



# THE ALL-IN-ONE GUIDE TO CREATING AN INCREDIBLY ENERGY EFFICIENT HOME

*Tips You Need to Know that Will Save Your Family Thousands of Dollars in Energy Costs*



# INTRODUCTION

Have you noticed that every single year your electric bill seems to creep higher and higher? Have you wondered if there are things you could do to keep that monthly cost just a little lower?

With costs of living going up each day, everyone is trying to find ways to save money, and everyone could use a little advice on how to do so. One of your biggest expenses through the year is most likely your electric bill. The fortunate thing is, you do not have to be paying such a high price. The good news is that you can stop it right now. There are many different things that you can do in your home to save a little energy.

Many of those things are small changes that will not affect your everyday life, but each of the small things will save you just a little on your electric bill. When you add them all up, you can save thousands of dollars on that bill.

All you have to do is do a little research and make a few changes. You will immediately notice the difference in your electric bill and you can start enjoying that extra money that you have in your budget each month. To save you time and frustration, here you will find everything you need to know about making your home more energy efficient. With this guide, you can easily make all of those changes and reap the benefits in your power bill.



# AN A-Z GUIDE

To get started, the first thing you will need to keep in mind is that there are areas all over your home that are leaking energy. You can change that though. Here you will find an alphabetical guide to all of the items, rooms, and spaces in your home that you can make more energy efficient. Take the time to study each one of these. The more changes you can make, the more of a difference you will see in your power bill. Let's get started.

## AIR CONDITIONING/HEATING

This can be one of the biggest expenses to hit your electric bill simply because the machines are used so often. In most places, a home will need the use of the air conditioner during the hottest months and the heater during the coldest.

Be sure that the air conditioner and heater you currently have are energy star rated. Consider a heat pump. This machine, which serves dual duty as a heater and an air conditioner is much more energy efficient than a standard central heating and air unit.

## ATTICS

Attics can be a space that consume and leak an enormous amount of energy since they are generally not insulated. Unless your attic has actually been finished and turned into a room, the only insulation for your home will be under the attic's flooring. Chances are, you can see the beams and joists of your home's roof in the attic. One thing you can do is have an attic fan installed or at least vents at each end of your attic. During the hot months, the fan can withdraw the hot air from your attic and help to cool your whole home. Vents will do the same on a lesser scale.

In addition, you can choose to have more insulation placed underneath the attic flooring to add more efficiency for your home. Blown in insulation can be used to completely fill every nook and cranny where air may seep in.

## BASEMENT

On many occasions, basements are not properly insulated. You may not even realize that outside air is getting in, but even the tiniest draft can affect the heating and cooling of the rest of the home. Often, drafts in your basement can be spotted if there are cobwebs or old spider webs in the corner. If you see these webs moving then you need to look for a draft that is costing you money. The best way to save money in the basement is to make sure it is properly insulated. If it has no insulation, you may want to consider having this rectified.

## CEILING FANS

When used properly, ceiling fans can be a great energy saver during the summer and the winter. If you do not already have these fans in your home, you may want to consider them for the most used rooms like bedrooms, living rooms, family rooms or dens, and even kitchens. Ceiling fans use very little energy, and when used to cut down on the use of a heating and air unit, they can save you money. Remember that, during the winter, when heat rises, ceiling fans have a reverse setting that will push the warm air downward. These devices are not useful just in the summer!

## COMPUTER/OFFICE EQUIPMENT

Often, people do not realize how much of an energy drain computer equipment can be. If you are currently leaving your computer on in a sleep mode through the night, you are using more power than you realize. These machines, even in sleep mode, are a power drain. When they are not in use, be sure to turn the computer, monitor, printer and any other equipment off.

## DISHWASHER

Start with an energy star certified machine. Many people do not realize just what a difference this will make. However, machines that are rated as energy efficient truly will save a great deal of money.

