EASY$ TIP SHEETS

Energy Advice Saving Yukoners Money

Quick Links

Simple Energy Efficiency Tips

There are many easy steps you can take to reduce your home's energy consumption. Many are as simple as adopting more energy-conscious habits.

Building Envelope (doors, windows, etc.)

There are many simple ways to make your home more energy efficient:

- Use caulking and weather-stripping to seal cracks around doors, windows, plumbing stacks and other vent openings.
- Keep warmer in winter by installing plastic film or a storm window on single or double pane windows.
- Install foam gaskets behind the cover plates of any light switches and electrical outlets that are on outside walls.
- If you are upgrading windows, choose the most energy efficient units. ENERGY STAR® qualified windows can reduce your energy costs by up to 12%.

Goal and Summary

This Easy$ sheet covers a wide range of actions you can take to reduce the energy costs of your home – from insulation to furnaces to appliances and your yard.

If your home has little insulation in the walls, you can have insulation blown into the wall cavity. More insulation can be added in easily accessible areas like the attic, basement and crawlspace. Adding thermal insulation will make your home more comfortable and save money on energy bills because it slows the process of heat escaping from your home in winter. It is much more cost-effective to upgrade your home's insulation if it is done at the same time as other home renovations.

Space heating

Space heating is often the single highest energy cost of a home. However, there are many ways you can reduce this. One of the easiest is to install and use a programmable thermostat which can be set to operate your furnace at specified times.

Purchasing a furnace

When it is time to install a new heating system in your home select a furnace that is the correct size for your home. Bigger is not necessarily better.

When it is time to replace your furnace (oil, propane or electric), buy one that has a fan controlled by a variable speed motor (VSM). The speed of the motor is precisely controlled by electronics to maintain efficiency at any speed. Standard fan motors on average use more power than VSMs because they only operate at one high speed. This inefficiency can add up to a lot of wasted energy if you are using the furnace fan to provide continuous circulation throughout your home.

Remember that in the Yukon a permit and subsequent inspection is required to install, modify or replace components of fuel oil-fired heating systems including furnaces, fuel lines, chimneys and storage tanks.

Furnace maintenance:

- Pick up a copy of the oil burner checklist from Yukon Housing and read oil heating tips on line at http://www.housing.yk.ca/heiy.html.
- Keep furniture, clothes, toys and other items from blocking your heating system supply and return grills so that your furnace can work as efficiently as possible.
- Have your oil furnace professionally serviced once a year. This should include a combustion tune-up, cleaning and filter change.
- Make sure your furnace technician provides you with a combustion efficiency record and notes all repairs. Keep the record by your furnace for future servicing.
- Furnace filters should be checked monthly during the heating season and changed whenever they appear dirty. Pleated paper filters perform better than standard fibre filters.

- Have a professional home energy evaluator advise you on how best to retrofit your home for improved energy efficiency.
- Look for the EnerGuide label when purchasing a new heating system. It shows how much energy your appliance will consume in a year of normal service.

Wood Heating:

- Never let wood smolder in the stove. Burn quick, hot fires using plenty of kindling and well dried wood.
- Check the chimney of your wood stove frequently and keep it clean.
- Use a bit of newspaper to start the fire, but after that burn only wood.
- Never burn garbage.
- If you are buying a new woodstove buy a pellet stove or an Environmental Protection Agency (EPA) - approved woodstove sized for your house. EPA stoves can use 1/3 less wood than other woodstoves.

Electric heating:

Set electric baseboard heaters to a temperature appropriate for each individual living area. Save energy in seldom-used rooms by turning down the thermostat in those rooms (but don't turn it down so low that condensation occurs on the windows or in the corners as this can lead to mould growth).

Kitchen Appliances

Use ENERGY STAR® labeled kitchen appliances wherever possible. They are the most energy efficient on the market and will help you save money on your energy bill.

For example, a new ENERGY STAR® labeled refrigerator will use about half the electricity that a standard 10-year-old refrigerator uses. New ENERGY STAR® labeled refrigerators exceed the minimum Government of Canada energy efficiency standards by at least 15 percent.

