

2022 EnergySage Consumer Survey

Clean energy interest, awareness, and adoption

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About EnergySage

Country's leading renewable energy marketplace: Think of us like Kayak or Expedia. [EnergySage](#) is used by millions of homeowners, renters, and businesses to learn about and comparison-shop quotes for rooftop solar, batteries, community solar, and heat pumps.

Rapidly growing the industry: We make clean energy more accessible, transparent, and affordable for all; our online-first approach saves consumers over 20% on solar and contractors over 50% on customer acquisition costs.

World-class content: EnergySage is the most trusted and respected source for unbiased renewable energy content, insights, and market data out there.

About our data:

EnergySage Intel

EnergySage is uniquely positioned to track and analyze data across the clean energy landscape. This includes consumer demand and trends, real-time pricing, equipment availability and preferences, brand market share, and more for solar, storage, and other clean energy products.

To augment this data, EnergySage conducts installer-facing and consumer-facing surveys, allowing us to better understand the rapidly changing market dynamics.

EnergySage data and insights are frequently relied upon by top-tier journalists, government agencies, leading utilities, respected research groups, well-known brands and universities, and many others.

Visit energysage.com/data to download all EnergySage reports.

The team behind the survey



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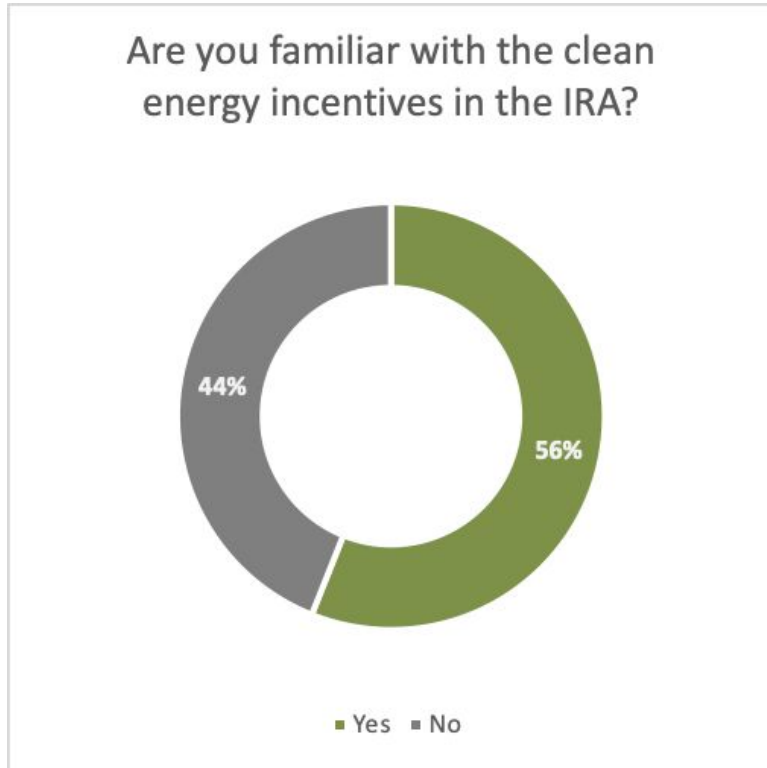


Nick Liberati
Sr. Communications
Manager

Inflation Reduction Act

Consumer awareness and impact on decision making

IRA: impact of the policy on interest



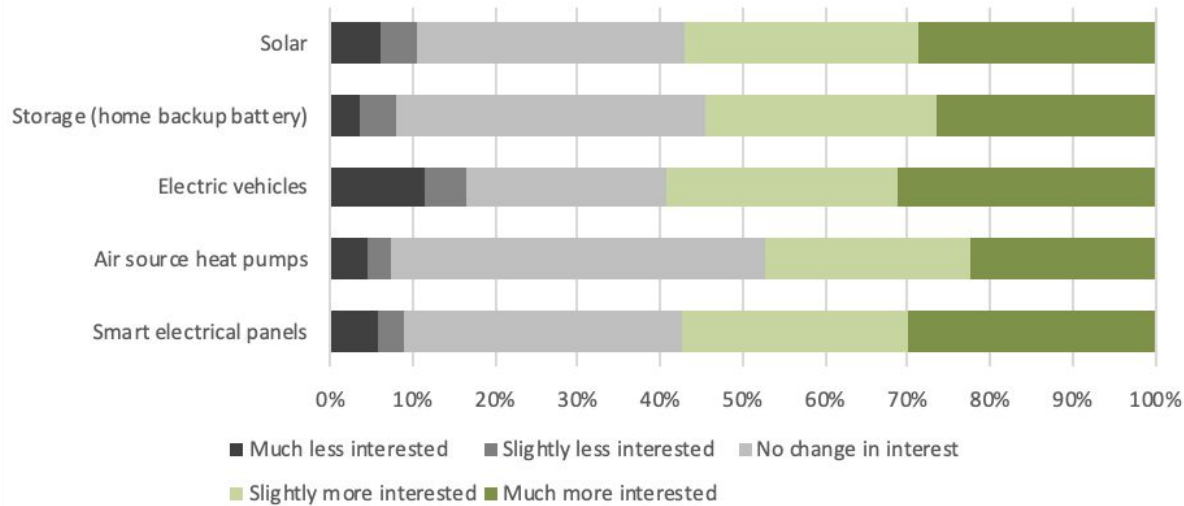
Education gap: 56% of people are familiar with the clean energy incentives included in the IRA

- People who are familiar with the incentives are much more likely to express increased interest in cleantech
- People who are unfamiliar with the incentives are less likely to have plans to purchase cleantech products

IRA: impact of the policy on interest

How has the IRA changed your interest in the following tech?

Familiar with the clean energy incentives in the IRA



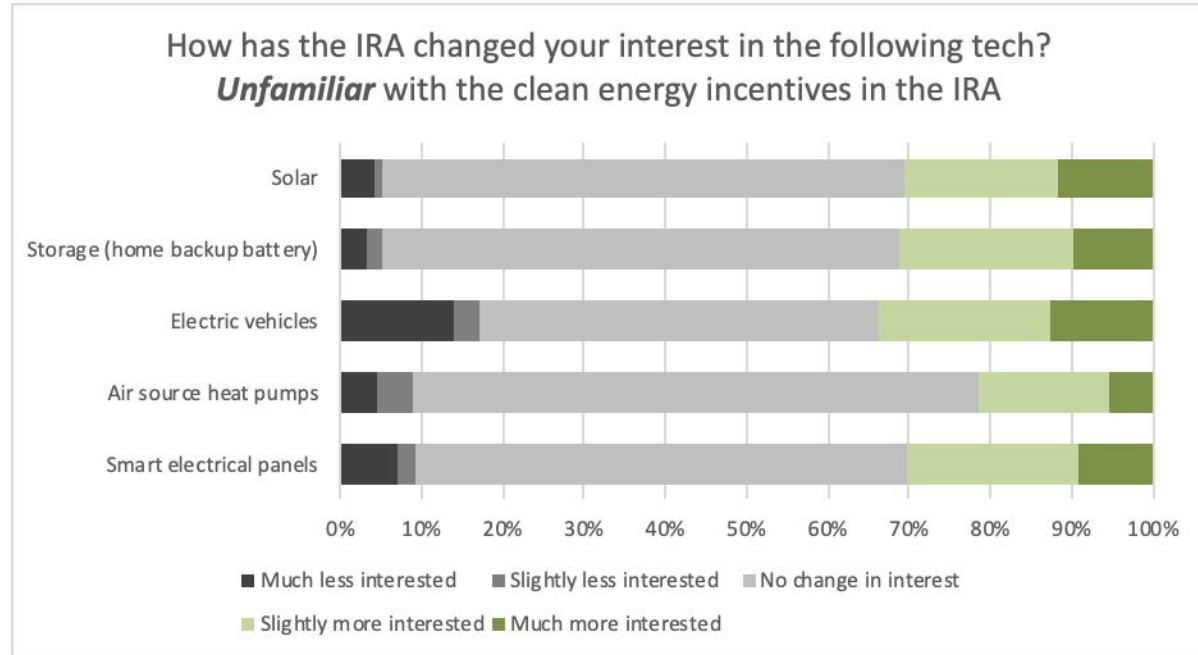
People who are **familiar** with the incentives are much more likely to express increased interest in cleantech

- Between 50% and 60% of respondents are more interested in solar, storage, EVs and smart panels as a result of the IRA

IRA: impact of the policy on interest

People who are *unfamiliar* with the incentives are less likely to express increased interest in cleantech

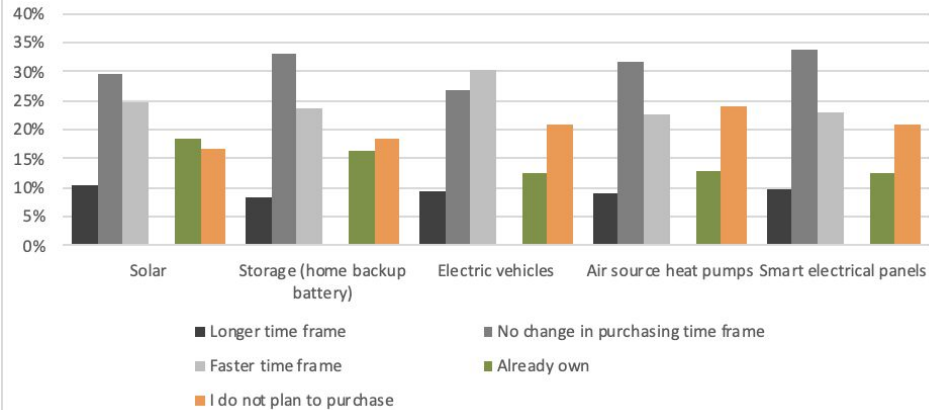
- 60-70% of people who are unfamiliar with express no change in interest post-IRA for everything other than EVs



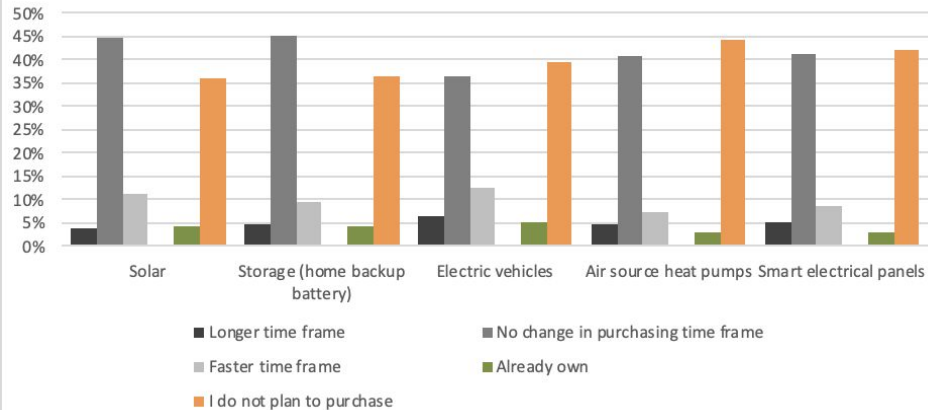
IRA: impact of the policy on purchasing timeline

Universally, two-fifths of people who are unfamiliar with the clean energy incentives in the IRA have no plans to purchase cleantech products, while only one-fifth of people who are familiar say the same thing.

How has the IRA changed your purchasing timeline for the following tech? **Familiar** with IRA



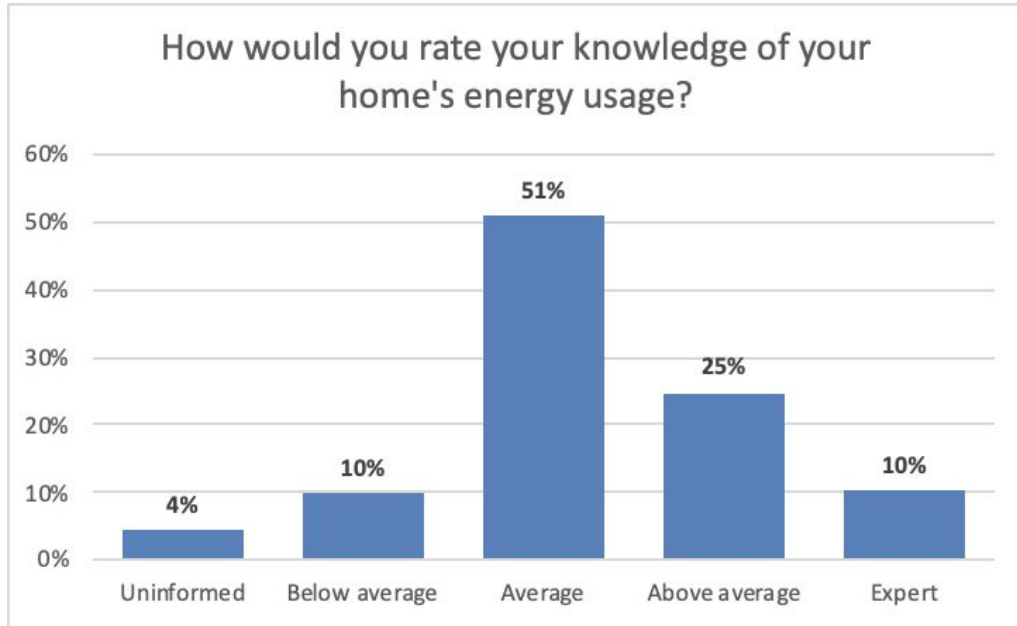
How has the IRA changed your purchasing timeline for the following tech? **Unfamiliar** with IRA



