

PV Solar Power Plant Pre- Commissioning Checklist

Site Detail				
System Name		Type of Inverter		
Commissioned Date		Inverter Serial Number		
Safety		OK	Not OK	Remarks
1	AC and DC disconnects are in open position.			
2	All the combiner fuse holders remain open.			
3	There is no voltage present anywhere the AC (or) DC disconnects.			
4	If disconnects are not visible during testing, utilise LOTO.			
Plan Evaluation		OK	Not OK	Remarks
5	Inspect "As Built" Plan modifications.			
6	Locations, models, and specs of the equipment according to the plan.			
7	OCV voltage & amperage according to plan.			
8	Conduit materials and sizes according to plan.			
9	Size and kind of current-carrying conductors according to plan.			
10	Size and kind of grounding and bonding conductors according to the			
11	As per the plan, ground or bond conduits and equipment.			
Inverter Output & AC Disconnects		OK	Not OK	Remarks
12	The Net Metered OCP is put in the correct panel location & properly labelled.			
13	All Code and PSS markings are located on the AC disconnect cover.			
14	The AC disconnect terminations are torqued & labelled.			
15	AC disconnect is wired as planned.			
16	AC disconnect is securely fastened and clean.			
Inverter		OK	Not OK	Remarks
17	The inverter is appropriately sited and secured, and it meets all of the manufacturer's clearance requirements.			
18	Isolation transformer terminations are torqued and adhere to the manufacturer's specifications.			
19	The AC and DC terminations are torqued and labelled according to the manufacturer's instructions.			
20	Check the inverter inclosure for evidence of damage during shipping or installation, and ensure that all doors open freely.			
21	Check the interior of the inverter for loose sub-assemblies & connections.			
22	The inverter ventilation fan moves freely, and filters are in place.			
23	All Code and PSS necessary labels are located on the inverter doors.			
24	Bender RCMS Unit & combiner power supply have been properly installed according to PSS's installation guidelines.			
PV Output-to-Inverter		OK	Not OK	Remarks
25	The junction box terminals are torqued, and the cables are labelled and grounded properly.			
26	Cables routed via conduit bodies are neat & do not damage the cable insulation.			
27	Expansion joints are installed according to the manufacturer's instructions and plans.			
28	Conduit runs are planned, neat, and adequately supported, with tight conduit fittings.			
29	DC disconnect is firmly fastened and elegant.			
30	DC disconnect is wired according to the manufacturer's and PSS's guidelines.			
31	DC disconnect terminations have been torqued & labelled.			
32	All Code & PSS markings are located on the DC disconnect cover.			

PV Array		OK	Not OK	Remarks
33	The racking is completed and installed in accordance with the manufacturer's instructions.			
34	The module's nameplate specifications are based on the plans.			
35	The modules are installed & mounted according to the manufacturer's instructions.			
36	There are no broken or misaligned modules in the array.			
37	PV connectors are fully engaged and installed in accordance with manufacturer specifications.			
38	PV wiring is well supported and neat, with no points where the insulation might be damaged.			
39	Array combiners are clean and terminated in accordance with plans.			
40	Torqued and labelled combiner terminations.			
41	The combiner cover contains all of the relevant Code and PSS labels.			
42	Inspect & review the string's open circuit voltage & short circuit amperage test results.			
43	Review the results of the DC Array Megger Test.			
Inverter Start-up		OK	Not OK	Remarks
44	Close inverter AC disconnects & then turn on the inverter AC side. Record the line voltages.			
45	Turn on the inverter and check all safety interlocks (door switches, bender, anti-islanding, etc.).			
46	Close every combiner fuse holders & manual disconnects.			
47	Confirm DC voltage & polarity at both the DC disconnect & the inverter.			
48	Confirm that the AC & DC Surge Protection are operating.			
49	Close the inverter DC disconnects & bring the inverter online.			
50	Confirm the inverter's display voltages & check the output.			
51	Complete the Performance Testing			
Monitoring Equipment		OK	Not OK	Remarks
52	Weather station devices is installed and wired according to the manufacturer's specifications.			
53	Power monitoring equipment is installed and wired according to the manufacturer's specifications.			
54	Monitoring from the inverter and gateway is complete & operating mode.			
Inspection Notes				
Readings				
Irradiance - Watt/m ²		Ambient Temp. °C		
Readings from the Inverter Display		Field Measured Readings		
AC Line Voltage		AC Line Current		
Phase A to Grd:		Phase A to Grd:		
Phase B to Grd:		Phase B to Grd:		
Phase C to Grd:		Phase C to Grd:		
AC Line Voltage		AC Line Current		
Phase A:		Phase A:		
Phase B:		Phase B:		
Phase C:		Phase C:		
DC Line KW		DC Line KW		
DC Input Voltage:		DC Input Voltage:		
DC Input Current:		DC Input Current:		
		Control Power:		
Commissioning Engineer				
Testing Engineer				