CALIFORNIA
SOLAR CONSUMER PROTECTION GUIDE

PUTTING SOLAR ON YOUR HOME IS AN IMPORTANT FINANCIAL DECISION.
DON'T SIGN A CONTRACT UNTIL YOU READ THIS DOCUMENT!

In many areas of California, you cannot connect a residential solar system to the electric grid until you read, initial, and sign this document. (*The requirement to sign this document does not apply to solar systems that are part of new home construction or multi-family buildings, and it does not apply to solar thermal systems.*)

Audio Recording Available at 855-955-1535.

To see if you qualify for low-income solar programs, go directly to page 6.

This guide is also available in:

- Español
- 中文
- Tiếng Việt
- 한국어
- Tagalog

Call 1-866-849-8390

The California Public Utilities Commission (CPUC) created this guide to provide information to homeowners interested in solar at their residence. The CPUC is a government agency that oversees the solar programs of privately-owned electric utilities. To find this guide online, please visit: www.cpuc.ca.gov/solarguide.

Customer Initial Here_____(1/4)

MAKE SURE TO READ AT LEAST THE NEXT 3 PAGES

If you are considering signing a contract for a residential solar system.

Most solar providers are honest and fair. However, there are still some false claims you need to watch out for. Do not do business with a salesperson that makes one of these false claims.

False claims to watch out for	The Truth
FALSE **You can get free solar energy at no cost to you.**	TRUE **Solar energy is rarely free. An honest company will be upfront about all the costs you will pay over time.** • There is one exception: a few government-funded solar programs offer free or low-cost solar to low-income households. Go directly to page 6 to see what government-approved organizations run these programs.
FALSE **You will never pay an electricity bill ever again after a solar system is installed.**	TRUE **After going solar, you will typically pay a small electricity bill every month and a larger electricity bill at the end of the 12-month cycle. See page 17 for an example.** • Customers who take out a solar loan or sign a lease or power purchase agreement will also receive a monthly bill from a loan company or solar provider. • If you use PACE (Property Assessed Clean Energy) financing, you will also make a payment once or twice a year with your property taxes or monthly with your mortgage payment.
FALSE **Time is running out and you must quickly sign an electronic tablet to get solar.**	TRUE **An honest salesperson would never rush you to sign anything without giving you time to review what you are signing.** • California law requires that a salesperson show you the contract terms before you sign.

** If you think you have been a victim of solar fraud, report the incident to the Contractors State License Board (CSLB) at 800-321-CSLB (2752) or www.cslb.ca.gov/consumers*

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Know Your Rights

YOU HAVE THE RIGHT...

to a copy of a solar contract and financing agreement in the language in which the salesperson spoke to you.

If a solar provider comes to your home to sell you solar panels and speaks to you in a language other than English (such as Spanish), you have a right to a copy of the contract in that language. Also, if you prefer to read this consumer guide in Spanish, Chinese, Korean, Vietnamese, or Tagalog, a solar provider must give you this guide in that language.

YOU HAVE THE RIGHT...

to read this entire 23-page guide before signing a contract.

Do not feel pressured to read this guide while the salesperson waits. Ask them to come back at a later date to allow you time to read it.

If you are a Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), or San Diego Gas & Electric (SDG&E) customer, a solar provider must give you the time to read and sign this guide before you sign a contract for solar. If they do not allow you to read this document, they cannot interconnect your solar system to the electric grid.

YOU HAVE THE RIGHT...

to a Solar Disclosure Document from your solar provider.

By law, a solar provider must provide you with a completed Solar Energy System Disclosure Document created by the Contractors State License Board (CSLB). This one page document shows you the total costs for the solar energy system. A blank version of this document is available at www.cslb.ca.gov/contractors/SolarSheet.aspx.

YOU HAVE THE RIGHT...

to a 3-day cancellation period after signing a contract.

You have at least three business days to cancel your contract for any reason. You may cancel the contract by emailing, mailing, faxing, or delivering a notice to your solar provider by midnight of the third business day after you received a signed, dated copy of the contract. Note that different rules may apply for contracts negotiated at a company's place of business.

If your solar provider refuses to cancel the contract, report them to the Contractors State License Board at 800-321-CSLB (2751) or www.cslb.ca.gov/consumers.

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Ask a Solar Provider These Initial Questions

BEFORE YOU SIGN A CONTRACT

What is your Contractors State License Board (CSLB) license number?

Ask for a proof of the license. Then check the license to make sure it is valid by going to www.cslb.ca.gov/consumers or calling 800-321-CSLB (2752).

- The license must be active and in classification C-46 (Solar Contractor), C-10 (Electrical Contractor), or B (General Building Contractor) in order to be valid.
- CSLB License Number is:_____

If your solar provider does not have a valid contractor license, do not sign a contract with them and report them to the CSLB.

What is the total cost of the solar energy system?

If you are considering a solar loan, lease, or power purchase agreement, also ask:

- Is there a down payment?
- How much will I pay per month? When will these payments increase and by how much?

If you are considering PACE financing, also ask:

- How much will I pay once or twice a year with my property taxes or monthly with my mortgage?
- How many years will I pay this amount?

If I sell my home, what are my options and what do I need to do?

Ask your solar provider, lender, or PACE administrator to show you where in the contract it describes what happens when you sell your home.

For other important questions to ask a solar provider before you sign a contract, go to page 10 of this guide.

OK, I read these 3 pages. Now what?

- For a step-by-step guide for how to go solar, proceed to the next page. This is recommended, even if you've already started the solar process!
- If you are getting ready to sign a contract, skip to the "Before You Sign" checklist, on page 22 of this guide.

Make sure to get **3 bids** from different solar providers before you sign a contract. See page 9 of this guide for more details.

