



# Do-it-Yourself Energy Checklist for Homeowners

Fact Sheet 10.621

Consumer Series | Energy

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When comparing an average house to an energy efficient house, it is possible to reduce annual energy bills by upwards of 20 or 30 percent. To obtain such a reduction, homeowners can plan for a mix of low- or no-cost energy conservation measures and more in-depth energy efficiency measures. This is both an environmentally friendly and economically sound approach. A good place to start is to consider how the average house uses energy. According to the U.S. Department of Energy, energy use for the average home in Colorado is as follows.

- Space heating 54%
- Lighting, electronics, and appliances 26%
- Water heating 19%
- Cooling 1%

As you develop your home energy savings plan, the first task is to identify problem areas. The above list of household energy uses suggests a place to start—the higher energy uses (i.e. space heating) have the greatest potential for savings. That said, it's important to remember that the above list is simply an average of all homes in Colorado, many of which do not have active cooling systems. If your home does have an active cooling system (i.e. air conditioner, evaporative cooler), your energy use for cooling is going to be a much higher percentage of your overall energy use. A home energy audit could help identify the energy waste in your specific home.

Below is a checklist of do-it-yourself energy conservation and efficiency measures to consider for your home.

## Heating

- Caulk and weatherstrip exterior doors and windows as needed.
- Use a door sweep to reduce air leakage under exterior doors.
- Caulk and seal leaks where plumbing, ducting, or electrical wiring penetrates through exterior walls, floors, and ceilings.
- Install foam gaskets behind electrical outlets and switch plates on exterior

walls.

- Close your fireplace damper and make sure the opening is sealed when the fireplace is not being used.
- Use a chimney balloon to plug air leaks in lightly used or inactive fireplaces.
- Upgrade recessed can light fixtures to ones that are rated for insulation contact and air tightness (ICAT).
- Seal all joints in ducts with duct mastic.
- Make sure heating registers are not blocked or closed (as closed registers add pressure to ducts and can make them leak).
- Insulate ducts passing through unheated spaces.
- Upgrade attic insulation to R-49 or greater (higher R values mean greater insulation levels and thus more energy savings).
- Insulate exterior heated basement walls to at least R-11.
- Insulate floors over unheated areas to R-19.
- Set your thermostat as low as comfortable (68 degrees F is suggested) when you are at home.
- Set back the thermostat to 60 degrees F at night or when no one is at home.
- Set back the thermostat to 50-55 degrees F when the house is empty for over 24 hours.
- Install a programmable thermostat to automatically provide these setbacks.
- Open blinds and shades on sunny winter days, and close them at night.
- Install storm windows over single pane windows or use plastic film window kits.
- Replace single pane windows with energy efficient double pane windows mounted in non-conducting window frames.
- Have your furnace checked annually by a trained professional.
- Replace furnace filters once a month during the heating season.
- Replace an aging furnace with an efficient model.



## Quick Facts

*An energy efficient house can reduce energy bills significantly.*

*Heating is the single largest energy use for homes in Colorado.*

*Insulation and air sealing can reduce costs for both heating and cooling.*

*Cooling costs in the summer can be reduced by use of shade trees and window management.*

*Energy use for water heating can be reduced by use of faucet aerators and low-flow showerheads.*

*When replacing appliances, select those with the Energy Star label.*

*Use LED lamps wherever possible.*

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## Cooling

- Plant trees that leaf out during the cooling season on the west and south sides of your house.
- Close your blinds and shades during the day (cellular shades are particularly effective at regulating heat).
- Open windows at night to bring in cool night air and close them during the day.
- Consider a whole house fan instead of an evaporative cooler or air conditioner.
- Use room air conditioning only where needed.
- Install an efficient Energy Star central system air conditioner if one is needed.
- Maintain an air conditioned house at 78 degrees F or higher.
- Regularly change air conditioning filters and clean the condenser.

## Hot Water

- Reduce the temperature setting of your water heater to 120 degrees F (medium setting on a gas heater dial or as measured at the faucet nearest to the water heater).
- Add an insulating wrap to an older water heater; for a new water heater check your manual to see if this is recommended.
- Wash clothes in cold water, except for special loads such as diapers and stained clothes, and use the appropriate water setting for the load.
- Repair leaky faucets.
- Install faucet aerators on sinks you don't typically fill.
- Install low-flow showerheads.
- Upgrade to a low-flow toilet.
- Replace your water heater, when needed, with an efficient model.

## Appliances

- Maintain your refrigerator at 35-40 degrees F and freezer at 0-5 degrees F.
- Maintain a stand alone freezer at 0 F.
- Keep your refrigerator door closed whenever possible.
- Use microwave ovens for cooking small meals.
- If you have a newer dishwasher, skip pre-rinsing the dishes.
- Run the dishwasher only with a full load.
- Air dry dishes in your dishwasher.
- Regularly clean the lint filter on your dryer and inspect the dryer vent to make sure it is not blocked.
- Do not overload your dryer as it takes clothes longer to dry.
- Shut down home computers or put them on sleep mode when not in use.
- Plug small electronics into a power strip so you can turn them off at the same time.
- Replace aging appliances, when needed, with energy efficient Energy Star models.

## Lighting

- Turn off lights when not in use.
- Use dimmer switches as appropriate.
- Use task lighting whenever possible instead of lighting an entire room.
- Install LED lamps.
- Control outdoor lights with sensors or timers so they stay off during the day.
- String LED lights during the holidays.

By using as many of these suggestions as you can, you can see a significant decrease in your home energy use and lower energy bills. Some of the suggested changes may qualify for a rebate so check with your local electric utility.