Energy Use Awareness

Knowledge about and monitoring of home energy usage

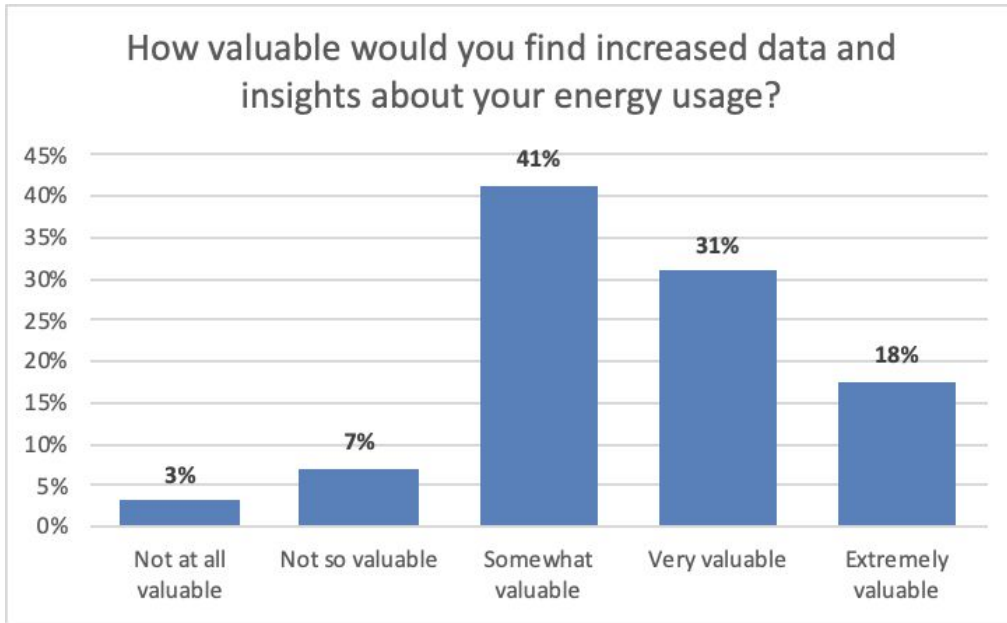
Energy monitoring: knowledge



Understanding energy usage

- Two-fifths of people look at their energy usage once a month
 - Solar adopters look at their home's energy usage much more frequently
 - 1 in 9 people don't look at this at all
- Half of respondents are more interested in energy products due to rising electricity costs

Energy monitoring: value of more information

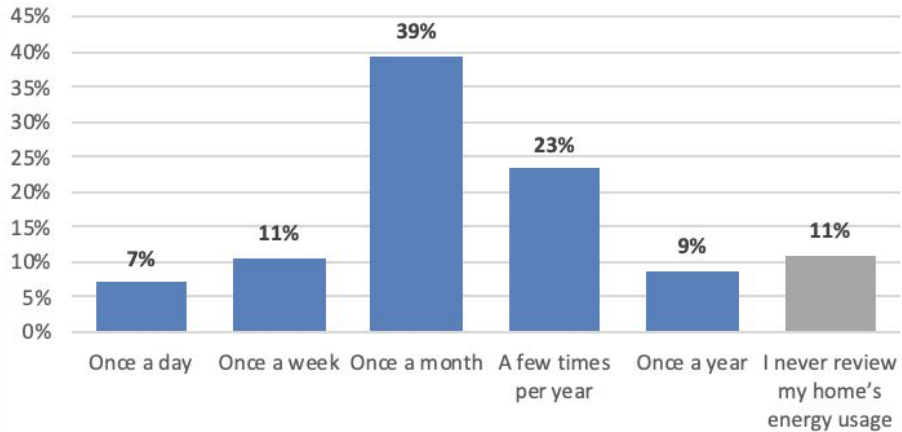


Understanding energy usage

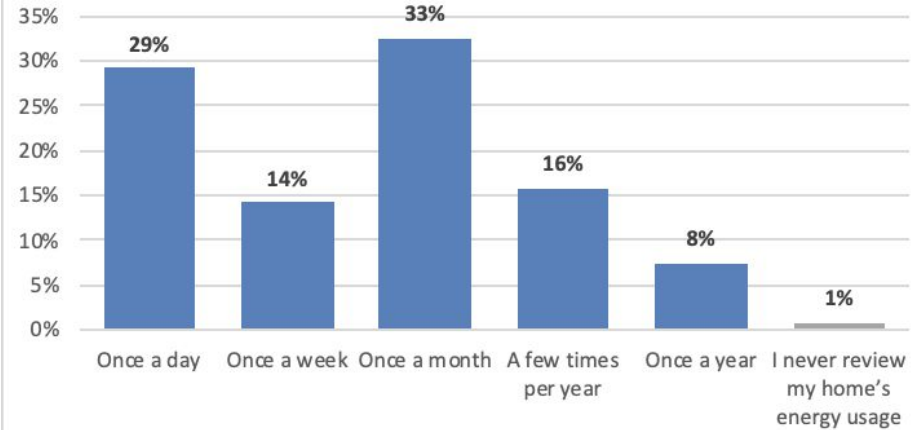
- Respondents believe increased data and insights into energy usage would be valuable
 - Only 10% say they would not find increased insights valuable, compared to nearly 50% who would find it very or extremely valuable

Energy monitoring: how often usage is viewed

How frequently do you review your home's energy usage?

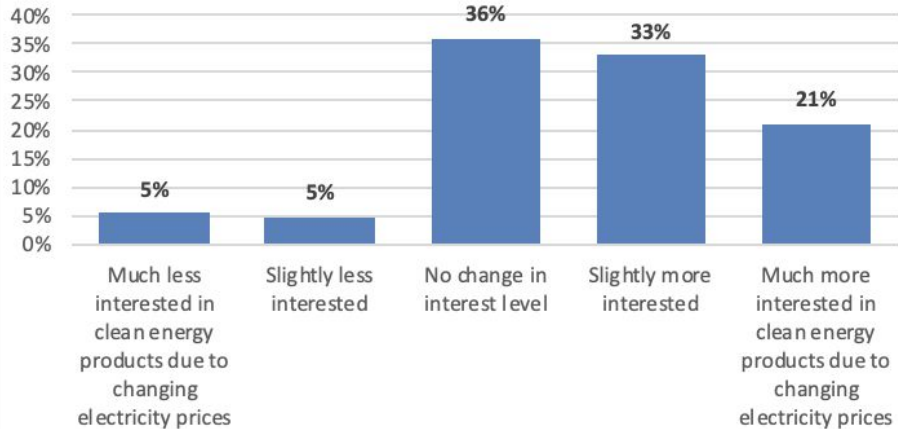


How frequently do you review your home's energy usage? **Solar adopters**



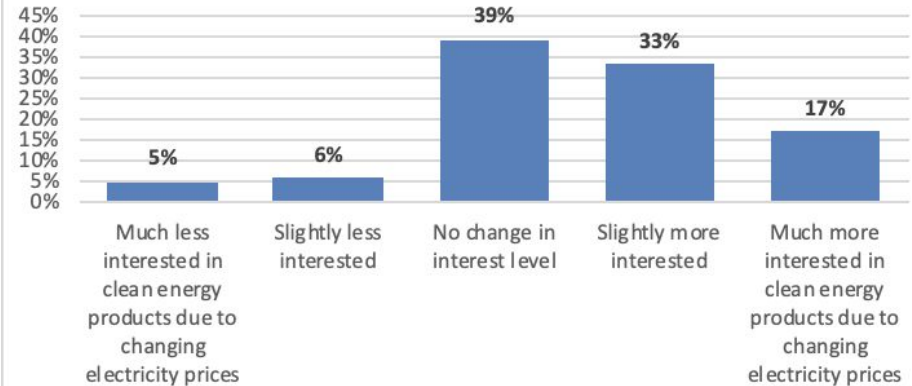
Energy monitoring: impact of rising electricity prices

Have changes in electricity prices over the last year impacted your level of interest in cleantech?



Have changes in electricity prices over the last year impacted your level of interest in cleantech?

Nonadopters

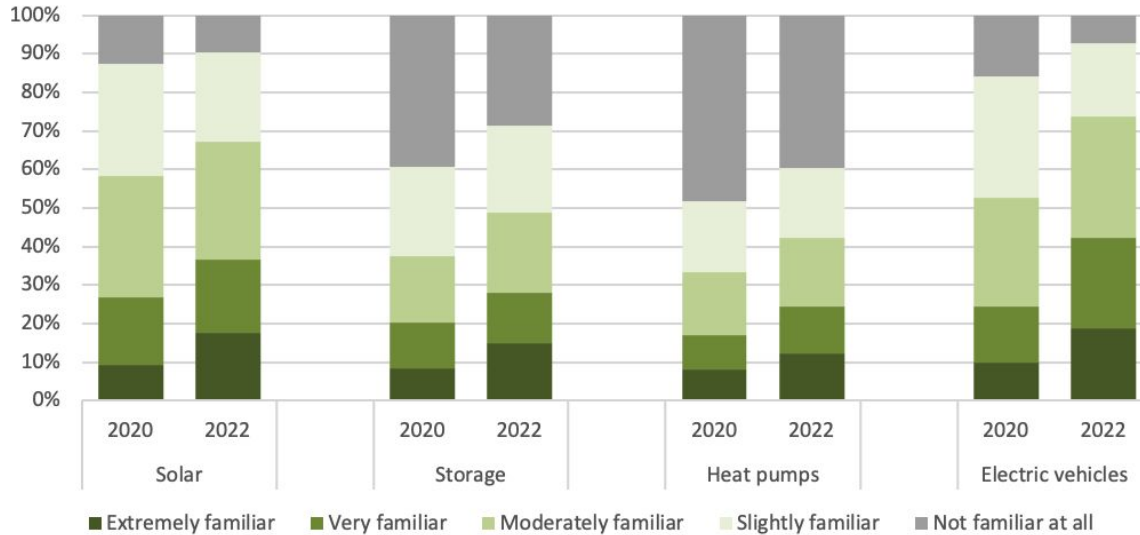


Clean Energy Products

Consumer familiarity

Tech familiarity

Familiarity with tech, 2020 vs. 2022

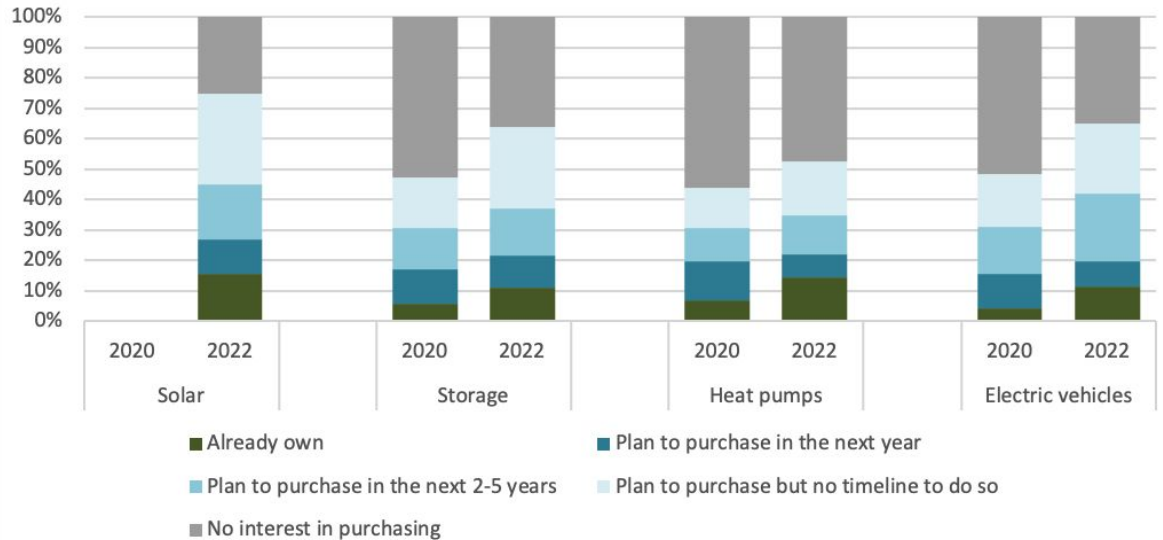


People are more aware of clean tech

- Familiarity with different types of technology has increased across the board since we last fielded this survey in December 2020.
 - Small gains in familiarity for solar, larger for storage and heat pumps

Tech purchasing time frame

Purchasing timeframe, 2020 vs. 2022



Clean tech is breaking into new markets

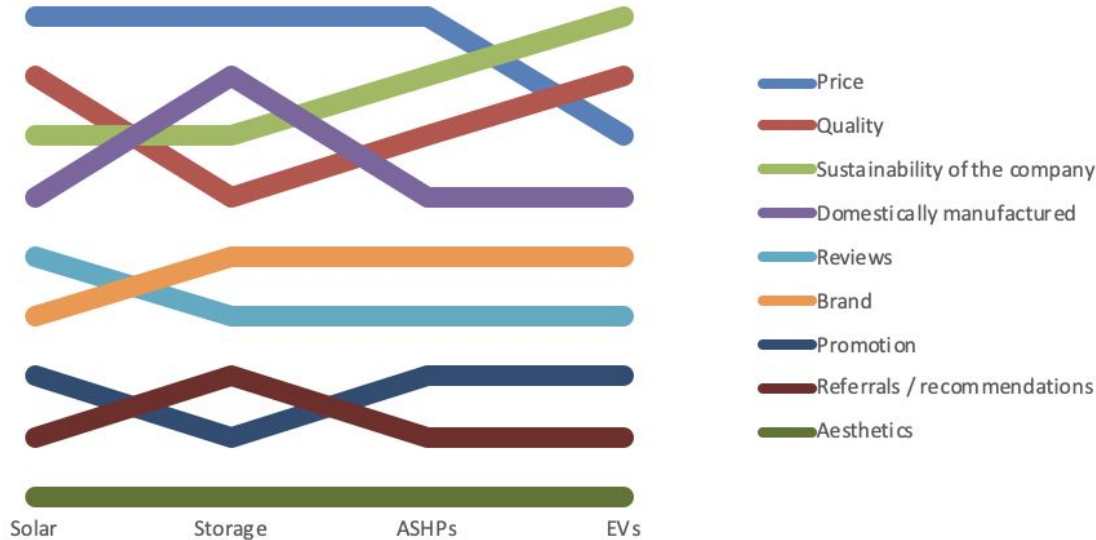
- In 2020, over half of people said they had no interest in purchasing an EV or a storage system
- In 2022, interest in buying those products has increased significantly

