

10 Reasons for Regular Solar PV Installation Testing



1 Environmental degradation

Damage or corrosion to cabling and connectors caused by moisture can decrease performance or increase the risk of fire.

2 Damage to wiring

Wires hanging below the panels or touching the roof/vegetation can become damaged, presenting a shock hazard.

3 Surface contamination and damage

PV modules can become dirty over time, and can be damaged by the elements or stones dropped by birds, resulting in decreased output.

4 Verification of system performance

It's important to identify electrical faults or wiring failures as early as possible. Periodic electrical testing verifies performance over extended periods.

5 Avoid fire risks

Fires started by electrical faults in rooftop PV systems have been reported worldwide. Regular testing of PV system cabling and components reduces the potential risk of fire.

6 Warranty fulfilment

Testing to identify and confirm continued safe operation and optimum energy output can be required by product warranties and component guarantees.

7 Ground faults

Poor insulation in underground cabling can cause electricity to leak to earth. This can significantly reduce the efficiency of the system.

8 Customer documentation

Copies of all test and commissioning data should be provided to the customer as part of the system documentation when a PV system is installed.

9 Effective grounding

If the grounding system degrades over time there is a chance of electric shock.

10 Compliance with IEC 62446

The international IEC 62446 standard recommends that periodic verification of an existing PV installation should be performed.

