

# Exchange: 2023 Electric Vehicle Residential Customer Survey

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# Your hosts for today



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# Today's agenda



Survey details



Survey findings and audience polls



Open discussion



Wrap up

# This is a virtual roundtable discussion

- Participation is essential
- Use Zoom's **chat** feature to pose questions and share comments
- Unmute your line when you're ready to speak (\*6)
- Turn your video on



# 2023 Electric Vehicle Residential Customer Survey

- Sample size: n = 9,556
- 90% US and 10% Canadian respondents
- Fielded in April 2023
- [Electric Vehicle Residential Customer Survey](#)
- Vehicle purchase process, preferences, and trusted sources of information
- Interactions with EVs and dealerships, purchase influences, and barriers to ownership
- EV owner habits including changes to expenses and participation in rate options
- EV charging awareness, habits, and preferences
- Demographics and household information for segmentation

# What's the current state?

5%

Plug-in  
hybrid EV  
(PHEV)

7%

Battery EV  
(BEV)

14%

Hybrid EV  
(HEV)

80%

Internal combustion  
engine (ICE)

... have at least one of these vehicle types in their household

# How are customers interacting with EVs?



Only 29% said they had no interactions with all-electric vehicles



Seen a commercial, ad, TV program or online video about all-electric vehicles



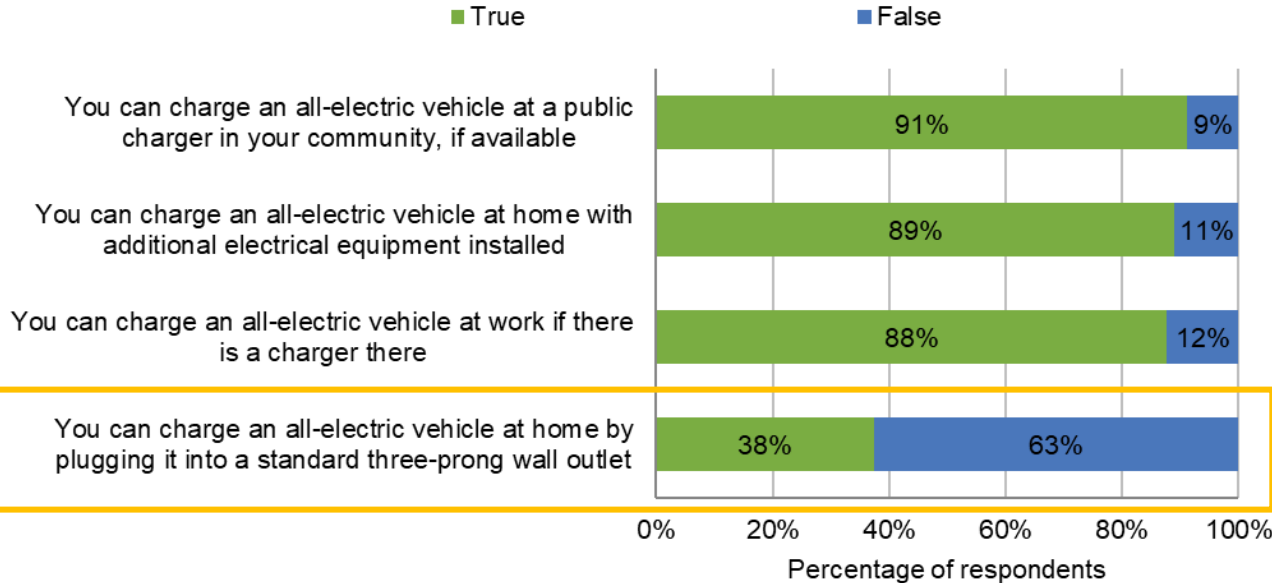
Seen EV chargers in their area



Talked to a friend, family member, or coworker who has an EV, read a magazine or news article, or searched online

