



## **8 Residential Solar Panel Buying Guide Tips**

Over the past few years, more and more companies have been entering the solar panel market. These companies range from landscaping companies to TV or electronics dealers, all with varying levels of knowledge about the solar energy industry itself.

Buying a solar panel system is an important investment decision and one that should be trusted to the experts. Not all solar panels are equal. One panel may last decades, while another may crumble after just a few years of use. The longevity of your solar panel installation is based on a number of factors, some of which cannot be seen just by looking at the finished panel itself.

### **Here are a few of the many factors that can affect the quality of a panel system:**

- A 25-year 100% solar production guarantee of the solar energy estimate in your proposal.
- Honest answers to all your questions whether you buy from us or not.
- No pushy sales people. We feel our job is to educate you and help you navigate the clutter so you can decide for yourself whether solar is right for you.
- Highest quality solar panels, inverters, and racking. We only install the same equipment that we install on our own houses.
- All systems are custom designed and we won't present a proposal until we have actually been to your house. No bait and switch from an internet proposal.
- Processes designed for quick installation averaging 6-8 weeks from signing to solar turn on.

Without the right mix of materials used on your system, you may be forced to replace your solar panels every few years, wasting time, money and effort in the long run. Because the intricacies of the solar buying experience can be complex, it is important to be educated on the topic and ask the right questions when making this important purchase.

### **Here are 8 residential solar panel buying tips to consider in your next solar panel purchase:**

## **1. Stick with a name brand.**

Nowadays, there are many small manufacturing shops and cheap overseas manufacturers selling solar panels. When something goes wrong, however, these small outfits are unable to withstand a manufacturing defect without completely overhauling or bankrupting the company, leaving you with a broken system and no solution. For this reason, it is best to stick with publicly traded companies or large, U.S. based manufacturers that have the capability to replace or resolve manufacturing problems and honor warranties on your system.

## **2. Compare the PTC rating.**

There are two standardized ratings that you should be aware of in measuring the performance of your solar panel system: Standard Test Conditions (STC) rating and PVUSA Test Conditions (PTC) rating. The STC test is performed in the factory, while the PTC rating is a measurement of the PV output under “real world” test conditions. The higher the ratings, the better the performance of the panel. You should seek out a PTC to STC ratio of at least 90% to ensure you are getting the maximum performance out of your system.

## **3. Check the negative tolerance rating.**

A negative tolerance rating is a gauge by which the solar panel may be off specification according to the factory’s standards. This can impact your warranty agreement. What you might deem a failing system, your manufacturer may not if they have a high negative tolerance rating written into their contract. For example, a 200-watt solar panel with 10% negative tolerance would mean that if you are only getting 180 watts out of your solar panel, the manufacturer would consider it within the scope of its specifications and be considered “normal”. Try shooting for a panel system with a 3% negative tolerance maximum.

## **4. Get a warranty.**

To guarantee the life expectancy of your solar panel, make sure you are receiving at least a 25-year warranty on your system. Ask for a written manufacturer warranty policy by the manufacturer to ensure you are receiving a factory warranty, not a dealer warranty.

## **5. Look for panels with high inverter efficiency ratings.**

Inverter efficiency is the ability of your system to produce energy, which has a direct impact on your wallet. A system with low inverter efficiency can wind up costing you thousands of dollars in lost energy production over the lifespan of your system. Make sure you look for solar panels with at least a 95.5% inverter efficiency rating to maximize your investment, and be sure to ask for the CEC weighted efficiency, not the inverter’s peak efficiency rating to get the full picture.

## **6. Assess the mounting system design and quality.**

The aluminum rails used for your panel mounting system should be heavy-duty, heavy gauge rails that can withstand extreme conditions no matter what climate you live in. Thin or cheap mounting systems can become easily damaged, costing you unnecessary time and expenses. Make sure your mounting system uses at least 6105-T5 aluminum extrusion and includes at least a 10-year warranty.

## **7. Calculate price per watt.**

Calculating the price per watt can be a great way to make a tough decision on two seemingly identical systems to ensure you're getting the most bang for your buck. If two systems include the exact same solar panels, mounting systems and inverter, calculating price per watt can be a good deciding factor. You should be paying no more than \$3.94/watt (equipment only) or \$5.50/watt (installed) for an approximately 4kW standard string inverter-based system.

## **8. Module efficiency.**

This criterion really only needs to be considered in situations where there is limited space for your solar panels. The higher the module efficiency, the smaller the panel. While "higher module efficiency" sounds great, the fact is a smaller, but more efficient solar panel may not give you sufficient wattage to power your home compared to a larger module. Plus, the higher efficiency models tend to have higher costs associated with them for the same output. If you have sufficient space for the solar panel system, why pay thousands more to save a few inches?

Since your panel buying decision is an important one, it is vital to trust an honest and experienced residential solar panel company to guarantee the longevity and success of your system. If you are interested in learning more about our high-quality residential solar panel systems, contact us at 855-600-Watt or [info@solarwattsolutions.com](mailto:info@solarwattsolutions.com). We even encourage you to ask us these very same eight questions, and we would be more than happy to elaborate on each and every standard to ensure you're getting the best quality and efficiency for your residential solar energy needs.