



PHOTON ENERGY SYSTEMS LIMITED
SYSTEM INTEGRATION & EPC

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COMPANY VISION



to be an innovative and competitive global enterprise providing end-to-end solar energy solutions to customers



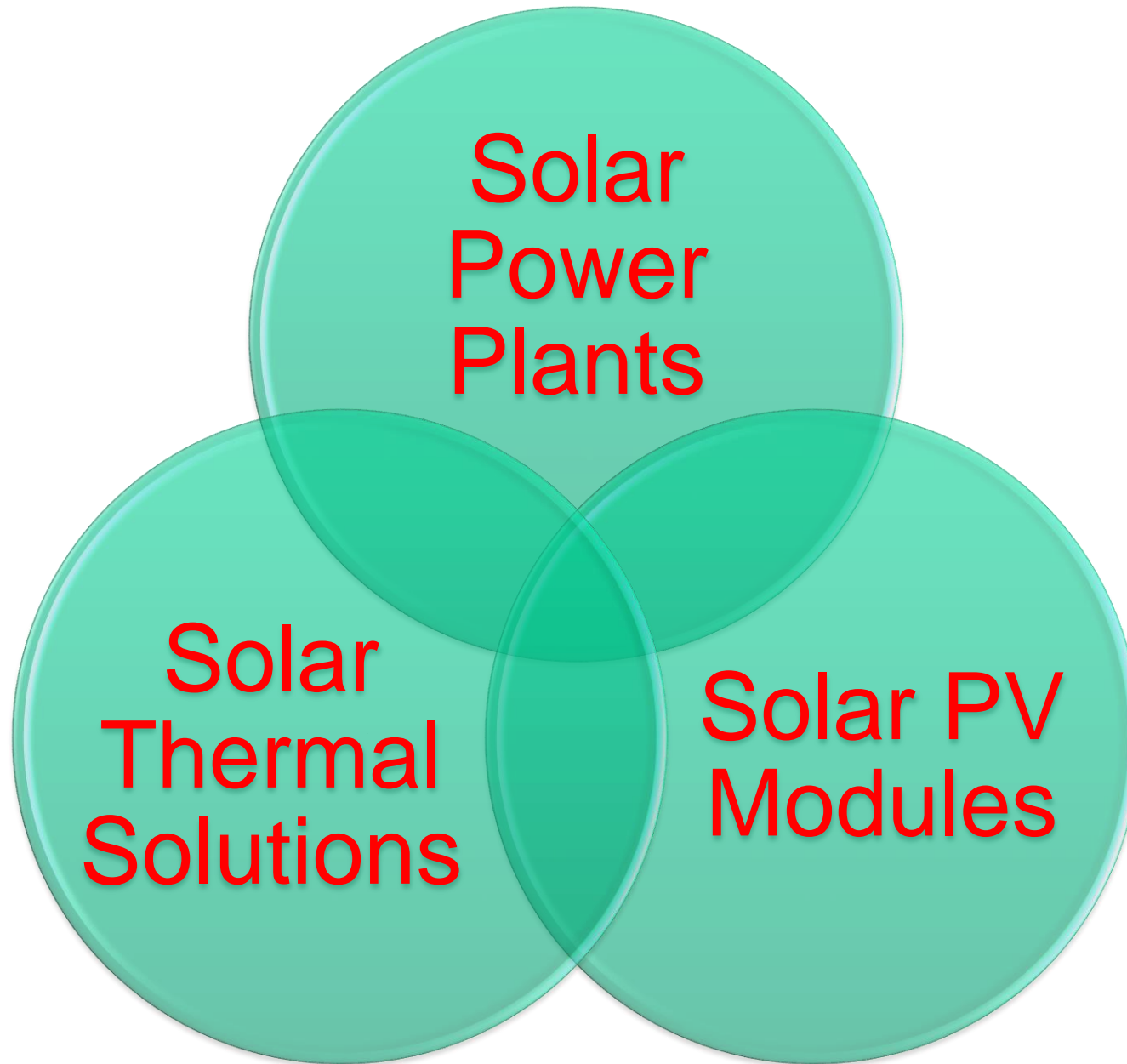
COMPANY PROFILE



- Photon Energy Systems Limited since 1995 is India's leading solar company, providing a wide range of Solar Solutions – Solar PV Modules, Solar Power plants (Megawatt & Off-grid) and Solar Thermal (Water Heating) Solutions.
- The module manufacturing unit located at Hyderabad is ISO9001:2008 & ISO14001:2004 certified by TUV and equipped with state-of-the-art facilities. This division presently has a production capacity of 40 MW producing crystalline modules in the range of 3Wp to 305Wp
- Thermal Division is the first Indian company to have a manufacturing facility for ETC based Solar heating systems with state-of-the-art machinery for manufacturing tanks & flat plate collectors
- System Integration & EPC Division is among India's leading EPC company have installed over 125MW capacity



COMPANY DIVISIONS



Company Highlights



One of India's oldest Solar PV & SWHS Brands since 1995

