

at the source



published by the Canadian Centre for Pollution Prevention

Spring 2003

The Focus of this Issue: Pollution Prevention and Energy Efficiency

This issue of *at the source* focuses on ways to reduce pollution through smarter purchasing of energy-consuming products. Whether you are a large business or a residential customer, you can take simple steps to reduce electrical consumption and lower your costs.

For many years, efforts to promote energy efficiency and pollution prevention existed on separate paths. Many energy efficiency advocates focused solely on the energy savings aspects of their projects, and similarly, many pollution prevention practitioners neglected energy use as a pollution source. More and more, however, the synergies between these two approaches are becoming apparent. Energy efficiency projects often have pollution prevention benefits and pollution prevention projects often save energy. In Canada, the ENERGY STAR initiative brings energy efficiency and pollution prevention together.

Reach for the ENERGY STAR! Be an Energy Wise Consumer

We all depend on using energy to undertake our daily activities. But when we use products that waste energy, we harm the environment. This is because in many provinces, most of the energy consumed in our homes and offices is generated from burning fossil fuels like coal, oil, and natural gas. When these fuels are burned, they release air pollutants such as sulphur dioxide, nitrogen oxides, and particles that contribute to smog, acid rain, and respiratory disease. Another combustion pollutant, carbon dioxide, contributes to global climate change.

When we spend money on new energy-consuming products such as appliances, office equipment, heating and cooling equipment, or a new home, we want to get the most for our investment. A smart way to make a good investment is to think about energy efficiency. The ENERGY STAR international symbol can help make purchasing decisions easier. By using products with the ENERGY STAR label, you can avoid energy waste and save money on your utility bills.

Whenever you buy an energy-consuming product, there are two price tags. The first price tag is the initial purchase price. The second price tag isn't as obvious—it's the cost to operate the product over its lifetime. Because this second price tag is hidden in your monthly utility bills, it's easy to overlook. But the second price tag can be large. For some products, it can be even more than the initial purchase price. So when you compare models, remember the second price tag before you buy. Products with the ENERGY STAR symbol come with a smaller second price tag, which means lower utility bills every month, and for years to come.

Contents:

- Reach for the ENERGY STAR!
- City of Richmond
- Purchasing Tools
- Clean Air Vision
- ENERGY STAR Rebates and Incentives
- Join the Energy Star Team!
- Air Conditioner Trade
- Energy Efficiency Awards



100 Charlotte Street
Sarnia, ON N7T 4R2
Tel: 1-800-667-9790
Fax: 519-337-3486
www.c2p2online.com
info@c2p2online.com

Look for the ENERGY STAR symbol on product packaging, in product literature and advertising and, of course, on the products themselves. In Canada, Natural Resources Canada's Office of Energy Efficiency endorses the international ENERGY STAR symbol for a wide range of energy-using products sold in Canada. Ask your local retailer to help you identify products that qualify for the ENERGY STAR label (see table below) so you can begin saving energy and money. For more information visit the ENERGY STAR website at: energystar.gc.ca

How do products qualify for the ENERGY STAR symbol?

Products must meet or exceed technical specifications endorsed by the Government of Canada to qualify for ENERGY STAR. Requirements vary from one category to another, but typically the product must be from 10 to 50 percent more efficient than standard products to be allowed to carry the ENERGY STAR symbol. For example, an ENERGY STAR-labelled refrigerator must be at least 10 percent more efficient than the standard/base model. For more technical information on the ENERGY STAR requirements visit: energystar.gc.ca

A bit of history...

ENERGY STAR is an international standard for energy-efficient equipment. It was created by the U.S. Environmental Protection Agency in 1992 and through international cooperation, has now been adopted by several countries around the world, including Canada, Japan, Taiwan, Australia, and the European Union.

Products eligible for the ENERGY STAR Label

Office equipment	Computers, monitors, printers, fax machines, photocopiers, scanners, multifunctional devices
Residential appliances	Clothes washers, refrigerators, dishwashers, bottled water coolers
Heating, ventilating and air conditioning equipment	Louvered air-conditioners, central air conditioners, residential gas furnances, residential boilers, air-to-air heat pumps, ground-source heat pumps, ventilating fans and ceiling fans, dehumidifiers, programmable thermostats
Consumer electronics	TVs, VCRs, TV-VCR combinations, DVD players, audio products, cordless telephones/answering machines, set-top boxes
Lighting and signage	Compact fluorescent lights, exit signs, traffic signals
Windows and doors	Windows, sliding glass doors
Commercial and industrial products	Commercial clothes washers, solid door refrigerators and freezers, distribution transformers

More and more organizations are now integrating the ENERGY STAR specifications in their environmental purchasing policies. Contact the Office of Energy Efficiency, Gisèle Maillet at: gmaillet@nrcan.gc.ca or 613-992-4535 for more information.

at the source, a newsletter produced by the Canadian Centre for Pollution Prevention, highlights pollution prevention programs and provides up-to-date information on Canada wide activities.

