

Homebuyers Value Solar.

Highlights:

- Nationwide study concludes **buyers will pay for solar.**
- PA homebuyers follow the national trends.
- A few tips help you get the **value recognized.**

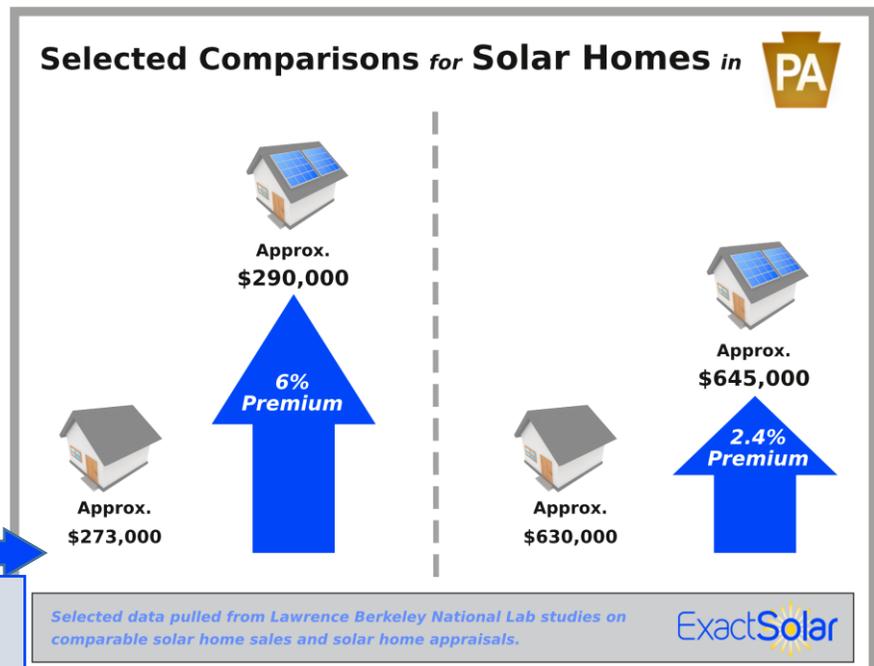
Many rewards of home ownership come from making improvements to the house and to the land. Personalizing a residence and increasing comfort are a high priority. Those choices can also increase the value to future buyers, and that should be recognized by real estate professionals.

By simply driving in a typical neighborhood it is easy to see how subjective each family’s tastes may be. Styles, colors, and other choices on appearance vary. Evidence of proper and timely maintenance stands out. But how much do buyers care? And how might they perceive a solar energy system? A quick review of a very thorough 10+ year study and some final recommendations answer these questions.

The Good News for Pennsylvania Homeowners

Solar energy policy and the public adoption of solar in Pennsylvania have fluctuated in the last 5 years. As shown in [The Results Are in – Solar Energy Was Booming in 2016](#), the market remains healthy despite this. As further evidence, here is a look at nationwide studies by Berkeley Labs (LBNL) which analyzed over a decade of data. It proves this healthy market is also reflected in solar home sales.

Two samples from LBNL studies, one for a mid-priced home and one for a higher priced home. Prices reflect a solar premium over comparable nearby sales.



The LBNL studies followed rigorous and well documented methods. Looking at the data collected, some of the more important details from the protocol are the following:

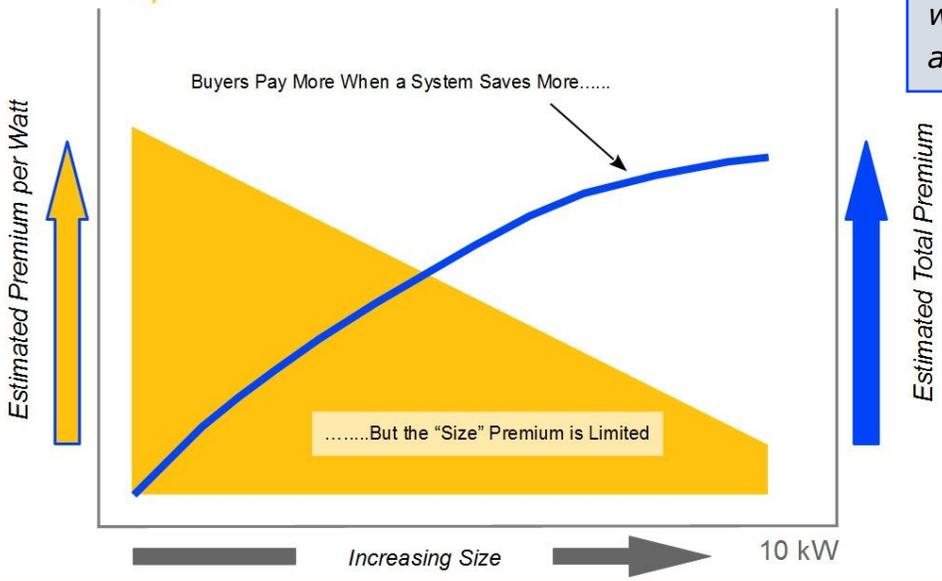
- The examined transactions span the years 2002 – 2013
- Of the 22,822 homes analyzed, 3,951 had a solar energy system
- A standard paired sales analysis was used to establish the solar premium

“Paired sales” is an appraisal technique to find the value of one particular attribute, where from experience two like sales that differ only by the attribute are compared to assign its value. For the Pennsylvania dataset, paired sales were selected from over 20 homes with solar PV. Although by the end of 2016 there are an estimated 34,000+ homes in the state with PV, finding sales data can be a challenge. Many who have invested in the past tend to stay in their homes for a variety of reasons. As popularity increases, this trend is slowly changing.

