

More **Home
Efficiency
Secrets**

**More Ways
To Reduce
Your
Energy Needs
Step By Step**



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Introduction

Heating bills are going through the roof and electric bills are not much better. Because of the high prices charged to heat or cool a home, it pays to make your home more energy efficient. But how do you go about doing such a thing?

Making your home more energy efficient is a lot easier than you might expect. In this book, we will reveal ways to make your home more energy efficient in many different ways. If you truly want to have an energy efficient home, you will find dozens of tips on how to get your home running in a more energy efficient manner.

If you think that this is too much work, think again. Most of the tips offered in this book are easy enough to practice and can be done by just about anyone. We will go over some large repairs and replacements you can make, room by room, but we will also go over things that you can do yourself that cost little or nothing to make your home more energy efficient.

Take a look at your house. Is it as energy efficient as you would like it to be? What about your heating bills - are they high or are you saving money? Are your electric bills through the roof or are they moderate? If you are like most people, you struggle with high utility bills for heating and cooling the house. Have you ever realized that a lot of the money you are spending on utilities is going right out the window?

Instead of spending money on utilities, you can spend it on making your home more energy efficient. In addition to saving money on your utility bills each month,

you can also add value to your home. An energy efficient home is something that most people want and many of the renovations that you make will not only save you money and add value to your home, but may allow you to take a deduction off of your taxes as you try to conserve energy.

Making your home energy efficient is a win win proposition. There is no reason to toss good money out the window by having a drafty house that allows heat and cool to escape. Once you have made your home more energy efficient, you will probably wonder how you managed to get along without these handy tips all this time.

Chapter 1 – The Kitchen

Take a look at your kitchen and what do you see? Do you have windows and if so, what type of windows? How old is your refrigerator and oven? What about your microwave oven - is that old or new? Do you have ceiling fans installed in your kitchen? What type of light bulbs are you using in the light fixtures? Do you have a dishwasher and, if you do, how old is the unit?

If you have older appliances, such as an old refrigerator or dishwasher or even an oven, you might be paying more money in your electric bill or water bill than you need. Older refrigerators tend to really drain electricity. By replacing your old refrigerator with a new, more energy efficient model, you can generally save money on your electric bill.

According to General Electric, that makes electric appliances such as dishwashers and refrigerators, among other things, a person who has a refrigerator that is over 20 years old is paying about double on their electric bill to run the refrigerator than they would pay for an energy efficient refrigerator. This means that if you average about \$30 a month towards your 20 year old refrigerator, you can get away with paying \$15 if you switch to a new model that is energy efficient. Not only would you get a new refrigerator, but over a few years, the new refrigerator will pay for itself. Saving \$15 a month might not seem like a lot of money, but this can add up. After ten months, you will have saved \$150.

The same holds true for the dishwasher. Not only is an old dishwasher draining you from electric energy, but also probably your water bill as well. Older dishwashers use much more water than newer models, which adds to your water bill. By switching to an energy efficient dishwasher, you can save money in electric costs as well as water costs.

While using an oven in the winter can make the kitchen nice and toasty, using it in the summer can make the kitchen hot, causing your air conditioning to kick on, in some cases. You are better off to use the oven sparingly in the summer months. Instead of using the oven, why not use the microwave? This will not heat up the entire kitchen and can be just as effective.

Another way to save energy in the kitchen during the summer months is to use a crock pot. You can cook your dinner without the use of the oven and not cause the air conditioner to go on.

Making your kitchen more energy efficient is more of a state of mind than a series of home repairs. By being conscious of the energy that you are using in the kitchen, particularly when it comes to the different appliances, you can end up saving money on your heating and electric bills.

If you do not have a ceiling fan in your kitchen, install one. A ceiling fan can circulate both cool and warm air throughout the year. Since kitchens often have a light fixture that affixes to the ceiling, it is generally easy to install a ceiling fixture that has a light kit attached in the kitchen. This will allow the air in the kitchen to circulate.

What else can you do in your kitchen to make your home more energy efficient?

Take a look at your kitchen floor. Do you have ceramic tile, wood or linoleum?

Although linoleum is the cheapest of all of these types of flooring, it is also the warmest. If you are looking to save money and energy, switching to linoleum flooring the next time you need a floor in the kitchen can save you money in both heating and air conditioning. As tiles seem to grasp onto the cold and reflect it, they may look nice, but are not heat conductive.

In addition to your kitchen floor, take a look at the type of light bulbs you are using in your light fixtures in the kitchen. Are you aware of the new light bulbs that are more energy efficient? They are not only more earth friendly as they emit less toxins, but they last about 10 times longer than traditional light bulbs and use about one third of the electricity. It is estimated that you can save about \$30 during the lifetime of the light bulb. If you replace the light bulbs in your kitchen alone, you are striving towards making your home more energy efficient.

How does your kitchen faucet work? Does it leak or drip? If so, you should replace the faucet. Leaking faucets end up wasting a substantial amount of water during their lifetime. The amount can be about \$100 a year in water costs. You are better off to invest in a new faucet that will not leak if you have a leaking faucet.

Making some simple adjustments in your kitchen, you can end up making the room more energy efficient. While a new refrigerator and dishwasher can be costly, getting energy efficient appliances can be something you should consider when it comes time to replace these items. The same way with the floor - you do not want to tear up a floor just to make the room more energy efficient. However, when the time comes to replace any items in your kitchen, think about those that will be more energy efficient than any others.

Chapter 2 – The Bathroom

What type of toilets do you have? If you have not yet switched to those that use less water, you should as they save water and energy. Water saving toilets are but one way that you can make your bathroom more energy efficient.

Installing a new shower fixture, or hand held shower massage, in the bathroom is simple. So simple that anyone can do this. This can end up saving you money on your water bill, especially if the faucet is older and has been dripping. Not only will you get better water pressure for your shower, but you will save money on your water bill as well.

