

SUNPOWER®

Energy Switch Index 2023

Rising Electricity Bills and
the Shift to Clean Energy





Table of Contents

The urgent need for an energy transition 3

Most Americans see solar as a solution,
but don't think they can afford it 4

The Inflation Reduction Act is here to help,
but not enough Americans know about it 5

Larger delta in communities that would benefit
most from the Inflation Reduction Act (IRA) 6

- Low to Moderate Income (LMI) 6
- Gen Z & Millennials 8
- Women 9

Educating the public on the IRA is critical
as energy costs become increasingly burdensome 9

Despite hurdles, homeowners are
IRA's biggest champions 10

Methodology 11

With the recent introduction of the Inflation Reduction Act (IRA), the largest climate legislation allocating \$369 billion to make clean energy more affordable, there has never been a better time to adopt solar and storage. To ensure all Americans can take advantage of the opportunity, SunPower commissioned Wired Research to survey over 2,000 Americans to help uncover consumers' understanding of the new legislation, current spending behaviors, and ultimately what is standing in the way of a clean energy transition in this country.

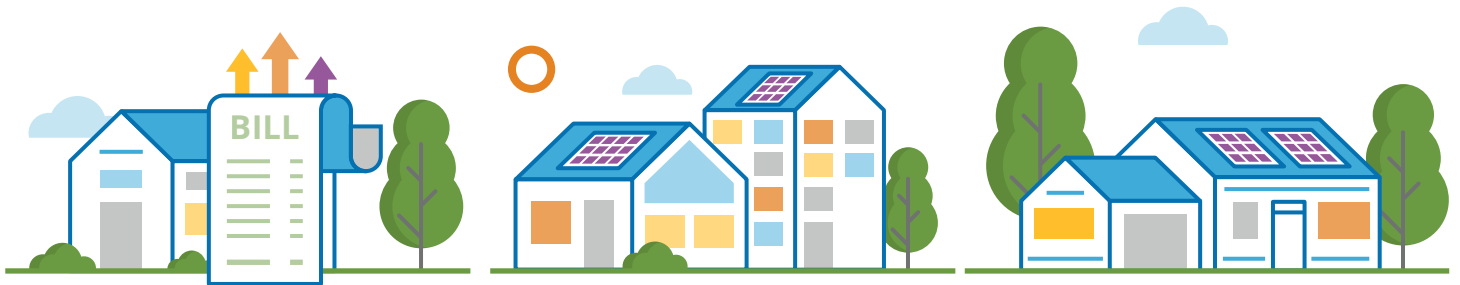
Rooftop solar has never been more attractive. Today, more than 88% of Americans would consider switching to solar energy – it can lower your monthly electricity bill, improve the value of your home, and it's better for the planet. Rising utility rates and an aging grid that is unable to deliver reliable power are further driving interest in solar.

Yet less than 5% of U.S. homes are powered by solar today. It's clear something is holding Americans back from making the switch.

49%
of homeowners
report their energy bills
are getting higher

88%
of Americans
would consider
the switch to solar

Less than
5 million
homes
use solar energy



Sourced by Wired Research, Commissioned by SunPower

Less than
5% of U.S. homes are powered by solar today¹.

The urgent need for an energy transition

Countless research from various scientific bodies underscores the need to accelerate the transition to clean, renewable energy and avoid irreversible damage to the planet caused by fossil fuels. One of the largest culprits of climate change are the homes we live in.

Residential energy use accounts for roughly 20% of greenhouse gas (GHG) emissions² in the United States from cooling our homes on hot summer days to powering all of our appliances: lights, stove, TV, laundry and dishwasher. In some cases, EVs can increase a home's energy use³ by about 50%! Unless they are powered by clean electricity, U.S. homes may leave a significant carbon footprint behind.

