

Ways to Save

Consider the big picture. Make sure you have a handle on your full financial situation before making any large purchases like a solar system. Also keep in mind that according to the California Center for Sustainable Energy (CSE) the average cost for a residential solar system has dropped about 30% since 2007.

Make sure you're getting a fair price. One way to evaluate the cost of a proposed system is to calculate total system cost per watt for each of the bids you receive. According to Energy Sage, the average cost to purchase a residential system is \$3-4 per watt, and the average 5kW residential system costs \$15,000 before tax credits (as of January 2020).

If your bid is not around the average, ask your contractor if there are any special features or other reasons for the disparity. Factors that increase cost from the average are shade mitigating technologies, reroofing either part or the whole roof, upgrades to an existing electrical panel, flat roof mounts, and multiple sets of panels in different locations.

Consider paying in cash first. Paying cash provides a very predictable return on investment, and you can expect to fully recoup your upfront costs in as little as 5 to 10 years with an internal rate of return of 15% to 25%. (Businesses can see an even faster payback.) Fully purchased systems also increase the value of your home.

Loans have some of the advantages of cash. Local credit unions and banks offer special green home equity loans with low interest rates, 100% financing, and interest payments that can be written off with your taxes. Some also have special unsecured loans like for a car that are paid over 10 years with a fixed interest rate. Be sure to ask for a calculation of the net cost of the system after payoff for the proposed financing option. You might end up paying 25% more in the end. Good financing options should only increase your total cost by 3 to 8% plus inflation.

Offset the cost with tax credits. Residents who purchase their solar system either with cash or a loan may be able to take advantage of a [26% tax credit](#) through 2020. A tax credit is a dollar-for-dollar reduction in income taxes that would otherwise be paid to the federal government. This percentage will fall by 4% at the end of 2020. Not everyone pays enough taxes to take advantage of these credits, so be sure to consult with a tax professional to be certain you qualify.

The State of California also allows a property tax exclusion up to 100% through 2024. Your property taxes will not reflect the increased value of your home due to the addition of the solar system.

PACE loans are paid through taxes. Property Assessed Clean Energy (PACE) loans are essentially liens on the property paid back through property taxes over a set period up to 30 years. When the home is sold, the lien is transferred to the new owners. PACE financing usually requires a homeowner to have at least 10% equity in the home. Since you own the system, you're eligible to take advantage of tax credits and exclusions.

Leases and PPAs get you in the door. Not everyone has the resources to buy or finance a solar system. Some who do still choose a different route. Leases and Power Purchase Agreements (PPAs) are generally zero down contracts that offer a fixed monthly payment. The “solar-as-a-service” company that owns the system on your roof monitors performance, guarantees production, and is responsible for service and maintenance for the agreement term, often 20 years. Since you don’t own the system, you can’t claim the tax credit, but you do get lower electricity bills immediately.

Make sure you understand your options at the end of a lease or PPA agreement period, what happens when you sell your house, and whether there’s an annual rate increase or “escalator” sometimes as high as 2.9%. Increasing rates mean you could wind up paying more for energy in the future than you would have otherwise. Be aware that you’re agreeing to pay a particular price per kilowatt hour that varies from utility rates.

What’s a kilowatt hour? Both production and usage are measured in kilowatt hours. Energy rates per kilowatt hour have risen dramatically recently. Go to the [PG&E website](#) and search for “tariffs” for current rates, and to find out about lower rates through the CARES program for eligible low-income households. Also visit the [Valley Clean Energy website](#) and select Rates and Billing.

Be ready for the True Up. Once your system is running, PG&E sends monthly minimum charge bills as well as a yearly “True Up” bill to reconcile your total yearly charges and credits. Read your bill carefully to avoid a surprise. See the [PG&E website](#) for more.

Be wary of financing pitfalls. Many solar companies make significantly more money from certain financing options. Do your homework, find someone you trust for unbiased guidance, and make sure you select the financing option that best meets your needs.

Paying for Your Solar System		
	Pros	Cons
Cash/Check	<ul style="list-style-type: none"> • Eligible for 26% Federal Tax Credit • Highest total savings over 25 year life of system over other payment choices • Start saving from Day 1 	<ul style="list-style-type: none"> • Must use current cash or savings
Bank and Credit Union Loans	<ul style="list-style-type: none"> • Zero money out of pocket • Monthly payments usually lower than current monthly electrical bill • Eligible for 26% Federal Tax Credit • Interest rates as low as 1.99% / 2.99% 	<ul style="list-style-type: none"> • FICO score of 680 or higher • Interest on loan
PACE Loan	<ul style="list-style-type: none"> • Zero money out of pocket • Monthly payments usually lower than current monthly electrical bill • Eligible for 26% Federal Tax Credit • Credit score not part of eligibility • Write-off interest payments 	<ul style="list-style-type: none"> • Higher interest rates • Added assessment to property • Possible pre-payment penalty clause (can opt-out)
PPA/Lease	<ul style="list-style-type: none"> • Best for people with no tax liability (for instance retired people) • No out of pocket costs • Some savings from Day 1 • Not responsible for maintenance or warranties 	<ul style="list-style-type: none"> • Not eligible for 26% Federal Tax Credit • Monthly savings on electricity bill is limited