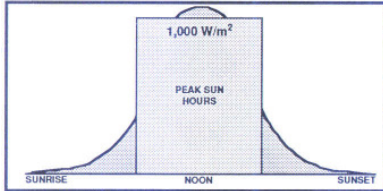


The sun – worshipped, muse and energy provider

For billions of years the sun has been sending its rays to the earth and supporting the life cycle. It has been at the center of different cultures and our everyday life still evolves under the sun's influence.

Our climate is dominated by the day and night cycle powered by sunlight. Even more so the sun provides us with an overabundance of warmth and energy all year for electrical power generation, hot water and for heating our homes. Modern Solar Technology inherently enables us to use the sun's energy in the summer and wintertime at home to feel comfortable.



During an average six peak sun hours a day the earth surface receives 1000 W/m². (93 W/sq.ft) or in 1 hour 3414 BTU/m². (318 BTU/sq.ft.) are available for use.
W = Watt

Being independent using that energy

- Get your sun inside your home! -
What you want....

- ... using the sun's energy !
- ... being an active part in climate control !
- ... becoming independent from the oil and gas market !
- ... reducing your energy bill !
- ... owning efficient and state of the art technology !

What you can do....

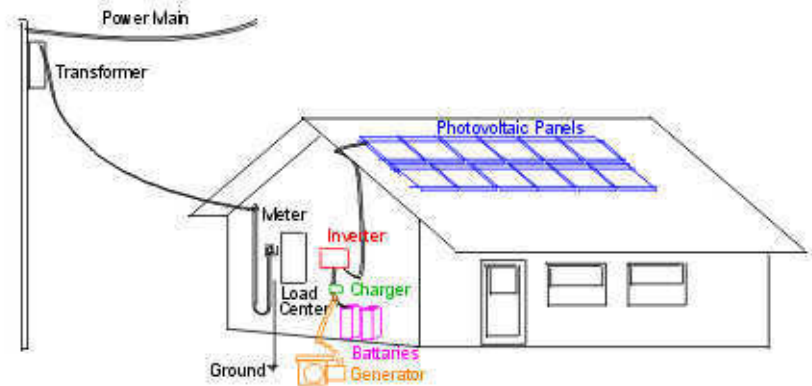
Have a closer look at our Photo Voltaic Solar Power Systems !

Complete choice

- The PV Solar Power Packages -

What are the options?

- a) **Stand-alone PV systems** for remote locations with VDC (direct current like in cars) only. Typically these packages are 12 VDC or 24 VDC to run 12 volt DC lighting and appliances. RV sector, boating, Solar water fountains, as well as 48 VDC well-pump systems. Range 200 – 1000 Wp VDC (*Wp = Watt peak*)
- b) **Power back-up systems.** A combination with a gas powered stand-by generator with a PV system combined with batteries and an inverter to run 120 VAC appliances. Not connected to the grid for remote locations and to prevent black-out situations. Range 0.5 – 25 kWp VAC.
- c) **Residential electric power generation systems.** A PV System is combined with one or more inverter capable of feeding electricity back into the grid. These systems are great in areas where net metering is an option; they do not typically work in a black out situation. Range 1 kWp – 100 kWp .
- d) **Commercial electric power generating systems.** These systems consist of huge PV arrays combined with inverters sized to handle the load providing 120 VAC or other voltages. Typically for feeding back to the grid or with power-back up and emergency lighting features. Range: 20 kWp – 1.5 MWp.



System Schematic for a Photo Voltaic System: Spring, summer, fall and winter the PV System can harness the sunlight to generate electrical energy year round.

Our starter package



- An optimal solution for Power back-up systems– The PV Solar Power Package is custom tailored to your needs. A PV panel array, roof mounted or free standing on the ground, harnesses the energy from the sun. The energy is stored in a battery bank and an inverter converts the stored energy into 120 VAC to run appliances. The generator is matched to the system to maintain the battery storage if necessary. Everything is

designed to function together to reach peak performance.

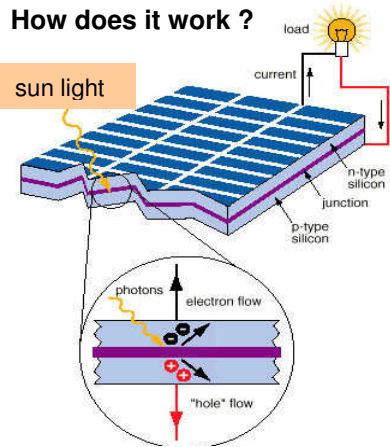
It operates fully automatically and needs very little or no maintenance, just switch it on and it works! No connection to the grid!

Outstanding reliability is our goal

- Quality is very important to us –

We only utilize and incorporate PV components and equipment from manufacturers with a proven track record. PV panels come typically with a manufacturer's warranty for 20 yr (80% electrical out-put). So your investment in the future is protected.

How does it work ?



The electric current can be used to power an electric appliance

Photo Voltaic Panels are made of silicon based wafers. They are called Poly or mono- crystalline and amorphous silicon panels. Poly-crystalline are pretty much the industry standard. Mono-crystalline are regarded as panels with a little more electrical output and they cost more. Both come with a 20 yr. warranty. Amorphous silicon panels typically cost less, have less output and a 10 yr. warranty.

Sun light consists of photons, which are collected in the silicon-based wafers of a PV – panel. They pass on their energy to electrons, which cause an electric current (DC) and heat.

Electrical Energy from the sun

House hold size:	4 person
PV panel type:	100 Wp
PV array area:	110 sq.ft.
PV nominal output:	10 x 100 Wp
PV spec. output:	1200 kWh/ kWp
Average household Consumption:	2000 kWh – 4000 kWh a yr.
System cost	Grid-tied
Installed per kWp:	\$7500-\$8500 stand alone
	\$8500-\$10500
CO ₂ emission avoided:	
Annually:	~2200 lbs./ yr

(information for reference only)

* based on a Asheville, NC S_c 0E₁ 45E

The advantages at a glance

PV Solar Power Packages :

- Generate electricity from sunlight
- Excellent for Remote Location
- Reliable investment
- Give you independence from black-outs and rising costs
- Pay-back your investment over time
- Long lasting state of the art components
- Can be expanded
- Save money on running costs
- Help protect the environment
- Tax incentives and net metering are ever more available.

Inspiration by Solar Technology



We will be happy to assist you with the selection of the right Solar system components and mounting kits, suitable for all roof types and applications, to meet your needs.

We design, install and service Photo Voltaic Systems, give us a call.

In addition to the PV Solar Power Packages we offer a wide variety of solar systems, components and accessories

- Just imagine the possibilities:
- **outdoor lighting and fountains**
outdoor and indoor application
 - **solar well water pumping**
thermal solar systems with PV pumping
 - **solar powered appliances**
halogen lights, coolers and more..

The better energy source Photo Voltaic Solar Power Packages



Fascination with Solar-Energy

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Power Systems
Considering Ecological Consequences