Purchasing Considerations

Motivations and barriers

Purchasing considerations: primary motivators

Most important factor to least important by product

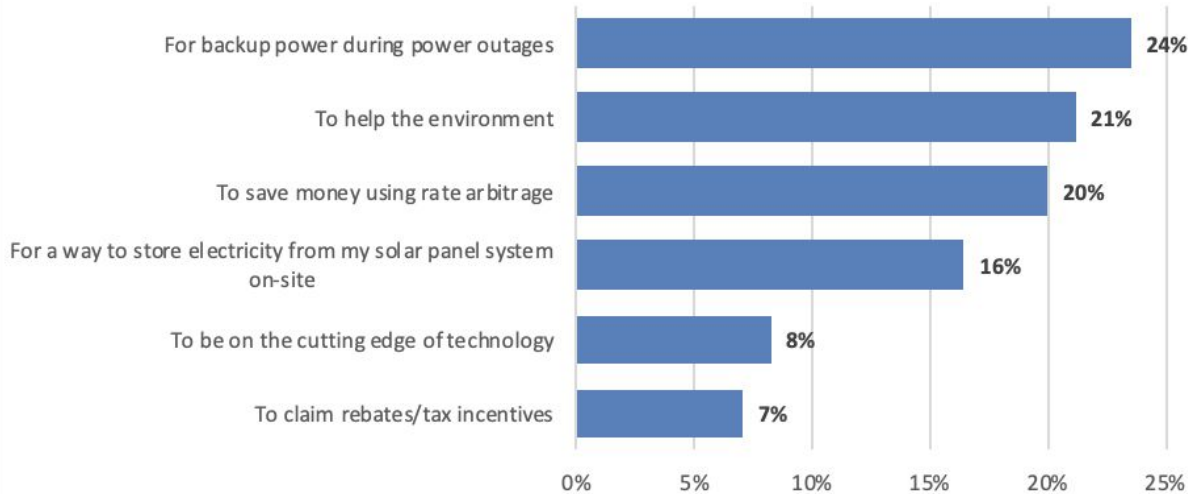


Price & quality drive decisions

- Price & quality are the two most important
- Domestic manufacturing & sustainability of the company up there too

Purchasing considerations: primary motivators

What was the primary reason you ultimately decided to install a battery?

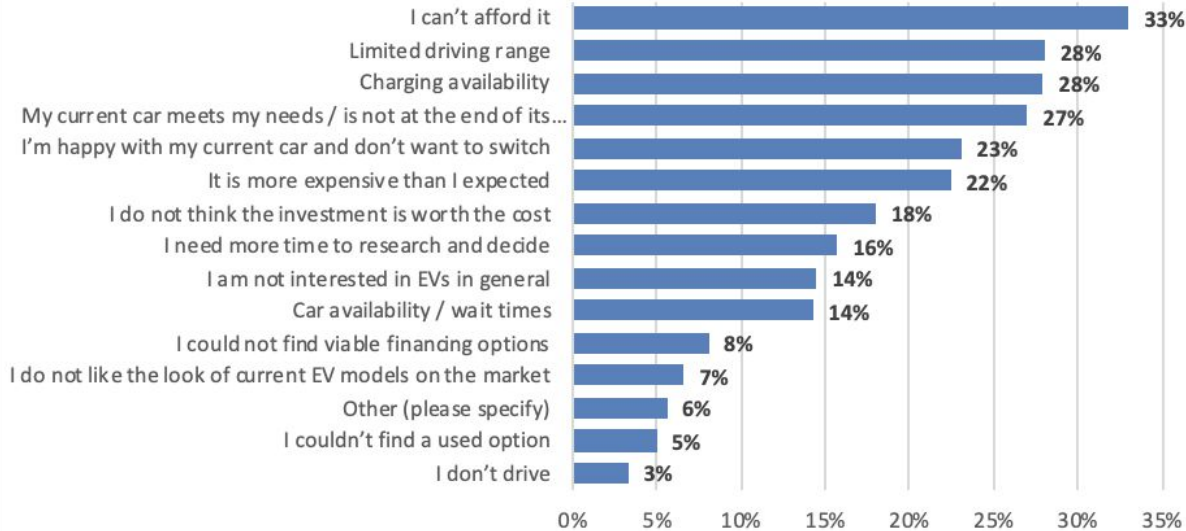


Saving money is biggest driver

- Across the board, the primary reason people say they're interested in (and ultimately decide to install) different products is to save money
- Notable exception is that for storage, interest is driven by savings, but the primary reason for adoption is backup

Purchasing considerations: primary barriers

Why did you decide not to purchase or lease an EV?



Cost of tech is the biggest barrier

- The primary barriers boil down to cost:
 - People say they can't afford the product
 - It is more expensive than they expected
 - Or they don't think the investment is worth the cost

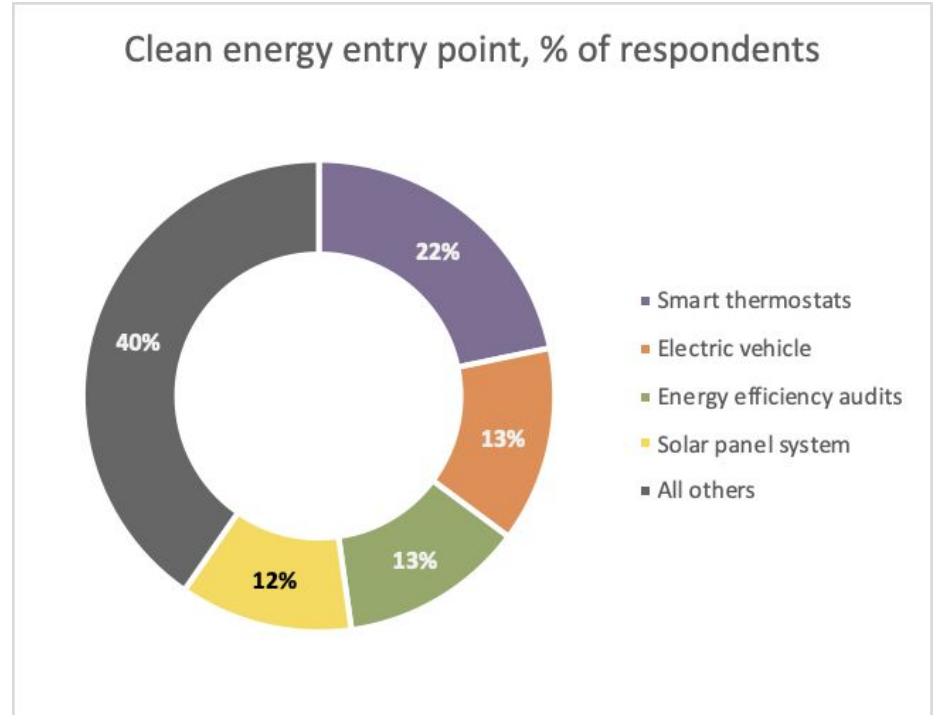
Consumer Journey

Purchase pathways for clean energy products

Consumer journey: entry points

Most common entry points are:

- Comfort control: smart thermostats (22%)
- Project or upgrade: energy efficiency audits/retrofits (13%)
- Garage: EVs (13%)
- Roof: solar (12%)



Consumer journey: next products purchased

By product, the most common follow-up purchase is:

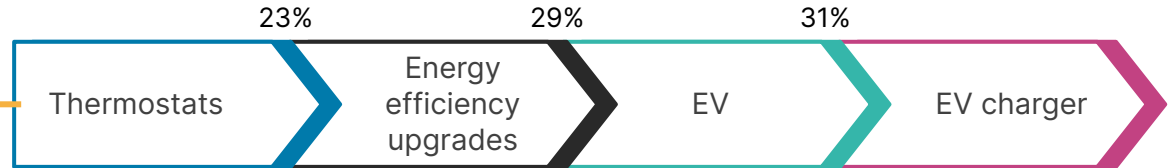
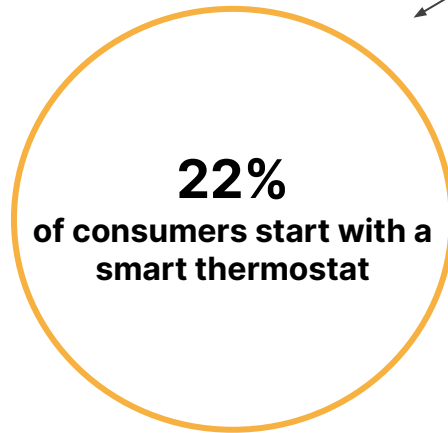
- Solar is typically followed by storage
- Storage is typically followed by upgraded electrical panels
- Electric vehicle purchases are typically followed by EV chargers
- EV chargers are not typically followed by anything - people don't seem to know where next to go in the journey
- Heat pumps are installed in conjunction with smart thermostats/energy efficiency measures, and are followed by storage

Common journeys: how to read the following charts

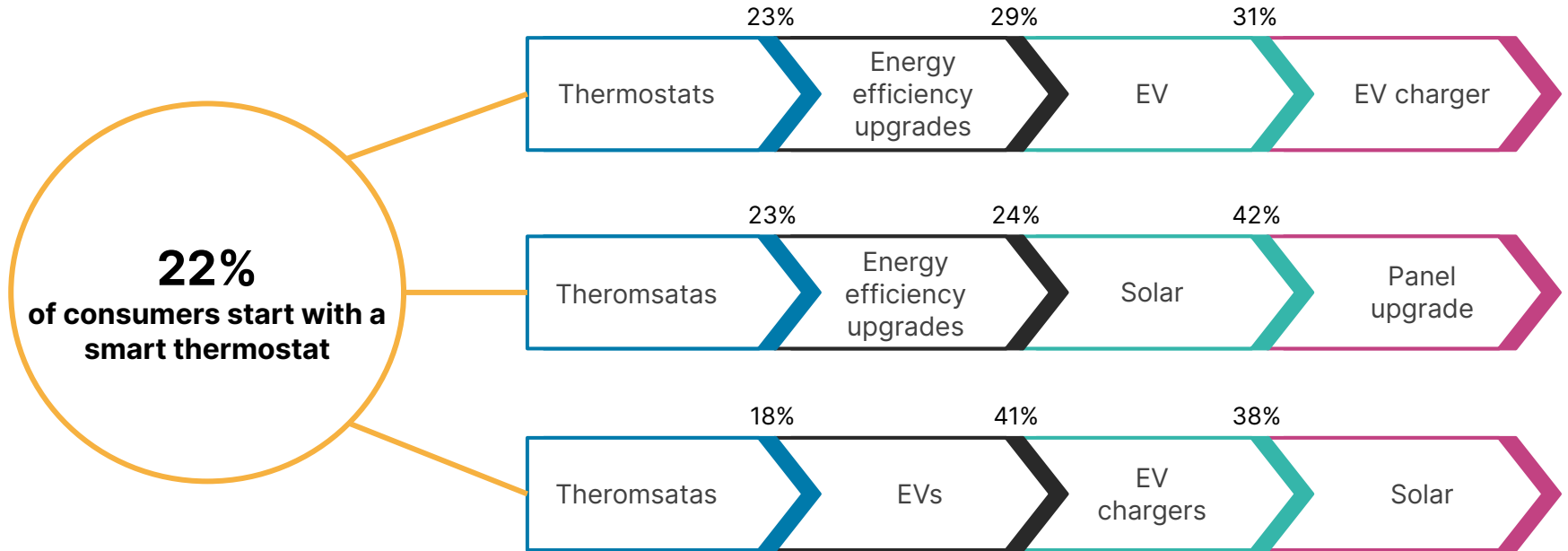
The following four slides cover the entry point into a clean energy product. The circled percentage reflects the percent of customers who begin their journey with said product.

The rest of the consumer flow reflects the flow specific to these customers. In this example...

Of the 22% of people who started with a thermostat, 23% of those people moved on to energy efficiency upgrades next, 29% of those people purchased an EV next, followed lastly by 31% of those people getting an EV charger.



