

====

Use Solar energy to save you money. Check this Out!

<http://tinyurl.com/SOLARfreeEnergy>

====

The Eastern Africa region comprises, among others countries like Kenya, Uganda, Tanzania, Rwanda, Burundi, Somalia and Southern Sudan. The Eastern Africa region is by and large covered by arid or semi arid land. The region has some of the poorest countries in the world. All of them are third world countries.

The larger percentage of the inhabitants of the Eastern Africa region is poor rural folk. The Eastern Africa governments are not able to supply most of the rural areas with grid power. Also, most the utility companies in the Eastern Africa region are not reliable. There are frequent power blackouts and rationing. This makes it necessary for individuals or organizations to seek alternative sources of energy.

These alternative sources of energy allow rural folk or organizations to access power where grid power is not available. They also supply backup power to individuals and organizations when grid power fails.

There are several sources of alternative energy in East Africa. But we are going to concentrate on only two of them for now; solar and wind. We are going to concentrate on these two because they are the most available and easily installable here. The Eastern Africa region, as I said earlier is mostly arid or semi arid. The equator also passes right through the Eastern Africa region. The two facts I've mentioned above makes the area to experience sunlight throughout the year. The place also has large flat areas and highlands which make it an ideal place for wind power projects.

The Eastern Africa region has very many companies that supply solar and wind power solutions. When looking for a good company to install a solar or wind power system for you, you need to consider a number of factors. Most of the registered renewable energy companies here are merely briefcase entities without proven track records. Therefore you need to make sure you avoid them so that you don't invest your money in a company that will not give you services worth your money. So, I advice you to invest your money in a an established company with a proven track record.

&nbsp;Make sure the company is all rounded, it must be able to supply virtually all solar and wind power solutions. The company must also have a lot of experience, spanning many years in all fields of solar and wind power solutions provision. It must also be a company that has a very wide client base spanning the whole of the region, meaning that the company's solutions are acceptable to most people in Eastern Africa. These clients must include Individuals, Businesses, Learning Institutions, Non Governmental Organizations (NGOs), governments etc The Company's products and services must also be of very high quality and very competitively priced, leading to their high number of loyal clients from the whole of the region.

Most of the solar and wind power solutions sought by clients in the Eastern Africa region are divided in four sections; Services, Commercial and Industrial Systems, Residential Systems and Consumer Products.

## Services

There are four types of solar and wind power services,

### Energy Auditing:

This involves identifying opportunities to reduce the energy use and/or the cost of operating a solar or wind power system in the clients' premises whether its residential, commercial or industrial. Whether it's a new construction or renovation their audit reports provide building owners the information they need to decide which of the recommended solar or wind power system or modification/s they should implement.

### System Design:

This involves designing cost effective solar or wind power systems, which provide high rates of return. Their systems must be economical and designed to output maximum power at the least cost possible. They must be known to design systems that maximize the economics in all locations. Their designs must use innovative and practical approaches to utilize the many sunny and windy hours found in this part of the globe which are experienced daily all year round.

### System Installation:

Its highly recommended that any Solar or Wind Power System installation be done by qualified technicians. Your chosen company must have qualified personnel who carry out the installation of Solar Power Systems. These technicians must have a lot of experience in solar and wind power systems installation as a result of carrying out the same work for a long period of time in virtually all areas of the Eastern Africa region.

### System Maintenance:

The power company must be able to carry out maintenance visits where contracted. During these visits they must provide, among others where necessary, the following services:

- Cleaning the module array
- Checking all electrical connections
- Logging lifetime and instantaneous power and energy output
- Checking for any plant growth causing shading
- Writing a report on system status and any corrective actions if necessary

## Commercial and industrial systems

The company must have a wide selection of alternative energy powered commercial and industrial systems. I will list a few of them here that are most popular.

### Lighting Systems:

They should be able to provide many types of lighting systems powered by either solar or wind including;

## Home or Business Lighting

### Street Lighting

Road, road studs and underground lighting

Garden and lawn lighting

### Backup Systems

The company should be able to provide a full range of power backup systems that can be used to power critical loads and supply clean uninterrupted power to any home or office. These systems are based on battery-based storage systems. Besides being compatible with grid power, these systems should also be compatible with alternative energy like wind, solar, hydro, or even a generator. These systems will provide instant backup power in the event your utility grid fails.&nbsp;

### Electric Fencing:

The company should be a leading supplier of electric fencing solutions powered by solar or wind energy. When installing an electric fence they should start by figuring out where to place the fence charger. Then they should measure how far you need to run the electric fence. That would allow them to decide how powerful an electric fence you need. Then they should advise you on the right fence to purchase and lastly, get on with setting up the fence.

