the end of its useful life and you are thinking of retiring it, look for the ENERGY STAR symbol on a new appliance. It is your assurance of at least a 25 percent higher efficiency rating than the current minimum standard established in Canada.

**Eighty-five percent of the electricity used by dishwashers serves to heat the water.**

ENERGY STAR qualified dishwashers enjoy the benefits of advanced technological features and use less hot water. Several of these new dishwashers feature intelligent sensors that determine the length of the wash cycle and the level of hot water required for the load of dishes to be washed. They may also be equipped with a built-in heating element to raise the hot water temperature.

**A 100-kWh saving represents sufficient energy to operate your dishwasher 40 times, which is equivalent to two months of free operation!**

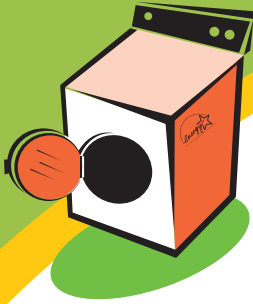
**Average annual energy consumption of dishwashers (in kWh/year)**

	1984	1990	1997	2002
Standard	1213	1026	650	623
ENERGY STAR qualified	-	-	-	481

# Look for



Household appliances – from  
the kitchen to the basement



## In the laundry room

Surveys show that the average family does approximately seven loads of laundry each week. That represents a lot of hot water, a lot of energy and a lot of money.

Through superior design, ENERGY STAR® qualified clothes washers help you save money on utility bills by using 50 percent less energy and 35 to 50 percent less water than traditional models. And they still get your clothes just as clean!

ENERGY STAR qualified clothes washers feature

- sensors that prevent energy waste by matching water needs to the size of each load
- advanced high-speed motors that reduce the length of spin cycles and remove more water from clothes, so less time and energy are needed for drying

**A 100-kWh saving represents enough energy to operate your clothes washer 50 times, which is equivalent to one free load of laundry every week for an entire year!**

Most front-loading washers are ENERGY STAR qualified. But if other designs better meet your needs, look for the ENERGY STAR symbol on those models and be assured of top energy performance.



**Average annual energy consumption of clothes washers (in kWh/year)**

	1984	1990	1997	2002
Standard top-loading	1243	1218	931	876
ENERGY STAR qualified				
Top-loading	–	–	–	389
Front-loading	–	–	–	275

Savings generated by purchasing an ENERGY STAR qualified clothes washer can run as high as \$841.40 over the life expectancy (14 years) of the appliance. Look for an appliance that has water level control – you will save water and detergent as well as energy.

	Non-qualified top-loading model	ENERGY STAR qualified front-loading model
Annual energy consumption	876 kWh	275 kWh
Annual energy cost	$876 \times \$0.10 = \$87.60$	$275 \times \$0.10 = \$27.50$
Lifetime energy cost	$\$87.60 \times 14 = \$1226.40$	$\$27.50 \times 14 = \$385.00$

**There are currently no ENERGY STAR performance levels for clothes dryers.**



**Bottled-water coolers use about the same amount of energy as a compact refrigerator.**

More and more Canadian households are using home bottled-water coolers similar to those used in offices. Some models consume significantly more energy than others to deliver the same result. To make sure you are not throwing money down the drain, look for the ENERGY STAR symbol when buying or leasing a new water cooler. To qualify to display the ENERGY STAR symbol, bottled-water coolers must meet strict technical requirements that place them at “the top of the class” in terms of energy performance.



### Seal the building envelope to reduce heat loss.

If your house is more than 25 years old, it's very likely that it loses a lot of heat through air leakage. That means it is losing heated air in winter and cool, conditioned air in summer, and that is costing you money – lots of it.



Most homeowners can easily reduce their energy consumption costs by 15 percent simply by improving the airtightness of their homes. The biggest sources of leaks are around plumbing penetrations in walls and the roof, behind the trim of leaky windows, around electrical sockets and baseboards, and where the basement wall meets the ground floor of the house.

Owners of older homes that have serious leakage problems have found themselves saving as much as 40 percent on their energy costs after a thorough, professional job of sealing air leaks. So, the savings potential is huge, especially for older un-renovated homes.

How do you decide where to start? An EnerGuide for Houses evaluation that is partially subsidized by Natural Resources Canada can help. Across Canada, trained independent energy advisors are available to visit your home to evaluate its energy use and help you save money as well as improve your home's comfort and value.

