



Tricks and Tips to Save Energy



"When Not In Use, Turn Off the Juice!"



Tips and Tricks to save energy in your home, in your car and practically everywhere you go.

You do not have to do without to achieve energy savings. There is now an energy efficient alternative for almost every kind of appliance or light fixture. That means that consumers have a real choice and the power to change their energy use on a revolutionary scale.

The average American produces about 40,000 pounds of CO₂ emissions per year. Together we use nearly a million dollars worth of energy every minute, night and day, every day of the year.

By exercising even a few of the tips below, you can cut your annual emissions by thousands of pound and your energy bills by a significant amount!



Energy Saving Tips for Work:



Office equipment, such as desktop printers, copiers, and lights are often overlooked when faculty and staff leave at the end of the day. Turning these items off at night and over weekends can save up to 75% of the energy they would otherwise consume.



Every one has an opportunity to reduce energy on campus. Here are some ways do it:

Computers:



Turn off all computer equipment unless in use, especially at night and on weekends

Screen savers do not save energy. Use power management features so your computer monitor and hard drive will go into "sleep mode" when not in use

Turn off your monitor when you leave your desk to go to lunch or to a meeting

Turn off monitors on servers

Enable power management features on laser printers and/or turn off laser printers when not printing

Buy low wattage equipment certified by the EPA's "Energy Star" program and be sure to enable power management features when setting up equipment



Lights:



Use natural lighting instead of electric lighting whenever possible

Turn off unused or unneeded lights

Try task lighting and reduce overhead lighting

Use fluorescent bulbs in desk lamps

Halogen floor lamps are very energy wasteful and may pose a safety risk



Heating and Cooling:



Dress for the season and keep thermostats set to achieve 68 - 70 degrees F in the winter and 74 - 76 degrees F for air-conditioned spaces in the summer

During the cooling season close blinds, drapes and curtains to block direct sun

During the heating season, open blinds, drapes and curtains to let sun in. If no sun, close them to keep the heat in especially at night

Use hot water sparingly



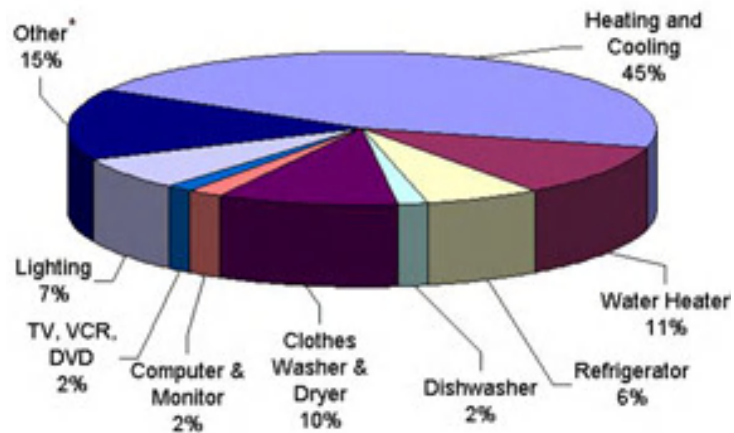
Equipment:

Purchase energy-efficient models

Turn off all energy consuming office and research equipment when not in use, e.g. copiers, refrigerators, environmental rooms, fume hood, etc.

Buy green!!!

Energy Saving Tips for Home:



Typical Home Energy Use



Most of the energy used at home, 45%, comes from heating and cooling systems.

Heating:

Set your home thermostat to a temperature as low as comfortable (65 - 68 degrees F is suggested) when the house is occupied

Set back your thermostat by as much as 10 degrees F at night or when the house is unoccupied during the day

Set back the thermostat to 50 - 55 degrees F when the house is unoccupied for over 24 hours

Install a programmable thermostat to automatically provide the setbacks mentioned above

Close the fireplace damper - except during fireplace use

Reduce heat to unused rooms in the house by closing doors and heat registers

Replace furnace filters once a month during the heating season

Keep objects away from and clean heating registers regularly

Have certified maintenance personnel service and check your furnace regularly

Minimize the use of kitchen, bath, and other ventilating fans or install a timer switch on them

Install insulating gaskets behind electrical outlets and switch plates on exterior walls

Caulk and weather strip doors and windows



Caulk and seal leaks where plumbing, ducting or electrical wiring penetrates through exterior walls, floors, and ceiling

