



Can You Really Get Solar Installed For Free?

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George Musserl August 22, 2011

Commentary by Frank Scotti, Solarponics

Bottom line, nothing is free. The only real benefit is you pay no money down, but you'll save 15% or less over buying the system, and potentially saving 90-100% of your energy costs. The solar company takes the government subsidies, deductions and credits, not you. You also do not own the system. At the end of the lease, you can have it removed, or pay the current market value. Think of this as a car lease. You don't get the car for free, do you?

It sounds too good to be true: you can go solar without paying a cent. I first mentioned this proposition, known formally as a power-purchase agreement, two years ago: a company such as SunRun or SolarCity installs panels on your roof at its expense and, in exchange, collects the government subsidies. But I never really grasped how it would work in detail, so I arranged for SunRun to send someone to my brother and sister-in-law's house this past weekend as a kind of test run. The sales pitch was so persuasive that my brother and his wife, who are probably the less impulsive consumers I know (they never buy so much as a computer cable without doing months of research), are seriously thinking of going for it. The first thing a smart shopper wants to know is: what's the catch? In this case, it's simple. Installing panels is so financially advantageous that SunRun can split the benefits with you and still turn a tidy profit. That profit would be all yours if you paid for the array yourself, as I did. The SunRun representative, Kelcy Pegler, Jr., of Roof Diagnostics (a local installer that SunRun contracts with), was very upfront about this: **"Your return will always be better off buying it."** But then you'd need to float the cost and take the risks. The question becomes: **do you want to?**

Pegler started off by walking around the exterior of the house to inspect the roof exposure and tree shading, confirming an earlier analysis he had done using aerial images. SunRun won't even offer you a free array unless your roof faces approximately south and has minimal shading. They run the numbers for your site and see whether they can recoup their costs—it's all very hardheaded. As it happens, my brother and his wife's house qualified. For fun, we asked Pegler what would happen if they wanted to put the panels on the northwest side of the house rather than the southeast. Then SunRun would have politely declined. We went inside, had some lemonade, and Pegler looked over the household electric bills. Government subsidies will only pay for an array that covers a family's annual electric usage—if you want to become a net producer, you'll have to fork out for that yourself. In my brother and sister-in-law's case, it didn't matter: the array size was limited by their roof area, anyway. A system of that size would cost about \$30,000, before subsidies.

When Pegler explained the zero-dollar option, we Mussers looked at one another in surprise. It sounded like a real letdown. In return for letting SunRun install and maintain the array, my brother and sister-in-law would save 10% on their electric bill. Ten percent? That's it? To be more precise, they'd commit to buying all the expected array production at a rate of 16.5 cents per kilowatt-hour, versus the utility rate of about 18.5 cents. As my brother later confessed to me, "It's not really that exciting."

This is the tradeoff of a free system. Basically, you get to have only one zero. You can pay zero, or you can zero out your electric bill, but not both.

But as Pegler continued his pitch, the deal started to sound sweeter. SunRun limits its annual rate increases to 2.9%. By comparison, our utility rate has gone up about 40% since 2005, an average of 6% per year. The way it's going, it'll top 60 cents in 20 years, versus 30 cents for SunRun. So the 10% savings would grow steadily to 50% or even more if the government introduced carbon pricing.

The same logic applies to a self-financed system, but you need to factor in the maintenance costs. When SunRun pays, it has every incentive to watch the panels like a hawk. I talked to SunRun co-founder and president Lynn Jurich about this in April, after I wrote a post about problems with the quality of solar installations. She said SunRun contracts with Burnham Energy, a solar consultancy, to conduct quality-control checks. SunRun also monitors the output of each array for signs of trouble. Inverters tend to conk out after 10 years, and the company budgets for that. Jurich estimated that diligent monitoring can squeeze 30% more energy out of a system over its lifetime. Once, she recalled, the company noticed that all the arrays in one area were producing less power than expected.

Pegler said the SunRun contract runs for 20 years, at the end of which my brother and sister-in-law would have the option of buying the system at its depreciated value. If they sell their house before then, the contract gets transferred to the buyers, unless they for some reason would rather not have cheap electricity, in which case the company would unbolt the panels from the roof and truck them away. SunRun sets up an escrow account to pay for continued maintenance in the case the company ever goes bankrupt.

So it really comes down to personal preference. On balance, I'm happy I bought my system. (Besides, SunRun didn't operate in N.J. at the time I got my array.) But dealing with all the bureaucracy and upfront costs was really a hassle, and I suspect that most people would rather put their time and money elsewhere. I'd love to hear about your experiences. Please comment below or email me directly.