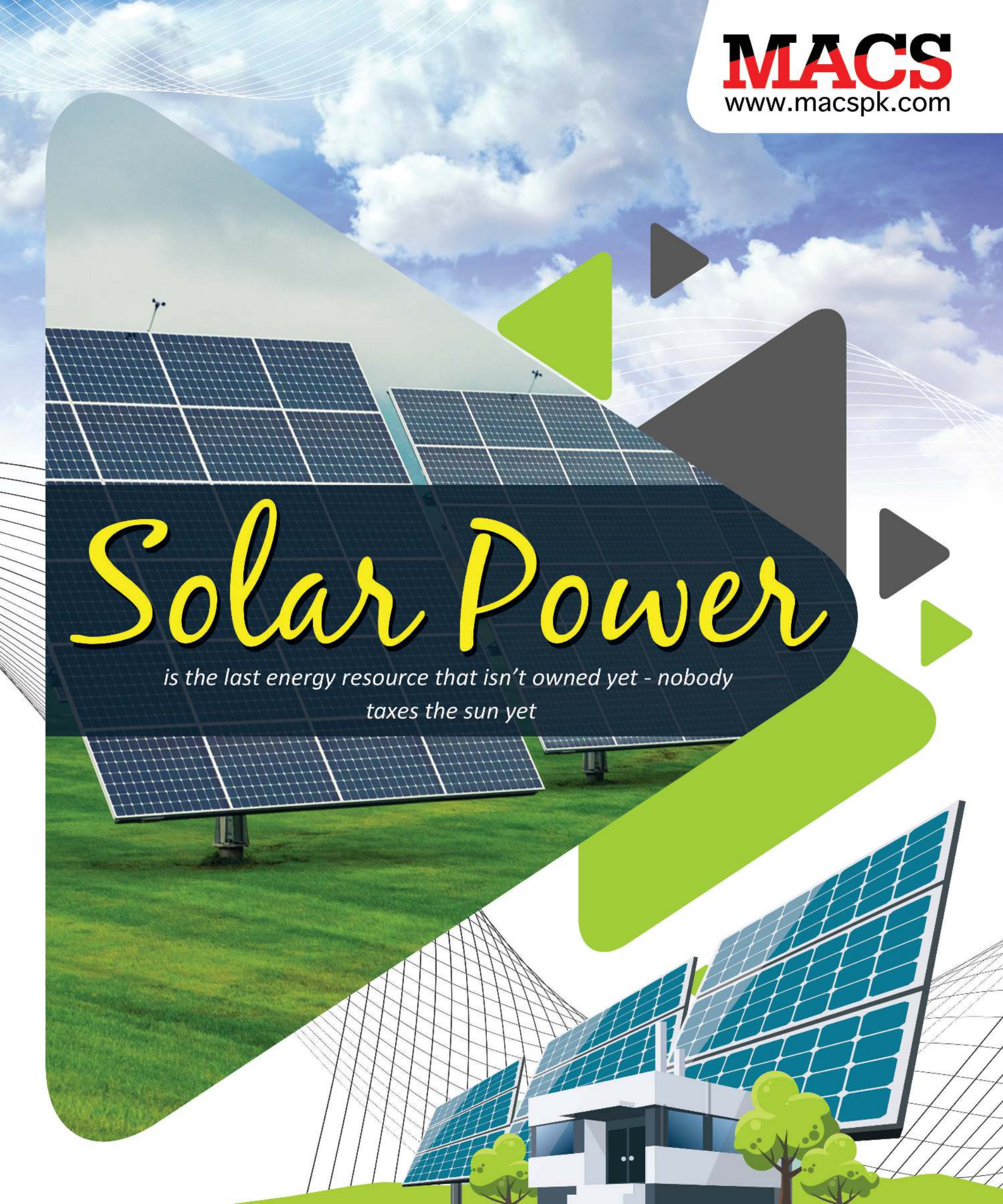


Solar Power

*is the last energy resource that isn't owned yet - nobody
taxes the sun yet*



ABOUT US

MACS is a leading provider of comprehensive solar energy solutions including

- **Solar ON-Grid Systems (Net Metering)**
- **Solar OFF-Grid/Hybrid Systems**
- **Solar Water heating Systems**
- **Solar water pumping systems**
- **Solar Street Lighting systems**