New toilets and faucets are just one thing you can do to make your bathroom more energy efficient. These improvements are not costly, but can save you hundreds of dollars a year with regard to water costs. Other tips for making your bathroom more energy efficient are to incorporate throw rugs on the bathroom floor. While this will not make the room more energy efficient, it may stave off any temptations to turn up the heat in the winter time because of the “icy bathroom floor.”

You will also want to use energy efficient bulbs in the bathroom as well. Energy efficient bulbs should be used everywhere in the house.

Bathroom faucets that are leaky should also be replaced. When speaking about saving energy in the bathroom, water is the type of energy that will most likely be saved when renovating a bathroom.

Chapter 3 – The Windows

How old are the windows in your home? If you are stuck with older windows that include storm windows, you may want to consider getting energy efficient replacement windows. There are many different types of replacement windows available and getting these windows adds value to your home. There are only a few things that can add actual value to your home and new windows is one of them. In some states, new windows will give you a rebate on your heating bill.

Unlike windows that were used years ago, new windows are made with energy efficient glass. There is no need for storm windows as all new replacement windows are double glazed and have panes of glass that are much thicker than those made years ago. Today's replacement windows are energy efficient and keep out the cold air as well as the hot air.

Energy efficient windows can be found at a variety of different places, including online. You can order energy efficient windows and even install them yourself. The first time you install a window, it may prove difficult, but after that, it is something that you will learn to do with ease. You need only to have the most basic carpentry skills to complete this task.

Installing Replacement Windows Yourself

If you want to save money, you can learn to install replacement windows yourself. You will first have to order the replacement window. You may be better off to order one window if you are unsure how to install the window or about the measurements. Most windows are measured from the inside of the frame. When you order your window, you can ask how you should measure.

If you order your replacement window online, you can find out from the online store what is the best way to measure the window. This will give you a better idea on how to measure. Keep in mind that most older windows are standard sized windows.

Once you receive the replacement window, you need to remove the existing window. In order to do this, you need to remove the wood trim surrounding the window. Keep this in one piece as you will most likely put this back on the wall after you have installed the new window.

After removing wood trim, you can then see where the window is affixed to the wall. Remove any nails and push the window out. Chances are that it has been in the wall for a while and may be difficult to budge. You want to get the window out without breaking the glass and causing a mess, so push gently until the window begins to come free.

If the windows are double hung windows, you may be able to remove one of them from the track, which will make it easier to remove the other window. You have to make sure the entire is removed and that the space is clear of any debris.

After you have removed the old window, you can put the new unit in the area where the old window once was. You should have a level to make sure that the window is sitting right in the opening. If the window is a little off or uneven, you need to put a wood shunt into the opening. Above all, you want to make sure the window is in levelly or it will not open and shut properly.

Once the window is in the opening and is level, you need to affix it to the wall. Make sure that it opens and shuts properly and is secure before replacing the wooden trim around the window. The entire process can take about an hour and a half.

After you have finished replacing the window, be sure to caulk around the outside of the window as well as the inside to eliminate the possibility of any draft getting into the house. Remember that installing replacement windows is supposed to eliminate drafts in the house.

When you have replaced one window on your own, you may decide to replace all of your windows. If the job was not too difficult for you, you can then order the rest of the replacement windows, have them delivered and commence with the entire replacement process on your own.

You can generally save quite a bit of money if you order replacement windows online. You can eliminate any sales commission and go right to the source - which is the manufacturer that makes the replacement windows. In most cases, you may be able to save more than \$2,000.

It can be well worth the time invested installing your own replacement windows, particularly if you are on a budget. Anyone with basic carpentry skills and tools should be able to accomplish this feat.

In addition to replacement windows, you may also want to consider getting a replacement patio door. If you have an old patio door, you may be allowing a draft to come through the glass. Replacing a patio door can be quite an endeavor and will most likely require the skills of a professional, or at least a friend who has accomplished this task before.

Windows are usually installed by carpenters. If you do not want to install the windows yourself, you can hire a carpenter to do the job for you on a cash basis and generally save a bit of money than if you just have the window installation company do this.

By purchasing the replacement windows online by yourself and installing them on your own, you can save several thousand dollars in the cost to getting replacement windows. Once the replacement windows have been installed, you will not only have created a more energy efficient home, but will also add value onto your home.

Chapter 4 – Existing Windows

If you want to make your home even more energy efficient for the winter, you should caulk around the existing windows prior to winter. This is not difficult to do and can be done as a weekend project. Simply get a caulk gun and a few tubes of window caulk at the local home improvement store. Begin with the outside of the windows and caulk around the windows to make sure that they are sealed. Many older windows tend to lose the caulk after a certain period of time and need to be caulked again.

When you re-caulk the windows, be sure to scrape away old caulk as this may prevent the new caulk from drying properly. You can do this with a razor blade as you move along. You are better off to do it in sections in case you have to stop for a while and leave the window uncaulked.

Caulking is not a difficult job to do and once you have finished the outside of the windows, you can then do the inside. This will prevent a draft from coming in through the gaps in the wooden frame of the window.

In addition to sealing your windows with caulk around the outside, you can also make it a point to use plastic over the inside of the windows in the winter to seal them from the cold. Plastic is sold at home improvement stores and will keep any drafts out of the window. It can be applied with a heat gun so that it still looks clear from the outside, or you can use plastic that is tacked against the inside of the window that will also keep the cold wind outside.

Still another way to make sure that your windows are sealed for the winter is to use thermal curtains or blinds. These add yet another protective insulation layer to the windows in keeping the cold weather out.

By using caulk on the inside and outside of the window joists as well as using a plastic barrier and thermal window treatments, you can effectively eliminate all of the hot air you are losing that is escaping out of the windows in the winter and thus making your home much more energy efficient. Whether or not you have energy efficient windows or not, you should still make it a point to caulk around your windows each year and cover them with heat plastic and thermal window coverings in the winter month to keep any draft from entering the house.

