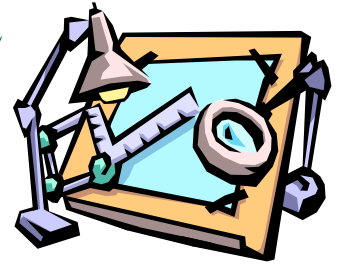


CHB SPOTLIGHT

COLORADO HOME BUILDERS —
YOUR LOCAL CUSTOM HOME BUILDER SINCE 1993



ENERGY SAVINGS TIPS

In the previous issue of CHB Spotlight we introduced energy savings tips and ideas for your home starting with the most important tip, which was insulating your home. In future issues we will be touching on more topics relating to saving energy in and around your home.

Energy-Efficient Water Heating

To lower your water heating bills, try one or more of these quick energy-saving strategies:

Fix That Leaky Faucet

One drop of water per second equals 60 gallons of water a week. A leak that would fill a coffee cup in 10 minutes would waste 3,280 gallons of water in a year.

Use Cold Water When You Can

Modern detergents allow you to use cold water more than ever before when doing laundry.

Lower Your Water Heater Setting

You can reduce your water heating costs by simply lowering the thermostat setting on your water heater. For each 10°F reduction in water temperature, you can save between 3%–5% in energy costs. Although some manufacturers set water heater thermostats at 140°F, most households usually only require them set at 120°F. Water heated at 140°F also poses a safety hazard—scalding. However, if you have a dishwasher without a booster heater, it may require a water temperature within a range of 130°F to 140°F for optimum cleaning. Experiment, and see how much you can save. Consult your water heater owner's manual for instructions on how to operate the thermostat.

Water Heater Maintenance

To remove sediment, it may be a good idea to drain a bucketful of water from your water heater every month. However, you should do this only if your water heater is less than a year old or if it has been drained regularly. If it hasn't been drained regularly, the drain valve could become clogged and you might not be able to shut it again. We strongly encourage and recommend using a professional plumber for this task. The power or gas must be shut off prior to draining the tank(s). The hot water should be used or drained off in a bathtub prior to draining the tanks. The water in this tank is very hot and can cause serious burns and / or even death. The pressure should also be released by opening up the temperature & pressure relief valve.

Insulate Your Water Heater

You can easily wrap insulation around the pipes coming out of your water heater, and the heater itself. But be careful not to insulate the top or bottom of a gas-operated or oil-operated water heater, because it may interfere with venting. Unless your water heater's storage tank already has a high R-value of insulation (at least R-24), adding insulation to it can reduce standby heat losses by 25%–45%. This will save you around 4%–9% in water heating costs. If you don't know your water heater tank's R-value, touch it. A tank that's warm to the touch needs additional insulation.

Take Showers, Not Baths

Typically, a shower uses 10-20 gallons of water, while a bath uses 30. But don't shower for more than five minutes.

Install Flow Restrictors and Aerators

There are different types of flow restrictors for shower heads and aerators for other faucets. They all reduce water usage without being noticeable. For maximum water efficiency, select a shower head with a flow rate of less than 2.5 gpm. There are two basic types of low-flow showerheads: aerating and laminar-flow. Aerating showerheads mix air with water, forming a misty spray. Laminar-flow showerheads form individual streams of water. If you live in a humid climate, you might want to use a laminar-flow showerhead because it won't create as much steam and moisture as an aerating one.



ENERGY SAVINGS (CONT)

Appliances and Home Electronics

If you live in a typical U.S. home, your appliances and home electronics are responsible for about 20 percent of your energy bills. When you're shopping for appliances, think of two price tags. The first one covers the purchase price, think of it as a down payment. The second price tag is the cost of operating the appliance during its lifetime. You'll be paying on that second price tag every month with your utility bill for the next 10 to 20 years, depending on the appliance. Refrigerators last an average of 20 years; room air conditioners and dishwashers, about 10 years each; clothes washers, about 14 years.

These appliances and electronics include the following:

- Clothes washers and dryers, Computers, Dishwashers, Home audio equipment
- Refrigerator and freezers, Room air conditioners
- Televisions, DVD players, and VCRs, Water heaters



ENERGY SAVING TIPS FOR USING YOUR EXISTING WASHER & DRYER

Optimize Load Size

It is important not to under load or overload either your washer or dryer. Most people tend to under load their washers rather than overload — particularly with conventional top loaders

Use Lower Temperature Settings

Use cold water for the wash cycle instead of warm or hot (except for greasy stains), and only use cold for rinses. Experiment with different laundry detergents to find one that works well with cooler water.

