



## Is Solar Power a Good Investment?

Every so often I like to revisit solar power here in the Real Estate Showcase because the incentives change periodically. While the Federal Government increased the tax credit a while back, PG&E continues to ratchet down the rebate, so the investment value continues to be a “moving target”.

The current rebate available from PG&E appears to have stabilized for now, at least until the megawatts remaining at the current level get close to being all used up; at that point the remaining megawatts will go like hotcakes. The last time this happened (just a few months ago) PG&E says they went faster than ever before, which surprised everyone given the state of the economy! Currently the rebate is \$1.10/watt and when the remaining 17 megawatts at this level are spoken for, it will drop to \$0.65/watt. The tax credit is 30% of the installed cost of the system after the rebate is subtracted.

The investment value is closely related to how much power you use. If your bill averages \$100/month or more it usually makes a lot of sense. And the higher your bill, the higher the investment value goes. When I say it “usually” makes a lot of sense, there are always exceptions like roofs with little to no sun, homes with no room for solar panels, etc. Let’s look at an example to illustrate the investment value.

Customers with electricity bills of \$200/month are fairly common around here. A roof-mounted system with 36 solar electric panels (at 205 watts each), commonly called “solar modules”, will cost about \$43,173 before incentives. The rebate for this example would be \$7,048, the tax credit would be \$10,837, making the customer’s cost \$25,287. Borrowing these funds over a 20 year period at 7% would result in a monthly payment of about \$196.08. But this system, on a roof totally open to the sun, would save an average of \$195.50/month, or about 98% of their annual electricity cost. But the benefits don’t stop there.

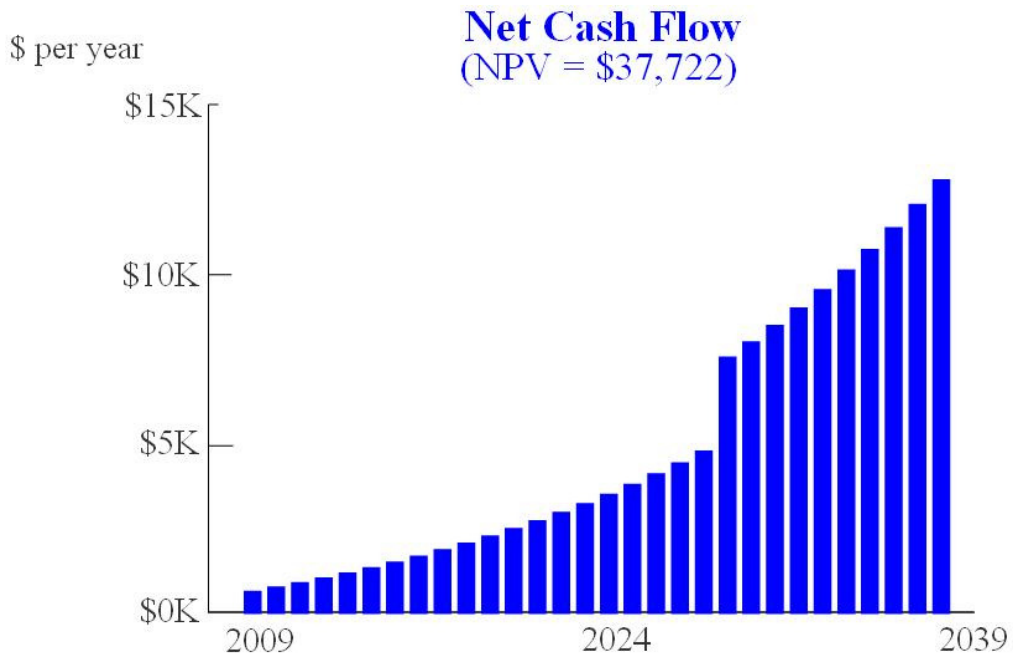
A home loan can qualify you for a mortgage interest deduction. In this example, based on a married couple with a combined annual taxable income of \$160,000/yr, they would save an additional \$687/year, or about \$57.25/month, making the net average monthly savings in the first year \$56.67.

The chart and table show how the savings add up over time, given electricity rates going up about 6% per year. Looking at this as an investment, the rate of return over 30 years is 18.3%. The stock market return over the last 30 years has been about 10.9%, which is actually more like 7.6% or less after taxes.

In terms of environmental benefits, this solar power system is equivalent to over 1.6 acres of trees, removing over 12,000 pounds of CO<sub>2</sub> from the atmosphere, along with 12.8 pounds of sulfur dioxide and 17.8 pounds of nitrous oxide pollution. For people that don’t plan to be in their home for more than a few more years, the Appraisal Journal estimates the value of this system to be somewhere between \$23,460 and \$58,650; note that the appraised value would be equal to or greater than the cost

after incentives!

Given the economic benefits, is it any wonder that Nevada City leads with the most solar installations? And in addition to Sustainable Energy Group, there are a large number of other solar installers in our area, all providing free estimates! So get several bids - what have you got to lose? Call today and start improving your cash flow – and investment rate of return – tomorrow!



## Net Cash Flow Details

Year	Electric Bill Savings	Loan Payment	Tax Effect: Loan	Net
2009	\$2,346	\$ (2,353)	\$687	\$680
2010	\$2,487	\$ (2,353)	\$670	\$804
2011	\$2,636	\$ (2,353)	\$652	\$935
2012	\$2,794	\$ (2,353)	\$632	\$1,073
2013	\$2,962	\$ (2,353)	\$611	\$1,220
2014	\$3,139	\$ (2,353)	\$588	\$1,375
2015	\$3,328	\$ (2,353)	\$564	\$1,539
2016	\$3,528	\$ (2,353)	\$538	\$1,713
2017	\$3,739	\$ (2,353)	\$510	\$1,897
2018	\$3,964	\$ (2,353)	\$481	\$2,092
2019	\$4,201	\$ (2,353)	\$449	\$2,297
2020	\$4,453	\$ (2,353)	\$414	\$2,515
2021	\$4,721	\$ (2,353)	\$378	\$2,746
2022	\$5,004	\$ (2,353)	\$338	\$2,989
2023	\$5,304	\$ (2,353)	\$296	\$3,247
2024	\$5,622	\$ (2,353)	\$251	\$3,520
2025	\$5,960	\$ (2,353)	\$202	\$3,809
2026	\$6,317	\$ (2,353)	\$150	\$4,114
2027	\$6,696	\$ (2,353)	\$94	\$4,438
2028	\$7,098	\$ (2,353)	\$34	\$4,779
2029	\$7,524	\$0	\$0	\$7,524
2030	\$7,975	\$0	\$0	\$7,975
2031	\$8,454	\$0	\$0	\$8,454
2032	\$8,961	\$0	\$0	\$8,961
2033	\$9,499	\$0	\$0	\$9,499
2034	\$10,069	\$0	\$0	\$10,069
2035	\$10,673	\$0	\$0	\$10,673
2036	\$11,313	\$0	\$0	\$11,313
2037	\$11,992	\$0	\$0	\$11,992
2038	\$12,712	\$0	\$0	\$12,712

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