Plug In America | EPRI EVs2Scale 2030

2024 EV ANNUAL SURVEY

UTILITY OVERVIEW

EXECUTIVE SUMMARY

This report demonstrates a summary of the results useful for utility stakeholders from the EV driver survey conducted by Plug In America in partnership with EPRI's EVs2Scale2030™ initiative. This survey builds on data collected over the past three years. It taps into electric vehicle (EV) driver networks, using Plug In America's longstanding reputation as a trusted source for both early and new adopters. This survey includes responses from over 4,200 respondents, with more than 3,300 of those respondents being EV drivers. The survey was fielded from January 2024 through March 2024. The intent of this survey was to paint a picture of the respondents' current EV experience in the United States. **Plug In America proactively collected survey data through various channels, prioritizing participant engagement. Although statistically significant, this approach may introduce bias in the results as respondents likely have more EV knowledge than the general public of the United States. Please consider this when interpreting the survey findings.** This summary picks out results that can be leveraged by utility stakeholders to strategize EV adoption and highlights them.

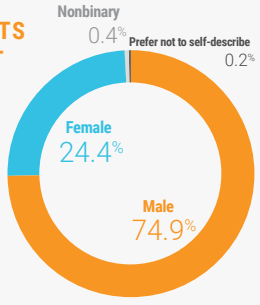
RESPONDENT DEMOGRAPHIC DASHBOARD

Before we begin looking at some of the factors that can inform policy, it is imperative to understand the respondents' background to better interpret the information. **Of the 4,224 respondents, 3,527 indicated that they own at least one e-mobility option. Of these owners, ~80% were white, 5% were Asian/Asian American or Pacific Islander, 3% were Black/African American, 2% were multi-racial, 1% were Native American/Alaska Native, 0.14% were South Asian, 0.27% Middle Eastern, and 0.14% were of Hispanic/Latino origin (rest declined to specify).** Most EV driver surveyors also lie in an income bracket higher than the U.S. median household income of ~$67,000 (2023); and about 80% of the respondents who own at least one e-mobility option own single-family homes. About 44% of EV driver surveyors own their homes and are in the $100k income bracket, and 4% are below the $36k income bracket. The demographics for all EV and non-EV drivers combined can be found in the survey report.

RESPONDENTS BY AGE RANGE

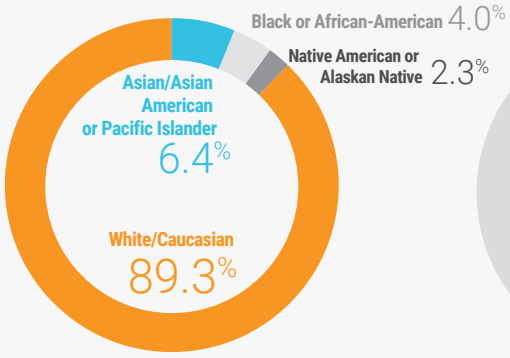
18–24	25–34	35–44	45–54	55–64	65–74	75+
1.2%	9.1%	13.4%	15.5%	21.6%	26.8%	12.4%

RESPONDENTS BROKEN OUT BY GENDER IDENTITY

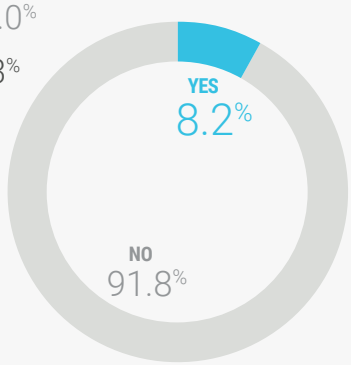


RESPONDENTS BY THEIR RACE/ETHNICITY

(respondents were allowed to choose more than one, so percentages add up to over 100%)



RESPONDENTS OF HISPANIC AND/OR LATINO DESCENT



RESPONDENTS BROKEN OUT BY ANNUAL HOUSEHOLD INCOME

Up to $36,000	27.1%
$36,001 to $50,000	21.9%
$50,001 to $75,000	19.6%
$75,001 to $100,000	17.4%
$100,001 to $250,000	17.2%
$250,001 or more	10.0%

