



## Questions to ask your potential solar installer (version: 5/19/2020)

**How much of my electrical consumption is my solar energy system designed to offset?**

Most designers will aim to offset 100 percent of your annual electricity consumption with solar, space permitting. It's important to remember that how much electricity you want to offset is ultimately up to you and your budget. Solar isn't an all-or-nothing proposition. It's common for systems to be built that can accommodate additional modules to be installed later, especially if electricity usage is expected to go up, such as with the addition of an electric vehicle.

**What are my solar energy system's lifetime savings based on?**

In order to estimate how much money you'll save over the lifetime of the system, your installer applies an inflation rate to the cost of utility power in the form of a percentage and sometimes called a "utility escalator". The percentage they use affects the estimation of your payback period and savings over the life of the system. Based on historic trends and a conservative approach, a two percent inflation rate is more appropriate than a three or four percent rate. If you're comparing between quotes, this number should at least be consistent between them.

**What is the cost of the solar energy system in terms of dollars per Watt (\$/W)?**

Many people assume dollars per panel is an appropriate metric to judge the cost between solar energy systems, but panels come in different sizes (Wattages) which makes this metric unreliable. For example, a 10-panel system comprised of 350-Watt modules would create 3.5 kW of power, while the same number of 300-Watt modules would only create 3 kW. These systems might cost the same (i.e. \$10,500), but one has a lower cost per unit (per Watt) at \$3.00/W than the other at \$3.50/W. The per-watt price is the most fundamental way to compare costs of different solar systems.

**What is the payment schedule for this contract?**

Your installer shouldn't ask for all the money up front. It's important to spread payments across important delivery milestones to assure the installer is incentivized to move your installation along at a reasonable pace. It's typical for a smaller amount to be paid at contract signing and larger amounts when the equipment is ordered, installed, and interconnected to the utility grid ("permission to operate" or "authorization to operate"). Make sure these payment milestones are laid out in the contract. Be sure that you keep some payment amount back until you have confirmation that system has final approval from the utility to be connected to the grid and, if applicable, you have access to your system's online monitoring portal.

**Is the energy production of my system guaranteed? If so, what are the terms?**

It's uncommon for an installer to guarantee the production of a system purchased by the homeowner. If the installer does offer a guarantee, it's important to understand by how much the solar energy system must underproduce to be eligible for payments that offset the difference, as well as the value they assign to each kilowatt-hour that they're under the mark.



If there's an issue with my solar energy system and it's under warranty, what do I need to do to initiate a response from the service provider?

Some installers require you to contact the product manufacturer, while others will service the warranty themselves. It's important to know what roles you and the installer play. Make sure you have a contact email and phone number on hand and that you know how quickly you must make contact after becoming aware of the issue. Some installers require you to contact them or the service provider within a set amount of days of becoming aware of the issue for the warranty to be valid.

Will the installation of a solar energy system void my roof warranty? Will any incidental damage to any of my property from the installation be covered by the installer?

Solar energy systems can extend the life of your roof by reducing its exposure to the elements. However, it's important that the installer's workmanship warranty covers any damage that may be the result of installing the solar energy system. Properly installed, solar energy systems will not void your roof's warranty.

If my roof needs to be repaired in the future, what's the process for removing and reinstalling the panels? What will it cost?

We recommend replacing your roof before installing solar if it has less than 10 to 15 years of life left. At a minimum, the roof should last as long as the solar energy system will take to pay for itself (usually 8-12 years). Most installers will remove and reinstall the system if you need to replace your roof, but how they will charge you depends on the company. Some may charge per panel, others per hour, or the greater of two possibilities, like the number of panels or the number of hours worked. Some may include the cost of one uninstall/re-install in the contract. If you anticipate replacing your roof in the future, try to have the payment structure included in your contract. Costs incurred can set you back thousands of dollars and impact the payback period of the system, which is why we recommend replacing your roof first.

What kind of system performance monitoring do you offer, and at what cost to me?

Some installers include system monitoring in their basic package, while others offer it as an add-on option. It's important to have this monitoring available. The only ways to monitor your system's production without it is to read the utility bill (often only available once a month) or, if you have a string inverter, by taking readings from its small status screen. The costs of missing out on energy production over an extended period can add up. You should ask the installer if they are able to configure your monitoring to send you alerts if the system stops functioning for some reason. Most online monitoring portals have this feature but need to be configured by the installer.

Can you connect me with a SREC (solar renewable energy credit) broker or buyer, or do I have to do that myself?

If your state offers this incentive, you'll likely want to sell your Solar Renewable Energy Certificates (SRECs) either up front or over time, as the incentive can be a major contributor to the payback period of the system. Installers often coordinate directly with SREC brokers to get your system registered. If you would like to select your own SREC broker, make sure your contract with your installer allows you to do that. It's important to note, however, that selling your SRECs gives the buyer the right to claim your renewable generation as their own.



### Will this contact put a lien on my property?

If you're purchasing the system (either via financing or cash), the contract should not place a lien on your home except in the case a "contractor's lien" (sometimes called "mechanic's lien"). This type of lien allows an installer to make a claim if they are not paid in full for services and materials delivered. Unlike a mortgage lien though, this kind of lien should not enable property foreclosure. If your contract has a contractor's lien, ask them to explain it to you.

### How long do I have to decide to cancel and still receive a full refund?

Most installers provide between three to five business days, but it's important to understand how they want to receive notification. They may require a certified letter. Contract cancellation minimum requirements are often defined by state law.

### Will my installation be performed or supervised by someone with an industry certification? If so, which one?

States require solar contractors to hold certain licenses to ensure that systems are installed properly. Some states require that Master Electrician be on the crew installing your solar energy system. It's critical that your contractor is properly licensed to do the work. In addition, we recommended that someone on the installation crew hold a North American Board of Certified Energy Practitioners (NABCEP) Certified PV Installation Professional certification.

### How long will it take for my system to be fully installed and operational? During the installation process, who will my point of contact be?

How long your system takes to install depends on several factors including the time it takes to receive a permit from the local municipality, time required to order equipment, time required to secure financing, the installer's schedule, and how quickly the local jurisdiction and utility can come to inspect your system and approve it for interconnection. Ask your installer how long it typically takes from the time you sign your contract until the time the system is fully approved by the utility to operate. This can be anywhere from 2 to 5 months depending on where you live.

### How much shade are you assuming in your energy estimate? Why?

Shading will heavily affect your system's payback period. Underestimating the amount of shade on your property will falsely make solar look like a better investment. It's critical to approach the investment potential with the correct assumptions and proper expectations. Because we're situated in the northern hemisphere, panels oriented to the North, Northeast, or Northwest will not receive enough sunlight to economically justify their placement. Ask your installer to explain how they've taken into account any shading that falls on your roof during the year into their energy production estimates.