



Plug In America

WE DRIVE ELECTRIC. YOU CAN TOO.

March 18, 2022
EV Driver Survey Webinar

- National nonprofit organization founded in 2008; our members are passionate EV drivers
- The leading national voice promoting and accelerating the rollout of plug-in cars
- The world's deepest pool of experienced EV drivers, with many years of experience and millions of electric miles driven

- September-December 2021
- 8,000+ responses
- PIA's mailing list plus responses to social media ads

- 5,722 EVs reported
 - Tesla 35%
 - Chevrolet 20%
 - Nissan 10%
 - BMW 4%
 - Toyota 4%
 - Other 27%

Key Takeaways

90%

90% of EV owners are likely to purchase an EV as their next vehicle

83%

83% of owners were satisfied with finding the information they needed to buy/ lease an EV

15%

Only 15% of EV owners rated dealership salesperson knowledge as “very high.” Only 35% rated as “high” or better

Key Takeaways

92%

92% of EV owners most frequently charged at home, among those with a single most common charging location

24%

24% of EV owners have *only* Level 1 charging at home (including 20% of Bolt drivers and 11% of Model 3 drivers)

25%

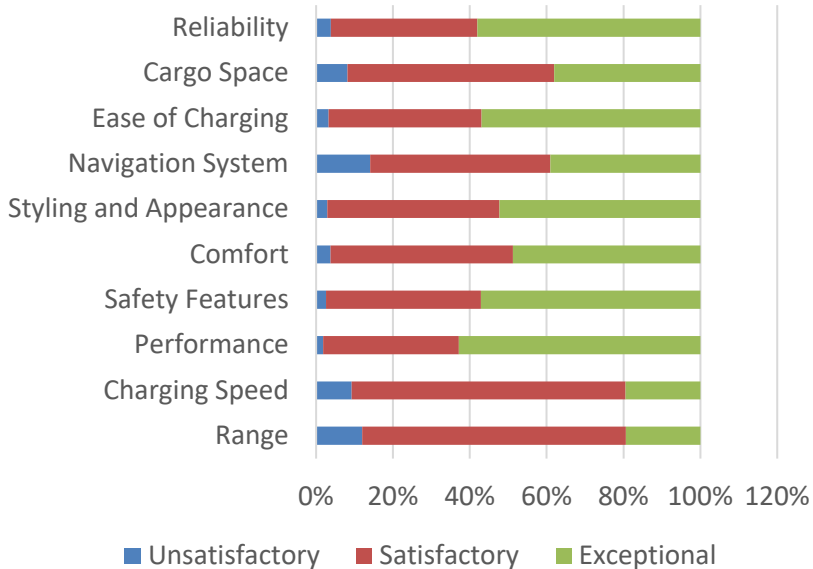
25% of those who used public DC fast charging noted that broken chargers were a “major difficulty” or “a deal-breaker for using this network”

3%

3% of those who used the Tesla Supercharger Network noted that broken chargers were a “major difficulty” or “a deal-breaker for using this network”

The Vehicles (with 100+ responses)

Across all models



What owners liked best about each EV

Vehicle	Most Exceptional
Tesla Model 3	Performance
Chevy Bolt	Performance
Nissan LEAF	Reliability
Tesla Model Y	Performance
Tesla Model S	Performance*
Chevy Volt	Reliability
BMW i3	Performance
Kia Niro	Safety Features
Toyota Prius Prime	Reliability
Tesla Model X	Safety Features*
VW ID4	Comfort
Ford Mustang Mach E	Styling and Appearance*
Honda Clarity	Ease of Charging
Audi e-tron	Comfort*