Upgrade ceiling insulations to R-36 (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

Install storm windows over single pane windows

Replace aging furnace, when needed, with an energy efficient model

Replace single pane windows with energy efficient double pane windows mounted in non-conducting window frames

Cooling:

Open windows at night to bring in cool night air; close them during the day

Close drapes during the day

Shade west facing windows

Draw cool night air into the house with a whole house fan

Use room air conditioning only where needed and install energy efficient models

Install a central system air conditioner only when whole house air condition is needed



Maintain an air conditioned house at 78 degrees F or higher using a programmable thermostat to set the temperature higher during the day when no one is home

Regularly change air conditioning system filters and clean the condenser

Plant deciduous shade trees on the west and south sides of your house

Hot Water:

Repair leaky faucets

Reduce the temperature setting of your water heater to warm (120 degrees F)

Install low-flow showerheads

Add an insulating blanket to your water heater

Wash clothes in warm or cold water using the appropriate water level setting for the load

Replace water heater, when needed, with an energy efficient model

Major & Small Appliances:

Maintain refrigerator at 37 - 40 degrees F and freezer at 5 degrees F

For cooking small meals, use toaster ovens or microwaves

Adjust the flame on gas cooking appliances so it's blue, not yellow



Replace a gas cooling appliance with a unit with an automatic, electric ignition system

Run the dishwasher in the evening with a full load of dishes

Air dry dishes in a dishwasher

Regularly clean the lint filter on your dryer and inspect the dryer vent to ensure it is not blocked

Shut down home computers when not in use

Select appliances (i.e. curling irons, coffee pots, irons) with time limited shut off switches

Replace aging major appliances, TVs and VCRs when needed, with energy efficient models

Compare the annual energy consumption and operating cost for each appliance by looking at the bright-yellow and black Energy Guide label when shopping for new appliances

Lighting:

Turn off light when not in use

Use task lighting whenever possible instead of overhead lighting

Install compact fluorescent lamps (CFPs) in fixtures



Heating and Cooling Tips

Weatherstrip your windows and doorways. Add door sweeps beneath doors for added insulation.

Check your furnace filter every month during the heating season and replace when it is dirty.

Save on your heating costs by adding insulation to your uninsulated or inadequately insulated attic.

Repair cracks or broken seams in forced-air heating ducts.

Lowering your thermostat while you are not at home or at night while you sleep can save money. For every degree you lower your thermostat, you can save approximately 3% on your heating bill. Generally, lowering your thermostat by 5° will make an impact on your energy bill.

Close your drapes or blinds at night to keep the heat inside your premises.

During cold weather, seal all openings to cooling units (wall and window air conditioners and outside central air units) to keep the heat inside your premises.

Don't block heating outlets or return registers with furniture or other objects.

Choose a high-efficiency model when shopping for a new gas furnace.



Water Heating Tip

Here are some tips that will help you save energy and money by using natural gas water heaters and hot water wisely and efficiently. Today's natural gas water heaters are more efficient than ever, but here are a few steps that you can take to maximize that efficiency:

Keep the area around your water heater clean and well-ventilated.

Water heaters are now being shipped with a recommendation of temperature settings at 120°F. This slows lime buildup and reduces the risk of hot water burns.

Repair leaky hot water faucets and pipes.

Install water flow restrictors in your shower heads and other faucets.

Use warm or cold water to wash clothing when possible.

Run the dishwasher only when it is full.

Take short showers rather than baths, to save water.

Never let the hot water run continuously when washing your face or shaving.

Use the cold water faucet when little water is required.

Water heaters, like heating systems, carry a federally required Energy-Guide sticker. On a water heater, the Energy Guide shows you the average annual cost for the unit and indicates the "first-hour rating" of the water heater.

To estimate your annual operating cost, be sure to look at the yearly cost figure based on your current energy rates.
Heating/Ventilation/Air Conditioning Systems



Regularly...

Keep vents closed in unoccupied areas to prevent heating or cooling of storage areas and closets.

Reduce fresh air intake to the minimum necessary for the type of business.

Treat water in evaporative condensers regularly.

Replace resistance electric heating systems with heat pumps.

Replace old HVAC systems with new energy-efficient systems.

