

**THE**

**ECO-FRIENDLY**

**HOME**



# Table of Contents

## **Introduction**

### **Chapter 1:**

*Greener Home Basics*

### **Chapter 2:**

*About Home Energy Audits*

### **Chapter 3:**

*About Energy Efficient Windows*

### **Chapter 4:**

*About Green Insulation*

### **Chapter 5:**

*About Eco Friendly Yards*

### **Chapter 6:**

*About Greener Appliances*

### **Chapter 7:**

*Finding a Green Home Builder*

### **Chapter 8:**

*Choosing the Plans for Building a Green Home*

### **Chapter 9:**

*Mistakes to Avoid*

### **Chapter 10:**

*The Benefits of a Green Home*

# Introduction

Being an environmentally conscious doesn't require much effort or investment. If you like to do your share but don't know where to start, your main goal is to create a perfect green home.

Have you ever dreamed to live in a green home? Then, you will surely be surprised how much good it does. This type of home helps you not only in keeping the environment healthy and green, it also saves a lot of money and make your wallet greener.

With great benefits of eco-friendly home, more and more people are longing to have one. If you are one of them, this is your chance to expand your ideas.

Buying, building or designing your green home is not as tough as you think. If you find it hard, then, you need this excellent guide. This eBook allows you to understand everything you need to know about eco-friendly home. Thus, you can easily recognize how to make an ideal one.

This eBook encloses the different information you need to know, from building, buying essential materials to designing your home. If you want to get the full advantage of this guide, then continue reading and see how it can help you.

# Chapter 1:

## *Greener Home Basics*

---

---

### *Synopsis*

Most people promote green living. This is often observed because of the destruction that Mother Nature is undergoing. Some homeowners may not know it but a simple activity at home can greatly help in contributing to the deterioration of the environment.

According to studies, to help Mother Nature, people continue to go green. One way of doing this is to make a greener home.

#### **Greener Home Defined**

A greener home does not literally mean having green gate or walls. It simply denotes that your home was built with the use of eco-friendly materials.

The main goal of building a greener home is to uphold what is ideal for the environment through picking the right materials and the effective manner of home building.

Greener home was developed as a framework to support and inform householders on ways to save money on their bills while securing the environment.

## **Tips on How to Achieve a Greener Home**

If you are longing to have a greener home, this is your chance to get what you really want. Simply consider the following tips as your reference:

- ***Replace Your Old Appliances with Eco-friendly Devices*** – Most old appliances use a great amount of energy. If you change it with a more efficient tool, you have a chance to save up more in your energy consumption. Such appliances include air conditioning unit and refrigerator.
- ***Mind Your Cooling and Heating Expenses*** – This is usually among the largest energy consumers. Depending on the weather condition, you may often use your heating or cooling devices. As a result, you may have a high monthly electric bill. To solve your problem, you have to improve the insulation of your home.
- ***Consider Your Water Consumption*** – There are several ways on how to save water. Say for instance, you can use low-flow toilet, utilize glass when brushing and fix the leaks right away.
- ***Use Energy Efficient Light*** – You can use various tools that allow you to benefit from the natural heat of the sun. You are also free to make adjustments in your window to let the natural light in.
- ***Ensure that You Pick Eco-friendly Products*** – Simply check the labels of the cleaners you select. They may contain harmful materials that can put you at risk. Thus, always choose cleaners that

are eco-friendly. After considering these various tips, you are certain that you can easily get your desired home styles and designs.

# **Chapter 2:**

## *About Home Energy Audits*

---

---

### ***Synopsis***

When an energy audit is carried out on your home, an expert assesses the property to know how energy efficient your structure is. This type of audit is an excellent way to find out where excess energy may be sneaking out of your home.

## **Definition and Types of Home Energy Audits**

Home energy audits, also known as energy evaluations or energy assessments, are voluntary services that people can have conducted on their homes. These schemes allow them to learn where they can save money, water and energy.