See the Easy$ tip sheets on *Appliance Buying Tips* and *Appliance Operating Tips* for more detailed information.

- Reduce the number of times and length of time you open the fridge door.
- Set your refrigerator and freezer to the recommended temperatures: refrigerator from 3°C to 5°C and freezer to -18°C. You can use a thermometer to check temperatures and adjust settings as needed.
- Don't force your fridge or freezer to work harder than necessary. Keep it away from a heat source such as a radiator, heating vent, washer, dryer or furnace.

- Keep oven pre-heating to a minimum. You lose 20 per cent of the heat each time you open the oven. Keep the oven door closed during use and look through the window instead.
- Get rid of your beer fridge. If you have more than one refrigerator or freezer and one doesn't get much use, unplug it and save money. By simply unplugging a second fridge you save yourself as much as $100 a year.
- Keep your fridge and freezer clean and well ventilated with space at the top, back and sides to shed excess heat.
- Use your oven's self-cleaning feature while it is still hot from cooking. This uses less energy than if you start with a cold oven.
- Run the dishwasher only with a full load of dishes. Let dishes air-dry or use the economy setting.
- Ensure that appliance doors are clean and properly sealed. To do this, close the door on a piece of paper and then try to remove the paper. If it slides out or moves easily, adjust the door or replace the seal. Try this test in a number of places.
- Match the cooking appliance to the job and use the smallest one that will do it. For example, for many tasks a microwave or toaster oven will work as well and will use less electricity than the oven would. Boiling water in an electric kettle uses less electricity than it would on the stove-top. Boil only as much water as you need.

Water Heating

Residential water heating is estimated to be the second largest energy use for Canadian households, exceeded only by space heating. Water heating accounts for approximately forty percent of total household electrical energy consumption. Efficiency is critical if you're planning on saving energy and whittling down your electrical bills.

See the Easy$ tip sheet on *Residential Hot Water Heating* for more detailed information.

- If your electric hot water tank was manufactured prior to 2004 then wrap it in an insulating blanket.
- Insulate the first meter (three feet) of pipe near the tank – both cold and hot water lines – to reduce heat loss. You could save up to 3 per cent on water heating costs.
- Only about 15 per cent of energy use in a hot water tank is wasted during storage; the best way to reduce water heating costs is to use less hot water.
- To reduce hot water use, install low-flow (less than 9.0 litres/2.5 gallons per minute) showerheads, do laundry in cold water and install ENERGY STAR® qualified dishwashers and clothes washers.

Lighting

Replace incandescent light bulbs with ENERGY STAR® labeled compact fluorescent lamps (CFLs) wherever you can. CFLs use up to 75 per cent less energy than incandescent light bulbs, last up to ten times longer and produce the same amount of light.

Use lighting controls to reduce lighting electricity use. Dimmers can be used with incandescent light bulbs to extend the life of the bulb and save electricity. Dimmable CFLs are now available, but never use a non-dimmable CFL with a dimmer control.

ENERGY STAR® qualified CFLs are ideal for places where light is needed for extended hours and for hard to reach places because they don't need to be replaced as often.

Occupancy and motion sensors can be used with incandescent and CFL light bulbs to automatically turn lights on or off when someone enters or leaves a room. Outdoor models are commonly used for security reasons to turn lights on when someone enters your property.

Replace conventional holiday lights with holiday light emitting diode (LED) strings. These energy-efficient light strings are superior to standard incandescent light strings in many ways: they use up to 95 per cent less electricity, last at least 10 times longer, are more durable, with no filaments or glass bulbs to break, and produce very little heat, reducing the risk of fire – especially on Christmas trees.

Computer/Television

Turn off your computer when not in use. Most computer electricity waste occurs when computers are left on at night, on weekends and during extended periods of inactivity during the day.

If you must leave your computer on for network applications or other purposes, turn off the monitor to reduce electricity consumption.

A screen saver does not reduce electricity consumption.