Average daily use of appliances*

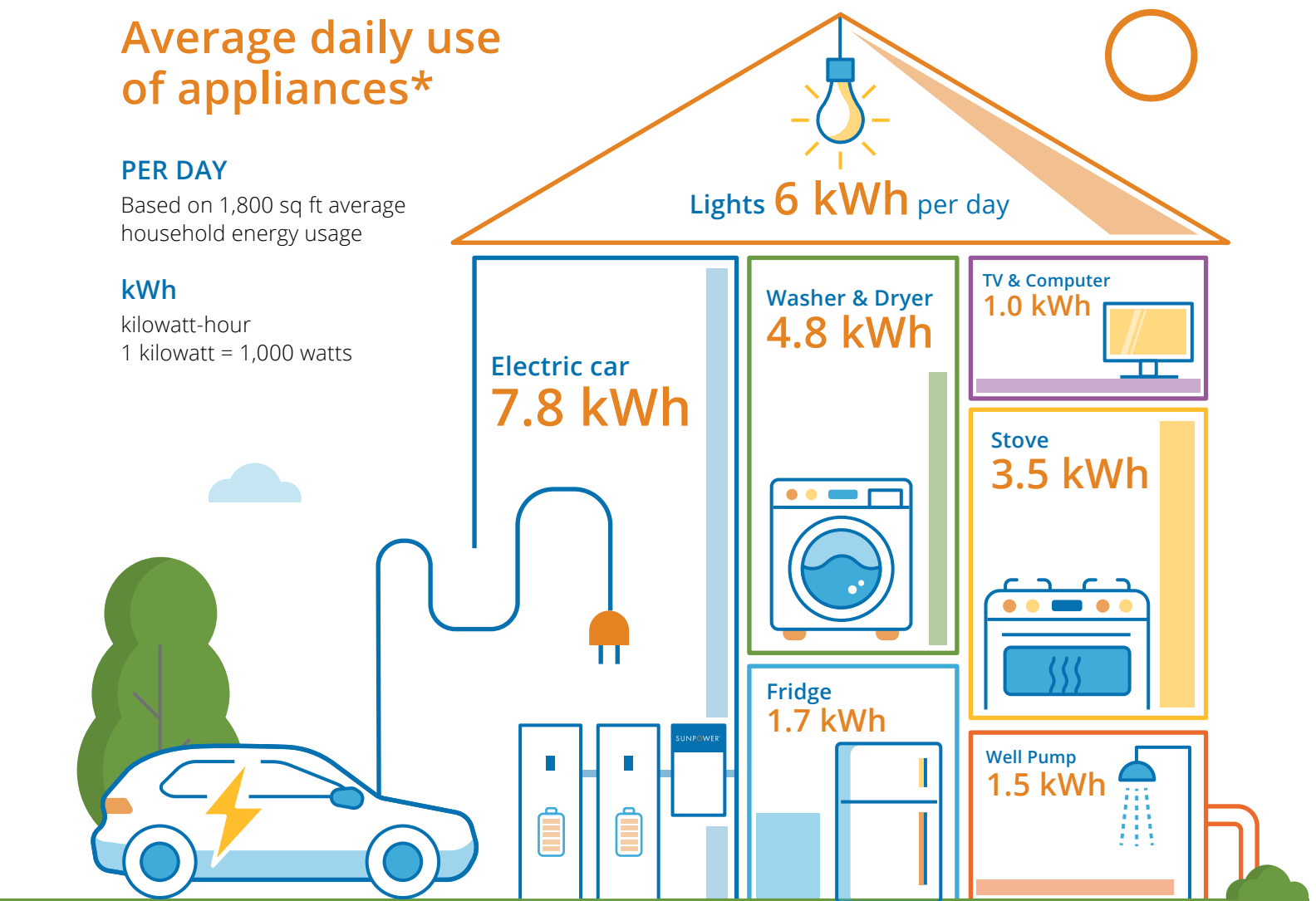
PER DAY

Based on 1,800 sq ft average household energy usage

kWh

kilowatt-hour

1 kilowatt = 1,000 watts



*Average use of electrical appliances as provided by the Silicon Valley Power Appliance Energy Use Chart

Most Americans see solar as a solution, but don't think they can afford it



Consumers are struggling with higher energy bills:



41%

or more than **104 million Americans**, believe their energy bill is getting higher every month



78%

of Americans think switching to solar would lower their monthly energy bills



35%

feel like they are overpaying on their monthly energy bills

Sourced by Wired Research, Commissioned by SunPower

78% of respondents say they think installing solar would lower their monthly energy expenses. (They aren't wrong! SunPower customers can save an average of \$213/month on their electric bills⁴ when they switch to solar.) Yet the perception that getting solar is too expensive continues to stand in the way. Nearly two out of three Americans who say they would consider solar don't think they could afford a solar system today. While the IRA could help reduce the cost by 30%, 76% of those unaware of the IRA don't think they could afford a solar system today.

