Solar PV safety

With many homes and businesses now with solar PV systems installed, it's important to know how to keep safe should flying debris from severe storms or cyclones cause damage to your roof or solar PV system, or if floodwaters threaten to inundate your property.

Solar photovoltaic (PV) systems are connected to the normal power supply for use in homes and businesses. As solar PV systems are powered by the sun, or any other source of light, they can continue to generate power from the solar modules up to the inverter even if the mains power has been disconnected.

As a result, solar PV systems can pose an electrical safety risk for residents, emergency services personnel and Ergon Energy crews after storms and cyclones or in times of flooding.

It is critical to remember solar modules and their cables should be treated as if they are live.

ERGON ENERGY

STORMS & CYCLONES

During a storm or cyclone

During a severe storm or cyclone event, do not attempt to turn off a solar PV system if components of the system are wet. This could result in a fatal electric shock.

Do not assume your system is safe if power supplies have been interrupted. PV systems still produce DC voltage while there is daylight.

After a storm or cyclone

If flying debris has caused damage to your solar PV system or roof and you're concerned about the integrity of your system, follow the shutdown procedure at the inverter or main switchboard.

After severe storms or if your roof is damaged, do not attempt to reconnect your solar PV system or access your roof as it may be live. Do not access your roof without having the system checked.

Contact a Clean Energy Council accredited installer and ask them to recommission the system for you. A list of accredited installers can be found on the Clean Energy Council website www.cleanenergycouncil.org.au

If an installer is not available, contact a licensed electrical contractor who can test your system to ensure that it is safe.

WARNING: Solar PV systems do not require mains power to generate a DC supply. A licensed electrical contractor or Clean Energy Council accredited installer will be required to fully shut down the PV array to ensure safety.

FLOODS

Preparing for a flood

When preparing for a flood event, it is important to follow correct shutdown procedures. Shutdown procedures should be located at the inverter or main switchboard.

A general shutdown procedure is as follows:

1. Turn off the inverter AC mains isolator, usually found in the meter box.
2. Turn off the PV array isolator, usually found next to the inverter.
3. If there might be a risk that the water level could reach up to the inverter and cables, also arrange to turn off the roof top array isolator (if fitted).

If you are unsure of the shutdown procedure, contact the manufacturer or installer.

During a flood

During a flood event, do not attempt to turn off a solar PV system if any of the components are covered in water or if parts of the system are still wet. This could result in a fatal electric shock.

Do not approach the system if parts are submerged, and if forced onto a rooftop to avoid floodwater, keep well away from solar panels and wiring.

Do not assume your system is safe if Ergon Energy has disconnected supply. PV systems still produce DC voltage while there is daylight.

REMEMBER: Do not reconnect a solar PV system unless a licensed electrical contractor has certified the installation is safe. And treat all solar PV installations as if they are live.

After a flood

Following receding flood waters, do not attempt to operate any switches as residual moisture may have caused solar PV systems to become live.

You could potentially suffer a serious or fatal electric shock, even if mains power is disrupted.

Contact a Clean Energy Council accredited installer and ask them to recommission the system for you.

A list of accredited installers can be found on the Clean Energy Council website www.cleanenergycouncil.org.au

If an installer is not available, contact a licensed electrical contractor who can test your system to ensure that it is safe.

Ensure that the solar PV system inverter is replaced if it has been submerged or partly submerged.

IMPORTANT: If your home or business becomes inundated with flood water and the mains power is still connected, contact Ergon Energy immediately on 13 22 96 to arrange disconnection.