Corporate Presentation



SOLAR MASTER SOLUTION

GO GREEN , GO SOLAR

2020 - 21





Golar master solutions

About Us

Solar master solution[®] is certified company that aims to generate energy for the future by the daylight.

It is pivotal company in the area of renewable energy providing end-to-end solar PV solutions and is dedicated to providing results oriented Solar Power related services.

We undertake and execute our services in renewable energy space that are in high demand in the competitive market.



These are efficiently managed by our team of professionals which holds an expertise in diverse professional fields.

We deliver personalized services to our clients based on their specific needs, in order to achieve total customer satisfaction.

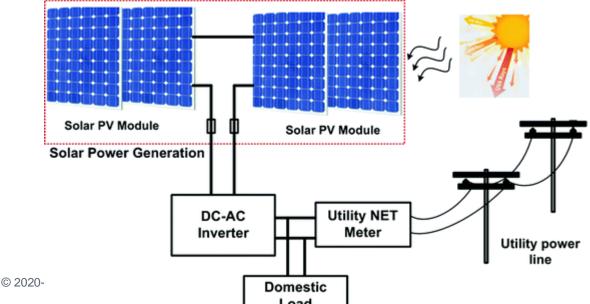




Grid-Connected Solar System



A grid-connected photovoltaic system, or grid-connected PV system is an electricity generating solar PV power system that is connected to the utility grid. A grid-connected PV system consists of solar panels, one or several inverters, a power conditioning unit and grid connection equipment.



Grid connected PV systems in the world account for about 99% of the installed capacity compared to stand alone systems, which use batteries.

Battery-less grid connected PV are cost effective and require less maintenance. Batteries are not needed

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Grid-Connected Solar System

grid connected PV, as the power generated is uploaded to the grid for direct transmission, distribution & consumption.



Grid-Connected Solar System



Grid-Connected			
System	Panels	Inverter	Selling Price
1 KW	Vikram, Waree, Adaani	Solise, Sofar	60,000.00
2 KW	Vikram, Waree, Adaani	Solise, Sofar	95,000.00
3 KW	Vikram, Waree, Adaani	Solise, Sofar	145,000.00
4 KW	Vikram, Waree, Adaani	Solise, Sofar	190,000.00
5 KW	Vikram, Waree, Adaani	Solise, Sofar	225,000.00
6 KW	Vikram, Waree, Adaani	Solise, Sofar	265,000.00
7 KW	Vikram, Waree, Adaani	Solise, Sofar	298,000.00
8 KW	Vikram, Waree, Adaani	Solise, Sofar	330,000.00
9 KW	Vikram, Waree, Adaani	Solise, Sofar	375,000.00
10 KW	Vikram, Waree, Adaani	Solise, Sofar	405,000.00
	* Including GST and Installation		

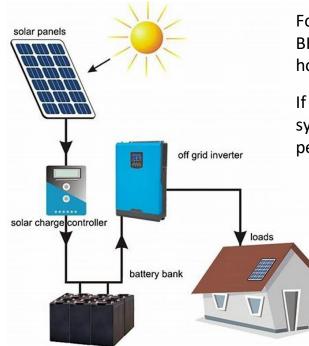
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Grid-Connected Solar System



Off-Grid Solar System

An off-grid solar system is more popular and comes with a power backup. It works independent of the grid. Most home appliances such as Fans, TV, Cooler, AC, Water Pump etc. can work through this system.



For instance, a 1 kW off grid solar system is sufficient for a 2-4 BHK house. But if you also want to run 1HP Water Pump in your home you could use a 3 kW off grid solar system.

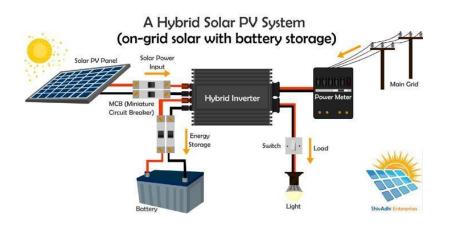
If you are planning to run an AC then you should use a 5 kW system. For commercial setups like a shop, clinic or small mill, petrol pump a 10 kW off-grid solar system should be used.