Drilling Down into Some Interesting Details

California is unique because of the sunny climate and its long history with solar energy. The state made up a lot of the sales data. But one surprise that was significant throughout the country is that buyers seem to be paying for a “green cachet”. More is paid for systems that offset more energy. But the marginal increase in price slows as systems get larger.

Solar PV Premium at Resale
Size Matters Less as System Gets Larger



LBNL study authors think a “green cachet” explains buyers paying more per watt for smaller systems. (Note: This is a simplified graphic from the study.)

This is good news. Buyers value clean energy and will eagerly pay more per watt when it is more affordable to them. As the actual total cost grows, they naturally may negotiate a lower price for the size (per watt). So, to the original solar system buyer, there is assurance any investment will be rewarded, small or large.

The study design looked at other factors that might impact solar home sales premiums. The more interesting of these is the age of the solar PV system. Collected data starting from 2002 is more complete from states with mature markets, like California. For Pennsylvania, the residential solar market is relatively new, so sales data collection began approximately with the year 2010. The analysts suggest that age-related conclusions should apply more uniformly because they are less affected by regional preferences and the level of acceptance of solar power. Those conclusions are summarized here:

Homes that sold soon after a system was installed achieved the highest premium (\$/W).

By year 10 the statistical model predicts the premium may drop by over 50%.

However, this 10th year premium prediction is still on the same order as the savings (or income from net metering). Newer systems tend to be valued in excess of savings or income.

From conversations with real estate professionals involved with the study, there is insight into these results. Buyers and the professionals at the time were not well-informed about warranties and the actual lifecycle performance of a solar energy system. As some of the sales were earlier in the 2000s, there wasn't much history and common knowledge about older systems. Even in the few years since 2013, the end of the sampling period, warranties and performance guarantees and lifetime efficiencies have all improved dramatically.

How to Best Use the Solar Home Value Results

For most home improvements, personal satisfaction is the reward for the decision. After a solar energy system is up and running, every subsequent monthly utility bill is a reminder of money that stays in the bank. Some owners enjoy periodically peeking into the system monitoring information as a reminder of energy not purchased from a utility. But just like a major kitchen remodel or other significant project, many owners want the security in knowing appraisers or future buyers will view a system as positively as they do.

A property value needs to be calculated to determine equity or when preparing to sell a home. Setting the right figure for the solar system becomes as important as the comfort and savings it has delivered up to that point. The burden may fall on the homeowner to make sure the professionals involved have the most current information and assist the owner in finding the appropriately motivated buyers, if it will go on the market.

The study results show that even without a long history and a lot of previous data, thousands of homes were sold from 2002 to 2013 where a fair premium was given for the rooftop solar system. Here is some information and a few tips to help Pennsylvania homeowners who are considering going solar or want to maximize the impact on property value:

Ask professionals to check with related associations, if they haven't already. For example, the Appraisal Institute offers courses and a knowledgebase for solar, energy efficiency, and other green improvements.

Present the appropriate ownership details. A system without loans is valued the highest. Unsecured loans are the responsibility of the current owner and do not burden the potential buyer, usually. Secured loans are still acceptable but the terms must be clear.

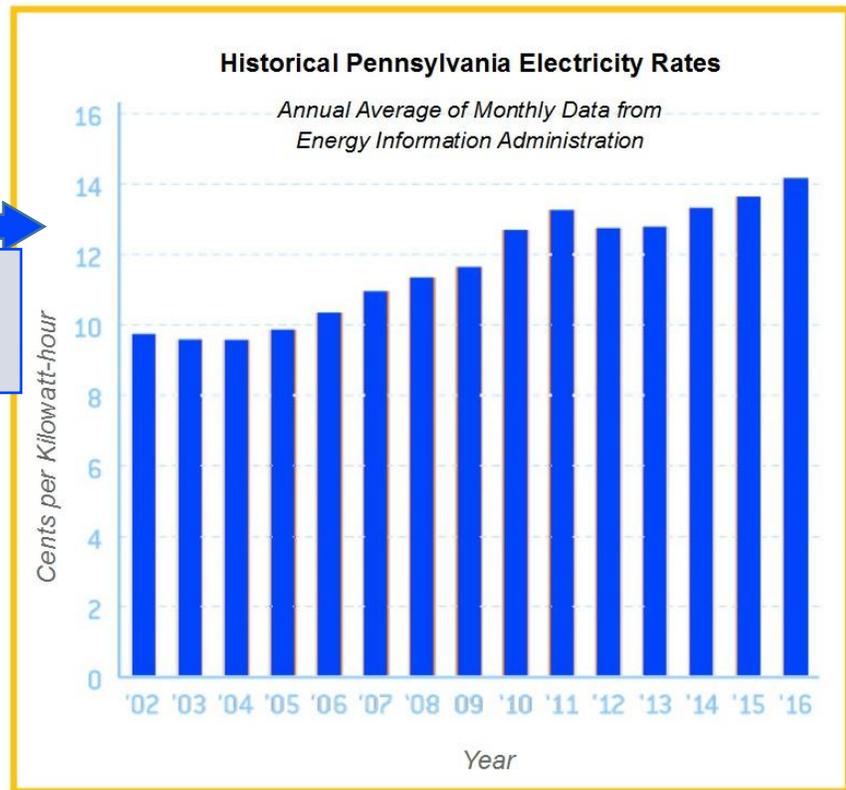
Present your power bills. Prove your savings.

Point out costs. Historical electricity costs are convincing.

The U.S Energy Information Administration (EIA) makes public the cost of electricity for each state.

Include your installer. A reputable company will help explain and address any future performance concerns.

Be responsible. Everyone likes to see an attentive owner who monitors and maintains their home.



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