

GOOD PRACTISES: -

- a) Commissioning of power plant to be done by professional developers only and not by any local electrician/technician.
- b) Good cleaning practices regularly with lint free cloth & water, avoiding accumulation of any kind of dusts/dirt on modules. Also ensure that the water on the glass surface is dried properly by the cloth only, and not by atmosphere, otherwise the same will leave unnecessary water stains/impressions on glass, which will be hard to eradicate later.
- c) Avoid any kind of soiling on PV modules. Soiling is divided into two categories, soft soiling which occurs due to air pollution and hard soiling which results from hard dusts on PV modules.
- d) Prevent any sort of vegetative growth obstructing sunlight to reach solar cells.
- e) Provide necessary clearance distance between two modules in a string as well as between the ground surface and the module.
- f) Uniform string lengths in arrays to be maintained to avoid Voc mismatch greater than 3%. If the lengths of parallel connected strings varies and results in Voc mismatch beyond 3%, a concern may arise for generation of additional reverse current due to the disparity in potential.
- g) Installation of Imp (Maximum Power Current) binned modules in a particular string before series connection should be a mandatory practice. Don't install modules from different Imp bins in same string to avoid reverse current flow from the module with higher Imp to a module with lower Imp. This may damage junction box and bypass diodes.
- h) Use of Blocking Diodes in Series with individual strings is a good practice to avoid back flow of current to a weaker (shaded) network as well as to prevent fully charged batteries from discharging or draining back through the array at night.
- i) Use of DCDB for controls the DC power from Solar Panels and with having necessary surge protection device (SPD) and fuses to protect the solar panels strings and solar inverter from any type of damage. All components used are in accordance with per IEC 61643, IEC 60947.
- j) Use of exact nuts, bolts and washers as per mounting hole dimensions.
- k) Ensure tight connections of junction box connectors to avoid sparks and fire. Do not disconnect connectors under load.
- l) Ensure proper grounding of inverters to avoid any stray currents.
- m) Ensure proper grounding between module to module and connect to earth pit.
- n) Use M6 hardware for 6.5 mm X 10 or M8 hardware for 8 mm x12 mm mounting hole (PV Power Tech standard).
- o) Don't drill additional mounting holes on modules without consent from supplier/manufacturer.
- p) Use adequate quantity of Lightning arrestors in site to protect modules and components from sudden lightning/thunder.
- q) Use of Surge Protections wherever needed.
- r) Limit the number of parallel connected strings as per inverter capacity.
- s) The installation site should be restricted.
- t) A big caution board showing "DO NOT THROW SOLID PARTICLES IN THIS AREA" should be displayed in the surrounding of the site (in local languages).