



UK SOLAR POWER



Bringing British Workmanship to the world

www.uksolarpower.com

Are all Solar Panels the same?

Obviously not! High costs of quality parts for production means that some PV manufacturers have to come up with ways to cut costs that could lead to performance issues over the course of your solar PV lifetime. You need to know how these issues will get resolved if your modules stop working or underperform. Ask your installer to tell you if your panels can be returned to the original manufacturer easily for replacement if things go wrong. Ask if you need to pay for the panels to be independently tested first before claiming on the warranty. **Many cheaper panels are poorly made and are sold on the basis that the manufacturer is not responsible for replacing panels if they go faulty.** The question is how easy is it for the consumer to get these panels replaced?

• Potential Induced Degradation (P.I.D)



Often a problem in hotter climates, Potential induced degradation (PID) is a phenomena that has only recently become a concern in the photovoltaic industry. PID impacts the ions of a solar cell and results in the degradation of the output of that cell. **PID can significantly reduce the power output of a photovoltaic (PV) module within the first year of operation, with power losses at the module level as high as 70% in the first 18 months.** These module level losses can progress rapidly and become so severe that they affect the performance of an entire system. Potential induced degradation is often seen as a defect with the module, but requires system level changes. The occurrence of PID depends mainly on the electrical configuration of the system and module design/construction. However, system voltage, temperature, humidity and irradiance also contribute to the occurrence of PID.

Our response: UKSOLARPOWER is a British owned company which means for you that we have to produce our panels according to EU and British regulations. All our panels are rigorously tested in our labs to ensure that none of the issues illustrated above occur.

• Is your Installer going to be around to service your solar panels if they go wrong?

If you choose a cheap installer, you must also bear in mind that he or she has had to cut corners to attract your business. A solar installation company needs to make profit to stay in business and more importantly needs to make more in order to afford call outs for repairs and servicing. Many unscrupulous installers also know they will never honour the long installation warranties they quote on the cheap deals they offer. They are often just looking for a quick sale.

Our response: Choose your installer wisely. Go for an installer with a long track record in the community. Avoid unbelievably cheap offers. A quality installer needs to make an honest margin to put funds aside to ensure his or her business is there in the future to service installations. Where our recommended installer goes out of business, UKSOLARPOWER will still ensure that any faulty panels will be replaced under the terms of our warranty.



UKSOLARPOWER LTD

info@uksolarpower.com

• Hairline Crack/Snail Trail



1) Hairline cracks in the cells, usually result from either poor handling at module stage or from poorly managed thermal stress related to applying metal to the front of the wafer. 2) Hairline cracks causes oxygen to penetrate into the cell and the conductors on solar cells start to oxidise due to Photobleaching phenomenon. 3) chemical contaminates gets under the glass during manufacturing causing deterioration of the cells and the conductors immediately after production. Once this process occurs, the sun will act as a catalyst to further deteriorate the cells especially in hotter climates. **This is a common problem with lower grade "C" Panels.**

Our response: UKSOLARPOWER is a British owned company which means for you that we have to produce our panels according to EU and British regulations. All our panels are properly tested in our labs to ensure that none of the issues illustrated above occur.

• Buying the cheapest is not always the best long term investment choice

There are a number of very cheap panels on the market at the moment which look very tempting for investors and consumers. However, as with many things in life, you get what you pay for and you may be making a very risky long term investment. There are many reasons why some panels are so much cheaper than the rest, including:

- a) Bankrupt stock and panels dumped to generate quick cash before bankruptcy.
- b) Panels made from "C" quality grade cells.
- c) Panels sold on the no-returns basis via containers from China.

Our response: There is no way of checking the quality of your solar panel if your installer has purchased the panels from a local market vendor who is only looking to make a quick profit. Most of the panels obtainable from these source are unbranded, thus will never be replaced if any fault develops once your installer leaves the shop. In some cases, manufacturers ignore a specified order for higher quality panel and supply lower grade panels. Always check that the modules are made from high quality Grade cells. UKSOLARPOWER sells only premium modules made to the highest standards. We also ensure that our long warranties will be honoured in future by putting money to one side every time we sell a panel to make sure that replacements are already paid for. With a cheaply sourced panel, it is highly likely that your solar installation could either lose performance very quickly or burn out completely thereby negating any up front savings made from buying a cheap panel. We are a British Company we cannot renege on our warranties or risk losing our business. Replacements are dealt with very quickly by our friendly staff in a language that you understand.

• Not all PV panels are the same

Often PV panels look very similar when looked at in daylight. But looked at under electroluminescence testing we can often see many cracked cells not visible to the naked eye as shown in examples above. These problems are normally associated with cheaper panels which have not gone through rigorous quality checks. Also, panels could be made of "C" grade quality cells without you knowing it. This could lead to the panels underperforming or failing early.

Our response - Ensure that your solar installer is buying directly from the manufacturer or a registered distributor. Request to see proof of dealership. We are always happy at UKSOLARPOWER to assist our end user customers too so please do not hesitate to contact us at info@uksolarpower.com

