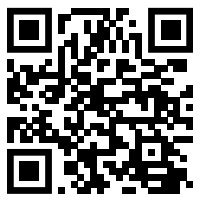




# QUESTIONS TO ASK A SOLAR CONTRACTOR



*As your Touchstone Energy® cooperative, we want to be your source for energy and information. Since solar power generation is rapidly becoming more widely available, we put together this information to help answer questions you might have.*

*Contact us for more information about solar.*

## **QUESTIONS TO ASK SOLAR CONTRACTORS BEFORE SIGNING A CONTRACT**

As with any major home improvement project, purchasing from the right installer/contractor is every bit as important as the product you are purchasing. Due diligence is critical to ensure you get a quality system, for a fair price, and that it's installed correctly and on time.

## **QUESTIONS ABOUT THE CONTRACTOR'S/COMPANY'S BACKGROUND**

Ask these questions to be sure the contractor knows the business thoroughly and has a number of satisfied customers. Also, be sure to request copies of insurance documents, certifications and licenses, so you know that the contractor and installers have gone through required training. Be sure to call former customers and check out other installations the contractor has completed. You should query local Better Business Bureaus and your state Attorney General's office, and check online rating services for comments about the contractor and the equipment you plan to purchase. Some organizations have solar contractors sign a pledge to operate under specific code of conduct.

- 1.** How long have you been in business?
- 2.** Have you operated the solar business under any other business names?
- 3.** Are you licensed to do business in my state?
- 4.** How many PV systems have you installed? Can you provide a list of consumer references in my area? Can I talk with former customers and also see successful installations?
- 5.** Who will do the installation at my site? Are they employees or subcontractors? If you involve subcontractors, do they work with a number of other employers, too? Have these subs worked on many of your installations?
- 6.** What training have you and your installers had, and what, if any, certifications do you and your installers hold? Do you have an installer with a Master Electrician license, and is there an installer on your team licensed to install solar?
- 7.** Does your company carry these types of insurance: general liability for at least \$1 million, professional liability, workers compensation, other types?
- 8.** Have you ever been involved in a legal dispute involving a solar installation? If so, what was the outcome?



## QUESTIONS ABOUT THE INSTALLATION AT YOUR HOME

Ask these questions to find specific details on what the contractor is proposing and why, as well as general information on what you can expect during and after installation.

1. What size and type of system do you recommend for my site? Why?
2. Are there any steps I must take before the installation - such as removing trees or replacing my roof?
3. What brand(s) of systems do you install? What advantages do these brands offer over other options? Are the systems manufactured in the U.S. or elsewhere?
4. What warranties do you and the manufacturer offer? Do you offer a warranty on installation? If the manufacturer is not located in the U.S., are there any difficulties with warranty work? How do I make a claim on defective or short-lived equipment?
5. What tax credits, rebates and other incentives will this installation qualify for? Who files the paperwork for any/all of these incentives?
6. How much of my energy usage will this system provide?
7. What will the payback period be?
8. Will I be able to monitor the output of my panels? What is the process for doing so?
9. How and when will you involve staff from my electric cooperative in the installation? Do you have experience interconnecting with utility grids?
10. Will permits be needed for this installation? Who obtains them and pays any fees?
11. When will you begin the installation? How long will it take to complete?
12. What is your daily schedule? (For example, is it M-F, 8:00 to 5:00, with an hour for lunch?)
13. Will you be on the job site daily? If not, how will we communicate if there are questions or problems that arise? And how do I reach you after hours?
14. If my energy use changes, can I increase the number of solar panels later?
15. Is it possible the installation may cause my roof to leak? If so, does your company take responsibility for repairs?
16. Can you provide me with the necessary documents to work with my HOA?

## QUESTIONS ABOUT THE BID/CONTRACT

Why you should ask these questions? All of this information should be included in both your bid and on the contract you sign. Check these details carefully, then compare to other bids you obtain. (Get at least three bids, all in writing.) Be wary of any really low bids. If the contractor can't supply the information, ask why not. After checking the contract to be sure this information is included, have a contract expert or lawyer review the contract before signing it.

