

Solar Buyer's Markets: Unlocking Lower Photovoltaic and Battery Prices on Online Quote Platforms

Study shows that solar PV customers can obtain lower prices by obtaining quotes through online platforms.

Summary

Previous NREL research shows that solar photovoltaic (PV) customers tend to obtain lower installation quote prices on online quote platforms. In new research reported in *Solar Buyer's Markets: Unlocking Lower Photovoltaic and Battery Prices on Online Quote Platforms*, we corroborate those results using data from the Pick My Solar quote platform. Furthermore, for the first time, we evaluate quote prices for batteries on online quote platforms. Given that few customers currently use quote platforms, we discuss various pathways to increase use of online quote platforms, including developing strategic partnerships, building customer trust, increasing market transparency, and providing quality guarantees.

Context

More than 95% of residential PV customers adopt PV by obtaining installation quotes directly from installers. But, obtaining quotes can be costly: customers must invest time and effort to contact installers, host site visits, and complete other tasks before obtaining a single quote. Increasingly, customers are avoiding such "search" costs by using online quote platforms. On an online quote platform, customers provide basic information about their home and system preferences to a quote aggregator. The quote aggregator then conveys this information to a network of installers, who in turn submit installation quotes on an online quote platform (Figure 1). Online quote platforms allow PV customers to obtain more quotes at a lower cost than is possible when obtaining quotes directly from installers. Further, by increasing inter-installer competition for customers, quote platforms could drive down PV prices.

Data and Methods

We use data provided by the online quote platform Pick My Solar. We compare quote prices on the quote platform to market-wide PV prices using price data from the Lawrence Berkeley National Laboratory's Tracking the Sun data set. We use a regression to control for potentially confounding factors such as system size, hardware, and market characteristics.

Results and Conclusions

PV prices are about \$0.41/W lower on the Pick My Solar platform than market wide prices, on average (Figure 2). After controlling for system and market factors, the average PV price difference is about \$0.31/W. Further, about 93% of quote prices for batteries on the Pick My Solar platform are lower than market wide average prices.¹ These results, together with similar results based on data from a different quote

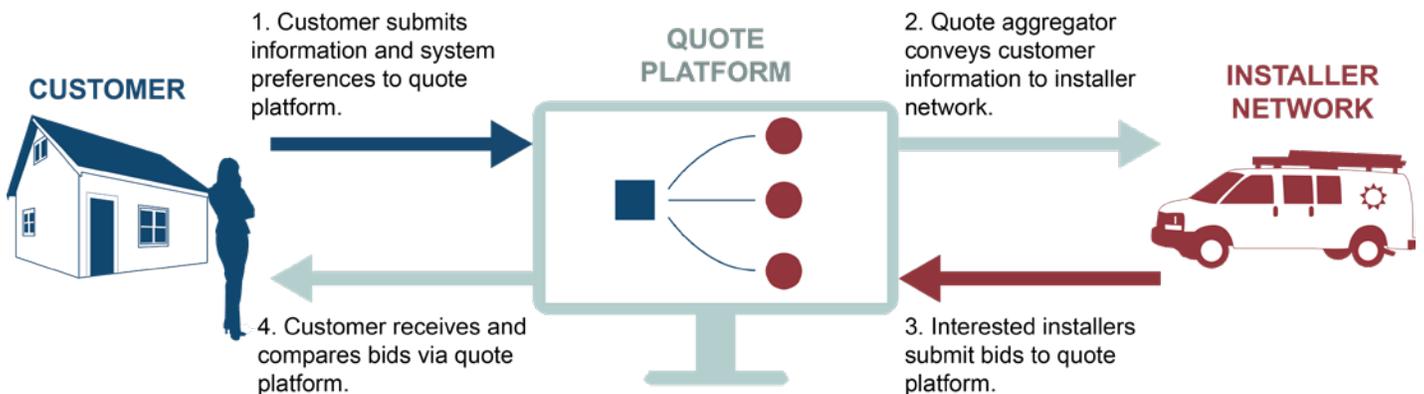


Figure 1. Quote platforms

1. Based on a comparison with the low-end estimate from: GTM. 2017. *U.S. Energy Storage Monitor: Q4 2017*. GTM Research.

platform, indicate that customers can obtain lower prices for PV and battery systems on online quote platforms. Less than 5% of PV adopters currently use online quote platforms, which suggests that most customers forego the potential cost savings from quote platforms. The full, new report explores several potential pathways to increase use of online quote platforms. Increased use of quote platforms could reduce PV prices, both because average prices would shift toward the lower prices on quote platforms and because increased quote

platform activity could increase inter-installer competition in the PV market as a whole.

