



**GET MORE FROM YOUR SYSTEM**



## **9 Ways to Boost Solar Panel Efficiency**

## **Tips from the team at Aus Solar Kits**

A well installed solar system can deliver clean, low-cost energy for decades but like anything in your home, it needs to be looked after to perform at its best. At **ASK**, we're all about helping you get maximum return from your solar investment. Here are nine practical ways to boost efficiency, reduce your reliance on the grid, and keep your system running strong for years to come.

### **1. Keep Your Panels Clear and Clean**

Over time, solar panels can collect dust, dirt, pollen, and debris especially in dry or high-pollution areas. Studies show that buildup can reduce panel efficiency by up to 25%, meaning less power to your home and less savings in your pocket. We recommend cleaning your panels at least once a year. If you live in a dusty, dry environment or don't get much rain, consider cleaning more often. You can hire a professional or do it yourself, depending on your roof access. If cleaning your own system feels unsafe due to roof height or pitch, always call in the pros.

#### **How to clean your solar panels safely**

- Turn off the system before cleaning.
- Clean early morning or late afternoon to avoid streaking from rapid evaporation.
- Use a hose and soft sponge.
- Avoid abrasives or pressure washers, which can damage the surface.
- Rinse thoroughly, and let panels air dry or wipe gently with a lint-free cloth.
- Call a professional

### **2. Watch for Sneaky Shade**

Even partial shading like a single branch shadow can cause a big drop in solar performance, especially in systems where one panel's drop in output affects the entire array. Common shading culprits include trees, chimneys, aerials, or nearby buildings. What was full sun at install can become partial shade over time. Check your panels throughout the year and keep trees trimmed to maintain clear sunlight. If the shading comes from a neighbouring property, it may be worth having a friendly conversation to work out a solution.

### **3. Face the Right Direction for Better Output**

Solar panels are most effective when they face the sun directly. In Australia, that means panels should ideally face north to maximise sunlight exposure throughout the day. If a true north-facing install isn't possible, west-facing panels are the next best option, as they'll still produce solid output, particularly during the afternoon and early evening when home usage peaks. If west isn't feasible either, east-facing panels can still perform well, particularly in homes with higher morning usage. Correct orientation plays a major role in how much power your system produces, get it right from the start.

### **4. Keep an Eye on System Performance**

You can't improve what you don't measure. Solar monitoring tools give you real-time insights into how your system is performing, helping you spot issues early and maximise output.

#### **Monitoring systems can:**

- Show real-time power generation
- Alert you to performance drops or faults
- Help you adjust energy usage patterns to match your peak solar hours
- Tracking performance over time helps you get the most from your setup and ensures you're not missing out on potential savings due to unnoticed issues.

### **5. Seal Up Energy Leaks in the Home**

Efficient homes make better use of solar power. If your insulation is poor, your heating and cooling systems will work overtime and even a high-performing solar system might struggle to keep up. Sealing air leaks in attics, wall cavities, crawl spaces, and around windows and doors can significantly reduce energy waste. With your HVAC using less energy, more solar can be directed to the rest of the household, boosting the overall return on your system.

### **6. Store Power for When You Need It**

Storing excess solar power in batteries means you can use it even when the sun's not out, at night, during storms, or on overcast days. Batteries reduce your reliance on the grid and help you get the most out of every kilowatt your panels generate. With a battery setup, you don't just reduce bills, you gain energy independence, more stability, and control over your energy use.

## 7. Spread Out Appliance Usage

Running multiple large appliances at the same time like the washing machine, dishwasher, and dryer can quickly outstrip solar generation, causing your system to draw from the grid or rapidly deplete stored energy. Instead, stagger usage throughout the day. Run one appliance mid-morning, another mid-afternoon, and another in the evening. This keeps your system within its generation capacity and reduces peak load stress. It's a simple habit shift but one that can make a big difference on demand-based electricity plans and help your batteries last longer.

## 8. Prevent Your Inverter from Overheating

Your inverter works hard converting solar energy into usable household power. When it overheats, performance can suffer.

- To keep your inverter running efficiently:
- Install it in a shaded, well-ventilated location
- Avoid direct sunlight and enclosed, uninsulated spaces
- Place it as close to the main switchboard or meter as possible to reduce voltage drop and energy loss
- Proper inverter setup supports better long-term system efficiency.

## 9. Start Strong with the Right Installer

The best way to avoid system issues later is to get the installation right from the start. A reputable solar provider will assess your roof, angle, orientation, and energy needs, designing a system that fits your household and maximises output. Look for a company with:

- A proven track record
- Transparent post-installation support
- Quality products and warranties

At **ASK**, we work with you from helping you decide what kit is the best suit for you to helping you find a reputable installer and make sure your journey with solar and battery goes smoothly. Our goal is to give you confidence, value, and reliable performance throughout the life of your solar system.



If you have any other  
questions just **ASK**