

## **gpnl company profile**

### **gpnl**

A solar company founded in 2006 with its head office based in Nairobi.

**Mission:** to provide quality solar energy solutions {installations and products} that is affordable, accessible and reliable. *By: complementing the role of rural entrepreneurs, donor agencies and the government.*

**Vision:** to be the preferred solar energy provider in Kenya and the greater East Africa region. *By: reliable after sales service, quality equipments and workmanship.*

### **SERVICES**

- Supply all sizes of monocrystalline and polycrystalline solar panels, solar batteries, charge controllers, inverters e.t.c.
- High quality solar installations (back-up systems, hot water)
- High quality solar products (lanterns, torches, mobile chargers)
- After sale-service program of 2 years on larger installations (optional)
- 1 Year warranty of all our products and installations

### **PROJECTS**

Corporate: we have successfully installed systems for World Vision, Swedish Embassy, Norwegian Refugee Council, UNIDO, UNHCR-SOMALIA, IFAW, KWS, Today's Online, Abercrombie & Kent, JK Safaris among others. Discussions are underway with major Micro finance institutions to provide solar solutions to their members through a finance scheme. E.g kenya Women Finance and Kenya Army Sacco.

### **OFFER**

Our solar products make for affordable micro finance products to the cooperative movement, and can add value to their core business.

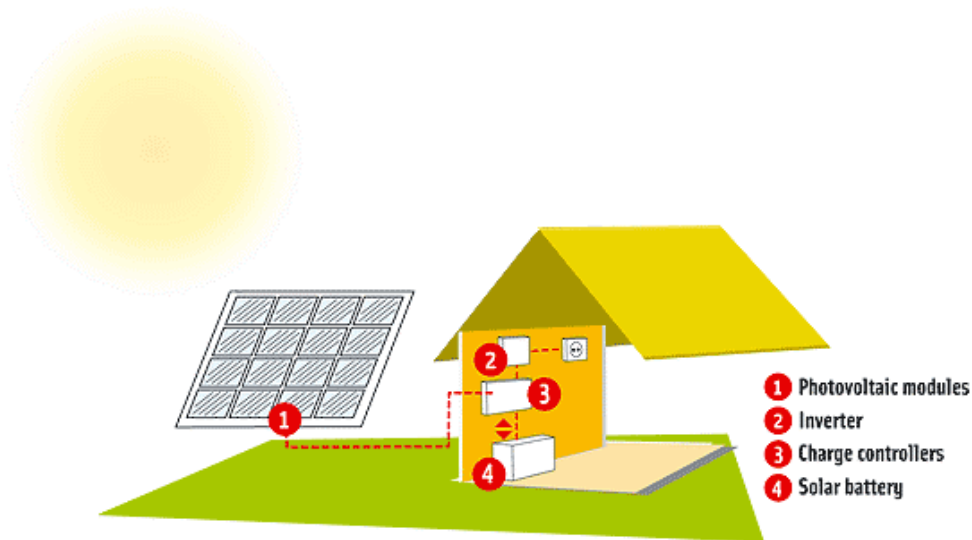
International organizations working in hardship areas {southern Sudan , Somalia e.t.c. finds our solar solutions valuable and user friendly.

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## SOLAR POWER SYSTEMS

Photovoltaic modules transform solar energy into DC current which may be used to supply electrical devices (either directly or via an inverter which transform DC voltage to AC voltage). The storage facility is controlled by a regulation system that also protects the battery.



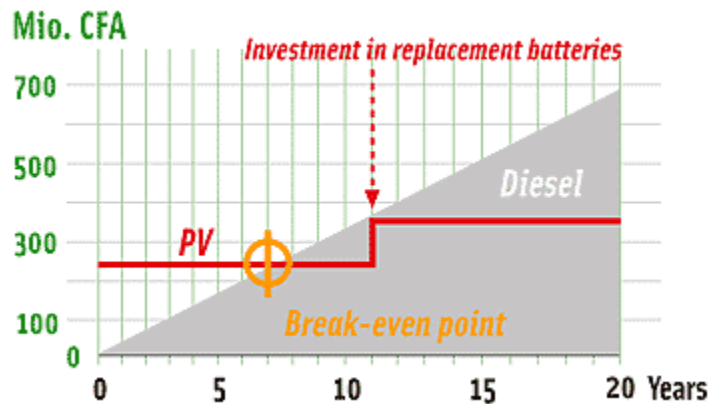
### Profitability

There is a large demand for economic and sustainable energy solutions in Africa. However, solar electricity supply systems require a higher initial investment cost when compared with standard diesel generators. The initial investment costs for photovoltaic systems are 5 to 10 times higher. This does not consider the running costs of a diesel generator supply: the running costs will rapidly increase through continuous use 365 days / 24 hrs with the need for a complete overhaul every 12 months. The potential costs become even greater when taking into account increasing oil prices and transportation costs to remote regions.

Inadequate infrastructure and logistics also have a negative effect on generators. The maintenance of PV-systems is low. When making a direct comparison, the solar solution is already more economical than a comparable diesel generator after 7 years. Given that the investment period is 20 years, the diesel option will ultimately be twice as expensive as an independent solar installation.