It is most common type of solar power system with backup. It works in day and night both, during the day, solar panel charges the battery and runs the home appliances. At night, when the sun is not available, Inverter runs your home appliances using the battery power.



Hybrid Solar System

When choosing a type of solar system for home, institute, business or industry, mostly choose either an on grid solar system or an off grid solar system. But now one more option is available and that is "HYBRID SOLAR SYSTEM".



A hybrid solar power system is combination of on grid solar system and off grid solar system. It has battery backup in it to store power and it also have the ability to feed surplus electricity into main grid.

Hybrid system is fully automatic, programmable and custom engineer system. Which provides a smart hybrid combination of all energy sources to you.

- Solar panel will run you connected load.
- Meanwhile extra electricity will be stored to the solar battery.
- Surplus electricity will be fed back to the electricity grid by hybrid solar inverter.



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Solar Systems

In 14 and a half seconds, the sun provides as much energy to Earth as humanity uses in a day.

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1 KW Solar System (Off-Grid) 75000/

If you want to run approximately 800 watt load or your house load is less than 800 watt, then 1kW solar system is best for you. To run your load, 1st priority will be solar system and 2nd would be grid or batteries. It needs 100 sq. ft. roof space for solar panel installation.



1KW Off-Grid Solar System

It generates:

- 4 -5 units generation every day/1400 units per year (Average)
- 06 sq meters shadow-free space required for installation.
- return on investment in 5.5 years with ₹3,000 electricity saving every month.

Main Components:

- Inverter 1 kW 1500 VA
- Battery 150 Ah (2 nos.)
- Solar Panels 1 kWp (335w*3)•

Recommended Load:

- 4 LEDs + 4 Fan + 1 LED TV
- 4 LEDs + 3 Fan + Fridge
- 4 LEDs + 2 Fan + 1 LED TV

- Mounting Structure.
- AC/DC Wire 20 meters Pair
 - MC4 Connectors 06 Nos.

800Watt	04 hrs
800Watt	04 hrs
500Watt	06 hrs

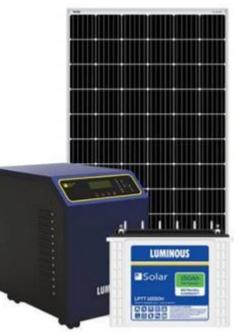
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2 KW Solar System (Off-Grid)

A 2 kw off grid solar system is designed to give 24*7 power in Homes, Independent Floors, Villas, Offices. It is a powerful solar system that can run everything from solar except air conditioners.



2KW Off-Grid Solar System

If you want, all your power equipment such as Fans, Lights, Television, Refrigerator to be running on solar without using grid electricity,

This solar system suites to you.

- 8 -10 units generation every day
- 200 sq feet rooftop space required for installation.
- return on investment in 5.5 years with ₹3,000 electricity saving every month.

Main Components:

- Inverter NXT+ 2.5 KVA
- Battery 150 Ah (4 nos.)
- Solar Panels 2 kWp

Recommended Load:

- 8 LEDs + 2 Fan + 0.5 Ton Inverter AC
- 8 LEDs + 2 Fan + Refrigerator
- 8 LEDs + 4 Fan + 1 LED TV

- Mounting Structure.
- DC Wire 15 meters Pair
- Connectors 3 in 1 and 1 in 1
 - 1600Watt04 hrs1200Watt06 hrs700Watt12 hrs

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3 KW Solar System (Off-Grid)

If your area trouble with frequent power cut then we recommended to you invest in off grid solar system. It is cost effective solar system. During power cuts you use backup energy. This system is highly efficient for areas which suffer from frequent power cuts by storing extra solar energy in the batteries. Say goodbye to frequent power cuts with off grid solar system.



3KW Off-Grid Solar System

This solar system suites to you.

- 12 units generation every day
- 300 sq feet rooftop space required for installation.

Main Components:

- Inverter NXT+ 3.5 KVA
- <u>Battery</u> 150 Ah (4 nos.)
- Solar Panels 3 kWp (335W*9)

- Mounting Structure.
- AC/DC Wires 120 meters.

