

SOLAR ENERGY SERVICES

The 21st Century Technology



**DOING OUR BEST
FOR THE ENVIRONMENT**

Better than any Photovoltaic Solar Products in the World !

STAND ALONE SYSTEM

Get rid of your local energy supplier

Electricity 24 Hours a Day

SOLE AGENT & SOLE DISTRIBUTOR

**Solar Energy Services Room # 2, Mezzanine Floor,
Lakhani Corner, Plot No. A-1, Block-13/A, Scheme # 24,
Gulshan-e-Iqbal, Karachi, Pakistan.**

Cell: +92-300-2070250, +92-313-8237820

**24/7
Electricity**

www.sespk.net

FREE ENERGY. ANYTIME. ANYWHERE

INTRODUCTION

Our principals in China are mainly engaged in the comprehensive utilization of Solar Energy Technology research, development and manufacture.

Solar Energy in Pakistan is the most Rewarding option. Pakistan has sun for 310-325 days which is one of the highest in the world, hence Solar Energy delivers maximum in Pakistan.

Solar Energy Services Pakistan is a group of dedicated individuals committed to bring relief to the power punctured people of Pakistan.

Solar Energy Services in Pakistan is not a showroom of imported products. It is in fact a service provider to offer technical and economical solutions to raise the countrymen out of energy crises whirlpool. We provide complete "Project Tailoring" and each power requirement is assessed separately.

Our research and innovation offers energy efficient Solar Tracking System which follows the suns position through out the day time and pulls down the optimum solar power to energize according to your requirements.

OUR MAIN PRODUCTS ARE



Dish Engine Solar System
(for Domestic Energy Load requirement)

OVER 5 KW



Solar Trough System
(for Heavy Energy Load requirement)

OVER 100 KW



Heliostat Tracking System
(for still Heavier Load requirement)

OVER 1 MW

21st Century Super Solar Technology
with 180° Sun Tracking System for
round the Clock Energy (Electricity) Day & Night



Environment Friendly
Green Energy



Grid Quality Electricity AC Current

NO Batteries required
Replacement expenses year after year

We are endowed with abundant energy resources by NATURE, yet we are one of the most Energy Deficient countries in the world. We have serious **LOAD SHEDDING** of Electricity and Natural Gas.

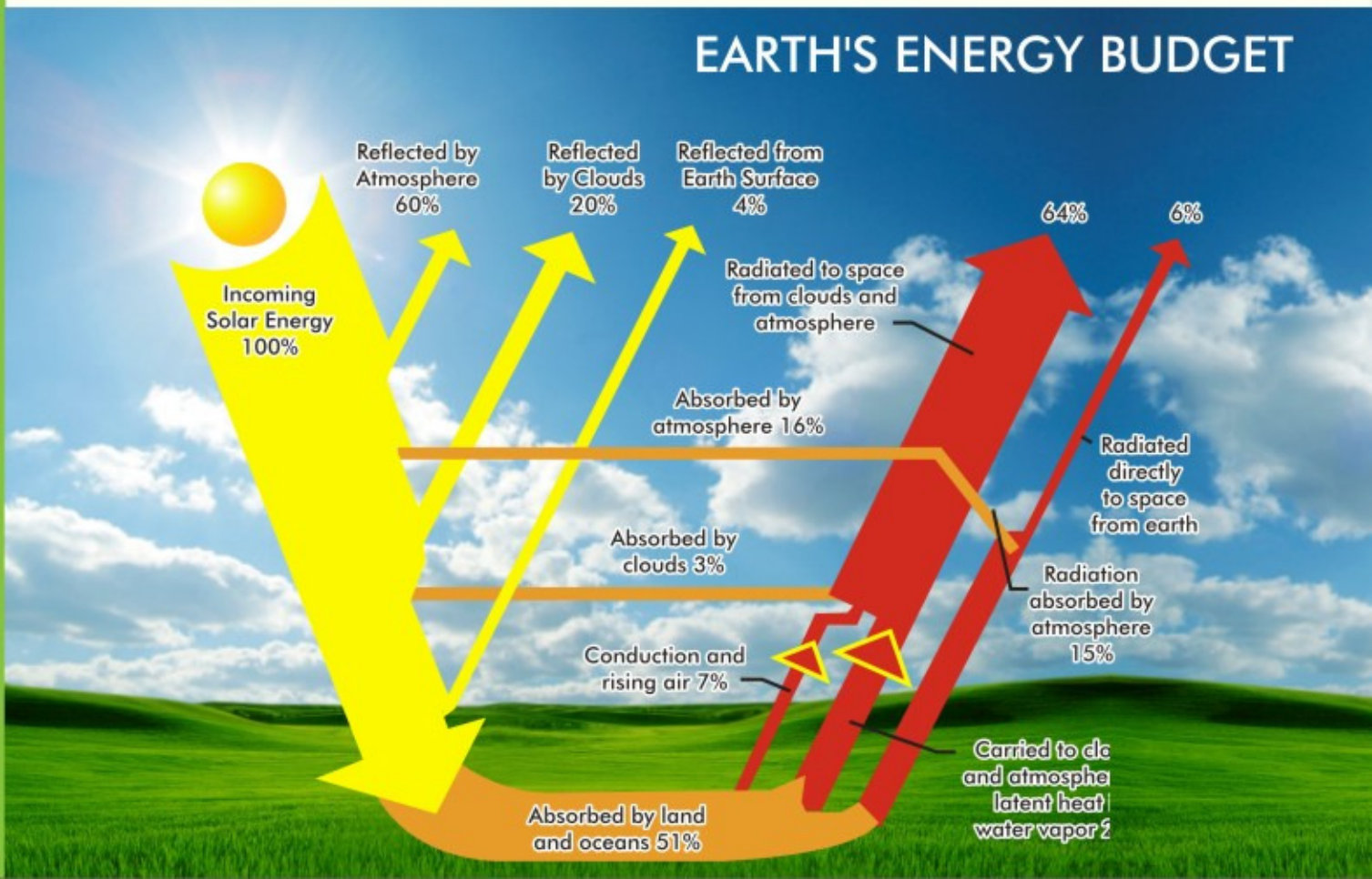
Fossil fuels viz. coal, oil and gas contain carbon. Burning fossil fuels is the major cause of **GREENHOUSE GASES** in the atmosphere. Besides these fuels are fast depleting and would become scarce and expensive and non affordable. The only solution is to switch to the **RENEWABLE SOURCES OF ENERGY**.

