

Study: Host-Owned Rooftop Solar Improves a Home's Resale Value



Science! At least solar doesn't destroy home value. And now homeowners, realtors and appraisers are on the same page.

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According to [a recent study led by Lawrence Berkeley National Laboratory](#), home buyers are willing to pay more for homes with host-owned rooftop solar systems.

As common-sense as these findings might seem to solar insiders, the figures provide a benchmark and some confidence for realtors and appraisers. That's the true audience for these calculations. As the number of solar homes grows, the question of the real value of a used solar system is going to come up more and more.

More than half a million U.S. homes had PV installed in the U.S. by the end of 2014. "As PV systems become more and more common on U.S. homes, it will be increasingly important to value them accurately, using a variety of methods," says co-author Sandra Adomatis, an appraiser who helped develop the [Appraisal Institute's Green Addendum](#).

She noted, "Our findings should provide greater confidence that PV adds a quantifiable premium to a wide variety of homes in California and beyond."

"Previous studies on PV home premiums have been limited in size and scope," says Ben Hoen, the lead author of the report. "We more than doubled the number of PV home sales analyzed, examined a number of states outside of California, and captured the market during the recent housing boom, bust and recovery."

The expanded study found that the "PV premium" adds about \$4 per watt, or roughly \$15,000 to the value of a home, based on an average-sized 3.6-kilowatt system. The premium holds across various states, housing and PV markets, and home types. The survey is based on data from the sale of 22,822 homes in total, 3,951 of which had PV in eight states from 2002-2013.

There is also "an apparent sharp depreciation rate for the PV premium in home sales transactions as those PV systems age." The study also found only a small, statistically insignificant difference between PV premiums for new and existing homes.

Note that the data looks at PV systems that are owned by the homeowner and does not take into account the more common practice of third-party ownership via companies such as SolarCity and Sunrun. [SolarCity's CEO Lyndon Rive](#) recently suggested that loans and system ownership will account for a larger portion of the company's business going forward.

Mortgage broker Fannie Mae, in its updated standards for loans it will repurchase, cites homes with solar panels and the need to "adjust" the appraised value of the home if the market demands, according to the study.

The study also finds that "market premiums are statistically similar to those estimated using the income and cost approaches, methods familiar to appraisers. This similarity to standard appraisal practices further bolsters the report's usefulness to real estate professionals and markets."

The research for this study was "multi-institutional" and led by the U.S. DOE's Lawrence Berkley Laboratory in partnership with Sandia National Laboratories, universities, and appraisers. It was supported by funding from the [U.S. DOE SunShot Initiative](#).

A forthcoming study looking at the impact of third-party ownership and leased solar systems on home resale prices will reveal even more about the solar sentiments of homebuyers.

TAGS: appraisers, doe, home resale value, lbnl, realtors, sunshot