Your Most Important Solar Energy Questions Answered

BY 11 TOP INDUSTRY EXPERTS

Best Company

Table of Contents

Introduction

Are you thinking about making the switch to solar? Maybe you'd like to lower your electricity bill, or perhaps you want to reduce your carbon footprint. The good news is that, in many situations, installing solar panels on your home or business can be an extremely economically and environmentally beneficial decision. However, solar isn't the right fit for everyone, so it's important to do your research before putting up a significant investment.

In an effort to provide helpful information for home and business owners like you, as well as shed light on a somewhat confusing and ever-evolving industry, Best Company asked 11 solar experts for their input on frequently asked questions that many consumers have about solar energy, such as: "How much can I save with solar? How long will the panels last? I live in a cold or cloudy area... is solar still a viable option for me? What about battery storage?"

In this ebook, you'll find answers to all of these questions and more. Some of the responses might surprise you, but don't take our word for it; take a look at what the experts have to say!

Meet the Experts

Simone Garneau is the co-founder of Sunmetrix, an online consumer education website with a goal to help homeowners go solar. In addition to over 200 articles about solar energy, the Sunmetrix website has a fun and interactive solar calculator, Discover, that allows users to preview solar energy for their home.

Geoff Mirkin is the co-founder and CEO of Solar Energy World, a residential and commercial solar company based in Eldridge, Maryland.

Kathie Zipp is managing editor of Solar Power World and Energy Storage Networks magazines. After graduating from Kent State University, Kathie was introduced into the world of trade journalism, specifically in the renewable energy sector. She writes about the technology, installation, and development of solar energy.

Samuel Adeyemo is the is co-founder of Aurora Solar, a company that makes solar design software that is used by most of the leading solar companies in the United States.

Teris Pantazes has advised hundreds of homeowners on solar. He owned a solar company for 10 years before selling it in 2015 and was the leading commercial solar installer in the mid-atlantic at one point. Teris is also the co-founder of Efynch.com, a homeowner and handyman community with over 3,000 members in Washington D.C. and Baltimore.

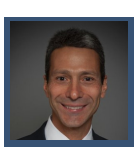
Matt Stoutenburg is the founder and CEO of Peak Power Solutions, a solar company based in Costa Mesa, California. Peak Power Solutions has been around for 12 years and performed nearly 6,000 installs in the Southern California area.

Julio Daniel Hernandez is the CEO of EnLight.Energy, a national home energy upgrade franchise family.

Mark Stevenson is the Founder Managing Director of Bright Spark Energy, an ethical energy consultancy focused on helping individuals and organizations reduce their energy usage. He has an extensive background in the education industry from an IT, building, and energy perspective.

Shel Horowitz has been following solar since the 1970s and wrote his first piece about it in 1972. He has solarized his own home and helps green-energy and other businesses go beyond mere "sustainability" (keeping things the same) to "regenerativity" (making things better). He has authored 10 books and owns GoingBeyondSustainability.com.

Rainier de Ocampo is the Vice President of Marketing at Solar Optimum, a solar energy and battery storage company based in Glendale, California.



Greg Reed is the Director of the University of Pittsburgh's Center for Energy and the Energy GRID Institute. He has over 30 years of combined industry and academic experience in the electric power and energy sector, including solar energy.

#1 In your opinion, what are the top benefits of solar energy?

"The top benefits of solar energy are that it is cost effective; it is reliable; and it is sustainable, meaning that consuming solar energy is not harmful for our planet. Cost effective: the cost of solar energy is generally lower than the cost of the utility grid, especially when you consider the fact that utility rates increase about 2%-3% each year. Over the life of a system, that means electricity costs could almost double, while the cost of energy, if you own the solar installation, is constant. Reliable: solar is a proven technology, and its energy output capabilities are well-known. There are good warranties available from manufacturers, and a good solar installer will also stand behind their work. Sustainable: since solar energy relies primarily on sunshine, of which there is relative abundance globally, it is sustainable and does not pollute our environment." -Samuel Adeyemo