The good news is that 61% of Americans who are considering making the switch to solar would do so if they received a government incentive—which is exactly what Congress passed in late 2022 with the IRA.



61% of Americans would get solar if there was a government incentive or tax benefit for doing so.



Did You Know?

The IRA is designed to spur electrification of American homes in addition to the creation of domestic jobs and manufacturing to underpin that rollout. The legislation includes a solar Investment Tax Credit (ITC) that enables American taxpayers to receive an income tax credit worth 30% of the cost of their solar system until 2032, making the cost of solar energy more affordable over the next nine years. It also includes a new ITC worth 30% of the cost of a battery storage system, making solar-powered battery storage more affordable too. Finally, it is available to both single family and multifamily homes making the benefits accessible to both homeowners and renters.

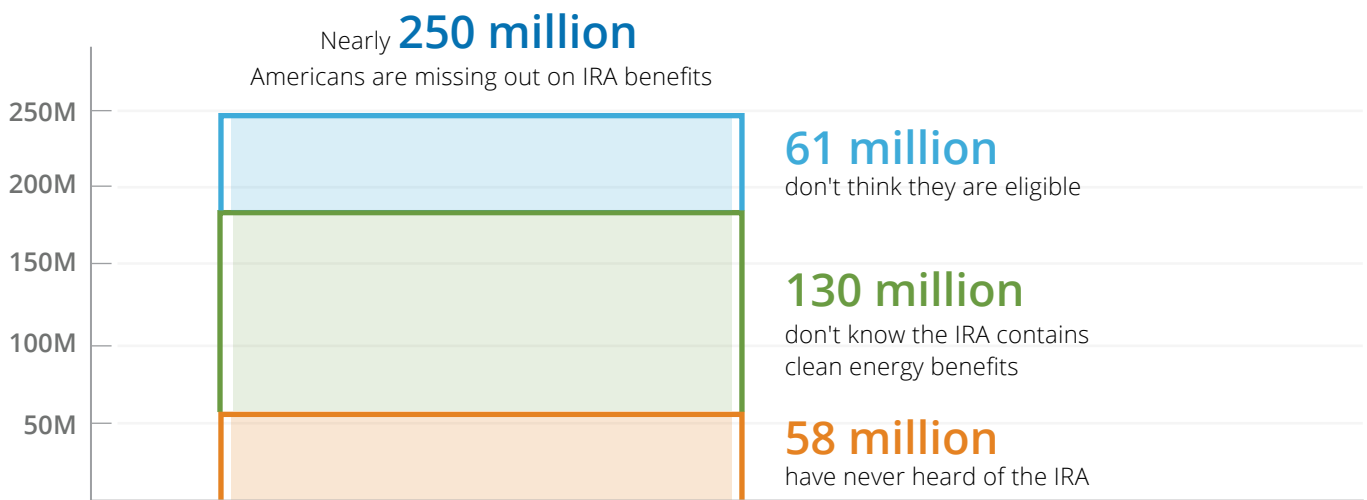
The Inflation Reduction Act is here to help, but not enough Americans know about it

The IRA is considered the single largest investment ever made by the American government in the fight against climate change. The consumer incentives within it will bring clean energy within reach for millions of Americans—if only more Americans know about it.

Previously, more than 70 million homes could save by switching to solar.

With the extension of the solar ITC, 100 million homes⁵ could save money with solar.

Yet our research shows 58 million Americans have never even heard of the Inflation Reduction Act – nearly a quarter of the population.