If you do practice any of the above techniques, chances are that you are losing money in heating costs each year by literally throwing it out the window. It takes about two hours to prepare your windows for the cold weather and it is well worth the effort.

Chapter 5 – The Doors

What type of exterior doors do you have? Are they old, wooden doors? Or are they new, energy efficient steel doors? By replacing your doors, you can save hundreds of dollars on your heating costs. Replacement doors are a bit more expensive than windows, but much easier to install.

You can get replacement doors with a steel core at any home improvement store or you can even purchase them online. By purchasing them online, you can usually save money. Look for energy efficient steel doors and measure the type of door that you need. Chances are that you need a standard sized door. A special order door may be a bit more costly, but a steel door cored door will help keep all of the draft out of the house.

Just because the door has a steel core is no reason for it to look unattractive. Most of the doors have a wood finish or wood look to them. Steel doors come in a variety of different styles and colors. Some come unpainted and have to be finished before installation.

If you have old and drafty doors, chances are that you are losing heat each winter. It is a smart thing to replace them. Not only will you be making your home more energy efficient, but you will also be making your home safer. Unlike wooden doors, steel doors are impossible to kick in, so in addition to saving money, you will be also making your home safer for you and your family.

Installing a door is easy enough. Simply remove the old door and put the new door in its place. You will probably want to change the hardware and locks, as well. These items are easy to install and relatively inexpensive at your local home improvement center or online.

Once you have installed the new door, you should make sure that you caulk around the woodwork outside and in, to make sure that it is sealed properly.

Another thing you can do with your doors to make your home more energy efficient is to install a screen door. A screen door is not only a good idea for the warm weather when you can open the main door and allow some air to circulate in the house, but it will also protect your house from the cold. The screen door acts as a barrier in the cold weather, further protecting your home from the cold and wind. Most screen doors come with insulated glass that gives double insulation at the door area.

You should also be sure to check under the door for gaps. Most doors have a gap underneath, especially older doors. If you are not going to replace the door, you should invest in a weather stripping kit. This will allow you to fill up any gaps between the door and the home. Weather stripping is relatively easy to do and well worth the extra effort. Weather stripping can be done on both doors and windows and will make your home more energy efficient in both the winter months and the summer months.

If you cannot afford a weather stripping kit or do not want to embark on this venture, you can shove some sort of towel or a blanket under the bottom of the door to keep the draft out. There are items called “draft dodgers” that you can get for this purpose. These will work to keep the house less drafty in the winter,

however, you will not be getting the advantage of weather stripping in the summer.

In addition to sealing the bottom part of the door against drafts you can also make sure you caulk around the door on the outside and inside to seal out any moisture or draft that can come through the door. Caulking is a good idea around all windows and doors on the outside of the house and the inside to keep the drafty weather on the outside, where it belongs.

If you have a screen door, or storm door as they are called, make sure that you have thermal glass and that you remove the screens for the winter. In the warmer weather, you can put the screens in the screen door and save on cooling costs by allowing the fresh air to circulate in the house.

Another door you should look at is your garage door. If you have an attached garage, you will want to make sure that they garage door is insulated. This can keep the garage from getting cold and drafty and save on energy, especially if you have a heated garage. A garage door can be an expensive replacement and usually runs around \$500, with installation for a two door garage door. However, if you are thinking of replacing a battered wooden garage door, you should ask for an energy efficient garage door. An energy efficient garage door is made of steel and will keep the drafty, cold weather outside. In addition, a steel garage door will also last a lot longer than a wooden garage door and is maintenance free.

If you have an attached garage, you can make your house more energy efficient by not only sealing the doors and windows in the house, but also in the garage as well. This will keep the garage warmer and thus, the house warmer.

Do not neglect the door that opens to the garage. You should make sure that you seal this door as well. If it is a newer utility door, it is most likely made out of steel and is insulated.

Insulating all of the doors in your house is a good step towards making sure that the house is more energy efficient. If you do not have the money to replace the doors or install a storm door, you can at least caulk around the doors on the inside and the outside and also use draft dodgers under the doors to eliminate any draft.

It is not that difficult to seal your doors for the winter and each winter, this should be done. Not only will this maintenance keep your home more energy efficient by keeping cold weather out, but it will also allow your doors to last a lot longer.

Replacing old, wooden doors with steel core doors can be beneficial for both energy and safety in your home and is well worth the cost of the new door, which is easy for just about anyone to install himself.

Chapter 6 – The Attic

Do you have an attic fan? An attic fan can make your home more energy efficient in the summer time as well as the winter time. The attic fan circulates the air in the attic. In the summer, it will suck all of the hot air out of the house. As hot air rises, it will be the hottest in the attic of your house. An attic fan will cool the house down in seconds if you turn it on as the fan will take all of the hot air and emit it outside.

If you have a walk in attic, you should take a look at the insulation. How long has it been since the attic has been insulated? If the attic is unfinished and the house is an older house, as is the case with many houses with walk in attics, chances are that this room is cold in the winter and very hot in the summer. That is because it is not properly insulated.

Using proper insulation is tantamount to having an energy efficient home. If your attic is still sitting with the same insulation that was in there when the house was built, it may be time to change the insulation. Newer insulation is much more efficient when it comes to saving energy. In most cases, it pays re insulate the attic if the insulation has not been changed in many years.

If there are windows in the attic, do not neglect them, either. Make sure they are sealed and protected against the draft. By sealing the attic and using prime insulation, you can make your home more energy efficient. If you have a crawl attic, you should invest in an attic fan that will remove all of the hot air in the summer from the house. Both of these methods will serve to making your home much more energy efficient.

Chapter 7 – The Hot Water Heater

When was the last time you checked the temperature on your hot water heater? Chances are that the temperature is set way too high. You don't really want to scald yourself in the shower, do you? And you should never use hot water out of the tap for cooking as it can contain lead. What is the point of having the hot water heater turned up that high?