Next, only use your dishwasher when you have a full load of dishes. Running the machine frequently with only partial loads is only spending money that you do not have to. In addition, if you turn off the dryer or heated dryer setting, you can allow your dishes to air dry. This will save money as well.

## DRAPES AND BLINDS

During the winter, you can make use of the heat of the sun to help warm your home. During the cold days, make sure to open your drapes and blinds. You will be surprised how much warmth your home can gain when the sun is let in. However, be sure to close them at night. If there are any cold drafts coming through your windows, then the drapes and blinds will act as a barrier.

During the summer, keep your drapes closed to avoid allowing the sun to heat your home. You may even want to choose energy blocking drapes that are designed to keep the heat from entering your home.

## ELECTRONICS

Often overlooked, electronic devices like televisions, cable or satellite boxes, DVD players, VCRs, and video games can be an enormous power drain. In most cases, these machines continue to draw power even when they are turned off. Just remember that your DVD player is using electricity to keep the clock running.

You can stop this power loss with a simple power strip or surge protector. Plug all of the electronic devices into one power strip. This way, when the machines are not in use, you can flip one switch that will turn all of them off and stop this silent power leak.

## FIREPLACES

If you have an open fireplace, always make sure that the flue is properly closed when the fireplace is not in use. This will avoid downdrafts of cold or hot air. In addition, if you choose, you can install glass doors in front of the fireplace that will even further block drafts.

Be sure that all of the sealing is properly in place where your fireplace joins with the wall. If it is not properly sealed, you can do so with caulk. However, make sure that you choose heat resistant caulk for this job.

Gas fireplaces are much more energy efficient and they radiate more heat than wood burning ones. If you have a wood-burning fireplace, you can purchase a gas insert to convert it and save yourself a great deal of money in the long run.

## FURNACE

If you are replacing your furnace, be sure to choose an energy star rated one. During the winter months, you will be using this machine quite frequently. In order to make it as efficient as possible, make sure it is properly serviced at the beginning of each cold season. Additionally, be sure to change the filter on a regular basis. Dirty filters hinder airflow, making the furnace work harder and use more energy.

## GARAGE

If your garage is climate controlled, consider turning off the heating and the air to this space unless you will be in it. Because garages are so rarely used, there is no sense in having it constantly heated and cooled. In addition, garage doors are a constant energy leak. Any heat and air you are sending into this space will be leaked through the edges and the roller of the doors.

If you cannot turn off the climate control to the space, you can buy magnetic vent blockers, which will stop the heat or air from entering the garage space. If the garage is not climate controlled, be sure that you do not have a draft in the door leading to it. Ensure that all sealing is in place around the door.

## GRILLS/BARBEQUES

During the summer months, a gas or charcoal grill can save you money in two ways. Since cooking in the kitchen actually heats up your home, any cooking you can do outside will stop this. In addition, since a grill or barbeque will not be drawing electrical power like standard kitchen appliances, they will not be adding to your electric bill. Consider purchasing a durable grill this summer and cooking on it, especially on hot days.

## LANDSCAPING

The landscaping around your home can serve to help with energy efficiency as well. Shrubs and bushes that grow in a hedge around your home will block winds that can cause drafts into windows. Additionally, they can block the sun's rays to keep too much warm air from entering your home.

If you are considering the future as well, consider planting fast growing trees which will help divert the sunlight off your home's roof. Any trees that currently help provide shade should be allowed to continue to grow.

## LAUNDRY FACILITIES

When choosing a washer and dryer, be sure to choose appliances that are energy star certified. In addition, choose a dryer that has a low heat setting and a washer that includes cold-water wash only settings.

During the hot months, only use your washer and dryer during the coolest parts of the day like late evening and early morning. Wash all of your clothes at once and set your dryer to the lowest heat settings. Clothes dryers can produce an immense amount of heat in a home, so by only using it when it is cooler outside, you can keep from warming your house too much.

## LIGHTING

Replace all of your standard light bulbs with compact fluorescent models. These bulbs last many times longer than incandescent options and they use much less energy. Each light bulb that you replace will save you several cents each month. If you replace them all, the amount will add up and you will see a definite energy savings.

