



Your Solar Energy Partner



SOLAR ENERGY SOLUTIONS FOR YOUR HOME AND BUSINESS

CORPORATE PROFILE





OUR STORY

We are a solar engineering procurement & construction company working since 2017.

With expertise in system designs & implementation we provide energy solutions to residential, commercial as well as industrial clients all over Pakistan. We are efficient, quality conscious and customer focused delivering turnkey solutions to bring an energy revolution in Pakistan.

OUR VISION

We are the Solar Energy Specialists driven to create an affordable and a clean energy future for residential, commercial & industrial entities in the region.



OUR PROMISE

We promise to provide suitable energy solutions equipment based on your budget from all over the world.

OUR PROCESS FLOWCHART



WORKING METHODOLOGY

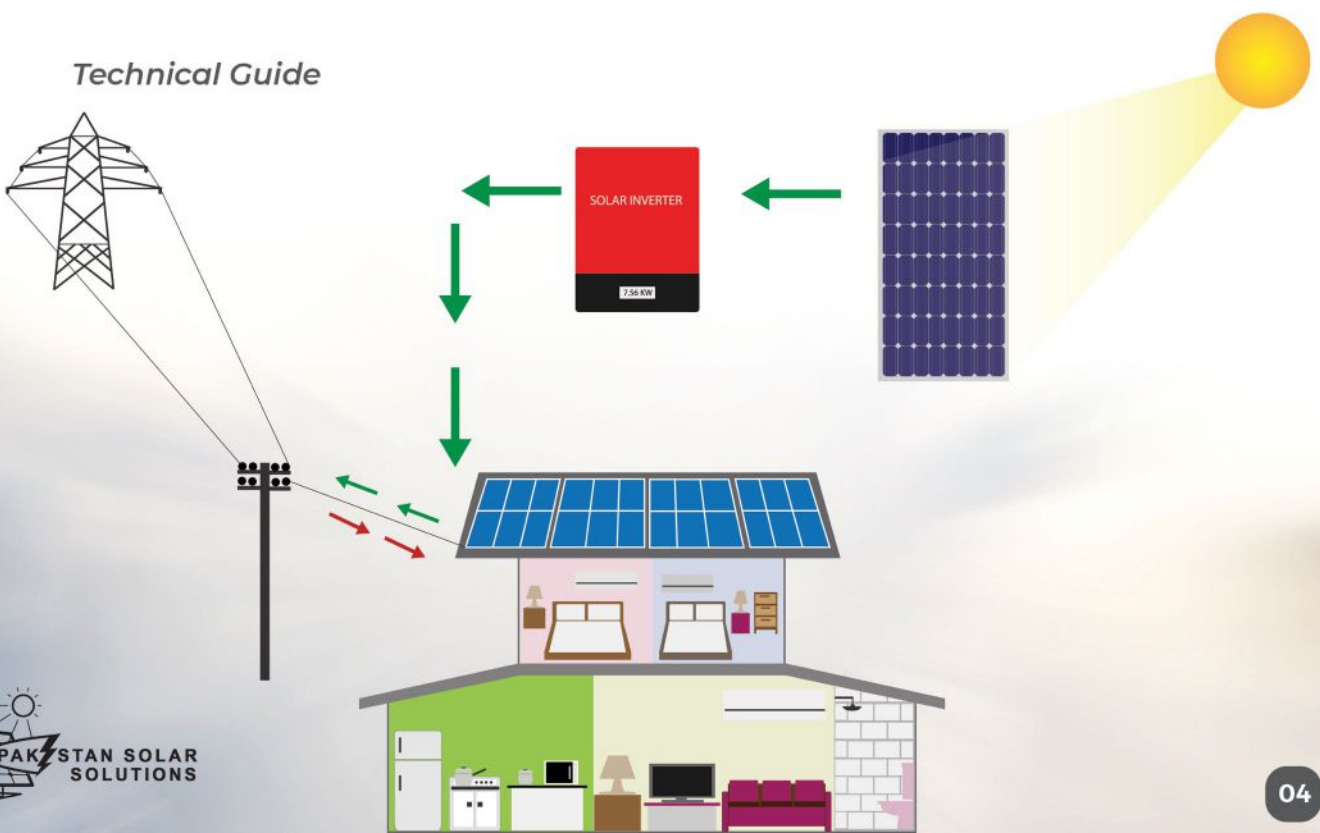
We work at our best to provide you ease and take all the responsibilities. We handle all the procedures from net metering applications to the installation of solar systems, so you just have to sit back, relax, and see things happen in the most proficient manner.