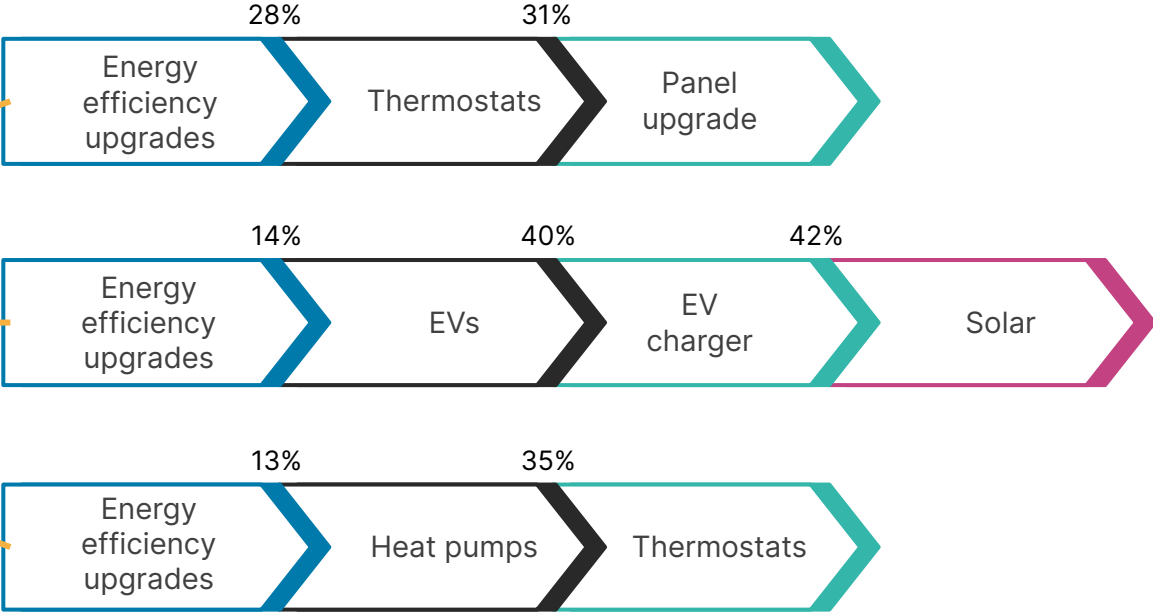
Common journeys: through comfort control



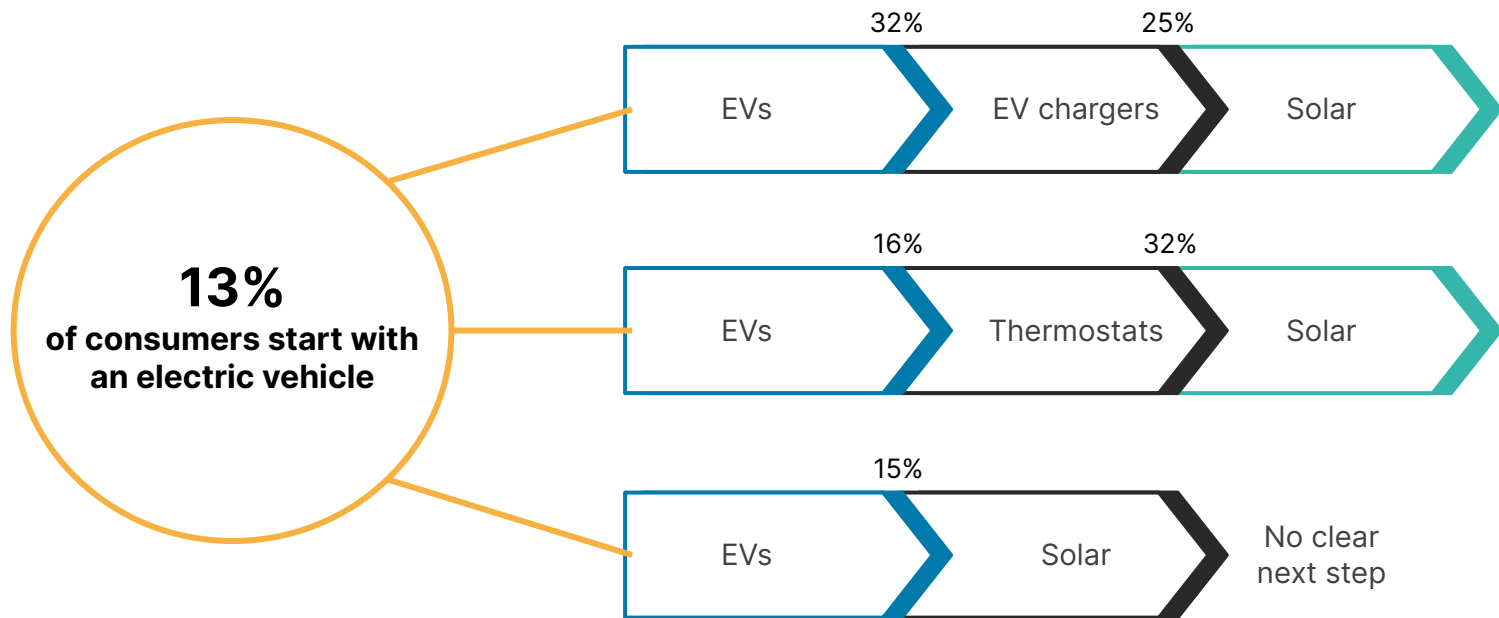
Notably, only 9% of customers who start with a smart thermostat take no further action

Common journeys: through energy efficiency projects

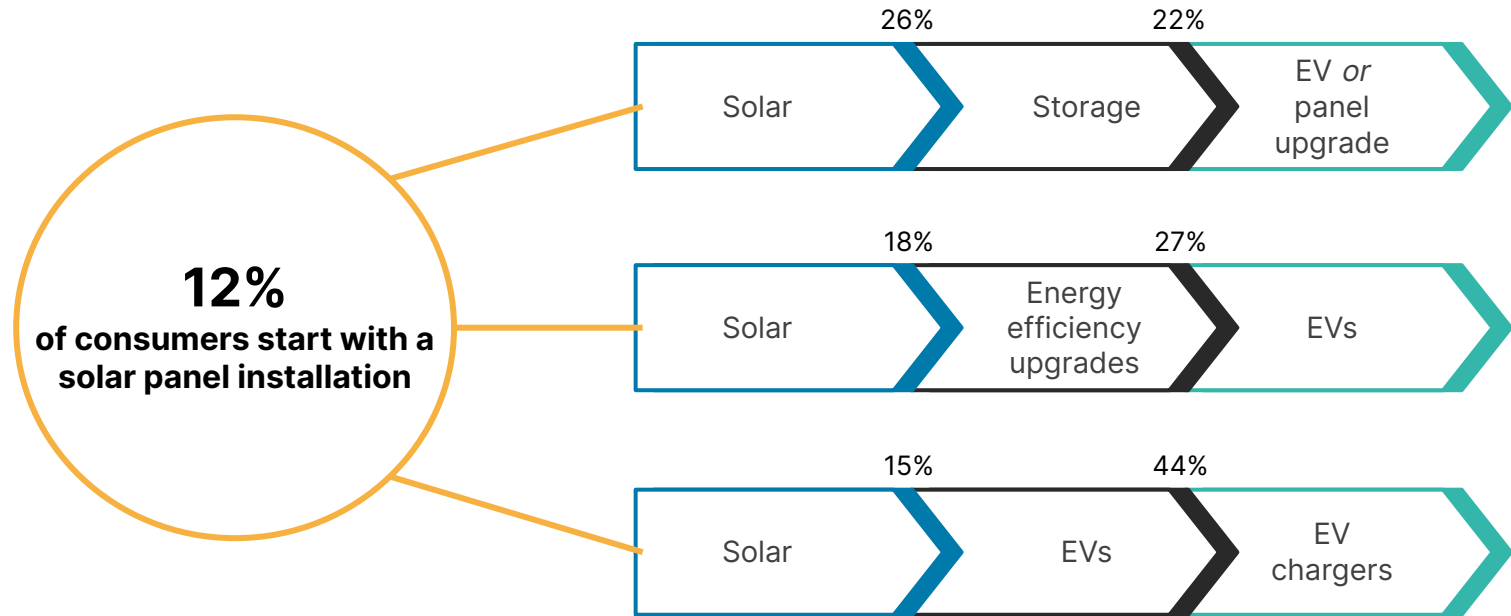
13%
of consumers start with
energy efficiency audits
or upgrades



Common journeys: through the garage



Common journeys: through the roof



Product Specific Breakdowns

Interest, adoption, and barriers

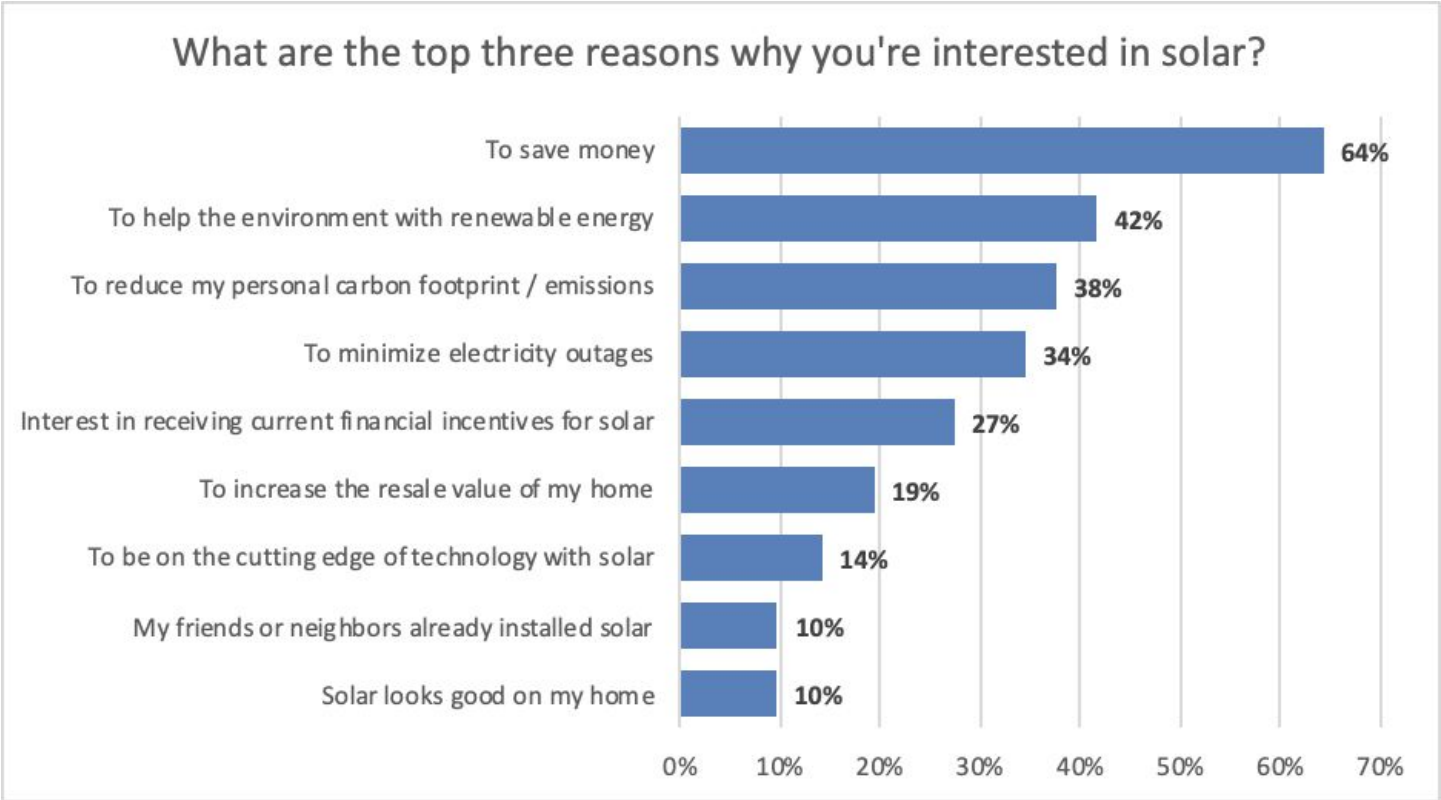
Products covered in this section

- [Solar](#)
- [Storage](#)
- [Heat pumps](#)
- [Electric vehicles](#)
- [Community solar](#)

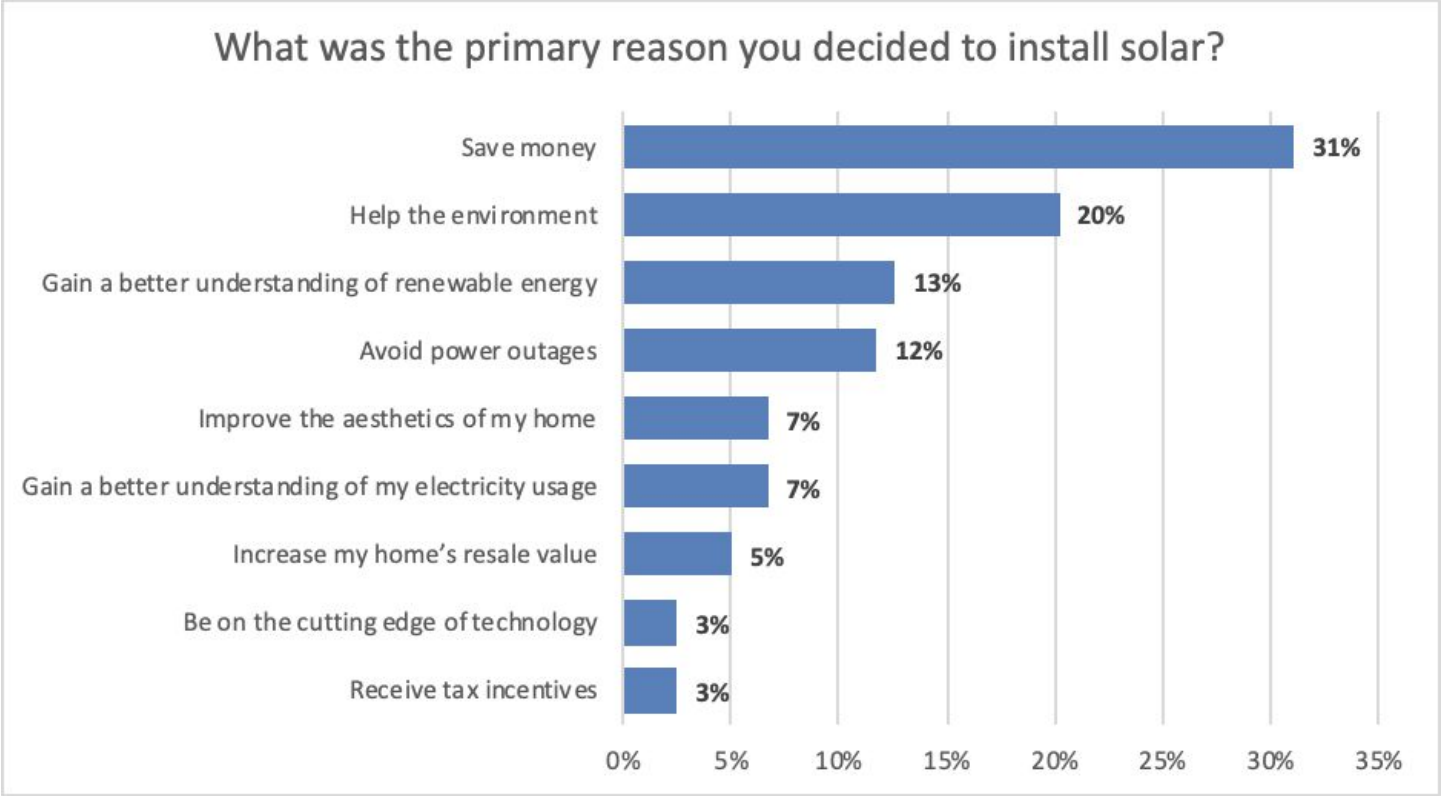
Solar

- *Primary driver of interest:* To save money
- *Primary driver of adoption:* To save money
- *Primary barriers to adoption:*
 - 1) can't afford it
 - 2) more expensive than expected
 - 3) need more time to research and decide