Additionally, you can purchase timers that will control when lights turn on and off. This is especially useful for outside lights, which you can place on a timer or a light sensor so that they only turn on when needed instead of using energy at all times.

## OVEN/STOVES

As with all kitchen appliances, choose an energy star rated model for your oven and cook top range. Avoid using the oven during the hottest months, and when you do use it, do not open the door unless you have to. If you need to check on the progress of the cooking food, make use of the oven light and glance through the glass door.



## PIPES AND DUCTS

Often, the space where pipes and ductwork meet the wall, there will be gaps and spaces. You may not think that there is enough room for an energy leak, however, even the tiniest gap into the wall will be a place for air to get in or out. You can seal these areas with simple caulk, which will properly fill in gaps and make the connections airtight.

## REFRIGERATORS/FREEZERS

These two appliances will run at all times. This means that they will constantly be using energy. It is most important that you choose energy star rated models since they could potentially use an extensive amount of energy and cost you a great deal of money.

When you are placing items in the refrigerator and freezer, be sure to leave ample space around the vents in order to not block air flow, which would make the appliances work harder and use more energy. Always close the doors to the appliances even if you will be bringing more items to place within them and allow food to cool before placing it in the refrigerator.

## SHOWERHEADS, FAUCETS AND TUBS

There are many options for low flow faucets and showerheads that can cut the amount of water used by a large margin. In fact, a low flow showerhead can cut the amount of water used by more than half!

Choose to take showers instead of baths since one bath can use as much water as three showers. Make sure none of your faucets are dripping or leaking since even a small drip will use a big amount of energy and water over time.

## SWIMMING POOLS

Instead of allowing the swimming pool pump to run 24-hours a day, you can purchase a timer and set it to run only for the twelve daylight hours. This will accomplish the same thing and only use half of the energy. If you have a heated swimming pool, you can also place the heater on a timer. When the pool is not in use, be sure to cover it in order to not lose heat as well.

## THERMOSTAT

A programmable thermostat can be a big energy saver for a home. If you do not currently have programmable thermostats, they can be purchased and installed at a relatively low price, and they will easily pay for themselves within a year of their purchase.

For standard thermostats, choose a temperature setting for the day, and one for the night and only change the settings at morning and evening. Constant thermostat adjustments will make the heating and air work harder.

## TOILETS

Low flow toilets can save a great deal of energy in one year. If you would prefer to not replace the toilets entirely, you can find water saving flush controls, which can be installed in any model toilet for a relatively low cost.

## VENTS

Make sure that nothing is blocking air conditioning and heating vents. Often, drapes and curtains or furnishings may block airflow, which will use more energy as the heating and air units must work harder.

Additionally, make sure nothing is blocking the air conditioner return and change the filter on a regular basis. A clogged filter can actually damage your air conditioning unit and it can use more energy.

## WALL OUTLETS AND SWITCHES

In many homes, behind wall outlets and switches, there will be no insulation, allowing air to flow directly into the walls of your home. You can check this by simply removing one switch plate cover. If there is no insulation, you can purchase the type designed for electrical equipment, which will expand when it dries and seal these drafts.

## WATER HEATER

A water heater is another appliance which runs at all times, making it a big user of energy. Modern energy efficient water heaters use a great deal less energy. In fact, if you purchase one of the most energy efficient models, you can save upwards of one hundred dollars on your yearly power bill.

## WEATHER STRIPPING

Check to make sure that all weather stripping around windows and doors is properly in place. In addition, make sure the weather stripping is in good condition. The material used for weather stripping will wear out over time and will need to be replaced.

## WINDOWS, DOORFRAMES, SILLS AND JOINTS

Energy leaks are prominent around windows and doors simply because these are direct openings to the outside. Check the caulking around your windowsills. If there is not caulking, then choose a resilient type of caulk and make sure that the seal is complete. Ensure that the thresholds at your doors are properly sealed with rubber stripping and replace it when it wears out.