Yes, you want to make sure that you have hot water for showers and baths and to wash dishes, but that doesn't mean you have to have boiling water all of the time. By lowering your hot water heater temperature by a few degrees, you can make your home more energy efficient. You can save on your heating bill with this small change. Even lowering your hot water heater one notch can make a difference in your bills.

In addition to making the house more energy efficient, lowering the temperature on the hot water heater can be safer, particularly if you have children in the house. Each year, children are scalded with hot water because it is turned up too high in the house. If you lower the temperature on your hot water heater, you can run less of a risk of having one of your children scalded.

You can cut down on your heating bills by limiting your shower time. Set the timer for five minutes and make sure that you are out of the shower in that time period. By limiting the amount of water that you use instead of taking an endless shower, you can normally save money on your water bill each month. Chances are, if you are taking a long shower each day and you decide to limit it to five minutes, you will save about \$200 a year on your water bill.

Making your house energy efficient is one way to save energy but making yourself energy efficient is even more effective. Develop a mindset to where you are determined to save money on your energy costs and watch how the bills start to decline. As long as you are conscious of the energy that you are using, you will be able to cut the costs.

Chapter 8 – The Furnace

When was the last time you had your furnace cleaned? When was the last time you changed the filter? If you have not done this, you are probably wasting quite a bit of energy and not allowing your furnace to run as efficiently as it should.

The furnace should be cleaned each year in order for your home to be more energy efficient. You should call a heating and air conditioning contractor to have him clean the furnace. Most heating and air conditioning contractors have specials at the beginning of the autumn to clean the furnace.

In addition to cleaning the furnace, if you have gas forced air you should make sure that you clean the air ducts as well. These can be vacuumed out if you have a hose attachment to your vacuum cleaner. Most furnace repairmen or heating and air conditioning contractors will do this service for you at a small charge. Those services that clean carpeting also provide air duct cleaning.

Cleaning the air ducts and furnace is crucial to maintaining an energy efficient home. This will not only allow the furnace to run properly, but will also distribute cleaner air throughout the home.

Changing the filter on the furnace is also very important and it should be changed once a month. There are several different types of filters on the market today and some of them are more energy efficient than others. There are also filters that are not disposable and can end up saving you money. These must be washed, however.

If your furnace is more than 20 years old, you should consider the possibility of getting a new, energy efficient furnace. Most of the newer furnaces are much more energy efficient than their older counterparts. While a new furnace can be quite an investment, it will normally end up saving you money on both your heating and, if you have central air conditioning, your air conditioning costs as well. The fan will work more efficiently and the entire unit will be more effective.

A new furnace can be a bit costly, but can really end up saving you money as today's furnaces are more energy efficient than those built 20 years ago.

However, if you take care of your furnace, get it cleaned on a regular basis, change the filters and clean the ducts, you can make your current furnace even more energy efficient.

If you have hot water heat in your home that comes from a boiler, you can also make the boiler more energy efficient by having it serviced once a year. The lines in the boiler can be bled to make sure that the unit runs more efficiently. Boilers heat a home through hot water heat which is distributed through radiators and floor units. This is a cleaner heat and generally more energy efficient as it uses less heating fuel. Boilers are not used in many homes today because they do not allow the possibility of central air conditioning. Most homes that have boilers do not have central air conditioning and have window units. This is because there is no where for the central air conditioner to distribute cold air, as there are no heating ducts in the house.

Furnaces and boilers should be serviced each year by someone who understands how they operate. Bleeding the lines of a boiler is not difficult and will make sure that all of the air bubbles are out of the lines so that the hot water can be

distributed evenly. Cleaning a furnace is something that most furnace companies offer for a small cost and is well worth the money.

By taking care of your existing furnace and boiler you can make your home more energy efficient. When it comes time to replace the boiler or furnace, make sure that you get one that is energy efficient and you will see your heating costs plummet.

Chapter 9 – The Air Conditioner

When we talk about making a home more energy efficient, we often think about what we can do to keep the cold weather out and warm weather in. There are times, however, when we want to do just the opposite. It is just as important for a home to be energy efficient in the summer months as it is during the winter months, especially with the rising cost of electric energy.

Most air conditioning units run on electric energy. They work by using Freon, which is a solvent that causes the air that is blown by a fan to get cold before it is distributed into the house. Many air conditioner units, especially older units, run out of Freon and need to be re-charged. If the air conditioning unit is out of this solvent, or has a leak, chances are that the unit will run and run but you will not feel any cooler. The unit will have to run three times more than normal in order to get the same effect. You may not realize this is happening, depending upon the levels of Freon in the unit. Obviously, if the unit is completely out of Freon and the house isn't getting any cooler, you will notice that something is wrong. However, if the unit is simply low on Freon and the house is maintaining a cool temperature, you may not realize that your air conditioning unit is working extra hard to make the house cool.

By getting your air conditioning unit serviced on a regular basis, you can save yourself quite a bit of money in electricity charges. If the air conditioner is low on Freon, the heating and air conditioning contractor can re-charge it for you at a fraction of what you will pay in your first electric bill when running an uncharged air conditioner.

If your air conditioner needs to be replaced, you should look for a unit that is energy efficient. Most air conditioning units made today are much more energy efficient than those made years ago. When it comes time to replace your air conditioning unit, you will most likely be surprised at the amount of money you will save in your electric bill with a new air conditioning unit.

If you have window air conditioning units, you may think that you cannot do anything to save on energy. If these units are affixed to the house, you should make sure that they are cleaned properly to keep them working in good condition. You should also make sure that you caulk or weather strip around the unit so that you do not lose any cold or warm air.

Window air conditioning units that are removable should be removed each winter and stored in a safe place. The unit should be cleaned and kept clean until the time when it goes back into the window. Most window units have screens that cover the opening in the window to prevent the cool air from escaping. These screens are not energy efficient at all. You are better off to cover the part of the open window that holds the air conditioning with pieces of insulation. While this may not look that great, it will do a better job of keeping the cool air in the house than the flimsy screens that come with window air conditioning units.

