Trading Standards Scotland

Avoid Energy Efficiency Scams

what you should know about solar inverters

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Solar Scams

Several companies are giving Scottish consumers misleading information about solar inverters, often implying that upgrades, repairs or extra guarantees/warranties are required when they are not.

We want to make sure that consumers know the facts about solar inverters - the more you know, the better equipped you will be to avoid scams and misselling.

What is a solar inverter?

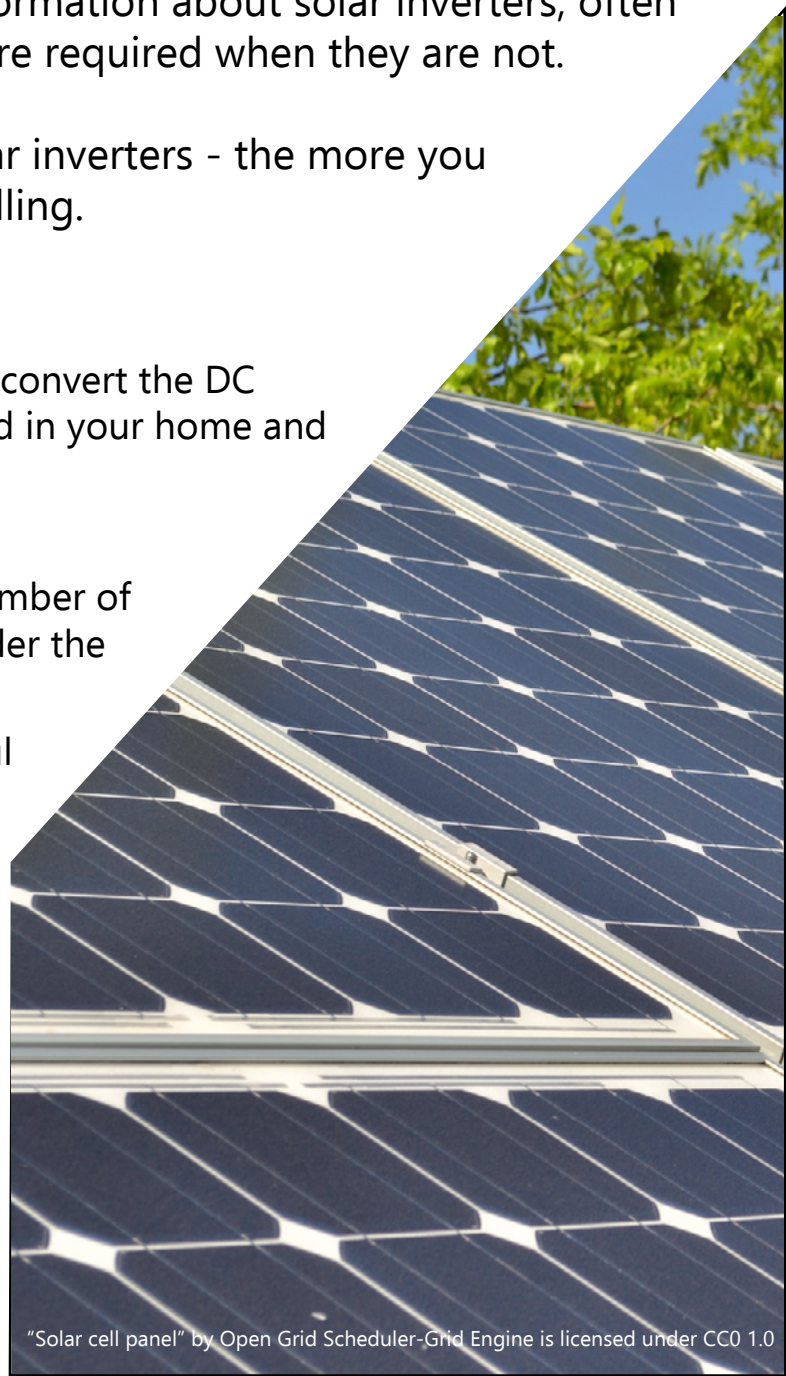
Solar inverters maximise the energy production of solar panels. They convert the DC electricity produced by the panels to AC electricity, which can be used in your home and fed back into the grid.

There are two types of solar inverters:

String Inverters, also known as **Central Inverters**, are linked to a number of solar panels. They work best when all of the panels are operating under the same conditions.

Micro Inverters are linked to one or two solar panels. They are useful in systems where some panels are obstructed by shade or debris at different times of the day - if one panel is not functioning, the rest of the panels will not be affected and will work as normal. Micro inverters are still relatively new and it is claimed that they are more reliable and that they improve the energy harvest of the solar panels, which can result in increased income. They have a longer lifespan than string inverters; however, they are more expensive to install and replace.

Get detailed information about how solar panels and inverters work from **Home Energy Scotland**



"Solar cell panel" by Open Grid Scheduler-Grid Engine is licensed under CC0 1.0

How efficient are solar inverters?

Solar inverters are very efficient - around 93-96%. Even lower-cost models achieve around 93% efficiency. Inverters can never achieve 100% efficiency as they use some of the input power to run.