Editorial Board:
Tania Del Matto, Writer
Tammy Middleton
Brigitte Roth
Linda Varangu
Debbie Wallace
Phil Webber

Farewell to Longest Serving Editorial Board Member

We'd like to extend our heartfelt appreciation to Michael Keating. Michael has served on the *at the source* editorial board since its inception 10 years ago and is stepping down to pursue other interests. His contributions to *at the source* newsletter will be greatly missed.

Michael was a journalist for 23 years, including nine years as environment reporter for The Globe and Mail, before starting his own writing and consulting business. Mr. Keating is founder and Executive Director of the Sustainability Reporting Program, ww.sustreport.org, Canada's first Internet-based report on the environmental, economic and social trends that are shaping our future. He is also Senior Associate, York Centre for Applied Sustainability, York University.

Environmental Purchasing Policies and ENERGY STAR at the City of Richmond

by Cynthia Lussier, City of Richmond, British Columbia

The City of Richmond, B.C. demonstrates leadership and commitment to environmental values by creating a culture of responsibility. In November 2000, the City adopted its *Environmental Purchasing Policy and Guide*, designed to increase awareness and foster opportunities for environmentally preferred products and services. Specifically, staff are encouraged to consider, among other attributes, products that are energy efficient such as ENERGY STAR qualified products.

Promoting the purchase of ENERGY STAR qualified products is closely tied to the City's *Energy Conservation Policy*, adopted in February 1991, which demonstrates commitment to the efficient use of energy in the planning and operating of all facilities. The policy requires that life-cycle costs be considered, and high efficiency products and systems which will pay for their premium costs within their usable life, be preferred when making purchasing decisions.

The City put these policies into action in a number of ways:

- Installation of high efficiency heat exchange systems in the City's aquatic facilities.
- Installation of DDC (direct digital controls) to control heating, ventilation and air conditioning in most City facilities.
- Installation of occupancy sensor lighting systems in most City facilities, and public amenities.
- The purchase of energy-efficient office equipment i.e. approximately 90% of computer and monitors, and 80% of printers in use at City facilities are ENERGY STAR-qualified. Approximately 75% of copiers and fax machines purchased or leased in the last year are ENERGY STAR-qualified.
- The upgrading of traffic signals to those that use high efficiency LED (light emitting diode) technology, which has also earned the ENERGY STAR designation.

These actions have reduced energy consumption and maintenance costs, and also extended product operating life. The City has also been recognized for these initiatives through a number of BC Hydro Power Smart rebates and awards over the past 10 years. Richmond City Hall is another successful project of Natural Resources Canada's Commercial Building Incentive Program and it also won the 2002 Governor Award for Architecture. This record of excellence demonstrates how the considerable purchasing power of governments and other organizations can be used to affect positive environmental change. For more information or to download a copy of the City of Richmond's *Environmental Purchasing Guide*, please visit the City website at: www.city.richmond.bc.ca . For more information on the Richmond City Hall project visit: <http://oee.nrcan.gc.ca/newbuildings/cbip.cfm> (click on CBIP Projects on the left side bar, then click on Case Studies and click on #4).



Environmental Purchasing Policy:

“City of Richmond staff will review their contracts and tender specifications for goods and services, to ensure that wherever possible and economically feasible, specifications are amended to provide for consideration of environmental characteristics. Consideration may be given to those environmental products that are certified by an independent accredited organization.

The City of Richmond as a whole will endeavour to increase its use of products and services that are more responsible in the way that they are made, used, transported, stored, packaged, and disposed of. It is recognized that analysis is required in order to ensure that products are made available at competitive prices, and that the environmental benefits provided by a product or service should not significantly affect the intended use of that product or service.”

Handy Tools Inform Purchasing Decisions



Does your facility need help justifying the purchase of energy-efficient products? Look no further than ENERGY STAR's Simple Savings Calculator and Purchasing Tool Kit! With the Simple Savings Calculator, a facility can quantify expected savings, while the Purchasing Tool Kit provides easy-to-use procurement guidelines and informative resources. Combined, these tools help organizations reduce greenhouse gas emissions and save money.

