

## WHITE PAPER

**Trusted Solar Savings****How Consumers and Solar Companies Benefit from Transparent Monthly Solar Savings Reports****Solar Savings:  
Why is this So Hard?**

With so many solar homes, it's odd that savings results are not readily available. Here's why.

Get the utility bill. It all starts with accurate data. The consumer frame of reference is past bills. Accurate savings results depend on utility bill data. WattzOn's software tools make it easy for consumers to authorize utility data access.

The math is complex. Can you explain NEM accounting? It's hard! Solar savings calculations are not something consumers can do for themselves.

Software solutions require dedicated software teams. Solar savings are not a DIY project for solar companies either. Solar savings is an expensive project to take on.

**Where are My Solar Savings?**

**More than 2 million homeowners want the answer to this question.**

Surveys consistently show that "Save Money" is the primary buying reason for rooftop and community solar. Yet, after the sale, most customers don't know how to validate savings. Solar customers need help.

And solar companies gain too. There's benefit in offering solar savings results. We've identified five immediate wins that reduce customer acquisition costs and increase operational efficiency.

Let's add a product feature to solar systems: Trusted and accurate savings reports make it easier to buy solar and to be a satisfied customer.

WattzOn can help you deliver a seamless customer experience: easy and speedy access to utility data, and immediate solar savings results.

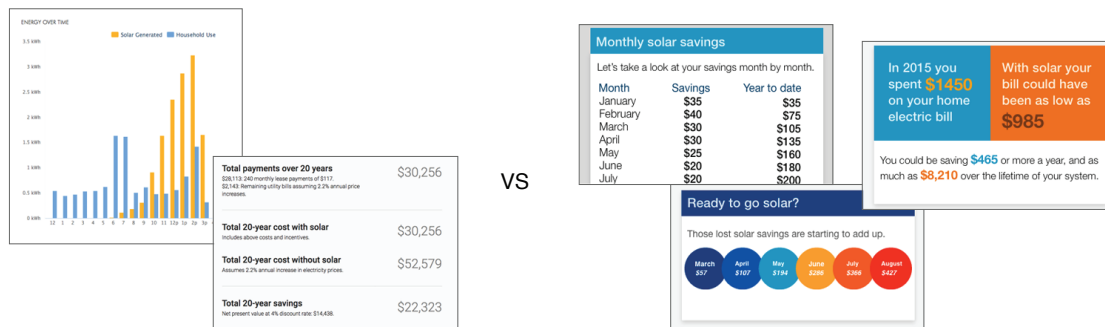
## 5 Ways Consumers And Solar Companies Gain From Trusted Solar Savings

### 1. Solar customers are buying savings. Show them the product.

Consumers want savings, and for them it means savings off their utility bill. Yet during the sales process and after install, solar prospects and customers have a hard time getting this information.

Below to the left are screenshots from SunPower and Google's Project Sunroof, showing the post-sale system performance and the pre-sale financials, respectively. The displays are clear, but not effective. In fact, there is a large body of literature in behavioral finance that shows that that mental fluency with numbers slows down when numbers are large, and that people anchor on recent experience when trying to understand numbers.<sup>1</sup>

Trusted Solar Savings is the missing product feature. The prospect is shown the savings that can be expected. Once installed, the customer is shown that the savings promised are the savings realized. It's a lot of work, but educates the consumer and the market: Solar really can deliver the savings.



### 2. Get More Referrals

Customer referrals are always the best lead. And these are the lifeblood of solar sales, with most companies finding that one-third of their sales come from referrals. The Solar City ad to the right turns this into a marketing message.

In a recent pilot study, WattzOn found that showing solar customers their Trusted Savings led to more referrals. Why? Participants said they were not sure about their savings, and waited to refer friends and family until they had confirmation.

Solar savings results, in \$, are shareable. Need we say more?



<sup>1</sup> There is a large literature on this subject. See, for example, "The Number Sense" by Stanislaus Dehaene, (Oxford University Press), 1997.

### 3. It Takes Nine Months

Solar is a big purchase, and studies show that a typical household takes nine months from first consideration to adoption<sup>2</sup>. Yet most solar companies pursue leads for less than three months.

Keep the prospect engaged throughout their decision process. Use Trusted Savings to reinforce the benefit lost with waiting.

A recent NREL study identified lack of “trialability” (e.g. the ability to try before you buy) as a big obstacle to solar sales.<sup>3</sup> The “See What You are Missing” marketing message helps to close this gap.

### “See What You’re Missing” Sample Marketing Message



**ANYTOWN USA**

Let's get started! Choose the best way to provide your utility information, this will help us design the right system for your home.