* Led all EVs in this category

The Vehicles

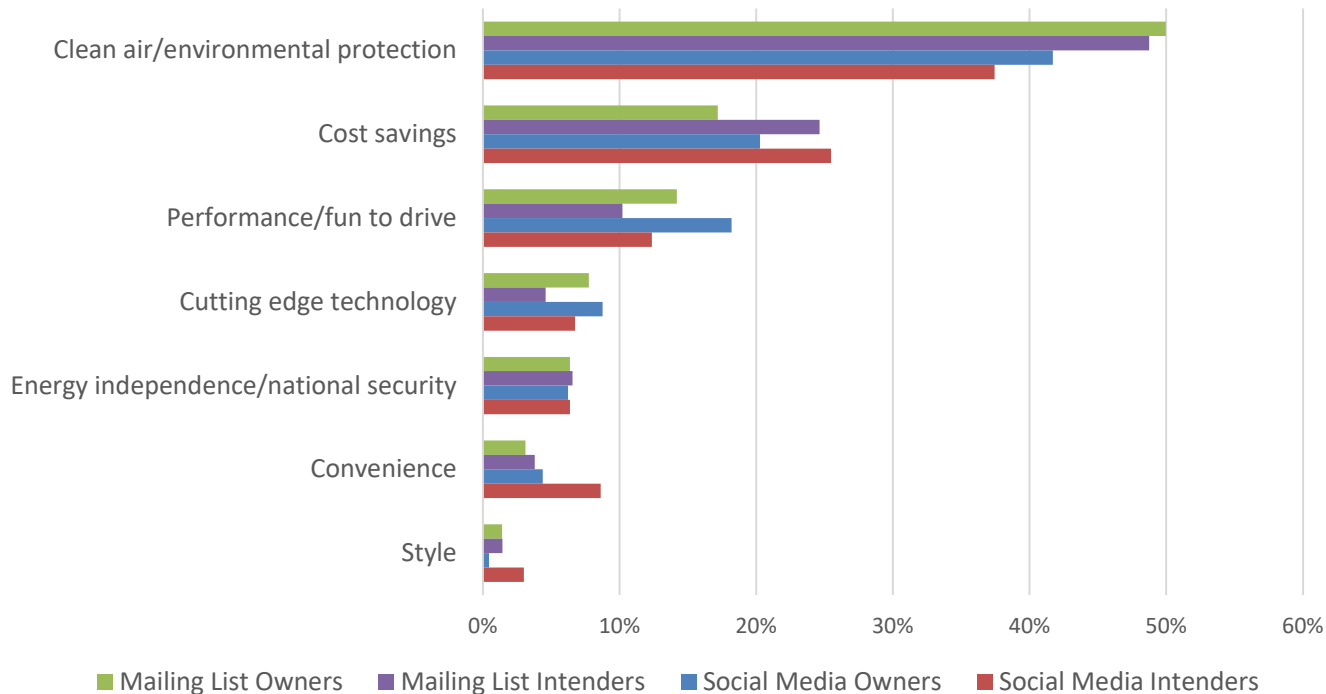
- Model Y stood out
 - Under 2% “Unsatisfactory” and over 40% “Exceptional” in every category
- Next most highly rated were the other Tesla vehicles and the Ford Mustang Mach-e
- Did not ask about age of vehicle
 - Newer models generally fared better (e.g. no Model Y is over 3 years old, but every Chevy Volt is)
 - Ongoing improvement in new EV capabilities
 - Will ask for model year in future surveys
- Not PIA’s ratings, but those of survey respondents
 - Shaped by expectations
 - Model Y rated as “exceptional” on cargo space more often than Model X

Motivations

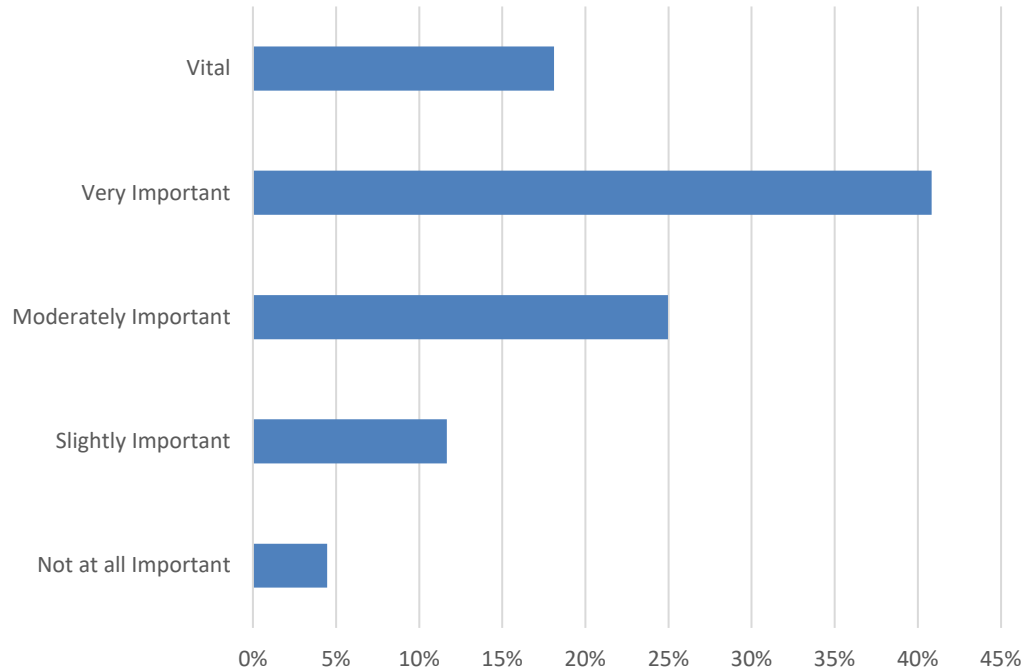
Environmental protection was by far the most prevalent motivating factor among both groups.

Intenders rated cost savings more important than did owners

Environmental motivation shows up in responses to the next question...



