FACT SHEET
Your Solar

Solving Grid Export Problems

Has your solar power system stopped exporting energy? Your system may not be functioning properly. This fact sheet outlines some steps you can take to check.

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, with excess electricity fed back into the grid.

If your solar system is not exporting electricity to the grid, it could be because of one or more of the following reasons. Remember, a lack of export does not necessarily mean your system has malfunctioned.

(1) Changes in electricity use

You may be using more electricity during the day than your solar system is generating. Smaller solar systems (e.g.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 each day, there may be no excess electricity left to export.

SUGGESTED ACTION: *review your energy consumption patterns, to assess whether a change in behaviour explains any lack of export.*

(2) Your solar system is switched off

Some solar systems may have several switches. For example, your system may include 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.

SUGGESTED ACTION: *check all switches. Contact your solar installer or a licensed electrician if there is any reason to think the issue may involve more than a simple switch.*

(3) Equipment failure

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

SUGGESTED ACTION: *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 per cent 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.

While we take weather patterns into consideration before alerting you to a possible solar export issue, local conditions can vary.

SUGGESTED ACTION: *review recent weather patterns. Wait for a sunny period to see if your solar export improves.*

(5) Shade covering panels

Shade has a similar effect to clouds, in that it significantly reduces solar energy output. If, for example, a tree has grown or a building has gone up nearby and your solar panels are now overshadowed, a drop in output can result.

An entire panel need not be shaded for its output to be considerably reduced. Heavy shade can reduce a panel's electricity output to near zero.

SUGGESTED ACTION: *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 degraded with age

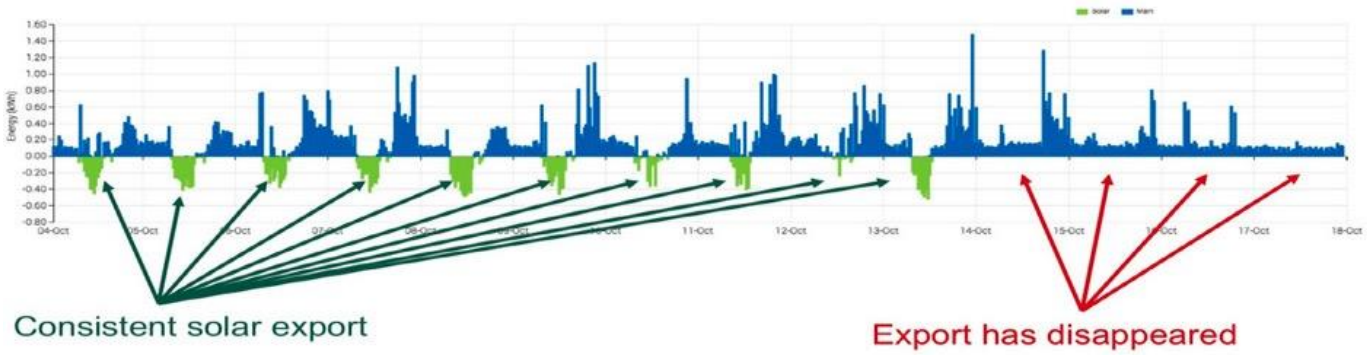
Solar panels and inverters lose efficiency over time - the older your system, the less electricity it may generate. Good quality panels and inverters usually remain more efficient for longer than lower quality panels, which can degrade more quickly. If your solar panels or inverter are older and/or of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

SUGGESTED ACTION: *if you think your solar panels may have degraded, consider contacting your solar installer.*

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

Continued overleaf

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



The diagram above shows 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. It can be seen that solar power was exported for ten consecutive days, and then stopped entirely for four days.

If a lack of export continued for a few more consecutive days, it may indicate a malfunctioning solar energy system. As a courtesy, we advise customers if we see this pattern occurring.

How to check solar export by reading your smart meter

As a customer with a grid-connected solar energy system, your smart meter is set up to measure the electricity you export to our grid. It is quite simple to check how much energy your system is exporting by following these steps.

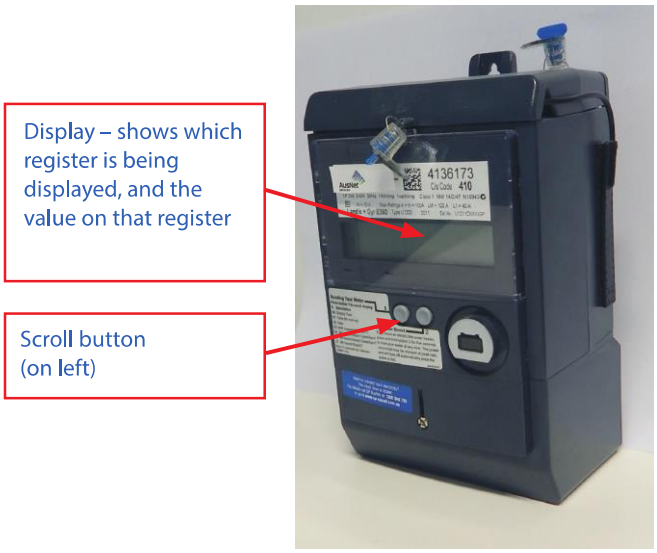
1. Wait until your solar panels are in full sunlight. At this time your system should be generating electricity.
2. Ensure no major appliances, particularly energy-hungry ones such as air conditioners or pool pumps, are operating.
3. Locate your smart meter and the scroll button on the smart meter, as shown in the picture (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, take a note of the figure. 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 *myHomeEnergy* energy web service. This service is free and exclusive to AusNet Services customers. It provides our customers with a detailed picture of their energy usage, in 30 minute intervals.

myHomeEnergy will clearly indicate whether your solar system is exporting to the grid. You can register for *myHomeEnergy* on our website.



More information about reading a smart meter is available on the AusNet Services website.