

# Keep your solar system in peak condition

Producing electricity from your solar panels is not only great for the environment, it can save you a considerable amount on your energy costs.

But, like any major purchase, it's important to ensure your solar system is regularly maintained.

Just as you would do with your car, it is essential to carry out regular checks to keep your solar system running at peak performance, and protect against any potential safety risks.

## First, be sure to check the front of the inverter at least once a week.

The inverter is the box on the wall near your meter box or inside the garage. This box controls the generation of clean energy for your home.

Checking it will take just a couple of minutes, but could mean the difference between reaping the financial rewards of your clean energy system, and getting an unwelcome surprise when the next bill arrives due to an undetected problem that has interrupted solar generation.

If the inverter is showing an error message, a red light, or nothing at all on the display during daylight hours, contact your solar installer.

Keeping an eye out for obstructions, damage and dirt will also help ensure your solar system is in perfect working order.

While solar systems are very robust, extreme weather, water leaks, foliage—even pests and wildlife—may result in faults or interrupted power generation.

During prolonged dry weather, a thick layer of dust can form, reducing the system's performance.

We don't recommend you climb on the roof to clean the solar panels yourself, and never walk, sit or place objects on their surface.

Instead, if you notice debris around or under the panels, or other visible signs of damage, call out the professionals for a thorough clean. We recommend a quarterly clean for optimal results.

Over the longer term, consider putting in place a formal maintenance timetable, in which a qualified, CEC-accredited electrician can conduct a solar 'health check'.

As a guide, the following should be professionally inspected **annually**:

Solar panels	Panels with visual defects should be further inspected for performance and safety to determine if they need to be replaced. Any defective seals, clamps and bypass diodes must be replaced.
Wiring installation	Replace any defective seals, clamps, blocking diodes and surge arresters. Check connections for tightness and signs of corrosion.
Electrics	Inspect fuses, circuit breakers and residual current devices, earth fault protection systems and isolation devices.
Mounting structures	Check tightness of bolts and other fasteners.

The following should be professionally addressed **every five years**:

Wiring installation	Check and replace any damaged cables.
Mounting structure	Check for signs of corrosion.

See reverse for your full maintenance guide.



Never attempt to service or open any part of your solar system unless you are a fully qualified electrician, you have been authorised to do so and have properly prepared the site. Don't climb on the roof to clean your solar panels, and never walk, sit or place objects on their surface.

# Maintenance procedure and timetable

Maintenance frequency	Maintenance action	Maintenance details
Quarterly	<b>Site</b>	
	<b>Check:</b> <ul style="list-style-type: none"> <li>Cleanliness (accumulation of debris around and/or under the solar panel array)</li> <li>There is no shading on any of the panels</li> </ul>	Clean site as required. Trim trees if needed and safe to do so.
	<b>Solar panels</b>	
	<b>Check</b> the cleanliness (accumulation of dust or fungus on the solar panels).	Clean if necessary.
Annually	<b>Solar panels</b>	
	<b>Check for visual defects including:</b> <ul style="list-style-type: none"> <li>Fractures</li> <li>Browning</li> <li>Moisture penetration</li> <li>Frame corrosion</li> </ul>	Panels with visual defects should be further inspected for performance and safety to determine if they need to be replaced.
	<b>Inspect junction boxes adjacent to the panels if applicable for:</b> <ul style="list-style-type: none"> <li>Tightness of connections</li> <li>Water accumulation/build-up</li> <li>Integrity of lid seals</li> <li>Integrity of cable entrance, glands and/or conduit sealing</li> <li>Integrity of clamping devices</li> </ul>	Any defective seals, clamps and bypass diodes must be replaced.
	<b>Wiring installation</b>	
	<b>Check junction boxes adjacent to the panels if applicable for:</b> <ul style="list-style-type: none"> <li>Tightness of connections</li> <li>Water accumulation/build-up</li> <li>Integrity of lid seals</li> <li>Integrity of cable entrance, glands and/or conduit sealing</li> <li>Integrity of clamping devices</li> </ul>	Any defective seals, clamps, blocking diodes and surge arresters must be replaced.
	<b>Also check:</b> <ul style="list-style-type: none"> <li>Blocking diodes vb</li> <li>Surge arresters for degradation</li> </ul>	
	<b>Check connections for:</b> <ul style="list-style-type: none"> <li>Tightness</li> <li>Corrosion</li> </ul>	
	<b>Electrical characteristics</b>	
	<b>Measure:</b> <ul style="list-style-type: none"> <li>Open</li> <li>Short circuits currents</li> </ul>	
	<b>Check the:</b> <ul style="list-style-type: none"> <li>Integrity of fuses</li> <li>Operation of circuit breakers and residual current device</li> <li>Operation of earth fault protection system</li> <li>Operation of solar array isolation device</li> </ul>	
	<b>Mounting structures</b>	
<b>Check tightness and integrity of bolts and other fastening devices.</b>		
<b>Email fault notification</b>		
	If the inverter is connected to the internet, a test should be performed to ensure the inverter sends a notification in the event of a fault.	
Every 5 years	<b>Wiring installation</b>	
	Check the mechanical integrity of conduits.	Any damaged conduits needs to be replaced.
	Check the insulation integrity of cables installed without conduit.	Damaged cables must be replaced.
	<b>Mounting structures</b>	
	Check tightness and integrity of bolts and other fastening devices.	

\*Values for frequency are examples. Frequency will be site dependent.