# Basic EV charging knowledge is still lacking

Current knowledge of all-electric vehicle charging



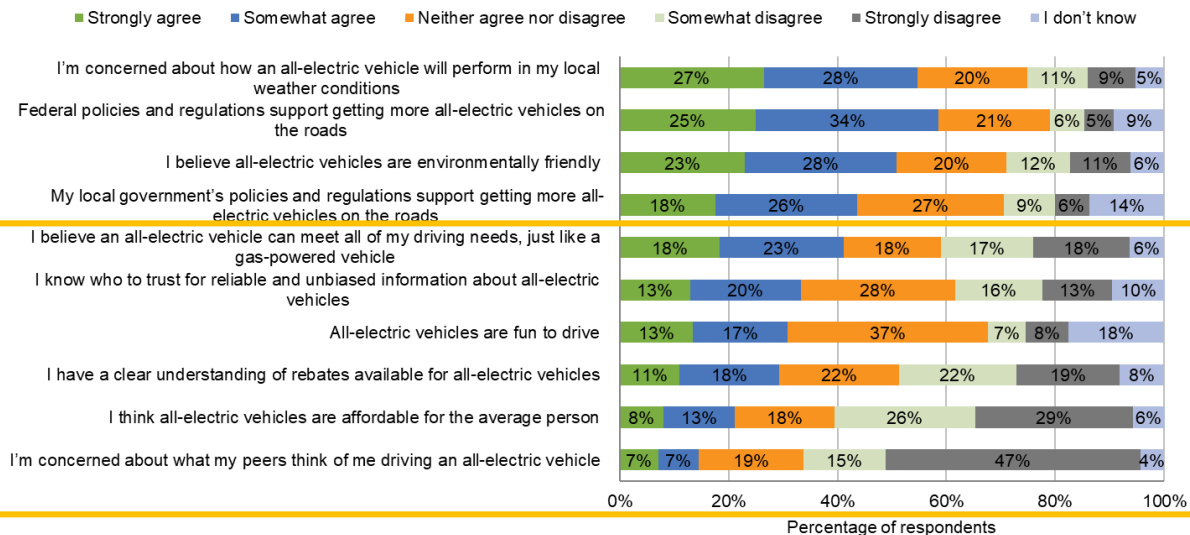
Most don't know you can charge a BEV with a standard plug!

© E Source (2023 Electric Vehicle Residential Customer Survey). **Base:** All respondents from the US and Canada (n = 9,556). **Question S5\_1:** Based on your current knowledge, please choose true or false for the following statements. How can you charge an all-electric vehicle? **Notes:** Percentages may not add to 100 due to rounding. Percentages shown reflect weighted data; sample sizes (n) are based on unweighted data.