Installing overhead fans in your rooms is another way that you can save on energy costs. Overhead fans can not only spread cool air throughout the house, but warm air as well. They are a smart choice when it comes to making your home more energy efficient and run on a fraction of the electricity of that of an air conditioner. They are usually inexpensive and have light kits that can be attached to them to make a light in the ceiling as well. By using these type of fans, with energy efficient light bulbs in the light kits, you can save on energy in your home.

The fans can easily be installed if you have an electric connector in the ceiling. If you do not have a place in your ceiling for a light fixture, you will have to have an electrician come out and pull the wires for you so you can install a ceiling fixture. In most cases, the electrician will be able to do this in a day. The charge for such a service is usually around \$100 for each room in which you want a ceiling fixture.

You can also use oscillating fans to move air from room to room before you turn on the air conditioning in the summer. Fans can do wonders when it comes to cooling things down in the house and run on a fraction of the electricity of an air conditioning unit.

Chapter 10 – The Thermostat

Check out the type of thermostat that you have in the house. If it is an older thermostat, you should replace it with a programmable thermostat. A programmable thermostat is generally available at any home improvement store for under \$100 and can work to save you energy on your home.

A programmable thermostat can give you an accurate temperature in the house at any given time. Instead of turning the thermostat up and down all of the time, wasting energy, you can have it on a timer. During the day, the temperature can be less comfortable in the house than in the evening when everyone is home. By having the temperature on a timer, you are effectively making your home climate controlled and saving energy.

If you have an old fashioned thermostat, chances are that there are times when it causes the heat or air conditioning to run when no one is even home. This wastes energy. Not only that, but if you are constantly turning the thermostat down and then turning it up, you are also wasting energy by making your furnace work harder. This is not only good for your heating and air conditioning bills, but is also bad for the furnace fan, which gets more of a workout.

You are better off to have the temperature in your house climate controlled by using a programmable thermostat. This is a relatively easy instrument to install and can end up saving you money on your heating and air conditioning costs.

Keeping the house one temperature year round can be easy if you have a programmable thermostat. You can switch it from air conditioning to heating relatively easily. In the months where you do not need either heat or air conditioning, you can turn the thermostat off with a flick of the switch.

There is no need for the air conditioner to run all day when no one is home. While you do not want your home to be freezing when you are not at home, you do not have to have it as warm as when you are in the house. A climate controlled environment will end up saving you money in your energy bills and is one of the first steps to undertake when trying to make your older home more energy efficient.

Chapter 11 – The Siding

Most people like aluminum siding, fascia and gutters because they make the exterior of a home maintenance free. However, aluminum siding and fascia can also save you money on your heating and air conditioning bills and work towards making your house more energy efficient.

There are a few things that you can do that will make your house more energy efficient as well as add value to the property. This includes getting a new furnace or air conditioner, getting energy efficient replacement windows and getting aluminum siding and fascia. Chances are, if you are living in an older home with wooden fascia and siding, you are losing heat as well as cool air.

Aluminum siding does more for your home than just make the siding maintenance free. It tends to insulate the house against the cold and hot weather. Unlike wood which is porous, aluminum siding acts as a barrier against the cold. It is just one more thing you can do that will add value to your home as well as make it more energy efficient.

Aluminum fascia seals the fascia that surrounds the house. Wooden fascia will start to get holes in it after a while and look worn. Aluminum fascia is one way that you can seal up the eaves of the house and keep any cold air from getting in.

Most people wait to get aluminum fascia and siding until they are ready to paint the exterior of the house. When compared to getting a maintenance free exterior, they find that they can save money if they get siding instead of just painting the wooden siding every few years. In addition to saving money on future maintenance cost, they have added value to their home.

When most people think about adding value to their home, they think about making cosmetic changes such as new carpeting and flooring and painting rooms. While this may make your home more pleasing to the eye and easier to sell, it does not add on to the appraised value of your home. There are certain things that you can do to add on real value to a home and making your home more energy efficient as well as giving it a maintenance free exterior by getting aluminum siding, fascia and gutters is one of them.

Chapter 12 – The Roof

What type of roof do you have on your house? How long has it been since you replaced the roof? Your roof should be replaced every ten years, to avoid leaks. If you live in an area where it is hot, you probably have clay shingles that are heat resistant. If you live in an area where there is both cold and hot temperatures, you probably have shale shingles.

Newer shingles that are on the market are more energy efficient than the older shingles. You can re-shingle your roof twice before you have to get an entire new roof. An entire new roof consists of taking off all of the existing shingles and replacing the tar paper. In some cases, rotten wood must also be replaced. A new roof can be a very costly endeavor. You should get a new roof on your home after about 30 years.

If you are planning on getting a new roof, you will most likely get more energy efficient tar paper as well as shingles. Shingles and tar paper made today is much more energy efficient than those made in the past. However, this is a very expensive project and one that is not normally done more than once in the lifetime of a single owner in a home.

More likely, you will re-shingle your roof. This can not only give your roof a nicer looking appearance, but will also make your home more energy efficient. Because the shingles used today are more energy efficient than those used even ten years ago, you will be not only adding value to your home by re-shingling your roof, but you will also be making your home more energy efficient.

There is quite a difference in price when it comes to re-shingling and re-roofing the house. Re-shingling the roof usually will cost around \$2,000. Getting an entire new roof will cost around \$10,000. These prices are an estimate, but you can clearly see the difference.

Adding a new roof, however, does add on to the appraised value of your home. While this is not something that anyone would do just to make their home more energy efficient, you should realize that by undertaking such a project, you will be sealing your home more efficiently against the elements. Getting a new roof will fall into the “energy efficient” category if you choose to get an energy loan for your home.

Chapter 13 – An Energy Loan

Some banks and lending institutions are making energy loans for homeowners. The purpose of these loans is to lend homeowners the money that they need to get their homes energy efficient. If you are planning on making any of the changes that have been discussed so far in this book, you should take a look at the different energy loans that are available on the market today.

