

One must remember that per unit cost of PV (Photo Voltaic) power is low because of its +20 years of long life. The return on investment depends on this. It is well known that only carefully manufactured and regularly maintained PV Solar Power Plants of good quality will have a life of over 20 years. In fact PV panels constitute over 60% of any PV Solar System of any power rating from 500W to 1000kW.

**LEARN the facts about the PV Solar Plant & the precaution to be taken to enjoy its unmatched benefits and avoid sourcing them from wrong vendors**

1. Remember that even an expert cannot distinguish between good and bad quality panel merely from its appearance. The scam in the PV industry basically arises when panels of unproven quality are palmed off to you as good quality panels. The Safest way is to buy only from a reputed supplier and ensure that they are the IEC specs and not just at the lowest price.
2. Market Reputation, Technological Competence and Business Integrity of seller in important.
3. Buy only those PV panels that have 'embedded' Electronic Memory showing identity and not on stick-on label.
4. Every supplier would probably give you a 15 to 20 year guaranty. However take care that your supplier is established enough to be still around to honour it. What's the worth of a 20 year guaranty unless supplier is well established company? So use a reputed supplier with a long standing in India.
5. Suppliers may cheat by using a mix of good and bad panels in the panel array. But you will never know since solar output from the panel keeps varying widely depending on time of the day, ambient temperature, its orientation and location.
6. Remember that PV Solar Panel makers specify the power rating in Wp that is Peak Output Power in Watts. Actually Wp is realised only under standard condition like 25°C ambient & solar energy input of 1000W/M<sup>2</sup> and location in space craft! Wp rating can never be realised in practice. Typical output is about 70% Wp. LEECH HV PV Modules from MITRAMAX give 80% because the solar energy is optimally harvested in the module itself by peak tracking.
7. Normally panels are installed looking south with a slope of 12 -24 degrees depending your location in India. Solar input of over 1000W/M<sup>2</sup> energy is there only for may be an hour out of 5 to 6 hours on a sunny day. So a 1kW Solar Generator will give only 700 to 750W average output even in a good location. This is about 3.5 units (3.5kWh) of energy on a bright sunny day provided there is no shadow on the panels and they are regularly cleaned to remove dust and bird-dropping etc. LEECH Module array will give minimum 4kWh
8. 'Solar panel current controller' is the next important part of the system. One must buy only one that's based on MPPT (Maximum Power Peak Tracking) Technology. If not, you will get further drop in the realised energy by 25 to 30%. In the above case energy without MPPT will be only about 3 units. a day.
9. If you are an institution and buying PV solar power station through the lowest tender norms, pre-qualify the eligible vendors very carefully.

10. Remember that you will invest as much as Rs. 1.5L to 2L per kW for a PV Solar Generator at current prices. That is a lot of money. So please buy wisely from reliable sources.

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**Ask for more about our patented MITRAMAX™ Technology**