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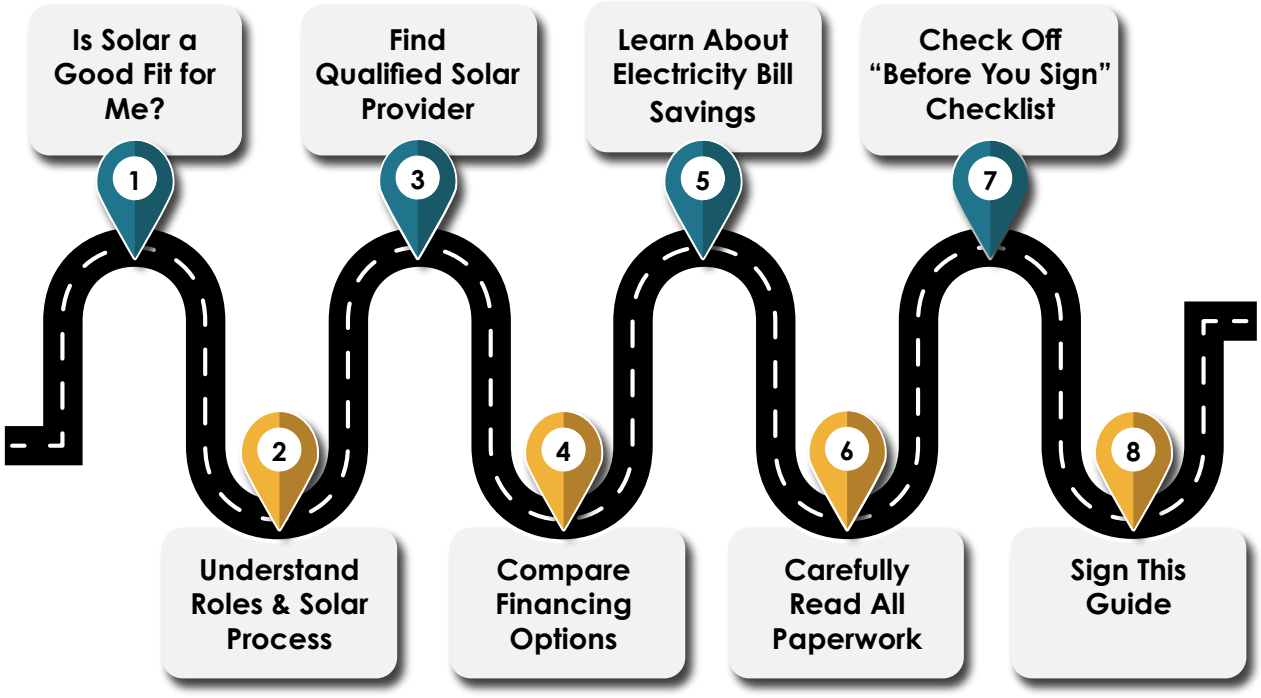


STEP 1: Is Solar a Good Fit for Me?

Solar photovoltaic panels can capture sunlight on your roof or property and convert it into electricity. This electricity powers the needs of your home, such as lights, electric vehicles, and appliances.

Before you consider getting solar at your home, ask yourself:

Do I qualify for low-income solar programs?

If you think you might qualify for a low-income solar program, go directly to the next page (page 6). There are residential solar and community solar programs available for qualifying low-income PG&E, SCE, and SDG&E customers that could save you more money with no financial contribution.

Am I a good candidate for rooftop solar?

- Does my roof receive a good amount of sunlight or is it mostly shaded? What direction does the roof face? Roofs that are mostly shaded or face due north are not good candidates for solar. If you plan to replace your roof soon, you should replace it before installing a rooftop solar system.
- If your roof is heavily shaded or isn't in great condition, or if you are a renter, community solar programs could be a good fit for you. With community solar, you receive 50-100 percent of your electricity from solar projects located across California. Community solar programs vary and may increase your electricity bill or provide an electricity bill savings. Contact your electricity provider for more information.

Have I made my home energy efficient first?

Making your home energy efficient before going solar can decrease your overall energy use and reduce the size of the solar system you need, potentially saving you thousands of dollars. Call your electricity provider or check their website for energy efficiency tips and advice on how to get an in-person home energy assessment.

Low-Income Solar Programs Available to PG&E, SCE, and SDG&E Customers

If you currently receive or qualify for a discounted electricity bill through the California Alternate Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) program, you may qualify for one of these programs. If you qualify, these solar programs will save you more money with little financial risk.

You may also qualify for one of these programs if you live in a disadvantaged community (DAC). A DAC is a neighborhood vulnerable to multiple sources of pollution. To find out if you live in a qualified DAC, check out the map: https://www.cpuc.ca.gov/SolarInDACs.

SASH PROGRAM & DAC-SASH PROGRAM

GRID Alternatives administers the SASH and DAC-SASH Program

The SASH Program provides discounted rooftop solar for income-qualified single-families. If you qualify, your family can get assistance installing solar at low-cost. The DAC-SASH program is designed for CARE- or FERA-eligible single-family homeowners that live in a disadvantaged community (DAC). If you qualify, your family can get assistance installing solar.

See if you qualify by visiting www.gridalternatives.org/qualify or by calling GRID Alternatives at 1-866-921-4696.

DAC-GREEN TARIFF PROGRAM

The DAC-Green Tariff Program is designed for eligible households that live in a disadvantaged community (DAC). Participants can have 100 percent of their electricity offset by solar generation and receive a 20 percent discount on their electricity bills. In this program, you do not have to install solar on your roof. The solar is installed elsewhere and the bill credits are assigned to you.

See https://www.cpuc.ca.gov/SolarInDACs for more information on eligibility and how to sign up.

COMMUNITY SOLAR GREEN TARIFF PROGRAM

The Community Solar Green Tariff Program allows households in a disadvantaged community to subscribe to a solar farm within 5 miles of their neighborhood and receive a 20 percent discount on their electricity bills.

See https://www.cpuc.ca.gov/SolarInDACs for more information on eligibility and how to sign up.

If you are not a PG&E, SCE, or SDG&E customer, call your electricity provider or check their website to see if any low-income solar options are available to you.