# Customers don't have the information they need

Agreement with statements about all-electric vehicles



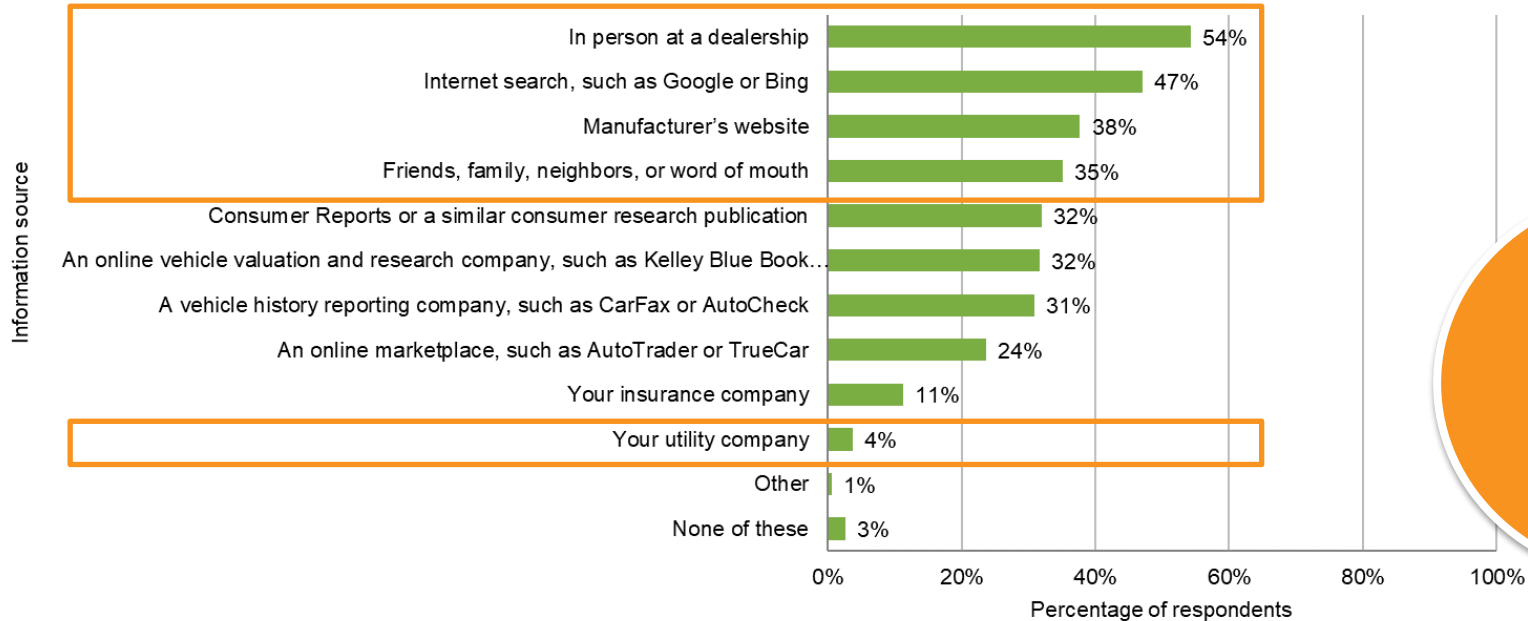
© E Source (2023 Electric Vehicle Residential Customer Survey). **Base:** All respondents from the US and Canada (n = 9,556). **Question S3\_8:** How much do you agree with the following statements about all-electric vehicles? **Notes:** Respondents rated each statement on a scale of 1 (strongly disagree) to 5 (strongly agree) and were provided a Don't know option. Percentages may not add to 100 due to rounding. Percentages shown reflect weighted data; sample sizes (n) are based on unweighted data.

## Customers ...

- Don't know who to trust for information
- Don't know if EVs will meet needs
- Don't know about rebates
- Don't think EVs are affordable

# Where will customers go for information?

Sources of information for next vehicle

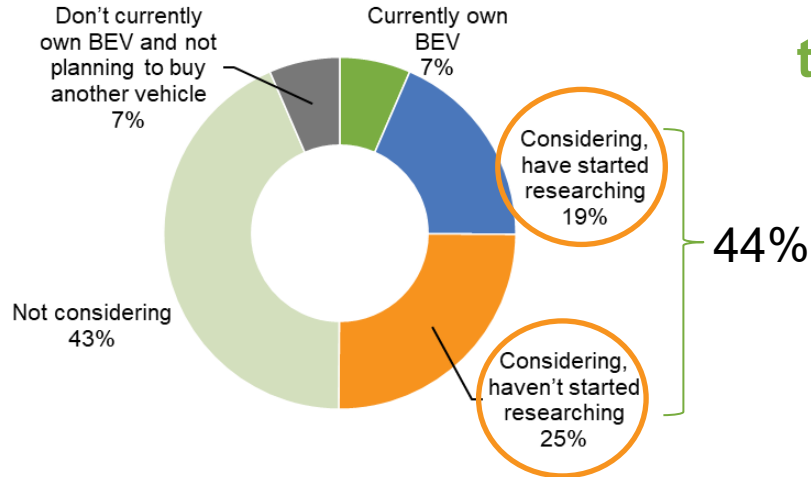


But those looking to buy an EV next are more likely to turn to a utility

© E Source (2023 Electric Vehicle Residential Customer Survey). **Base:** US and Canadian respondents planning to buy or lease another vehicle (n = 8,991). **Question S2\_8:** When considering your next vehicle, where would you go to get more information about all the options available to you? Please choose all that apply. **Notes:** Respondents were allowed to choose more than one response. Percentages shown reflect weighted data; sample sizes (n) are based on unweighted data.

