

**Periodic Maintenance Protocol for
Solar power plants/packs**

S/N	Task	Quarterly	Semi-annual	Annual	Bi-annual
1	PV Array				
a	Inspect each PV modules for damage				
b	Observe PV array shading and take corrective measures				
c	Clean array with water and remove debris around array				
d	Inspect array mounting structure, check for loose fasteners, corrosion, broken/ damaged concrete footings etc. and take corrective measures, if necessary.				
e	Check array junction box, all wires and cables and take corrective measures if necessary.				
f	Adjust tilt angle , if necessary				
g	Check array current & voltage. If required each module current, voltage & bypass diode condition.				
h	Check for any loose contacts in the string connection(+ve/-ve MC4 connectors)				
2	PCU				
a	Check inverter and/or charge controller for correct settings				
b	Check Inverter capacity and max allowable load using dummy load.				
c	Ventilation fan condition/filter cleaning				
d	Check all the parameters (I/P & O/P) as per Manufacturer datasheet for any Malfunctioning				
3	Battery Bank				
a	Cleanliness of battery room				
b	Ambient air temperature within the battery room				
c	Exhaust fan/ ventilators of battery room				
d	Cleanliness of batteries				
e	Terminal damage				
f	Evidence of heating				
g	Damage to container/cover				
h	DC Voltage of each polarity of battery to ground				
i	Ground fault , if any				
j	DC Float Charging Voltage and current if each individual battery				
k	System Equalization Voltage and current				
l	Resistance/ conductance of each individual unit				
m	Re-torque all inter-unit connecting hardware				
n	Battery capacity testing at service load				
4	Protections devices				
a	Check for continuity of lightening arrestor				
b	Check system earthing				
c	Check all SPDs				
d	Check all bypass/ blocking diodes and take corrective measures if necessary.				