125 MW Utility Scale Solar Power Plants & Solar Rooftop Plants Installed & commissioned. 25MW under execution

Over 220 million units of Solar Power generated

First Utility Scale 3MWp Solar Power installed in India, first & largest Solar Power Plant with single-axis tracking in India

Marquee Customer base – ISRO, Tata Power, NTPC, GMR, APGenco, Karnataka Power, Eenadu Group, Dr. Reddy Labs, E.I Dupont

Installed and commissioned India's first Solar Seawater Desalination plant

SYSTEM INTEGRATION & EPC DIVISION



Experienced in Crystalline, Thin Film & CdTe module plants

Proficiency in various tracking, seasonal & fixed structures

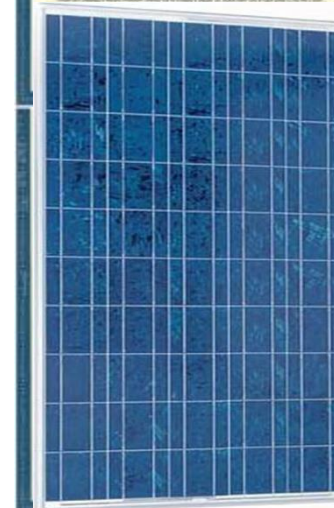
Highly qualified, multi-disciplinary (CEM) design team

Dedicated project execution division

PHOTON PV MODULES



- Photon multi-crystalline (PM Series) & mono-crystalline modules (PMM Series) are IEC 61215 and IEC 61730 certified by TUV & UL up-to 305Wp
- Modules manufactured in ISO9001:2008 & ISO14001:2004 TUV certified plant
- Customer base across five continents in various countries including Germany, Spain, Italy, France, East African countries and Southern Africa





PHOTON SOLAR

presents

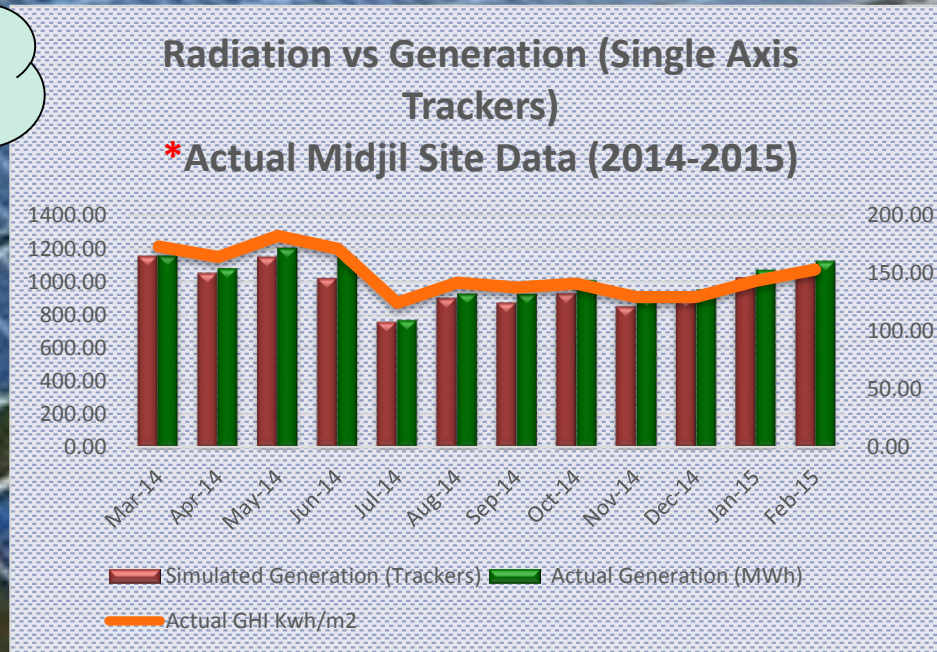
India's Highest Generating SOLAR POWER PLANT Eenadu Midjil Solar Plant