How long do solar inverters last?

String/Central inverters typically have a lifespan of 10-15 years, although new micro inverters generally have a lifespan of 25 years. Solar panels should last for at least 25 years, meaning that most inverters will have to be replaced during the lifespan of the panels.

Many salespeople mislead consumers by telling them that their original warranty is void because the company which sold it to them has gone out of business. The warranty is in fact with the product manufacturer, not the company which sold it to you. Therefore, even if the company no longer exists, the original warranty will still be valid and you do not need to take out a new one.

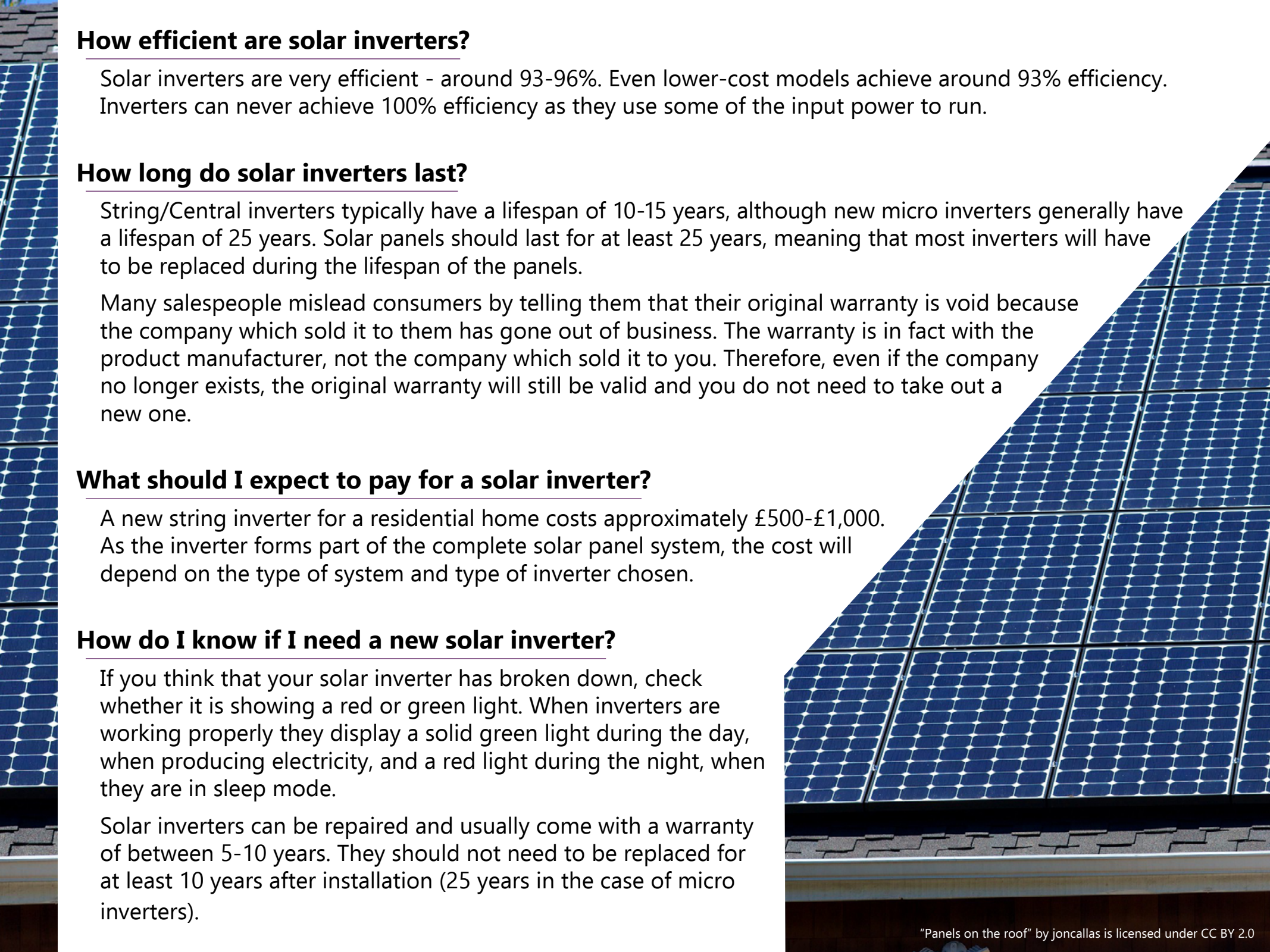
What should I expect to pay for a solar inverter?

A new string inverter for a residential home costs approximately £500-£1,000. As the inverter forms part of the complete solar panel system, the cost will depend on the type of system and type of inverter chosen.

How do I know if I need a new solar inverter?

If you think that your solar inverter has broken down, check whether it is showing a red or green light. When inverters are working properly they display a solid green light during the day, when producing electricity, and a red light during the night, when they are in sleep mode.

Solar inverters can be repaired and usually come with a warranty of between 5-10 years. They should not need to be replaced for at least 10 years after installation (25 years in the case of micro inverters).



