



LOWERING YOUR ELECTRIC BILL

Your electric bill is made up of many appliances, devices and electronics. Your heating and cooling system and water heater contribute significantly to how much you pay each month, but lighting and appliances use a lot of energy as well, and the growing number of devices that plug in are starting to make a sizable impact. Fortunately, your electric bills are not set in stone. There are a number of ways to help lower them while also improving convenience and comfort.

SIMPLE YET EFFECTIVE ACTIONS

One of the most straightforward habits you can build to save energy is to shut off appliances and electronics (including lights) when they are not in use. Some electronics, such as televisions, draw power even when turned off, so completely unplugging them helps even more. A related solution is to add these devices to a power strip that can be easily switched off and on.

Along with turning off your lights, consider replacing the bulbs with more efficient ones. LEDs are the best option. They last 20-30 times longer than incandescent bulbs while being at least 75 percent more efficient. They are also more desirable than CFLs because they provide additional savings and do not contain mercury.

With heating and cooling making up such a large portion of electric bills, keep an eye on your thermostat and try to leave it at the warmest comfortable temperature in the summer and the coolest comfortable temperature in the winter. This will make your heating, ventilation and air conditioning (HVAC) system have to work as little as possible. Depending on your schedule and budget, consider a programmable or smart thermostat to automatically set temperatures throughout the day.

Furthermore, be sure the thermostat fan is on “Auto” so that it runs only when the system is heating or cooling. And during summer months, use a ceiling or space fan to supplement cooling and increase the thermostat setting a bit. Just remember to turn the fan off when you leave the room - unless you are within the fan’s airflow, there is no cooling effect.



HIGHER SAVINGS, LONGER PAYBACK

In addition to the approaches above, there are more advanced steps you can take if you want to continue to increase your house's efficiency. These measures tend to take more time, money and effort, but they can go a long way toward reducing your electric bill and increasing your comfort.

1. **Tune your HVAC unit.** Having your HVAC system tuned by a contractor at least once every year will help to ensure that it is working effectively, safely and efficiently.
2. **Air seal holes and cracks.** Air sealing holes and cracks can prevent outside air from entering your home and heated and cooled air from leaving it. Check your exterior doors and attic access points to make sure weatherstripping is intact and working properly. Cobwebs and pest droppings can signal areas that may need help. Additionally, inspect attics and crawl spaces for holes and chases that can be capped and sealed. Having an open chase in an attic is similar to having a window open year-round. It can be capped with plywood and sealed with caulk or spray foam.
3. **Check insulation.** Adequate insulation helps regulate heat flow in your home. If you have a crawl space or an open attic, check the insulation at the floor and ceiling. If you notice falling insulation in the crawl space or thin or missing insulation in the attic, it will pay to adjust it or add more. Your local building code will indicate the best insulation depth or "R-value" for your area. Air sealing before insulating your attic will optimize performance, help to more quickly recoup the cost of the improvement and noticeably enhance comfort.
4. **Repair ducts.** Your HVAC system works hard to keep your home comfortable. In all, about 20 to 30 percent of the air moving through your ducts may be lost in the attic or crawl space because of leaks and holes in ductwork. Sealing duct boots with mastic-type sealant can ensure conditioned air cools or heats your home, increasing comfort and costing you less as air stays inside.
5. **Upgrade your water heater.** Water heating can be a big contributor to your electric bill, so when purchasing a new electric water heater, consider a heat pump system. Compared to electric storage tank water heaters, heat pump water heaters can be two to three times more efficient. They use electricity to transfer heat from the surrounding air to the water rather than generating heat directly. These systems typically cost more upfront, but they are cheaper to operate over their life spans.

Upgrading your home can seem like a daunting task, but there are many ways to make a difference depending on how much time and money you want to invest. The measures discussed here may not be cure-alls, but they can be good places to start if you're looking to lower your electric bill and improve your comfort. Be sure to check with your local electric co-op and government for advice, programs, rebates and incentives. If you are unclear on what measures make the most sense, a reputable contractor may be able to point you in the right direction.

This article was provided by Advanced Energy, a nonprofit energy consulting firm. For more information, visit www.advancedenergy.org.

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