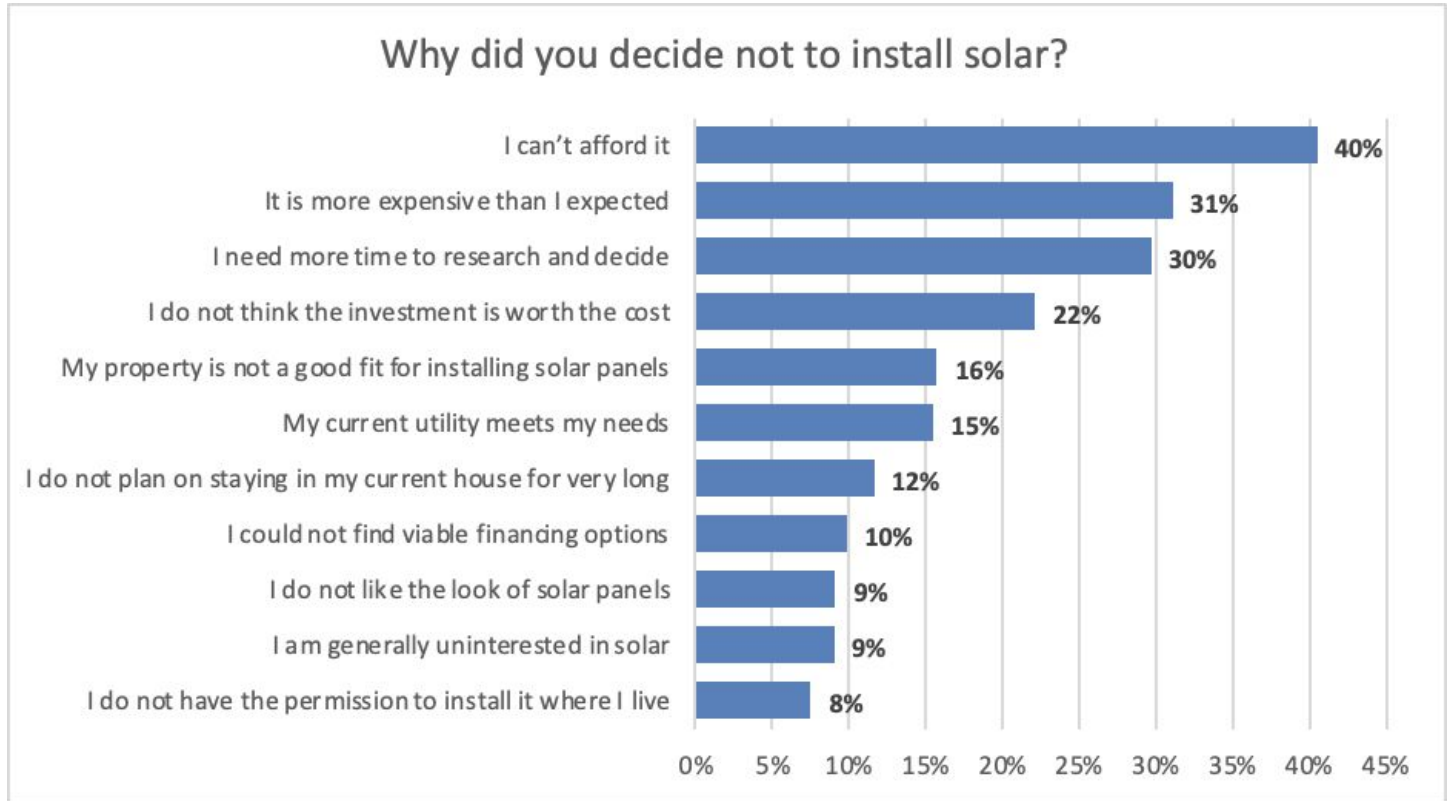
Solar: interest



Solar: drivers of adoption



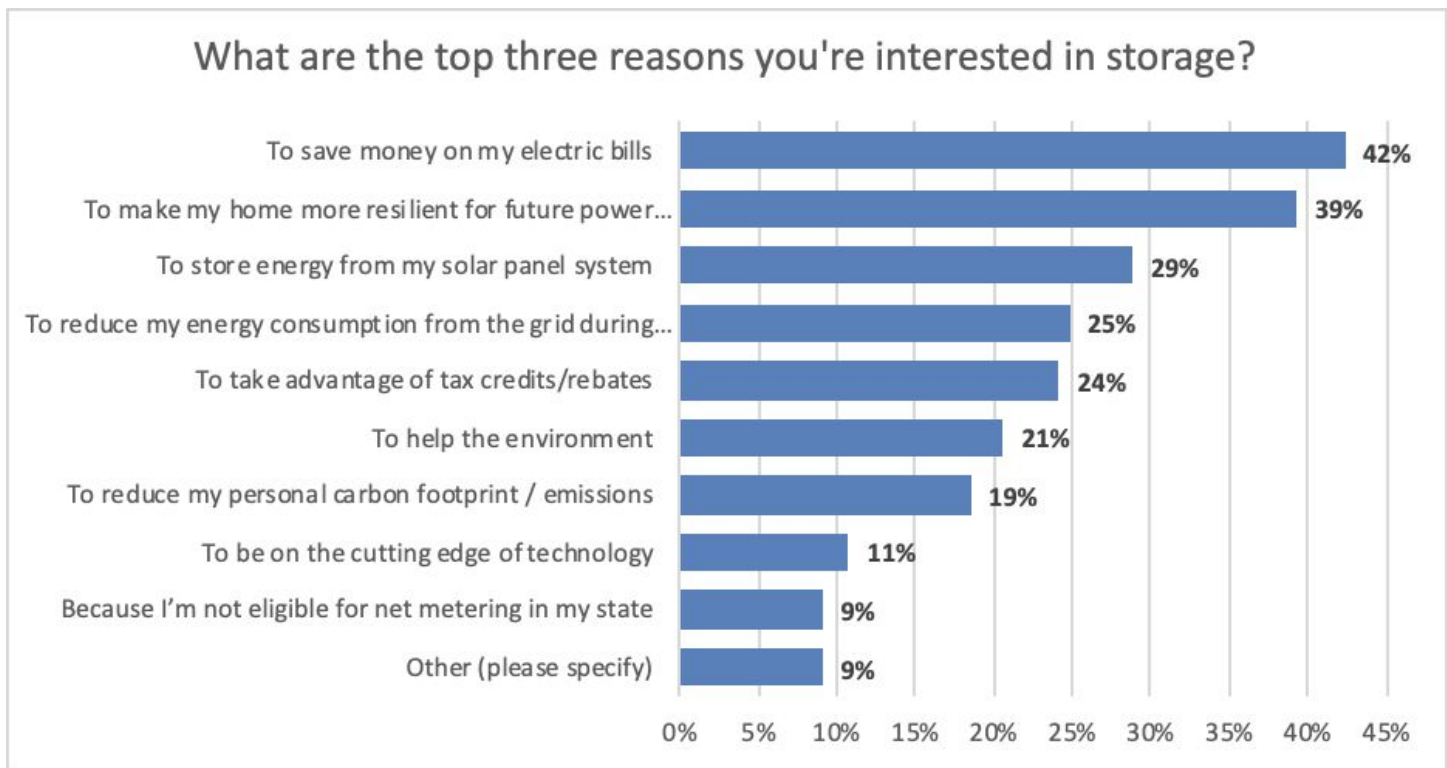
Solar: barriers to adoption



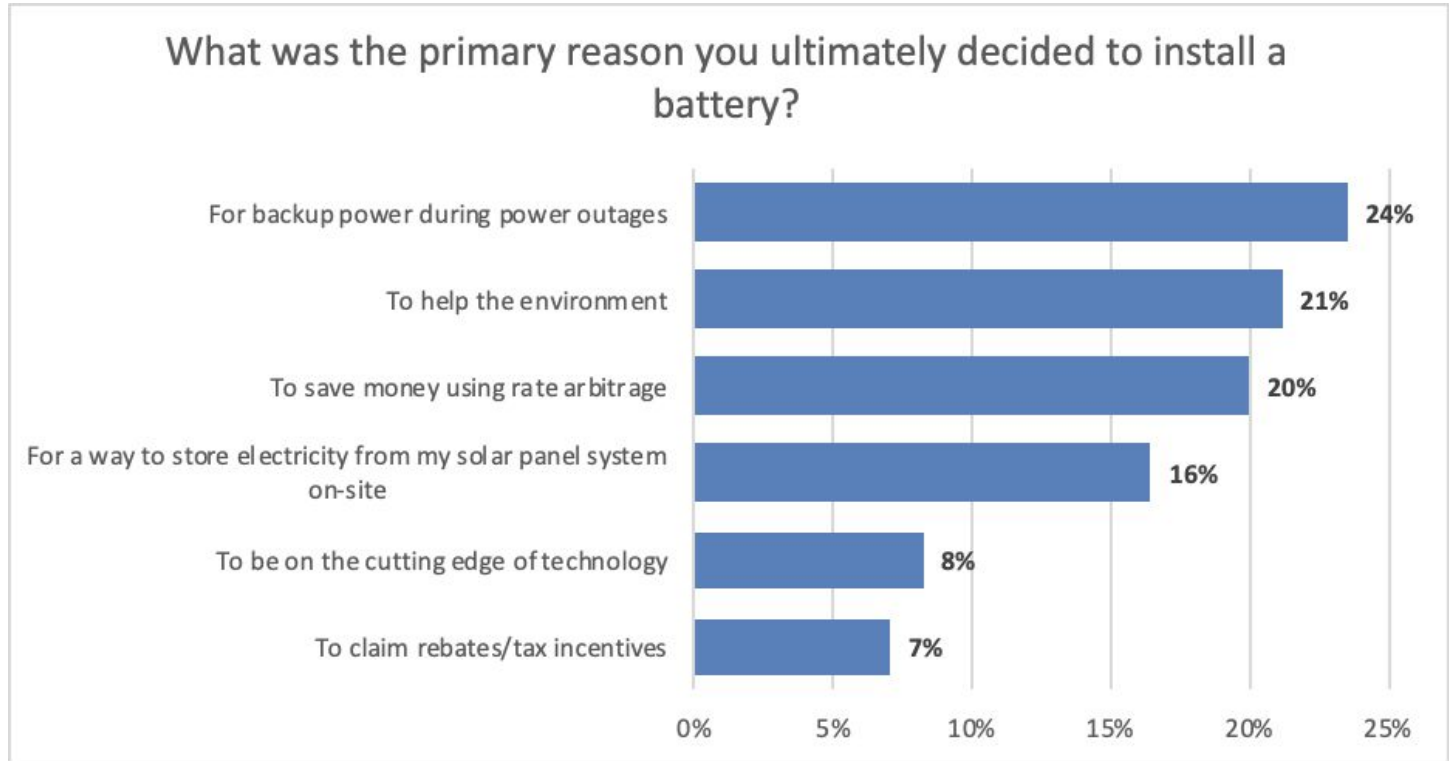
Storage

- *Primary driver of interest:*
 - 1) to save money
 - 2) resiliency
- *Primary driver of adoption:* backup power
- *Primary barriers to adoption:*
 - 1) need more time to research and decide
 - 2) can't afford it
 - 3) more expensive than expected