"The top benefits of solar are taking control and ownership of your utility costs, taking advantage of the tax benefits, and freedom from paying for-profit utility companies." -Matt Stoutenburg

"Solar energy doesn't just have a positive effect on the environment, but also creates jobs to boost the economy and creates energy independence so the U.S. doesn't have to rely on fossil fuel imports." -Kathie Zipp

"Solar enables you to generate your own clean energy onsite, reducing the cost and reliance on grid-purchased energy. As electricity costs rise, homeowners will save more." -Mark Stevenson

"Mitigating climate carbon, eliminating the cost and environmental impact of fossil fuels, having a great selling point if you want to leave, REALLY hot water. Note that often, the payback is much faster and the benefit much more immediate for switching your hot water to solar before thinking about electricity. Many homeowners don't think about this. In our case, we saw $100/month reductions in our electricity bill as soon as we switched. And our hot water is hot enough that we warn guests about it." -Shel Horowitz

"In most regions in the United States, upgrading to solar means you pay less for the electricity you consume and your home goes up in value. Never mind the positive environmental impact." -Julio Daniel Hernandez

"Solar panels reduce a home's carbon footprint; support micro-grid enhancement, which increases grid reliability; and reduce your own energy bills (in most cases). They are a long term investment in your energy, produce electricity for up to 30 years (warrantied for 25), and help protect you from inflation during their lifespan." -Teris Pantazes

"Saving homeowners and businesses money!" -Geoff Mirkin

"Solar energy is the right choice for anyone who wants to improve their bottom line and save money on their costly electricity bill while making a responsible and positive impact on the environment. Solar energy, specifically solar panels for homeowners, has gained mainstream acceptance due to its relative affordability and practical necessity. The threat of skyrocketing energy costs for homeowners is a looming concern." -Rainier de Ocampo

"Solar is a clean, sustainable, renewable, and now very affordable energy resource that can be deployed effectively across energy infrastructures—from small rooftop facilities on homes and businesses generating a few kilowatts of power to large-scale, centralized, grid-level facilities generating hundreds of megawatts of capacity." -Greg Reed

#2 How does solar energy impact the environment?

"Removes carbon from our atmosphere" -Geoff Mirkin

"Much less reliance on fossil fuels to meet the demand on the grid. At this point, solar is putting so much energy back on grid during the daytime in southern California that we are having to send it to Arizona." -Matt Stoutenburg

"Simple power of a purchase. If, as consumers, we invest in clean energy, then it will make less and less sense for billions of dollars to be wasted in fossil fuel procurement, therefore reducing the negative impact that the current outdated infrastructure has." -Julio Daniel Hernandez

"Any renewable resources provide environmental benefits. However, solar panel technology and infrastructure is much 'lighter' than some other forms, such as wind and hydro, which inherently are more equipment-intensive and require much more construction costs and other infrastructure to integrate effectively. This is why most wind and hydro facilities are still primarily more economical at large grid-level installations, but solar can be deployed more easily and less expensively at the distribution and end-use level." -Greg Reed

"Once the carbon cost of manufacturing/transporting/installing the system is amortized, there is no negative impact on the environment, only the positive one of reducing the need for unclean fuels like oil, coal, nuclear, and (cleaner but still dirty) natural gas." -Shel Horowitz

"Increasing the rollout of Solar PV significantly reduces our reliance on traditional power stations for generating electricity and reduces our CO2 output." -Mark Stevenson

"In places where coal is the main fuel for energy, the carbon footprint of solar panels is much better for the environment. Solar is an efficient energy creator because the line loss for a residential solar energy system is MUCH lower than the power running the miles from the plant to your home." -Teris Pantazes

"Our mission is to contribute to global change by providing environmentally friendly, alternative, independent, affordable, and efficient energy to consumers. We believe that the Earth's natural resources are precious and that society's addiction to outdated forms of fuels has put our environment at risk. It is the responsibility of each and every one of us to make changes and embrace new, innovative ways to power our collective way of life. Choices of the past have created challenges for future generations. Solar Optimum's goal is to be part of the solution to help our community become energy independent. The bottom line is to save the planet." -Rainier de Ocampo

#3 How much could the average homeowner expect to save with solar?