Even those familiar with the IRA are confused about its benefits—more than half (51%) don't know that the IRA offers clean energy tax credits for making improvements to your home, and 39% don't think they are eligible.

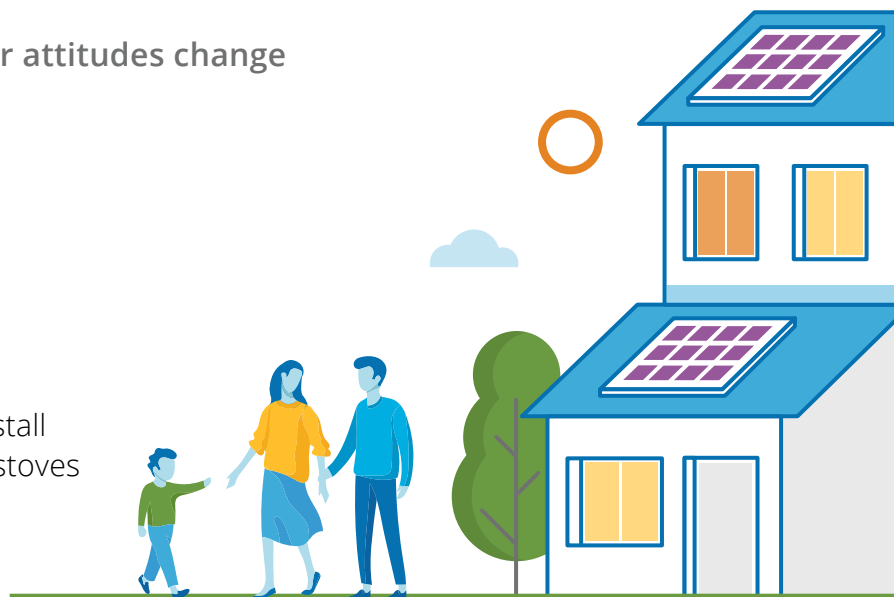
When people know about the IRA, their attitudes change

People that have heard of the IRA are:

50% more likely
to think they can afford solar today

2X as likely
as those who haven't to say they plan to install energy efficiency appliances like induction stoves or heat pumps

Sourced by Wired Research, Commissioned by SunPower



Larger delta in communities that would benefit most from the Inflation Reduction Act (IRA)

Low-income households and those living in certain rural communities spend a disproportionate share of their income on home energy costs. They are also most negatively impacted by the effects of climate change given high levels of historic air and water pollution.

While it's evident these communities could benefit from the IRA incentives, the survey data found they are least familiar with it.

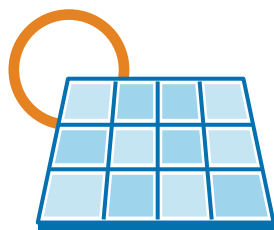
Low to Moderate Income (LMI)

Low-to-moderate income communities make up nearly half of the total residential addressable market for solar⁶ with suitable rooftop area and generation capacity potential. Yet, Americans who earn less than \$50,000 a year are less likely than higher earners to be familiar with the IRA. More than a quarter have never heard of it. Of those that do know about the IRA, only 44% are planning to take advantage of the IRA benefits in comparison to 57% of higher-earning peers.