Natural Resources Canada, in conjunction with the Environmental Protection Agency and the Department of Energy in the United States, has developed these tools. Below, find out more on how these tools can help make purchasing energy-efficient products easier.

How the Simple Savings Calculator¹ Works

The Simple Savings Calculator helps users make comparisons between ENERGY STAR -labeled products and non- ENERGY STAR -labeled products. The calculator encompasses the whole range of ENERGY STAR qualified products including: office equipment (such as computers, monitors, fax machines and copiers), lighting, consumer electronics, appliances, heating/cooling/ventilating systems and some commercial/industrial products. Look for the complete list of qualifying products at: energystar.gc.ca

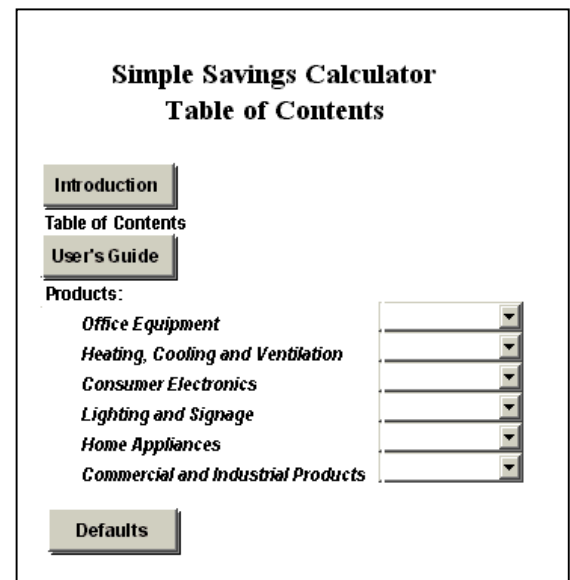
As simple as 1-2-3, the calculator computes annual cost, life-cycle cost, and payback period based on the initial cost of the product, and utility bill savings coming directly from lower energy use.

The calculator combines the use of different consumption, maintenance and usage assumptions for each product with a standard set of base assumptions pertaining to electricity price, carbon conversion and pollution-prevention equivalents. Refer to the Assumptions page following each product worksheet for the base figures used for that unit; and, refer to the Defaults page for the tool's standard assumptions and sources.

Users have the ability to customize this tool. For example, the default prices for the various products are based on the estimated retail price for one unit. However, these prices, as well as maintenance costs and other assumptions, may vary regionally or locally. Users can change the discount rate and/or electricity price according to their situation and have the option of using actual costs or Net Present Value.

How the Purchasing Tool Kit Works

The Purchasing Tool Kit lists product specifications and provides drop-in procurement language that facilities can incorporate into purchasing policies.



¹ Note: this tool was not developed to provide a detailed analysis of expected costs; its objective is only to show you a simple estimate of potential savings.

Handy Tools Inform Purchasing Decisions (continued)

The guide contains purchasing guidelines for each product as follows:

- a. Definitions
- b. ENERGY STAR criteria
- c. Sample procurement language
- d. Information resources: for products that meet energy efficiency guidelines, including web site addresses and contact information for easy reference

ENERGY STAR's Simple Savings Calculator and Purchasing Tool Kit are available on the web at: energystar.gc.ca, click on "Promote and Use and Symbol" and then on "Procurement".

Join the Team! Promote and Use the Symbol

ENERGY STAR is more than just a symbol awarded for energy efficiency. It engages participants in the development of technical specifications that maximize product energy efficiency. By promoting and using the ENERGY STAR symbol, your organization will become part of a growing number of participants that help businesses, consumers and let's not forget product specifiers within your own organization, make product choices that reduce greenhouse gas emissions and improve air quality while saving money. As a participant, there are many benefits, including:

- Increased market exposure: i.e. reach the growing number of procurement officials that are interested in reducing energy use in their organizations
- Heightened public awareness through demonstrated leadership on climate change and air quality issues
- Access to workshops, participant network, case studies, success stories and marketing material

Eligible participants include:

- Manufacturers and Retailers of ENERGY STAR -qualified products
- Municipal, Provincial/Territorial and Federal Government
- Utilities and Energy Retailers
- Trade Associations, Educators, and Environmental & Energy Efficiency Groups



Note that organizations that are already participating in ENERGY STAR in the U.S. or other countries are encouraged also to participate in Canada.

