

## Is Solar Right for Me?

First, think about your goals. Do you want to

- Maximize cost savings over time
- Reduce your monthly electricity bill
- Establish a consistent and predictable monthly bill
- Reduce impact on the environment
- Become energy independent
- Make the world safe for future generations

**Is money a limiting factor?** Solar systems can be purchased with cash, financed with a personal bank loan, financed via a PACE property tax assessed loan, or leased with almost no up front costs.

**Do you plan to stay in your home for at least 3 to 5 years?** If you plan to live in your home for 3 to 5 years or more, installing a solar system could pay for itself depending on the financing you choose and your electricity usage.

Planning to move eventually? If you plan to sell in the interim future, keep in mind that a fully purchased solar system can increase the value of your home. Check that product warranties are fully transferable without extra fees if moving is a possibility. If you're thinking of a PPA or another lease arrangement to finance your system, make sure to ask about what happens in the event of a sale.

**Looking for a wise investment?** If you're able to purchase a system outright, you can expect a solar system to pay for itself in as little as 5 to 10 years with an internal rate of return of 15% to 25% with no risk while most other financial investments are currently returning 7% to 10% at substantially more risk.

Is retirement in your future? Some homeowners view solar systems as a solid financial investment as well as an effective way to down-size their monthly bills. PPAs can ensure a set monthly bill amount for those on fixed incomes, create a buffer against rising electricity costs, and, if you have no tax liability, you can still benefit indirectly from the federal tax credit. Folks thinking about their grandchildren see solar as a way to invest in a bright future and show a hopeful way forward for the younger generation.

Looking for the most effective way to reduce climate impacts? Pairing an electric vehicle with a solar system tackles both energy and transportation impacts. Going all-electric is another way to reduce your impact on the environment, and a properly sized solar system can help you get there.



Does your roof face south, west, or east? The ideal rooftop faces south or west and has a 7/12 pitch (7 inches rise for every 12 inches run). East facing roofs may still have potential. Panels can also be installed on flat roofs facing upwards or on frames tilted toward the south. If a rooftop cannot be used, other potential surfaces include

Is your roof shaded? Large mature shade trees contribute to a healthy environment in our neighborhoods, but they or other obstructions might be shading your rooftop. Don't let a bit of shade deter you because there are technologies that can mitigate shade. Another approach is to hire an arborist to trim select branches or to negotiate with a neighbor to trim theirs.

Is your roof in good condition? Both solar panels and roofs have a lifecycle of about 25 years. If your roof is aging, you may want to reroof before installing a solar system. It's best to install solar on a sound rooftop. While panels can be removed to reroof a home, it adds significantly to the expense. Make sure a qualified roofing contractor evaluates the condition of your roof (not necessarily the solar salesperson). Sometimes it's possible to reroof in a limited area.

How much electricity do you use? Take a look at your monthly electricity bill (include gas charges if you're thinking about going allelectric). Add up the yearly total as well as the seasonal high and low amounts. Include the corresponding annual kilowatt hours (kWh) consumed.

A quicker approach is to register at the PG&E My Energy website, then go to Energy Usage Details. Look for the "Green Button" at the bottom right of that page to download your usage data into a spreadsheet.

How much electricity do you want to produce? Do you want to produce electricity that covers your lowest level of demand or do you want to feed some into the grid? System sizing is a critical element of system design. Work closely with your contractor to get this right.

Do you have plans for energy efficiency upgrades, an electric vehicle, or a hot tub? It's important to factor any changes to your electricity demand into your system design. Electric vehicles and hot tubs can draw significant energy resources. A full year of tubbing and driving usage is best for planning purposes. PG&E allows systems designed to meet 130% of current consumption, but our local Valley Clean Energy utility will have its own policy that may not include such restrictions.

## Think about reducing consumption first

- Insulate your attic
- Install solar tubes for natural lighting
- Open windows at night especially in upstairs rooms
- Install a whole house fan or a Night Breeze system
- Put up exterior shades on south and west facing windows
- Switch out old incandescent and fluorescent bulbs with low Kelvin warm light LEDs, and
- Put home entertainment and office electronics on smart switches

**Take your time.** Solar is a big decision, but don't put it off too long!

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