An energy efficient loan will give you the money that you need to make home improvements that will save you money on your energy bill. Banks are very eager to make these loans that are backed up by Fannie Mae, a government subsidized lending program. The loans will enable you to do the following:

- Get a new energy efficient furnace
- Get a new energy efficient hot water heater
- Get new energy efficient windows
- Get new energy efficient siding or fascia
- Get a new energy efficient roof
- Get new energy efficient appliances

You can apply for an energy loan easy enough, either online or at your local lending institution. This will give you the money that you need to make improvements in your house that will count towards not only making your home more energy efficient, but also towards adding to the value of your home.

You can get a loan based upon the new value of your home, if you are doing extensive renovations, or based upon the value of your home at the present time. If you have been in your home for a while, you may be surprised at how the value of the home has increased over the past few years. The energy efficient loans are usually given at a lower rate than an ordinary home improvement loan and are also given for more money than you would normally be eligible to borrow on an ordinary home improvement loan. The reason for this is to give you an incentive to make your home more energy efficient.

No one wants to deal with sky rocking costs for heating and electricity, but we have no choice. The cost of heating fuel has been a problem for quite some time and the cost of electricity is not much better. Saving energy has been a goal of most companies that provide items that run on energy for the past 40 years. We notice that products that we use for our homes, such as household appliances, are now much more energy efficient than years ago. And companies that make these products are still working towards making them even more energy efficient than ever.

It is a smart idea to make your home more energy efficient. Whether you just choose to change your light bulbs and use energy efficient light bulbs, or if you decide to take out a loan and renovate your entire home, you will be working towards saving energy and lowering the cost of your heating and air conditioning bills. On top of that, you will be doing the entire world a favor by not using so much energy. By conserving energy, you will be helping the rest of the world towards the goal of being more energy efficient.

Chapter 14 – The New House

We have talked about what we can do to make an existing home more energy efficient, but what if you are planning on building a new home? Chances are that your new home will be more energy efficient than you could have imagined as today's home are built to be energy efficient.

However, there are still some things that you can do when building a new home to make sure that it is more energy efficient. In some cases, these upgrades will end up costing you less than you will pay for the difference in heating and air conditioning costs.

House Wrap

Most new homes today have house wrap, such as Tyvek. The house wrap is used to better insulate the home from the elements. House wrap began being used in the 1980s. Prior to that, house wrap was something that most people didn't even know existed.

House wrap comes in many different types. There are those that are more energy efficient than others, but this type of house wrap is usually more expensive. If you are building a house, make sure that you include house wrap. If you can possibly upgrade the house wrap to a higher standard and one that is more energy efficient, you should do so.

House wrap is not a very expensive addition to your house, but if you are having the home built by a separate contractor, he is probably using the least expensive house wrap on the market. You should find out what type of house wrap he is using and upgrade to one that is more energy efficient. This may cost you an additional \$500 on the price of your home, depending up the size and the cost of the upgrade, but can end up saving you money in the end. If you want to get your house as energy efficient as possible, make sure that you use the top of the line when it comes to house wrap. The additional money that you spend will be more than accounted for in your savings on heating and air conditioning bills.

Furnace and Air Units

If possible, see if you can use two air conditioning units and two furnaces; one for each floor of the home. If you are building a large, two story home, or are adding an addition on to your home, you can sometimes save money by having two air conditioning units and two furnaces instead of a large unit that will take care of the entire house.

The reason you can save money in this manner is based on the assumption that you will only run one of the units at a time. During the day, you can turn the upstairs unit off and just use the downstairs unit. In the evening, you can switch. In this way, you are only heating or cooling the rooms that you are using.

Most larger homes have more than one furnace and air conditioning unit. This is because one unit cannot possibly heat the entire home. If you add on to your home, you are sometimes better off to just get another air conditioning unit or furnace, instead of replacing the one that you already have.

If you are building a new home, look into the possibility of getting two units instead of one. The money that you save by not running one of the units all the time and just heating or cooling the rooms that you have, will be well worth the costs.

Insulation

What type of insulation is going to be installed in your new home? If you are like most people, you have no idea. You will leave this choice up to the builder. However, you can be making a mistake. For a few dollars more, you can often upgrade the insulation in your home to make it more energy efficient.

Builders will usually use the most inexpensive insulation on a new home in order to save money. If you ask about the type of insulation that they are using, you can be one step ahead of the builder in making your home more energy efficient.

Asking for an upgrade in insulation can make your home warmer in the winter and cooler in the summer. In most cases, the upgrade will only cost a nominal amount of money, but can save you money on your heating and air conditioning bills.

In addition to wall insulation that will be nailed in strips in between the outer wall and drywall of your home, chances are that insulation will be blown into the attic and eaves of the home. You should also make sure that you find out what type of insulation is being used in the attic. If you upgrade this insulation as well, you can generally save money in your heating and electric bills.

While most people have no idea that there is a difference between the type of insulation that is used in home buildings, those that do have the edge over builders as well as the utility companies. Upgrading the insulation in your home is one of the least expensive ways that you can make your brand new home more energy efficient.

Windows

We talked about windows when it comes to getting replacement windows for an older home, but what about windows for a new home?

Most builders will put the least expensive windows that you can get into your new home. As there are different types of energy efficient windows, some being more energy efficient than others, it behooves you to find out what type of windows are going to be used in your new home and asking for an upgrade.

Although you will have to pay the difference between the standard windows that come with the house and the upgraded windows, it will end up saving you money in your heating and air conditioning bills. Getting the best energy efficient windows is a smart move, particularly when it comes to building a new house. Not only will a better window keep your house cooler in the summer and warmer in the winter, but it will last longer than a cheaper window. You are better off to upgrade the windows at the start of new construction than wait ten years and then upgrade to newer windows.