There are no fees associated with becoming a participant. If your organization wishes to label or promote ENERGY STAR-qualified products, you should sign an Administrative Arrangement. In order to have your product labeled with the ENERGY STAR symbol, it must meet the ENERGY STAR technical specifications. For more information on how to participate, please visit the ENERGY STAR website at: energystar.gc.ca or contact Gisèle Maillet at: gmaillet@nrca.gc.ca or 613-992-4535.

Looking for help in reducing your energy consumption? In Canada, the Energy Innovators Initiative (EII) helps commercial businesses and public institutions explore energy efficiency options and strategies. This program is delivered through Natural Resources Canada, a federal department. As an Energy Innovator, you can access a variety of tools, services and benefits, including financial incentives, help with developing energy management plans, energy audits, sector-specific workshops and courses and more. For more information visit the Energy Innovators website at: <http://oee.nrcan.gc.ca/eii>

What are some of the companies/organizations promoting and using the ENERGY STAR symbol in Canada?

Acronamic Learning Systems
ADDICO Products Inc.
Aquila Networks Canada
Aube Technologies
BC Hydro
BSH Home Appliances Corp.
Camco Inc.
Canadian Centre for Pollution Prevention
Canadian Tire Corp.
Clean Air Foundation
Danby Products Ltd.
The Delta Group
Dialight
Durham Regional Municipality
Electrolux Home Products

Euro-line Appliances
Enbridge Gas & Enbridge Services Inc.
Fleetline Products Inc.
GELcore
Gorenje USA Inc.
Greater Vancouver Regional District
The Heating, Refrigeration and Air Conditioning Institute of Canada
The Home Depot Inc.
Homeworks Inc.
Hudson's Bay Co.
Hydro One Networks Inc.
Innotouch Inc.
LG Electronics
Marcus Transformer
Maytag International

Panasonic Canada Inc.
SaskEnergy Inc.
Sears Canada Inc.
Sub-Zero Freezer Co.
Super Electric Co.
Terasen Gas Utility Ltd.
Thomas & Betts Ltd.
Thormag Power Corp.
Toronto Atmospheric Fund
W.C. Wood Co. Ltd.
Whirlpool Canada Inc.
Yukon Development Corp.
Xerox Canada Ltd.

...And the list continues to grow!

Join the list now by contacting the Office of Energy Efficiency!
Gisèle Maillet (gmailllet@nrca.gc.ca) or Kathy Deeg (kdeeg@nrca.gc.ca).



Keep Cool this Summer!

Most of us think of our old window air conditioning units as comfort providers. You may be surprised to know that older inefficient working window air conditioners contribute to smog and climate change and use 30-70% more energy than newer ENERGY STAR-qualified model. But you can do something about it. Between June 20th - 22nd and June 27th - 29th, 2003 only, the Clean Air Foundation will be running Keep Cool!, Canada's only window air conditioner exchange program. Customers who bring in an old window air conditioner to selected Future Shop locations - Hamilton, Mississauga, Toronto (GTA), Whitby, Ottawa and Montréal - will receive an in store rebate of up to \$65 towards the purchase of a new Panasonic ENERGY STAR-qualified model.

The Keep Cool program is a joint initiative from the Clean Air Foundation, Panasonic Canada, Future Shop, Environment Canada, Natural Resources Canada and others. For more information and event locations, please visit: www.keepcool.ca

Energy Efficiency—It's Worth Celebrating!

Improving energy efficiency reduces greenhouse gas emissions that contribute to climate change. Being smart about how we use energy just makes sense, and the brightest ideas and boldest actions deserve recognition. Canada is a world leader in many aspects of energy efficiency, and it's important for us to celebrate and publicize our successes. That's the goal of **Canada's Energy Efficiency Awards**.

Now is the time is now to start thinking about the 2004 awards. You can't win if you don't enter. This is the only national competition of its kind in Canada.

The deadline for nominations for the 2004 awards is July 31, 2003. For more information visit: <http://oee.nrcan.gc.ca/awards/home.cfm>



