



Solving grid export problems

If your solar power system has stopped exporting energy, it may not be working properly. This fact sheet outlines some things you can do.

Possible reasons for lack of solar export

Normally, the electricity generated by your solar system is converted by your inverter and used by your appliances. Excess electricity is then fed back into the grid. If your solar system is not exporting electricity to the grid, it could be due to one or more of the following reasons:

1. Changes in electricity use

You may be using more electricity during the day than your solar system is generating. Smaller solar systems (1 or 1.5 kW systems) are more likely to be affected by changes in electricity usage patterns. If you have started running an air conditioner, pool pump or other energy-hungry appliances every day, there may be no excess electricity left to export.

What you can do: check if your energy consumption patterns have changed. You may need to reduce your electricity usage.

2. Your solar system is switched off

Some solar systems may have several switches. For example, your systems may have a solar main supply switch in your switchboard, an 'AC isolator' switch near your inverter and a 'DC isolator/solar array' switch on your inverter. Some newer systems may not have all these switches. If you have had electrical work done recently, check that your solar system has been switched back on.

What you can do: check all switches are on. If they are and the problem isn't fixed, contact your solar installer or a licensed electrician.

3. Equipment failure

If your system appears to be switched on, lack of export could be caused by faulty internal connections or equipment, such as a defective inverter.

What you can do: if you suspect equipment failure, contact your solar installer or a licensed electrician.

4. A period of unsuitable weather

Solar panels need sunlight to generate electricity. On cloudy days, output may drop to 10% of your system's capacity. In winter, the sun's angles and strength drop considerably. In both cases there will be less energy to feed into the grid. We take weather patterns into consideration before alerting you to a possible solar export issue, but local conditions can vary.

What you can do: review recent weather patterns. Wait for a sunny period to see if your solar export improves. If it doesn't, contact your solar installer or a licensed electrician.

5. Shade covering panels

Shade has a similar effect to clouds – they significantly reduce solar energy output. For example, if a tree has grown or a building is built nearby overshadowing your solar panels, you may get a drop in output. Heavy shade can reduce a panel's electricity output to near zero, even if only a part of the panel is overshadowed.

What you can do: check for shading from trees or structures. If your trees have grown, consider calling a qualified arborist to trim them.

6. Your solar panels have aged

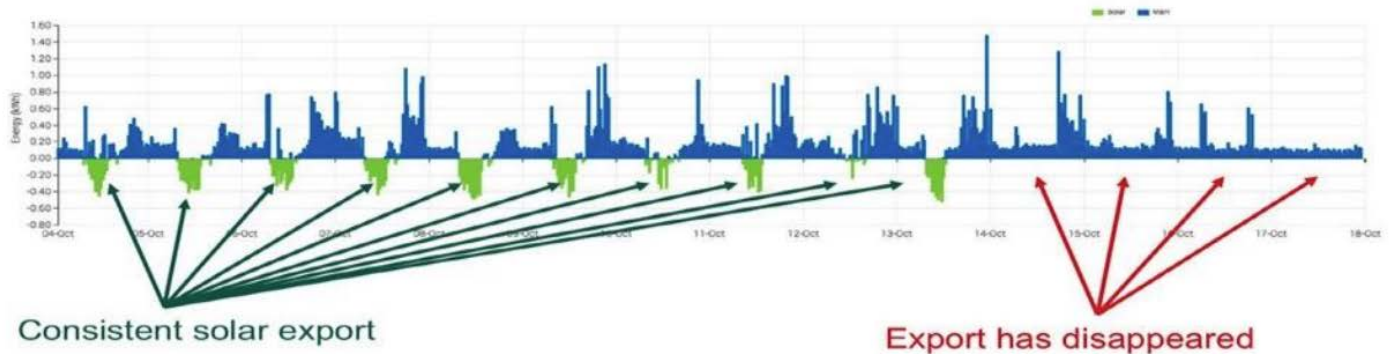
Solar panels and inverters lose efficiency over time – the older your system, the less electricity it may generate. Good quality panels and inverters usually remain more efficient for longer than lower quality panels, which can degrade more quickly. If your solar panels or inverter are older and/or of lower quality, this could cause a lack of solar export.

What you can do: if you think your solar panels may have degraded due to age, contact your solar installer to discuss options to upgrade your system.

If you have checked all these options and still need more information, contact us on 1300 360 795.



How smart meter information is used to detect lack of solar export



The diagram above is what we see from a customer's smart meter when a solar system has stopped working. In this graph, solar export is shown in green. You can see solar power was exported for ten consecutive days and then it stops entirely. If there is no export for a few more consecutive days, it may indicate the solar energy system isn't working properly. We tell customers if we see this happening.

How to check solar export by reading your smart meter

As a customer with a grid-connected solar energy system, your smart meter can measure the electricity you export to our grid. To check how much energy your system is exporting, follow these steps:

1. Wait until your solar panels are in full sunlight. At this time your system should be generating electricity.
2. Turn off high energy usage appliances, such as air conditioners or pool pumps.
3. Find the scroll button on the smart meter (as shown in the image on the right).
4. Press the scroll button once. The screen will scroll through groups of information, known as 'registers,' with a different register appearing every five seconds.
5. When register 13 appears, write down the number. This is your total exported energy in kilowatt hours (kWh).
6. After an hour or more, take another reading from register 13.

If the second figure is the same as the first, this means no export has been detected. If the second figure is higher, you have exported some electricity to the grid.

myHomeEnergy – a detailed picture of your electricity usage

Many of our customers monitor their solar system performance using our free myHomeEnergy portal. It gives our customers a detailed picture of their energy usage in 30 minute intervals.

myHomeEnergy will clearly indicate whether your solar system is exporting to the grid. To register for myHomeEnergy, visit myhomeenergy.com.au.

Display – shows which register is being displayed, and the value on that register

Scroll button (on left)



For more information about smart meters, visit www.ausnetservices.com.au/smart-meters.