EV PURCHASE

- **About 83.5% of survey respondents owned an EV.** These survey respondents are more likely to be in the early adopter or early majority phase of the EV adoption curve.
- Among non-EV drivers, most were open to the idea of purchasing an EV. Most of those not currently considering an EV were also not in the market for a new car. However, respondents are more receptive to EVs compared to the general public.
- There is a high repeat of purchase intent among EV owners which indicates an overall positive customer experience suggesting continued EV growth.
- Most respondents did not have trouble finding the information they needed on EVs. **However, some respondents had trouble finding information on weather impact, incentives, and vehicle characteristics the most.**

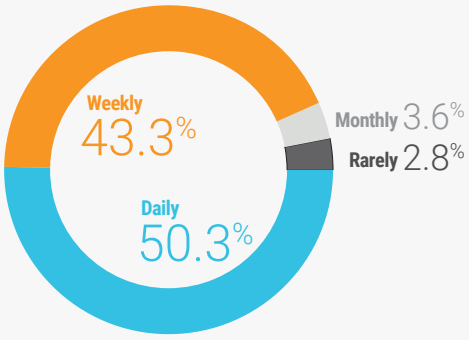
CHARGING

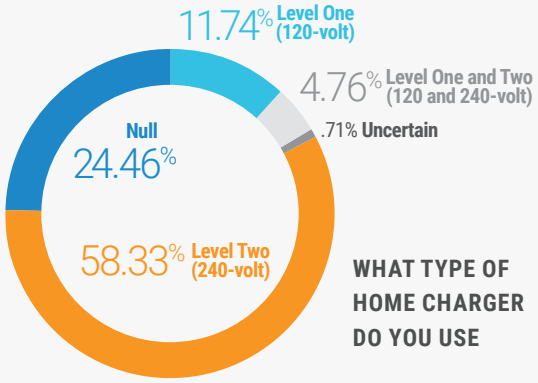
- Majority of respondents charge overnight (10 PM - 6 AM). Almost 41% of them enjoy special rates. The next common time to charge is in the evening (5 PM – 10 PM).

Over 80% of respondents said they would be willing to change the hours they charge at home if they received discounted electricity rates.

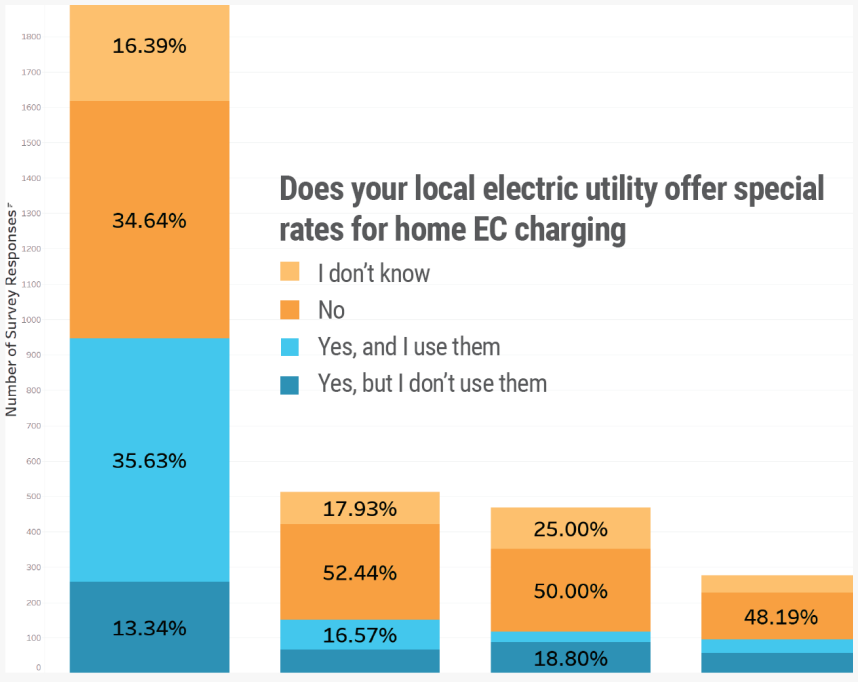
- Majority of respondents live in single-family homes. **Of those who live in these homes, ~86% own level 2 chargers, and the rest own level 1 chargers.**
- Majority of respondents have access to a public charger within 5 miles of their residence and have a charger at home.
- Work chargers can be an alternative to home chargers for those who don't have access to home charging. These are especially popular among younger consumers and those in multi-family housing.
- **While 37% of respondents said they had concerns over access to home charging when they first got an EV, only 12% said it was a concern post-ownership.** Comparatively, 25% of respondents had concerns over home charging setup or wiring costs when they first got an EV, which dropped to 6% post-ownership.

