**WONDERING HOW TO SAVE MONEY ON ELECTRICITY BILLS? JUST FOLLOW THESE TIPS FOR CONSERVING ENERGY.**

Below you will find simple home energy-saving tips that help you lower utility bills without sacrificing comfort.

“Energy Efficiency Tips.” *OPPD Omaha Public Power District*, https://www.oppd.com/residential/energy-efficiency/energy-efficiency-tips/.

### Seasonal ways to conserve energy and reduce utility bills

**Fall**

* Fall is a great time to have your furnace inspected in preparation for colder temperatures. Hire a licensed HVAC contractor to inspect your furnace and ensure it is in proper working order. A cracked heat exchanger can leak harmful gases into the home.
* Check for leaky spots around exterior windows and doors. They can be sealed with caulk (windows) or weatherstripping (doors, some window areas).
* If caulking a window is not an option, consider using a heavy-duty, clear plastic sheet sealed tightly on the inside of the window frame.
* Opening blinds or curtains to direct sunlight can help warm a room by up to 5 degrees.
* Reverse the rotation of your ceiling fan to clockwise. During the cooler months, this helps push the warm air out and down, helping evenly distribute warm air.

**Winter**

* Use dampers on the ductwork to balance the airflow in your home (i.e., if one room is colder/warmer than another). Closing registers should be a last resort if dampers are not available.
* Each degree you change on your thermostat can increase or decrease your usage by 1-3%.
* Close the fireplace damper when not in use to avoid losing heat through the chimney.
* Do not use a wood-burning fireplace for supplemental heating, as it pulls hot air out of a home through the chimney to fuel the fire.
* Leave curtains, blinds and/or shades open in direct sunlight to warm the room but close them at night to prevent heat loss through the windows.
* Seal windows and external doors with weatherstripping.

**Spring**

* Have your air-conditioning system checked out by a licensed HVAC contractor in preparation for warm weather.
* Consider opening your windows to cool off the home and add fresh air. Promote air movement by opening windows on the opposite ends of your home.
* To reduce the amount of heat generated in the home while the air conditioner is on, consider cooking outside whenever possible.
* Before turning on the air conditioner, consider using a ceiling or box fan to cool off via the wind chill effect. This makes your body feel cooler than the surrounding air.
* If you use a ceiling fan to keep cool, make sure it is rotating counterclockwise in the warmer months to help with the wind chill effect.

**Summer**

* Raise the temperature of the thermostat and use a ceiling fan or box fan to help cool your body down via the wind-chill effect.
* If you are using a fan in a room, use only one. Multiple fans – especially a box fan and a ceiling fan combined – can negate the usefulness of the wind-chill effect and only cause the temperature in the room to increase.
* Try to limit using heat-generating appliances (oven, stove, dishwasher, etc.) until the cooler hours of the day or night.
* If your thermostat is in a hallway, be sure the doors nearby are open. Closed doors prevent air movement around the thermostat, which can cause your system to run longer than necessary.
* Use dampers on the ductwork to balance the airflow in your home (i.e. if one room is colder/warmer than another). Closing registers should be a last resort if dampers are not available.
* Blinds and curtains can reduce the ambient heat temperature by your window by as much as 20 degrees! In the summer, keep those blinds/curtains closed to help keep your home cooler.

### Use your HVAC system efficiently for home energy savings

**Heating**

* If you have a gas furnace, the flames should be mostly blue in color. If they aren’t, it is best to contact a licensed HVAC technician to inspect the burners and other components of the furnace.
* Hire a licensed HVAC contractor to check the furnace. This ensures the heat exchanger is clean and in proper working order with no cracks or leaks, which can lead to harmful carbon monoxide gas being emitted inside your home.
* If you have an air-conditioner (**not** a heat pump), you can cover the outside condenser unit to protect it from dust, leaves, etc. This helps keep the unit’s fins clean which help dissipate heat when in use (cooling your home).
* If you have a wood-burning fireplace, be sure the chimney flue is closed when not in use. It’s also a good idea to have the chimney inspected and cleaned by a professional.
* Seal any leaky windows or doors with foam or felt weather stripping. You can generally feel the cold air coming through if the window frame has leaks.
* Install door sweeps on any exterior doors to prevent air leakage.
* Seal your ductwork with aluminum duct tape or mastic paste. This helps prevent air leakage into unconditioned spaces, which can diminish the efficiency of your system.