### Water Pumping:

The company should be a leading supplier of water pumping systems that use solar or wind power. Their water pumping systems should be suited to both domestic and industrial uses.

### Refrigeration:

They should stock refrigeration equipment powered by solar or wind energy. The solar refrigeration equipment they offer can be used in homes and organizations like health centers located in areas where grid power is not available.

### Mobile Phone Charging Systems:

They should have in their stock Solar Mobile Phone Charging Systems. These systems are for use by businesses to charge multiple mobile phones at the same time. Single systems can charge 20 different mobile phones at the same time. The systems are best suited to rural areas for use in hotels, public places, shops, schools, government Institutions etc

### Telecommunications:

The company should be able to provide solar or wind systems for provision of highly reliable remote power for distributed telecommunication applications. They should supply solutions that provide a competitive alternative to pure diesel systems that are increasingly under cost pressures due to rising fossil fuel costs, frequent servicing requirements and problems associated with increasing carbon emissions.

### Wind Power Systems:

The company should be a leading supplier of wind power systems that let utility companies, homeowners and businesses generate their own clean power. Their turbines should also be suitable for use in off-grid homes, for rural electrification, and to boost the performance of solar electric systems. Wind power can be an excellent complement to a solar power system. In most

locations wind is not suitable as the only source of power-it simply fills in the gaps left by solar power.

## Residential Systems

Your chosen alternative energy company must be able to supply solar and wind power systems for use in residential systems. Among them are the following;

### Rural Lighting:

The unavailability of the power grid in most rural areas implies that the electrical energy must be produced locally. The company should be able to advise their clients to produce the electricity using solar cells (photo-voltaic systems), which are by far the most universally applicable, and which they should therefore stock.

### Water Heating:

Solar hot water systems use the sun's energy to heat water in liquid-based solar collectors. A typical residential solar water-heating system minimizes the expense of electricity or fossil fuel to heat the water and reduces the associated negative environmental impacts. They sell two types of solar water heating systems, active and passive, but the most commonly bought are active systems. The company should be able to tell you this.

### Solar Panels:

The two main uses of solar panels are to produce electricity and heat water. Solar panels designed to heat water are also known as thermal solar systems, while electricity-producing panels are sometimes called photovoltaic systems. The company should be able to stock all of the popular types of solar panels.

## Consumer products

An renewable power company worth serving any client must be able to supply many consumer products, among them are the following;

### Solar Battery Chargers:

They should be able to sell a wide selection of solar battery chargers for 12V lead-acid batteries, lithium-ion batteries for cameras, iPods, cell phones, PDAs, and chargers for AA/triple A C, D and 9V batteries.

### Solar Lanterns:

In this region, a reputable alternative power company must have in its stock solar lanterns. This is because they are in high demand due the unavailability of grid power in most areas. Their solar lantern should consist of a solar panel that collects solar energy & stores it in the batteries. The lantern can be used in the evening to light homes.

### Solar Mobile Phone Chargers:

Due to the unavailability of utility power, and the very high proliferation of mobile phones, a reputable alternative power company should be able to sell solar powered mobile phone chargers. These chargers are charged using solar panels and besides your mobile phone it can be used to charge your PDA, MP3, IPOD, CD player, gaming device and digital cameras.

### Solar Dynamo Radio:

In this region most of the people are poor and can't afford expensive television sets. So most of them rely on radios for information, but still they have a problem of affording non rechargeable batteries for the radios. That leaves solar powered radios as the best alternative. And so a reputable solar power company should be stocking solar powered radios.

### Solar Powered Torches:

A reliable company in this field should be able to sell solar torches chargeable by a solar panel; their very bright white LED's produce a beam of brilliant white light. In a region with rampant poverty like East Africa, these torches come in very handy because they are designed for extremely long life with zero maintenance and zero or low part replacements during their entire life time.&nbsp;

For more information you can visit us at <http://www.poweroptionsltd.com>. You can also visit [http://en.wikipedia.org/wiki/Solar\\_energy](http://en.wikipedia.org/wiki/Solar_energy) I hope this article will enable you to harness the advantages of the clean renewable energy offered by wind and solar.

### Article Source:

[http://EzineArticles.com/?expert=Paul\\_Mugoh](http://EzineArticles.com/?expert=Paul_Mugoh)

====

Use Solar energy to save you money. Check this Out!

<http://tinyurl.com/SOLARfreeEnergy>

====