

Enjoy the benefits of clean, affordable energy.



SHREE ABHAY INDUSTRIES

SOLAR POWER PLANT INTEGRATORS
MNRE APPROVED CHANNEL PARTNER





ABHAY GROUP - An Introduction

SHREE ABHAY HOISTS & ENGG PVT LTD & ABHAY KRISHI UDYOG PVT. LTD



Manufacturers of Mild Steel (Gr. 30), Alloy Steel (Gr. 80) & Stainless Steel (Gr. 40) Link Chain upto 40 mm Dia. We have acquired the plant & machinery of Indian Link Chain Manufacturers Ltd, Bhandup; Uniseven Pvt Ltd, Ambarnath & Hindustan Parsons Ltd, Nashik to become second largest link chain manufacturers in India with production capacity of more than 200 T / month.



SHREE ABHAY CRANES PVT. LTD.

Manufactures of Industrial Overhead Cranes, Steel Mill Cranes, Jib Cranes, Grab Buckets, Spark Proof Cranes, Transfer Trolleys, Wire Rope Hoists, Winches, Radio Frequency controlled Cranes and PLC controlled Cranes.



SHIV UDYOG

Authorized Marketing Associates of INDEF & STIER Brand Products. Awarded "Clinic +" status – the highest category of dealers based on Service Setup. Recipient of Highest Sales Growth Award for FY 2015-16.

SHRIRAM UDYOG

Investment in Equity and Debt Instruments like shares, debentures and bonds since 1964. We are value investors and make long term investments. Mid-Cap and Small-Cap stocks are our focus areas.

ABHAY FARMS

We cultivate around 200 acres of land in and around Shegaon. Organic farming is our specific area of interest.

SHRIRAM ESTATE



Shriram Estate is our well placed premises just opposite to Shegaon Railway station. It has 1 lakh sq feet godowns built in 6 lakh sq feet area with ample parking, security, fire fighting facilities and other required amenities for quality warehousing.



॥सर्वदेवात्मको ह्येष तेजस्वी रश्मिभावनः ।

एष देवासुरगणांलोकान् पाति गभसृतिभिः ॥

"Indeed, the Sun is the very embodiment of all Gods. He is self-luminous and sustains all with his rays. He nourishes and energizes the inhabitants of all the worlds by his Rays."

Sun is the ultimate source of all the forms of energy on the Earth. Coal, Wind, Hydel - all sources of electricity basically originate from Sun. Solar Photovoltaic Technology converts the solar energy obtained from the rays of Sun directly into Electricity. Among the renewable energy sources, Solar power is one of the cleanest and most reliable form of energy available.

Solar Photovoltaic (PV) panels convert the sun's rays into electricity by exciting electrons in silicon cells using the photons of light from the sun. Due to modular sizing and a variety of Inverter models available in the market, a custom fit solar power plant can be installed. Unlike Wind energy, where minimum size of the individual wind mill is 250 KW and single location set up runs into few MWs, standalone Solar Power plants, as small as 3KW can be financially feasible.

Abhay Group has a manufacturing set-up since 35 years and is known for the quality and reliability of the products it offers. Considering the potential of solar photovoltaic systems in India and its benefit to society at large, we have decided to venture into this business of Solar Power Plant Integration. With our own 600 KW solar power plant, we are among the few power plant integrators who have their own investments in Solar power.

"ABHAY" offers turnkey solutions which work on Plug and Play model. The highly skilled and dedicated EPC team at ABHAY ensures timely completion of each solar project from concept to commissioning, including operation and maintenance. We provide grid tie solar power systems for residential, commercial (like schools, hotels, hospitals, hostels, petrol pumps, showrooms, etc) and industrial customers with best analysis, quality material & workmanship and timely project delivery to ensure handsome return on investment for our customers.

Let us together harvest Sun and convert our roofs into green power plants.



27 KW at Nakshatra Inn, Shegaon



20 KW at Pulse Imaging & Diagnostic Centre, Nagpur



600 KW at SAHEPL, Shegaon



15 KW at residence of Ashishji Agrawal, Gondia



Can I Go for Solar Power Plant ?

The Grid Tie Solar Inverter senses the frequency and voltage on the grid side and always keep itself synchronized with the grid producing same voltage and frequency. This helps in seamlessly importing and exporting energy when in deficit or excess respectively. Thus, **there is absolutely no difference in the electricity produced from own solar power plant and the electricity purchased from distribution companies.**

All equipments ranging from mosquito coil to air conditioners at homes; grinders to furnaces in industry or MRI machines in diagnostic centre can be operated using solar electricity. Simply put, anything and everything that operates on electricity can be used with Solar electricity.