An energy audit can be conducted anytime. However, it is most often performed as a requirement for getting government rebates. There are three types energy audit and these include the following:

1. ***Preliminary Audit*** – This involves conducting interviews with a few key employees, a fast review of utility bills and a rapid inspection of facilities to recognize obvious energy saving opportunities. Its main purpose is to attain some quick savings and assists management decide if a more in-depth audit should be carried out.
2. ***General Audit*** – It is more comprehensive than a preliminary type. Utility bills are examined over 1 to 2 years. Energy consumption tracking devices are often installed in high energy consumption areas. In addition, a financial evaluation is conducted to know where precise savings can be warranted.
3. ***Investment Grade Audit*** – It aims to protect funding on a return-on-investment basis to create the case for a corporate investment. A business investment involves the company spending cash on a project or improvement in the method business is done.

Since home energy audit reveals virtual cracks in the ability of your home to distribute energy, you can easily address any issue effectively.

Home energy audits also provide satisfaction for those people interested in preserving energy for the sake of the environment. Being more energy efficient denotes that your home has less or negative impact on the environment.

### **Steps on How to Do Your Own Home Energy Audit**

A home energy audit involves a complete inspection of your home and an analysis of how you and the rest of your family use energy. This gives you the exact plan of action to develop the energy use in your home.

If you are planning to conduct your own home energy audit, you can consider the following steps as guide:

- Recognize air moving in and out of your house will boost both cooling and heating bills.
- Search for openings inside your house that will provide air movement in and out. Don't forget to look at visible places like around doors or windows.
- Always check for air movement. You can do this through placing a tissue of the end of a pencil or grasping a lighted incense stick near the suspect areas.
- Move outside and evaluate again for any openings that might provide air to move in and out. Always pay attention to areas where two types of building materials come together. Say for instance, a window meeting the house siding.

- Close up any air gaps with the use of caulking, weather shredding or mounting foam insulation. You can also install shaped foam inside electrical controls that will obstruct air movement.
- Don't forget to examine the insulation in your attic. Your attic insulation should be over the living area. However, it should not extend all the way to the outer edges of your attic against your roof.
- Consider measuring the insulation in your attic. As advised, your attic should have at least R-30 insulation. If you have less, then, consider adding more to boost your home energy efficiency.

Aside from the above mentioned, don't forget to look at the duct work on your forced air heating system. You also need to insulate your hot water pipes with foam insulation. This can help in keeping water in the pipes warm and reduces the need to heat extra water. Most importantly, you have to examine your light bulbs. Using smaller bulbs will always provide an energy efficient saving.

# Chapter 3:

## *About Energy Efficient Windows*

---

---

### *Synopsis*

Home improvement projects are often done for various reasons. In most cases, homeowners desire to improve the condition of their home to immediately sell it on the market. Sometimes, homeowners desire to improve their house to develop its energy efficiency.

If you want to save more energy and bill, you have to know everything about energy efficient windows. To give you some guides, don't hesitate to read the succeeding paragraphs as your guide:

## Types of Energy Efficient Windows

Finding the best energy efficient windows is not as easy as you think. Like other homeowners, your first move is to know its various types. To give you some hints, here they are:

1. **Single-Glazed** – This type of energy efficient window consists of tinted or clear glass. It includes only a single layer of glass. Without a tint, this type allows the most amount of heat to transfer into the home's interior.
2. **Double-Glazed** – This consists of two layers. Double-glazed energy efficient windows have various types. The common examples of these are high-performance tinted, moderate solar gain low-E glass, clear, high solar gain low-E glass and low solar-gain low-E glass.
3. **Triple-Glazed** – This type of window contains three layers. Between the middle and outermost layer exists a gas that secures heat from being lost. The center layer consists of either plastic or glass film. If a homeowner resides in a very cold climate, this type maintains heat loss to a minimum but lessens the amount of solar heat gain.
4. **U-Factor** – Department of Energy has made performance criteria for energy-efficient windows with an Energy Star Score. These standards are based on U-factor rating, how well a window offers insulation or how much heat is transferred for the home.
5. **Solar Heat Gain** – This is also one of the best energy efficient windows you shouldn't miss to have. It tells how much solar energy is

passed on through windows and how much those windows block heat from the sun.

