

		Prepared by:	Date:
		Stuart Harris (ESG)	16/06/2023
		Francky Leray (Ablaze)	Revision: 01

The Network Building - Photovoltaic (PV) Maintenance and upkeep strategy

Frequency	Inverter	Operating without any fault display?	Access requirements	Operative/Competancies
Monthly	Yield check	Log meter readings regularly (not required in systems with automatic recording and evaluation of operating data)	N/A - Metering accessed from ground level	FM team/Electrical competency
6 monthly/Yearly	PV array surface area	Heavy soiling? Leaves, bird droppings, air pollution or other types of soiling? Clean with copious amounts of water (use a hose) and a gentle cleaning implement (a sponge). Do not use detergents. Do not brush, or wipe the modules with coarse dry cleaning implements as it could scratch the surface	Access via MAST located adjacent to PV array following isolation (DC Isolators accessed at ground level) Access via MAST. Telescopic water fed brush to be used to clean panels. Longest distance required circa 9m	PV specialist/PASMA/Electrical competency (isolations)
Every 6 months	PV combiner/junction box (if present)	Is there humidity in the device? Are there any insects in the device? (only if mounted outdoors) If possible, check fuses.	N/A - PV combiner accessed from ground level	PV Specialist/PASMA/Electrical competency (isolations)
	Surge arresters	Check after thunderstorms as well	N/A - Surge arresters accessed from ground level	
	Cables	Look for charred pots, broken insulation and other kinds of damage (e.g cables damaged by animals) Check the fixing points	Access via MAST. Cables and connections inspected from underside of array	
Every 3 to 4 years	Repeat the measurements as during commissioning	Only to be carried out by a trained professional	N/A - equipment accessed from ground level	PV Specialist/PASMA/Electrical competency
	Inverters in outdoor applications	Humidity may penetrate despite suitability for outdoor applications		
		Only to be controlled by a trained professional		
If suspected	Modules	Peak output measurement by trained professional	Modules inspected (and if necessary replaced) using MAST. Outputs measures at DC combiner which is accessed at ground level	PV Specialist/PASMA/Electrical competency
	PV combiner/junction box	Check string fuses if present	N/A - equipment accessed from ground level	
	AC protective equipment	Line circuit breakers, AC fuses and RCDs		

	Component	Expected lifespan	Replacement method	Access
Replacement	PV Panel	25 Years	Isolate DC string prior to undertaking works	Isolation carried out at ground level
			Access and unbolt/remove defective pane. Install new panel, bolt down into position. Reinstall any other panels removed for access	MAST to be erected adjacent to PV array. Dependant on location of defective panels, remove surrounding panels to gain access to defective module. Panel weighs circa 20kg - 2No. Operatives required to manually handle
			Reconnect DC array string and test for continuity/DC output	Test and commissioning works carried out at ground level carried out at ground level
	Inverter	5 Years	Isolate DC string prior to undertaking works.Reinstall and test connections	Test and commissioning works carried out at ground level carried out at ground level