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# Consumer Perceptions of the Solar Industry (2020)



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The average consumer does not know enough about renewable energy options, especially when it comes to solar. Due to a lack of consumer education on the subject of solar energy, deep rooted misconceptions, and considering that educational efforts tend to focus on business adoption, the solar industry has failed to connect with millions of customers who would benefit from having access to affordable renewable energy.

Due in part to this lack of understanding, less than 2% of the [total energy supply in the U.S.](#) comes from the sun. Sunlight is an unlimited, clean resource, and as our ability to harness that energy grows, so should our dependence on solar energy as a long-term, sustainable solution.

Unfortunately, most consumers think rooftop solar is their only option. While useful in certain circumstances, rooftop solar panels are only realistic for people with good credit scores and at least \$10,000 to invest. Further, adopters of panels must own homes with good lighting, new or semi-new roofs, and plenty of space in states with policies that require utility companies to reimburse panel owners for the extra energy they produce (and not all states do). As a result, [upwards of 77% of Americans](#) are completely locked out of the rooftop solar industry.





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With so much at stake, we wanted to learn more about consumer beliefs and understanding in the U.S. regarding solar energy. What are their experiences like interacting with the industry? Are they familiar with “community solar” or “shared solar” options? How can we identify new opportunities to educate consumers about their options?

The findings of our survey clearly indicate that consumers want solar options (primarily for the financial benefits), but that most consumers have major gaps in their solar education.

Few people understand their opportunities to receive solar energy without installing their own panels, and even those who do know their options are inexperienced in the space, or have reservations about the companies doing the work.

With this research, we hope to help close that educational gap and start to bring more consumers closer to the solar solutions they want.





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# Methodology

This survey was conducted on November 23, 2020 and includes responses from 600 American homeowners. Survey respondents all had energy bills of more than \$300 per month and did not have solar panels installed on their homes.





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# Key Findings

Our survey revealed several interesting truths about consumer perceptions of solar energy and their ability to access that energy:





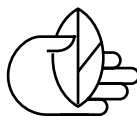
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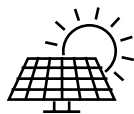
**Financial incentives are the primary driver of solar adoption.** Of our respondents, 65% who considered solar energy did so to save money.



**Decreasing upfront costs would substantially improve adoption rates.** Installing new panels is expensive, and for those in our survey considering solar, 27% said the upfront cost would need to decrease before they got involved. Yet other solar options such as shared or community solar do not have any upfront costs, surfacing an education gap in our respondents.



**Some people are slow to trust companies offering solar.** The solar industry has some ground to make up regarding community trust. In our survey, 13% said they did not believe companies were honest and upfront about pricing, while 21% were not sure.



**Lack of budget is the most common factor for not getting solar.** Of people who considered getting solar panels but did not speak to a company about doing so, 35% said they did not have the budget to get started. For those who did speak with companies, that number fell by half to 18%, demonstrating that consumers are either misinformed or making assumptions.



**Consumers generally trust the solar industry.** While opinions are mixed on specific companies, 95% of respondents say the solar industry is trustworthy, which is an incredibly positive response. Only 5% called the industry not very trustworthy.



**Consumers recognize solar leads to savings.** Our study found 78% of respondents believe solar can reduce their energy bills, though many are hesitant to make the investment into expensive panels and most don't know they have options beyond panels.



**Consumers do not know about community and shared solar programs.** Only 20% of respondents believe they can get solar energy without installing panels on their own homes, which means the majority of our respondents were not aware of community or shared options. Fortunately, 88% said they would consider solar energy if they could get solar without installing panels, indicating there's a demand for more solar energy through community programs.





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Overall, opinions regarding solar are firmly positive, but would-be participants in the solar economy are held back by assumptions and misunderstandings. To get more consumers engaged with solar, solar industry companies and initiatives must first ensure their prospects are better informed.





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## **Part 1: The Profile of the Potential Solar Customer**

Not everyone qualifies as a potential solar customer. To ensure we only measured sentiments among the correct audience, we limited survey participation to people who met certain criteria.

Respondents had to be over the age of 18, have energy bills of \$300 per month or more, and not have solar panels installed on their homes. Within that group, we discovered some interesting truths.