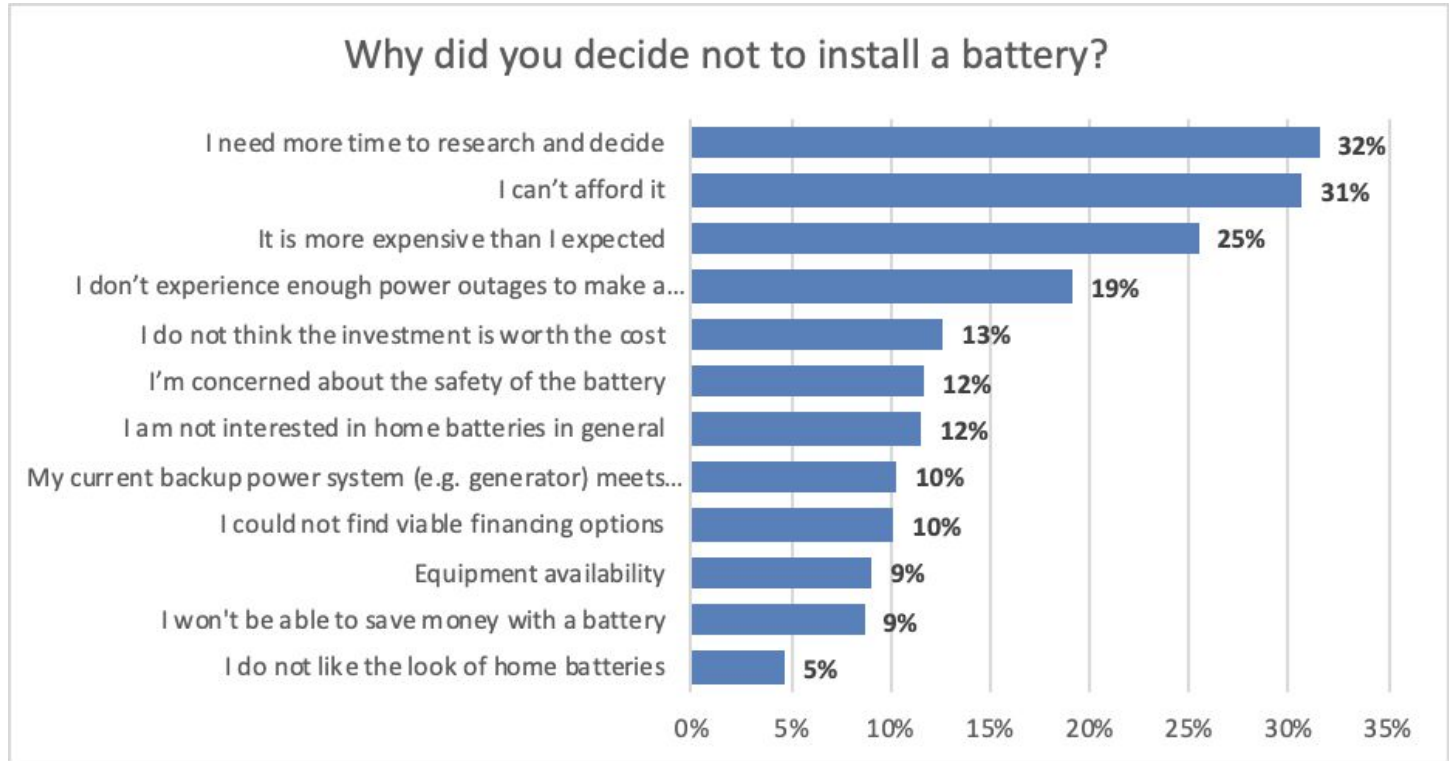
Storage: interest



Storage: drivers of adoption



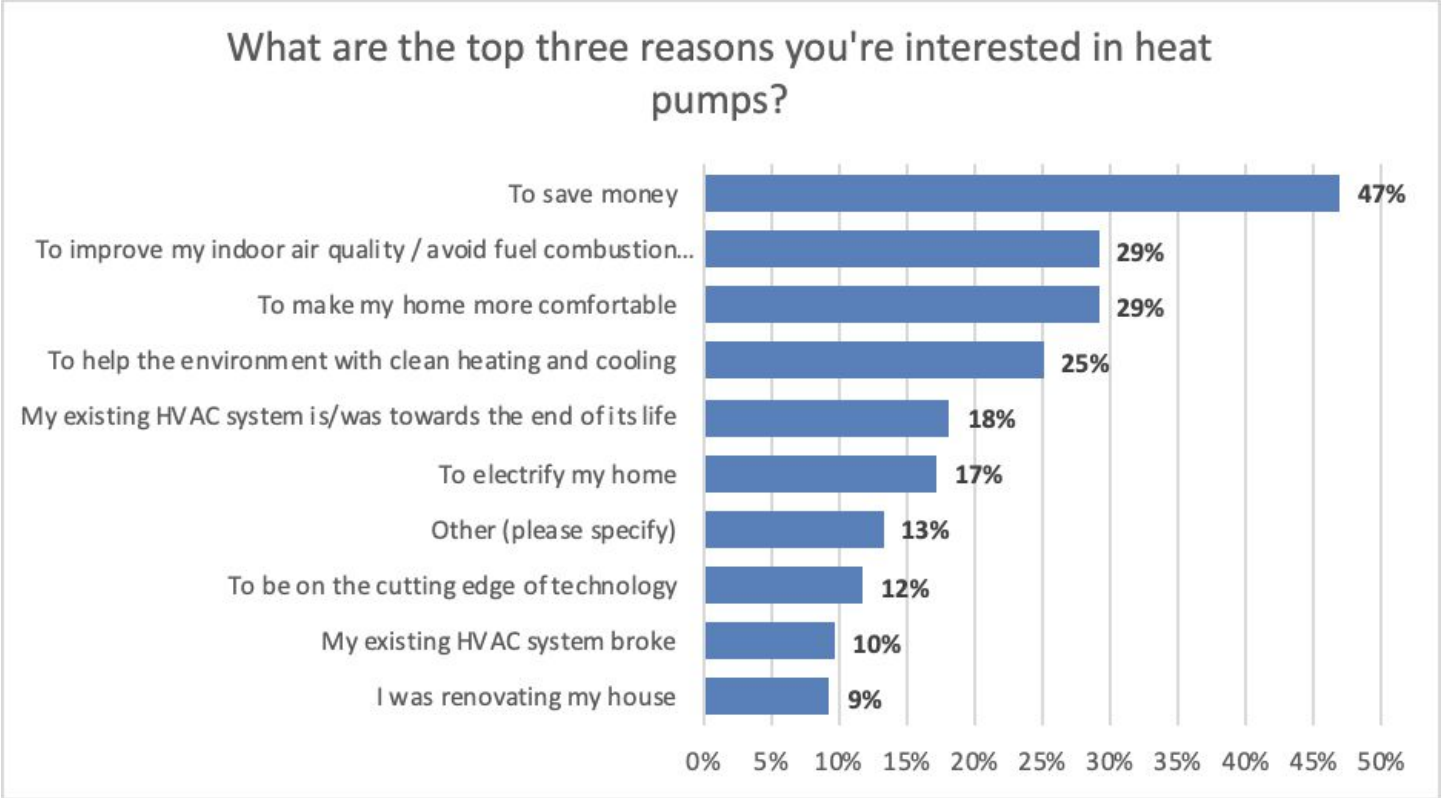
Storage: barriers to adoption



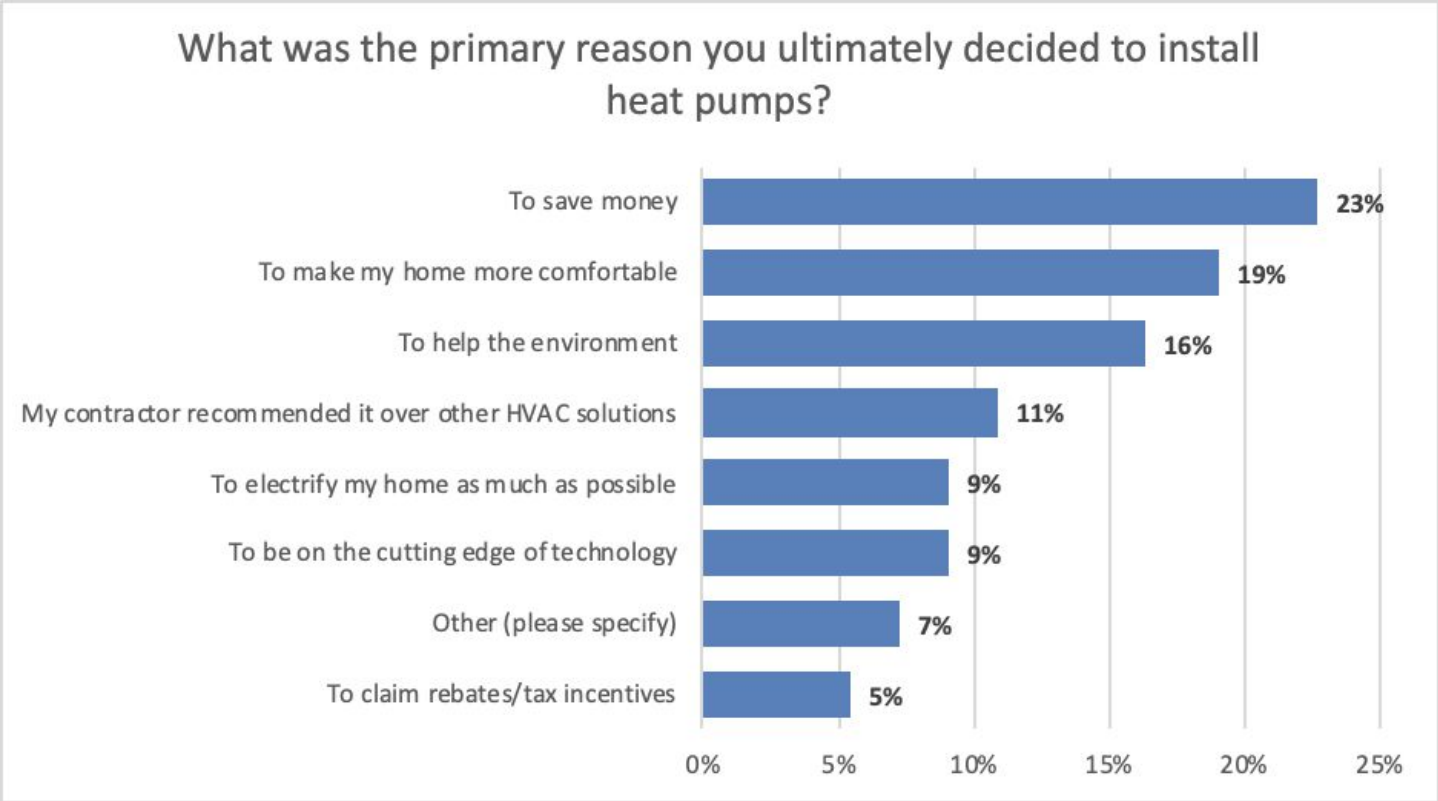
Heat pumps

- *Primary driver of interest:* To save money
- *Primary driver of adoption:* To save money
- *Primary barriers to adoption:*
 - 1) can't afford it
 - 2) need more time to research and decide