# What will customers do next?

Consideration of all-electric vehicles



More considering than those who will buy one next

- HEV: 20%
- PHEV: 9%
- BEV: 9%

## Reading between the numbers

- Gap between stated interest and intent to buy BEV
- **How might we ...** better convert interest to a BEV purchase?

© E Source (2023 Electric Vehicle Residential Customer Survey). **Base:** All respondents from the US and Canada (n = 9,556). **Question S3\_1:** Which statement best describes your stage in the purchase process of an all-electric vehicle? (All-electric vehicles are only powered by electricity [batteries] and don't have a gas tank.) **Notes:** Percentages may not add to 100 due to rounding. Percentages shown in the charts reflect weighted data; sample sizes (n) are based on unweighted data.

# What's getting in the way?

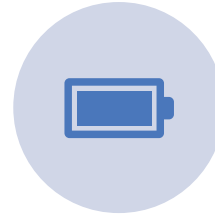
Nonowners' **perceived** barriers to BEVs



Worried car will run out of charge



Cost of ownership



Not enough public charging stations



Don't need a new vehicle

But 85% overall are driving 40 miles or less per day currently

Lack of awareness on rebates and incentives, and vehicle and maintenance costs

Just perception?  
Only 15% of owners **always** charge with public chargers

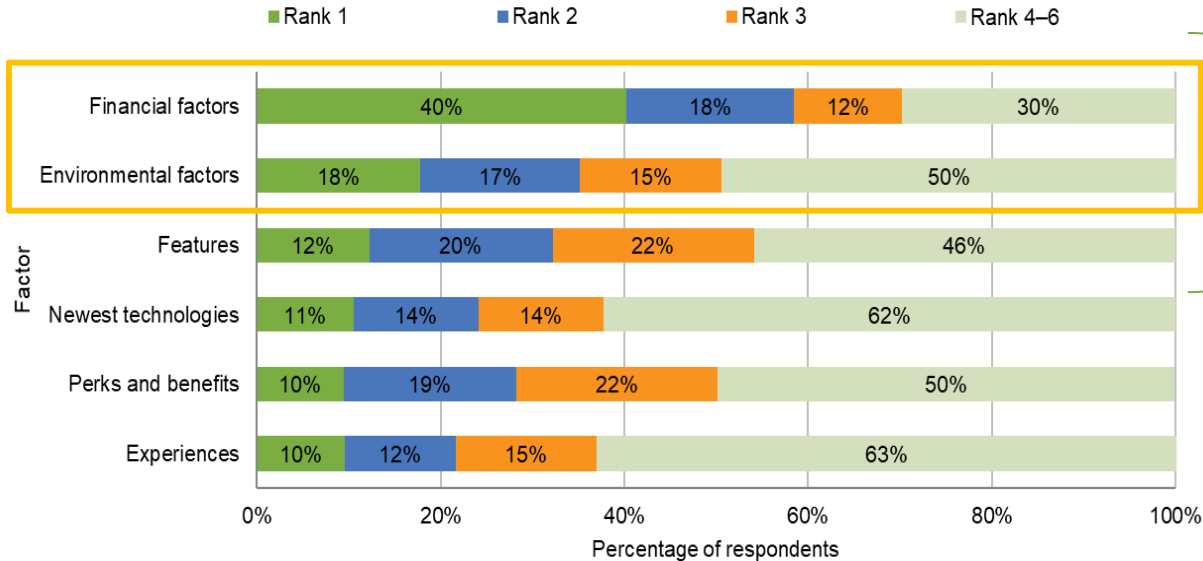
**How might we ...** proactively address these perceived customer barriers via awareness, education, and targeted communications?