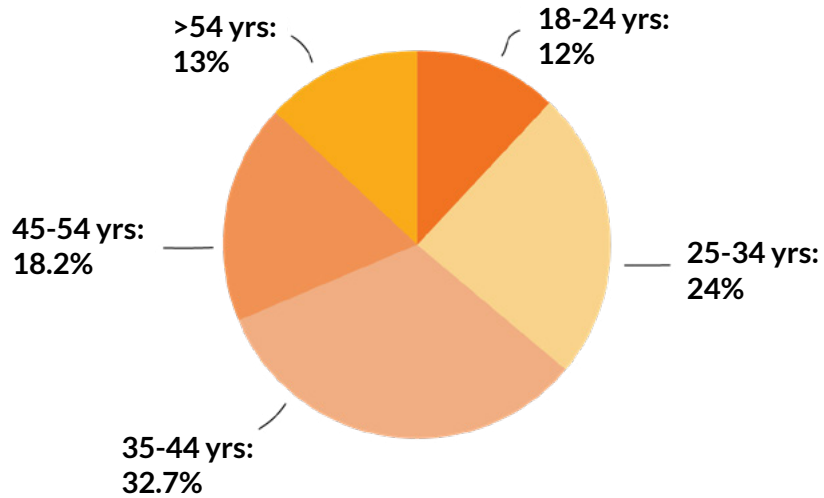




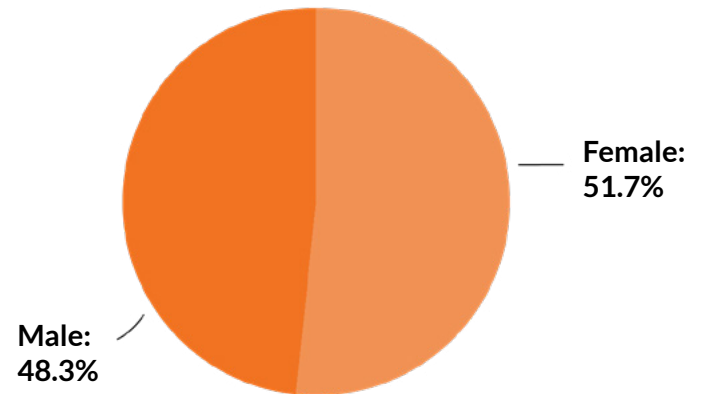
# Survey respondents structure

All of the 600 respondents were American homeowners.

### Respondents by age



### Respondents by gender



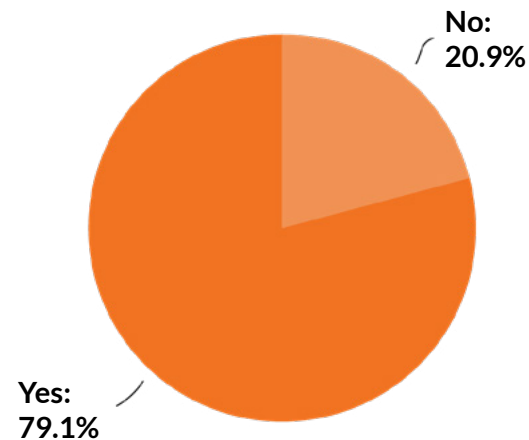


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## 1. Most respondents had considered getting solar panels installed in the past.

Most respondents (79.1%) had considered installing solar panels, suggesting a massive interest in the benefits of solar. But as other parts of our survey discovered, many consumers believe the only way to access solar energy is to install panels.

Have you ever considered getting solar panels installed on your home?



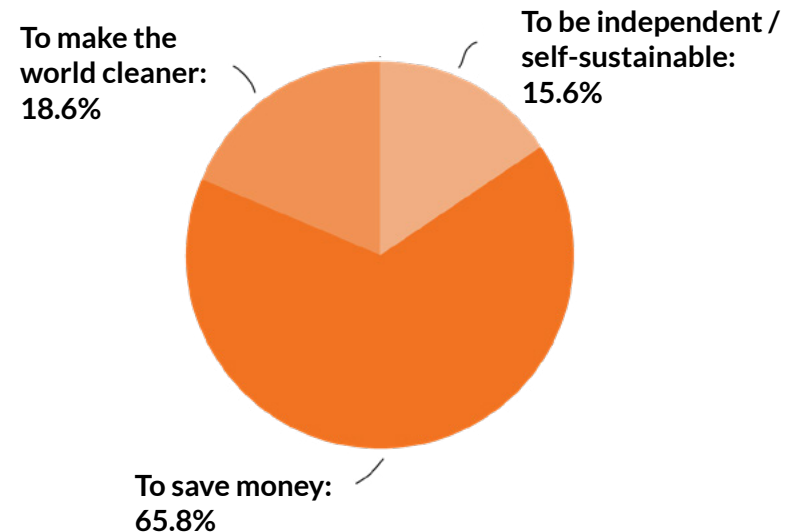


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## 2. Among those who had considered solar, most primarily wanted to save money.

Renewable energy is cheaper energy in the eyes of consumers. Of respondents who answered in the affirmative to the first question, 65.8% said saving money was their primary goal. The remaining respondents cited more environmentally conscious concerns: 18.6% said that they were interested in making the world cleaner, and 15.6% were interested in solar to allow themselves to be more independent and self-sustainable.

What was your #1 reason for considering installing solar panels on your home?



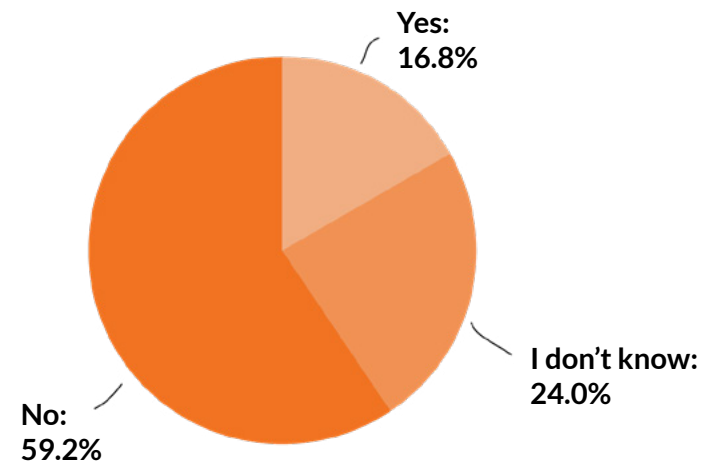


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### 3. Those who said they would not consider installing solar panels did not know the reason for their opposition.