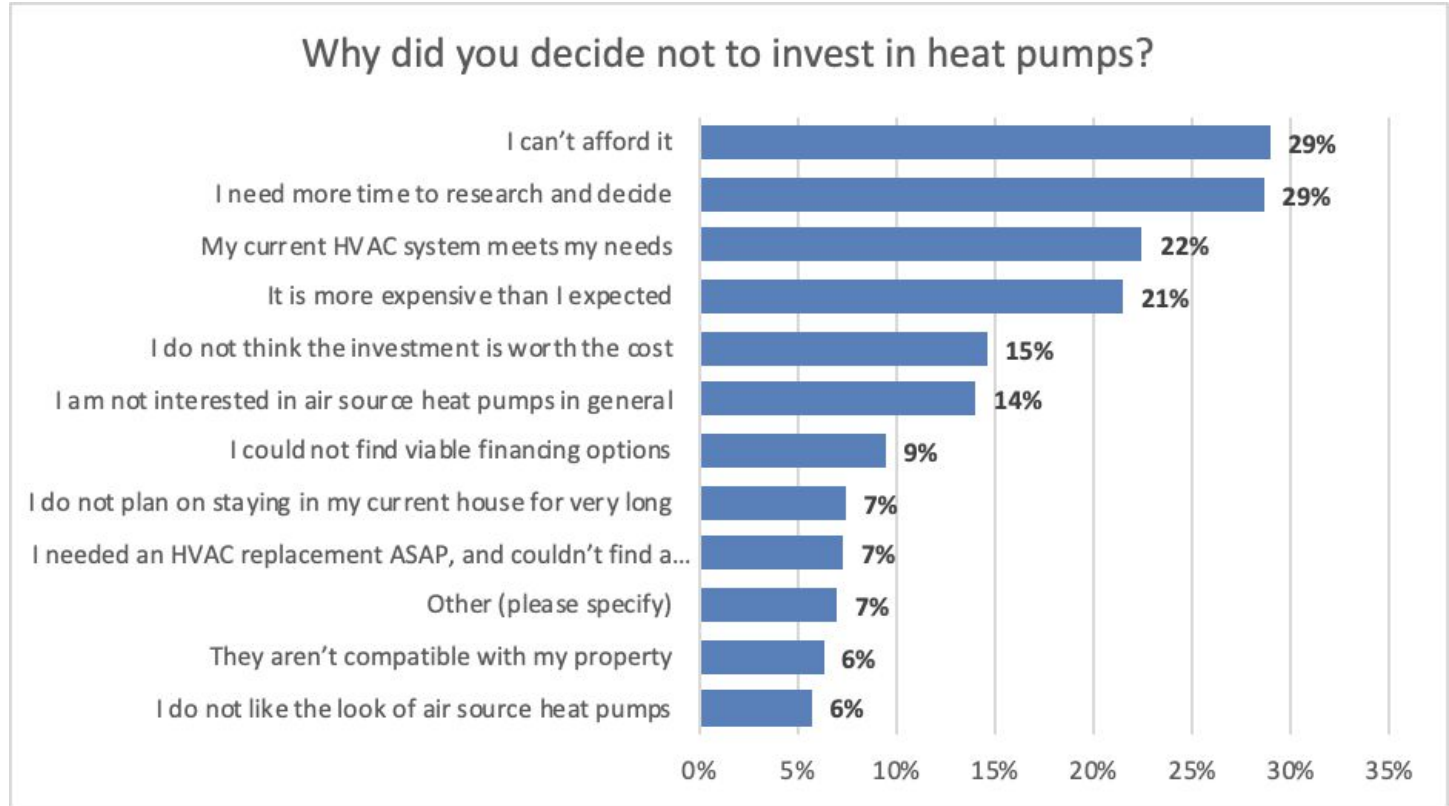
Heat pumps: interest



Heat pumps: drivers of adoption



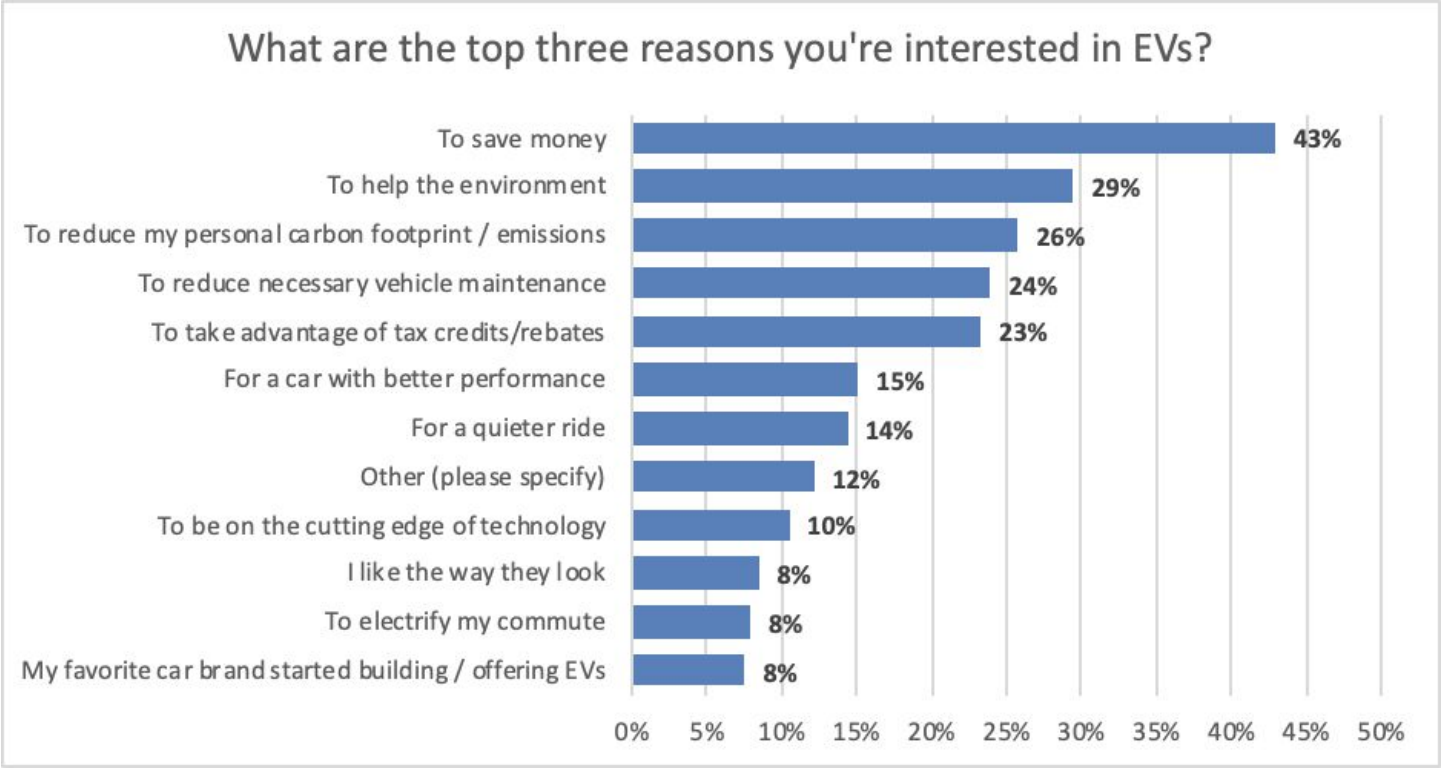
Heat pumps: barriers to adoption



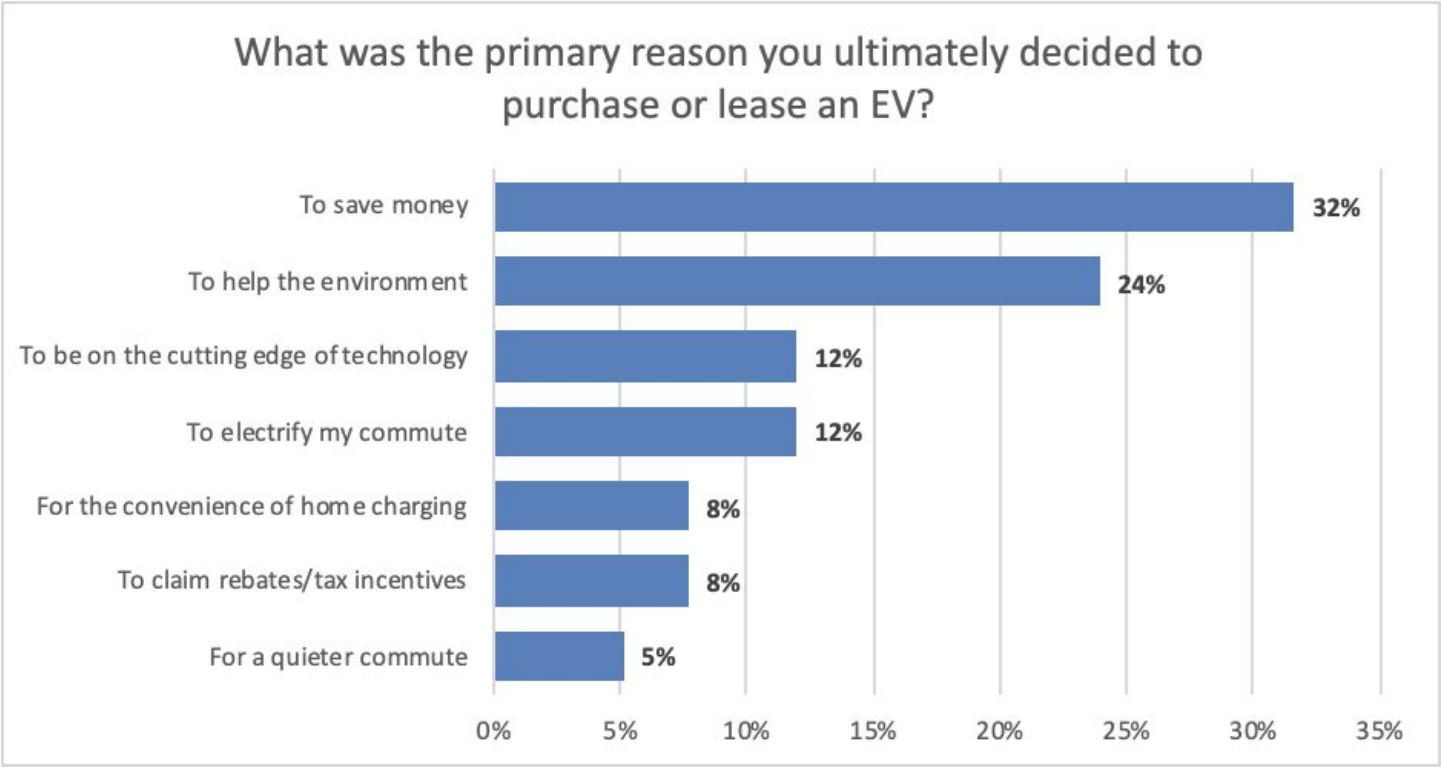
Electric vehicles

- *Primary driver of interest:* To save money
- *Primary driver of adoption:* To save money
- *Primary barriers to adoption:*
 - 1) can't afford it
 - 2) range anxiety
 - 3) charger availability

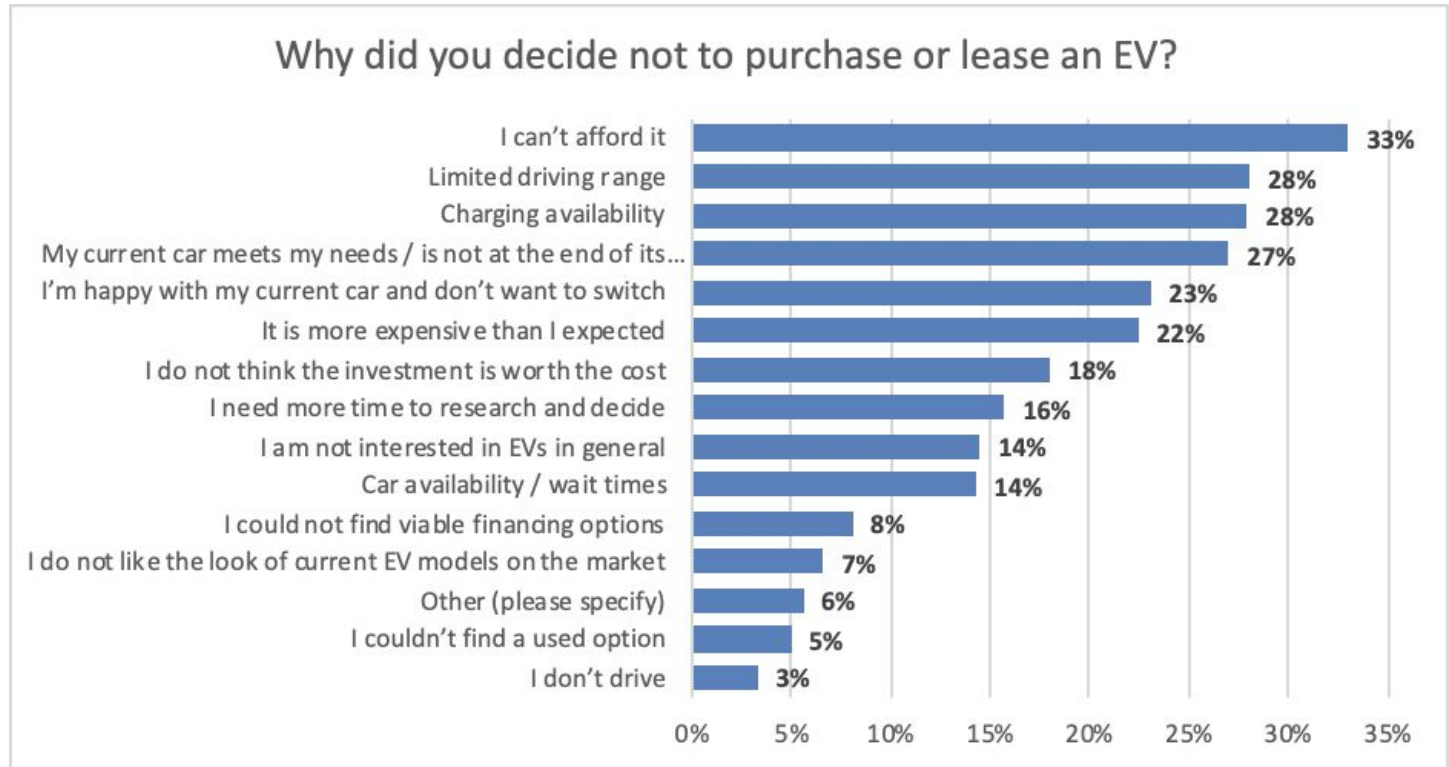
Electric vehicles: interest



Electric vehicles: drivers of adoption



Electric vehicles: barriers to adoption

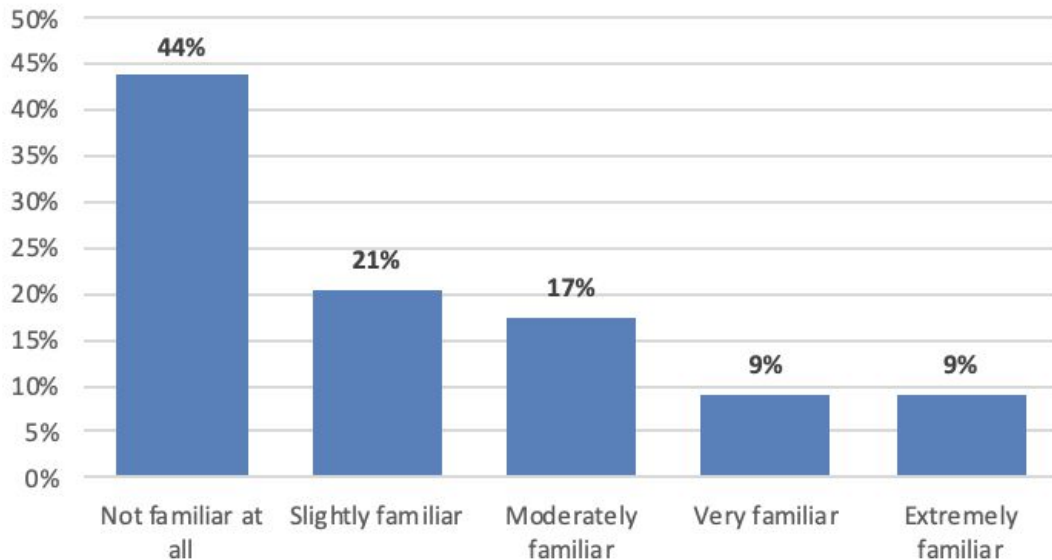


Community solar

- *Primary driver of interest:* To save money
- *Primary driver of adoption:* To save money
- Primary barriers to adoption:
 - 1) awareness and education
 - 2) perceived costs
 - 3) availability

Community solar: knowledge

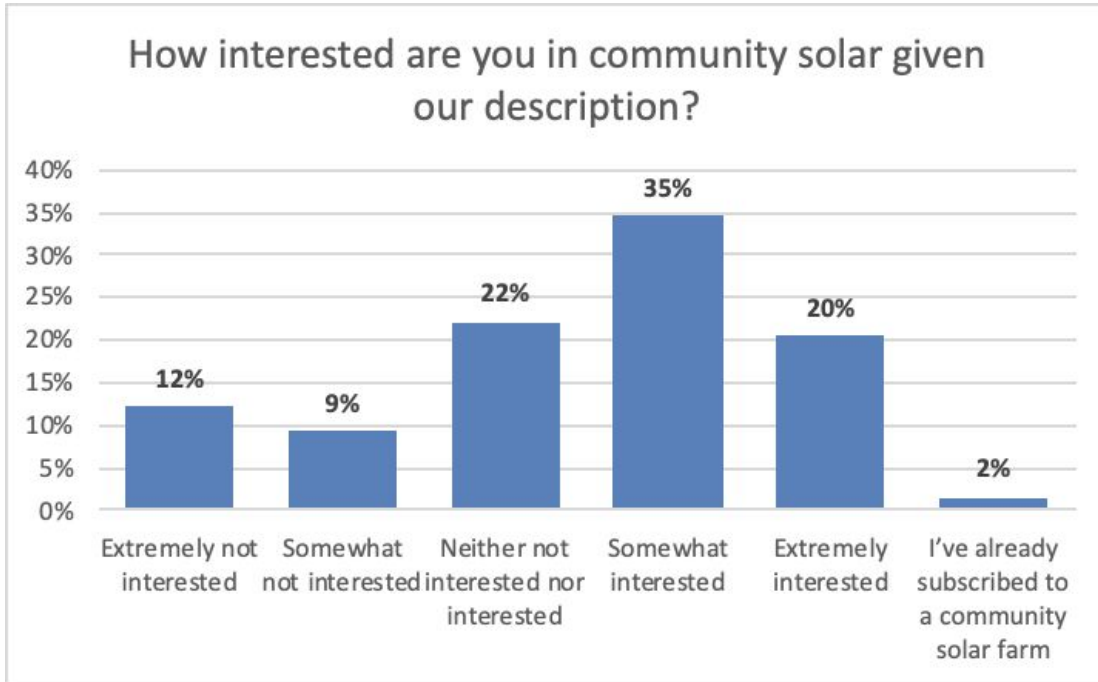
How familiar are you with community solar?