The evaluation service looks at all the elements of energy use in your home and provides you with a written report and a long-term plan for energy retrofits you can undertake. The service includes a "blower door test" that identifies where your home's leaks are occurring. You'll also get an EnerGuide for Houses rating of the state of your house before you begin any retrofits.

To find out how to get the evaluation service in your area and to see how much it will

cost, call Natural Resources Canada's toll-free line at 1 800 387-2000 (in the National Capital Region, call 995-2943) and ask the operator for the name of a local delivery agent, or visit the Web site at [oee.nrcan.gc.ca/houses](http://oee.nrcan.gc.ca/houses) and consult the listings under "Contact an Agent."



**A hole 41 cm (16 inches) across  
If you added up all the cracks and holes in  
the average Canadian home, you'd have a  
hole 41 cm (16 inches) in diameter. That's  
big enough to let in a large dog!**

# Look for



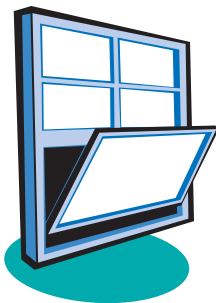
Your windows could be a source  
of significant heat loss



**No one would ever consider building a home without windows or doors, but they can be a significant source of heat loss and discomfort.**

How then can you meet the need for natural light and fresh air and still keep your house warm in the winter and cool in the summer?

**By installing energy-efficient windows, you will save on your heating and cooling costs while comfortably enjoying the view outside. When properly installed, energy-efficient windows reduce or eliminate cold drafts in the winter and create less condensation than ordinary windows. They also reduce noise from the outside. In the summer, they keep the hot air out and the cool air in.**



When you are in the market to buy an energy-efficient window or sliding glass door, look for one that

- has double-glazing with low-emissivity (low-E) glass or is triple-glazed
- has a sealed or insulating glass unit filled with a harmless inert gas, such as argon or krypton
- has a spacer bar in between the layers of glass that does not conduct cold into the home (this type of spacer bar is typically made of non-metallic material)
- has a frame and sashes made from a good insulating material such as fibreglass, vinyl or wood (metal windows should include a thermal break to reduce heat loss)

Windows that do not open are the most airtight, and windows that pivot open are usually more airtight than those that slide open. Remember, when windows and sliding glass doors are installed, they should be sealed with a proper air barrier such as expanding foam or insulation.

Some windows and sliding glass doors have been rated for their thermal performance. Use the following map as a guide to help you determine if the product is energy efficient or not.



First, consult the map and find the zone that you live in. Each zone, from A to D, has an increasingly stringent set of levels as the zones get progressively colder. Zone A is the mildest and Zone D is the coldest.



Next, compare the rating of the product that you are interested in with the following table.

Zone	U-value (R-value)	Energy Rating (ER) for windows that open	Energy Rating (ER) for windows that do not open
A	2.00 to 1.81 (R 2.86 to 3.13)	-16 to -13	-6 to -3
B	1.80 to 1.61 (R 3.13 to 3.57)	-12 to -9	-2 to 1
C	1.60 to 1.41 (R 3.57 to 4.00)	-8 to -6	2 to 4
D	1.40 or lower (R 4.00 or higher)	-5 or higher	5 or higher

The window's or sliding glass door's rating should be lower than the U-value, or higher than the R-value or Energy Rating, for the zone that you live in – or it should at least be close to these values.

### Coming Soon!

ENERGY STAR® qualified windows and sliding glass doors will soon be available in Canada. This new initiative is designed to meet the challenges of the Canadian climate. If you see the ENERGY STAR symbol, make sure that it is applicable to Canada, then verify that the product is ENERGY STAR qualified for the zone that you live in by using the zone map provided. It's that easy!

Sample of a window label with  
**ENERGY STAR** symbol



Look for the ENERGY STAR symbol on windows and sliding glass door products or in their product brochures to ensure an energy-efficient purchase.



# Look for



Home comfort and your  
heating and cooling system



**Well over half your energy bills,  
whether for electricity, gas or fuel  
oil, go toward heating your home.**

But there is good news! Heating and cooling systems that display the ENERGY STAR® symbol are guaranteed to use less energy than regular new models and to use a lot less energy than older, lower-efficiency models. And they heat your home just as well.

Your home's heating system is your best bet against the bitter winter cold. Make sure you get the highest return for the lowest energy cost. Here are some tips to follow.