1. Is this bid an estimate or a fixed price? What is the process you will follow if you find unexpected problems with this installation and want to charge extra to fix the problems?
2. Does the bid include the total cost of the project, including components, materials and labor?
3. Does the bid include a breakdown of each of the components (make and model number, size/kWh per year, as well as price of each) so I can see what each portion will cost?
4. Does the bid include details about permits?
5. Does the bid include the time frame for beginning and ending the installation?
6. Does the bid include warranty information, as well as how to place a claim?
7. Does the bid include expected operation and maintenance costs; projected monthly, annual and lifetime costs and savings; and projected energy production?
8. Does the bid include payment options, as well as financing details?
9. Does the bid include details about who will file paperwork for tax credits, rebates and other incentives?
10. What documentation will I receive when the project is done? (This may include lien releases and other contract-related paperwork, as well as warranties, operating manuals and more.)

## QUESTIONS ABOUT PAYMENT

Ask these questions so you know how you will be billed and the expected payment due dates.

1. How much will the down payment be? When will it be due?
2. What is the payment schedule?
3. How long after work is completed will the final payment be due?
4. Do you offer financing or have a relationship with a bank that offers financing?

*This article was provided by Advanced Energy, a nonprofit energy consulting firm. For more information, visit [www.advancedenergy.org](http://www.advancedenergy.org).*

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**From your cooperative  
electricity provider...**

## Questions to Ask a Prospective Solar PV Vendor

If you're considering installing or investing in solar photo-voltaic (PV) technology to generate electricity, ask prospective vendors these questions before signing on the dotted line. If you have further questions or concerns, talk to the member services department at your not-for-profit electric cooperative for more information.



1. What is the total installed (turnkey) cost of the system?
2. How much money is due upfront, and what is the schedule of payments?
3. If my energy use changes, will I be able to add more panels later?
4. Do I need a new roof now in order to install solar? Is my roof suitable to carry the additional live and dead load forces that the solar array will exert?
5. When was your company established and how much solar has it installed to date? Can your company provide a list of the projects and references for them?
6. Is your company affiliated with other parties to deliver the installation and who are they?
7. Does your company have a standard insurance certificate with adequate general liability coverage of \$1 million or more? (Ask to see it)
8. Does your company have professional liability Insurance? (Ask to see it)
9. Does your company carry Workers Compensation? (Ask to see it)
10. Do you have the ability to cover me as an "Additional Insured"?
11. Are your solar installers North American Board of Certified Energy Practitioners (NABCEP) Solar Photovoltaic (PV) Electric trained and certified?
12. Do you have a licensed professional engineer on staff to review and approve drawings for submission to city/county building code and fire department officials?
13. Are you accredited with the Better Business Bureau? If so, what is your rating?
14. In which country are the solar panels and inverters you are selling made?
15. Will the company honor your manufacturer's multi-year performance warranty?
16. Does the company have a master electrician on staff to obtain the required electrical permits and to supervise the electrical work for your project? (Ask to see the certificate)
17. Is your solar installer company a licensed electrical contractor, which is required to install solar electric systems? May I see your company's license?
18. Who will be working on my roof, and how much experience do they personally have installing solar?
19. How does your company handle it when you get busy? Do you work with sub-contractors?
20. How long will the installation take?
21. Will the age or type of my roof affect the cost of installation?
22. How will installation affect my roof? Will it create leaks? And if it does create leaks, are you then responsible for repairs?
23. If I'm planning on re-doing my roof, should I install panels before or after?
24. How much of my energy use would my solar system cover?
25. How much would my monthly energy bills be after installation? From you and from my cooperative?
26. How long would my payback period be on my solar system? What are the key assumptions associated with my payback that may impact that result?
27. How will solar affect my homeowner's insurance?
28. Will you complete all of the paperwork associated with getting the permits and financing?