For questions, contact Eric O'Shaughnessy at eric.oshaughnessy@nrel.gov.

More Information

For more information, download the full, new technical report: O'Shaughnessy, Eric, and Robert Margolis. 2018. *Solar Buyer's Markets: Unlocking Lower Photovoltaic and Battery Prices on Online Quote Platforms*. NREL/TP-6A20-72172. <https://www.nrel.gov/docs/fy19osti/72172.pdf>.

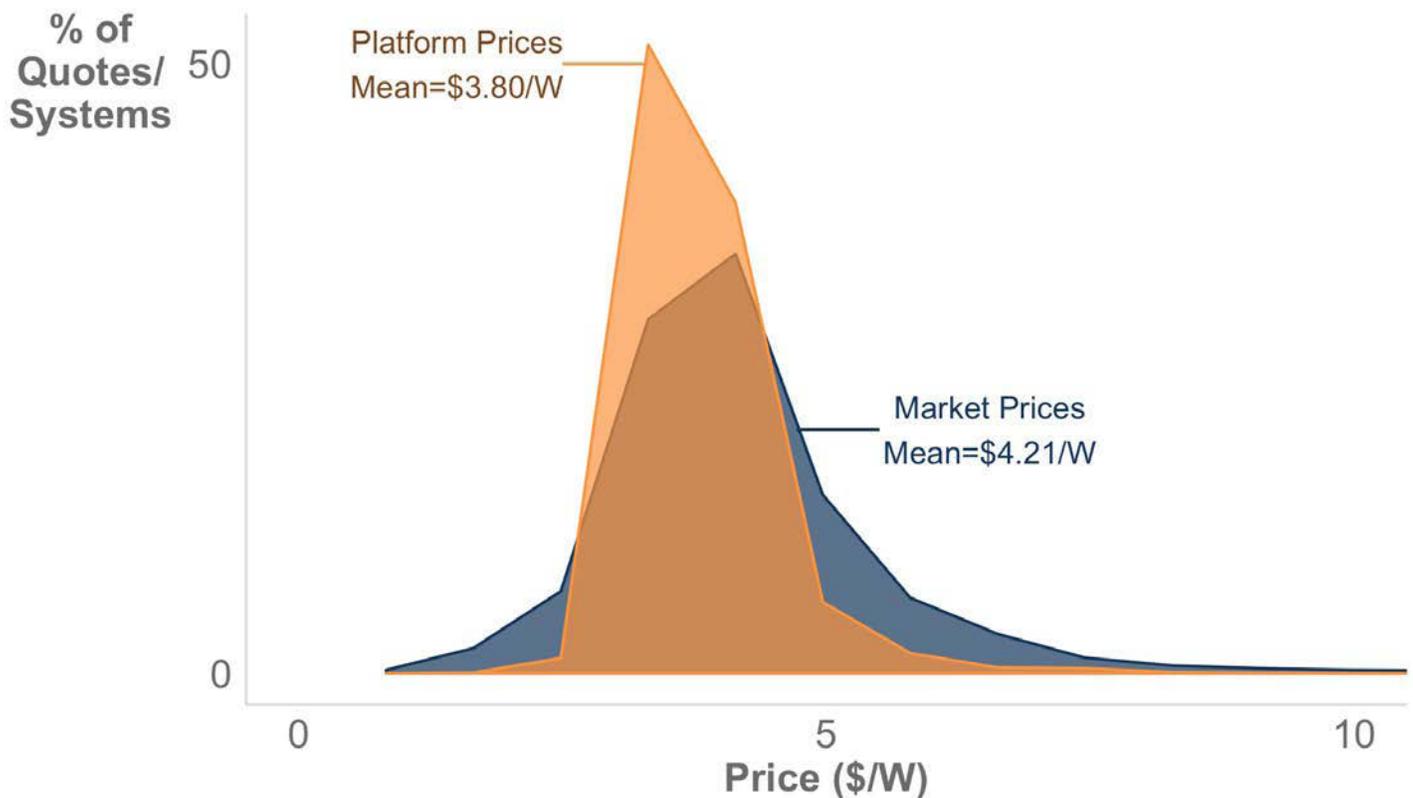


Figure 2. Distributions of platform prices and market wide prices



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