2 STEP 2: Understand Roles and Solar Process

Solar Providers

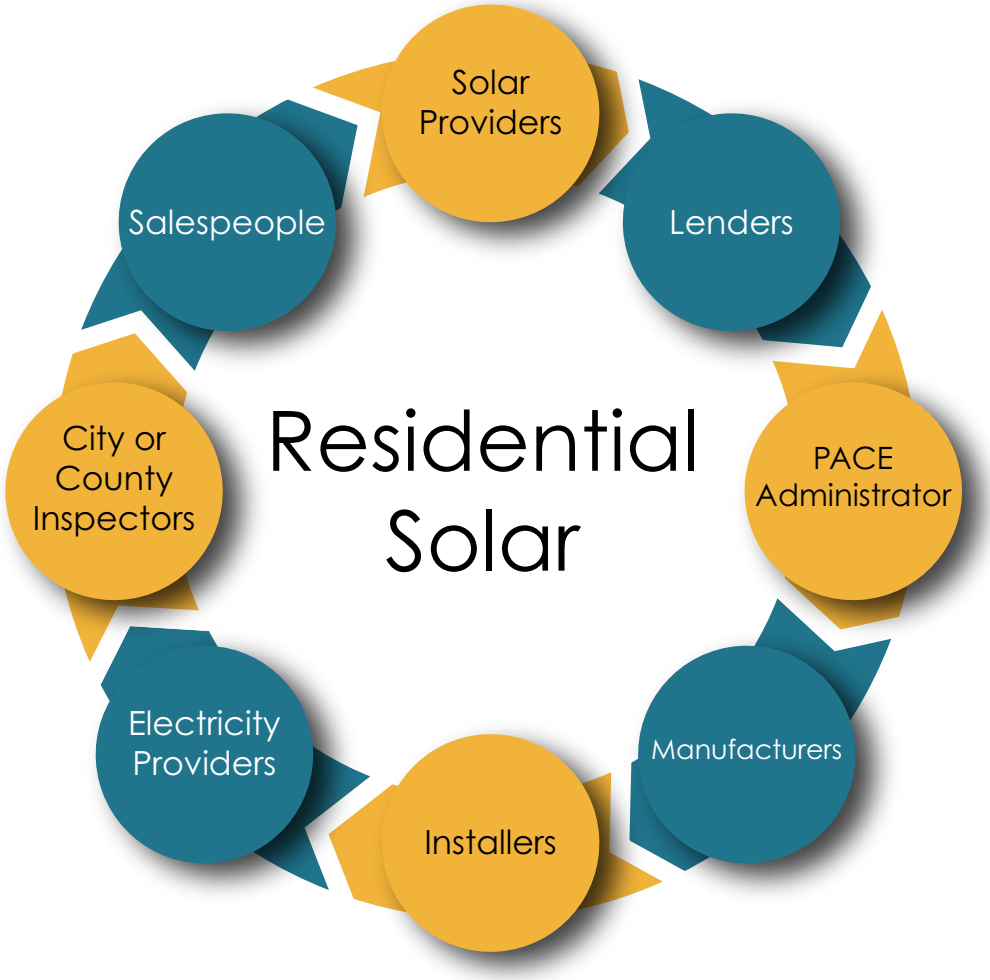
Solar providers are the companies that sell you solar and send installers to your home. Sometimes they provide financing. They must be licensed. See page 4.

Installers

Installers are sent by Solar Providers to your home to check roof, ground and electric conditions and to install the solar system. They must be licensed like a Solar Provider. See page 4.

Salespeople

Salespeople work for Solar Providers and may call you or knock on your door. They must be registered, with some limited exceptions. Ask for their "Home Improvement Salesperson (HIS) registration" and check it at 800-321-CSLB (2752) or www.cslb.ca.gov/consumers.



Lenders

Lenders provide you with financing if you have a solar loan or PACE financing.

PACE Administrators

PACE administrators manage PACE financing programs. They must be licensed. Check their license at https://docqnet.dbo.ca.gov/licensesearch.

Electricity Providers

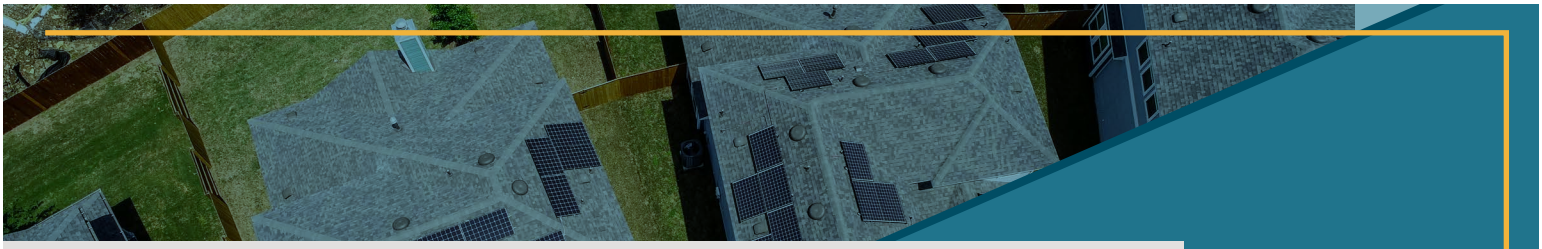
Electricity providers interconnect your solar system to the electric grid and send you electricity bills that may include solar bill credits.

Manufacturers

Manufacturers are the companies who make solar equipment. They provide most solar warranties for purchased systems.

City/County Inspectors

City/county inspectors come to your home to make sure the system is up to code to ensure your health and safety.



Overview of a Typical Rooftop Solar Process

BEFORE YOU SIGN A CONTRACT

You	decide if rooftop solar is a good fit for you (see page 5)
You	get a home energy assessment to make your home more energy efficient (see page 5)
You	look at low-income solar programs to see if you qualify (see page 6)
You	research Solar Providers and compare at least 3 bids (see page 9)
Solar Provider	provides you with solar contract, Solar Disclosure Document, and this Solar Consumer Guide
You	qualify for financing (if needed)
Lender	writes up financing agreement (if needed)
You	review solar contract, Solar Disclosure Document, and any financing agreement (see page 19)
You	go through checklist on page 22 of this Solar Consumer Guide
You	sign this Solar Consumer Guide, solar contract, and financing agreement

AFTER YOU SIGN A CONTRACT

Installer	performs a home site visit to confirm assumptions and check roof, ground, and electric conditions
Solar Provider	finalizes system design and applies for building permit with city or county agency
Installer	installs the solar system (only after receiving city/county permit)
City/County Inspector	inspects system for building permit compliance
Solar Provider	submits application to electricity provider to interconnect solar system to grid
Solar Provider	submits city/county inspection approval to electricity provider
You	turn on system only *after* receiving written approval from electricity provider
Electricity Provider	sends you your first electricity bill with solar/net energy metering credits (see page 17)
Lender/Solar Provider	sends you first bill for solar system or solar energy*

*IF YOU USE PACE FINANCING,

you will not receive a bill from a Lender or Solar Provider (the last step above). Instead, your payments will be due once or twice a year with your property taxes or monthly with your mortgage payment.

✓ It typically takes 1 to 3 months after you sign a contract for the solar system to be installed at your home.

✓ After the solar system is installed, it typically takes 2-3 weeks to receive approval from your electricity provider to turn your system on. It could take longer depending on your circumstances.

STEP 3: Find a Qualified Solar Provider

**For Low-Income Solar Programs and Providers, go directly to page 6.*

FIND PROVIDER

Find Solar Providers that Serve Your Neighborhood

Go to **www.cslb.ca.gov**, a government website, and click on the "Find My Licensed Contractor" search on the right-hand side of the page. Enter your city and one of the following license classifications: C-46 (Solar Contractor), C-10 (Electrical Contractor), or B (General Building Contractor).

Go to **www.CaliforniaDGStats.ca.gov**, a government-funded website, to enter your zip code and see a list of Solar Providers and recent installation costs. Note that these costs are not verified by the government.

Check to see if your county has a County Contractors Association with licensed Solar Providers.

Ask friends and neighbors who had solar installed at least a year ago if they recommend a Solar Provider and why.