2000Watt

04 hrs

04 hrs

06 hrs

MC4 Connectors - 12

Recommended Load:

- 8 LEDs + 4 Fan + 1 Ton AC + 1 Refrigerator
- 8 LEDs + 4 Fan + Refrigerator+1 TV+1 Cooler 1500Watt
- 4 LEDs + 2 Fan + 1 LED TV+1 Washing M/c 800Watt



5 KW Solar System (Off-Grid)

5kW solar system price depends upon the type and brand of solar system. 5kW solar systems are available in three categories 1st On grid solar system, 2nd Off grid solar system, 3rd Hybrid solar system. 5kW solar system generates **20 units per day** an average 365 days in year.

Off grid solar system is a battery based solar system. 5kW off grid solar system is sufficient to run your house load. This solar system suites to * T & C Apply. you. **20 units** generation every day 30 sq. meters rooftop space required for installation. **Main Components:** Inverter - NXT+ 5.5 KVA Mounting Structure. Battery - 150 Ah (8 nos.) AC/DC Wires - 40 meters pair • LUMINOU Solar Panels - 5 kWp • MC4 Connectors – 12 (335W*15) Junction Box: 01 Other Solar Accessories. **Recommended Load:** 06 hrs 8 LEDs + 2 Fan + 2 Ton AC + 1 Refrigerator 4000Watt 5KW Off-Grid Solar System 12 LEDs + 6 Fan + Refrigerator+1 TV+2 Cooler 2500Watt 10 hrs ٠ 12 LEDs + 6 Fan + + Refrigerator + 1 LED TV + • 1 Washing Machine + 1 Cooler 14 hrs 2000Watt



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OUR PRODUCTS

10 KW Solar System (Off-Grid)

Starts from ₹ 8,00,000.00*

10kW solar system is the best selling system in urban areas, where customer's average daily consumption is more than 40 units per day and monthly electricity bill is around Rs. 10,000. This system required around 60 square meter shadow free area to install 30 panels of 335 watt each. There are three category of solar system:

1. On grid solar system. 2. Off grid solar system. 3. Hybrid solar system.

Off grid solar system has solar battery for backup. In first priority solar system will run connected load and 2nd priority batteries will run connected load. 10KW Off-Grid Solar System generates: **40 units per day.** (Average)

Main Components: ShivAdhi Mounting Structure. Inverter - NXT+ 10 KVA DC Cable - 90 meters Battery - 150 Ah (10 nos.) Solar Panels - 10 kWp AC Cable – 60 meters MC4 Connectors – 12 (335W*30) Junction Box: 01 Space Required: 60 sq. mt. Other Solar Accessories. **Recommended Load:** 5 LEDs + 8 Fan + 2 Ton AC (2 Nos.)+ 1 Refrigerator + 1 LED TV+1 Washing Machine+1 Cooler 05 hrs 8000Watt 12 LEDs + 6 Fan + 1 Ton AC (2 Nos.) + Refrigerator + 1 LED TV + 1 Cooler 6000Watt 08 hrs 10KW Off-Grid Solar System 12 LEDs + 10 Fan + Refrigerator + 1 LED TV + 1 Washing Machine + 1 Cooler 3000Watt 12 hrs

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Solar Water Heaters



Solar Water Heaters

Starts from ₹ 15,000.00*

Solar water heater use the sun energy to heat water during the day. This hot water is stored inside an insulated solar hot water tank for use whenever required. The sun rays have enough energy to heat water up to 55°C to 70°C which is more than sufficient for bathing and washing purpose in bathrooms and kitchen.



With no maintenance requirement, solar heater provides a low cost long term solution to getting hot water. For cloudy days, solar water heater have a inbuilt electric heating element for backup. Basically, solar water heater do conversion of sunlight into renewable energy for water heating using a solar thermal collector.

Solar heater range start from minimum 100 liter solar water heater and goes up to 500 liter solar water heater for home use, and up to 5000 liter for commercial use.

Solar water heater comes in two major technologies - FPC solar water heater and ETC solar water heater.

- 1. Evacuated Tube Collector (ETC) Solar Water Heater
- 2. Flat Plate Collectors (FPC) Solar Water Heater

ETC Solar Water Heaters

Starts from ₹ 15,000.00*

Evacuated Tube Collector (ETC) acts as an absorber in the solar water heater. Each evacuated tube consists of two glass tubes having vacuum in between which is an excellent insulator.