We asked those who said they had not considered solar panels if they ever would consider it. 59.2% still said no — in other words, they hadn't considered it, and still wouldn't in the future. Others would consider it, and about a quarter was uncertain.

Would you ever consider getting solar panels installed on your home?

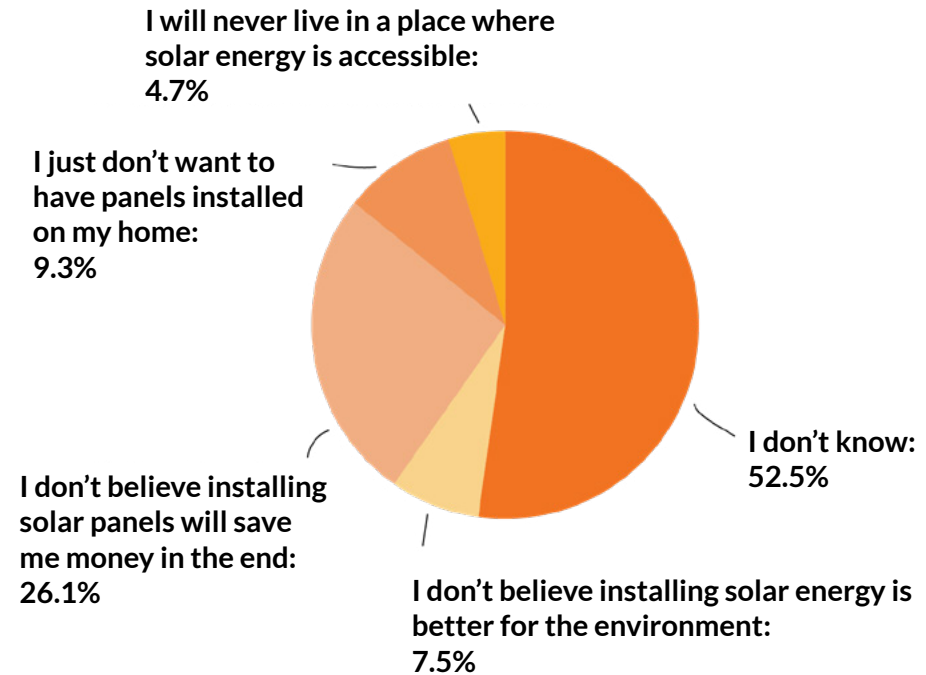




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For those who did have a reason, 26.1% believed that they wouldn't save money, and 7.5% didn't believe it was better for the environment – responses that are grounded in how much one knows (or doesn't) about the solar industry and consumer options. Again, these responses point to how much more education is needed to inform customers of the monetary and environmental benefits of solar.

### Why not?





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## 4. Among those considering solar, most want lower upfront costs, more education, and trusted partners.

We asked those who were interested in solar what would need to change, or what barriers would need to come down, before they bought in. The majority said they wanted to see lower upfront costs (27.5%), which is understandable considering most respondents said they wanted to move to solar to save money. 19.6% believed they needed to move to a different home before they could participate.

Respondents also indicated a desire for more education around solar benefits (21.6%) and a trustworthy company to guide them through the process (15.7%). Only 11.8% believed they needed to move to a different home before they could participate. A staggering 19.6% responded “I don’t know,” meaning they didn’t have enough information around what would convert them.