MACS Solutions has done installation of 500 Kilowatt (kW) Solar PV systems (On-grid & Hybrid) & solar pumping system in all over the country, our proven Solar Engineering Solutions and Installations has reduced the risk of fuel-price volatility while delivering a leveled cost of electricity (LCOE) that is cost competitive with fossil fuels today.

By integrating technologies and expertise across the entire solar value chain, MACS delivers Solar energy solutions that maximize the value of our customers' investment while minimizing their risk.

We have developed, engineered, constructed, and put in operation some of the most successful Solar power systems in existence; So Limitless Solutions has become the partner of choice for the No. 1 solar companies in Pakistan.

OUR VISION

“To provide the clean and green energy for greener world”

MACS is like a new planet in the solar system, absorbing the solar energy consistently from the sun and converting that energy in to clean electricity power for changing the lives of human beings. Our motive is to save this Beautiful Planet and also to shake hand with the people of Pakistan to share the Power outage problems. With the help of ever-lasting abundant energy from the sun, our mission can be carried out successfully.

OUR SERVICES

PROJECT
CONCEPT

*EDD

PRODUCT
SELECTION

QUALITY
CHECK

INSTALLATION

COMMISSION

O&M

DESIGN ENGINEERING

FIELD ENGINEERING

TURNKEY PROJECTS CONSULTANCY

Our expert team has the capability to undertake:

Site Evaluation/Assessments

- Project designing,
- Techno-economic feasibility studies
- Development, installation
- Monitoring and O&M

Our EPC Consultancy Services include:

- Engineering design Documentation
- Technical tender documentation
- Turnkey solution for Solar Project construction
- Business development



SOLAR PV SYSTEMS

Solar Photovoltaic (PV) is a method of generating electrical power by converting solar radiation into direct current/electricity using Solar PV Panels.

There are 2 types of Solar PV Systems

1. On-Grid

In On-Grid PV Systems, the power generated from PV Panels is inducted to the utility grid. On-Grid Inverters help in synchronizing the Power produced by PV Panels with the Power available in the grid. Batteries are not employed in an On-Grid PV System so it works only in the presence of sun.

Benefits

1. We can cut down the charges of utility bill
2. In some countries, if the PV Power generation exceeds consumption limits, it is fed back into the Grid which is then paid for by the Electric Power Supply Company.

2. Off-Grid and Hybrid

In Off-Grid PV Systems, Electricity supply from the Grid has no role to play. Off Grid PV Systems are independent systems and these are mostly installed in remote areas where electricity is not available so no load shedding occurs. These PV Systems include several batteries and charge controllers.

Benefits

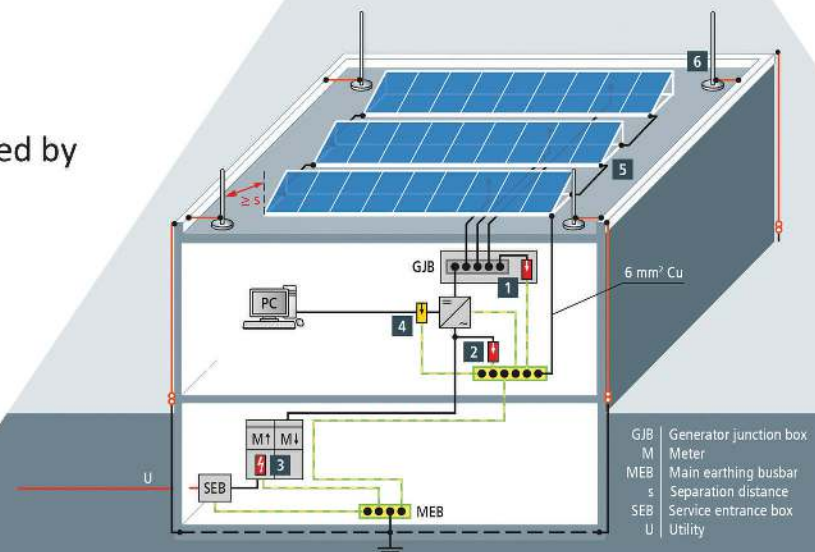
The inverters used in these types of systems are off-grid inverters which do not need to be synchronized with Grid for producing AC voltage.

