



Why You Should Go Solar - Before it's too late!

Today's column in Going Green is going to deliver some very sage advice. While some may see this as nothing other than a marketing piece others will, hopefully, appreciate the writing on the wall and take the advice. For those that don't, hey, ten years isn't all that long, let me know what you think of this in 2020. My thoughts and advice have been published in The Union for more than 15 years so that's not much of a stretch!

The topic for this week's column comes from an article published in Scientific American a week ago Thursday titled "Go Solar before its Too Late!" In it the author begins with -

"One of the biggest misconceptions people have about solar is that it is just about to become so cheap that you better not get any now, because in a few years it will be much cheaper."

You can read the original article here -

<http://www.scientificamerican.com/article.cfm?id=go-solar-before-its-too-late-2010-08>

The article covers a number of key reasons why people shouldn't wait to go solar, addressing pretty much all of the same issues I've spoken with potential customers about for years; issues like the future cost of energy and, because of that, the future of the world economy. In the future the economy will be unable to support the kind of incentives we have now. Electricity prices have been going up at over 6% for the last 30 years and they're going to rise at an even higher rate over the next 30 years. Abundant low cost energy has been the basis for economic growth during our lifetimes but future prices for all sources of energy will keep the economy from growing like it has in the past.

As far as the technology is concerned, there will always be a new technology just around the corner but how much will it cost and how long will it last? The crystalline panels we're using today have about 40 years of track record in the field; it'll take another 40 years before we have a track record for the new technologies coming online today! And thanks to high demand and economy of scale, the cost of solar modules (panels) has dropped in half over the last few years!

In the next 4 or 5 weeks the rebates from PG&E are expected to drop yet again, so let's take a look at the economics of going solar "today". The example is a residential homeowner with an annual electric bill of \$2,650. The table shows the economics of their solar investment over the next 30 years, illustrating how they will save more than they spend from the first year forward based on a 10 year fixed rate loan at an interest rate of 7%. The first column shows their electricity cost savings. Notice how their savings increase every year by 6%. The second and third columns show the loan details, first the loan payment (a cost) and then the mortgage interest deduction (a savings). The last column shows that, after all the costs and savings, they're spending less overall every year from the first year forward.

	Electricity	Loan	Tax Effect	Total
Year	Savings	Payment	Of Loan	Savings
2011	\$2,596	-\$2,614	\$498	\$481
2012	\$2,752	-\$2,614	\$460	\$598
2013	\$2,917	-\$2,614	\$420	\$723
2014	\$3,092	-\$2,614	\$376	\$854
2015	\$3,278	-\$2,614	\$329	\$993
2016	\$3,474	-\$2,614	\$278	\$1,139
2017	\$3,683	-\$2,614	\$224	\$1,293
2018	\$3,904	-\$2,614	\$167	\$1,456
2019	\$4,138	-\$2,614	\$104	\$1,628
2020	\$4,386	-\$2,614	\$38	\$1,810
2021	\$4,649	\$0	\$0	\$4,649
2022	\$4,928	\$0	\$0	\$4,928
2023	\$5,224	\$0	\$0	\$5,224
2024	\$5,537	\$0	\$0	\$5,537
2025	\$5,869	\$0	\$0	\$5,869
2026	\$6,222	\$0	\$0	\$6,222
2027	\$6,595	\$0	\$0	\$6,595
2028	\$6,991	\$0	\$0	\$6,991
2029	\$7,410	\$0	\$0	\$7,410
2030	\$7,855	\$0	\$0	\$7,855
2031	\$8,326	\$0	\$0	\$8,326
2032	\$8,826	\$0	\$0	\$8,826
2033	\$9,355	\$0	\$0	\$9,355
2034	\$9,916	\$0	\$0	\$9,916
2035	\$10,511	\$0	\$0	\$10,511
2036	\$11,142	\$0	\$0	\$11,142
2037	\$11,811	\$0	\$0	\$11,811
2038	\$12,519	\$0	\$0	\$12,519
2039	\$13,270	\$0	\$0	\$13,270
2040	\$14,067	\$0	\$0	\$14,067

The rate of return on this investment is 24.8%, far better than the stock market over the last 30 years which has averaged around 10% or about 7% after taxes.

Of course not everyone has a \$2,650 annual electric bill. Homeowners with larger bills should expect higher savings while those with lower bills should expect lower savings. The interest rate and term of the loan also make a difference but, as a general rule, customers with electric bills averaging \$150/month or more should see total savings exceed costs from the first year forward if they have good solar access and a 15-20 year loan. Commercial customers usually save even more than residential customers because they have additional benefits such as depreciation to help reduce costs.

So if you're one of those folks that have been waiting for the right time to invest in solar let me be the first one to tell you "that time has arrived"!

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