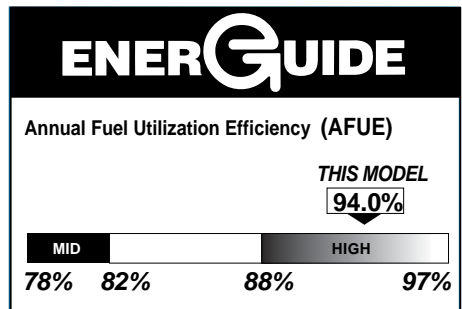


## A new high-efficiency condensing gas furnace uses less energy.

If you're planning to replace an older gas furnace, why wait? Begin enjoying lower annual energy use with an **ENERGY STAR** qualified model and reap big savings now and over the long term.

ENERGY STAR qualified furnaces have an annual fuel utilization efficiency (AFUE) rating of 90 percent and higher. That means they use about 35 percent less energy than older models and at least 12 percent less energy than conventional gas furnaces. At today's fuel prices, you'll make your initial investment back and more on the cost of most ENERGY STAR qualified models.

Make sure that your home is properly sealed against air leaks before you replace your furnace. By sealing your home first, you'll be able to reduce its heat load requirement. If you know your home's heat load requirements, you'll also be able to purchase a furnace that is more accurately sized for your home's needs, so it will run at peak efficiency – saving you even more money. EnerGuide for Houses advisors can provide you with a heat load calculation for your home. Ask your local agent about it when you call for the evaluation service.

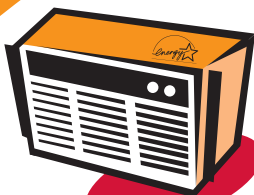


# Look for



Home comfort and your  
heating and cooling system

## Central and individual room air conditioners



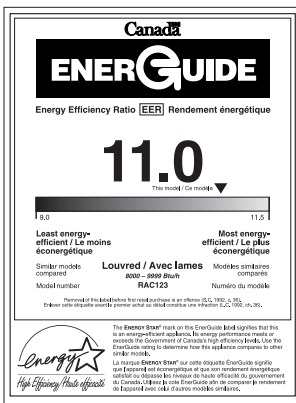
Window air conditioners are now  
**20 percent more efficient** than they  
were in 1990.

An air conditioner cools your house and reduces humidity levels, which in turn makes it more comfortable during hot summer days. Look for the ENERGY STAR® symbol of energy efficiency when you are in the market for an air-conditioning system for your home.

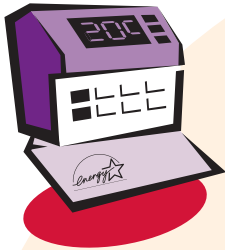
The ENERGY STAR symbol is your assurance that the air conditioner is at least 10 percent more energy efficient than conventional models. In addition, if you set your thermostat higher, you will greatly reduce your energy consumption.



If you are planning to replace your air conditioner, make sure to dispose of the old one properly so that chloro-fluorocarbons (CFCs) are recycled and reused. Never send an old air conditioner to a landfill site.



▲ Window air  
conditioner  
label



## A programmable thermostat – 2 for 1

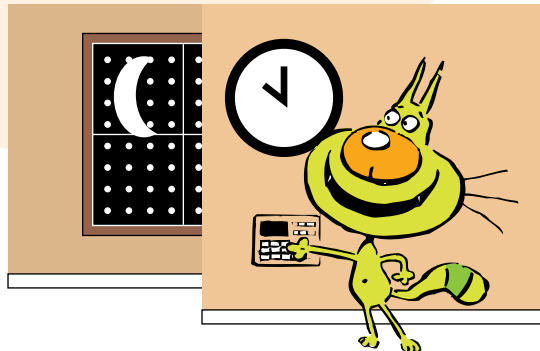
**You'll save 2 percent on your heating bill for every 1°C you set back your home's thermostat overnight.**

Installing a programmable thermostat and setting your home's temperature back a few degrees when you're at work and when you are asleep at night can save you even more money.

Programmable thermostats, which have been available for a while, regulate the heating and cooling of your house based on your family's everyday needs while providing a quick return on your investment.

As a general rule, you will save 2 percent on your heating bill for every 1°C you turn down the thermostat at night.

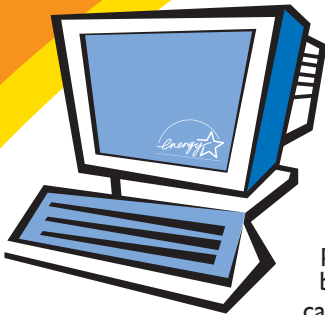
ENERGY STAR qualified programmable thermostats offer you the ability to separate weekday and weekend programs, each with up to four customized temperature settings to maximize your energy savings.