Hence, **Solar Power Plant can be installed at homes, industry, hospitals, showrooms, restaurants or any other set up which has an electricity connection - 1 phase or 3 phase.**



Malls & Showrooms



Industries



Hotels & Restaurants



Schools & Colleges



Petrol Pumps & Charging Stations



Homes

Solar FAQ's

Q)How much area is required to install a solar plant?

A)1 KW of solar plant needs approximately 100 sq ft of shadow free area. On MW Scale, thumb rule is 4 acres / MW

Q)How much will it generate?

A)On an average, 4.1 units/KWp installed capacity per day, ie Around 1500 units annually.

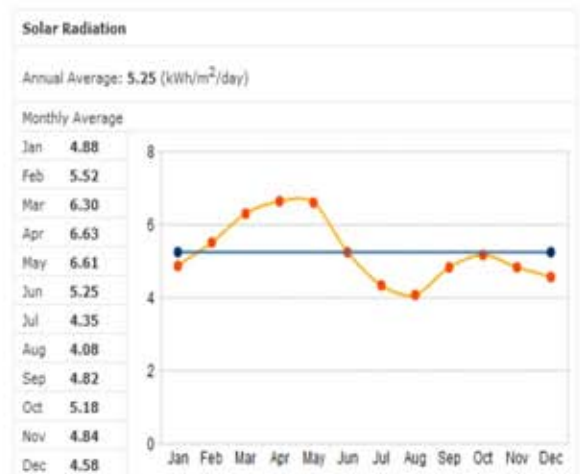
Q) Will Grid Connected Solar Plant generate electricity even when there is power cut?

A)No, Grid Connected solar plant do not generate electricity when there is power cut. Only OFF Grid/ Hybrid Solar system generate power during power cuts but they require battery bank.

Q) What will happen during cloudy weather and night time? Will it still generate?

A) Solar irradiation varies on daily basis and so will be the generation. Typically maximum generation is obtained in the month of May and minimum generation in the month of August due to rains.Solar plant do not generate any electricity in night. The capacity of solar system is designed considering all above factors.

Solar Irradiation in Shegaon, Maharashtra 444203, India



Benefits of Going SOLAR

Drastically reduces or even eliminates electricity bill - This is the basic reason for going SOLAR. This makes businesses more competitive. For households, it's a great relief against monstrous energy bills.

Hedge against rising energy cost - Electricity cost from utilities are only expected to go up. With an expected life of 25 years, Solar Power Plant safeguards you against this rising cost.

A great investment opportunity - Solar Power Plants are indeed an investment option more than anything else. If we calculate the saving towards the electricity bill against the investment made, return on investment is around 20-30% per annum - much higher than any reasonably safe investment option.

Tax Planning Instrument for profit making organizations

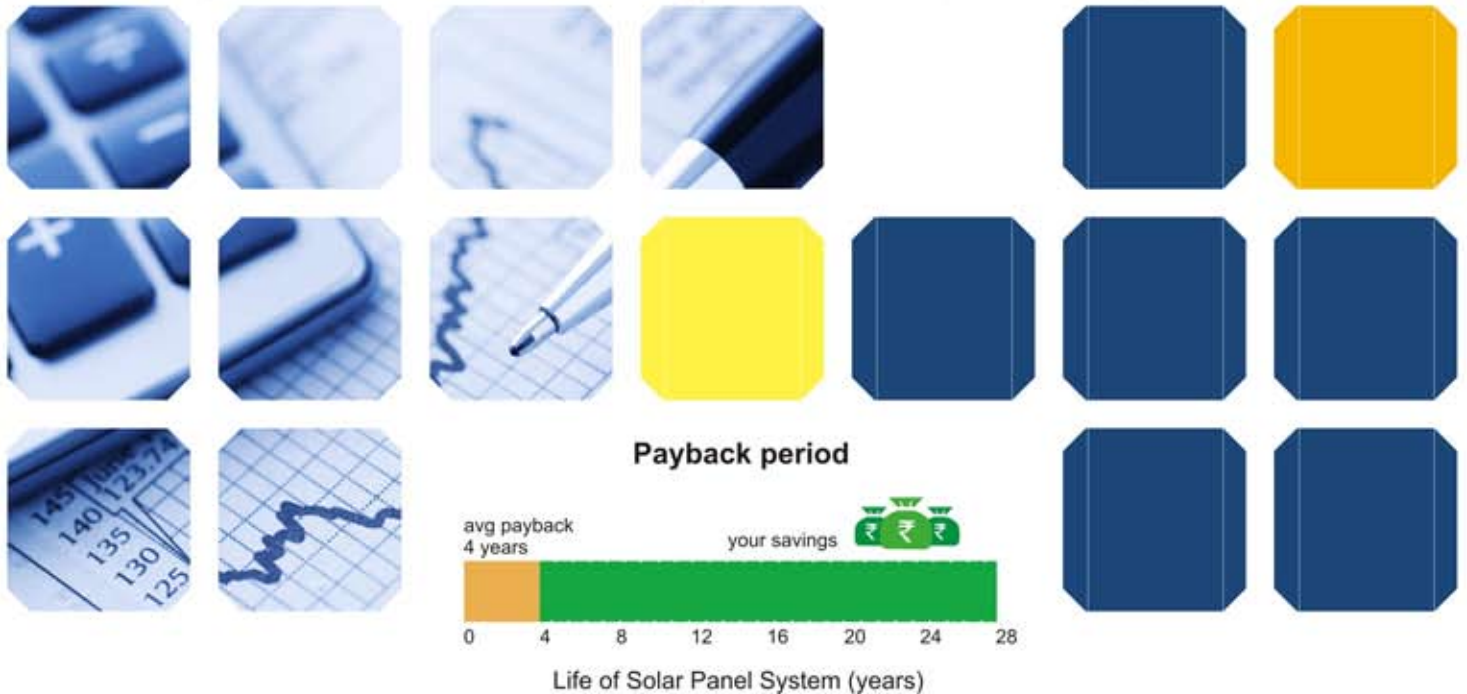
Step towards Sustainable future - Being a user of renewable and green source of energy gives an internal satisfaction and also helps companies build eco-friendly image - Indeed *"It doesn't cost the world to save the planet"*.

