



Is my home worth more with solar energy?

Installing panels can boost your home's property value.

By How Much Does Solar Increase Your Property's Value?

The National Renewable Energy Laboratory offers a useful guide when determining how much your property's value will go up. According to its research, each additional \$1 in energy bill savings (from your solar installation) adds \$20 to your home's total value.

This rule of thumb varies depending on a number of factors, including:

- The location of your home. Installations in active solar markets like New Jersey typically yield higher returns than comparable installations in less developed markets.
- The size of your installation. Property value increases are directly proportional to the number (and quality) of solar PV panels installed.
- The value of your home. Larger houses usually receive higher nominal boosts in property value. However, this increase often represents a smaller percentage of the total home value.

The exact numbers vary from property to property and installation to installation, but recent research shows an average increase in resale value being \$5,911 for each 1 kilowatt (kW) of solar installed. In a state like California, for example, a small 3.1-kilowatt (kW) system can add an average of \$18,324 to the value of a medium-sized home.

The property value advantages of solar energy only increase as you scale up. Installing 5kW of solar panels adds an average of \$29,555 to the retail value of a medium-sized home.

It's important to note that these statistics only apply to today's housing prices and utility rates. As electricity prices go up (as they most certainly will), the advantages of solar energy rise proportionally as well.

In addition, installing solar panels not only helps you fetch a higher asking price, but it can also help your home sell 20% faster as properties without solar installations. For homeowners who want to reduce exposure, paperwork, and wait times, this can be a huge advantage – especially in today's sluggish housing market.

Putting it All Together: Installing solar panels is one of the safest and wisest investments you can make.

You enjoy electricity bill savings over the 25 – 30 years of your solar PV system’s lifetime. As utility rates increase, those electricity bill savings grow increasingly large with time. Even if you never sell your home, your installation fully pays for itself many times over.

If you do decide to sell, you fetch a higher premium, which again, more than covers the upfront cost of installing solar panels.

In other words, with the right-sized installation, solar energy is an investment that potentially pays a 200%+ return – far an excess of most any other financial vehicle you can imagine.

And unlike most investments on the market, you actually begin enjoying those returns on Day 1.

For additional information on the advantages of solar energy, please visit Why Solar Energy?

To learn more about your solar options or to speak with certified installers in your area, request a free, no-obligation solar estimate today.

<http://costofsolar.com/is-my-home-worth-more-with-solar-energy/>



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"We Exist To Build Great Things"



Solar Power Adds A Premium To A Home's Resale Value

By Nora Caley

Residential real estate professionals know that amenities such as a renovated kitchen or a new bathroom can increase the resale value of a home. New research from the Lawrence Berkeley National Laboratory indicates that a rooftop photovoltaic system can also increase the house's price, and researchers were able to quantify how much of a premium solar can command.

In December of last year, the Berkeley Lab released a report noting that although the installation of photovoltaic projects is increasing, appraisers and other real estate industry professionals often assign no value to a home's PV systems. Tools such as the [PV Value](#) spreadsheet from Sandia National Laboratories and Energy Sense Finance are available to mortgage professionals but are not widely used.

The report, "Exploring California PV Home Premiums," posits that "the drivers underlying PV home premiums are not well understood, which may deter some appraisers from assigning value to PV systems."

The researchers examined 1,894 PV homes sold in California from 2000 through 2009 and compared them to 70,425 non-PV homes sold over the same period and in the same neighborhoods as the PV homes. The researchers made sure that other factors did not affect the sales prices. "We controlled for differences in the homes, such as one home might be slightly larger or have granite countertops," says co-author Ben Hoen, a staff research associate for Berkeley Lab. "After controlling for those differences, we could estimate PV and non-PV, and the assumption is the PV system is what's driving that premium."

The study built on a 2011 Berkeley Lab study by the same authors and looked at both the cost approach, based on the cost equivalent of the installed PV system, and the income approach, based on the value of the PV energy produced over the system's lifetime. The researchers measured how much the premiums were affected by the age and size of the PV system. The results: larger systems commanded larger premiums, and older systems garnered smaller premiums. Each 1 kW increase in size equated to a \$5,911 higher premium, but each year a system aged equated to a \$2,411 lower premium.

"We are able to look at the macro level to look at these differences over multiple homes that have

systems of various ages and sizes and see if there is a difference in premium," Hoen says. "Appraisers can go out and look at individual homes and say, 'Okay, how much can I add?' and they can reference our work."

Incorporating the value of PV into an assessment has been a challenge, says Sandra Adomatis, appraiser and owner of Adomatis Appraisal Service in Punta Gorda, Fla.

"The thing lenders like to see the most is paired sales, which is a home that sold that had solar, compared to a similar house that didn't have solar," she says. "When you are in a market that doesn't have a lot of PV home sales, that's difficult to get. Some underwriters will say, 'I will only accept an adjustment if you can show a paired sale.'"

Adomatis, who teaches a PV Value course at the Appraisal Institute, adds that some lenders are adapting to the idea of solar contributing to the price of a home price. "I think they are more open to it in certain markets," she says. "It goes back to the way the appraiser documents it. The appraiser needs to document what's the age, what's the size, what's it producing, what's the warranty term. Those are the factors."

Another factor is the quality of the data. Last year, Lisa K. Desmarais, an appraiser with Peak to Peak Appraising in Broomfield, Colo., wrote a paper entitled, "The Impact of Photovoltaic Systems on Market Value and Marketability," for the Colorado Energy Office. The study looked at 30 single-family homes in the north Denver area and found that in 22 of 30 case studies, PV systems contributed \$1,400 to \$2,600 per kW to the home's market value. Desmarais says the study can help the finance community see solar differently.

"In our industry in general, we have to support every conclusion we make with data," Desmarais says. "Before we had this document, there wasn't a clear way to understand if solar added value or not, so most people were leaning toward not," she says. She is currently working on another paper that will focus more on energy efficiency.

Hoen and the other Berkeley Lab researchers are also working on another project. The next paper will involve data from 150,000 homes in 14 states.

"The appraisal community and the lenders and underwriters need to understand these assets have value and need to be appropriately valued during the transaction process," he says.