Install paddle fans, stratotherm fans, or other re-circulating systems to create air movement. Ceiling temperatures can often be 30° to 40° higher than floor temperatures, and air movement from fans can enhance the cooling ability of air conditioning systems.

Install air conditioner economizers to use outside air to cool buildings when outdoor air is lower than indoor temperatures.

Install time clocks, set-back thermostats, and microprocessor thermostats to monitor HVAC systems when buildings are unoccupied.

Install intermittent ignition devices on natural gas furnaces to save natural gas.

Modify flue dampers on natural gas furnaces to increase burner efficiency.



Monthly ...

Check air filters monthly, and clean or change as needed.

Check air intake screens monthly, and clean as required.

Inspect air dampers monthly, and keep them as airtight as possible.

Check V-belts (fan belts) monthly for frays, cracks, and nicks, and replace as necessary.

Check heat recovery devices monthly for proper operation.

Brush off air conditioner condenser coils monthly.

Quarterly ...

Check motors, bearings, and blower fans every three months, and lubricate as required.

Check heating and cooling coils every three months, and clean as needed.

Check vacuum blower compartments every three months.

Check ducts, vents, and pipes every three months, and repair any damaged insulation.



Seasonally ...

Check cooling systems in the spring before the cooling season begins.

Check pulleys and sheaves in the spring and fall for alignment and proper belt tension.

Set thermostats at 78°F or higher for cooling during the summer.

During the summer, open windows and use only the fan portion of cooling systems when outdoor air is cooler than indoor temperatures.

Keep doors and windows closed when air conditioning systems are operating.

Check heating systems in the fall before the heating season begins.

During the winter, open shades and blinds on sunny days to warm buildings naturally, and close them at night to prevent heat loss.

Set thermostats at 68°F degrees or lower for heating in the winter, and 55°F when buildings are unoccupied. If heating is required in warehouses, set thermostats to 50°F .

Annually ...

Check cabinets and brackets once a year, and tighten all bolts and screws as necessary.

Check housings yearly, and remove rust and repaint as required.



Other Useful Tips

White is Costly and Black is Cheap when it comes to color and electricity. Now it seems you can also save energy just by shifting from White Google to black Google. According to EcoIron, "An all white web page uses about 74 watts to display, while an all black page uses only 59 watts." As Google currently has more than 200 million queries a day, and if Google has a black background, it would save 750 Megawatt-hours a year! That is lot of energy which means Google with a white background is very costly.

Blackle took this point into consideration and they have created an all black homepage for searching in Google. Have a look at this and try it out. Black Google seems to be little odd as we are quite acquainted with the White Google.

So, Will you switch to black Google on the basis of energy conservation? Let me know your opinion!



4 Simple ways to achieve fuel efficiency, a simple method to remember.

Driving More Efficiently

Cruise Control

Use cruise control on the highway helps you maintain a constant speed and, in most cases, will save gasoline or act as a gas saver.

Avoid Excessive Idling

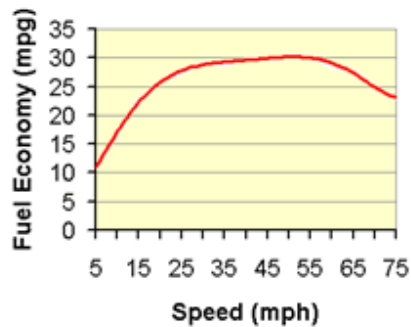
The more you spend time on car idling, the more fuel you waste. Larger cars typically expend more gas at idle than do cars with smaller engines. By reducing car idling time, you can increase fuel mileage and reduce car fuel consumption.

Remove Unnecessary Weight

Do not keep excess items in your vehicle, especially heavy ones. An extra 100 pounds in your vehicle could reduce your MPG by up to 2%. This reduction is based on the percentage of extra weight relative to the actual car's weight and affects smaller vehicles rather than larger ones.



Fuel Economy Benefit



Observe the Speed Limit always.

Each vehicle has its optimal fuel efficiency levels at a different speed (or range of speeds), fuel consumption usually decreases rapidly at speeds above 60 mph. You can assume that each per 5 mph at speeds above 60 mph is like paying an additional \$0.20 per gallon gas.

Observing the speed limit is also safer for you and your peers.

The following 4 ways will help achieve better gas mileage at NO costs !