INCENTIVES FROM GOVERNMENTS

Net Metering Policy - 100% units set-off under net metering policy allows us to use the grid as electricity bank thereby allowing us to fulfill our energy requirement without any requirement of batteries.

Cash Capital Subsidy to Residential/ Institutional/ Social/ Not for profit Organization.

Accelerated Depreciation to Commercial & Industrial Organizations - 40% depreciation in first year itself.

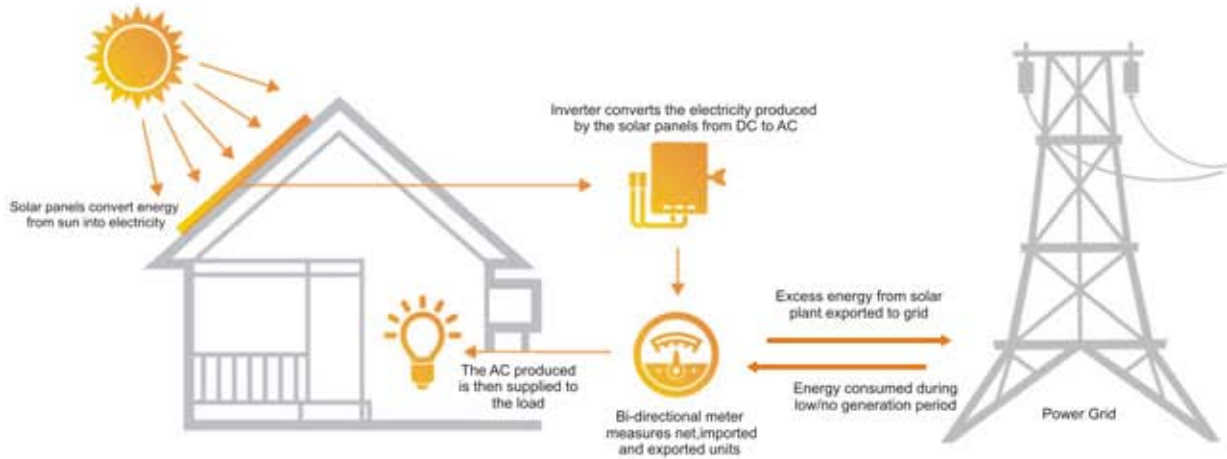


Financial Feasibility

The financial feasibility of Rooftop Solar Power Systems depends on two major factors - cost of power that the system replace and the cost of capital deployed to finance the project. With current cost structure, Solar Power Plant is attractive investment for any consumer paying more than Rs. 4.5/- per unit.

Banks also finances upto 60-70% of the project cost. EMI comes out to be much lesser than the saving in electricity bill, generating higher cash flow. Project has a pay back period of 3-5 years.