Plastic window covering can save a great deal of energy in homes with older windows. Additionally, you can replace windows with double paned energy efficient models. Make sure that all of your exterior doors also have storm doors, which will help to buffer outside temperatures before entering the home as well.



# HELPFUL TIPS

There are many different ways you can save energy just by taking action in small manners. For example, you can do different things to save a great deal of energy while on vacation or at night when you are asleep. Here are some great overall tips that will help you save big bucks on your power bill. Consider these no cost options to help you spend a little less each month.

## THE EQUAL PAYMENT PLAN

Many electric companies offer you an option for something called a balanced or equal payment plan. What this means is the electric company will take an average of your energy bill over the last year. Then, instead of paying your actual energy usage each month, you will pay this set average, which can save you money. Keep in mind, however, this average will be recalculated each year, so it does not give you free reign to use all of the electricity that you want without consequence.

## POWER SAVER/PEAK SAVER

Many electric companies also offer a system often referred to as peak or power saver. This means that if you agree, they will install a switch to your home's electrical system. During peak hours when the most electricity is used, this switch will turn off the electricity for a short amount of time. This will happen during the day when you will be away or when you will not notice. This will save you money in energy. In addition, for the service, many power companies will give you an extra credit on your power bill if the switch is put into use, which will save you even more in monthly cost. Consult your electric company to determine if this is an option in your area.

## NATURAL GAS

Natural gas appliances use a great deal less electricity. If you are currently using all electric appliances, consider switching to gas models in the future. Appliances that use natural gas can include stoves and ranges, furnaces and heaters, as well as fireplaces and barbeques.

## VACATION TIPS

When you go on vacation, you are leaving your home to use a great deal of energy when you are not even at the house. There is no sense in letting all of that energy go to waste and cost you money. There are many different things that you can do in order to prepare your home for your vacation time, and you can save energy and cost while you are gone.

Since you may want to leave a few lights on for security purposes, you can purchase affordable timers for these lights. This way, the lights will go off during the day and use less energy while turning on at night for security. Make sure also that these lights are using compact fluorescent bulbs for the most energy efficiency.

For electronic devices like televisions, radios, DVD players, video games, and coffeemakers, unplug them completely before you leave on vacation. Since these devices tend to use power even when they are turned off, it is best to just unplug them. Since they will not be in use, this will save you a great deal of energy. If you are unsure of what devices this includes, look for anything that has a clock display. These devices will be using what is called “phantom energy” when they are turned off.

If you have a swimming pool, make sure that you have it covered while you will be away on vacation. In addition, choose to set the pool pump and heater on a timer. You may even choose to turn the heater completely off while you will be gone.

For your heating and air, be sure to set the thermostat a few degrees higher or lower depending on the time of the year. A programmable thermostat works best, but you can do the same with a manual one. You may be tempted to change the settings extremely low? since you will be gone, however, this can actually use more energy since the appliances will have to work all the harder when you return in order to get your home back to the right temperature.

The refrigerator is one of the costliest appliances in your home. Of course, if you are going on a short vacation, you will need to leave it running. However, if you will be leaving for an extended period of time, consider removing the food items and unplugging the refrigerator altogether. This can save you a great deal of money.

## USING LESS HOT WATER

Hot water heaters can be a great energy drain, and when hot water is used throughout the day, these appliances have to work constantly. There are many things you can do in order to save hot water, and save energy in the process.

Taking showers instead of baths, especially with energy efficient showerheads, will cut the amount of hot water used in half. Additionally, while shaving, washing up or brushing teeth, always turn off the faucets unless they are needed.

In the kitchen, run a pan of rinse water if you are washing the dishes by hand. This way, you will not be letting hot water run down the drain each time you need to rinse dishes. Make sure you fill up your dishwasher and only run it when you have a full load of dishes so that it will be used less frequently.