PLF *
24.5%

Generation*
2.1 Million
Units per MW
per annum

***Photon**
Edge:
Superior
Engineering
= Higher
Generation

PR *
83.07%



***PR = Performance Ratio (Solar Power Industry Standard)(Typical Indian Solar Plant PR = 75-76%)**

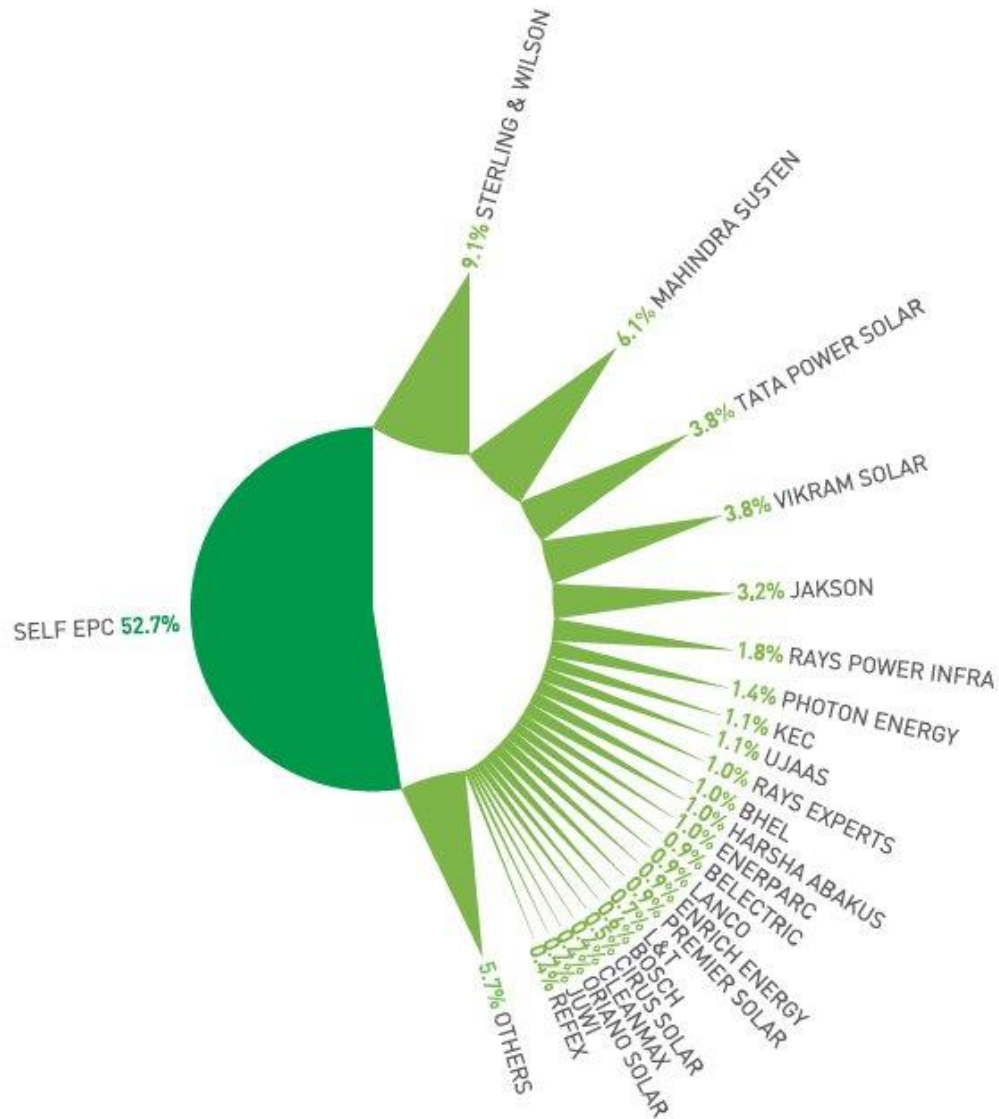
***PLF = Plant Load Factor (Power industry Standard) (Typical Indian Solar Plant PLF = 19%-20%, 1.6-1.7 million per MW)**

