Power Smart Energy Conservation Library

Glossary

Compact fluorescent lamps/light bulbs
CFLs use approximately 75 per cent less energy than standard incandescent bulbs to produce the same amount of light – and they last about 10 times longer. They will last an average of 10,000 hours compared with an average of 1,000 hours for an incandescent bulb.

Draft-proofing
The process of using weather-stripping or caulking to eliminate the little gaps, cracks and holes that let cold air into your building and cost you money on your energy bills. Draft-proofing will make your business more comfortable, reduce inside moisture and help block outside noise.

Electricity conservation
Reducing the use of electricity, usually through changes in behaviour, such as remembering to shut off the lights or turn off a computer monitor when they're not in use.

Electricity or energy efficiency
Using less energy to provide the same level of energy service. It is achieved most often through the use of more efficient technology, such as replacing incandescent light bulbs with compact fluorescents, or adding insulation to keep a home at a comfortable temperature with less heat or air conditioning.

Energy Saver T8 fluorescent lamps
50 per cent more efficient than T12s, Energy Saver T8 fluorescent lamps can be used in the same fixtures. They also virtually eliminate lamp flickering and offer better color quality and fixture optics.

ENERGY STAR®
If you see the ENERGY STAR label on a computer, monitor, printer, fax machine, scanner, photocopier, multi-function device or any other piece of office equipment, you know that it meets or exceeds the Government of Canada's highest standards for energy efficiency. In general, ENERGY STAR office machines help save energy in two ways:

- they use 40 to 65 per cent less energy to perform regular tasks, and,
- when not in use, they automatically enter a low-power mode.

Giga-watt hour (GWh)
One billion watt hours, or one million kilowatt hours. One Giga-Watt will serve about 100 residential customers for one year.

Halogen infrared lamps/light bulbs
Halogen infrared lamps use up to 50 per cent less energy and produce less heat than incandescent and standard halogen lighting, while achieving the same light quality. A 60-watt halogen infrared lamp will provide the same quality of light as a 90-watt standard halogen lamp.

High-pressure sodium or metal halide lamps
High-pressure sodium or metal halide lamps use 74 per cent less energy than outdoor incandescent or mercury vapour lamps, while providing a similar amount of light.

Kilowatt (kW)
One thousand watts; the commercial unit of measurement of electric power. A kilowatt is the flow of electricity required to light 10 100-watt light bulbs.

Kilowatt hour (kWh)
One thousand watts used for a period of one hour; the basic unit of measurement of electric energy. On average, a residential customer in B.C. uses about 10,000 kWh per year.

LED
LED stands for “light-emitting diode.” Some types of LED lamps can be inserted in the same sockets as less energy-efficient incandescent lamps.

LED exit signs
LED exit signs reduce energy consumption by up to 90 per cent compared to incandescent signs, and last about 11 years on average. LED exit signs or retrofit kits consume only 1 to 3 watts – equivalent to an electricity savings over incandescent signs of approximately $12 a year per sign.

LED holiday lights or outdoor lights
LED holiday lights use up to 95 per cent less energy, are more durable, and last at least 10 times longer than incandescent lights. They are more durable, with no filaments or glass bulbs to break, and they produce very little heat, reducing the risk of fire.

LED MR16
LED MR16 can replace standard halogen MR16 lamps (on average, a 3-watt LED MR16 can replace a 20-watt halogen) in recessed or track lighting– and save considerable energy. The long life of LED MR 16 lamps also reduces maintenance costs.

LED signage
LED signage reduces energy use by over 85 per cent compared with standard neon signage, while providing brighter light. Because LEDs also last considerably longer than neon and incandescent lamps, lifecycle savings are dramatic.

Occupancy sensors
Occupancy sensors turn on lights only when someone is in the area, reducing wasted lighting energy by up to 70 per cent. Occupancy sensors are used most effectively in spaces that are often unoccupied, including warehouses, storerooms, restrooms,

loading docks, corridors, stairwells, office lounges and conference rooms. The most common sensor types are passive infrared, which requires a direct line of sight to the movement of infrared (heat) sources, and ultrasonic, which detects any movement, human or otherwise (for example, curtains).

Product Incentive Program (PIP)
BC Hydro's Product Incentive Program (PIP) will actually pay you a portion of your costs to replace inefficient lighting, heating, refrigeration and more. Plus, by switching to energy-efficient products, you will benefit from long-term savings on your energy bills, as well as lower operational and maintenance costs.

Phantom load
All electronic devices – including computers, printers, modems, photocopiers, fax machines, televisions, cell phone chargers, coffee makers and anything else with a clock, timer, adapter, memory or remote control – continue to draw power even when you're not using them. This is called "phantom load" and it can add significantly to your energy bills. The solution is to turn off all devices when you're not using them.

Photocell
A photocell can measure or detect light. It can also help you save energy by, for example, automatically determining when there is enough natural daylight to turn your parking lot lights off.

Power Smart
Launched in 1989, Power Smart is BC Hydro's flagship electricity conservation program. It includes a range of initiatives and incentives such as the Product Incentive Program (PIP) – aimed at encouraging residential, commercial and industrial customers to conserve electricity.

Programmable thermostat
All heating systems have some kind of thermostat, but not all thermostats are created equal. Many heating systems have manual thermostats, where you have to physically re-set the thermostat every time you want to change the temperature in a building or room – which means you may forget to turn it down at night or on weekends. A programmable thermostat works automatically: you set it once – for example, to turn down to 16ºC every evening at 10:00 and turn back up to 21ºC at 6:30 in the morning – and it will continue to automatically adjust the temperature for you.

Rate
The price a BC Hydro residential, commercial or industrial customer pays per kilowatt hour of electricity.

Task lighting
Task lighting directs light exactly where you need it – on a specific work area or part of your desk, for example.