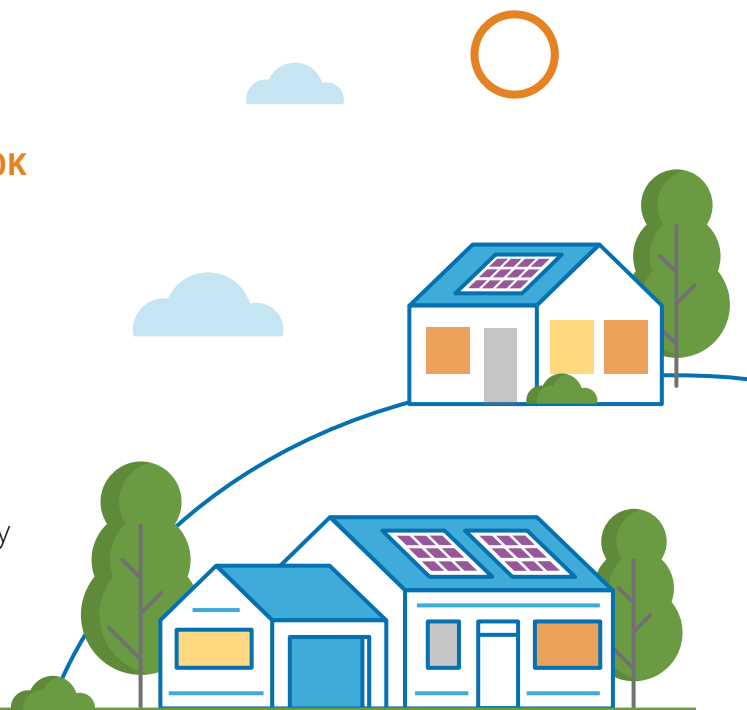
A Closer Look



only 19%
think they can afford a solar
system now compared to
45% of those earning over \$50K



Yet 75%
earning less than \$50k
think switching to solar energy
would lower their overall monthly
energy expenses.





Q&A with Suzanne Leta, Head of Policy and Strategy

Q: What was your initial reaction to the findings for LMI communities? Did it surprise you?

A: The good news is that the majority are already aware of the energy bill savings of solar. But the uphill challenge will be showing these Americans that they can access those benefits, regardless of their income level.

Q: Why is it that less LMI communities plan to take advantage of the IRA?

A: It's all about perception. A common misconception is that residential solar is only for the wealthy. It may also stem from the fact that some LMI community members don't pay high federal taxes (or in some cases, any federal taxes) and therefore think they can't benefit from federal tax credits. And worse, since a large portion of LMI households rent their homes or apartments as opposed to owning the property, they may believe they are restricted from accessing the benefits because they can't directly control decisions the property owner makes. In all of these situations, there are policies and programs in place that can enable these groups to qualify for the IRA – yes, even renters!

Q: How can we better support LMI communities in the clean energy transition?

A: The most urgent action is to ramp up our education efforts – in partnership with trusted organizations – not just for LMI communities but across the nation. It's critical that we tackle misconceptions while driving home that the IRA benefits can apply to all Americans.

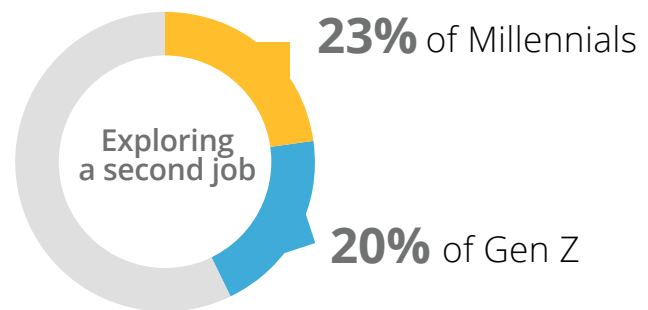
Companies play a leading role in creating change. SunPower has pledged to increase solar access in historically disadvantaged communities by 25% by 2025. Energy equity is the cornerstone of the company's diversity, equity, and inclusion commitments, which are embodied in SunPower's 25x25 initiative. The initiative is designed to ensure the benefits of solar and storage serve all American families, job seekers, and businesses regardless of income or zip code.

Gen Z & Millennials

Despite traditionally being more vocal about climate change and wanting to live a more environmentally friendly lifestyle, younger generations are less likely to adopt solar due to the misconception that the technology is financially out of reach. While the IRA could help lower the cost of going solar, a quarter of Millennials and a third of Gen Z report that they don't believe they're eligible to take part in the IRA and its benefits.