When building your new house, be aware of the quality of the windows that are going to be used and, if at all possible, upgrade the windows to a better quality. It may cost you some money up front, but will end up saving you money in the long run when you have more energy efficient windows.

Floor Padding

If you are going to get wall to wall carpeting in your house, you should check out the different types of floor padding that you can get under the carpeting. In most cases, the floor padding can be either very thick or thin, depending on how much you are willing to upgrade.

Most people upgrade their carpeting and flooring in their new home. They want the thicker padding because it feels better on the feet. However, a thicker padding can also be more energy efficient.

Even if you cannot afford to upgrade the carpeting in your house, you should upgrade the padding. The thicker padding will make your floors feel warmer in the winter, and will better insulate the carpeting. Upgrading the floor padding is not very expensive and will actually make your carpeting last longer as well make your home more energy efficient.

Hot Water Heater

Make sure that the hot water heater that the builder is installing is an energy efficient model. Again, most people will not bother about the hot water heater, just as long as it works. By getting a larger tank, you can sometimes save money on heating. If the tank is not large enough, it will continue to fill and reheat repeatedly throughout the day. This ends up costing you money in both water and heating costs.

If you have a larger hot water tank, you only need to heat the water and fill it once a day, which ends up saving you money. If you have a large family or plan to do a lot of washing dishes or laundry, make sure that you find out about upgrading your hot water heater to a large model.

By choosing a larger model hot water heater, you will only be out of pocket about \$100, but the amount that you save on your heating and water bill will more than make up for this expense in less than a year's time.

Energy Efficient Toilets

Although you have learned about replacing your old toilets with new, energy efficient toilets, when you build a new house, you often just take what the builder is giving you. By asking for more energy efficient toilets, you can save money on your water bill.

Energy efficient toilets usually use less water than their energy using counterparts. Most builders will put a standard toilet into a new home. By asking to upgrade to a more energy efficient toilet, you can end up saving on your water bill.

The cost to upgrade to an energy efficient toilet is usually not that much more money. Chances are that it will only cost you about \$60 each toilet. This cost will be reflected in the savings on your monthly water bill.

Lighting Configurations

Try to make the most of your lighting configurations in your new house. By having recessed lighting in some rooms, you can save on the cost of lighting the room with lamps. By using the new florescent bulbs that are energy saving, you can save on your electric costs.

Developing a light scheme is done more for aesthetic purposes than for energy purposes, however, you can make your home more energy efficient if you seek to use natural light in rooms that can optimize this exposure. For example, if you have a choice to get a sun roof in upstairs rooms, or a skylight, you should opt for this choice. A skylight not only looks nice in the room, but also allows the maximum amount of natural light into the room.

You should try to design your home by incorporating as much natural light into the new home as possible. If you have an opportunity to get a skylight, you should do so as it will not only add value to your home, but will also give you more natural light in the room.

Using a greenhouse window in the kitchen is another way to incorporate natural light into a room. Wherever you can get skylights, solar panels or greenhouse windows, you should do so as it will generate more of a natural light flow into the room and make the rooms brighter, without the use of artificial light.

You should use light configurations to their maximum abilities in all of the rooms in your home in order to make the most of natural light. Allowing light into your rooms will make them brighter and will eliminate the constant need for artificial illumination.

Chapter 15 – The Appliances

Whether you are building a new home or buying appliances for an existing home, you should choose energy efficient appliances. By being aware of energy use, you can save money on your heating, electric and water bills.

There are many different energy efficient appliances on the market today. Most of the newer appliances that are made today are much more energy efficient than those that were made even ten years ago. Chances are that the appliances that are made ten years from now will be more energy efficient than today's appliances.

No matter what type of appliance you are seeking, you should make sure that you get the one that is the most energy saving for your money. Most people, when looking for an appliance, end up getting the one that is the cheapest or that looks the nicest. Few people give serious thought to how the appliance uses energy, but they should. In some cases, that \$50 that you saved on a dishwasher may be paid in your water bill dozens of times. If you don't like the idea of throwing money away on water bills, electric bills and gas bills, think about investing in an energy efficient appliance whenever you need a new washer, dryer, dishwasher, refrigerator or stove.

Washers

There are new European horizontal washers that are on the market today that are taking the world by storm. These washers are already used in most of Europe and take less than half of the water that is used in a standard washing machine.

If you want to save money on your water bills, you will get a new horizontal washing machine. These machines are usually front load machines that fill up half the way with water. The clothes are then tumbled into the water and washed, instead of the traditional way, with an agitator in a top loading machine. You can wash the same amount of clothes with a lot less water in a horizontal loading washing machine.

In addition to being more energy efficient, these new washing machines also do a better job in washing your clothes than their older counterparts. Because the clothes are tumbled instead of washed with an agitator, they do not wear out as quickly. This is not only a more energy efficient way of washing your clothes, but a gentler way to wash your clothes as well.

Dryer

Gas or electric? Electric dryers are cheaper, but gas dryers are more energy efficient. If you have gas forced air in your home, or gas hook up, you should invest in a gas dryer for your clothes. These use a lot less energy than an electric drier and are much cheaper to run.

If you want to make your home truly energy efficient, you will make sure that you have a clothesline strung up in your laundry room. This will enable you to use natural air to dry some of your clothes. Remember that being energy efficient in

your home entails the entire home. A clothesline can be used to dry clothes indoors and you can save the dryer for the times that you need to dry clothes quickly.

In addition, you can also use a clothesline outside. There is nothing like the smell of clothes that have been dried in the fresh air. There are fabric softeners that try to mimic this scent - why not get it naturally and dry your clothes outside whenever you can?

Dishwasher

You will want to make sure that you get a dishwasher that is energy efficient. All dishwashers are not created equally and some are a bit more energy efficient than others. Before purchasing your dishwasher, make sure that you study the energy guidelines for the particular dishwasher that you are buying.