Grid connected Rooftop Solar System



Highlights of Net Metering Arrangement

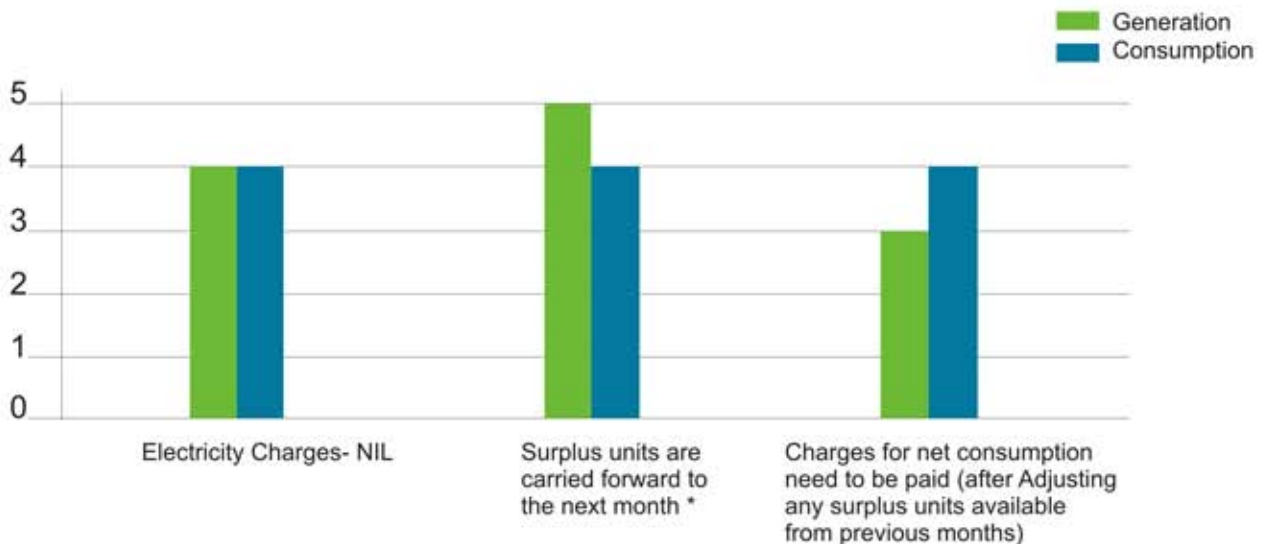
Installation- System can be installed on Terrace/Ground, within the premises of the consumers.

Investment - Investment on the system can be made by consumer himself or by third party investor. This third party investor can sell Solar Power to the consumer at mutually agreed rate.

Generation Usage- Energy produced is first used for Captive consumption; Excess, if any, is exported to Grid; Deficit, if any, is imported from Grid. This switching from import to export or vice versa is automatic. No manual changeover is required.

Capacity- Upto 100%** of Sanctioned Load or 40%** of Capacity of Distribution transformer whichever is lower. Max Capacity is designed in such a way that annual generation is almost same as annual consumption. 1MW** is the max capacity allowed under Net Metering Policy.

Permission for Net Metering - Given by Distribution Company on first come first serve basis till the time 40%** of Distribution Transformer capacity is utilized.



* Surplus units if any at the end of settlement period (yearly) shall be compensated by DISCOM at the APPC.

** Figures quoted for Maharashtra. Vary from state to state



Major components of Grid tie Solar System

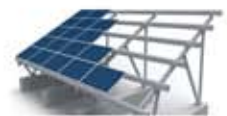
Solar Panels: The panels are connected in series and parallel to form array such that desired voltage and current is obtained. Number of panels in an array and number of arrays are decided depending on the size of installation and inverter specifications. We at ABHAY use good quality, EL Tested modules from reputed manufacturers confirming to relevant IEC codes. Solar Panel comes with the life for 25+ years.



Inverter: Inverter converts the DC Power generated from Solar Panels into AC Power suitable for use in our home and business. Inverter is always in synchronization with Grid and gets switched off in case of power failure. We at ABHAY use highly efficient inverters to convert 97% or more DC power into AC power.



Structure: To obtain maximum generation from Solar Panels, they are normally mounted south facing at a certain angle. Structure with seasonal tilting / single axis tracking can be supplied in ground mounted systems for optimum sun harness. Hot Dipped Galvanized and/ or Aluminium structure with SS Fasteners are recommended for their anti corrosion capability. Structures are designed to withstand the wind pressure as per location.



Cable: Solar Cables are designed to operate at 1000 V on DC side and are used to connect the Solar Panels with Inverter. We at ABHAY use TUV Approved Electron Beam Cross Linked, Annealed Tinned, flexible, high grade copper cable cables from reputed manufacturers confirming to relevant IEC codes.



