

Maintenance Procedure

Solar System

Why do I need to maintain my solar panel system?

It is important that regular maintenance is carried out on your solar panel system. Undertaking regular maintenance will ensure your solar panel system is operating safely, correctly and efficiently.

Over time dust and debris will build up on your solar panels, which may compromise the performance of your solar panel system. In addition, water and moisture seepage, vermin, hail, wind and sunlight can all cause damage or deterioration to your system.

By ensuring regular routine maintenance is undertaken, you can ensure your solar panel system is safe for everyone living in the premises, along with electrical workers working on the distribution network. Routine maintenance will also ensure system performance is maintained, allowing you to maximise savings on your power bills for many years.

Just like running a car, regular servicing is the best way to ensure your solar panel system keeps operating safely, correctly and efficiently.

How Frequently Should You Clean Solar Panels?

Solar panels do not have a specific frequency for cleaning. Instead, it depends upon different factors, such as the amount of dust they are exposed to.

Ideally, solar panels should be checked and cleaned 2-3 times, or at least once a year.

- If you wish to clean the solar panel system more than once a year, make sure to follow the following schedule.

Solar Panel System Maintenance Schedule

Maintenance	Frequency
Visual Inspection of the Entire System	Monthly
Solar Panel Maintenance	Once in 6 months, depends on the location

Tip: Record all the readings and observations in a log sheet every time you check.

How to Maintain a Solar Panel?

Though the array of solar panels lined up on your roof might not seem like they require maintenance, they actually do. You need not check it frequently, but occasional inspection will help ensure its longevity.

- ❖ **Cleaning:** Wash the solar panels with clean water to get rid of dust and pollutants. In case that is not enough, splash cold water and rub it with a sponge. You may need to do this if the panels have hard-to-remove marks, bird droppings, etc.

Note: Never use any kind of soap or detergent to wash the panels. Also, keep metal brushes and sponges away to prevent damage.

- ❖ **Inspection:** Once you have thoroughly cleaned the solar array, look closely for defects. These include cracks, crevices, or discoloration. If you find any such issues, note them down so you can check again and ensure they do not deteriorate further.

- ❖ **Additional Examination:** Apart from panels, you also need to check the mounts and frames thoroughly. Check all the bolts to make sure they are secure enough. Also, inspect the nuts and bolts closely to check for corrosion. If any parts are rusted, clean them with bicarbonate and soda water.

How to Maintain Solar Panel Wiring and Connections?

Ensuring that the wiring and connections are intact helps keep short circuits and major damages at bay. Therefore, you must check the solar panel's wires for cracks, meltdowns, and deterioration. Besides, they may also fall prey to rodents.

- Make sure the wires are not rusted
- They do not emit sparks when you switch on the system
- The wires do not emit any foul or burning odor
- It is not bitten by insects or rodents
- None of the wires' sections are left uncovered

The different wires that you must check include wires connecting the following devices.

- Solar panels and inverter
- Inverter and battery
- Connection to the grid or the main switchboard
- In case you have a generator

If you spot any damages, you must consult the solar panel installation services as soon as possible. You can get it serviced for free or at a discounted rate if your solar panel system is still in its warranty period. Alternatively, you may also call for an electrician to make the necessary amendments.

Solar Panel Inverter Maintenance

You need to clean off the dust from solar panel inverters to maintain their efficiency. The same applies to a charge controller.

- Wipe off the dust using a dry cloth
- Check to see if all the LED lights and indicators are working
- Refasten the wires that may be loose
- Make sure the inverter displays the 'charging' status when sunlight is bright

You may want to call a solar panel professional if it does not display the correct readings.