People are unfamiliar with community solar

- Only 18% are very or extremely familiar

Community solar: interest

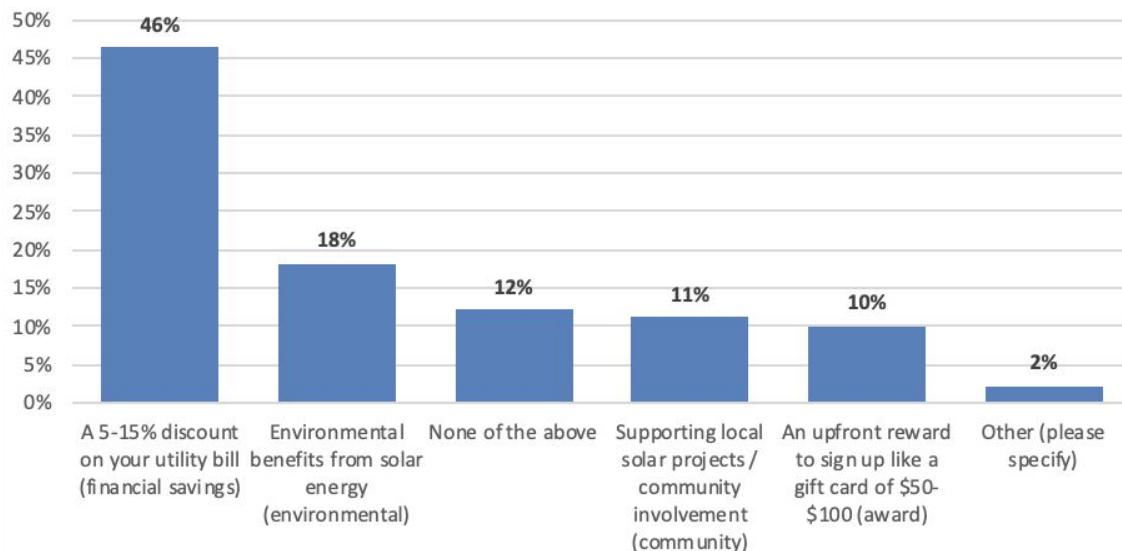


Interest in community solar is tepid

- Just over half of people express interest in community solar after reading our definition: *Large-scale solar installations that electricity customers subscribe to. Community solar subscriptions provide customers with energy credits that reduce electric bills, typically helping them save 5-15% annually.*

Community solar: motivations

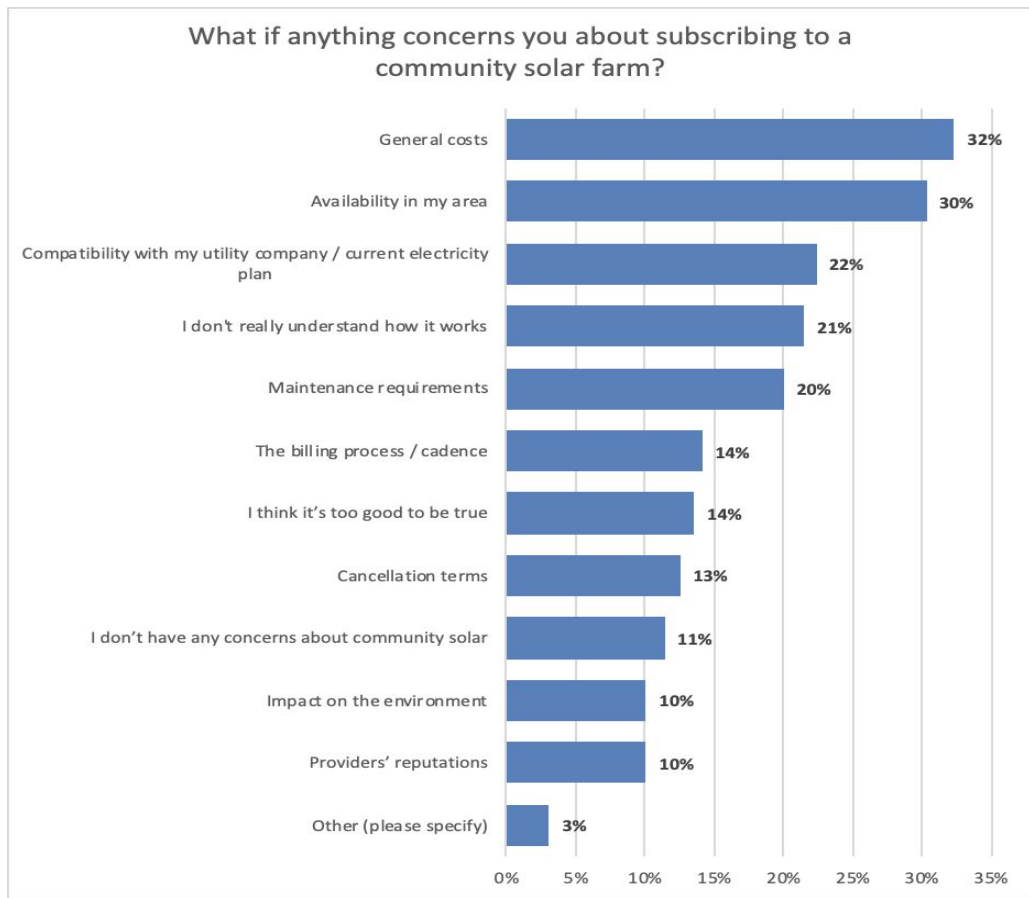
What is the most motivating factor for you to subscribe?



Saving money is the primary motivator

- Leading with the 5-15% discount on the bill is the most motivating factor to subscribe

Community solar: barriers and concerns

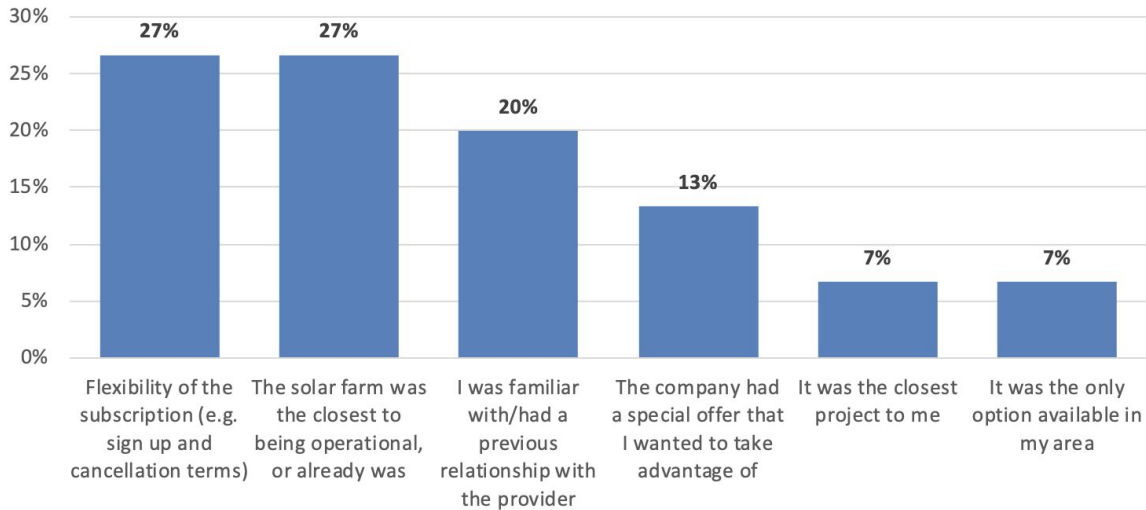


Costs and availability are primary concerns

- People are most concerned about the general costs and the availability of community solar in their area
- Notably, 1 in 5 people say they don't really understand how it works

Community solar: drivers of adoption

Why did you select the community solar farm you subscribed to?



Only 2% of respondents subscribe to community solar

- Two thirds of respondents say the primary driver of adoption was to save money
- People selected which project to subscribe to based on the flexibility of the subscription and the operational time of the project

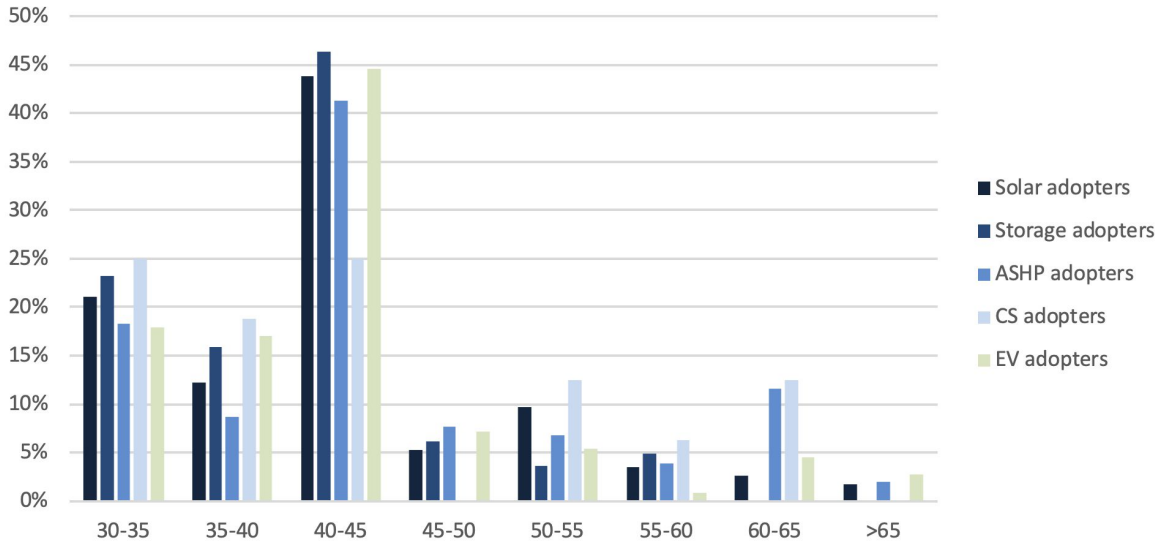
Methodology

Audience details...

- Nationwide panel, fielded October 2022
- 1,000 complete responses
- Primary decision makers in the household
- Ages: 30-65
- All geographies
- No filtering for income, housing type, ownership vs. renting

Age of respondents

Age of adopters

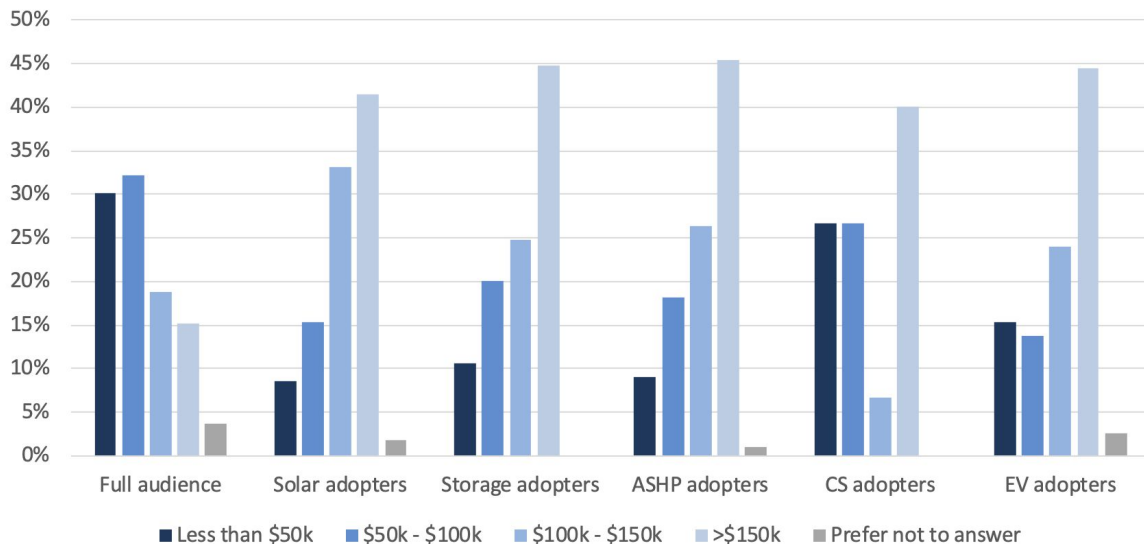


Age of adopters

- 63% of respondents are between 30 and 45
- Majority of adopters across all categories are in the 40-45 age range
 - Community solar is the only notable exception

Income of respondents

Income of tech adopters



Income level of adopters

- Income of respondents reflects national trends (median ~\$75k)
- Income skews right across all types of tech adopters
- Community solar is the notable exception with 60% having incomes of <\$125k per year
 - Only 40% of adopters of other tech are in the same income category

Thank you!

Data questions? Email data@energysage.com

Media inquiries? Email media@energysage.com

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