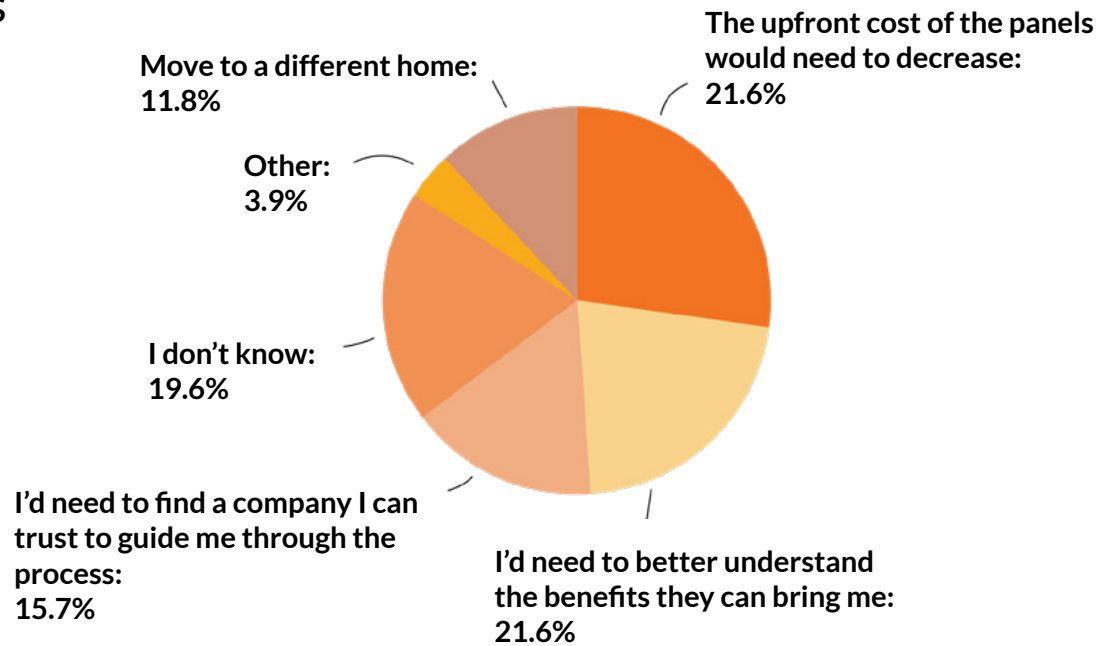




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These figures again show how more education, awareness of more options, and access to those options could lead to wider adoption rates for solar overall.

### What would need to change for you to consider getting solar panels?





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## **Part 2: Experiences Interacting with Solar Industry Businesses**

We found that not everyone who considers solar takes the next step to speak to a company about their options, either choosing to do the research themselves or not pursuing the issue at all. Overall, consumers have had mixed experiences in their dealings with companies in the solar industry.





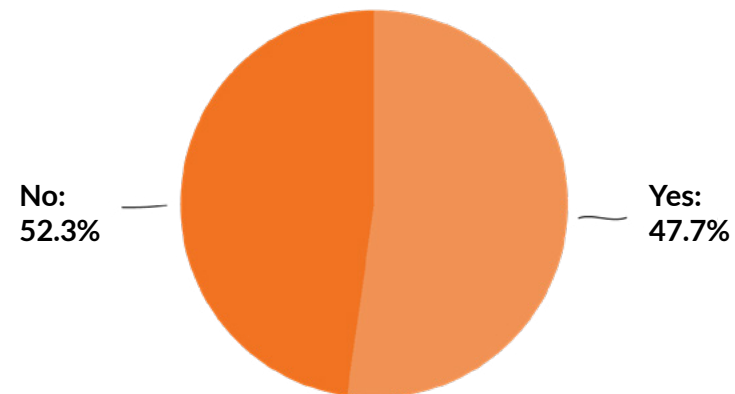


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# 1. Less than half of people who had considered solar said they spoke to a company or got a quote.

Over half of respondents (52.3%) interested in solar didn't take any next steps towards learning more about the process or the benefits (unless they did their own research online). The other half (47.7%) did take the next step to reach out to a company for more information.

Did you speak with any solar companies to get quotes and to learn more about the process?





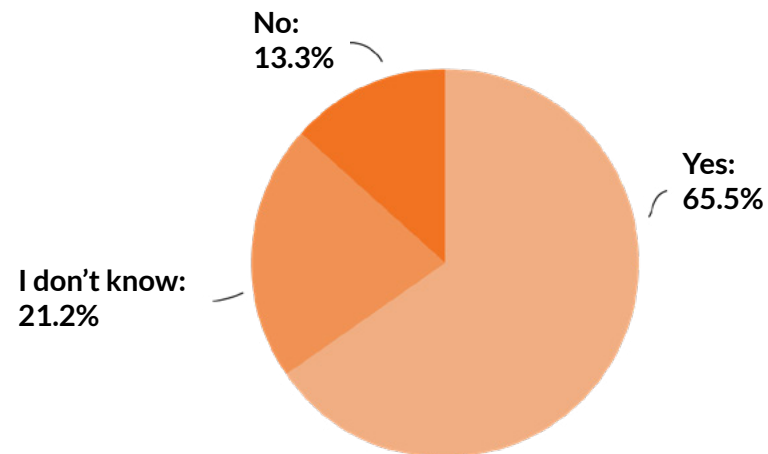
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## 2. Among those who spoke to companies, most trusted the information they received, but a sizable minority held reservations.

When dealing with a decision as large as a move to a new energy source, consumers want to know they can trust their partners. Most people we surveyed who spoke to companies believed the companies were being honest and transparent about their costs (65.5%). Unfortunately, 13.3% of respondents felt that the company they spoke to was not being honest or transparent with them.

What's interesting to note is that 21.2% didn't know if the company was being honest. This means that they didn't know enough about the industry, the benefits of solar, or how solar works to be able to know if they were being misled or dealt with fairly. This again points back to the need for more education around the space.

Do you believe the companies were being honest and transparent about all the costs related to installing solar panels?





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### **3. People who spoke with companies were far less likely to name upfront costs as their reason for not proceeding (18%) as people who did not speak to companies (35%).**

For those who went through the effort to reach out to a company, and in the end decided not to go with solar, we wanted to know why. Fortunately, the majority (43.8%) responded that they were still deciding, and would probably go forward at some point in the future. Others cited that they wouldn't go forward due to time, cost, or they just weren't convinced of the benefits.