- Do you have a paper electric bill handy?  
**TAKE A PHOTO >**
- Do you have an online account for your utility?  
**LINK YOUR DATA >**
- Is it easier to send a PDF file of your electric bill?  
**UPLOAD PDF >**

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**Link your utility account**  
Pacific Gas & Electric Co

Username

Password

Forgot your Pacific Gas & Electric Co username or password? Don't have an online account? [Please visit the Pacific Gas & Electric Co website](#)

[Info on our privacy policy](#)

### 3in1

Easy access to utility data is key to Trusted Solar Savings. Let your customer choose how to provide their data with WattzOn's 3in1 software tool, always under your brand.

<sup>2</sup> See “Seven Common Mistakes Solar Installers Make”, [http://www.nrel.gov/extranet/seeds/solar\\_mistakes.html](http://www.nrel.gov/extranet/seeds/solar_mistakes.html), and sources therein

<sup>3</sup> Ibid



#### 4. Don't sell to the lemons.

Sales teams always want to close more deals. We love that. But they can also spend too much time on deals that don't make sense. Utility data can help.

In a recent project, WattzOn found that about 35% of homes were cashflow negative on their solar systems one year after install. Why? These homes should have never been sold solar: their electric rates were too low or their usage was too low. Nothing had changed, they were just the wrong homes to sell to.

Capture utility bill data early in the sales process, and read the data quickly. Use it to stop selling to lemons.

#### 5. Energy "selfies" improve solar sales.

People love to see themselves, whether by photo or in data. Show your customers an energy selfie – an insight from their own utility data – to get them engaged. Selfies are fun, but there is also a hard, quantified benefit to this action.

In a recent pilot study, a regional solar company found that engaging solar prospects with utility data led to twice as many home consultations, and a sharp increase in sales. Prospects were invited to provide utility data via WattzOn's Snapshot product. The sales increase came from prospects who did so. Just one change led to nearly 40% drop in sales and marketing expense.

Typical Sales Funnel



Improved Sales Funnel



#### ABOUT US

WattzOn provides utility bill data for digital energy solutions in the consumer and commercial sectors. With national coverage, speedy and secure data acquisition, and an advanced machine learning system to extract line-item data from utility bills, WattzOn has the industry's leading technology platform. Our customers include market leaders in solar, smart home, storage and commercial billing markets.

Estimated utility bill data is often an input into solar savings calculation. Few realize, however, the number of errors introduced by this practice. The solar industry has spent considerable time and effort to improve solar system sizing from satellite photographs. The same focus should be brought to usage data. Accurate and trusted solar savings calculations require the use of actual utility bill histories to correctly calculate avoided utility cost.

The following errors accumulate in the solar savings calculations, and significantly weaken the results.

- 1. Estimating past usage is an unreasonable request.** Typical solar calculators rely on the user to provide an estimate of a recent utility bill. A simple request, but hard for the user to do well. Which month will come to mind? There is significant variation in monthly electric bills. Is the user averaging the year? What if gas or water is also on the bill? The quality of this input can be quite weak.
- 2. The size of the house does not predict electricity use.** Energy use varies significantly amongst houses of similar size and construction. Consider military housing, which has a limited number of floor plans, making it a perfect test case. WattzOn found that electricity use within the three-bedroom home group was spread out over a wide range, with top energy using homes using 300% more than the lowest using homes.<sup>1</sup> In contrast, there is only a 5% increase in average electricity use from an additional bedroom. The results show that electricity use is not driven by the size of the home, but how people behave.
- 3. There are two prices for kWh produced.** In most utility areas solar production has one price for on-site consumption and a second price for excess production that is fed to the grid. Each kWh produced is allocated one of the two prices, and the allocation depends on the level of net consumption. Only actual utility bills can provide the required detail – estimated data is of no use – and solar savings results are highly dependent on this production allocation.
- 4. Solar shoulder seasons really matter.** Solar production varies by season and month. For example, solar production can fall by 25% in November, and rise by 25% in March. When swings are so large, inaccurate monthly usage data will lead to wildly incorrect allocations between on-site use and excess production. Accurate solar savings relies on getting the calculations correct every month.
- 5. Utility bills don't start on the 1st of the month.** Because solar savings are tied to data on the utility bill, solar production data must be re-organized to the utility billing cycle. Without this correction, approximation errors in monthly solar production are introduced, often +/- 15% in size. These errors don't cancel out over the year, and significantly impact monthly and annual solar savings results. Only the utility bill itself reveals the billing cycle.

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<sup>1</sup> Results from DOE grant report, "Consumer Insights from Smart Meter Data", submitted by Balfour Beatty and WattzOn, FOA-0000612