Earthing, Lightening Arrestor & SPD: At ABHAY, every installation essentially comes with separate AC & DC Earthing, Lightening Arrestor, Surge Protection Device and other such protection features. Proper earthing helps in protecting both - the appliances and human life. Surge Protection Devices is an additional safety to the devices from sudden surges in line or due to lightning.

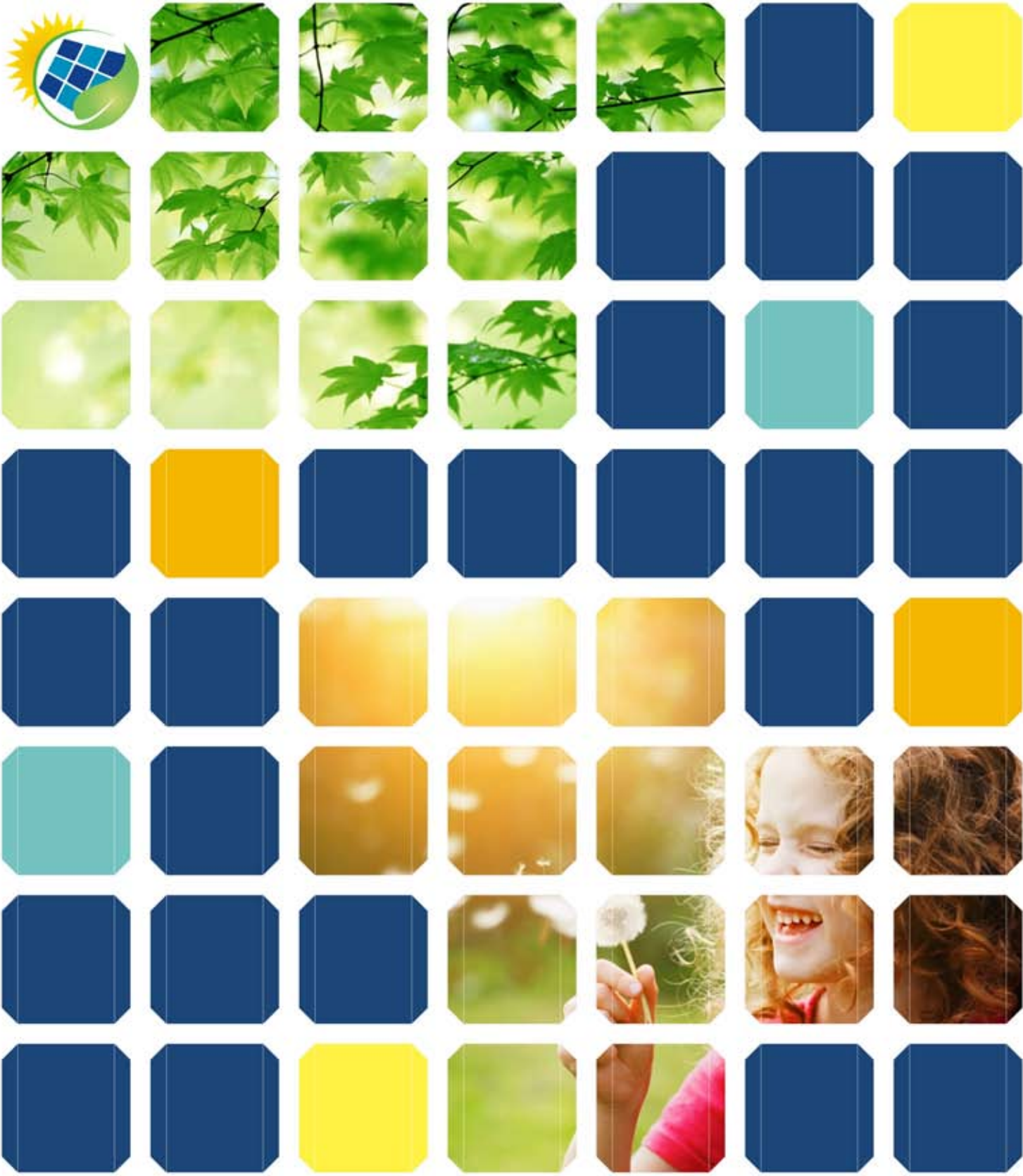


Online Monitoring: This feature allows customers to monitor the generation at their finger tips using mobile app. Monitoring systems compare generation of different inverters, give generation reports and even give alert messages for inverter tripping, etc on email and mobile.



What we do as a Solar Integrator?





MNRE Approved Channel Partner

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