Stop standby power loss. Many electric devices such as printers, scanners, modems, televisions, set-top cable boxes and DVD players use power in standby mode. A plugged-in power adapter draws at least one watt of electricity at any time and a high-definition television can pull more than 10 watts of electricity even when it is not turned on, with set-top cable boxes drawing twice that amount (20 watts). Unplug such devices when they are not being used or plug them into a power bar that can be easily turned off at the end of the day and when you are away on vacation.

Laundry

When replacing your clothes washer, look for the ENERGY STAR® label. ENERGY STAR® qualified clothes washers use 35 to 50 per cent less water than standard models, saving 14,000 to 22,000 litres of water a year. Since they have higher spin speeds, front-loading or tumble-action clothes washers extract more water in the spin cycle, thus reducing the time needed to dry clothes.

- If your clothes dryer has a moisture sensor setting, use it to avoid over-drying, which wastes energy, sets wrinkles and causes clothes to wear out more quickly.
- Clean the lint trap in the clothes dryer after each load. Reducing the airflow through the clothes increases drying time, using more electricity.
- Use an outdoor clothesline. A dryer is usually the second-biggest electricity-using appliance, costing about $85 a year to operate. Letting the heat of the sun dry your clothes can save you a lot of money.

Transportation

Driving:

- Save money and reduce pollution by trying another way to get around. Try bicycling, walking, jogging, riding the bus, or sharing a ride with a buddy.
- Avoid the drive-thru. Instead of idling in line for several minutes, save gas and pollute less by going inside for your order.
- Drive smoothly. Accelerating and decelerating smoothly reduces fuel consumption and cost by up to 25%.
- Slow down a little to save fuel and money. Driving at 100 kilometres per hour uses 20% less fuel than driving at 120 kilometres per hour. Driving at 90 kilometers per hour uses 10% less fuel than driving at 100 kilometres per hour.
- Save fuel, money, and time by planning your trip carefully to combine errands and avoid high traffic periods.
- Computer-controlled fuel-injected engines need no more than 30 seconds of idling in the winter. Once a vehicle is running, the best way to warm it up is to drive it, slowly at first.
- On winter days the only way to warm up your vehicle's mechanical systems is to drive (slowly) for at least 5 kilometres.
- Use public transit whenever possible. A single city bus can take 40 vehicles off the road and keep 25 tonnes of greenhouse gases out of the atmosphere each year.

Maintenance:

- Properly inflate your vehicle's tires to decrease fuel consumption and your fuel costs by 5%.
- Check tire pressure regularly, especially after there has been a sharp drop in temperature.
- Keep your vehicle well maintained with regular service checks. A well maintained vehicle is more efficient.

Purchasing:

- If you're buying a new vehicle, check the EnerGuide label for its fuel consumption rating. EnerGuide labels are now affixed to all new light duty vehicles sold in Canada.
- Buy the smallest, most fuel efficient vehicle that will suit your needs.
- If you are buying a new outboard motor, buy a four stroke motor. These are much quieter and more fuel efficient than two stroke models.
- If you are buying a new snow machine, buy a four-stroke or fuel-injected two-stroke machine. They run cleaner and use less fuel.

Yard

- If you have a lawn, use a push reel mower instead of a gas or electric mower. You'll reduce air pollution and noise pollution while you save money.
- Plant leaf trees on the south side of your house to help shade it in the summer but not in the winter.

Others

Devices such as coffee makers, cell phones and palm pilot chargers use power even when they are not turned on. Unplug these devices when they are not being used or plug them into a power bar that can be easily turned off.

If you have a swimming pool, energy consumption for the pool can account for up to 60 per cent of your summer utility bills, making summer energy costs even more expensive than winter heating costs. Cover your pool when not in use to reduce evaporation and heat loss. For above-ground pools, install R7-rated insulation around the outside of the pool to reduce heat loss through the walls.

Spas and hot tubs use large amounts of energy, but you can keep your costs down by choosing an energy efficient model and operating it wisely. Energy-efficient features to look for include continuous insulation, a rigid insulating cover and an energy-efficient pump and motor.

This Easy$ tip sheet is provided by the Energy Solutions Centre.

If you have additional questions or comments, please contact the Energy Solutions Centre:

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