Try to find a dishwasher that has a turn off when it comes to drying the dishes with hot air. Although you want to wash the dishes with hot water, you do not need to dry them with hot air. You can save energy if you opt to dry the dishes with cool air instead of hot air.

Look for a dishwasher that has an energy saving option. As long as you are washing your dishes with hot water, you are getting them clean.

Refrigerator

New refrigerators are more energy efficient than the old refrigerators. Plain and simple. When you look for a new refrigerator, make sure that you take a look at the energy saving options. You will want to get one that runs on less electricity and uses less cooling water than others. Instead of just looking at the appearance of the refrigerator, take a look at the energy information that is posted on the door. Get a refrigerator that uses the least amount of electricity and you will end up saving quite a bit of money.

Stove

Are you going to get a gas stove or electric range? Most ovens have an electric start up and then either run on gas or electric.

If you live in an area where you have both gas and electric capabilities, you have a choice as to what type of oven you want. Those with an electric range are usually cheaper than those with a gas stove. Many people choose an electric range because they are easier to keep clean, especially the newer models. Many others prefer the even cooking abilities of a gas stove.

Gas stoves tend to be cheaper to run than electric ranges. If you have a choice and want to be more energy efficient, you should choose a gas stove over an electric range.

Chapter 16 – Quick Tips

This book has given you excellent advice on how to make your home more energy efficient. However, these tips are all for naught if you do not have an energy saving mindset. In order to truly save energy in your home, you need to have the mindset that you want to save energy all of the time.

Some tips on how you can save money and energy in your home include the following:

- Put on a sweater. If you are cold in the winter time, wear some additional clothes in the house. While you should not be uncomfortable in your own home, you do not have to have it like a sauna in the winter. Putting on extra clothes and extra blankets on the bed will make you warm and are a lot less costly than turning the heat up. Keep your heat at about 68 degrees in the winter time and if you are cold, put on a sweater.
- Turn off lights. This may seem like common sense, but many people leave lights on in rooms where no one is in. By being conscious of the energy that you are wasting, you will begin to save money on electricity. If you have children, make sure that they know to keep the lights off as well as the televisions. There is no reason to keep a light on in a room or a television running when there is no one in the room.
- Use fans. Instead of putting on the air conditioner at once, put it on at last. Use fans for as long as you can in order to save on energy. Instead of

jumping to put on the air conditioner, you can put on the fans and save on electricity.

- Run the dishwasher full. Make sure the dishwasher is filled before you run it. It costs just as much to run a full dishwasher as it does one that is halfway filled. By waiting until the dishwasher is filled, you end up saving both water and electricity.
- Know what you want before you open the refrigerator. Nothing in the refrigerator is going to start performing, so there is no reason to continue to look inside as if you are watching a show. Knowing what you want when you open up the refrigerator is an easy way to save on electricity. The more you keep the refrigerator door open, the more money that is going down the drain in electricity costs.
- Wash clothes in cold water. If you use a good detergent, you can wash your clothes in cold water and get them clean. You do not have to wash clothes in hot water, with the exception of the towels and bed sheets, which should be washed in hot water. Washing your regular clothes in cold water will not only get them clean, but will make them last longer as well.
- Switch to energy efficient light bulbs. You can use the new energy efficient light bulbs and save a ton of money in both replacement costs as well as electricity. The energy efficient light bulbs will last about 10 times longer than ordinary light bulbs and use a fraction of the energy. They tend to cost a bit more than the ordinary light bulbs but are well worth the extra money.
- Hang clothes out to dry. Remember years ago when everyone had a clothes tree in their yards? People today rely on the dryer more than ever. It is

because we all want our clothes to be dried right away. However, using a clothes tree or clothes line to dry clothes outside, or inside on days where the weather is bad, can end up saving you quite a bit of money in heating and electric costs. If you have an electric dryer, you are much better off drying your clothes by air as this will end up costing you quite a bit of money. Use an electric clothes dryer sparingly.

- Skip the dry cycle in the dishwasher. You can allow your dishes to dry with cool air instead of hot air and they will be just as clean if you skip the dry cycle in the dishwasher. If your dishwasher has a button for “energy saver” on it, use the button. You will start to notice a difference in the amount of electric you are using right away.
- Wash pots by hand. Washing your pots by hand will end up saving you money in using your dishwasher as they tend to take up quite a bit of room in a dishwasher. If you wash the pots by hand, you can free up room in the dishwasher for more dishes.
- Open the oven door in the winter. In the winter when the house is cold, open the oven door after you are finished cooking. Allow that hot air to permeate the kitchen and seep through the rest of the house. The hot air that is in the oven is going to be there anyway after you are done cooking so you might as well use it. This is free energy.
- Use screens on windows and doors. Open up your house as often as you can to air it out. Not only will your house smell cleaner, but this is a great way to circulate air in your house and not rely on an air conditioner or fan to do so.

If you open up windows and doors from one end of the house to the other, you can circulate the air in the house.

- Close the door. If you have kids who run in and out of the door during the summer, give them a choice between in or out. Running in and out of the house during the summer allows the cool air to escape. You might as well not be running the air conditioner if you are going to have kids running in and out all day. Make the kids stay out or in or turn up the air conditioner so that you are not wasting electricity.
- Shut off vents in rooms not in use. If you have rooms that are not being used, make sure that you shut off the vents to those rooms. There is no need to heat or cool a room that is not being used; it is just a waste of money.

Making your home energy efficient takes both a mindset towards having an energy efficient house as well as the knowledge of the tips that are outlined in this book. By making it your business to work towards energy efficiency in everything that you do, you will end up saving quite a bit of money in your gas, electric and water bills.

Take a look at the bills as they are now and then start implementing your energy saving strategies. With each passing month, you will begin to notice a change in your energy bills. Take the money that you saved for each of the bills and put it in a special account. At the end of the year, you can use this money to take the family on vacation.

Saving energy can be fun and is something in which the entire family can participate. Make sure that your family is an energy saving family and that everyone works hard towards having an energy efficient house.