Though there are various types of energy efficient windows, it doesn't mean that you will find it hard to pick the best one. You can ask help from your friends or other experts to get what you really want.

### **Why Using Energy Efficient Windows?**

There are several reasons why you have to use energy efficient windows and here they are:

- ***Increased Life of Windows*** – Window frames are usually damaged or appear ugly due to mould or mildew forming on them. This happens because of the frost or condensation that outlines on window frameworks in winters. Energy efficient windows do not permit this compression to increase. Thus, it helps in retaining heat in winters and keeping your windows secured and cleaned.
- ***More Comfort*** – With usual windows, you will find that despite heating a fixed flow of cold air seems to run through the house. This occurs because an ordinary window gets really cold and the air in contact with the window panes. With energy efficient windows, it does not allow the panes to get cold. Thus, it keeps your room temperature comfortably warm and your heating costs reduce.
- ***Lessens Fading*** – In most cases, hard sunlight that gets into the house lightens your furnishings like curtains. Since energy efficient windows do not permit too much direct sunlight to come in and have UV filters, your windows are completely secured.

- ***Increased Home Value*** – Your home value will tend to increase if you are using energy efficient window. Thus, you are certain that you can get a high property sale.
- ***Tax Rebates*** – Most federal and local governments give you tax rebates. Make sure that the windows you acquire satisfy the norms so that you get a saving while acquiring a great upgrade for your home.

With great benefits of these energy efficient windows, you will surely be tempted to have these at home.

# **Chapter 4:**

## *About Green Insulation*

---

---

### ***Synopsis***

Since most homeowners desire to save money and energy, they never underestimate the significance of insulating their houses. If you are one of them, you have to read the succeeding paragraphs as your reference.

## **Best Type of Green Insulation – What are They?**

There are various alternatives to fiber glass insulation. Some of them include the following:

- ***Wool Insulation*** – This provides an option that is renewable and natural. Even if wool is flame defiant naturally, it is subject to insect destruction. Thus, the insulation is often treated with boron to dissuade insects.
- ***Cellulose Insulation*** – This can be your best option. It is usually made from 80% recycled newspaper and the chemicals that grasp it together never use formaldehyde. Compared to other alternatives, cellulose insulation is more affordable.
- ***Recycled Denim*** – Most people may not immediately consider this option. But, this material is often used to insulate your walls and attic spaces.
- ***HempFlax Insulation*** -These are made from natural hemp fibers with a few polyester fiber for strengthening. They are also available in various thicknesses for insulating walls, floors and roofs.

When comparing green insulation objects, it is essential to study the R-value of every option. This is a measurement of resistance of heat flow. Every material is rated from R-1 up to R-60 and the higher values are considered as the most proficient.

## **Green Insulation Tips – Your Way to Save Money**

There are various ways on how to remodel your home with renewable materials. Materials like accessories and furniture can give you an environmentally-friendly home.

An environmentally friendly home uses little items that are not reused. Green materials like bamboo, cork and eucalyptus are primarily used today in home design because they are earth friendly. For your guide, simply follow the succeeding tips to start becoming environmentally friendly and get the full benefits of green insulation:

- ***Install Solar Panels*** – You can get solar paneling from various retail stores. Most shops offer a lengthy warranty service. These solar panels may cost expensive at first. But, they have lots of savings after several uses. They utilize the power of the sunlight to provide needed energy for your home.
- ***Make Sure that Your Windows are Double Paned*** – Even if you have an old house, you can consider wood replacement windows. Depending on your choice, you are free to find vinyl windows clad in wood for an older style but with efficient type.
- ***Get Maximum Savings on Your Energy Bill*** - You can do this through using foam roof insulation. This insulation is created from polyurethane foam. It starts off in liquid form, dries and turns into a single membrane. Then, it covers your roof.
- ***Use Spray Insulation Kits*** - These kits are being used in various green home building projects. They often replace fiberglass in new

constructions and renovation. They are also easy to use, safe and non-toxic.