**Cooling**

* Clean around the outdoor condenser unit. Keeping it clear of debris will increase both efficiency and longevity. **Before starting, be sure to turn off the AC at the disconnect box outside or the breaker or fuse panel inside.** For a thorough cleaning, contact a licensed HVAC contractor.
* Clean all registers with a vacuum using the brush attachment. This helps clean off dust, pet hair and other particles. Keeping your registers clean will help improve the air quality of your home.
* You can lower your electricity bill when you raise the temperature on your thermostat and use a fan to cool your body off via the wind chill effect.
* If your thermostat is located in a hallway, be sure the doors nearby are open. Closed doors prevent air movement around the thermostat, which can cause your system to run longer than necessary.
* Blinds and curtains can reduce the ambient heat temperature by your window by as much as 20 degrees! In the summer, keep those blinds/curtains closed to help keep your home cooler.
* Evening or nighttime is best for heat-generating appliances (i.e., stove, oven, dishwasher, and dryer) as it is generally cooler outside than during the daytime.
* Seal your ductwork using aluminum foil tape or mastic paste. Be sure the product is certified by looking for the UL logo on the packaging.
* Clean out the condensate or drain lines coming from the A-coil at the furnace, which is the inside portion of your air-conditioning system. There will be PVC or clear piping coming from it to the drain in the floor. Pour 1⁄4 cup of vinegar down the line to clean out any mold, mildew, or buildup. **Before starting, be sure to turn off the HVAC system.**

**Ventilation**

* Seal your ductwork with aluminum duct tape or mastic paste. This helps prevent air leakage into unconditioned spaces, which can diminish the efficiency of your system.
* Clean all registers with a vacuum using the brush attachment. This helps clean off dust, pet hair and other particles. Keeping your registers clean will help improve the air quality of your home.
* Use dampers on the ductwork to balance the airflow in your home (i.e., if one room is colder/warmer than another). Closing registers should be a last resort if dampers are not available.
* Keep furniture, low-hanging curtains, and other objects away from both the supply and return air registers. This will help enable adequate airflow throughout the home for increased comfort.
* If your registers are in the floor or low on the wall, you can use a fan on low to help push the air out into the room.

**Filters**

* A dirty filter not only slows airflow and decreases air quality, it also adds dirt and dust to the internal components of a furnace. This can damage a furnace or a-coil (for the air conditioner) over time causing costly repairs.
* Check or replace your filter once a month. It may not need to be replaced, but it can be difficult to tell if it should be replaced without observing its color or build up.
* A MERV (Minimum Efficiency Reporting Value) score is a rating system for how effective a furnace filter is at blocking particles and other debris. The highest rating most residential systems can withstand before airflow and efficiency is affected is 13.
* For most residential systems, a MERV rating of 8 to13 is recommended but be aware that a higher MERV doesn’t automatically equate to improved efficiency.
* The MPR (Microparticle Performance Rating) is another scoring system for filter quality. An MPR of 1900 is equivalent to a MERV 13 rating. Similarly, FPR (Home Depot) could have a rating of 9 to 10, which is equivalent to a MERV 12 rating.

### How to lower home electricity bills throughout the year

**Insulation**

* Insulation helps to slow the flow of heat through a wall or ceiling cavity. For example: in the winter, if you are sitting next to an uninsulated wall, your body’s heat will radiate toward that uninsulated wall making you feel colder, despite the temperature you set your thermostat to.
* The Department of Energy states that only 20% of homes built before 1980 DO NOT have enough insulation. If your home is of that era, check out the [Department of Energy - Insulation](https://www.energy.gov/energysaver/weatherize/insulation) page to see if your insulation meets recommended standards for utility savings.
* Insulation is measured in R-values: The higher the R-value, the better your walls and roofs will resist the transfer of heat, saving on energy. The [Department of Energy - Insulation](https://www.energy.gov/energysaver/weatherize/insulation) page also outlines recommended R-values.
* Use higher density insulation, such as rigid foam boards, in cathedral ceilings and on exterior walls.
* Split batts of insulation vertically around cables and pipes. This helps avoid open gaps in the insulation and improves its ability to conserve energy.
* Try to avoid compressing or over-packing insulation. This reduces its R-value and effectiveness at slowing the flow of heat.
* If you have ductwork in an unconditioned space (i.e. crawl space or attic), be sure the duct is either sealed or insulated. It may also be a good idea to have a radiant barrier installed in your attic.

