



Residential Solar Electric Cost Savings Analysis (PG&E Utility Customers)

What Size Solar System Do I Need?

Solar Depot power systems require approximately 100 sq. ft. of panel area to generate 1 kilowatt of electricity. An average 2,500 sq. ft. single-family home uses about 5,000 kilowatt-hours of electricity per year. A 3 kW (AC) system, using 300 sq. ft. of roof space, will generate nearly all of the electricity required for such a home on an annual basis.

System Cost

Solar Depot solar systems cost between \$8-9 per watt installed including sales tax. The exact system cost will depend upon the ease of the installation and roof access. A 3 kW system that would power a typical California residence with good southern exposure will cost between \$24,000 and \$27,000 installed. After taking into account the California Cash Rebate of \$1,900/kW and the Federal Solar Tax Credit of \$2,000, the net cost of these systems ranges from approximately \$16,300 to 19,300.

Financing a Sol-Gen Power System

Below is an example of how you could finance a 3 kW Sol-Gen system that would power an average-sized California home.

PV System (kW-AC)	3kW
Installed Cost (estimated)¹	\$25,500
CA Cash Rebate (\$1,900/kW)	\$5,700
Federal Tax Credit (taken at the end of 1st year)	\$2,000
Net Cost After Rebate and Tax Credit	\$17,800
Monthly Payment on a financed system²	\$131
Monthly Payment after interest tax deduction	\$105
Monthly Payment to PG&E for same number of kWh³	\$208

¹ Actual price will depend upon cost of installation and type of panel mount.

² Average payment of loan financed with 8.0% fixed rate mortgage loan with 30 year term.

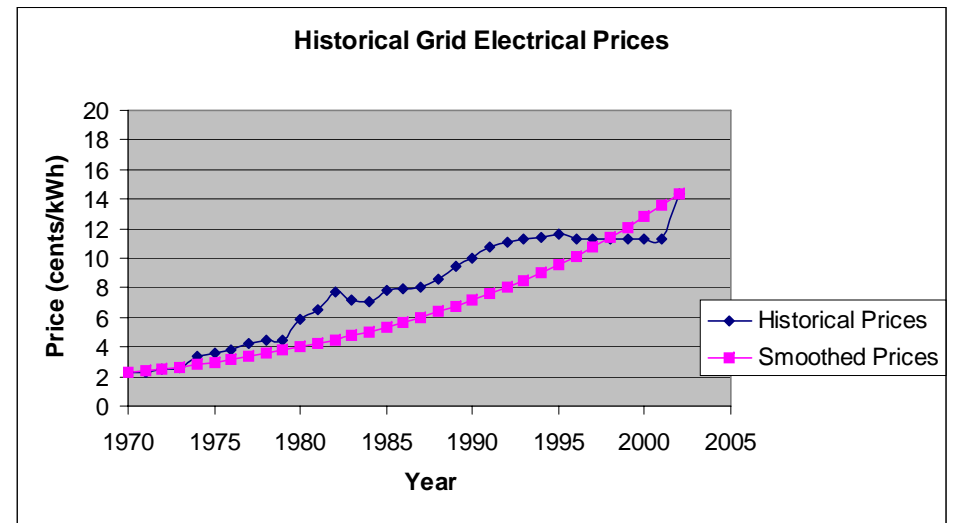
³ Average over 30 years. Assumes homeowner is paying average rate of 16.5 cents per kWh today, with 6% annual rate inflation. This homeowner is barely in the penalty zone.

California Solar Initiative (CSI) Rebate

The State of California is presently offering a \$1,900* per kilowatt cash rebate for solar electric systems that are connected to the utility grid. Upon signing a sales agreement, Solar Depot will submit a reservation for you after receiving a deposit on your solar system. Once your system has been permitted, installed and operational, the claim form and your final inspection approval will be submitted to the utility for payment. Within 30-60 days, the utility will send you the rebate check. The incentive level does drop over time as more customers take advantage of it, so if you are considering solar, **the best time to do it is now.**

Rate of Inflation in California: The Really Big Savings

The biggest savings from installing a solar electric system will be realized in future years. The graph shown below is based upon rate data from the California Public Utility Commission. As you can see, average electric rates have increased from approximately \$0.02/kilowatt-hour in 1970 to \$0.16/kilowatt-hour in 2001. That is an average rate of increase of 6% per year. By investing in a solar system, you can stabilize your electricity costs and shield yourself from such utility rate hikes.



*Incentive may be adjusted depending on orientation and shading of the installed system.



Net Metering Laws

Net Metering measures the difference between the electricity you buy from the utility and the electricity you generate with your solar electric system. When you are making more electricity than you are using, like typical summer days, your extra electricity automatically gets metered back out (sold) to the utility grid. You receive credit for this power at the same rate they sell it to you. Net Metering allows you to use the electric utility grid like a bank account. You can put electricity into it that you don't use immediately and you can withdraw the same amount later on, at no net cost to you.

The Cost of Electricity in California – The Penalty Zones

The utility companies in California have adopted a complex tiered electric rate structure. This rate schedule establishes a 'baseline' rate for all usage each month. Usage up to the baseline amount is charged one rate, and usage above baseline is charged at a series of increasing tiered rates.



Residential customers who exceed their baseline quantities face steep penalty rates. The table below shows the rate structure for residential PG&E customers:

<u>Tier #</u>	<u>Percent of Baseline Consumption</u>	<u>Price</u>
Tier 1	Up to the baseline amount	11.5 cent/kWh
Tier 2	Electric Usage from 101% to 130%	13.0 cent/kWh
Tier 3	Electric Usage from 131% to 200%	23.0 cent/kWh
Tier 4	Electric Usage from 201% to 300%	32.0 cent/kWh
Tier 5	Electric Use exceeding 300%	36.0 cent/kWh

Rising Electric Rates

As electric rates continue to increase, the greatest benefit of a solar electric system emerges. Solar allows homeowners to lock-in low electricity rates for 30 years. If rates increase as they have historically, the price of electricity from the utility in 30 years will be \$0.75/kilowatt-hour!

Natural gas shortages have also pushed electric rates higher. The majority of all new power plants to come online in the US in the last 5 years use natural gas. The wholesale price of natural gas to the utilities has increased over 300% during the last 10 years from 1995-2005. This does **not include** the price spikes realized in late 2005-2006 as a result of disruptions in supply from Hurricane Katrina. Natural gas prices and electricity rates will continue to increase in the near future.



The Bottom Line

For a typical 3kW residential solar system with financing, the homeowner would not need to spend any cash upfront to pay for the system, and would get a tax benefit in the first year equal to \$2,000. Over the life of the system, the homeowner would save nearly \$34,000 in after-tax monthly payments. Solar is one of the best investments you will ever make.

Requesting a Free Site-Visit

After reviewing the information presented in this package, if you own your home and you are interested in learning more about solar electric power systems, please call Solar Depot. We will answer any questions you might have and arrange for a free site visit.



**Invest In Your Planet...
the Return is High**

Call Solar Depot today!

800-822-4041

www.solardepot.com

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