Use the cold water cycle on your washing machine. This is also a great way to keep your clothes looking bright and new. It will save you a great deal of hot water as well, so look for the setting marked “cold/cold” on your washing machine and use it at all times.

## TIPS FOR THE SEASONS

In order to become the most energy efficient, you will need to change your plan of action for the seasons. This means taking different things into consideration during the fall and winter than you do during the spring and summer. Here are some easy tips for each of these sets of seasons.

### FALL AND WINTER

At the beginning of each fall, double check the weather stripping and seals around all exterior doors and windows. This weather stripping can become damaged, and if it does, you could have cold weather drafts that cost you precious heating energy. Weather stripping is easy to replace and can be done so within an afternoon.

If you do have a draft under a door and you cannot replace the weather stripping consider purchasing a draft guard, which will block the cold air from coming into your home.

Do not waste money on heating rooms that are rarely used. You can close vents to rooms like laundry rooms, garages, spare bedrooms, and closets. This way, the heat will go to only the rooms that you are actually using. If you cannot actually close the vents, you can purchase magnetic vent covers that will serve the same purpose.

Electric companies tend to charge more during the coldest months when the most people will be using electricity, which causes a drain. You can take advantage of this knowledge by conserving electricity during daytime hours. Choose to wash dishes and clothes during the evenings when the power is set to off-peak.

## SPRING AND SUMMER

Install ceiling fans in the most used rooms. These fans use only a fraction of the energy that an air conditioner will and they can stave off the need to run the unit by a big margin. Unless it is unbearably hot, run these ceiling fans through the day and save energy by avoiding turning on the air conditioner.

During daytime hours, make sure the blinds, curtains and drapes are closed in all rooms since the sun provides a great deal of heat. Do not leave any windows uncovered and you can even consider purchasing blackout curtains which are extremely energy efficient. However, make sure those curtains or drapes are not blocking air conditioning vents.

On air conditioner returns, always replace the filter on a regular basis, and make sure the return grate itself is clean and dust free. If your refrigerator has exposed coils, keep them clean and dust free as well. Always keep your clothes dryer lint filter cleaned before each load of clothes.

Only run appliances that use heat at night when the air is the coolest. These appliances include clothes dryers, dishwashers, and stoves or ovens. If your dishwasher has a timer, set it to run late at night when the house is cooler so that it will not add more heat and make your air conditioner run more.

## SOLAR ENERGY

As more and more people are turning to solar energy for their homes, you will find more and more products are available that make use of it. Of course, for the most energy efficiency, solar panels can be installed that will actually cut out your home's need for electricity. However, this can be costly. If you are not ready to make the complete change to solar, there are also small things that you can do to make use of the sun's power.

If you have decorative lighting outdoors, like lights along your driveway or walkway, choose solar cell lighting instead of electric. These lights are relatively cost friendly and they can provide the same amount of light while using zero electricity.

Water features and fountains that you may wish to include in an outdoor garden can even be found in solar models. Since these water features generally are running all of the time, choosing energy efficient solar models will cut down on electricity costs immensely.

Make use of the sun to heat your swimming pool as well. Uncover the swimming pool during warm days to allow the sun to heat it and consider purchasing a solar pool pump, which will save drastically in electric costs.

There are actually numerous devices and appliances in your home that can make use of solar energy without the cost of a full solar conversion. Each one of these that you choose can save you a great deal of money in the long run.

# CONCLUSION

We all need ways to save money and finding methods to crunch your budget do not have to ruin your way of life. Many people think that to tighten the budget belt, they must give up things in their life that they consider fun or entertaining. However, you can drastically affect your electric bill without noticing any difference in your every day life. You can do this by making the changes listed in this guide.

Whether you choose to implement just a couple of these tips or all of them, you can save yourself money. In fact, the more changes that you make, the more drastic the difference will be. If you work to make your home the most energy efficient possible, you can save yourself and your family thousands of dollars in energy cost. Just think what you can be using all of that money for and you will find yourself wanting to get started on those changes right away.