Is it worth paying for a solar panel cleaning service?

Just like going to a car wash, there are professional options for cleaning solar panels – your solar installer may even do it for you, for a fee.

If you have a rooftop system, it may be a good idea to enlist a cleaning service, if only for safety reasons. Cleaning services won’t do a significantly different or better job than you can do yourself, but they are equipped to safely clean and maintain rooftop units. For ground mount units it may not be worth the service fee when you can safely and effectively clean your own panels with a hose, some dish soap, and a soft rag.

Your solar panels need to be exposed to sunlight in order to produce power. However, unless you live somewhere with high amounts of smog, dust, dirt or sand blowing around, **solar panel cleaning is generally not necessary**. In most cases, occasional rain will be enough to naturally and safely keep your solar panels clean and free of debris that could lower production.

It may be a good idea to freshen up your panels occasionally if you live in an area with heavy particulates in the air. Here are answers to some of the top questions solar panel system owners have about cleaning solar panels.



How much Electricity do Dirty Solar Panels Lose?

Pollution, traffic dust, leaves and even bird droppings contribute to preventing sunlight from reaching the solar cells in your solar panels.

The more dirt – the lower amount of electricity they will produce. While many factors affect how much electricity your solar panels will produce – dirty solar panels can be one of the biggest, and easiest to fix.

Experts agree that dirty solar panels don't produce as much power as clean panels. That loss may range as high as 25% in some areas according to the National Renewable Energy laboratory. Individual dealers have reported losses as high as 30% for some customers who failed to ever clean their panels.

Two Ways To Check Your Panels

There are two ways you can check to see if your panels need to be cleaned:

1. Physical Inspection: Inspect the solar panels on a periodic basis (frequency depends on location or the manufacturer's specifications) to remove any debris and dirt and ensure all connections are tight. Generally, speaking dusty areas typically require more frequent inspection.

2. Use a Monitoring Service: Another way to make sure you’re getting the most solar potential out of your PV system is through a monitoring systems and service. For a monthly fee or a flat up front cost, you can monitor how your system is performing.

Your system is expected to produce a certain amount of power during each month. A solar monitoring system can tell you if your system is off line or if it’s not performing as expected and run diagnostic programs.

Solar monitoring systems can also be educational, showing you how much power you’ve saved, how much CO2 you’ve saved, and how much money you’ve saved.

Depending on the monitoring systems, you can access your information from the web, from a wall mounted-device, or even from your iPhone or other mobile device.

Monitoring systems are usually an extra expense, whether as a monthly service or purchased up front. While not essential, they do make troubleshooting and system performance easier to see.

So if it turns out your panels are dirty – what are your options?

Option 1: Solar Panel Cleaning Yourself

If you can clean your windows – you can certainly clean your solar panels.

The hard part (especially for roof mounted solar panels is reaching them). Assuming you can reach your solar planels - clean the surface of a solar panel much like you would clean your car -- with warm water and dishwashing soap to remove any accumulation of dirt and grime.

[Back from this page on the importance of Solar Panel Cleaning to our lead page on Solar Panels](http://www.solar-facts-and-advice.com/what-are-solar-panels.html)



Option 2 – Use a Solar Panel Cleaning Service

Some people like to clean their own cars – and others like to take their cars to be cleaned for them. Same with solar panels – except that the solar panel cleaning company obviously has to come see you.

Depending on where you live, ask your installer to recommend a solar panel cleaning service and find out how often the cleaning is recommended – and what it costs. Be sure they are insured – in case there are accidents.

If they don't have a cleaning service in your area – consider starting a solar panel cleaning service yourself as there is a growing need for such services.

Option 3 – Automated Self-Cleaning Technology

For large commercial or public utility sites, especially those in remote and dry locations you might want to consider [self-cleaning panels](http://www.solar-facts-and-advice.com/cleaning-solar-panels.html)

**How to clean those dusty, dirty solar panels**

1. Be sure to check your panel manufacturer instructions for shutting down the system before cleaning, if necessary. Try not to go on the roof to clean your system. It’s risky both for you and your panels.