## Reading between the numbers

There's a gap between perceived barriers and current habits

# What can influence purchase?

Influences to buy or lease an all-electric vehicle



© E Source (2023 Electric Vehicle Residential Customer Survey). **Base:** US and Canadian respondents who currently own a BEV, are considering a BEV, or say the next vehicle they buy will be a BEV (n = 5,155). **Question S3\_13:** Please rank each of the following from 1 (most influential) to 6 (least influential) on your consideration or your decision to buy or lease an all-electric vehicle. **Notes:** BEV = battery electric vehicle. Percentages may not add to 100 due to rounding. Percentages shown reflect weighted data; sample sizes (n) are based on unweighted data.

## Reading between the numbers

Financial factors are the biggest barriers to buying a BEV and have the most influence on the purchase

How might we ... coordinate to provide information, messages, and solutions that overcome key customer barriers?

# Utility rates and offerings

## Rates

- Just over half of EV owners are currently on a TOU rate
- But many current and potential future EV owners would prefer a flat rate

## Managed charging

- Lower rates and financial incentives are the biggest motivators for managed charging overall
- The next wave of EV buyers is motivated by environmental concerns



A nighttime cityscape with illuminated buildings and a complex highway interchange, serving as the background for the slide.

# Open discussion

# E Source Market Research

## Electric Vehicle Residential Customer Survey

Distributed energy resource strategy

Transportation electrification

Customer experience strategy

Residential marketing



### About

The largest survey on US and Canadian customer readiness for EVs, we describe residential customers' readiness for EVs to inform utility program design and marketing outreach. Learn more at [www.esource.com/electric-vehicle-residential-customer-survey](http://www.esource.com/electric-vehicle-residential-customer-survey).



### Participation

Based on the services they subscribe to members have access to reports and webinars featuring insights from the survey. Nonmembers may purchase access to the results for a fee.



### Results

Members of select services get content about overall survey findings, including access to industry and best-practice reports, webinars, and networking events for relevant content areas. Nonmembers may purchase access to the results for a fee.



# What you get

	<u>DER Strategy Service</u>	<u>Mobility Service</u>	<u>Customer Experience Strategy Service</u>	<u>Residential Marketing Service</u>
Full results from the 2023 study	✓	✓		
Content on dealership partnerships	✓	✓		
Content on how to improve the EV customer experience	✓	✓	✓	
Content on understanding the next wave of EV buyers	✓	✓		✓
Content on understanding and effectively reaching customers with EV marketing	✓	✓		✓
Content on creating effective EV strategies, pilots, programs, and other customer offerings	✓	✓		

## Not a member? Not a problem!

If you'd like access to the survey insights, or if you'd like us to field the survey in your service territory, please fill out this [form](#).

# E Source Mobility Service

## A supportive investment partnership



# Other services that support your energy goals

## Demand-Side Management Service

Advises utilities on the design, implementation, and optimization of **energy efficiency and demand response**, and provides **regulatory support**.

*“What types of pilots or programs are utilities offering for insulation and air sealing?”*

## Distributed Energy Resource Strategy Service

Advises utilities on the design, implementation, and optimization of **solar, storage, and fuel-switching programs**, and provides **regulatory support**.

*“How are utilities approaching the conversation of fuel-switching with regard to ccASHPs?”*

## Technology Assessment Service

Advises utilities on the market potential, technical aspects, and energy impacts of **energy efficiency, demand response, and DER technologies**.

*“What are emerging HVAC technologies, like ccASHP, that we should consider for our residential offerings?”*

 **E Source****FORUM 2023****September 19-22****Sheraton Denver  
Downtown**

[www.esource.com/forum2023](http://www.esource.com/forum2023)

# For more information



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Want more information  
and insights from this study?

Check out:

[Electric Vehicle Residential  
Customer Survey](#)