3. Solar Water Pumping System

A solar water pump is a pump running on the electricity generated by photovoltaic panels.

Benefits

1. There is no fuel cost
2. It can provide water in remote areas where availability of utility power is not possible.

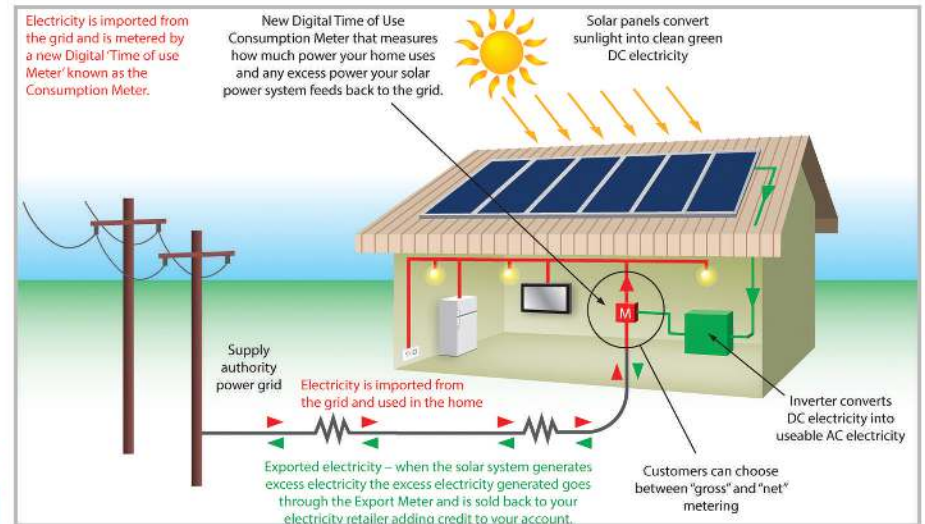


NET METERING EMPOWERING PEOPLE TO GENERATE POWER.

Under Net Metering Regulation by NEPRA, Net Metering is a new way to promote alternative and Renewable Energy (ARE) and a revolutionary initiative that allows an ordinary consumer to sell excess power generated through Solar Energy or Wind Power to be sold to the concerned DISCOs. So far 82 net metering licenses have been issued by NEPRA.

WHO CAN AVAIL NET METERING?

3 phase meter domestic, commercial and industrial consumers.



ADVANTAGES OF NET METERING

- 6 kWp Solar PV panels may produce 26 units daily on average, resulting in 780 electricity units a month (based on Islamabad climate data).
- Unit should be priced at off-peak tariff rate.
- Assuming off-peak rate approximate at Rs.10/unit. The total benefit = approx. Rs.7,800 (780 units x Rs.10)
- If the average consumption is 500 units per month (for domestic use). 280 can still be sold for an approximate benefit of RS 2,800 per month.
- Regardless of surplus energy. Customer still saves. If average consumption = 1000 units per month (1000 - 780) and save 780 units per month.
- Approximate cost of installation of solar is about Rs.70,000/KW

NET METERING FACILITY

6 STEPS AWAY

Step 1: Submission of application by the consumer to DISCO.

Step 2: Technical review of application by relevant DISCO.

Step 3: Agreement between consumer and DISCO.

Step 4: Payments and submission of demand notice for interconnection by the consumer.

Step 5: Installation/ commissioning by Disco .

Step 6: License by NEPRA.



Contact US

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