In the absence of unanimity on making DAMS for HYDEL Power, **SOLAR ENERGY** is the best solution to generate Electricity for our Industrial, commercial and Domestic purposes. Pakistan is located in the most suitable geographic position where there is bright sunshine almost the year round.

SOLAR ENERGY SERVICES in Pakistan is dedicated to provide the best solutions to your diversified requirements at the most competitive prices of today. We represent manufacturers of the STATE OF THE ART in Solar Energy Equipment and endeavor to provide **AFTER SALES SERVICES** of consultancy and maintenance although our products need almost NO Maintenance. Solar Energy is in abundance and it is a **FREE** gift of the nature.

Shrug off your DESPAIR and switch to HOPE, Brighten your homes and Cities, Let your Commercial Centers BUZZ with activity and Industries ROLL ON with renewed vigor by SWITCHING TO SOLAR ENERGY as a SOLUTION to FREQUENT LOAD SHEDDING You will get rid of **EVER INCREASING MONTHLY ELECTRIC BILLS** by connecting to nature's **FREE ABUNDANT** source of energy.

Come joint hands to save the Planet Earth from devastation by carbon. Mother Nature has helped us with Sun for Free Life Time Energy, so don't pay for electrical energy any more and switch to sun. install our Solar Energy unit an to get rid of heavy electric bills, help your budget from running out because of polluted energy and get environment friendly energy. Save the future of our generation by using Environment Friendly Solar Energy.



Overview

The collecting mirror is the main part of dish-engine solar system. This Technology collects and reflect the low energy density sunlight to the focus of the mirror.

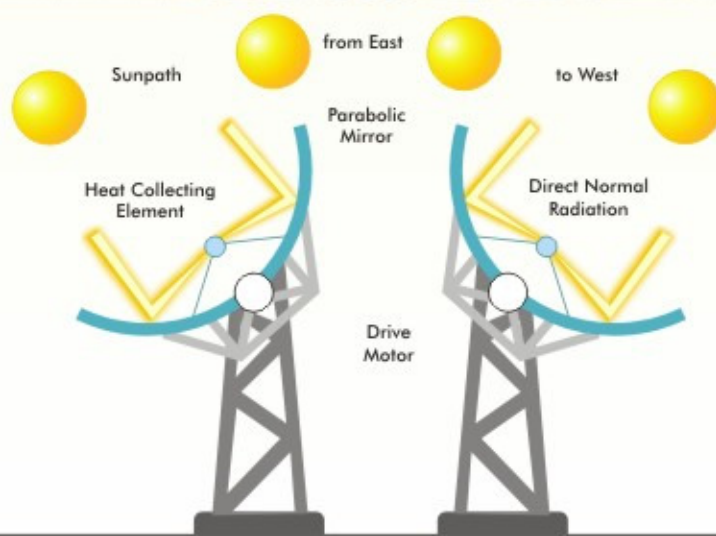
Thus, it can make the sunlight turn into high energy **CSP** (Concentrated Solar Power). This energy heats the working medium to generate electricity.