NARROW DOWN

Narrow Down the List to Qualified Solar Providers

First, make sure Solar Providers you consider have a valid license from the CSLB. It is illegal for Solar Providers and their Installers to conduct business without a license.

- Go to the Contractors State License Board (CSLB) website at www.cslb.ca.gov/consumers or call 800-321-CSLB (2752) to see if the Solar Provider and Installer licenses are active and valid. The licenses must be in the classification C-46 (Solar Contractor), C-10 (Electrical Contractor), or B (General Building Contractor).

Find out how long the company has been in business and how many installations they have done.

Check out trusted customer review websites online. Since some websites may not be neutral, check a few different websites to make sure reviews are consistent.

It's a good sign if companies employ installers certified by the North American Board of Certified Energy Practitioners (NABCEP), a high standard in the industry.

GET BIDS

Get Bids From At Least 3 Qualified Solar Providers and Ask Questions

After you narrow down the list of Solar Providers, ask for a bid or price quote.

- Note that the best option for you is not necessarily the cheapest bid. A very low bid may indicate that a Solar Provider is trying to cut corners.

Don't hesitate to ask Solar Providers a lot of questions up front. A qualified company will be happy to answer all of them. A sample list of questions is on the next page.

Questions to Ask a Solar Provider *Before* You Sign a Contract

COMPANY BACKGROUND

What is your company's contractor license number from the Contractors State License Board (CSLB)? What is your Installer's contractor license number?

Will you subcontract with another company to install the solar system? If so, what is their CSLB contractor license number?

How long have you been in business and how many systems have you installed?

Can you provide me with three customer references to call or visit? These customers should have solar installed for at least a year.

DESIGN & ROOF

Is my roof a good candidate for solar? Why?

Does my roof need to be replaced before installing solar panels?

- If yes, how much will that cost, who will do it, what is their license number, and is there a roof warranty?

Why did you choose this specific design and size for the solar system you are recommending to me?

- Note that a system sized to cover all of your electricity needs isn't necessarily the best investment. Typically, a system is sized to around 80-85 percent of your electricity use from the previous year.

What steps will you take to ensure my roof won't leak?

Roughly how much will it cost to remove and re-install the panels if I need to replace my roof in the future, including inspection fees?

WARRANTIES & PERFORMANCE OF SOLAR SYSTEM

Are there warranties for the panels and inverters?

- If yes, how long do they last and who do I contact to replace these components?
- If equipment such as the inverter fails after the warranty period, how much will it cost to replace?

Are there warranties for labor/construction?

Are repairs and maintenance included in the contract? If yes, who should I contact for repairs?

Will I be able to monitor the performance of the system once it's installed? If so, how?

Does the solar provider offer a minimum energy guarantee (common with leases and power purchase agreements)?

- If yes, how will I be paid if the system does not produce as much energy as promised in the contract?

Is there an insurance policy that comes with the solar system, or do I need to take out additional homeowner's insurance? Note that this is especially important if you live in fire-prone areas.

What are my obligations in the contract if my solar system stops working due to a disaster like an earthquake or a fire?

Who has the right to claim the environmental benefits of the power generated by my system? (See "Getting Environmental Credit for Going Green" on page 18).

ELECTRICITY BILL SAVINGS ESTIMATES *(see page 17)*

Please beware of a solar provider who tells you solar is free - it is not. See page 2 for more information on false claims.

Explain to me why an electricity bill savings estimate is not a guarantee.

Even though I will continue to pay electricity bills after going solar, I can receive solar bill credits on my electricity bill. How does that work?

Is there an option to pay my electricity bills monthly instead of annually, so the costs are more even throughout the year? How do I sign up?

What electricity rate do you recommend I switch to for solar, and why?

How long will I be on that rate, and how can I compare or change rates on my electricity provider's website?

Does my electricity provider offer special rates for solar customers?

IMPACTS ON FUTURE SALE OF YOUR HOME

Will a solar system make it more difficult for me to sell my home or refinance?

For leases, power purchase agreements (PPAs), and PACE financed systems:

- What happens if the home buyer doesn't want the solar system or doesn't qualify to take on my lease, PPA, or PACE financed system?
- Are there fees if I need to terminate the contract early to sell my house?
- Are there fees for transferring the lease, PPA, or PACE financing to a new homeowner?

TIMELINE *(see page 8)*

When do you propose to start and finish installing solar on my roof?

After installation is complete, roughly how long will it take for my electricity provider to send me written approval to turn my system on?

What situations would allow me to be released from a contract?

Do you want to know questions to ask about loans or financing?
Keep reading because those are in the next sections!

4 STEP 4: Compare Your Financing Options

Side-By-Side Quick Financial Comparison

	PROS	CONS
Purchase with Cash or Loan	• Typically greater return on investment. • If you use a loan, little or no upfront costs. • May increase value of home. • You can directly receive tax credits and deductions. Consult tax professional to see if you qualify.	• You are typically responsible for repairs and maintenance. This may involve contacting different manufacturers, who could go out of business during the 10-20 year component lifecycles. • Some solar loans place a lien on your property. In those cases, if you do not make your payments, this could result in foreclosure or make it more difficult to sell your home or refinance your mortgage.

	PROS	CONS
PACE Financing	• Little or no upfront costs. • May have a longer repayment period than typical home improvement loan, which may be preferable. • You can directly receive tax credits and deductions. Consult tax professional to see if you qualify.	• PACE financing results in a first-priority lien on your property. Your bank may require you to pay off the PACE assessment prior to refinancing. • If you do not make your PACE payments, this could result in foreclosure or make it more difficult to sell your home or refinance your mortgage. • You are typically responsible for repairs and maintenance. This may involve contacting different manufacturers, who could go out of business during the 10-20 year component lifecycles.
Lease and PPA	• Little or no upfront costs. • Solar Provider is responsible for all monitoring, maintenance, and repairs. • Minimum energy production often guaranteed.	• Selling home may be more complicated than with a purchased system. Options typically are: the new owner must agree to take on the lease/agreement, you continue making payments, or you buy out the lease/agreement, which could be thousands of dollars. • Solar Provider could go out of business during the contract period.

A Closer Look at Purchase (with cash or loan)

PURCHASE

You can purchase a solar system from a Solar Provider or Manufacturer with a solar loan or cash. In this approach, you own the installed system. Types of loans include:

- **Secured loans:** these require an asset that will serve as collateral for the loan - often that asset is your solar system.
- **Unsecured loans:** these do not require any collateral, similar to a credit card.

A secured loan is often preferred because it typically has lower interest rates.

Many Solar Providers work with lenders that offer solar loans, but you should check with banks and credit unions as well. Compare offers to make sure you are being offered a reasonable interest rate.