"This varies greatly. In solar friendly states, which have lower installation costs and allow homeowners to take many of the same tax benefits that large companies can take, the payback can be as little as 3 or 4 years (providing energy for another 27!). In “non-solar friendly” states, the payback is around 10 years. Because of tax and install credits, savings are front-end loaded. So if you spend $10k on a system (leasing is a different animal), you can get a payback in 4 years; however, that does not mean you save $2,500 every year. Tax credits are a one-time shot to help with payback." -Teris Pantazes

"According to a report by UC Davis, California is anticipating higher utility growth rates ranging between 3.5% to 6.3% per year until 2020 (Source: UC Davis "The Future of Electricity Prices in California" Report). Savings will vary from one homeowner to the next because there are so many factors involved in determining each household's savings. We've worked with homeowners who have cut their electricity bill from $450 per month to $45 per month. And in some cases, we've even seen residents with a $275 monthly utility bill that's cut to only $12, which is just the utility company's connection fee." -Rainier de Ocampo

"If they opt for a PPA or Lease agreement, at least 20%. If they purchase the system, then it really depends on where you live. In the worst of cases, you might just save a little bit or nothing per month while you pay off the panels, but once the system is paid off you won't have to pay for that power ever again." -Julio Daniel Hernandez

"The answer to this question is dependent on where you live. Location, location, location! The amount of solar electricity you can produce will vary from place to place, and the amount you can save will be directly related to the cost of electricity from your local utility. There is no one answer to this question. That's why we built Sunmetrix Discover, where you can enter your address and learn how much solar electricity you can produce with an average sized system (5 kW). You can also change the parameters of your system and the orientation of your roof and see the impact. Then you can estimate what you would save - we put in the average utility rate per state as a default, but you can fine-tune it by putting in the actual rate that you can find on your utility bill." - Simone Garneau

"This depends on the size of the solar installation and if it is integrated with battery storage. A typical installation for a homeowner today (approximately 4 to 5 kW of power) will have a less than 3 to 5% return on investment. This will be a bit higher with energy storage. However, the savings will be greater the more self-sufficient the homeowner can be. And if the homeowner chooses to invest in enough capacity to sell back to the grid when over-generating for the homes’ needs, the savings can turn into a small profitability." -Greg Reed

"It depends on the size of system installed and the amount of power used from the solar PV." -Mark Stevenson

"The average consumer is spending $200 per month for electricity, and the cost of a solar system is $25,000 ($17,500 after the tax credit). If the utility rates don't go up, the homeowner would spend $60,000 in utility costs over 25 years without going solar. By going solar with a system that costs $17,500 after the tax credit, they would be saving $42,500 over 25 years - without factoring in rate increases by the utility company." -Matt Stoutenburg

"20-100%, depending on which program they choose" -Geoff Mirkin

#4 Would you recommend investing in battery storage along with a solar energy system? Why or why not?

"It becomes a matter of costs vs. return. I would highly recommend considering battery storage if the economics are favorable. However, today, energy storage is still very costly in comparison to capacity. As costs continue to come down, it will make more sense to include battery storage more universally over time." -Greg Reed

"Battery storage is still a developing technology and the early adopters have had issues with generating enough energy to store in the battery." -Mark Stevenson

"Battery storage can be a great option for some customers. On the residential level, storage can be a good choice for homeowners looking for the piece of mind of having backup power from their solar array when the grid power is out. It's a common misconception that the solar panels will continue generating power when the grid is down, because the system's inverter must shut down from the grid to avoid backfeeding dangerous voltage that could harm grid workers. However, with batteries, the homeowners will continue to have power for some loads (fridge, lights, TV) when the grid is down." -Kathie Zipp

"Only for off-grid homes. On-grid homes should stay connected, sell excess power back to the power company, and use the electrical grid as their battery. It's cheaper, more efficient, and takes up much less space." -Shel Horowitz

