Maintenance Checklist

Solar System

Solar energy systems should be regularly inspected and maintained to ensure that they continue to function safely and efficiently.

How often should the inspections be done?

Electricians can provide advice on recommended inspection frequency. This will depend on various factors including site conditions. As a guide, solar energy systems should be inspected annually.

Maintenance of electrical installations, including solar energy systems, must be performed by a licensed electrician.

Client Code		Job Number	
Inspection officer		Inspection Date	
Client Name			
Address			
Email			
Mobile			

Advanced Meter	Yes / No	Meter No:	

Solar energy system details:

Inverter brand(s)	Inverter rating	Input A		Input B		Output current
	W	V	A	V	A	A
	W	V	A	V	A	A
	W	V	A	V	A	A

Micro-inverters	Yes / No	Power optimisers	Yes / No

Inspection and maintenance checklist:

System component	Inspect to ensure	√ or X	Reason for check	Inspector notes (E.g. actions taken)
Site	Array is not shaded		Encroaching vegetation may shade the array	
	All debris from around or under the array is removed		The build-up of debris may result in roof corrosion from the backing up of water	

System component	Inspect to ensure	√ or X	Reason for check	Inspector notes (E.g. actions taken)
PV modules and arrays including mounting structures	All individual modules are clean		Dirt, grime, algae growth and bird droppings on the module may affect	
	No visual defects in modules		Cracks or glass damage will result in moisture ingress	
	No browning or discolouration		Panel discolouration may indicate an internal panel fault	
	No indication of moisture penetration		Internal moisture ingress will result in	
	No indication of corrosion on the frame or mountings		Ferrous metals may corrode, and salt laden atmospheres can increase the risk of	
	Array still firmly fixed to roof structure		Loose or missing fixings may result in wind damage	
	Individual modules still firmly fixed to array structure No loose or missing panel clamps		Loose or missing panel clamps may result in modules dislodging during wind	
	Roof penetrations adequately sealed		Inadequate sealing will lead to moisture ingress	
Wiring systems and enclosures	Conduits and cables are adequately supported		Cables and conduit in contact with the roof surface may cause abrasion	
	Conduits and cables are free of deterioration from UV or mechanical damage		Damage or deterioration to cables and conduit may cause moisture ingress or	
	Cables not damaged by stainless steel cable ties		Damage to cables may cause moisture ingress or short circuits	
	Connectors show no signs of deterioration (deterioration may be caused by poor or mismatched connectors)		Deteriorated connectors may cause overheating resulting in failure	

System component	Inspect to ensure	√ or X	Reason for check	Inspector notes (E.g. actions taken)
Wiring systems and enclosures	Connections are not frayed, loose or corroded		Poor connections may cause overheating resulting in failure	
	Conduit ends are adequately sealed		Moisture ingress into conduits may result in cable deterioration or moisture within enclosures	
	Enclosures are adequately sealed and show no signs of moisture ingress		Moisture ingress into an enclosure may result in an unsafe failure	
	Enclosures showing no signs of internal heating		Enclosures that are warped or discoloured may be overheating internally which could create a fire risk	
Electrical characteristic	Verify open circuit voltage and short circuit currents	V A	Values will indicate the array is still functioning correctly	
Protective devices and isolators	Fuses and holders are still intact		Essential for the correct performance of the system	
	Circuit breakers and residual current devices (RCD) operate correctly		Essential for the required electrical protection	
	Earth fault protection system operates correctly (if required refer to applicable requirements)		Essential for the safe operation of the system	
	Isolators function correctly, are able to be operated and are effective		Essential for the safe operation of the system	
	Isolators and other electrical equipment is not on the recalled list		Products with known safety issues may have been recalled	
Labels and signage	Green PV label in place		This indicates to the fire service the presence of a solar energy system	
	Shut down procedure is still visible and legible		Instructs owner on how to safely shut down the system	

System component	Inspect to ensure	√ or X	Reason for check	Inspector notes (E.g. actions taken)
Labels and signage	Disconnecting devices are adequately labelled		Indicates the devices that are required to safely shut down the system	

Responsible electrician details:
I have completed an inspection and maintenance of the above solar energy system and confirm that the details provided in this document are true and correct.

Full name			
Electrical practitioner's licence			
Electrical contractor's licence number			
Signature		**Date**	

Recommended date of next inspection: …….

General comments and notes of inspecting electrician (including any items replaced):