The PHOTON EDGE

Ranked among India's top



EPC contractors



The PHOTON EDGE



Photon had 6 plants in the top 13 among all the 69 solar power plants (RPSSGP) all over India !!!

Generation-Wise Solar Power Plants in 2012-13 (RPSSGP)						
Rank	Name of the Project Proponent	State	Capacity (MW)	Generation FY 2012-13 (B)	Per Mwp	EPC
1	Gajanan Financial Services Pvt. Ltd.	Andhra Pradesh	1	1748430	1748430	
2	Basant Enterprises	Rajasthan	1	1711935.82	1711936	
3	Nav Bharat Buildcon Pvt. Ltd.	Rajasthan	1	1702878.84	1702879	
4	AEW Infratech Pvt. Ltd.	Rajasthan	1	1636381.8	1636382	Photon
5	Photon Energy Systems Limited	Andhra Pradesh	1	1597710.55	1597711	Photon
6	Andhra Pradesh Power Generation	Andhra Pradesh	1	1582330	1582330	Photon
7	Asian Aero Edu Aviation Pvt. Ltd.	Rajasthan	1	1562671.2	1562671	
8	Bhavani Engineering	Andhra Pradesh	1	1548075	1548075	Photon
9	RL Clean Power Pvt. Ltd.	Tamil Nadu	1	1543450.38	1543450	
10	Amrit Jal Ventures Ltd.	Andhra Pradesh	1	1526003.06	1526003	
11	Ramakrishna Industries	Andhra Pradesh	1	1511619.83	1511620	
12	Andhra Pradesh Industrial Infrastructure	Andhra Pradesh	1	1471830	1471830	Photon
13	SDS Energy Pvt. Ltd.	Haryana	1	1456899	1456899	Photon
14	C & S Electric Limited	Haryana	1	1431670	1431670	
15	B & G Solar Private Limited	Tamil Nadu	1	1428480	1428480	

PHOTON TRACKERS



- Single Axis Horizontal Tracking System
- Installed and commissioned 10 MW plant with crystalline modules
- Installed largest solar pv plant with trackers in India
- Generate 15% more energy for any given site
- Additional energy production reduces system's levelized cost of electricity (LCOE)
- Return on Investment (ROI) far superior to any alternate fixed structure modules (thin film or CdTe)
- Completely indigenized and domestic components ensure lower costs, faster delivery and higher IRR
- Fewer moving parts and motors means lower operating and maintenance costs



10MWP SOLAR POWER PLANT

First Tracking Plant in India



Capacity : 10MWp Location: Mahbubnagar
Modules : REC 250 & 255Wp Crystalline
Structure : Single Axis Trackers
Inverter : Toshiba 630KW Indoor