Through considering the above tips, you are certain that you can save a lot of money and energy. So, start making a right decision and prefer to use to green insulation alternatives.

# Chapter 5:

## *About Eco Friendly Yards*

---

---

### ***Synopsis***

Are you planning to have eco-friendly yards? If yes, then, you shouldn't miss to know how to improve your garden. To give you some hints, feel free to consider the following tips as your reference:

## **Green Gardening Eco-friendly Lawn and Garden Ideas**

There are several ways on how to have an ideal eco-friendly yard and these include the following:

- ***Diversify*** – Plant distinct plants close together. This allows you to attract in more predators of pest species. It also attracts insects, birds, amphibians and reptiles. These species will pay you back through eating up any insect that destructs your plants.
- ***Create Black Gold*** – Composting is fun, simple and satisfying. Experts claim that it is a great way of adding microorganisms and various nutrients to your garden and lawn.
- ***Leave Grass Clippings*** – As they go moldy, grasses add nitrogen to the soil. They also stimulate earthworm activity that is best for your garden.
- ***Plant Smart*** – Deciduous trees can shade the west side of the house. As a result, they provide shade in the summer and letting sun through in the winter. To have a green yard, always pick drought-tolerant native species.
- ***Cut High*** - Taller cutting edges of grass soak up more sunlight. They also conserve moisture by better shading the soil. As advised, always aim at least four inches or cutting off about 1/3 of the grass height at each mowing.

- ***Water Wisely*** – Water your plants early in the morning or in the evening. You can also use a trickle or soaker hose to acquire water to the roots where it is required.
- ***Organic Fertilizers*** – Depending on your choice, you can go green by using organic fertilizers. They decompose and release their nutrients more gradually than artificial types.

With your ideas about eco friendly yards, you don't have to worry about your garden. Thus, you can easily find the best way to improve your garden appearance and style.

Whether you have a wide and narrow yard, you can simply plan how to make it green and effective. Depending on your choice, you are free to follow the different tips above or just ask help from a professional gardener.

# Chapter 6:

## *About Greener Appliances*

---

---

### ***Synopsis***

Appliances are considered earth-friendly if they are biodegradable. It means that they will pose no threat to the environment and earth when they are released to the air, earth or water while in use or when cleared out. These appliances usually decompose much easier in a landfill than similar products that are non-biodegradable.

## Different Greener Appliances You Need to Know

Most homeowners are tempting to create their living spaces more earth-friendly. Their main purpose is to reduce their monthly bill while taking care of their environment.

For your guide, here are the top eco-friendly appliances you can use to solve your major concern:

1. **Induction Stoves** – These appliances use less energy when compared to gas and electric radiant. They make use of a magnetic field to make heat in iron or steel cooking containers.
2. **Boilers** – Modern boilers are much more energy efficient compare to other old models. Say for instance, a condensing boiler works by extracting some heats that would be wasted in non-condensing boiler.
3. **LCD TVs** – These appliances have a light-emitting diode backlighting, which are not in permanent use when the tools are switched off. This feature can regulate TV backlights to react to the amount of light in a room.

Having these various green appliances provide various benefits. If you are using these items, you are certain that you will love them all.

## Benefits of Green Appliances

If you don't know the exact reasons why you need these green appliances, you may consider the following:

- ***Household Benefits*** – People who keep on using green appliances are far lower risk of becoming sick as an outcome of exposure to toxins. The act of using green products also assists to educate families about issues of sustainability and health.
- ***Environmental Benefits*** – Toxic products make poisonous wastes that are harmful to the environment. Appliances that are produced, marketed and used in a sustainable manner have less impact on the environment.
- ***Economic Benefits*** – When people buy green appliances, that functions as a vote for a green economy. The more green appliances and fewer toxic items are sold, the overall economy is gradually transformed into an economy that is more eco-friendly and sustainable.

