

Why should I invest in solar energy?

What is in it for me?

Is solar energy a perfect option?

What about its faults?

These questions would be clearly explained through the course of this post.

Let's start with the basics of solar energy.



## **Solar Energy Technology**

Solar energy simply means the energy derived from the Sun. This energy can be used to generate electricity and heat.

For this post we'd focus mainly on electricity generated from the Sun.

How is this done?

To convert solar energy into electricity, a device called solar cell or Photovoltaic (PV) cell is used.

Once sunlight falls on the PV cell, it is converted into electric current. The electric current gotten (direct current) is then inverted to alternating current - used by electrical appliances.

The electricity gotten from the PV cells is also stored in batteries to save energy for the night or days of little sunlight.

With that cleared, let's move on to see the pros and cons of solar energy.

## **Solar Energy Pros and Cons**

Currently, the entire process of harnessing solar energy isn't 100% efficient, It still has disadvantages and setbacks.

However, the advantages of using solar energy overwhelms its disadvantages. Also, most of the disadvantages already have known solutions, thus, solar energy still standing out as one of the best energy sources.

OK! Let's get right into the pros of solar energy.

### **Advantages of Solar Energy**

#### **No Monthly Bills**

Once you have a solar power system installed, it goes running for years, and as statistics have it, the system might not need any prior change at least not in the next 25-30 years after installation.



Really, the first advantage of owning a solar power system is the fact that you get to own your own electricity not paying dues to anyone.

This means you'll be able to determine how much energy you expend each month or yearly as you so wish.

### **Inexhaustibility of Fuel Supply**

The fuel in this case is the sun, and it is inexhaustible. This is unlike other energy sources like coal, natural gas, uranium and the likes.

It is argued by scientists that the sun is about 4.6 billion years old and will die in about 10 billion years to come. But this doesn't matter anyways (who's probably going to be here at that time).

Therefore, you'd have unlimited supply of sun throughout your lifetime, which can be converted for electricity.

### **Low Maintenance Cost**

Solar power system needs very little maintenance and the major part of that is to clean the dirt and rubble that may be found on it. You don't have to do this everyday or every month, but just a few times in a year.

This is exceptional because other power generating systems require maintenance frequently as they contain moving parts.

### **No Negative Environment Impact**

If you ever lived beside an industry that runs 24-7 on big generators you most probably know what I'm talking about.

Asides the unwanted noise generated they also pollute our environment, endangering our lives and also increasing the rates at which global warming occurs.

Solar power system does not produce pollution be it air or noise. Thereby reducing the rate at which our ozone layer is depleted, while it generates power.

### **Source of Income**

If you end up generating more energy than you need, you could sell those excess energy off and you'd get paid in cash.

Services such as net metering and feed-in-tariff also known as FIT enable everyone who owns a solar power system to do this.

### **Value-Added Property**

Your home gets more value and could attract a higher price when you want to sell because of the presence of the solar power system.

## **Aesthetic**

Some people believe that the addition of a solar panel to their house increases how visually appealing their house could be. This is arguable as it is not true in all cases.

## **No Wasting of Space**

with solar panels put on the rooftops of the house, you get to generate the needed energy without loss of land.

This available space could be used to do other things that you have in mind.

## **Improving Technology**

The technology of solar system improves daily. Solar energy has a very competitive market, this competition brings about an increase in effectiveness of the designs of solar panels and also reduce cost.

## **Shared Solar**

It is possible for some group of houses to come together and establish their own power generating station together.

This is majorly for places that do not have too much space with their houses close to one another causing shading on these solar panels.

## **Improves the Economy**

The use of solar panel system in a country helps reduce the rate at which the fuel is imported from other countries.

Everyone knows that imports are subtracted from a country's GDP not added, and to reduce this one has to develop his own country to stand on its own. Solar power system is very important in helping the country's economy.

## **Availability of Jobs**

As statistics have shown that the solar power generating section of the country employs more staffs than any other power generating section.

As this section improves, it shall continue to bring about more employment opportunities.

Investing in solar energy is a great deal. However, you'd face some issues like;

## **Disadvantages of Solar Energy**

### **Cost**

The major issue with cost is the higher start-up cost of installation, which is really very high, I mean real high and could weigh more than the cost of building the house with which it would be used.

Costs of installing an effective solar panels varies from \$10,000 - \$20,000 or maybe more. The cost of batteries too poses serious problem in the usage of solar power system.



### **It Is roof Dependent**

Solar panel doesn't work for every kind of roof e.g. houses using slates or cedar tiles. The installation could also be hindered by rooftop additions and skylights.

### **Aesthetic**

Although installation of solar panel on some building adds beauty to it,uc this is however not true in all cases. It does happen that addition of solar panel to buildings makes it less beautiful to behold.

### **Intermittency**

This is the one of the key disadvantages of solar power system. You must note that since the sun doesn't shine in the night, the solar panels do not produce any electrical energy during this time.

Also, during times of winter when sun doesn't shine as much, you'd have reduced returns during these periods, but these problems are reduced by the use of batteries which helps to store electrical energy generated.

### **Low Efficiency**

Solar panels have low efficiency of about 15-20 percent. This means that only about 20 percent of the sunlight that falls on it is converted to solar power. Also, solar panels are very fragile and may damage easily.

### **Waste of land**

In some cases where solar panels are not placed on rooftops, it happens that the solar panels tends to take more space because the amount of energy trapped increases with the area of the solar panel.

### **Untrustworthy Local Installers**

Due to high competition in market, local installer pull all sort of tricks to entice house owners to sign all sorts of long-term contracts before explaining the details of the contract.

### **Dependency on Latitude**

Some countries are more exposed to sun's rays more than the other, for example countries like Senegal and Mauritania will enjoy enough solar energy as they ought to. Because of the closeness to the equator.

### **Conclusion**

Solar energy is worth your investment, you'd enjoy absolute energy independence and several other benefits. Even with the disadvantages, solutions can be provided for most. Contact us at [enkonn-solar.com](http://enkonn-solar.com) to discuss your solar energy needs.

## **References**

<https://www.environmentalscience.org/solar-power-101>

<https://schooltutoring.com/help/advantages-and-disadvantages-of-solar-energy/>

[https://www.conserve-energy-future.com/disadvantages\\_solarenergy.php](https://www.conserve-energy-future.com/disadvantages_solarenergy.php)

<http://www.processindustryforum.com/hottopics/advantages-and-disadvantages-of-solar-energy>

<https://vittana.org/11-advantages-and-disadvantages-of-renewable-energy>