What we found was that those who spoke with a company were far less likely to name upfront costs as their barrier as those who did not speak to a company. Part of this statistic could be explained by self-selection: People who speak with companies are more likely to have the budget for new purchases than people who do not. However, the large gap could indicate that people who speak to companies are more likely to learn about alternative entries to solar that do not require high upfront costs.

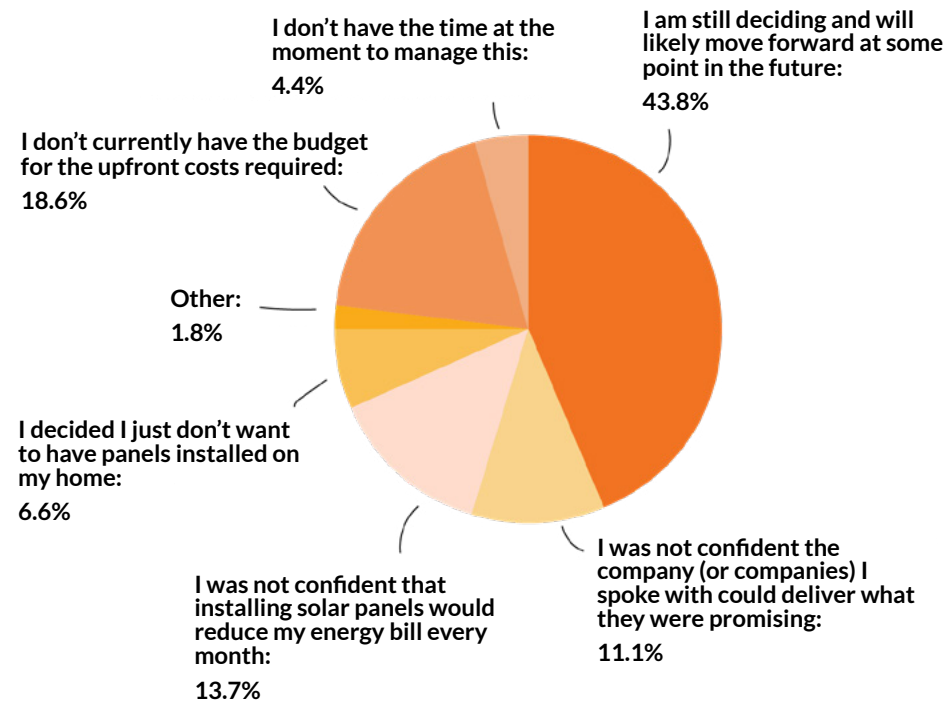




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Tying back to the previous questions about trust, a significant group (11.1%) replied that they did not trust the company or companies to hold up their end of the deal.

### Why did you decide to not get solar panels installed in the end?



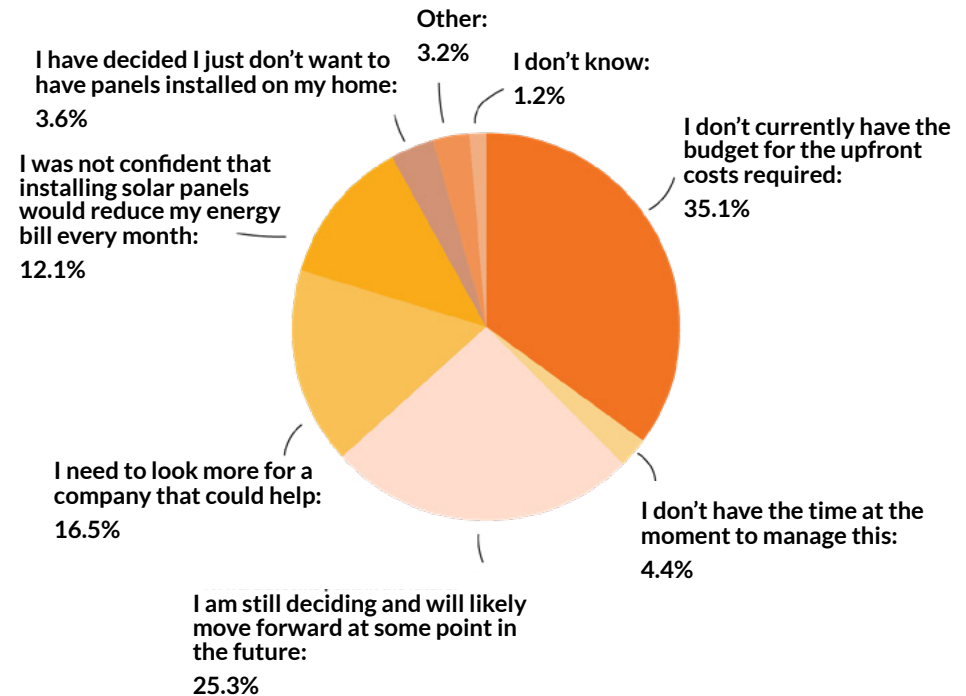


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For those who did not speak to companies about solar options, budget was the highest barrier to entry, with 35.1% citing concern about upfront costs (as opposed to just 18.6% above). Far less respondents who did not speak with a company replied that they were still considering solar and would likely move forward (25.8% here as opposed to 43.8% above).