Apart from the above mentioned, if you keep on using green appliances, you make your home safe. These items never omit toxic substances that can put your health at risk.

# Chapter 7:

## *Finding a Green Home Builder*

---

---

### *Synopsis*

A green home builder will establish a house that is more likely to last the test of time. This person aims to build a well-constructed and durable house.

Most green home builders know that keeping a home is quite overwhelming. That is why; they always plan to build a home that requires less maintenance.

If you are longing to have a green house, you shouldn't miss to look for the best green home builder. However, since there are various companies that offer similar services, you are probably confused on where to depend on. Instead of worrying about this issue, why not consider the following tips as your guide?

## **Tips on How to Find a Green Home Builder**

Finding the best green home builder is not as easy as you think. But, if you know its exact process, you can easily get what you really want. Here are some considerations you have to take for a fast and easy searching:

- ***Conduct a Research*** – To look for the best one, it is best to conduct your own research. Depending on your choice, you can browse your computer and scan several websites to get some hints.
- ***Ask Experts*** – This is also an excellent way of getting the best green home builder. Just make sure that you consider the different suggestions of various experts and weigh each of them.
- ***Read Reviews*** – To pick the right green home builder, you need to scan several reviews online. The more reviews you read, the more valuable information you will get.
- ***Word-of-Mouth*** – This is the most preferred method of finding the best builder. It allows you the opportunity to view some of the past works of the green home builder.

Though you already knew how to find the right green home builder, it doesn't mean that you already solved your major concern. Before dealing with the best one, you have to check your available budget. Not all home builders ask for a cheap service charge.

In some cases, homeowners think that they need to spend more money just to get their desired green home building services. If you are thinking the same way, you are totally wrong. There are various green home builders

that offer quality and cheap service rates. All you have to do is to find them. Then, you will surely get the best home styles you desire.

Take note that finding the best green builder requires enough time and effort. Before dealing with any expert, make sure that you examine their qualifications, experiences and qualities.

As advised, don't forget to check their portfolio. You also need to ask some of their previous clients to know how they really work. If you think that they are worthy to deal with, then, you can immediately talk to them and start planning how to work out your desired green home designs and styles.

# Chapter 8:

## *Choosing the Plans for Building a Green Home*

---

---

### *Synopsis*

Green building is one of the hottest trends in the building industry. In fact, most homeowners can make design decisions based on providing a building and healthy environment with sustainability in mind.

If you are searching for a plan for building a green home, you need to pick a plan with the goal of creating an easy, low-maintenance and budget-friendly home that is inviting and warm. As advised, make every decision with sustainability, aesthetics and budget in mind.

## **Criteria when Evaluating the Best Green Home Building Plans**

To give you some references, here are the specific criteria that you can use when examining which plans deserve to be called green:

- ***Compact Footprint and Value Engineering*** – Plans with simple exterior walls with few bays, corners or protrusions utilize less construction materials. Thus, these areas reduce waste, cost and labor. A smaller home also uses a few amount of energy to cool and heat and thus, it requires more affordable to maintain and build.
- ***Hard-working and Flexible Spaces*** - Picking the best plan can do away with the need to move as your household shrinks or grows. Building plans with bonus rooms that put up later expansion are suitable for your bill. In addition, having the main living spaces and master suites on the first floor keeps the house accessible.
- ***Passive Heating Potential*** – Search for large walls of windows. This can take the benefits of passive solar temperature if the house is properly sited. Additionally, a well-placed roof overhang can also offer energy-saving shade.

With your ideas on how to choose the plans for building a green home, you can easily build your dream house. Thus, you can easily decide what style and design you opt to build.

# Chapter 9:

## *Mistakes to Avoid*

---

---

### *Synopsis*

When building a perfect green home, homeowners always want to reduce the harmful impact on the environment. Consideration and careful thought must be placed on each aspect of their home designs.

