

Single Source for Integrating Services of Solar Pv Power Plants



One with the Sun

- Mounting Systems ■ Electrical Installations ■ Civil Foundations
- Fire Fighting Systems ■ Pressure Ventilation Systems

Developing economies across the globe, are increasingly looking towards renewable alternative energy sources for sustaining growth, ensuring environmental protection.

As per industrial surveys, India has installed capacity of 1,67,077 MW (as on Nov 30, 2010). 65.6% of this is met through thermal; 24.7% through Hydro; 2.9% by nuclear; and 7.7% through renewable sources like SHP, Biomass, Solar and Wind. India still faces an acute shortage of electricity according to the same reports.*

Solar Power has come into sharper focus, following the launch of the Jawaharlal Nehru National Solar Mission, that has set a target of 20,000 MW grid connected solar power by 2022 in three phases. The first phase, extending upto 2012-13, aims at promoting domestic content in solar manufacturing and developing the market for solar power. This phase also aims at developing 1000 MW of solar power by 2013, with equal allocation to solar photo voltaic and thermal technology options.

PV has 70-80% of global market share and utilizes the light energy of the sun.

Today, it can be established from levelized cost of electricity (LCOE) calculations that solar energy production is more competitive than ever before.

*Survey of Indian Industry 2011

>> We make sure that your projects are on schedule <<



Equipped for challenges.
Poised to deliver.

Civil Foundations :



The conventional foundations are uneconomical and consumes enormous time. Hyquip through its intensive study and trails has come up with different types of foundations like Screw pile, Precast surface mounted and Under reamed precast structures to suit various soil conditions and to ensure speedy installations.

Electricals :

The plant layouts are designed to ensure low consumption of lables as well as care of operation. Hyquip directly works with leading manufactures of invertors, transformers and switch gear through long time contracts which helps in planning of schedules and committed deliveries.



Fire Fighting Systems :

The system will be sourced from one of the group company who has the knowledge and experience in offering fire fighting system for Coal handling plants for thermal power plants offered on turnkey.



Pressure Ventilation Systems :



Controlling the ambient temperatures in control rooms and maintenance of living environment is essential for operations.

Hyquip offers various kinds of solutions for this application.

- ☐ Pressure ventilation systems
- ☐ Push & pull type
- ☐ Hot air exhaust systems
- ☐ Wet type ventilation systems
- ☐ Air conditioning systems



The Company

Hyquip since its inception in the year 1984, has been focusing on providing innovative engineering solutions to the Indian industry.

Over the years, Hyquip has developed many import substitutes like Aluminum extrusion handling systems, High speed battery packaging systems, Self cleaning rotary airlock valves, Double cone valves, Screw coolers for 650°C temperature materials cooling and in the process **received many national and international awards.**

The company has now evolved into a dependable supplier for Flow control products, Bulk material handling systems, Dust control systems, MSW processing machinery for compost, RDF, Plastics and Waste to energy plants in technical collaboration with **Hitachi Zosen Inova.**

Today, Solar power has come into sharper focus, following the launch of the Jawaharlal Nehru National Solar Mission, that has set a target of 20,000 MW grid connected solar power by 2022.

To tap this enormous potential, the company diversified into Solar power plant integrated services and through its inhouse research developed Tracking systems, Civil foundations of different types to suit project sites, Fire fighting systems, Pressure ventilation systems and sourcing electrical components for on-grid and off-grid systems from leading manufacturers.

Energy

From the Sun...

Harnessed better

with Hyquip Tracking systems

Solar energy generation and sustenance, hinges on two key factors :

- ☐ The solar panel
- ☐ The solar tracking system

HYQUIP RANGE OF TRACKERS

- ☐ Seasonal Tilt - H_s°
- ☐ Single Axis - H_1°
- ☐ Dual Axis - H_2°

SALIENT FEATURES :

- ☐ Specialized profiles economizing the structures while increasing their strength.
- ☐ Integrated manually operated tilting mechanism for ease of operation and maintenance for seasonal tilt trackers.
- ☐ Control based on an astrological algorithm by a PLC controller tilts the modules 45 degrees in east west direction for single axis tracking.
- ☐ Indigenously developed economical matrix formation to suit different plant layouts.
- ☐ Modular design also helps in reducing erection time considerably.

Built to last the life time of Solar Power Plants

The solar panel comprising of the PV modules is mounted on a tracking system that follows the Sun in its trajectory across the sky. This is considered the simplest and the most efficient way to maximize the output of a typical solar photovoltaic system. Thus, solar trackers are devices which improve the energy yield of the power plant by optimally positioning the solar panels towards the Sun. This helps in ensuring the maximum exposure for the solar cells for the conversion of the Sun's energy to electricity.

Considering the levelized cost of energy calculations (LCOE), it can be construed that the financial benefit of using solar tracking systems for increase in lifetime energy yield of solar power plants, considerably outweighs the increment of system cost.

Solar tracking would greatly help towards moving solar energy production into the main stream as an attractive investment option.

Why invest in HYQUIP tracking systems :

Hyquip, adhering to the highest technological and engineering standards has indigenously developed fixed, seasonal tilt, single and dual-axis tracking solar installation solutions for utility grade solar projects with technical assistance from **Sachs Engineering, Germany**.

- ☐ The efficiency of power generation increases by 20-40% compared to conventional fixed systems - means more money generated.
- ☐ The area required for setting up a solar park is reduced, means less investment.
- ☐ The return on investment period of solar power plant is reduced.
- ☐ Increased investment of the tracking system is fully recovered within 4 years.

Solar energy is one of the fastest growing sources of renewable energy in the market today.