"Panels on the roof" by joncallas is licensed under CC BY 2.0

Case Study

In one recent case, a Scottish consumer in their 90s was cold called by a solar inverter salesperson, who told them that their existing inverter was no longer working and that they would need to buy a new one for £3,000. Although their existing inverter was working perfectly well and was still covered by the original warranty, they were confused by the salesperson's lengthy and jargon-filled pitch and were convinced that they should pay for an upgrade. Thankfully, their live-in-carer was able to prevent the sale from going ahead.

If you receive an unsolicited call from someone trying to persuade you to upgrade or replace any part of your solar panel system, take your time to make a decision. Before agreeing to any purchases, get at least three quotes from reliable companies and don't allow salespeople to rush you or pressure you into making a decision.

Who can I trust to give me reliable advice about solar inverters?

If you are considering any new energy efficiency measures for your home, get advice and information to help you make an informed decision from **Home Energy Scotland** on **0808 808 2282**.

Find a reliable installer in Scotland through the Energy Saving Trust's **Renewable Installer Finder Scotland** tool. All installers on the tool have been certified by the **Microgeneration Certification Scheme**.

You can also get trusted advice from:

Advice Direct Scotland (**0808 164 6000)**

Green Deal Finance Company

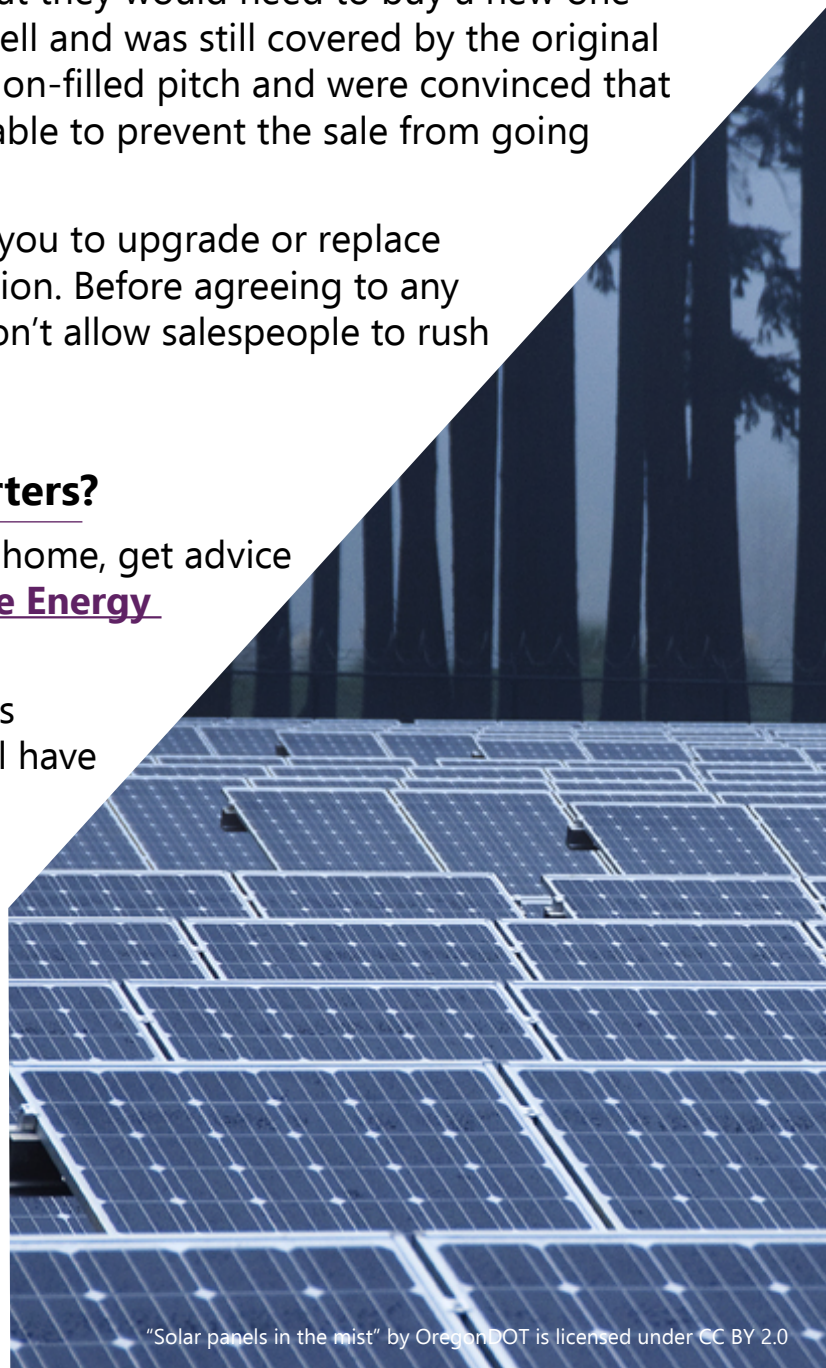
OFGEM

Renewable Energy Consumer Code

Simple Energy Advice

Trustmark

Trading Standards Scotland



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