ETC Solar Water Heater

The incident solar radiation falling on the tube passes through the outer transparent tube and strikes the outer of inner tube. It absorbs heat energy and then passes to the cold water flowing in the tube.

An evacuated tube technology based solar water heating system is most energy efficient and cost effective that are best suitable for home use.

Capacity: 100 L to 500 L

Features of ETC Water Heater

SS-304 food-grad solar inner tank with 60mm PUF insulation for hot water tank, keep the water hot in chilling winters. Unique evacuated tube collector with double layer boro-silicate glass tubes and selective absorbing coated inner tube, heat the water up to 70 degree. Water heater can be designed according to the requirement or site space. Specially designed for home in hilly area.



FPC Solar Water Heaters

In FPC solar water heater, the solar radiation is absorbed by Flat Plate Collectors (FPC) which consist of an insulated outer metallic box covered on the top with glass sheet. Inside there are blackened metallic absorber (selectively coated) sheets with built in channels or riser tubes to carry water.



FPC Solar Water Heater

Starts from ₹ 25,000.00*

The absorber absorbs the solar radiation and transfers the heat to the flowing water. A Flat Plate technology based solar water heater is most energy efficient and long life. Suitable for home use.

Capacity: 100 L to 500 L

Features of FPC Water Heater

SS-304 food-grad solar inner tank with 60 mm PUF insulated hot water tank. Unique Flat Plate Collectors box with well designed & engineered. Unique absorber with copper fins and ultrasonic welded to copper tubes for high efficient absorption rate of up to 95%.

Unique Water Proof Construction with case insulation - made of PU. Solar FPC collector with toughens glass of 4 mm. 0% corrosion polypropylene back sheet.



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Solar Lighting System



http://www.solarmastersolution.com

Solar Street Lights

A battery based solar street light is a stand alone system, which will store electricity generated by solar panel in solar battery. Solar LED street light is powered by photo-voltaic panel, generally mounted on the light structure or integrated in the pole itself.



There is also another type of street light called integrated solar street light. In both type of street lights, the photo-voltaic panel charge solar battery during day time, which powers LED lamp during night.

Starts from ₹ 12,000.00*

Benefits

The lighting industry has embraced the innovative technology and superior performance of the solar PV street light. Capitalizing on this very fact and the widespread success, we present to you the best street light range.

Designed by a state-of-the-art street light to harness the power and efficiency of LED technology, LED street light deliver an environmentally friendly solution while bringing uncompromising brilliance in efficiency, performance, longevity & style.

- Environmental Friendly
- Lower greenhouse gas emission
- Reduce Reuse Recycle
- Efficient thermal management

Solar Home Lights & Fans

Our specially designed Solar Charge Controller drives 24w, 12v bldc Pedestal Fan(any DC fan of 12v incl DC ceiling fan 48"), Lighting up 3w DC LED Bulbs (3W – 20W), 3w Solar Lantern (6 w any LED lamp) and Charging mobile phone(any latest iPhone too).



Solar Ceiling Fans:

Solar BLDC premium Ceiling fan 12V 24W (Operate on Battery & AC Power)

Starts from ₹ 12,000.00*

Technical specifications:

12V Brushless DC Motor very low noise, No heating Higher efficiency & reliability

- Power Consumption: 24 Watts ,12V & Rated Current 1.8 to 2 A
- Rotational speed 340 rpm
- Wing Size : 48 inches,
- 3 speed mode regulator supplied free with fan

Prices:

Home Lighting Kit: INR 1900.00 Solar Ceiling Fan: INR 2450.00 Solar Pedestal Fan: INR 2200.00 Solar Table Fan: (Wing 12 inch) INR 1900.00 (Wing 16 inch) INR 2100.00



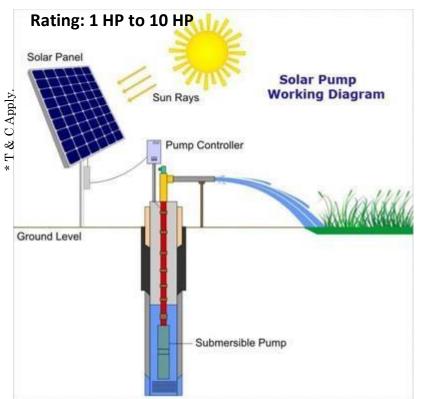
Solar Water Pumps

http://www.solarmastersolution.com

Solar Water Pumps

Starts from ₹ 85,000.00*

The solar water pump also know as solar pumping system, solar submersible pump or solar pump, a water lifting system powered with electricity generated by solar panel.