PURCHASE

If you install and own a solar system by the end of 2019, there is a 30 percent federal tax credit available (also referred to as the "ITC"). The federal tax credit drops to 26 percent for systems installed in 2020, 22 percent for systems installed in 2021, and then 0 percent for systems installed after 2021. If you have questions about the ITC or whether a loan is tax deductible, speak to a Certified Public Accountant (CPA) for tax advice.

Unless you purchase a maintenance plan or your system comes with one, you will be responsible for any maintenance and repairs. Make sure you save the equipment warranties, particularly for the inverter, which may need to be replaced sooner than other equipment. If you sell your home, look for real estate agents and appraisers with experience selling homes with solar. You may include the system in the house sale just like any other major home component.

Questions to Ask a Lender About the Purchase of a Solar System with a Loan:

- ? What is the total cost of the loan over the entire course of the contract?
- ? How much will I pay up front, how much over time, and for how long?
- ? What is my interest rate? What is my annual percentage rate ("APR")?
- ? Who do I contact if I have questions about my loan payments?
- ? Will a solar loan make it more difficult for me to sell or refinance my home? Will I need to buyout my loan? Who do I contact?

A Closer Look at PACE (Property Assessed Clean Energy)

PACE (Property Assessed Clean Energy)

PACE is a financing option that is available in some areas of California. In a PACE financing arrangement, a PACE Program Administrator finances the upfront costs of a solar system, which you then pay through an assessment on your property tax bill. With PACE financing, you own the solar system.

PACE financing lasts for a fixed term, typically around 10-30 years, and it is attached to your house. If you sell your house before you have fully paid the PACE assessment, a buyer may require you to pay off the assessment, which will be what is remaining in the balance, which could be thousands of dollars. Some mortgage lenders will not loan money to buyers to purchase properties with PACE liens unless the full assessment is paid.

Unlike Leases and Power Purchase Agreements that require monthly payments, PACE assessments are typically due once or twice a year, in larger lump sums, with your property taxes. Given this unique arrangement, it's important to understand how much you will owe and when, so that you can set aside enough money throughout the year to cover the amount.

If your house is mortgaged and you typically pay your taxes with an escrow or impound account, your mortgage company may increase the amount you pay monthly to cover the anticipated

PACE (cont.)

increase to your property tax bill. Discuss how PACE will affect your monthly mortgage payment before you sign an agreement.

Be aware that if you fail to make your PACE payments included with your property taxes or mortgage, your home could be put in foreclosure.

Questions to Ask a PACE Program Administrator About a PACE Financed System:

- ? What is the total cost of the financing over the entire course of the contract?
- ? How much will I owe for PACE financing when I pay my mortgage or property taxes?
- ? How many times a year will I owe this PACE payment?
- ? What happens if I want to sell or refinance my home? Will selling or refinancing be more difficult with PACE? Is there anything I have to do with the mortgage company?
- ? What are the penalties for failing to pay the assessment on time?
- ? Who do I contact if I have problems making my PACE payments?

A Closer Look at Lease & PPA (Power Purchase Agreement)

LEASE AND POWER PURCHASE AGREEMENT

With a **Lease**, the Solar Provider owns the system on your property and "rents" it to you for a set period of time. A Solar Provider will install the solar system on your home, and you will make scheduled monthly payments in exchange for all the electricity the system produces. A typical Lease contract period is 20-25 years.

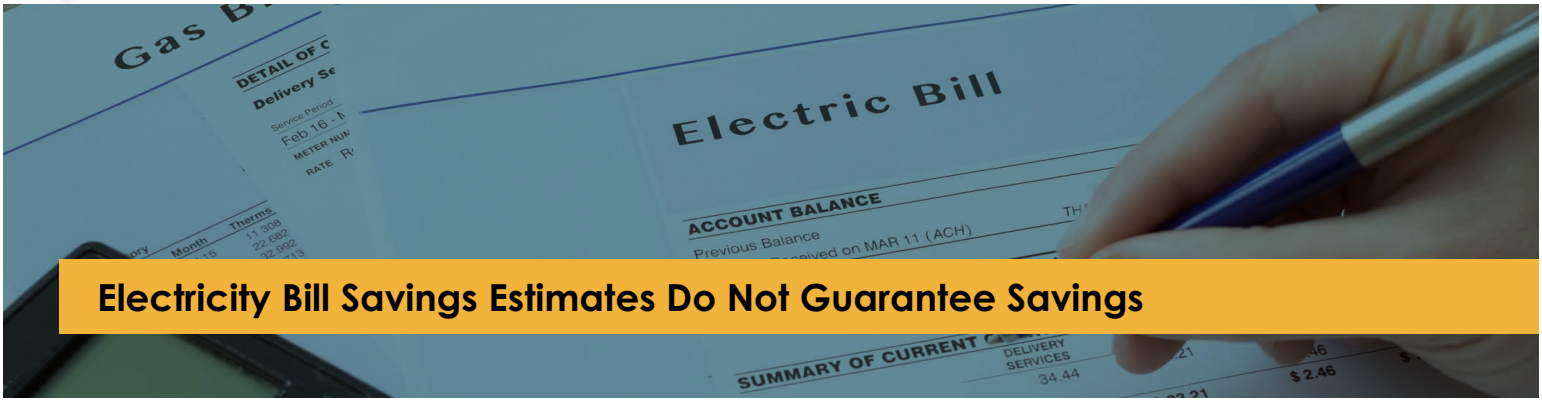
In a **Power Purchase Agreement (PPA)**, the Solar Provider owns the system on your property and sells you the electricity it generates. PPAs are similar to Leases, except that instead of making a fixed monthly payment for the system, you typically pay for all the power the solar system generates (a fixed per-kilowatt-hour rate). The contract will specify the kilowatt-hour rate you pay in the first year and every year after that. This rate should generally be lower than your current electricity rate. A typical PPA contract period is 20-25 years.

- If you sell your house before the Lease or PPA contract is over, you will have to pay the Solar Provider the remainder of the value of the Lease or PPA or transfer the contract to the new property owner. Make sure you understand the specific contract terms, since buying out a Lease or PPA can cost thousands of dollars.
- Payments for Leases or PPAs will typically increase by a specified amount every year based on an "escalation clause" or "escalator." Escalators are typically in the range of a 1 percent to 3 percent increase above the rate you paid in the previous year. Be cautious of entering into a contract with an escalator higher than that.
- There may be different ways to arrange Leases and PPAs, such as paying more up front to reduce your monthly payments.