"The technology is great, but the economics aren't there yet to justify the cost. In other words, it would be great to have power even if the grid goes down, but the expense associated with that luxury is hard to justify in areas where you rarely have a power outage." -Julio Daniel Hernandez

"Not yet, the technology still has a ways to go in MOST markets." -Geoff Mirkin

"In some cases, yes. Especially when utility companies shift their on-peak hours away from the times when solar is most efficient, it would make sense for homeowners to invest in batteries to capture the solar energy during the day time hours so they can use that energy from the battery during the later on-peak hours. This would prevent them from having to purchase energy from the utility company at higher on-peak rates." -Matt Stoutenburg

"In most cases, no. I am based in Maryland and we do not have a large discrepancy in price between day and night (when you would use batteries). Instead, like most states, we use net-metering. I can spin my meter backwards and for a small fee, get credited the energy back at night or on rainy/snowy days." -Teris Pantazes

"In a volatile western region like Southern California, home battery storage should be a topic of conversation with every household. There are three key reasons why investing in battery storage along with a solar system is important. 1) Backup Power: It's protecting your home from a power outage, a natural disaster, or act of God that is completely unforeseen. Backup power is seamless and reliable. 2) Self-Powered Home: Homeowners can use solar and battery backup to reduce their reliance on the grid and create a zero emissions home. 3) Energy Peace of Mind: The home battery stores solar energy to continuously power the home with sustainability, day and night." -Rainier de Ocampo

#5 What should consumers look for in a solar company?

"A solid track record, meaning it's important to know how long the solar provider has been in business. The concern should be "will you be around when I need you in the next 5+ years?" So many solar companies, large and small, have folded in the last 2-3 years. In many cases, homeowners who need need maintenance on their solar system have nobody to turn to once their original installer has closed its doors. The other is the quality of work and level of customer service. We believe that you get what you pay for. There are solar installers out there who offer lower prices just to win the customer's business. What the customer ends up sacrificing is quality. The quality of products are substituted for underperforming alternatives. And the level of customer service is lacking. All of this simply because the customer wanted the best price. We want to protect prospective customers from this because, unfortunately, it happens a lot in this business. A company who lowers its price is, at the same time, lowering its value. It's like a wolf in sheep's clothing. Go with a company that has a strong track record, has some experience underneath it, and offers real customer value instead of empty promises." -Rainier de Ocampo

"Someone with great reviews and someone that has substantial experience." -Geoff Mirkin

"Consumers should look for a solar installer with NABCEP accreditation. This is not an easy certification to get or keep and was established to set a standard for quality in the solar workforce to protect consumers. A solar installer should also take time to sit down with you and answer all of your questions to ensure you are getting the best system for your particular roof that will perform optimally so you can see those savings in your electric bill." -Kathie Zipp

"Commitment to great customer service, outstanding workmanship, and several product offerings to ensure they do what's best for you. The best bet is to speak to families who have already worked with them." -Julio Daniel Hernandez

"I recommend going with someone who is focused on solar but can demonstrate a great knowledge on both electricity AND general building. The design of the array is important, which is why I recommend using a solar-focused group. Having knowledge in electricity is also important for obvious reasons (efficiency and safety). I stress building because I HATE seeing a number of the new solar arrays going out with panels cut out because of vent pipes, etc. A good company that also knows construction/roofing should have no problem moving roof vents. They understand how the roof is constructed and can make changes or repairs while on your roof (we always cleaned the gutter of homes we were working on, performed a full inspection, and typically re-caulked flashing as part of our service)." -Teris Pantazes

"Companies that focus on offering ownership of the system and making sure the homeowners are the ones to receive the tax credit. Ownership of solar systems benefit the homeowners, while leases and PPAs primarily benefit the financial institutions that back those contracts (they are treated as securities that can be bundled and sold). Also, being able to answer questions about every aspect of their project and not having a high pressure sales approach. Looking for positive reviews online in regards to installation and customer service is important as well." -Matt Stoutenburg

"Reputation, longevity, and strong financial stability. There are many small/local outfits in the business today that may or may not be profitable and will not be in business several years from now. We have already seen this happen. In terms of warranty and long term maintenance. it is better to go with a well-established, reputable organization or electrical contractor." -Greg Reed

"The key to finding a good solar PV company is to avoid the shiny-suited salesman. There are a lot of companies that sell systems to homeowners and businesses that do not meet their needs. It is also important to ensure that they have internal and not sub-contracted labor, are members of the trade associations, and provide an insurance-backed warranty." -Mark Stevenson

#6 What solar incentives are currently available? What do you expect to happen with incentives in the future?