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## Quality benefits

- No fuel costs
- Low maintenance costs
- Reliable power supply for e.g telecom stations
- Independence from oil price fluctuations and increases
- No environmental pollution caused by noise, emissions and oil leakages
- Technically extremely reliable using long-life components (no wearing parts)

## POWER BACKUP SYSTEMS

In a Power Backup System, batteries store the energy that is needed to power a load for a pre determined period of time. Just like a small UPS (Uninterruptible Power Supply) for your computer can supply power for 5 to 10 minutes allowing you time to safely shut your computer off, a Power Backup System supplies power but in this case for hours or even days, allowing you to operate your home or business until the power has returned.

When selecting electric Power Backup System for your home or business, it is important to know how much power you need to have available to power emergency loads during a blackout. **gpnl** will help to design and advise you on the size of system needed.

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## Advantages of a Power Backup System by **gpnl**

- Transfer-switch instantly switches to battery power during blackouts and automatically recharges the batteries when AC power is restored.
- The system monitors incoming power for voltage fluctuations, ensuring only quality power is supplied to the equipment connected to it.
- Environmental benefits, does not damage the ozone layer like petroleum generators. Noise free. Batteries are sealed therefore they do not emit any toxic gases.
- In **gpnl** we offer complete personalized specification, and also we support our customers with complete technical information by phone, letter or e-mail.

## **SOLAR THERMAL SYSTEMS**

Solar thermal systems convert solar energy into solar heat that is either used in heating systems or to heat drinking water.

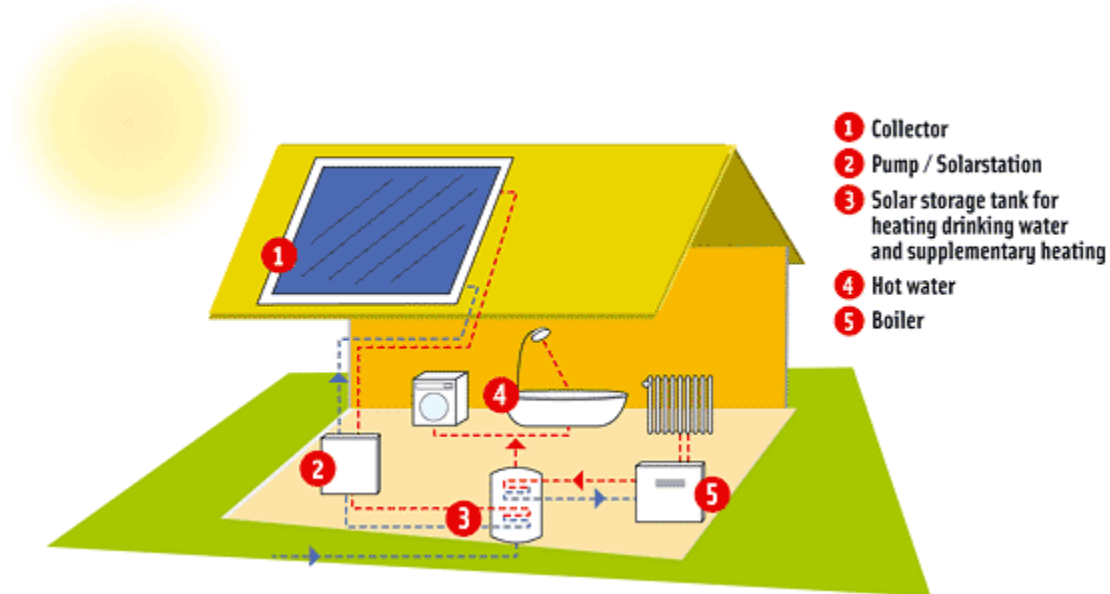
Solar thermal systems represent a real alternative to conventional heating systems (not only when heating oil prices are rising). Apart from providing supplementary heating, solar thermal systems can also heat large amounts of domestic water for use on-site.

In water heating, proper design, sizing and use of quality material are essential in providing enough hot water for the whole household.

- Thermo siphon. This is where the principle of natural circulation applies. Cylinders are arranged in series and using natural convection, hot water rises to replace cold water and the process repeats itself every time hot water is used.
- Split systems: this is where you can have a system mounted on the ground and water stored in an underground tank. This is especially useful in flexibility and cutting down on prices.

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Solar heat is generated without the need for burning fossil fuels and is therefore irrelevant in terms of CO<sub>2</sub> emissions. In this way solar thermal systems make a significant contribution to climate protection.

### Quality benefits

- Reduced heating and hot water costs
- Independence from heating oil price fluctuations and increases
- No environmental pollution, emissions and oil leakages
- Technically reliable and long-life components

Solar thermal systems have a minimum life of 25 years. Little maintenance is required. People who made investments in solar water heating either for bathing domestic cleaning or swimming pools have noticed a gradual increase in electricity savings for hot water.

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## PORTABLE SOLAR PRODUCTS

**gpnl** Our main goal is to provide High Quality solar Lighting & Charging products. **gpnl** supplies handy, portable and most of all affordable solar powered units for people in remote areas, also used and highly appreciated among professional workers in e.g. organizations and security companies.

The groups of products are

- Solar Lanterns
- Solar Torches
- Solar Mobile Chargers
- Portable Solar Power Stations

They all have in common that they are extremely user friendly, long lasting and:

- Safe

Benefits

The products will maintain lighting and communication despite lack of electricity or reach of other fuels.

- Economical
- Reliable



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