Questions to Ask a Lender or Solar Provider About a Lease or PPA

- What is the total cost of the solar system or solar energy over the entire course of the contract?
- How much will I pay up front, how much over time, and for how long?
- Will my payments increase over time? How much will they increase, and how frequently?
- Is there an option to make a down payment to reduce my monthly payments (for a Lease) or kilowatt-hour rate (for a PPA)?
- What happens if I wish to end the Lease or PPA early?
- If I end my agreement early, will I owe a balloon payment and/or an early termination fee? If so, how much will I owe?
- Will a Lease or PPA make it more difficult for me to sell or refinance my home?

STEP 5: Learn About Electricity Bill Savings



Electricity Bill Savings Estimates Do Not Guarantee Savings

An electricity bill savings estimate is an educated guess about how much you could save with rooftop solar. Here are some reasons why it's possible that your savings could be lower than the estimate:

Electricity bill savings estimates are based on several uncertain factors, such as your future energy use. For example, if your family grows, you buy an electric vehicle, or you decide to turn up your air conditioning in the summer, your energy use will go up along with your electricity bill.

Electricity prices and rates can change over time. Your electricity provider may require you to switch to a different rate in the future, which could change how much you save.

If you sell your home, you could incur additional costs. For example, if a buyer doesn't want to take on a Lease or Power Purchase Agreement, you might have to buy out the contract, which could be thousands of dollars.

Before you sign a contract, ask yourself: if the savings end up being lower than the estimated monthly or yearly savings, does getting rooftop solar still make sense to me?

HOW ELECTRICITY BILL SAVINGS WORK

There is a special arrangement with your electricity provider that is called Net Energy Metering (NEM). NEM allows you to get a financial credit on your electricity bill when your solar system sends electricity back to the grid after first powering the electricity needs at your house. Usually this credit is approximately equal to the retail rate of energy. This means that you are credited on your bill about the same amount that your electricity provider would have charged you for electricity during that time.

NEM and Your Electricity Bill

Since the sun isn't always shining, solar customers also rely on electricity from their electricity provider. After your solar system is interconnected to the grid, your monthly electricity bill will summarize how much electricity you took in or "consumed," from your electricity provider, and how much electricity your solar system sent to the grid or "exported."

If you took in more than you sent out to the grid in any given month, you will see an overall charge on your bill. If you sent out more than you took in, you will see an overall credit. Typically, you will be able to carry forward credits to the next month's bill, and electricity usage charges will not be due until the end of a 12-month period. Note that many electricity providers require solar customers to pay a monthly minimum bill each month just like other customers. This minimum bill may change over time.

PG&E, SCE, and SDG&E solar customers are required to go on a time-of-use (TOU) rate. A TOU rate will charge different prices for electricity depending up on the time of day. Prices are typically higher between 4 p.m. and 9 p.m., called "peak" hours, and lower the rest of the day and at night during "off peak" hours.

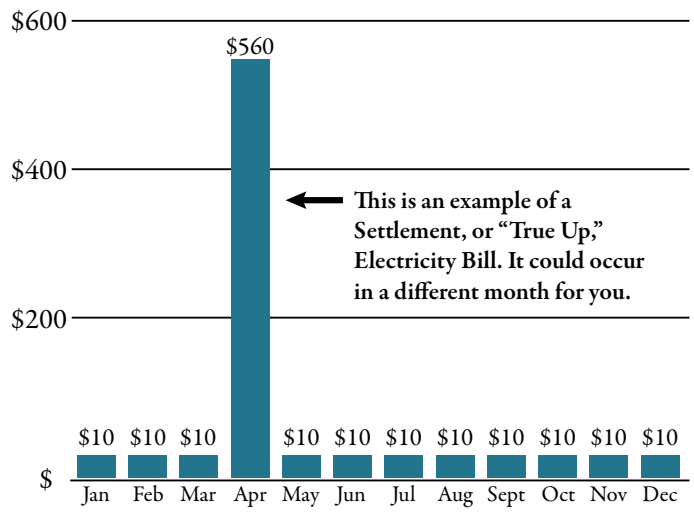
12 Month Settlement Bill

Typically, at the end of a 12-month period, you will receive a Settlement bill, also called a "True Up" bill, that settles all the credits and charges. Even though going solar can reduce your electricity costs, most customers still owe some money to their electricity provider at the end of the 12 months. See graphic below that shows an example of an electricity bill over a 12-month cycle for a solar customer.

Some electricity providers give you the option to pay your bills monthly instead of annually. If you choose the monthly option, your payments will be more evenly distributed over the course of the 12 months, and you will not have to worry about paying a potentially large bill once a year. Be clear with your Solar Provider if you want the monthly option, and double-check with your electricity provider that the correct option was chosen.

Though it's rare, if you sent out more electricity than you took in over the course of the 12-month period, you are typically eligible to be paid "net surplus compensation," which is around 2 to 3 cents per kilowatt-hour. Because this rate is lower than

EXAMPLE OF A SETTLEMENT, OR ("TRUE UP") ELECTRICITY BILL



the retail rate, it is generally not in your financial interest to install a solar system that produces more energy than you would use over the course of a year.

Currently, PG&E, SCE, and SDG&E customers are guaranteed NEM for 20 years from the time their solar system starts operating. Your electricity rate, however, is subject to change. Go to www.cpuc.ca.gov/electricrates for more details on how electricity rates work.

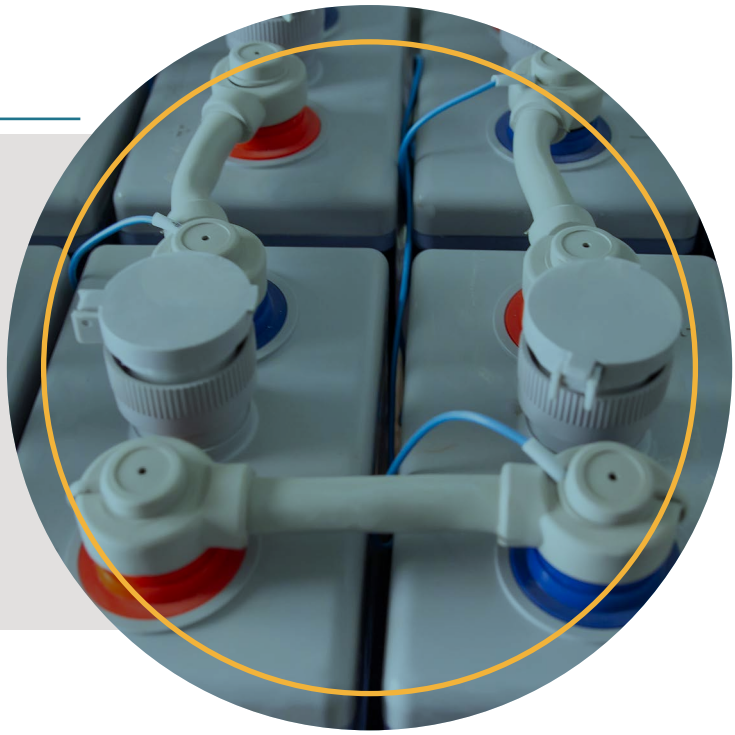
Getting Environmental Credit for Going Green