"The incentive that is still available is a Federal Income Tax Credit for 30% of the gross cost of the system. Incentives will slowly draw down and the industry will have to look for ways to remain profitable without customers being able to take advantage any incentives." -Matt Stoutenburg

"Each municipality and state is different, so it would be impossible to list here all of the incentives available at the local level, but there are a handful of websites that list them, such as DSIRE and our own website Sunmetrix (http://sunmetrix.com/solar-tax-credits-incentives-and-solar-rebates-in-the-united-states-of-america-usa/). But one of the most important solar incentives available in the US is the 30% solar Investment Tax Credit (ITC). Homeowners that are serious about going solar shouldn't postpone too long. The ITC for residential solar projects will remain at 30% through 2019, but then it is set to decrease, falling to 26% in 2020, 22% in 2021 and to zero in 2022 (it will remain at 10% for commercial and utility-scale projects)." -Simone Garneau

"Rebates change from town to town. The federal tax credit covers everyone right now, and some states have state rebates, SRECs, etc. as well. However, incentives will slowly but surely go away." -Julio Daniel Hernandez

"This depends on your state. I would recommend checking out www.dsireusa.org as a great resource- it is simple and what us pros use. Fun fact— the current federal incentives were actually enacted by President George W. Bush! They will likely decrease steadily as energy rates increase in order to keep a level playing field. I hope they keep many of the tax credits because they are credits that other forms of energy already have." -Teris Pantazes

"Federal tax credit is 30% and multiple states have additional incentives" -Geoff Mirkin

"The federal government offers rebates and incentives on the capital cost of solar installations, and most states also offer such. It is possible to get as much as 50% or more of the capital costs back though incentives today, depending on your state. Also, many states have renewable portfolio standards, so they are incentivized to see more renewable integration, including solar, at all levels of the grid. I think they will continue to be offered to spur investment in this sector. However, solar is becoming more and more competitive and reaching price parity with other grid-level generation, such as coal and gas, and so these incentives may not last much longer. It will be an important policy decision in future years for both our federal government and states, and will determine to some extent our commitment to a sustainable future and towards addressing aspects of climate change, grid reliability, and energy security." -Greg Reed

#7 Are solar panels viable in cold climates? Will they still work when it's cloudy/rainy/snowy?

"Yes. Sun exposure is important, so the payback is not as quick, but many cold climate areas have successful solar programs. Very little and this depends on the inverter. Micro inverters tend to work better. A while ago, thin film technology was picking up speed (solyndra) and they worked in cloudy conditions however the price of Crystalline panels came down and they are more efficient." -Teris Pantazes

"Yes. We are in cold, cloudy Massachusetts. What I don't understand is why the entire Southwest hasn't switched over. If we can make it work, it would be so easy for them!" -Shel Horowitz

"Yes - the panels will work in all temperatures - just at a lower efficiency. The panels use daylight to generate, so they will generate some energy but not a huge amount." -Mark Stevenson

"Yes, it works in all climates provided there's adequate space and minimal or no shading" -Geoff Mirkin

"Absolutely. Like any electrical device, solar panels actually perform better under cooler temperatures. Cool, sunny locations can create some of the most efficient output of solar panels. But, solar needs the sun to shine, for the most part. While there is still a measurable output, even under partly cloudy conditions, solar is typically not as effective on rainy days, and snow covered panels will not produce much either." -Greg Reed

"Yes. Yes, but not as effectively as on a bright sunny day." -Julio Daniel Hernandez

"Yes, viability of solar panels is reliant on availability of sun hours. Temperature is not a major factor, however solar panels work better in cooler climates than hotter ones. Panel efficiency actually decreases as temperatures raise too much. Panels will still work in cloudy weather, but not as well as when the sun is directly shining on them." -Matt Stoutenburg

#8 Will solar panels still generate power during grid blackouts?