If you are planning to build a green home, you should always avoid the common mistakes of homeowners and here they are:

## Errors

1. ***Never Build More than You Need*** - Like other homeowners, you should know what exactly you need. You don't have to build too much space, especially when you don't need them. A green house that is too immense will contain unused space, wasted space and cost more to run.
2. ***Unable to Pick the Right Location*** – Finding the right spot for your green home is extremely important. Experts claim that building on a new site can destruct a peaceful ecosystem. It can also disturb the lives of local wildlife.
3. ***Failed to Use Solar-generated Products*** – When constructing your home, it should always have a Southern exposure. Through placing the front of the home due South, you can easily reduce your energy costs by 10%. It is also best to use materials that will absorb the heat of the sun.
4. ***Never Conduct a Research*** – Either you are planning to build a small or huge green house, you should always conduct a research. Your researches serve as your guide to construct an ideal space.
5. ***Inadequate Insulation*** – The best way to save more money is to have a home insulation. It is responsible for your building's heat loss and retention. An ideal insulated building will not only save more resources and energy, but also cut your monthly electrical bills.

Aside from the above mentioned, another common mistake that you need to avoid is a poor planned roofing. Your roof secures and carries the walls

of your building. Thus, when building a green home, you should always have a roof planning. It is best to know how much weight the roof will need to support and its exact shape. A flat roof will tend to clutch and mount up water while a sloped roof will not.

If you really want to have a green home, you should never neglect using energy efficient devices. There are several tools that are perfect for your needs. You just need to visit your desired shops and start using them to get their full benefits.

After knowing the different things you need to avoid when building a green home, you don't need to worry on what to do next. You can start making a plan on how to build an ideal space.

Take note that building a green home is not a tough task. You just need to know its exact steps and considerations. If you don't have enough knowledge about eco-friendly home and tools, you better ask help from the experts.

# Chapter 10:

## *The Benefits of a Green Home*

---

---

Why do you need to build a green home? This is often asked by most homeowners. To give you some guides, simply consider the following reasons:

- ***Create a Healthier Home*** – If you have a green home, it means that you are using toxic-free construction materials. These materials can help in providing a higher quality of indoor air and fight pollution. A green home also lessens you and your family’s exposure to mildew, mold and other indoor toxins. This is strongly beneficial for those who have respiratory disorders like asthma.
- ***Tax Benefits*** – You might find eco-friendly products more expensive, but federal tax credits can make green living more reasonable. Some nations allowed the people who are purchasing energy-efficient appliances to be qualified for tax benefits. Some eco-friendly products qualified for these benefits are:
  - Exterior doors and windows and skylights
  - Insulation systems that can help in reducing the heat gained or loss
  - Metal roofs with Energy-star requirements

The federal law can also provide the homeowners a credit for the costs linked with the energy property expenditures.

- ***Decreased Monthly Utility and Maintenance Costs*** – If you prefer to build a home green, you will be able to decline your monthly energy costs by around 20 to 30%. You also have a chance to reduce your water usage through the use of faucets and plumbing fixtures.
- ***Environmentally Friendly Home*** - Residential heating and cooling alone make up 20% of the yearly energy use. Throw in household lighting and other devices are clearly a key source of energy consumption. Most green homes reduce your dependence on traditional energy sources as they produce some of their energy needs through alternative sources like wind, sun, biomass and geothermal energy.

As you can see, green home can help not only your family, but also the environment and economy as a whole. So, instead of using any expensive devices, start using eco-friendly products. With green home and earth-friendly appliances, you are certain that you will live in a healthy and affordable way.

After knowing the different benefits of having a green home, you are probably tempted to have one. Before planning to build your own green home, make sure that you consider its various tips and factors.

Upon reading the whole context, you are now guided on the different greener home tips, strategies and building considerations. Thus, you don't need to spend more time and effort on how to build the best green home.

This eBook is not designed not only to guide you to build your desired home. It is also intended for directing you and your family to a healthy and affordable way of living. So, don't waste your time and go green now! Like other homeowners, you will definitely love the different benefits of having a green home.