What this shows is that simply speaking with a company about solar options led to greater understanding around upfront costs, and more people being willing to make the change in the future.

### Why did you decide to not get solar panels installed in the end?





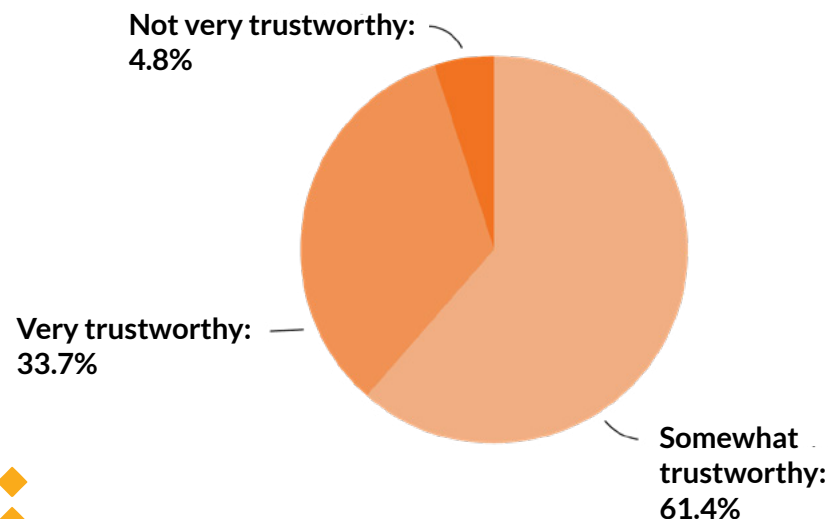
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## Part 3: Perceptions of the Solar Industry at Large

Overall, most people trust the solar industry: 95.1% said they found the industry trustworthy. Of that total, 33.7% found it “very trustworthy,” while 61.4% found it “somewhat trustworthy” – meaning there’s more work that can be done to raise trust and confidence.

Yet despite trusting the industry, most don’t fully trust solar companies. Connotations of environmental benefits and green energy give solar companies a small boost, but people still want to know the companies with which they work are worthy of their trust. This is especially true in long-term relationships, like those in the solar industry.

In terms of trustworthiness, how would you rate your perceptions of the solar industry?

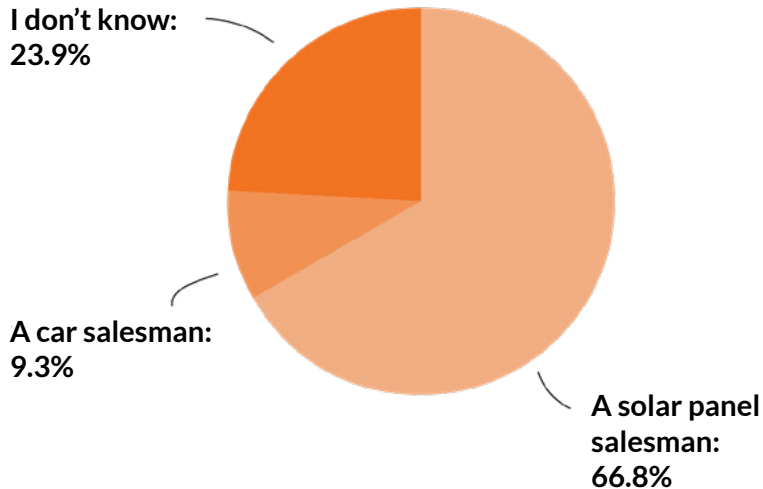




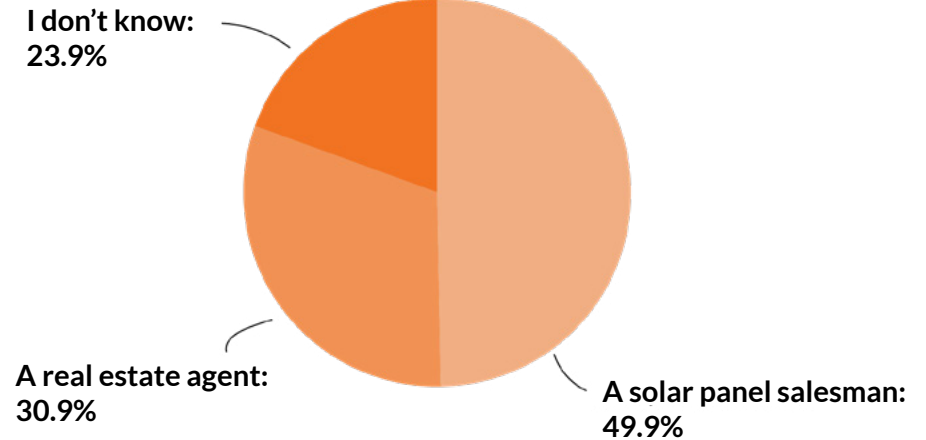
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Next, we asked our respondents to rate the trustworthiness of solar salespeople against the salespeople of other industries. Our survey showed that compared to salespeople in other industries, salespeople in solar enjoy a much higher rate of trust. Could this be because people appreciate the social mission of renewable energy and the people furthering that mission? Or is it more because people are more educated about the pitfalls of buying in other industries and so they are more likely to mistrust salespeople in those areas?

