



How do consumers think about battery size?

September 2023

Methodology

This survey was conducted online over a one-week period from August 31 to September 7 of 2023. It was composed of 665 respondents from our policy newsletter subscriber list.

Of the 665 respondents, 83% own an electric vehicle while 3% lease an electric vehicle. The remaining 14% do not drive an electric vehicle. 23% of respondents are considering buying an EV in the next year compared to 49% of respondents who are not.

Respondents were asked the following questions:

- Do you drive an EV?
- Are you considering buying or leasing an EV in the next year?
- In shopping for an EV, did you or do you think about battery size?
- How did you think about battery size or how do you think about battery size when deciding what EV to buy or lease?





Main findings

Battery size is certainly a consideration for consumers.

9 in 10 respondents indicated that they think or thought about battery size when shopping for an EV.

Consumers think about their longest trips, not their daily commutes.

Only 6% of respondents said that they want to just meet their daily driving needs with the smallest battery possible, while a majority of respondents opt for long range.

Range anxiety and cold weather also affect consumers' battery preference.

Consumers would rather be safe than sorry when it comes to range, especially when factors like cold weather begin to decrease their ability to get the most out of their EV.

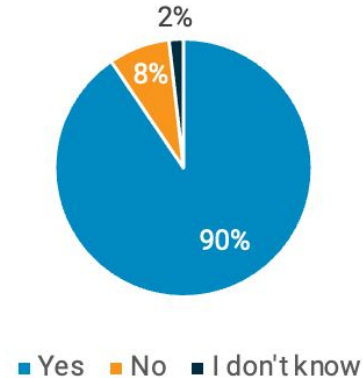
Battery size is certainly a consideration for consumers.

90% of respondents indicated that they think about battery size when shopping for an EV, compared to only 8% who said that they do not.

Many who answered “no” indicated that they think about range, not battery size. This indicates that, indirectly, battery size is a consideration for almost every single consumer.

Some consumers embark on only short drives within their own towns or communities and indicated that they would think about battery size if they had to take longer trips.

In shopping for an EV, did you or do you think about battery size?



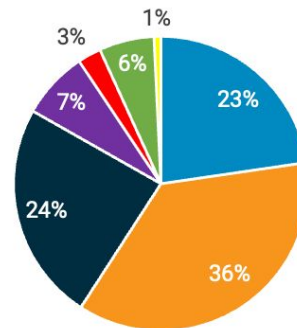
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23% of consumers want as much range as possible, with an additional 60% indicating that they want a vehicle with 250 miles of range and above.

Only 6% of respondents indicated that they want a vehicle that meets their daily driving needs with the smallest battery possible, indicating that consumers think in excess when it comes to battery size.

In open-ended responses, consumers voiced that they would rather be safe than sorry. They think about their longest trips or reduced winter range when considering battery size.

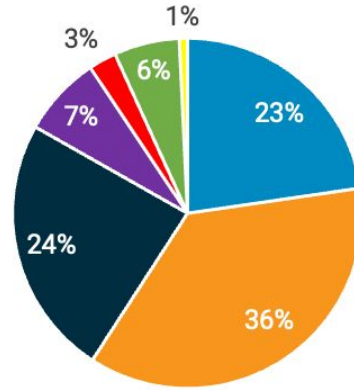
In thinking about buying or leasing an EV and battery size:



- I want a vehicle with as much range as possible
- I want a vehicle with at least 300 miles of range
- I want a vehicle with at least 250 miles of range
- I want a vehicle with at least 200 miles of range
- I want a vehicle with at least 150 miles of range
- I want a vehicle that meets my daily driving needs with the smallest battery possible
- This isn't something I think about

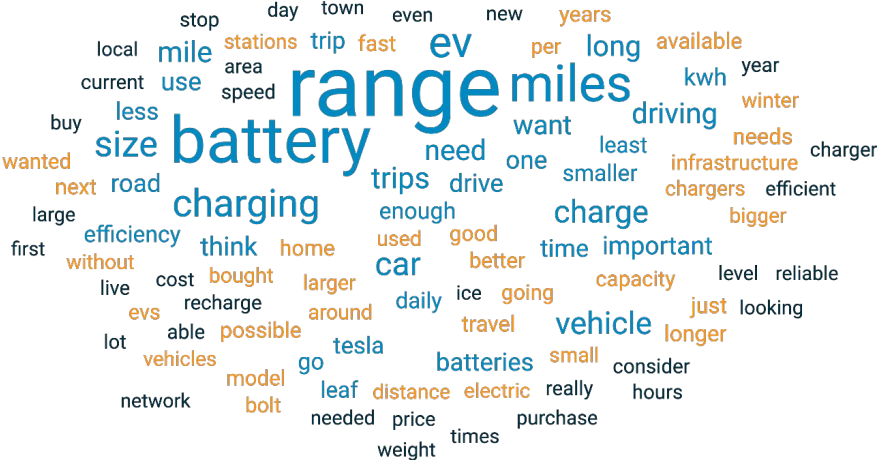
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Other takeaways from the open-ended responses



Open-ended responses

"I had range anxiety in 2018 when buying my EV so I wanted a long range battery. It was very important to me."

"My typical daily mileage is under 15 miles; and for the week I usually drive less than 200 miles. However I don't take my EV on long drives or on trips...I rent an ICE vehicle for such occasions."

"I was looking for a vehicle that will allow both daily use patterns and the occasional longer trip (>400 miles) with minimal down time for in transit charging."

"I need 300 miles of range so that in the winter, when the range drops, I can still have enough to get to my clients' locations for my photography business."

"Battery size is rather important to me, since the driving ranges are based upon ideal conditions...My EV would have been challenged if it had been stuck on the highway during this past winter's Kansas City low of -10 degrees or this summer's Kansas City high of 103 degrees."