A Closer Look

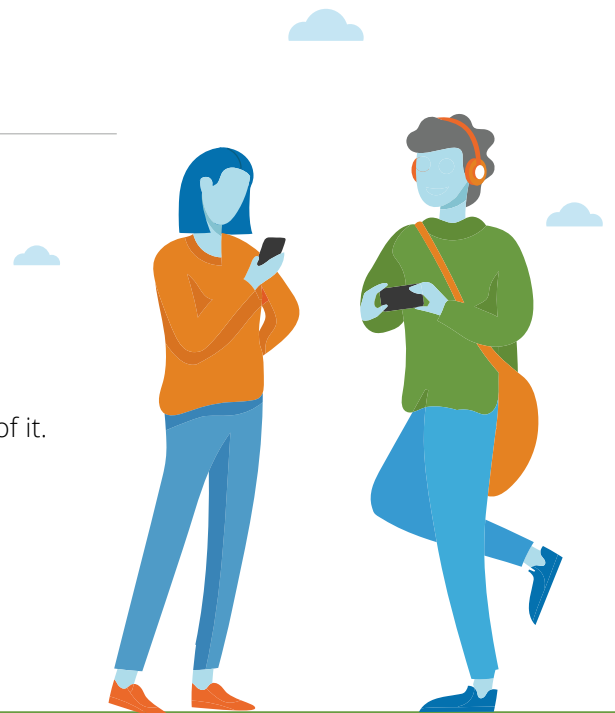
Large portion of both generations are exploring a second job just to afford their energy bills:



Gen Z are most likely to overestimate the cost of going solar.



Gen Z are the most in the dark about the IRA. **Nearly 1 in 3** have not heard of it.



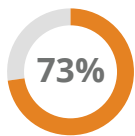
Sourced by Wired Research, Commissioned by SunPower

Women

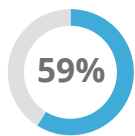
Women have an opportunity to lead the clean energy transition when you consider that they are one of the fastest-growing groups of homeowners. Single women are outpacing single men in buying new homes⁷. Yet only 1 out of 4 women think they can afford a solar system today.

A Closer Look

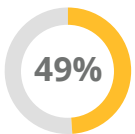
The number one reason women say they would consider installing solar for:



energy savings

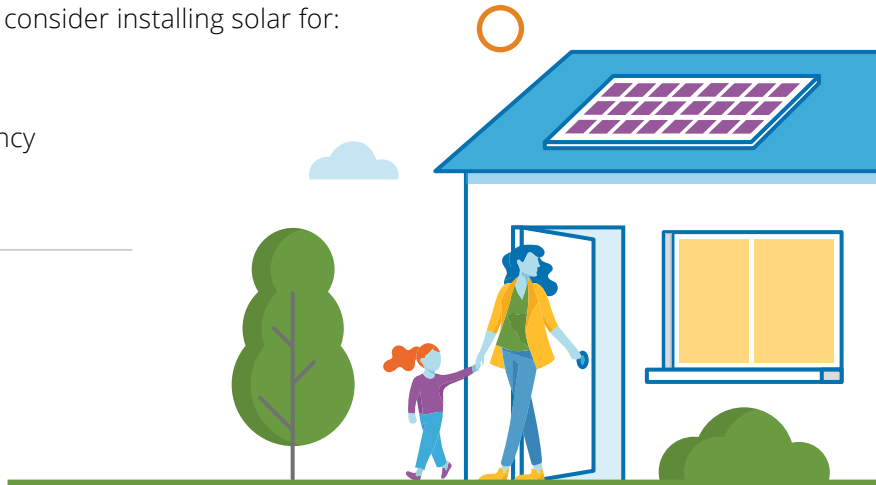


resiliency



However less than half plan on utilizing the IRA benefits

Sourced by Wired Research, Commissioned by SunPower

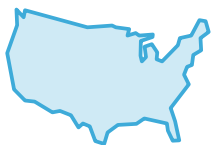


Only **1 in 4 women** think they can afford a solar system today.

Educating the public on the IRA is critical as energy costs become increasingly burdensome

There is urgency to better educate Americans about the bill savings benefits of the IRA at a time when one in five say they worry they eventually won't be able to afford their monthly energy bill.