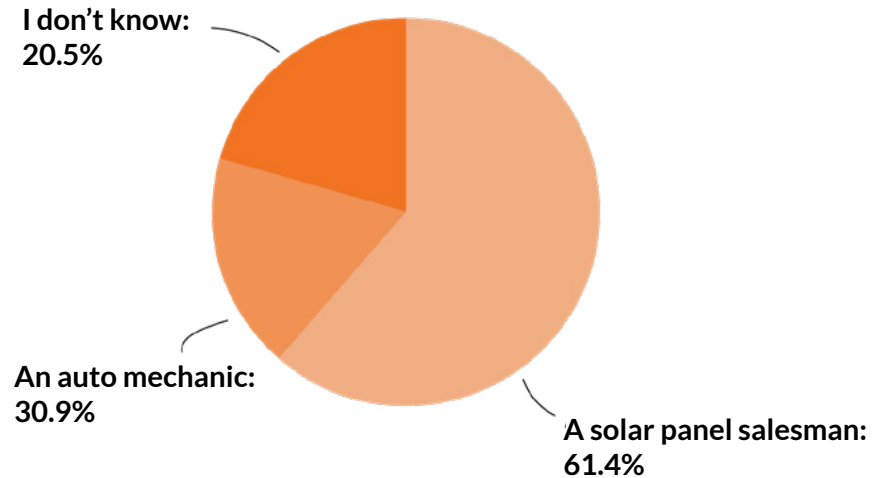
### Who would you trust more to give you accurate and honest information about what you are buying?



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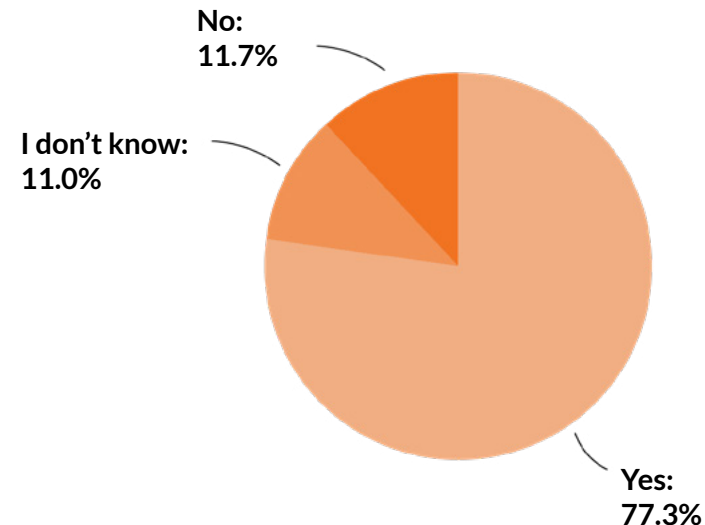


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## Part 4: Impressions of Renewables and Solar Energy

Unsurprisingly, most people considering solar want to change energy sources because they want to save money. Everyone in this survey spends more than \$300 per month on energy bills, which is above the average of around \$200 spent per month between electricity and natural gas, [per Move.org](https://www.move.org). With that financial focus in mind, we asked consumers whether they believed solar energy and renewable energy could lower their bills. 77.3% believed that yes, solar panels specifically could reduce their monthly energy bill.

In general, do you believe solar panels can reduce your monthly energy bill?



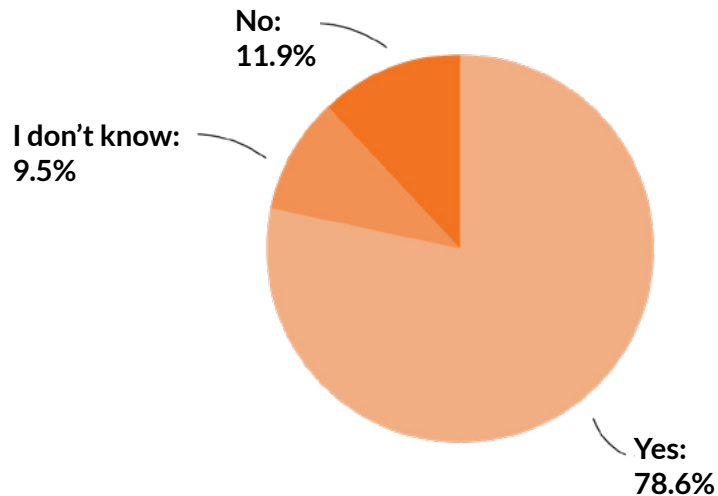




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Roughly the same amount of respondents (78.6%) believed that renewable energy in general could reduce their monthly energy bill.