2. Brushing any loose dirt off before spraying them with water will make the squeegeeing process quicker and easier.

3. A good nozzle attachment on your garden hose might work just fine. If a lot of dust and dirt has accumulated, you might need to clean more thoroughly. Try to clean with squeegee extension [like this one](https://www.amazon.com/Hopkins-9500-Carrand-Squeegee-Extension/dp/B002G246T6/ref=as_li_ss_tl?ie=UTF8&qid=1499377863&sr=8-1&keywords=hopkins+squeegee&linkCode=ll1&tag=solar0d21-20&linkId=3a6a63330a31e7dfd7427d14ce704da3). If you’re interested in the whole kit and kaboodle for home solar cleaning equipment, [Mr. HYPERLINK "https://www.amazon.com/Mr-LongArm-1009-Cleaning-System/dp/B002YNRQHG/ref=as\_li\_ss\_tl?ie=UTF8&qid=1499377673&sr=8-1&keywords=solar+cleaning&linkCode=ll1&tag=solar0d21-20&linkId=4c7b64964a3cf4126c225e15c5e14627"LongArmHYPERLINK "https://www.amazon.com/Mr-LongArm-1009-Cleaning-System/dp/B002YNRQHG/ref=as\_li\_ss\_tl?ie=UTF8&qid=1499377673&sr=8-1&keywords=solar+cleaning&linkCode=ll1&tag=solar0d21-20&linkId=4c7b64964a3cf4126c225e15c5e14627" is one of the most popular](https://www.amazon.com/Mr-LongArm-1009-Cleaning-System/dp/B002YNRQHG/ref=as_li_ss_tl?ie=UTF8&qid=1499377673&sr=8-1&keywords=solar+cleaning&linkCode=ll1&tag=solar0d21-20&linkId=4c7b64964a3cf4126c225e15c5e14627).

4. Don’t use metal objects, abrasive products or detergents. Scratches on a solar panel can create shadows and affect efficiency. Simply use clean water and a cloth-covered sponge or soft plastic brush.

5. Rainwater is low in mineral content, but some people have “hard water” or mineral-rich water from the tap. If this is the case for you, just be sure to squeegee the panels dry to avoid mineral deposits and streaking.

**When and How Often to Clean Your Solar Panels**

Early morning or in the evening (ideally on an overcast day) is best. Too much sun on wet panels can cause them to dry too quickly and smudge.

**Note: If you can’t clean your panels from the ground, hire a company. They have the appropriate safety equipment for navigating the roof**

**Is It Worth It To Clean Your Solar Panels?**

Based on the research, experts are leaning toward “no.” And especially if you want to hire a professional company to clean them over the DIY method. The return on investment is just not there to justify the trouble. Let’s take a look at some numbers. On average, when your solar panels get dirty, expect a 5% or less change in output. And that’s just when they’re dirty. In most climates, if there is dust or debris on the panels and their energy output is registered 5% less than other times, the next rain will [wash away the debris](https://www.asme.org/engineering-topics/articles/energy/self-cleaning-solar-panels-maximize-efficiency) and the solar panels will return to their optimal efficiency. Even if you live in a drought-prone area – it will rain again.

In addition, most solar panels are tilted to a high enough degree that most buildup will run right off the panel instead of sticking to the top of it. Even with tilted panels, you might have some slight buildup on the lowest panel (because the runoff collects at the bottom) – but the decrease in output based on this alone is so minuscule, it’s not something worth worrying about.

Lastly, it’s a pretty small tradeoff, energy-wise and cost-wise, to climb up on a ladder, get on your roof, and clean your solar panels yourselves. When you think about getting out there and dragging a hose up to the roof to clean them, this point might really start to hit home.