"Not necessarily. We found out the hard way that ours didn't, and, like the rest of our neighbors, had no power for three days after the October snowstorm a few years ago. Work with your contractor to make sure ahead of time that yours does." -Shel Horowitz

"No, unless purchased with a battery backup." -Geoff Mirkin

"Yes, when they are connected at the facility level. This is one of the main benefits of end-use solar installations. They can be islanded from the grid in times of blackouts or other contingencies, such as post-recovery from extreme weather events." -Greg Reed

"For safety reasons, most systems turn off in a power-outage. If having power during a power outage is a necessity, then you should consider investing in battery storage." -Simone Garneau

"In most cases, no. For safety reasons, most building codes prohibit it unless you have a battery backup." -Teris Pantazes

"The panels will still generate, but unfortunately, due to legislation, the inverter (the device to convert DC power from the panels to AC power to the plug) will shut down." -Mark Stevenson

"Yes, they still produce electricity, but because they are tied to the grid, you will not be able to draw this energy during a blackout unless the system has a battery backup connected to it." -Matt Stoutenburg

"Most solar systems today are grid-tied and have a mechanism that would not allow the homeowner to use the power generated during a blackout." -Julio Daniel Hernandez

#9 Is solar panel efficiency an important factor?

"Yes, the better the panel quality, the higher the yield will be on a matched system. However, it's important to have a well-designed system customized for your needs." -Mark Stevenson

"Yes. We all have limited roof space. The more efficient the panel, the more power you can produce per square foot. Otherwise, panels are always measured by their power output, not size, so efficiency does not matter as much as power rating." -Teris Pantazes

"The higher the efficiency, the less space you would need to provide power for your home or business." -Julio Daniel Hernandez

"Yes, it is very important. The more efficient a panel is, the more cost effective it is. Today, the panels on the commercial market are only about 18% efficient (maximum). As the technology improves and panels become more efficient, the greater the efficiency and cost-effectiveness can become. This is why we need to continue to invest in R&D – not just for the panel, but it's interconnecting equipment, such as the inverter and other electrical infrastructure needs. In this regard, going to all Direct Current (DC) power is more efficient than the DC to AC conversions that we currently see – much more needs to be done in this area, but it is a great opportunity to improve overall solar efficiency and effectiveness." -Greg Reed

"Yes, if space is limited, a higher efficiency panel will help if it's not much higher in pricing." -Geoff Mirkin

"Yes, a higher efficiency panel will produce a greater amount of energy, and you would need less of them to meet your household consumption needs." -Matt Stoutenburg

#10 How long will a solar energy system last?

"Most solar panels are warrantied for 20 to 25 years, which is considered the life of the average solar project, but panels can potentially continue to generate power at lower than 80% of rated power output for 30 years or more." -Kathie Zipp

"The performance of systems are warrantied for 25 years, however they will be producing energy long after that (50+ years)." -Matt Stoutenburg

"Most are guaranteed for 25+ years, but they are likely to last 40+ years." -Julio Daniel Hernandez

"Solar panels degrade slightly (approximately 1%) every year, but the very clever people that design them estimate that the panels will last up to 40 years. The inverter will tend to have a life span of 12-15 years and may need to be replaced. In reality, we propose a 20-year life, as there will be newer and more efficient technologies in place in 2038." -Mark Stevenson

"Most are warrantied for 25-30 years." -Geoff Mirkin

"Life expectancy of most solar systems should be at least 20 years or longer - this remains relatively new, so we do not have many decades of experience yet. But, 30- and 40-year life expectancy is certainly attainable." -Greg Reed

"It's warrantied for 25 years; useful life is 30 years. It will likely last longer, but we assume after 30 years, it is better to replace." -Teris Pantazes

"Most systems are expected to last about 25 years or more. However, depending on the equipment you use, you will likely have to replace some parts, such as an inverter, roughly midway through the system's life. Fortunately, the cost of this equipment is a relatively small percent (~10%) of the total system cost." -Samuel Adeyemo

#11 What effect do solar panels have on a home's value?