**Water Heaters**

* Changing your hot water heater’s temperature from 140 to 120 degrees can save you 5-10% on your utility bill.
* Insulating your water pipes, especially near the water heater itself, can reduce the loss of heat from your hot water pipe, as well as reduce the conduction of heat to your cold-water pipes. Insulating these pipes can help deliver water 2-4 degrees hotter than uninsulated pipes allowing you to reduce your tank’s water temperature.
* Insulating your water pipes can reduce standby losses by up to 150 kWh (or 4-8 therms; natural gas) per year in a single-family home.
* Water heaters’ efficiency is measured in Energy Factor [EF]. The higher the EF, the more efficient the water heater is.
* Fix faucet leaks as quickly as possible. You can use this [Drip Calculator](https://water.usgs.gov/edu/activity-drip.html) to determine how much water you may be losing from a leaky faucet.
* Install a low-flow shower head or faucet aerator. These can save your water usage by up to 50-60%.

**Thermostat**

* In the summer, set your thermostat as high as comfortably possible. In winter, set it as low as comfortably possible. An increase or decrease of just one degree can save 1% to 5% on energy use.
* During the colder months, never set your thermostat below 55 degrees. Any lower, you run the risk of your pipes freezing and rupturing, causing significant damage.
* When you leave home, raise your thermostat by as much as 5 degrees in the summer, or lower it by as much as 5 degrees in the winter. This will help you save on your utility bill each time.
* In winter, the lower the interior temperature of your home, the slower the heat loss. In summer, the higher the interior temperature, the slower heat flows into your house, saving energy on air conditioning.
* Programmable thermostats can add comfort by cooling or heating your home in advance of you waking up or returning home.
* The blower for your HVAC system generally has two modes of operation: On or Auto. The Auto setting will run the blower (aka: fan) only when the system is heating or cooling your home. The On setting causes the blower to run nonstop until you turn it off or back to Auto.
* Take into consideration where your thermostat is located for an accurate reading. If it is near a heat-generating area like the kitchen or bathroom, close those areas off when in use. If it’s in a hallway, make sure hallway doors are open to ensure a proper reading leads to an accurate home temperature.
* While setting your HVAC system’s blower to On can help continue to circulate air, it will also add to the humidity of the home if left on for too long. This can cause higher cooling bills in the summer.

**Lighting**

* LED bulbs are 80% more efficient than incandescent bulbs and 20% more than CFLs.
* LED bulbs can last up to 25,000 hours; CFLs up to 12,000 hours; incandescent bulbs last roughly 750 to 1,200 hours.
* Replacing a 60-watt incandescent bulb with an equivalent 9-watt bulb can save you up to $1.50, per month, per bulb.
* The color of a light bulb is displayed as the temperature unit Kelvin [K]. The higher the temperature (e.g., 10,000) the whiter the light. The lower the kelvin (2,000) the yellower the light will be. (For reference: Standard incandescent bulbs are in the 3,000 K range.)
* If the light socket is a dimmable socket, be sure you purchase LED bulbs that have the capability of dimming. Otherwise, you will experience a fast to medium flicker in the LED, which can lead to them failing in a short period of time.
* Turn off the lights in when you leave a room. When possible, use natural sunlight instead of electrical lighting, if it doesn’t interfere with the HVAC system.
* Use motion sensors on outdoor lighting whenever possible.

**Appliances**

* Using heat-generating appliances (dishwasher, clothes dryer, oven, etc.) during the cooler part of the day or night is best, no matter the time of year.
* The use of smart strips can help you easily turn off multiple appliances at once when not in use.
* It is a good practice to clean/dust the coils for your refrigerator (typically located at the bottom of your refrigerator, behind a grate) at least once a year. **Before doing so, unplug the refrigerator.**You can plug it back in once you are a finished (takes only a few minutes to clean).
* Reduce your electricity bill by washing your laundry with cold water, when possible, as 90% of energy consumed from washing machines is due to use of heated water.
* If your dryer has a moisture sensor, take advantage of that. It will prevent you from over-drying your clothes, saving you energy and money.
* Clean the seal (or gasket) on your refrigerator and freezer doors on a quarterly basis. This helps enable a good seal keeping cold air in and hot air out.
* Use a thermometer inside your refrigerator and freezer to determine the best setting for coldness. Refrigerators should be 30-40 degrees whereas a freezer should be 0-5 degrees.