

Prepare for Winter and Save Energy in Your Home!

Use smart lighting options

- Replace standard incandescent light bulbs with **compact fluorescent light bulbs (CFLs)** to reduce energy use by about 75%.
- Replace T-12 fluorescent lamps with T-8 or T-5 lamps and electronic ballasts for a savings of 40 to 50%.
- If you use night lights, replace incandescent nightlights with ones lighted by LEDs with photocells that only turn on when it is dark. This will cut its energy use by about 90%.
- Chose **LED Christmas lights** instead of conventional ones and save 90% off your energy costs.
- Use a **timer or daylight sensor** to automatically turn decorative lights on and off at dusk and dawn.
- Finally, keep lights off when you don't need them.

Save Water (especially hot water)

- **Installing low-flow shower heads** will cut water heating costs by reducing your water use between 30% and 50%. Since a **short shower** uses less hot water than a bath avoid prune fingers and save on your utility bill by sticking to the former instead of the latter. Installing **low-flow aerators** on your faucets is another way to save water and energy.
- **Install a variable flow valve** on your shower. Does your shower have no volume control, just a temperature controller? One way to keep all members of the family happy is to install a simple volume control between the shower head and the pipe. It goes in in minutes and simply screws on with a little plumber's tape. Then you can have a high water flow when needed, but turn it back when not needed.
- **Check your toilet water temperature.** Seems like a funny idea, but many regions of Alaska have a building code that requires either slightly warmed water going to the toilet, or an insulated water tank to avoid condensation from building up on the outside of your toilet tank (then ultimately rotting the floor under the toilet). Many homes have a mixer valve that mixes a little hot water with the cold water in the toilet water supply. These valves fail after time and start adding too much hot water. To test, flush your toilet several times and check the temperature in the tank. If it's warmish at all, you are wasting hot water. To fix, either install insulated toilet tanks or replace the mixer valve with a hand adjustable valve. (Check with local codes prior to conducting your work.)
- **Adjust Your Water Heater.** Turning your water heater down to 120° (but not lower) will save between 6% and 10% on your energy bill AND you won't risk scalding yourself again. Water heating accounts for about 15% of home energy costs. **Insulate your hot water heater** with an insulating blanket to save even more energy.

Make Smart Choices with Your Appliances

- Always buy **ENERGY STAR** qualified appliances and equipment - they're up to 40% more efficient. And use your appliances efficiently!
 - Refrigerators use 7% of a household's annual electricity. Don't plan your meals with the fridge door open and make sure the **temperatures are set correctly**: between 36° and 38° for the fridge and between 0° and 5° for the freezer.

- Always run your washing machine and dishwasher with **full loads** to maximize efficiency and reduce unnecessary energy and water use. Use the energy saving wash mode, if it adequately washes your dishes. Also, use the energy saver drying mode whenever possible, because about 25% of the energy goes into the dry cycle.
 - Normal wash cycle with heat dry: **950** kWh per cycle
 - Normal wash cycle with NO heat dry: **698** kWh per cycle
 - Savings of 252 kWh per cycle. If used once per day at a cost of 15 cents per kWh, the annual savings would be about \$14 per year for just this one simple measure. More if your electricity costs more.
- **Wash clothes in cold water** whenever possible. Good detergents work just as well in cold water as hot, and about 90% of energy used in a clothes washer goes to water heating, so choosing cold water is an easy way to save.
- **Clean your dryer's outside vent and lint filter.** When it's time to buy a new machine, shop for one with a moisture sensor that automatically shuts off when clothes are dry.

Don't Give Juice to Unused Electronics

- Did you know your cell phone charger still draws power even when it isn't charging your cell phone? If it's plugged in, it's costing you money. **Unplug** electronics, battery chargers and other equipment when not in use or put them on **power strips** and simply turn off the strips when not needed. For things like TVs and computers, use the **sleep function** and save 60% of your electronics' energy use. FYI, a laptop computer uses up to 90% less energy than bigger desktop models.

Adjust Your Thermostat

- Setting your **temperature 5° lower** will save 10% to 15% on heating costs. Save even more by installing a **programmable thermostat** and keeping the temperature ten degrees lower when you aren't home or when you're sleeping.

Make Your Existing Boiler More Efficient

- During the summer, **turn off your boiler** if it is not needed to heat the domestic hot water too. If it is used for domestic hot water, you will save energy if you turn down the set point for the boiler to about 150 or 160. This will still transfer heat quickly into the domestic hot water, but won't excessively heat the boiler water and waste energy with each cycle.
- Ask your annual service technician about turning your boiler into a "**cold boiler.**" This means that the boiler will only heat the boiler water if a zone or water heater calls for heat. As a "hot boiler" the internal water temperature in the boiler is kept at a fairly constant temperature, even if it might be hours or days before a zone calls for heat. Also, some electric circulating pumps run all the time when the boiler is hot. One documented Anchorage home with an 80% efficient boiler saved about \$10 per month in electricity and about \$8 per month on natural gas during summer months. The rewiring for a cold boiler cost only \$75. That's a four month payback!

Find and Seal Leaks

- Sealing cracks, gaps, leaks and adding insulation can save up to 20% on home heating and cooling costs.

- Test for air leaks by holding a lit incense stick next to windows, doors, electrical boxes, plumbing fixtures, electrical outlets, ceiling fixtures, attic hatches and other locations where there is a possible air path to the outside. If the smoke stream travels horizontally, you have located an air leak that may need caulking, sealing or weather stripping.
- Add weather stripping around windows and doors to reduce drafts.
- Use caulking or spray foam to seal around ducts, plumbing and any other openings in walls, floors and ceilings to reduce air leakage.

Make it Tight and Ventilate Right

- Add a heat recovery ventilator (HRV) to your home to bring fresh air into a tight home to avoid excessive indoor moisture, carbon dioxide or other indoor air quality issues. The HRV uses the heat invested in the expelled air to pre-warm the fresh air.

Cover your windows

- Windows are a frequent source of air leaks and are also a source of significant radiant heat loss in winter. Interior window cellular shades can reduce the draft, reduce radiant heat losses, and increase the insulation when they are drawn closed. If you have single paned windows, cover them with plastic transparent window film during the cold months. When done right the only thing you'll notice different about your windows is less chill!