Current Spending Behaviors



2 out of 3 Americans

are trying to save more money given the news around a potential recession and rate of inflation

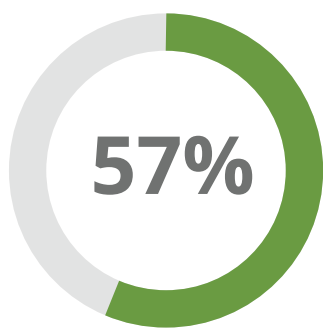


have tried at least one thing to reduce their monthly energy bill

As such, many Americans are making sacrifices to their lifestyles or overall well-being just to make ends meet. In fact, among those who are trying to lower their energy bills, 19% are delaying pursuing other interests, such as a vacation, hobby, or continuing education to afford their monthly energy bills. Meanwhile, one in 10 are going so far as to delay other important household or personal payments such as a medical bill.

Despite hurdles, homeowners are IRA's biggest champions

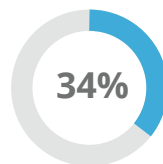
In the end, homeowners prevailed as the most engaged and enthusiastic audience for the IRA. The top three things homeowners plan to do include adding battery storage for resiliency (34%), taking energy efficiency measures like switching to an induction stove (26%), and purchasing a solar system (22%).



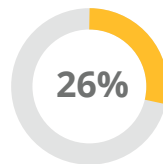
of homeowners
**plan to use
the IRA**



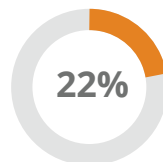
Top three things homeowners plan to do:



plan to add
battery storage



plan to make their home
energy efficient



plan to purchase a
solar panel system



Sourced by Wired Research, Commissioned by SunPower



Did You Know?

There are many solar financing options that enable consumers to transition to clean energy with little-to-no upfront costs. In fact, 90% of homeowners who installed solar in 2022 financed their system⁸ with a loan or a lease. Solar leases in particular are becoming increasingly popular. In most cases they enable people to immediately lower their energy bill with no upfront cost. With financing, homeowners can get access to clean electricity at an affordable monthly cost that works with their budget.

Methodology

The SunPower Energy Switch Index 2023 surveyed 2,005 nationally representative Americans aged 18+. The survey was conducted online between February 17, 2023, and February 27, 2023, by Wired Research. The study has a margin of error of +/- 2.2%. Results of any sample are subject to sampling variation. The magnitude of the variation is measurable and is affected by the number of interviews and the level of the percentages expressing the results. In this study, the chances are 95 in 100 that a survey result does not vary, plus or minus, by more than 2.2% from the result that would be obtained if interviews had been conducted with all personas in the universe represented by the sample. The margin of error for any subgroups will be slightly higher. Wired Research is a leading insights consultancy, partnering with brands big and small.

For more information about Wired Research please visit www.wiredresearch.com.

Footnotes:

1. Solar Market Insight Report 2021 Year in Review (SEIA) [U.S. Solar Market Insight Report](#) (March 10, 2022)
2. PNAS Report, [“The carbon footprint of household energy use in the United States”](#) (June 2020)
3. [U.S. Energy Information Administration](#) notes that the average annual electricity consumption for a U.S. residential utility customer in 2021 was 10,632 kilowatthours (kWh), an average of about 886 kWh per month. According to the [U.S. Department of Transportation](#), Americans drive on average, 13,476 miles per year, or 36.92 miles per day. Using the average EV’s energy consumption, a home EV charger would use around 11.81 kWh per day to charge the car to replenish the range driven. This translates to about 353.3 kWh per month and 4,310.65 kWh per year.
4. Results may not be typical. Savings will vary. Savings calculated from estimated SunPower customer data based on local utility rates on 05/30/2023.
5. TAM is defined by SunPower as states where solar ownership able to deliver savings to the homeowner in year 1 (vs. avg. utility rate), based on the US Census data of owner-occupied single-family homes. The ITC reduces that cost per kWh of solar so it makes more customers eligible.
6. NREL report, [“Rooftop Solar Technical Potential for Low-to-Moderate Income Households in the United States”](#) (April 2018)
7. National Association of Realtors, [“The number of single women homeowners continues to surpass the number of single men homeowners”](#) (March 2023)
8. Wood Mackenzie report, [“US residential solar finance update H1 2023”](#) (April 2023)



SUNPOWER®

us.sunpower.com