HOW OFTEN DO ALL EV DRIVERS CHARGE THEIR EV AT HOME?

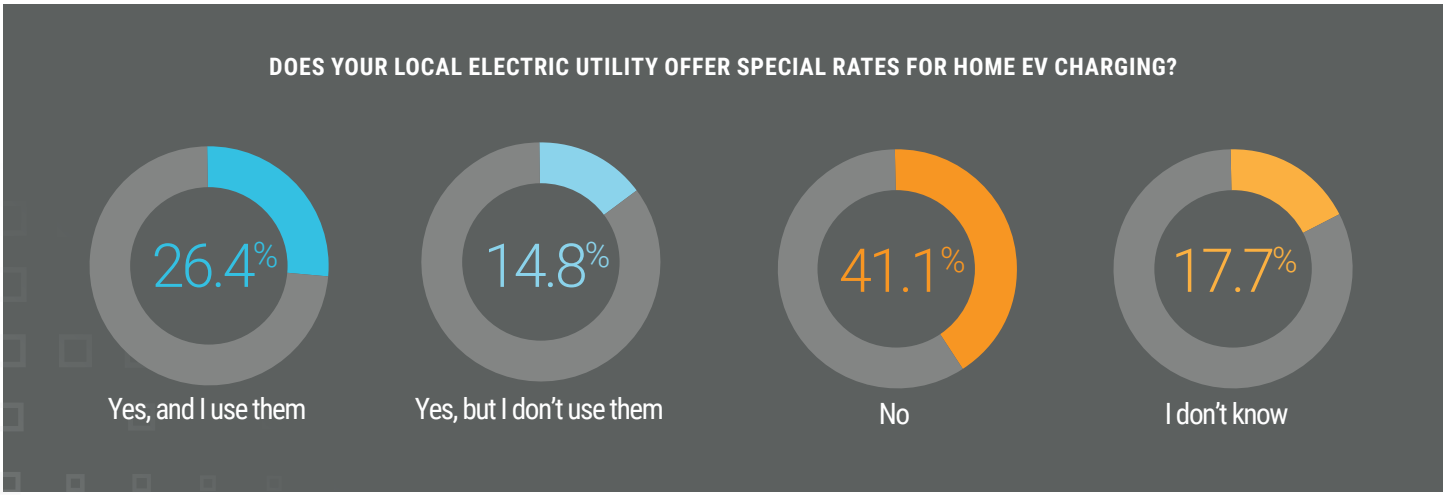




WHAT TYPE OF HOME CHARGER DO YOU USE



WHAT TIME OF THE DAY DO YOU FREQUENTLY CHARGE



INCENTIVES

- Many respondents did not know if utility EV rates were available, and of those who knew, most thought that they were influential:
  - When purchasing/leasing an EV, **~25% of respondents said discounted/ TOU (time-of-use) rates were influential.**
  - When purchasing/leasing an EV, **~20% of respondents said utility rebates for charging stations were influential.**
- The most popular incentive used was inexpensive home charging, with **about 69% of respondents saying they have used or do use it and about 32% of respondents saying it was critical in their decision to drive an EV**.

TAKEAWAYS

- Utilities can educate the public on the importance of staggering their load by avoiding charging during peak periods and opting for overnight charging.
- Utilities can help bridge the knowledge gap in cold weather performance, public charging options, and available incentives.
- Level 2 charger popularity suggests that utilities must meet the power demanded from L2 chargers rather than L1.
- Utilities can take measures to educate their customers on rebates and incentives for purchasing and charging EVs.