When a residential solar system produces electricity, the system is eligible to receive Renewable Energy Certificates, or "RECs," which are certificates that represent the renewable energy that is generated. If you purchase a solar system, you own the rights to these RECs and can make the claim that you're producing clean energy and avoiding emissions of greenhouse gases by going solar. However, if you enter a Lease or PPA, the contract may state that the Solar Provider or someone else owns the RECs. If you do not own the RECs, they can be sold without your knowledge to other customers who use them to make environmental claims or comply with clean energy requirements. And with PACE financing, a local jurisdiction may own the RECs. If owning the RECs is important to you, ask your solar provider who will own the RECs, and check the contract fine print.

Combining Solar with Storage

When you install battery storage with your solar system, you can store excess solar electricity produced by your panels for use in the evening when the sun goes down. The software that comes with battery storage automatically determines whether to store the extra energy or export it to the grid to maximize cost savings. Battery storage can also provide limited back-up power.

The state-funded Self-Generation Incentive Program (SGIP) provides financial incentives to install storage. See www.cpuc.ca.gov/sgip for details on the SGIP program.



STEP 6: Carefully Read All Paperwork

THE SOLAR ENERGY SYSTEM DISCLOSURE DOCUMENT

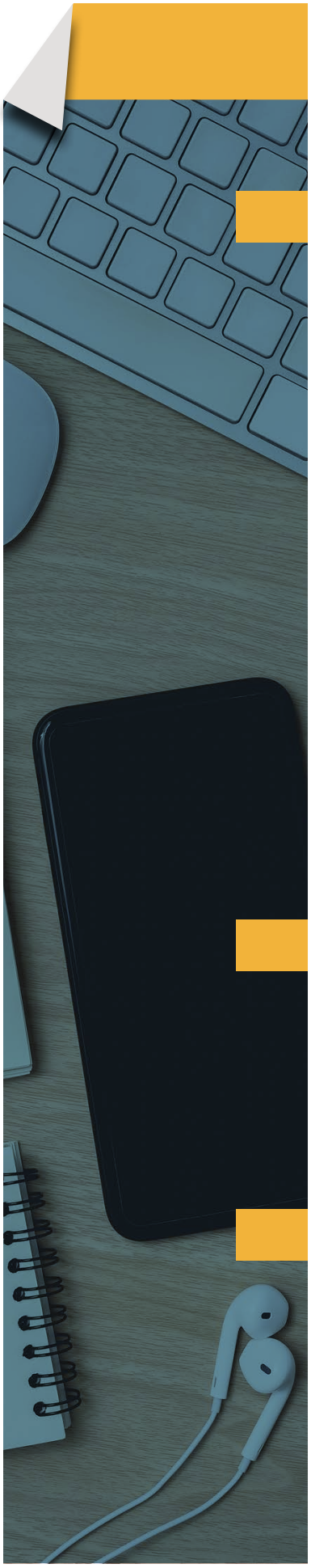
This one-page document from the Contractors State License Board shows you the total costs for the proposed solar energy system. It also has information about your three-day right to cancel a contract. A Solar Provider is required to fill out this document. It may be placed as the cover page to the contract. See a blank version at www.cslb.ca.gov/contractors/SolarSheet.aspx.

CONTRACT

- The solar contract is the legally binding document between you and the Solar Provider. Make sure to read it carefully.
- Make sure everything you were promised is written in the contract. For example, many answers to the questions on pages 10 and 11 of this guide should be referenced in the contract.
- By law, any contract for solar installation must include:
    - Contractor information, including business address and license numbers
    - Description of the project, including equipment installed and materials used
    - Contract price, plus finance charge and/or down payment if applicable
    - Approximate start and end date of the contract term
    - Notice of a 3-day right to cancel the contract (with limited exceptions)
- Ask the Solar Provider what situations would allow you to be released from the contract. For example, if your Solar Provider discovers on a site visit that your roof is shaded in a way that wasn't expected, that could cancel the contract.

FINANCIAL PAPERWORK

- If you are purchasing a system with a solar loan, you will be asked to sign a separate financing agreement. The Lender will provide you with this separate agreement.
- If you are purchasing a system with PACE financing, you must sign: (1) a Financing Application and, (2) a Financing Agreement.
    - Before you sign the Financing Application, read it carefully to make sure all the information is correct, including your contact information, your income, and the cost of the solar energy system.
    - The separate Financing Agreement may be provided by the Solar Provider, the PACE administrator, or a financing institution.
- Make sure everything you were promised is written into any financial agreements. For example, many answers to the questions on pages 14 -16 of this guide should be referenced in the contract.



ADDITIONAL RESOURCES

Electricity Provider Solar Programs

Pacific Gas and Electric (PG&E)

- **PG&E Solar Customer Service:** 1-877-743-4112
- **PG&E Clean Energy:** www.pge.com/en_US/residential/solar-and-vehicles/options/option-overview/how-to-get-started/how-to-get-started.page

Southern California Edison (SCE)

- **SCE Solar Phone Number:** 866-600-6290
- **SCE Solar Power at Home:** www.sce.com/residential/generating-your-own-power/solar-power

San Diego Gas & Electric (SDG&E)

- **SDG&E Solar Phone Number:** 1-800-411-SDGE
- **SDG&E Get Started with Solar:** https://www.sdge.com/residential/solar/getting-started-with-solar

If another electricity provider supplies you with electricity, call them or check their website for details on their solar programs.

