

CLIMATE CHANGE

• A Primer • The Yukon • Home Energy Use • Transportation • Yukon Research •



SAVING MONEY & REDUCING GREENHOUSE GAS EMISSIONS

“We tend to look at the quality of the item and its initial cost or price. However, what we need to consider is the life cycle cost, which includes the purchase price and operating costs.”

Canadian Energy Pipeline Association and the Canadian Gas Association, *The Climate Change Chronicles, Volume IV*

It's a fact. When we use energy efficiently in our homes we save money. Sealing and insulating our houses, using energy-efficient appliances, and using those appliances efficiently, keeps money in our bank accounts. The table on the reverse of this sheet shows how a few energy efficient actions can result in substantial savings of money, as well as carbon dioxide emission reductions.

Other home energy savings

Landscaping can also reduce energy bill. Densely planted evergreen trees to the northwest of a house are effective as a windbreak. Leafy deciduous trees planted near the south provide shade in summer, yet allow the sun through in winter.

In addition to saving us money, trees absorb carbon dioxide, filter out pollution and increase the aesthetic value of property.

Reusing, recycling and composting waste can earn householders extra pocket money. Also, it takes much less energy to reuse or recycle a product than to make a new

“We can live twice as well yet use half as much.”

Weizacker, Lovins and Lovins,
*Factor Four: Doubling Wealth,
Halving Resource Use*

one. Correctly composting food and yard wastes — by regularly watering and turning them — eliminates the methane that they would cause at a landfill.

Along with increasing our wealth, energy efficiency also increases our health, by reducing the amount of air pollutants that are generated when we burn heating fuel or use diesel-generated electricity. We keep our air cleaner locally, and we reduce emissions of greenhouse gases.

“It is generally true that you can go into any building and save 20-25% on energy bills. We have demonstrated that in thousands of homes.”

Joseph J. Romm, Acting Assistant Secretary of the U.S. Department of Energy



ENERGY EFFICIENCY SAVINGS IN YOUR HOME

Action	Explanation	Approximate money saved per year ¹	CO ₂ reduction per year (tonnes) ²
Using a more energy efficient heating furnace	An oil furnace with an 86% efficiency rating that costs \$1500 could pay for itself in less than 5 years.	\$337	2.30
Keeping home oil or gas furnace properly tuned	Regular maintenance includes cleaning or replacing fuel and air filters, cleaning and adjusting burners, sealing ducts and checking combustion efficiency and duct design.	\$381	2.10
Using an indoor or outdoor clothesline instead of an electric clothes dryer	Venting the dryer indoors in the winter also adds heat to your house.	\$113	0.32
Using a low-flow shower head	The most expensive shower head will pay for itself in about one month. Savings here are just for the electricity saved. Savings will be greater where utilities charge for water use.	\$276	0.79
Washing laundry in cold water	This is also easier on clothes.	\$105	0.30
Lowering the thermostat on the home hot water tank	Lower the temperature from 70°C to 55°C.	\$54	0.08
Insulating the hot water tank	Hot water tank blankets cost approximately \$35.	\$18	0.02
Replacing one incandescent bulb with a fluorescent light bulb	A \$12 compact fluorescent light bulb will pay for itself in just over two years, and keep working for many years.	\$5	0.03
Reducing air leakage from the home	Caulking and weather stripping can significantly reduce air loss and therefore heat loss.	\$228	1.55
Increasing the insulation in the home's attic from R30 to R45	The pay back period is approximately 11 years and the insulation will be there for the life of the house, which could be well over 50 years.	\$49	0.33

Notes

1. Based on the average Yukon home owner's electrical rate of 12.5 cents per Kwh.
2. Based on 2.3 kg CO₂ emitted per litre of diesel burned to produce electricity. (Most WAF grid electricity is hydro generated, but in the winter, diesel is used to meet peak loads. Off the WAF grid, most communities rely on diesel-generated electricity.)

Sources

Environment Canada, *A change in our climate: What's going on in our greenhouse?*

Pembina Institute, *Taking Charge: Personal Initiatives*

Environment Canada website, "What you can do"