**India's Highest
PLF (24.5%)
Solar Power
Plant**

5MWp Solar PV Power Plant

First Island based MW Size for NTPC



Capacity : 5MW Location: Andaman & Nicobar
Modules : Photon 235Wp Crystalline
Structure : Seasonal Tilt
Inverter : SMA 800Kw Outdoor

1MWp Solar Power Plant Defence Organisation



Capacity : 1MWp
Modules : Photon 250Wp Crystalline
Structure : Fixed Tilt
Inverter : Delta 50Kw String

5.4MWp Solar Power Plant AP Genco Canal Based Solar PV Plant



Capacity	:	5.4MWp
Modules	:	Photon 315Wp Crystalline
Structure	:	Seasonal Tilt
Inverter	:	Sungrow 1MW

3MWp Solar Power Plant

First MW Size Plant in India



Capacity : 3MW Location: Belgaum, Karnataka
Modules : Photon 230wp Crystalline
Structure : Fixed Tilt
Inverter : Optimal 250Kw Indoor

TURNKEY SOLUTIONS



**Site survey
& Proposal**

**Design &
Engineering**

**Installation &
Construction**

**System
Integration**

**Operation
And
Maintenance**

- Consultation
- Site identification, radiation study & generation simulation
- System design, installation & Procurement
- Utility and Building permits, MNRE paperwork
- Service and Maintenance
- Complete turnkey solutions for mega watt size & off-grid power plants

SOLAR ROOFTOPS – University



KALINGA INSTITUTE OF SOCIAL SCIENCES
500 KW SOLAR ROOFTOP INSTALLATION

SOLAR ROOFTOPS – Commercial Buildings



HYDERABAD'S HIGHEST SOLAR ROOFTOP

SOLAR ROOFTOPS - ISRO



ISRO - 3060 KW SOLAR ROOFTOP INSTALLATION

SOLAR ROOFTOPS – Corporate Buildings



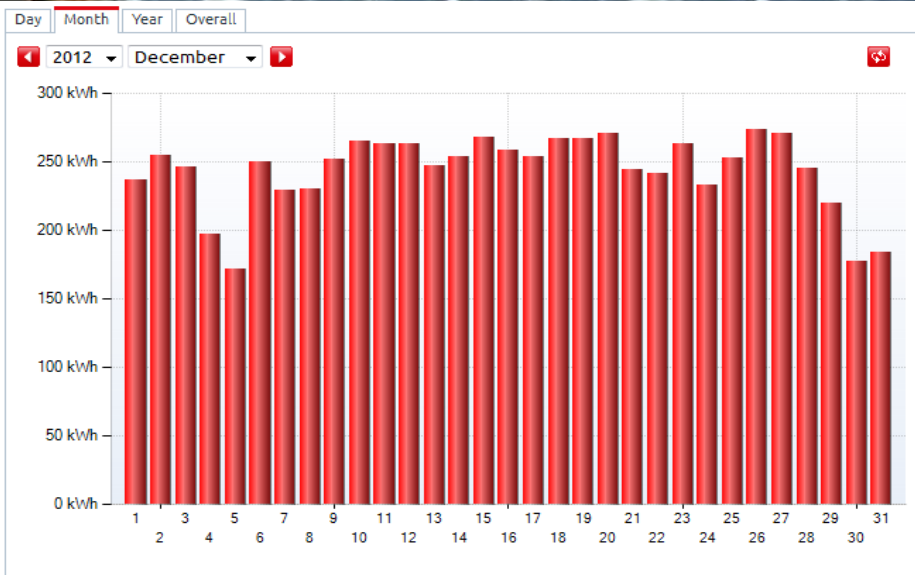
SAGAR CEMENTS LTD

Hyderabad

60KW Solar PV Power Plant

Specifications

- Module: 250Wp - 300pcs
- Inverter: 20KW Sting Inverter – 3 Nos.



SOLAR ROOFTOPS – Corporate Buildings



SOLAR ROOFTOPS – Corporate Buildings



Car Parking Lots & Bluescope Installations





*Solar Energy for today...
& tomorrow
Thank you!*