Plug the Sun for Your Future

ON-GRID SOLUTIONS

On-Grid Systems are solar PV systems that only generate power when the utility power grid is available. They must be connected to the power grid to function. All the connected power will be served with the power generated by Solar Energy and the excess power will be sent back to the power grid in case you are overproducing, so you get the credit units of energy for later use.

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OFF-GRID SOLUTIONS

Off-GridSystems: These systems generate Solar Power and allows you to store your solar power in batteries for use when the power grid goes down or if you are not connected to the grid.Sizing of the solar array and the batteries required, is complex in this case.
Detailed analysis of your requirements will be needed to design your system appropriately for your minimal and critical needs. You may also need to rewire you main electrical panel to isolate the "critical loads" so that only they are provided power in an outage. This means that your lighting loads, IT Loads are provided power while your air conditioners / heavy / other non-essential loads may not be connected to the system.

2

HYBRID SOLUTIONS

Hybrid Solar Hybrid systems are a combination of the above two options. These provide power to offset the grid power whenever the sun is shining and will even send excess power to the grid when you are overproducing so you get the credit units of energy for later use and an energy storage in batteries, at the same time.

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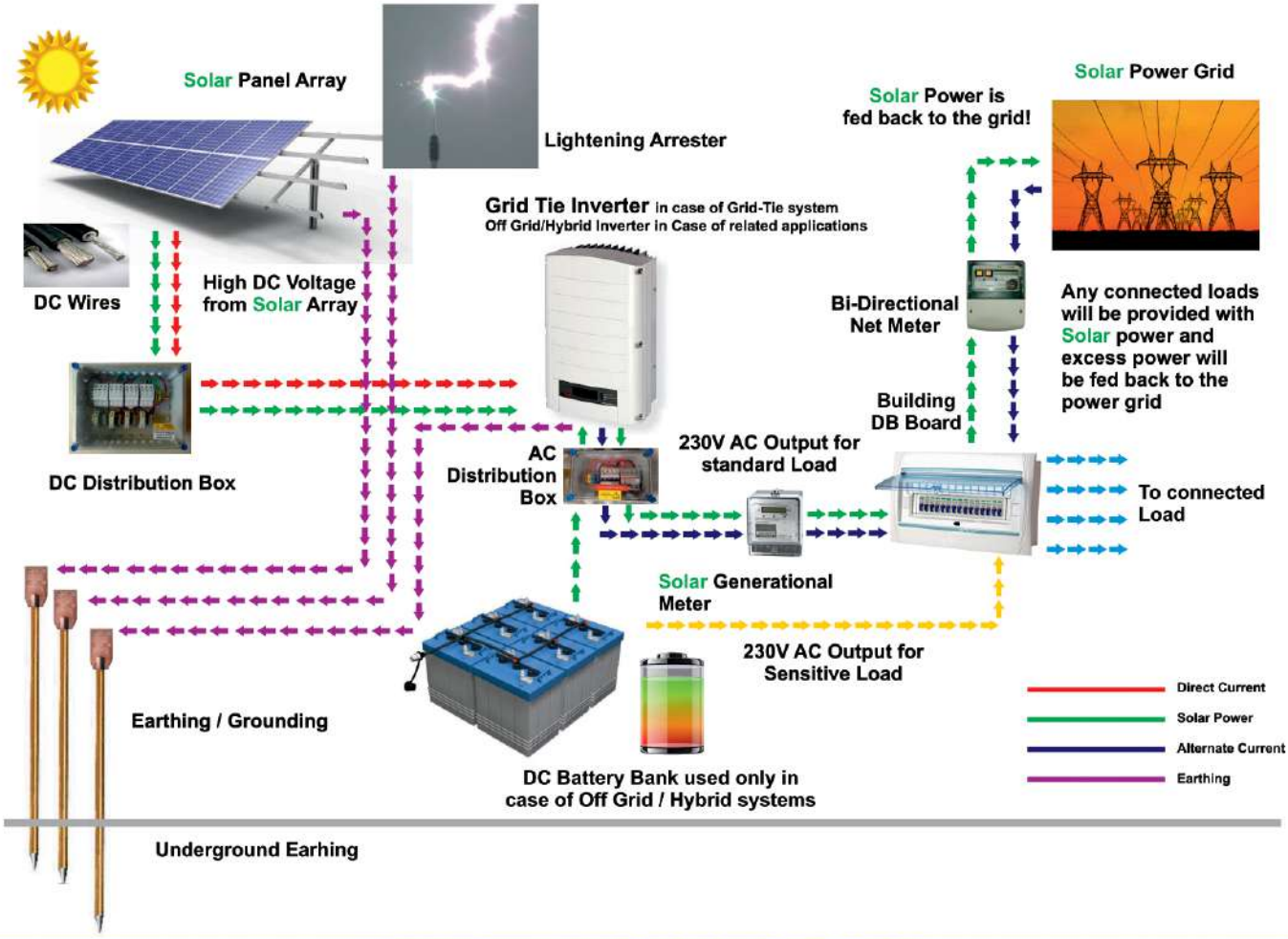

Engineering, Procurement and Construction of Solar PV System			
S. No.	Basic Components	Function	Remarks
1	Solar Modules	Converts photons present in illumination to DC Current (DC)	Used from the house of Reputed & renowned manufacturers with upgraded technologies to cater customer approach towards setting up a solar power plant
2	MC 4 Connectors	Weatherproof connectors commonly used for DC Wires connecting solar panels	Reputed brand TUV rated, capable of handling 1000vDC
3	DC wires and cables	Special DC wires and cables with tinning are used on the DC side of a photovoltaic system	Reputed brand of TUV / BIS rated DC wires are used
4	DC Distribution Board (DCDB)	DCDB merges subsidiary circuits of solar array into an electrical power feed to inverter	Reputed brand of switchgears are used for in house production of DCDB
5	Solar Inverter - On grid / Off Grid / Hybrid	Converts Direct Current after drawing power from MPPT to Alternate Current and keeps tract on energy generation with the help of connectivity of a Remote Monitoring Unit connected to the LAN cable	Used from the house of reputed & renowned manufacturers with upgraded technologies to cater customer's approach towards setting up of a solar power plant
6	AC Distribution Board (ACDB)	ACDB divides an electrical power feed into subsidiary circuits, as per site requirements	Reputed brand of switchgears are used for in house production of ACDB
7	Galvanized Structure - Hot Dip Galvanized (HDG)	In HDG, the zinc covers corners; seals edges, etc. and penetrates some recesses to give a full zinc coating and thus protection to areas, which might be potential corrosion spots	75~80microns(having appropriate mass of zinc coating) of Hot Dip Galvanization is used to protect the standard mild steel structures, depending upon site requirements
8	Battery Bank	A battery IS developed specifically for use in photovoltaic systems, in case systems are of stand-alone nature or are Hybrid systems for energy storage.	Only c/10 or c/5 battery banks are advised to install for higher efficiency of the overall system performance
9	Solar Generation Meter	Keeps an overall record of units of energy generated by a Solar Power Plant	Reputed brands or as approved by the relevant authorities
10	Bi-Directional Meter	Keeps a record of Units consumed Vs Units Exported	Reputed brands approved by the relevant Discoms
11	Earthling System	Connecting all the three sides (AC side, DC side and LA side) of installation with the Earth's conductive surface for safety and functional purposes	Chemical Earthling or conventional type, as per site requirements
12	Lightening Arrestor	Protects the system from the lightening surge and grounding of the same	Conventional copper based or Early Streamer Emission (ESE) type, , as per site requirements

KEY CUSTOMERS

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