WHAT WE OFFER

On-Grid Solar System

A grid inter-tied solar power system is directly connected to the traditional electric utility company. Grid inter-tied systems allow the homeowners to get power from either the solar system or the utility grid. Switching between the solar system and the grid is seamless.

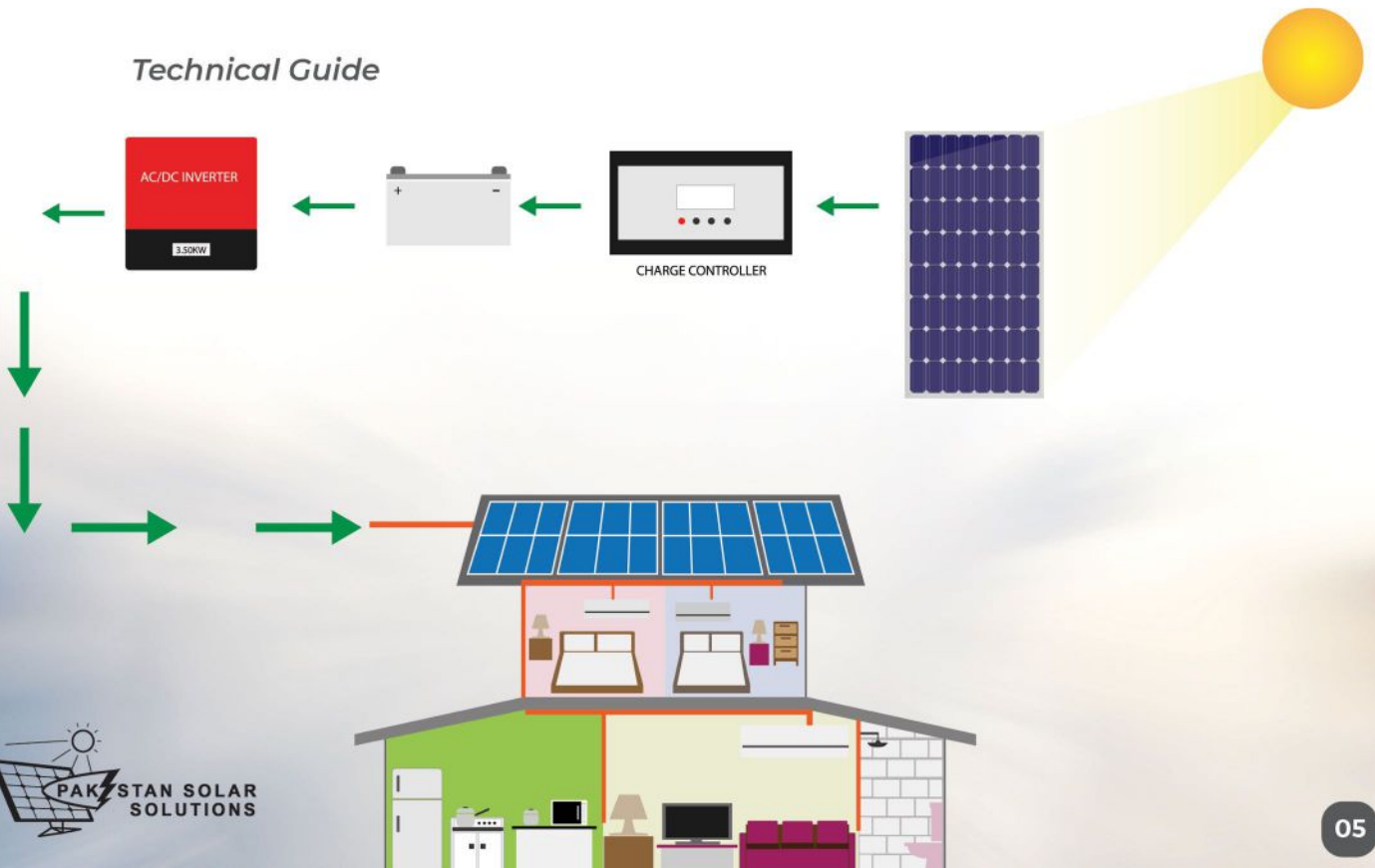
Technical Guide



Off-Grid Solar System

An off-grid system is completely disconnected from the traditional electric power grid. Without a connection to the utility grid, batteries are essential to balance periods of excess production and excess demand.