Low-Income Solar Programs

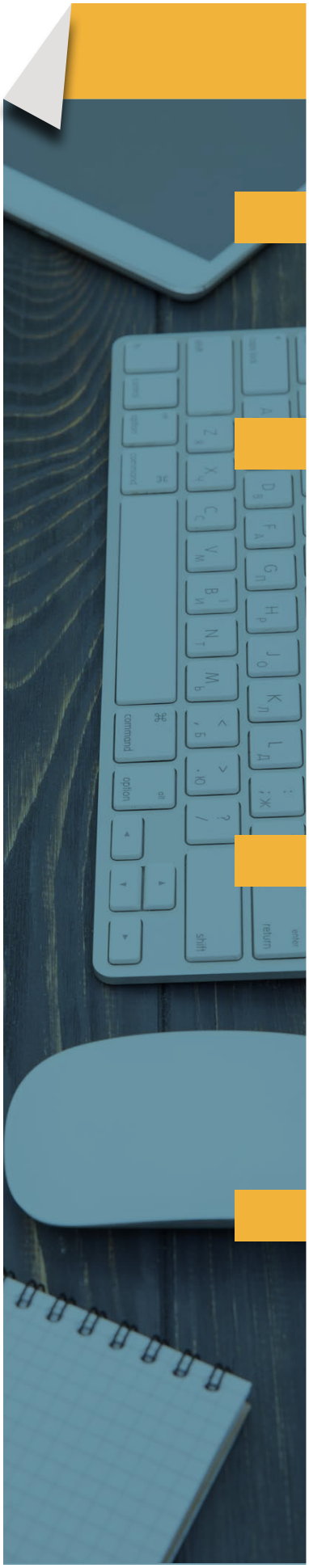
- **SASH and DAC-SASH Program:** 866-921-4696 and www.gridalternatives.org/qualify
- **Community Solar Green Tariff Program and DAC Green Tariff Program:** www.cpuc.ca.gov/SolarInDACs

If you are not a PG&E, SCE, or SDG&E customer, contact your electricity provider for low-income solar options.

Contractors State License Board (CSLB)

- **CSLB 24-Hour Licensing and Consumer Information:** 800-321-CSLB (2752)
- **Check a Contractor License or Home Improvement Salesperson Registration:** http://www.cslb.ca.gov/OnlineServices/CheckLicenseII/CheckLicense.aspx
- **CSLB Solar Smart:** www.cslb.ca.gov/Consumers/Solar_Smart
- **CSLB Solar Energy System Disclosure Document:** www.cslb.ca.gov/contractors/SolarSheet.aspx

means available in video format



ADDITIONAL RESOURCES *(cont.)*

Department of Business of Oversight (DBO)

- **PACE Administrator License Check**: https://docqnet.dbo.ca.gov/licensesearch
- **Filing a Complaint against PACE provider**: www.dbo.ca.gov/Consumers/consumer_services.asp

Solar Bills and Net Energy Metering (NEM)

- PG&E How to Read Solar Bill: www.pge.com/en_US/residential/solar-and-vehicles/green-energy-incentives/solar-and-renewable-metering-and-billing/how-to-read-your-bill/how-to-read-your-bill.page
- SCE Understanding Your Bill: www.sce.com/residential/generating-your-own-power/net-energy-metering/Understanding-Your-Bill
- SDG&E Understanding Your NEM Statement: www.sdge.com/residential/savings-center/solar-power-renewable-energy/net-energy-metering/billing-information/understanding-your-nem-statement
- CPUC NEM Overview: www.cpuc.ca.gov/General.aspx?id=3800

Solar Financing Guides

- CESA Homeowner's Guide to Solar Financing: search here - https://cesa.org/resource-library
- CESA Una Guía Práctica de Financiación Solar Para Dueños de Casa (En Español): https://cesa.org/resource-library/resource/una-guia-practica-de-financiacion-solar-para-duenos-de-casa
- CESA/George Washington University Rooftop Solar Financing 101: https://cesa.org/projects/sustainable-solar/videos

Other Solar Guides

- Solar Energy Industries Association (SEIA) Residential Consumer Guide to Solar Power: https://www.seia.org/research-resources/residential-consumer-guide-solar-power
- Interstate Renewable Energy Council (IREC) Be Solar Smart Consumer Checklist: https://irecusa.org/consumer-protection/consumer-checklist
- CESA/George Washington University Choosing a Solar Installer: https://cesa.org/projects/sustainable-solar/videos
- EnergySage Solar 101: https://www.energysage.com/solar/101

means available in video format

STEP 7: "Before You Sign" Checklist

Before you sign any documents, make sure you have completed these items!

Remember, take your time and don't feel pressured to sign a contract. If you feel you need more time to think about your decision or to do more research, do not sign anything until you do.

- ☐ Check to see if you qualify for a low-income solar program, which has strong protections for consumers. **See page 6**.
- ☐ Consider making your home more energy efficient before getting solar. This could save you money. **See page 5**.
- ☐ Get at least 3 bids for solar at your home. **See page 9**.
- ☐ Check to make sure the Solar Provider's license is current and valid with the Contractors State License Board. **See page 4**.
- ☐ Ask the Solar Provider for 3 customer references and call or visit them.
- ☐ Ask the Solar Provider the contract questions on **page 4, 10, and 11** so you understand the terms of the solar contract.
- ☐ If you are financing your system, ask the lender, Solar Provider, or PACE Program Administrator the finance questions on **page 14 , 15 or 16**, so you understand the terms of your financing arrangement.
- ☐ Read the critical information about electricity bill savings estimate on **page 16 and 17**.
- ☐ Carefully read all the documents that the Solar Provider is asking you to sign. These usually include: 1) Solar Energy System Disclosure Document, 2) Contract, and 3) Financial Paperwork. **See page 19**.
- ☐ Understand what happens after you sign a contract for solar. **See page 8**.
- ☐ Save copies of all the documents you sign. The information will be useful if you sell your home, need to replace your roof, or have any repair or maintenance issues.

8

STEP 8: Sign This Guide

July 2019

Have you read at least the first 4 pages of this guide?

The first 4 pages of the **California Solar Consumer Protection Guide** contain important information on false claims to watch out for and your rights.

The California Public Utilities Commission recommends that you take 48 hours to read and understand this *entire* guide before you sign below.

****Do not feel pressured to read the complete document while the salesperson waits. Ask them to come back at a later date to allow you time to read it.****

CUSTOMER

- ☐ I read and initialed the first 4 pages of California's Solar Consumer Protection Guide. The solar provider gave me the time to read the entire 23-page guide.
- ☐ The solar provider gave me the opportunity to read this guide in Español, 中文, 한국어, Tiếng Việt, or Tagalog.
- ☐ I have not yet entered into a contract for solar with the solar provider signing below.

Customer Printed Name	Customer Wet Signature	Date

SOLAR PROVIDER*

- ☐ The customer initialed the first 4 pages of the guide.
- ☐ The customer signed above before entering into a contract for the purchase, lease, power purchase agreement, or PACE financing of a solar system or solar energy with the company named below.

Company Representative Name/Title	Company Representative Signature	Date
Company Name	Company Email	Company Phone

*A solar provider is defined in California Public Utilities Commissioner Decision (D.) 18-09-044 as a vendor, contractor, installer, or financing entity that enters into a contract for a power purchase agreement, lease, or purchased solar system. Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) require solar providers to upload a signed copy of this page with a wet signature to their interconnection portals before interconnecting residential customers in single-family homes to the electric grid. This requirement does not apply to new home construction, multifamily buildings, or solar thermal systems.