The dish parabolic collecting system consists of several small planted mirrors. This system can rotate on dual-axis rotation by two controlling motors. This system tracks the sun automatically, so it can utilize the sunlight at its maximum very efficiently.

The stirling engine of **SOLAR DISH ELECTRICITY GENERATION** system consists of sunlight collection system, which can track the sun automatically and a set of stirling engine, which is equipped with a solar energy concentrator & electric generator.

The collection system receives the sunlight and reflects it to the concentrator at the focus point to activate the stirling engine to produce electrical energy without using and fossil fuel or emission or any dangerous gases in the environment. It is totally **GREEN ENERGY**.

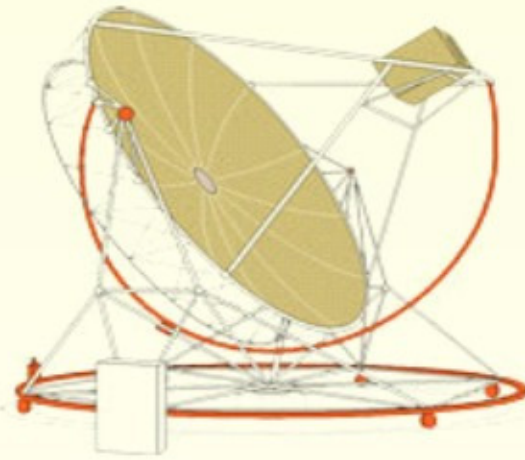
The system also helps the co-generation of energy + hot water upto 30 degree celsius (by transmitting high energy from concentrator to the water recycle system) to be used in different requirements like Hotel Industry, Dying Industry, Hospitals, Swimming pools, Room heating and Laundry etc. The concetrator can transmit the high energy



Complete System
for every
Different Requirement.

Solar Tracking System

We have two models about tracking device, one is level and pitching structure, also called two-axis structure; another is polar-axis structure.



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- Level and pitching structure

Features

- A wide installation range, it can be adapted to any latitude and longitude. Temperature range is from -30°C to 55°C . Under the winder power 8 level (wind speed 21 m/s), it will run normally and its dust levels is IP56 level.
- The size of mirror is from 1 m^2 to 120 m^2 .
- It can track the sun fully. When tracking the sun, the azimuth angle is 180° and the elevation angle is 90° .
- Highly tracking accuracy and steady structure.
- It has two control modes, which is manual and automatic mode, and can switch at any time.
- It uses less maintenance and long-life structure. The working efficiency is very high.
- Equipped with temperature, mechanical, electrical and a variety of security protection.
- It has emergency escape from dangerous function. It is equipped with intelligent recognition the wind speed system. When the wind speed over 21 m/s and meeting the snow, hail, dust storms and other inclement weather or emergency situations such as communication signal interruption, it will remain the protection.
- It is equipped with the central control and adopts unlimited focus network management models. This system has internet module extended function. You can connect the network, according to the requirements of mirror control system.
- Vertical clean function: you should remain that it is parallel that mirror surface and the front gallery. The included angle of normal of mirror surface with horizon is about 10 degree.

Dish-engine solar tracking system has two types structure:

1. Two-axis "structure
2. Polar-Axis Structure

1) Two-Axis Structure

The main technical parameter:
level rotation angle: 180°
Pitching rotation angle: 90°
Tracking accuracy: $< 0.3\text{mrad}$



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7. It equips with the central control.

2) Polar-Axis Tracking Structure

Character

1. It adopts the polar-axis tracing principle. The main operation axis is parallel with the axis and simultaneous tracking the sun angle.
2. Mechanical structure is compact and the transmission chain is short. It can save the manufacture costs.
3. High reliability and tracking accuracy.
- 4.. Tracking control system is simple.





Solar Dish

Advanced Technology

Cheaper Technology

Solar dish Tracks the sun for a whole day with the potential to store energy and deliver firm, dispatchable power in periods of peak demand and during the hours of darkness.

With SOLAR DISH, you don't need to invest into a bunch of costly arrays of SOLAR PANELS

Little Space required

Solar Dish, works on a cloudy day.

No Battery used

v/s

Solar Panels

Old Technology

Expensive Technology.

Solar Panel charges Battery for less than 4 hours. Year after year

Solar Panel can not provide BIG POWER in Small place.

Solar Panel has no efficiency in Cloudy days.

With Solar Panel, You don't get worth of your money.

Battery change required every 2 years

Solar Thermal Power Generation

Get rid of your Heavy Electric Bill with Solar Energy
Efficient Power Generation Systems
Let mother nature do the work.