ENERGY STAR Related Rebates and Incentive Programs

Name of Program & Province	Customer Savings	Products Eligible
Province of Ontario Tax Rebate on Energy Star Qualified Appliances	Retail sales tax rebate of 8%, average claim \$85 <i>Program Duration: November 26, 2002-November 25, 2003</i>	<ul style="list-style-type: none"> • Tax rebate available on ENERGY STAR-qualified refrigerators, dishwashers and clotheswashers sold on or after November 26, 2002 and on or before November 25, 2003. • Tax rebate is also available on ENERGY STAR-qualified freezers sold on or after January 1, 2003 and on or before November 25, 2003 • Delivery must take place on or before December 31, 2003 <p><i>Contact: Ontario Tax Revenue Division website: www.trd.fin.gov.on.ca or call 1-800-263-7965</i></p>
SaskEnergy's Prime Rate Loan Program (Saskatchewan)	Average savings of: \$300 <i>Program Duration in effect until: June 30, 2003 and may be extended</i>	<ul style="list-style-type: none"> • ENERGY STAR-qualified Natural-gas Furnaces and Boilers • Also provides a prime rate loan for consumers to buy energy efficient water heaters, fireplaces and clothes dryers <p><i>Contact: SaskEnergy website: www.saskenergy.com or call 1-800-567-8899</i></p>
Yukon Fridge Exchange Program	\$200 rebate <i>Program Duration: In effect until March 31, 2004</i>	<ul style="list-style-type: none"> • Residents of Yukon's diesel communities are eligible for a rebate toward the purchase of an ENERGY STAR-qualified, high-efficiency refrigerator to replace a ten year old (or older) refrigerator that is still in working condition <p><i>Contact: Energy Solutions Centre website: http://nrgsc.yk.ca or call 1-867-393-7064</i></p>
Enbridge Gas Distribution Rebate (Various Ontario communities)	\$200 rebate <i>Program Duration in effect until: September 30, 2003</i> \$400 rebate <i>Program Duration: Applies to natural gas heating systems installed between December 2002 and April 2003</i>	<ul style="list-style-type: none"> • Enbridge Gas Distribution is offering existing customers a \$200 rebate on the installation of an ENERGY STAR-qualified, high efficiency, natural gas furnace or boiler. • A \$400 rebate is offered to customers converting from a heating system not fuelled by natural gas to an ENERGY STAR-qualified natural gas heating system. <p><i>Contact: Enbridge Gas website: www.enbridge.com/gas or call 1-877-728-3427</i></p>

For more information visit: energystar.gc.ca, click on "ENERGY STAR Related Rebates and Incentives" or contact the Office of Energy Efficiency directly: Gisèle Maillet (gmaillet@nrcan.gc.ca, tel. 613-992-4535) or Kathy Deeg (kdeeg@nrcan.gc.ca, 613-947-5001).

A Vision of Cleaner Air

Air pollution in the Greater Toronto Area is causing illness and reducing the quality of life for many residents. An estimated 1,000 people die prematurely and 5,500 are admitted to hospital each year in Toronto as a result of air pollution². Burning fossil fuels for heat and to power air conditioners and vehicles sends pollutants into the air that contribute to smog, climate change, and poor health.

In response, Public Health units in the Greater Toronto Area have launched *20/20: The Way to Clean Air*. The campaign, which targets homeowners and drivers, provides participants with a free 20/20 Planner, a practical step-by-step guide to help people reduce home energy and vehicle use by 20 percent.

The 20/20 Planner walks participants through some easy-to-do activities and moves people into longer-term, greater cost-saving actions. 20/20 also connects participants to a range of local home energy and transportation services, including a home energy audit, carpooling-passenger matching services and how to buy renewable energy. In addition to lowering their energy costs and improving home comfort, participants are also eligible to win prizes, including an energy efficient washing machine or a bicycle. And, we can all breathe easier with reduced air pollution.

For more information on the 20/20 campaign call 1-865-583-2020 or to download a copy of the 20/20 Planner, visit the 20/20 Web site at: www.toronto.ca/health/2020.

Clean Air Consumer Guide

The Clean Air Consumer Guide is designed to encourage consumers to make energy efficient choices when purchasing household items. The Guide was prepared with generous support from Natural Resources Canada, Ontario Power Generation, Suncor Energy Foundation and the Toronto Atmospheric Fund. To view the guide visit: www.toronto.ca/cleanairguide

This Special Edition of *at the source* was made possible through the support of Natural Resources Canada and TD Friends of the Environment Foundation.



Natural Resources
Canada

Ressources naturelles
Canada



☆ Save Energy – Save Money
Help protect the environment



☆ Économisez énergie et argent
Contribuez à protéger l'environnement



The operation of Canada's foremost pollution prevention resource is possible through the generous support of our sponsors.

Canadian Vehicle Manufacturers' Association
DaimlerChrysler Canada Inc.
Ford Motor Company of Canada Limited

General Motors of Canada Limited
Ontario Ministry of the Environment
The Ontario Trillium Foundation

² Toronto Public Health. Air Pollution Burden of Illness in Toronto. Toronto: City of Toronto, May 2000