Technical Guide



Hybrid Solar System

Hybrid solar systems generate power in the same way as a common grid-tie solar system but use special hybrid inverters and batteries to store energy for later use. This ability to store energy enables most hybrid systems to also operate as a backup power supply during a blackout, similar to a UPS system.

Technical Guide



TYPES OF SOLAR PANELS

Monocrystalline Solar Panels

To make solar cells for monocrystalline solar panels, silicon is formed into bars and cut into wafers. Because the cell is composed of a single crystal, the electrons that generate a flow of electricity have more room to move.



Monocrystalline Solar Panel



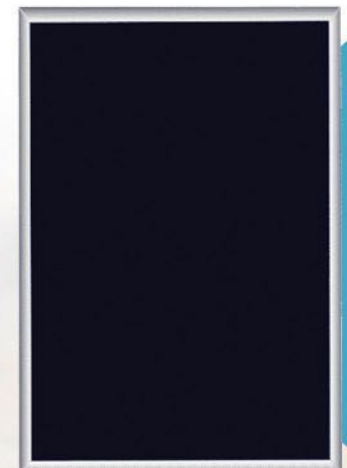
Polycrystalline Solar Panel

Polycrystalline Solar Panels

Polycrystalline solar panels are also made from silicon. However, instead of using a single crystal of silicon, manufacturers melt many fragments of silicon together to form the wafers for the panel

Thin Film Solar Panels

A thin-film solar cell is a second generation solar cell that is made by depositing one or more thin layers, or thin film (TF) of photovoltaic material on a substrate, such as glass, plastic or metal. Thin-film solar cells are high in voltage.



Thin-Film Solar Panel

TYPES OF INVERTORS

On-Grid Inverter

A solar inverter, converts the variable direct current (DC) output of a photovoltaic (PV) solar panel into a utility frequency alternating current (AC) that can be fed into a commercial electrical grid.

Grid Tied Inverter

A grid-tie inverter converts direct current (DC) into an alternating current (AC) suitable for injecting into an electrical power grid, normally 120 V RMS at 60 Hz or 240 V RMS at 50 Hz.

Off- Grid Inverter

An off-grid inverter needs a battery bank to function. Here's how it works: your solar panels feed DC power into the batteries. Then your inverter takes that power and “inverts” it, creating AC power for your home. This works essentially like a miniature power grid.

Variable Frequency Drive

A variable frequency drive (VFD) is a type of motor controller that drives an electric motor by varying the frequency and voltage of its power supply. The VFD also has the capacity to control ramp-up and ramp-down of the motor during start or stop, respectively.

Hybrid Inverter

A hybrid inverter, otherwise known as a hybrid grid-tied inverter or a battery-based inverter, combines two separate components—a solar inverter and a battery inverter—into a single piece of equipment.



TYPES OF BATTERIES

Lead Acid

Despite having a very low energy-to-weight ratio and a low energy-to-volume ratio, its ability to supply high surge currents means that the cells have a relatively large power-to-weight ratio. These features, along with their low cost, make them attractive for use. Also they are inexpensive compared to newer technologies.

Dry Cell

A dry cell uses a paste electrolyte, with only enough moisture to allow current to flow. Unlike a wet cell, a dry cell can operate in any orientation without spilling, as it contains no free liquid, making it suitable for portable equipment.

Super Capacitor

A super capacitor (SC), also called an ultra capacitor, is a high-capacity capacitor with a capacitance value much higher than other capacitors, but with lower voltage limits, that bridges the gap between electrolytic capacitors and rechargeable batteries.

Lithium Ion

A lithium-ion battery or Li-ion battery is a type of rechargeable battery. Lithium-ion batteries are commonly used for portable electronics and electric vehicles and are growing in popularity for military and aerospace applications.



RETURN ON INVESTMENT

In many ways, your solar power system is a financial product – one that is capable of generating annual returns ranging anywhere from 10 percent to more than 50 percent. The average Energy Sage shopper pays off their solar purchase in just three to four years and earns a strong solar ROI, receiving free electricity for the remainder of their solar panel system's 25+ year lifespan.