"They definitely increase the property values." -Geoff Mirkin

"In most cases, it is a neutral. Like a pool, some people like them, some don't. If they like solar, it can add appeal and value, but if they don't, it can detract." -Teris Pantazes

"This really depends on the knowledge of the appraiser and the real estate agent marketing a home. A system owned by the homeowner can appreciate the home's value if it is marketed correctly; however, a system that is leased does not add any value to the home, as these systems are someone else's property that are attached to the home." -Matt Stoutenburg

"Nationwide, the average home value is 15% higher if it has solar." -Julio Daniel Hernandez

"It's a difficult one, as value is defined by what somebody is willing to pay. We think that PV panels will raise the value, as the running costs of the house are significantly reduced and there may be a long term income stream. Unfortunately, some solar PV installations are particularly ugly with the older blue and silver panels installed randomly on roofs; I think these types of installations would reduce curb appeal and reduce the value of properties." -Mark Stevenson

"This should increase home values tremendously. But, it depends on the buyer and value they place on it. There is certainly a market for it today, including a move towards net zero energy homes, which will include a sufficient amount of solar, among other energy efficient methods and technologies." -Greg Reed

#12 What advice do you have for individuals who are on the fence about solar energy?

"Given that installing a solar PV system is a significant investment, it's important to do your homework: research incentives in your area; get an idea of what you can produce in terms of solar electricity and what that translates into with regard to savings by using various online solar calculators; speak with friends/neighbors that have installed a PV system; and most importantly, try to get multiple quotes. Getting multiple quotes is important, not just to secure a good price, but also because you want to feel comfortable with the company that you choose. By speaking with a few installers, you will learn more about their experience and credentials, and ultimately increase your odds of making the right choice for you." -Simone Garneau

"Consult with a trusted source. Get as many estimates as you can. Research and review credible information, such as from the Dept. of Energy on costs, etc. Do not rely too much on 'solar calculators' alone that are easy to Google on the internet – these typically do not give the full picture or complete analysis." -Greg Reed

"When shopping for solar and talking to different solar companies, be sure you're comparing apples to apples. At the present moment, you're essentially renting your power and are paying your bill on a monthly basis. You own a home for a reason: you don't want to rent. So why would you choose to rent your power?" -Rainier de Ocampo

"If your home qualifies for solar, go for it." -Julio Daniel Hernandez

"Right now is one of the best times to install solar. The incentives are great and there are a number of great solar installers. If the incentives go away, the payback will be longer. Like a computer, don't wait for more technology to improve. Electronics all need to be approved by the Underwriters Laboratory and big changes are coming, but you will get plenty of your system's benefits by the time they come to market." -Teris Pantazes

"If your site is appropriate and you'll be in your home for at least several years, there's really no downside. If your site is not appropriate, look into community solar. You can still gain many of the benefits. If initial capital is a factor, look into lease-back systems where the installer owns the system and sells you discounted electricity." -Shel Horowitz

"If you purchase a solar system, you can reasonably expect an ROI anywhere from 3-7 years. This equates to a 14-33% annual return that keeps going once the investment is paid for. I would ask them, "with your current utility company, what is ROI on your electric bill?" This frames the situation differently, and some people have a hard time grasping the idea that the money they spend on their electric bill is a cost with no return. With solar, they can take that money they are already spending and turn it in to an investment with great return factors." -Matt Stoutenburg

"As long as a homeowner can qualify for the program, solar will definitely save them money if they have enough sunlight and space. There's no reason not to go solar unless you are happy paying more for your electricity from your utility!" -Geoff Mirkin

"Talk to somebody who has had PV panels installed and do some research. PV panels will not work for every person or every property but it is part of a renewable and efficient energy tool bag that can save you money and carbon." -Mark Stevenson