



SolarProtect

Part of the Solar Professionals Group

**Accredited,
experienced and
reliable care for your
solar asset**

FOR MORE INFORMATION PLEASE VISIT
www.solarprofessionals.com.au/solarprotect



Solar Protect

Backed by the trusted experts at Solar Professionals, Solar Protect provides reliable service for residential, commercial and large scale solar assets across New South Wales, Queensland, Victoria and Western Australia. We take the time to understand our clients' requirements, working with you on a schedule that makes the most sense for your solar asset.

As leading designers and installers of residential solar systems, we understand

what is required on an ongoing basis to get the most out of your asset and extend the life of the solar system. We are committed to providing a range of ongoing services to ensure your solar system performs at its peak, every day.

Our scope of work is customised to suit your home and requirements.



**Residential
Solar**



**Commercial
Solar**



**Leading
designers
and installers**



**Customised
to suit client
requirements**

Your solar system could be costing you thousands of dollars each year

You've made the solar investment, let Solar Protect ensure you're getting the most from your asset.

According to government data, more than half of Australia's residential solar systems perform below the standard they're supposed to. And even worse, about 14% of the country's solar systems develop a major fault every year and stop working altogether. Most of these faults go undetected until homeowners receive an electricity bill spike. Literally, every day that ticks by undetected costs the homeowner money.

Source: Solar Analytics

Solar PV systems are generally low maintenance which can sometimes result in situations where they are installed and ignored until noticeable issues arise. As the system ages there are likely to be PV module failures, breakdown of inverters or deterioration of electrical insulation. If left unaddressed, any one of these issues can lead to unexpected interruptions and unplanned downtime, as well as costly repairs. Early detection of these issues, through ongoing monitoring and regular maintenance, will reduce the severity of the fault and allow warranty claims to be processed within the allocated timelines.



14%

of the country's solar systems develop a **major fault every year and stop working altogether.**

What could go wrong?

INVERTERS

- ▶ Inverter faults account for almost 50% of major solar system failures. Typically, when an inverter fails, the whole system shuts down and produces zero energy. Inverters are crucial for peak system functionality.
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SOLAR MODULES

- ▶ Despite long warranties, there are many issues that can cause early failure. Most of these issues cannot be detected with the naked eye and require sophisticated analysis to identify and diagnose why the panel is producing less energy than it should.
 - ▶ Detailed inspection can identify small cracks which can appear in solar cells, called microfractures or microcracks. Some microfractures can span the whole surface of the panel, whereas others appear in only small sections of a cell. Undetected these cracks can affect both energy output and shorten the life of your solar, PV system.
 - ▶ The modules are prone to bird droppings and a build-up of general dust, dirt and leaves that do not wash off with rain. This reduces the amount of sunlight hitting the module, reducing its energy output.
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COMPONENTS OVERHEATING

- ▶ Throughout summer the use of thermal imaging will quickly identify any components overheating and ensure they are operating safely.
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BALANCE OF SYSTEM FAULTS

- ▶ All components of a solar system need to be working correctly to get the most out of your investment. Faults such as water ingress and electric cable breakdown can arise if components such as switch gear, fuses and isolators are not maintained regularly.
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Our Package

Comprehensive system health check, including:

PHYSICAL INSPECTION OF

- Solar modules and inverters for visual defects or faults
 - Racking installation – method and integrity
 - AC and DC switchgear integrity and connections
 - DC cabling and connectors
 - Roof penetrations, leaks or damage
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ELECTRICAL TESTING OF STRING INVERTERS

- ISC
 - VOC
 - Insulation resistance
 - Earth continuity
 - AC grid voltage
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MICROINVERTERS.

- Verify operation of individual inverters
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DETAILED REPORT INCLUDING

- Following every service, a Comprehensive report including electrical test reports will be provide outlining observations and where necessary identifying any defects with a clear list of recommendations for repair or rectifications.
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Additional Options

Ongoing analysis and rectification of your solar system provides the assurance of optimum performance and financial return. **Talk to us about additional services to customise your system's care. Additional services include:**

SYSTEM CLEAN

- Ensuring that your system is performing at its best
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I-V CURVE TESTING

- Measuring current and power as a function of voltage and identifying potential issues right down to the specific wire, connector or module within a string
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THERMAL IMAGING

- Electroluminescence (EL) testing to detect hidden defects in the structure of the PV cell. This capability allows identification of a number of issues including: microcracks, damage from hail and mishandling and potential induced degradation (PID)
- Switchboard and DC Combiner & boxes

Key Services



Proactive maintenance packages

Routine inspections and scheduled maintenance to uphold efficiency and reduce reactive servicing.



Accredited and Certified

ISO accredited and Clean Energy Council Approved Retailer along with State and Local Government contractors.



Inspection and Monitoring

Thorough health checks and regular maintenance.



System Cleaning

Key to the upkeep of most systems to ensure peak performance.



Rectification Management

We look after warranty claims and replacements for system parts.



Rapid Response

Our Solar Professionals team are on call to attend to issues swiftly.



Customer Support

The benefit of access to the Solar Professionals team for queries about your system.



Solar Professionals is a leading commercial solar installation and service company specialising in the design, installation and project management of solar PV applications.

Through Solar Protect, we are extending our accredited care and expertise into the ongoing monitoring and maintenance of your solar asset – residential, commercial or large scale.

Call us today to discuss your needs



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