Use Energy-Saving Features

If your dryer has a setting for auto-dry, be sure to use it instead of the timer, to avoid wasting energy and over drying, which can cause shrinkage, generate static electricity, and shorten the life of your clothes.

Reduce Drying Time

If you can't air-dry your laundry, save on drying time by drying similar fabrics together, drying multiple loads in quick succession (to take advantage of residual heat), and make sure to clean the dryer filter after each use. Remove excess dryer pipe behind dryer. Minimize snaking dryer vent. Rigid steel pipe with a short run will be more efficient and minimize the dry time thus saving you money

MINIMIZE THE ENERGY CONSUMPTION OF YOUR EXISTING REFRIGERATOR BY FOLLOWING THESE TIPS

Check Door Seals

Check the door seals or gaskets on your refrigerator/freezer. You can do this by putting a dollar bill in the door as you close it and see if it holds firmly in place. Or, put a bright flashlight inside the refrigerator and direct the light toward a section of the door seal. With the door closed and the room darkened, inspect for light through the crack.

Adjust the Thermostat

The refrigerator compartment should be kept between 36°F and 38°F, and the freezer compartment between 0°F and 5°F.

Move the Refrigerator to a Cooler Location

If your refrigerator is in the sunlight or next to your stove or dishwasher, it has to work harder to maintain cool temperatures.

Check Power-Saver Switch

Many refrigerators have small heaters built into the walls to prevent moisture from condensing on the outer surface — as if the refrigerator doesn't have to work hard enough already! On some units, this feature can be turned off with an energy-saver or power-saver switch. Unless you have noticeable condensation, keep this switch on the energy saving setting.

Minimize Frost Build-Up

Manual defrost and partial automatic defrost refrigerators and freezers should be defrosted on a regular basis. The buildup of ice on the coils inside the unit means that the compressor has to run longer to maintain cold temperatures, wasting energy. If you live in a very hot, humid climate and don't use air conditioning, defrosting may be required quite frequently with a manual defrost model. After defrosting, you might be able to adjust the thermostat to a warmer setting, further saving energy.

Manage Your Food and Storage Space

To keep your refrigerator from working too hard, let hot foods cool, cover foods, label items for quick identification, and keep your freezer full.



QUOTE OF THE MONTH

Success is not the key to happiness. Happiness is the key to success. If you love what you are doing, you will be successful.

~ Albert Schweitzer ~

Q&A SECTION

We have included this section where you can ask any questions you might have in regards to construction, home inspections, remodels, renovations, additions and DIY projects. Your questions will be answered in our newsletters.

PLEASE EMAIL YOUR QUESTIONS TO: coloradohomebuilders@yahoo.com

To install or not install low flow showerhead and faucet aerators:

Installing Low-Flow shower heads and faucet aerators is the single most effective water conservation savings you can do for your home. Inexpensive and simple to install, low-flow shower heads and faucet aerators can reduce your home water consumption as much as 50%, and reduce your energy cost of heating the water also by as much as 50%

How to tell if you need one

Faucet: If an aerator is already installed on your faucet, it will have its rated flow imprinted on the side. This should read 2.75 gpm (gallons per minute) or lower. Replace if over 2.75gpm. If no aerator is installed, check to see if there are threads just inside the tip of the faucet. Most modern faucets are threaded to accept aerators.

Shower: Set a 2qt. saucepan on the floor of the shower and position it in the middle of the shower stream. With shower on full, count how many seconds it takes to fill the pan. If it takes fewer than 12 seconds, you could use a low-flow shower head. If you have a low-flow shower head installed, it should read 2.5 gpm or less.

Models

There are two types of low-flow shower heads: aerating and non-aerating.

Aerating - mixes air into the water stream. This maintains steady pressure so the flow has an even, full shower spray. Because air is mixed in with the water, the water temperature can cool down a bit towards the floor of the shower. Aerating shower heads are the most popular type of low-flow shower head.

Non-aerating - air is not mixed into the water stream. This maintains temperature well and delivers a strong spray. The water flow pulses with non-aerating shower heads, giving more of a massaging-showerhead effect.