Solar Water Pumps

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Solar pump directly connects with solar panel throughaMPPTsolarpumpcontroller.Whenever sunlight drops on solar panel, solarsubmersible pump starts lifting the water fromground.

There is no electricity required to run this solar pump. Even using solar power pump is more economical where grid electricity is not available.

These pumps mostly uses by farmers for irrigation of farming land and horticulture farms. Solar pump can be use for fountain, swimming pool pump, water circulation pump, mono-block home pump and other similar applications.

Major components of Solar Pump

- Solar panel which generate power.
- Controller which controls the system.
- Motor pump to lift the water.

Types of Solar Water Pumps

Solar Water Pumps

There are many types of solar pump, but only two types are most successful. One is submersible solar pump and another is surface pump. Both pump come in DC and AC technology.

Rating: 1 HP to 10 HP

Solar Submersible Pump

Where the depth of water level is more than 15 meter, submersible pump is recommended. This pump keeps inside the water and lift it out. Solar submersible pump is the most selling pump in India as the depth of water level is very low in maximum areas.

Solar Surface Pump

If the depth of water is less than 15 meter and you want to lift to ground or above the ground level, Solar surface is recommended.

Starts from ₹ 85,000.00*

Solar pump VFD drive

VFD drive is a solar solution for farmers. Solar pump VFD drive converts your existing water pump into solar pump. This technology is becoming famous day by day. Because there are shortage of electricity in rural area and through VFD drive farmers can operate there pumps even when there is no grid.

Hybrid solar water pump

In hybrid solar pump, there are three power options to run solar pump. First is solar power, second is electricity grid and the third is solar battery.

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separates us from others

Supplier Qualification

Incoming Product Inspection

In Process Quality Assurance

Final Quality Assurance

Solar Panel | Solar Inverter | Solar EPC | Solar Street Light http://www.ShivAdhiEnterprises.com

150 W Solar Panel

Today, most residential solar panel have power output rating from 150 watt to 200 watt depending on the panel size and capacity. Solar panel and solar system is used to power a wide variety of applications.

Solar photo-voltaic panels are the main and key component that is used to provide solar power to entire home and commercial premises. Solar panels are rated based on the watts power they generate. Higher the wattage rating, the greater amount of power your solar system will produce.

A 150 watt solar panel is best solar panel for medium size solar system. The dimension of 150 watt solar panel is 4.9 sq.ft X 2.2 sq.ft. For installing this solar panel only 11 square feet area is needed.

Technical Features

Max. Power Voltage Vmp (V): 18.25 Max. Power Current Imp (A): 8.22

150 W Solar Panel

* T & C Apply.



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Starts from ₹ 7,500.00*

160 W Solar Panel

Starts from ₹ 8,500.00*

160 watt solar panel is a high range model solar panel in 12V series. It is best capacity solar panel for single battery based solar inverter. A 160 watt solar panel can generate up to 8.5 amps power as an average over the day.

This solar panel can also be used in the areas where low sunlight is a major problem.

Technical Features

Maximum Power Voltage (Vmp): 17.70 V Max Power Current (Imp):9.05 A **Type:** Mono Crystalline

> 160 Watt 12 Volt Monocrystalline Solar Panel is a key component to any solar power (PV) system. Each solar panel includes Solar Connectors leads that extend from the junction box affixed to the back of each panel.

160W Monocrystalline Solar Panel is capable of withstanding heavy snow and strong wind loads. Each panel is quality tested to ensure safety and longevity.

