

Purchases and Other Ways to Save Energy

Office Equipment

Computers, printers, copiers and fax machines may seem innocuous consumers of energy, however, they are the fastest growing electrical load in nonresidential facilities. These desk appliances waste energy when they are on and idle. To reduce this consumption, ENERGY STAR qualified office equipment automatically switch to sleep mode when idle. Whether you buy a new ENERGY STAR qualified computer or not, your computer can have an energy saver software installed — in either case, make sure that the software/power management feature is enabled. You can sometimes set the amount of time before the sleep mode kicks in to ensure it is the shortest acceptable amount. This powered-down sleep mode should not substitute for turning off computers, printers and copiers at night, over the weekend and at other times when the equipment is not in use. Office equipment also gives off heat — increasing air conditioning loads.

For more information on ENERGY STAR office equipment, see Natural Resources Canada's web site at: oee.nrcan.gc.ca/publications/equipment/m144-63-2004e.cfm

Paper

Reduce your paper use by copying and printing double-sided (duplexing), posting announcements on a bulletin board instead of making copies, using routing tags on documents to circulate to several people (where an employee/volunteer checks off his or her name and passes the document to the next person on the list).

Buy recycled paper. Look for small print on a package that says “post-consumer content”: the higher the percentage, the more paper fibre used from recycling programs. “Total recycled content” refers to the total nonvirgin content of the paper, such as wood production scraps as well as post consumer fibre.

If you must buy virgin paper, look for Forest Stewardship Council certified paper. This certification ensures that paper fibres are from controlled sources where environmental and social sustainability indicators are priorities. See www.fscscanada.org for merchants, suppliers, printers and types of paper.

Refrigerators

This appliance is the biggest energy user of all your household appliances. Look for the ENERGY STAR logo to find appliances that use less energy than standard appliances and offer equal or superior performance. ENERGY STAR qualified fridges are better insulated, have high-efficiency compressors and are better equipped to limit heat loss and boast more precise temperature and defrost mechanisms. These models use 50 percent less energy than those manufactured in the 1980s.

Dishwashers

If you are looking to buy a new appliance, look for the ENERGY STAR logo that assures a 25 percent higher efficiency rating than the current minimum standard in Canada.

Laundry Machines

Front-loaders are recognized to be much more efficient than top-loading machines: they require less water, use a more gentle action on clothes and spin more water out of them, allowing for shorter dryer time.

The rating system for efficiency is the Modified Energy Fraction (MEF), which takes into account: washer capacity, electrical energy use, water heating energy and how dry clothes are when they are done washing. The higher the MEF, the more efficient the washer is. As of January 2007, for a clothes washer to gain the ENERGY STAR approval, the minimum MEF is 48.45 L/kWh/cycle and a maximum water factor of 1.0 L/cycle per L of tub capacity.

Other tips for more efficient washes

- Wash full loads without overloading.
- Use cold water — it cleans well.
- Adjust the water level and cycle to the lowest and shortest needed.
- Pre-soak very dirty clothes.
- Avoid using too much detergent.

Clothes Dryers

There are 2 main types of clothes dryers:

Electric: This is not the most efficient choice since it must heat a 5000 W heating element periodically to avoid burning the clothes. The heating element needs to be 'on' about 3/4 of the time and electricity is needed for the motor. Comparing fuel prices, it may be worthwhile to switch to a gas dryer if it is used often. Upgrading your washer to an ENERGY STAR front-loader will reduce the dryer time needed.

Gas: The motor is the only electrical consumer in this model. The gas dryer needs to be vented properly to prevent combustion by-products from back drafting.

A list of ENERGY STAR qualified washer dryer combinations is available online: oee.nrcan.gc.ca/energystar/english/consumers/clothes-washers-dryers-search.cfm?text=N&printview=N

Other tips for efficient drying

- Dry full loads without overloading.
- To avoid over drying some new dryers have moisture sensors that turn off when clothes are dry.
- Size your washer and dryer for equivalent load sizes.
- Clean the lint trap before every load.
- Be sure the dryer is venting to the outside to prevent moisture and lint accumulation in the house.
- Outlet vent ducting should be free of tight elbows and turns: lint can build up in these areas creating a smaller air flow channel, increasing dryer time and creating a potential fire hazard.
- Rigid venting is better than corrugated flex

venting to keep air moving and preventing blockages.

- Vent length should not exceed 7.5 metres, but follow the manufacturer's instructions
- Run loads in succession to capture residual heat of previous load.
- Never vent a dryer into a crawlspace or attic.
- Towels take a lot of room in the dryer: if you prefer having them in the dryer, take them out after 10 minutes to line dry.

Saving with Parking Lot Controllers

For many people living in colder areas of the country, the winter months mean plugging your vehicle in to an outside electrical outlet to keep the engine from freezing. Although your building may have a limited number of parking lot plugs, modern parking lot controllers can still reduce your plug-in expenses up to 50 percent, yet ensure trouble-free starts for staff or guests.

In contrast to earlier systems, parking lot controllers save energy by automatically adjusting the time that power is supplied to car plugs as a function of outside temperature. Above -5°C (23°F), outlets typically receive no power. As the temperature drops, outlets receive power for progressively longer intervals. Below -20°C (-4°F) power stays on all the time.

Plug power is controlled either from a central panel or by circuitry built inside the receptacle — the so called “intelligent” parking lot controllers that are programmable and often use tell-tale lights to show if there is a problem with block heaters or cords.

Carpooling

While many in the congregation may already carpool, others may benefit if they don't already have arrangements. Here is a website tool that can help make matches for people in some parts of Ontario: www.carpoolzone.smartcommute.ca