Cost: Low-flow faucet aerators usually cost \$5 - \$10. Low-flow shower heads range from \$8 - \$50 depending on features such as flow adjusting dials and designer styling. Hand-held models are more expensive than fixed models.

UNDERSTANDING UNITS OF ENERGY

Kwh

A kilowatt hour (kwh) is the standard unit of electricity that your electric meter uses to measure how much power you consume. You should be able to determine how much a kilowatt hour costs where you live by consulting your utility bill.

BTU or BTU/hr

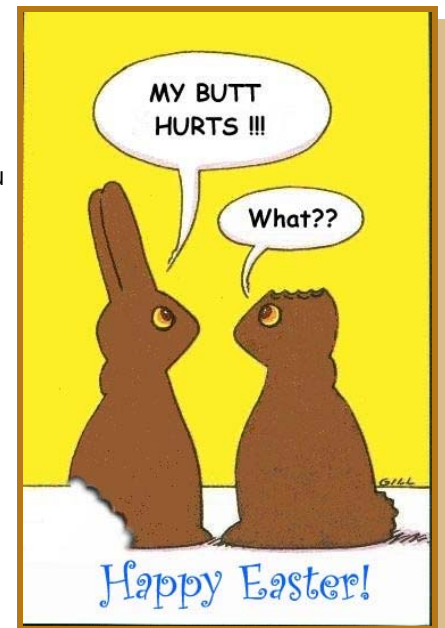
A British Thermal Unit is a measure of the amount of heat or cooling energy that a furnace or air conditioner provides. Technically, a BTU is the amount of energy required to change the temperature of one pound of water by 1 degree F.

EER

The Energy Efficiency Ratio (EER) is the ratio of an air conditioner's cooling capacity, measured in BTUs/hour, to the total electrical input in watts.

AFUE

Annual Fuel Utilization Efficiency is a measure of how efficiently a furnace or boiler converts fuel or electricity into heat. It is expressed as the ratio of the total amount of heat that the unit generates to the total amount of energy it consume.



BRAIN TEASERS

1. You can start a fire if you have alcohol, petrol, kerosene, paper, candle, coke, a full matchbox and a piece of cotton wool. What is the first thing you light?
2. Why do Chinese men eat more rice than Japanese men do?

Be sure to look for the answers to these riddles elsewhere in this issue



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TIP'S FROM THE PROFESSIONALS - STEVE'S HIGHLIGHTS

MAINTAIN YOUR LAWN MOWER

- ◆ Keep gas-powered engines tuned. For four-stroke engines, change the oil each mowing season, draining the crankcase and refilling with manufacturer-recommended oil. Replace any spark plugs that have heavy deposits and clean or replace the air filter once each mowing season or as needed. A tuned engine runs more efficiently and releases fewer pollutants.
- ◆ Clear the deck. To maintain proper airflow and foster better performance, use a plastic trowel to keep the deck clear of clippings (disconnect the spark-plug wire if the clippings are damp).
- ◆ Sharpen the blade. Sharpening once a season should suffice. It's fairly easy to do yourself and inexpensive to have done at a repair shop. This is important for your lawn's health. Dull blades tear grass, leaving a larger area of tissue vulnerable to disease.
- ◆ Recharge cordless electric models correctly. Draining a battery completely shortens its life. Stop mowing and plug in the charger when the battery starts running down. Manufacturers also suggest leaving the battery on "charge" when you're not using the mower.
- ◆ Prepare your gas mower for the off-season. At the end of the mowing season, add a stabilizer to prevent deposits that can clog the fuel passages, then briefly run the engine to circulate the mixture. In most cases, stabilizers eliminate the wasteful and polluting practice of draining the tank at the end of the season.

Getting the most value

Mulch as much as possible. Mulching is good for your lawn, your wallet and your local landfill.

Cut your grass higher. By leaving your grass at least 2½ inches high, you can help trap moisture and reduce the amount of watering you'll need to do.

Reduce the size of your lawn. Besides saving time and money (about \$700 per acre per year for maintenance), smaller lawns mean fewer mower emissions because you mow less. Alternatives include replacing a portion of your lawn with ivy and other types of ground cover or landscaping.



Answers to brain teasers:
1. A match 2. There are more Chinese than Japanese men

All material contained within was written and compiled by the Colorado Home Builders team.