The 160W Monocrystalline 12 V solar panel is one of the most powerful in the 12 V range



160 W Solar Panel

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200 W Solar Panel

Starts from ₹ 9,400.00*

This solar panel power rating is 200 watt and the voltage rating is 24 volt with double protection function within the controller and electrical cabinet for safety and reliability. The 200 watt solar panel is a revolutionary combination offering high efficiency and an attractive, sleek appearance.



200 W Solar Panel

There are 72 back tack solar cells and a black back sheet using a 200w solar PV panel. 200 watt solar panel efficiency can be calculated by MPP (maximum power point) value of solar panels and it is up to 19% in India.

200 watt solar PV panel is the bestselling solar panel in 12 volt in India. A 200 watt 24 volt solar panel can generate and save average per 228 Units per annum (depending on the weather).

Application for 200w solar panel

It is good to use for existing inverter batteries, small electrical appliances, small solar system, solar lights for home and street lighting etc. This 200w panel is used mostly in below applications:

- Solar home lighting system
- Off grid solar system
- On grid Solar System
- Hybrid Solar System
- Solar Water Pump



250 W Solar Panel

A 250 watt solar panel are suitable for home solar system and commercial solar system i.e. megawatt type projects. It may either be any residential/commercial project or an industrial

project.



250 W Solar Panel

A 250 watt solar panel alone can generate around 1 unit per day. So if you are installing 250W solar panels together in a bunch than you will get heavy electricity for free, over the day. It also helps you to reduce your electricity bill to the limit you can't even imagine.

Starts from ₹ 12,700.00*

Solar Surface Pump

If the depth of water is less than 15 meter and you want to lift to ground or above the ground level, Solar surface is recommended.

Technical Features

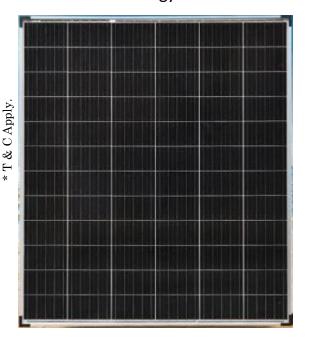
- Maximum Voltage (Vmp): 29.95 V
- Max Power Current (Imp) 8.35 A
- No of Cells in Series: 60



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300 W Solar Panel

A 300 watt panel is a high voltage solar panel that is specially designed to generate power effectively and also available at best price. The efficiency rate of a 300 watt solar panel is >18%.technology.



300 W Solar Panel

A 300 watt solar panel can produce up to 1.2 unit per day alone. In 300 watt solar panel, high performance tracker are used which provide comparatively more power to us.

The dimension of 300 watt solar panel is 1968 X 987 X 40 mm.

300 W Mono Crystalline solar panel is very suitable for large off-grid systems, the 300W Monocrystalline Panel can be used in multi-panel solar arrays for cabins and sheds. The included PERC solar cells are efficient and help make the panel smaller and lighter. Compared to a regular 72 cell 300 watt panel this panel is 15-20% shorter and lighter.

Technical Features:

- Max. Power Voltage (Vmp): 35.5 V
- Max. Power Current (Imp): 8.22 A



Mono Perc Bi-Facial Solar Panels

Bifacial solar panels are the latest innovation in the field of suggests, these panels **efficiently absorb energy from both the front as well as the rear face**. Because of this reason, they're mostly more efficient than the traditional monofacial panels. Bifacial solar panels are not entirely new. Bifacial solar panels are the latest innovation in the field of solar modules.



Mono Perc Bi-Facial Solar Panel

These bifacial solar panels encourage a wide range of solar products and appliances which will allow a diverse portfolio of customers to invest in solar power. These modules work great for utility projects, rooftops, and specialty installations such as floating solar projects.

Let's look at some more advantages of bifacial solar panels:

- Bifacial modules are free of PID (potential induced degradation).
- These panels are also devoid of Aluminium frames. Hence, there is no need to ground these modules. This saves a lot of time as well as material during the installation process.
- Most of the bifacial glass modules come with a manufacturer's warranty of 30 years as compared to the 25-year warranty provided for the traditional modules.
- Glass as a substrate eliminates the threats related to moisture permeability and UV exposure.
- In addition to this, the high strength of glass protects these modules from chemical corrosion thereby making them resistant to cracks.



Renewable Solar Energy



Installation Accessories



Connectors

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