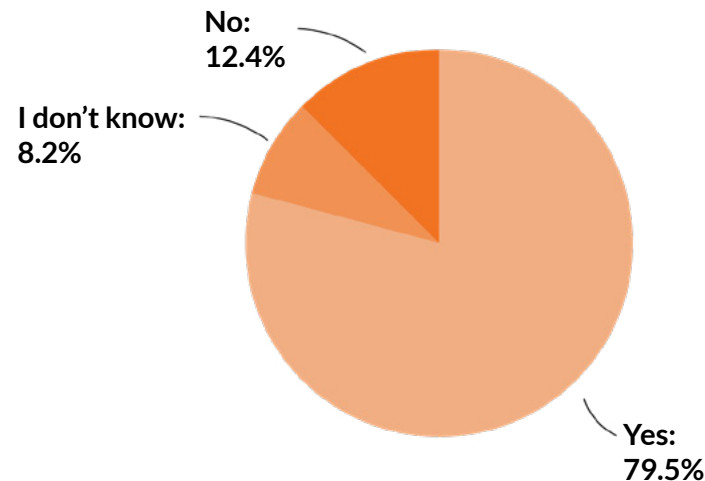
**In general, do you believe renewable energy can reduce your monthly energy bill?**



In both cases, respondents overwhelmingly said they believed solar or renewable energy could save them money, with the broader "renewable" category coming out slightly ahead. Only about 12% of respondents did not think renewable or solar energy would help them save money.

Regarding environmental friendliness, 79.5% of respondents resoundingly agreed more solar energy would lead to a cleaner environment.

**In general, do you believe if more people used solar energy, the environment would be cleaner?**





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This question about the environment had slightly more positive responses than either question about saving money on energy bills. But the conversions mostly came from people who answered “I don’t know” about solar or renewable energy saving them money. The number of people who believe solar energy would not help clean the environment was surprisingly higher than the number of people who believed solar would not help them save money.

This could represent an opportunity for solar companies to be more transparent or vocal about production processes to dispel myths that production of solar energy materials creates a net loss in environmental cleanliness.





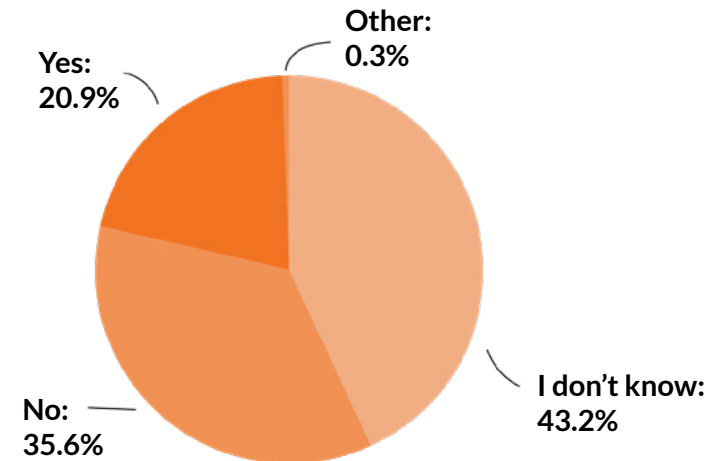
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## **Part 5: Solar Without Panels – What Customers Don't Know, But Should**

Within all the perceptions of solar hides an uncomfortable truth for businesses in the industry: Consumers are woefully ill-equipped with the information they need to make educated energy decisions.

While many of the questions in the survey focused on people who had considered or were considering solar energy, our last questions asked the full audience about their understanding of how solar works. When asked whether homes can run on solar energy without installing panels, only 20.9% said yes. While 43.2% said they didn't know, more than a third (35.6%) said no, that solar without panels is impossible. This speaks to a lack of knowledge about community solar and its role in contributing power to utility providers.

**Can a home run on solar energy without having solar panels installed?**

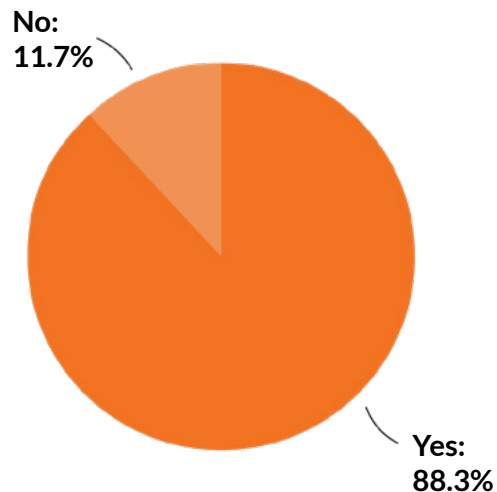




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When asked if they would like to run their homes on solar without installing panels, respondents provided their most enthusiastic affirmative of the whole survey, with 88.3% saying yes.

**If it was possible for your home to run on solar without having panels installed, would you consider it?**



Therein lies the challenge for companies in the solar industry. People are interested in solar and willing to make the change, but they do not understand their options, and their objections are based on incorrect or outdated information.

The future of solar depends not on cheaper materials or the whims of the energy market, but on consumer education.





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# Making the Leap to Community Solar

The solar industry is more than sellers of solar panels. While panels are an important part of the equation, shared solar or community solar eliminates the barriers to entry for many people who would like to get started but may not know whether solar is available for their situations.

We in the solar industry must focus more on education to help consumers understand their options are not limited. People want to save money, save the environment, and support their communities. Community solar can do all that and more. Now, it's up to the industry to bring that message to the masses.





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