FACTORS IMPACTING SOLAR ROI

BUSINESS BENEFITS



How much will your profits increase because of your lower costs? What is the value of the goodwill your solar power system generated? What level of revenues is attributable to your green credentials? All of these factors can increase your company's return on solar investment.

PROPERTY VALUE INCREASES



Solar panel system ownership tends to increase your property resale value, .

TECHNOLOGY



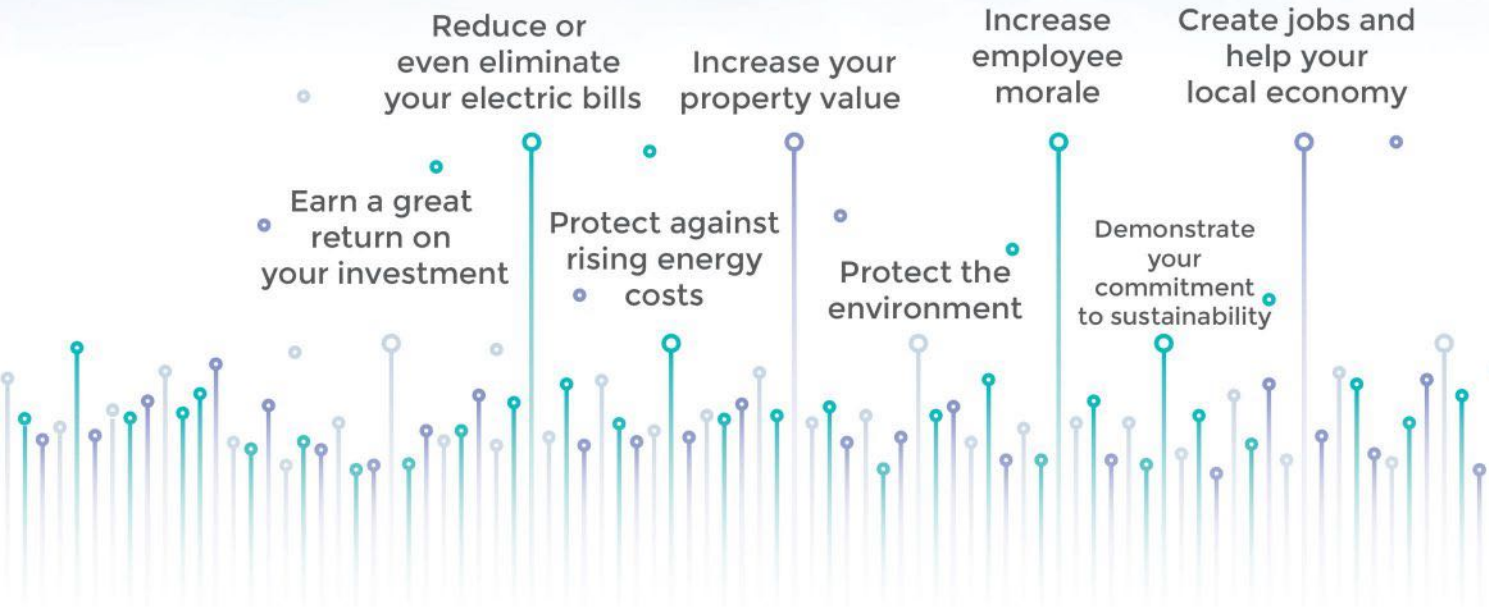
A more efficient system will offset a greater percentage of your monthly electric bill.

ELECTRIC RATES



How high are your current electric bills? This determines your savings over the life of your system. The higher your rates, the more you can save with solar.

BENEFITS OF GOING SOLAR



WARRANTIES

PANELS

- 10-12 Years Product's Replacement Warranty
- 25-30 Years Power Warranty

INVERTERS

- 1-5 Years Warranty depending on the model.

BATTERY

- 06 Months – 5 Years
- Lifecycle 3-5 years



OUR PARTNERS



OUR CLIENTELE



NHS
Residential Clients

MALIR CANTT.
Residential Clients





Your Solar Energy Partner

**FOR A CUSTOM FREE QUOTE,
PLEASE CONTACT US**

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