# Look for



Home office computer  
workstations

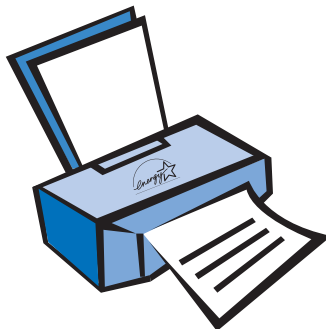


**Home office computer workstations also use a lot of energy in your home.**

The desktop computer is a common feature in many Canadian homes today. Combined with technologies such as the Internet, home computers have made it easier for us to shop, do our banking, research various subjects and communicate with family and friends.

**Liquid crystal display (LCD) or flat panel monitors can also qualify to display the ENERGY STAR® symbol. LCD monitors can be up to 65 percent more energy efficient than conventional cathode ray tube (CRT) monitors, not only in their sleep modes, but also in their in-use modes. Laptops are also highly energy efficient and can qualify to bear the ENERGY STAR symbol.**

Personal computers are also boosting electricity consumption and utility bills in many homes. One way to minimize your utility bills and environmental impact is to choose office equipment that carries the ENERGY STAR symbol.



In order for personal computers, monitors, printers, fax machines, copiers and other business machines to be ENERGY STAR qualified, they must automatically switch to sleep mode when they are on but not in use. In many cases, this means that the equipment consumes no more than 30 watts of power after a preset period of inactivity.

Several of these ENERGY STAR qualified products are required to have two sleep modes to reduce energy consumption. The first one kicks in after 15 to 30 minutes of inactivity; after a longer period of inactivity, an even lower wattage “deep sleep” mode takes over.



These features allow further savings of energy and money and will save wear and tear on your office equipment. Make sure that your workstation equipment is always sleep-mode activated to reap the most energy savings.

# Look for



Music and home  
entertainment systems



Even when turned off, your consumer electronics continue to use energy.

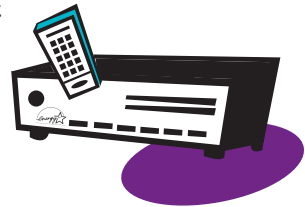
**ENERGY STAR® performance levels are based on stand-by and sleep modes when evaluating consumer electronics and home/office equipment because these items are more often turned off than they are used.**

Most electronic appliances and systems used at home continue to use energy even when they are turned off. In stand-by mode, a regular television set uses as much as 12 watts of energy per hour. However, an ENERGY STAR qualified television will not use more than 3 watts of energy – a quarter of that used by a regular TV.

**ENERGY STAR qualified electronic systems provide energy savings as high as 70 to 75 percent when compared with conventional models. In an average household, the combined energy consumption of home electronics (when turned off) is equivalent to that of a large refrigerator.**

In addition to televisions – and there are often two or three in each Canadian home – ENERGY STAR

qualified videocassette recorders (VCRs), television sets with integrated VCRs, digital videodisc players (DVDs) and audio equipment can generate energy savings as high as 70 to 75 percent when compared with conventional models, while providing you with the same high quality and functions.





## Learn more

The Office of Energy Efficiency of Natural Resources Canada offers information to help Canadians become more energy efficient at home, at work and on the road.

Visit our Web sites:

- [energystar.gc.ca](http://energystar.gc.ca)
- [energuide.nrcan.gc.ca](http://energuide.nrcan.gc.ca)
- [oee.nrcan.gc.ca](http://oee.nrcan.gc.ca)

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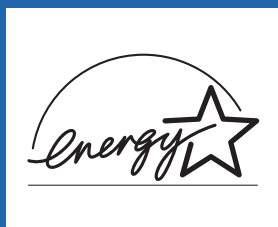
*Aussi disponible en français sous le titre :*  
Cherchez l'étoile ENERGY STAR pour  
repérer les produits à plus haut rendement  
énergétique



Recycled paper



The ENERGY STAR® symbol can be displayed in various ways:



*Leading Canadians to Energy Efficiency at Home, at Work and on the Road*

The Office of Energy Efficiency of Natural Resources Canada strengthens and expands Canada's commitment to energy efficiency in order to help address the challenges of climate change.