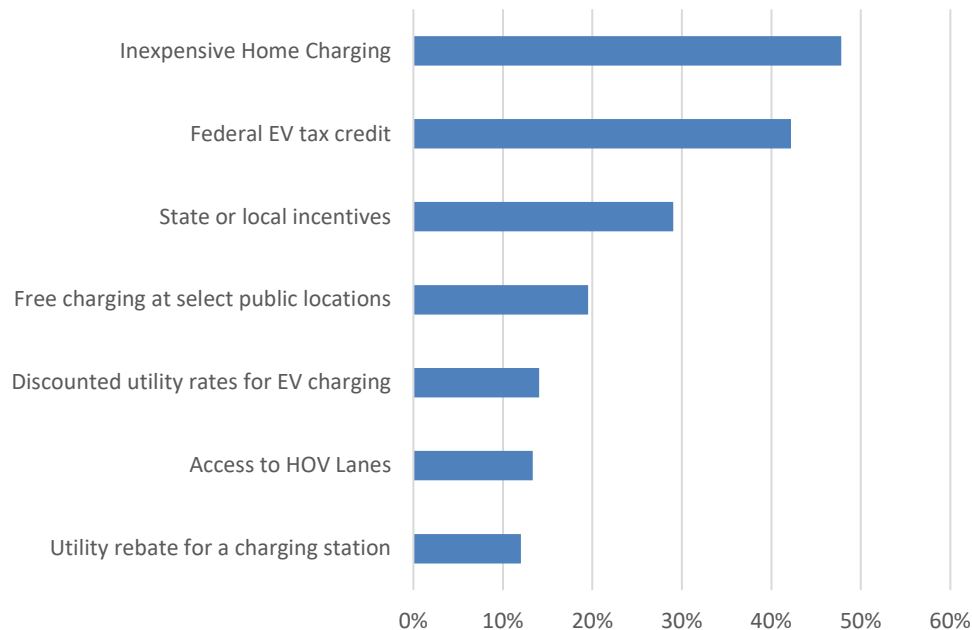
“How important is it that the electricity used in an EV come from renewable energy?”



Inexpensive home charging is the economic incentive most commonly rated as “very influential” or “critical”

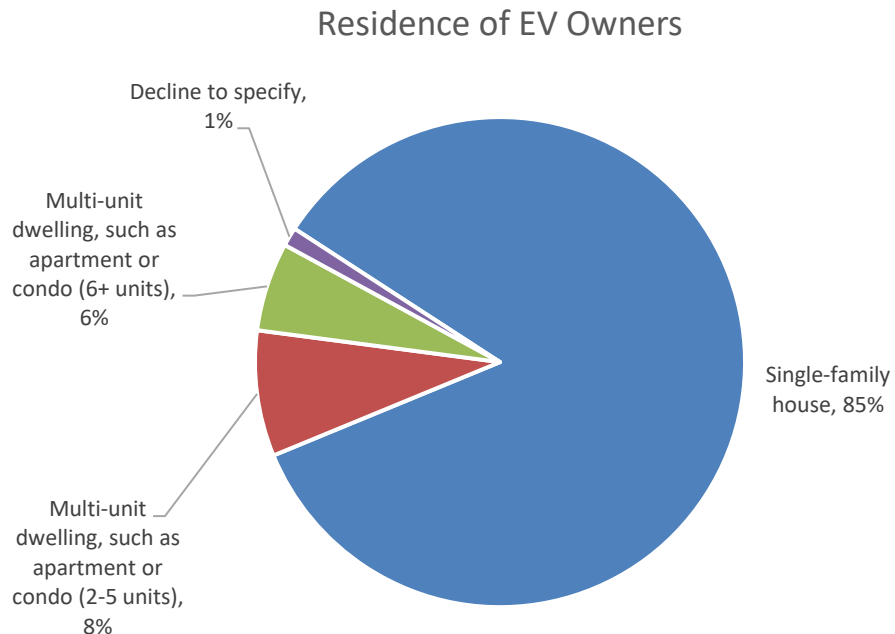
Federal EV Tax Credit has dropped in relative importance

Many EVs bought in the past year did not qualify for it (Tesla, GM)



Inexpensive home charging: A major draw

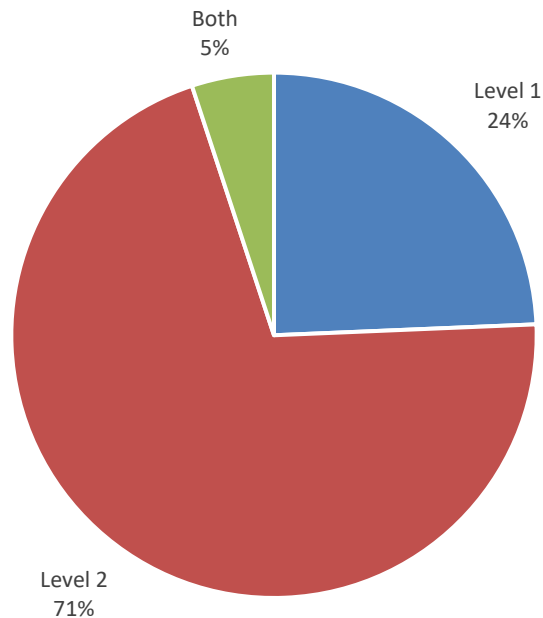
Those with access to home charging represent the “low-hanging fruit” – those who can most easily switch to EVs in 2022



Not just for PHEVs

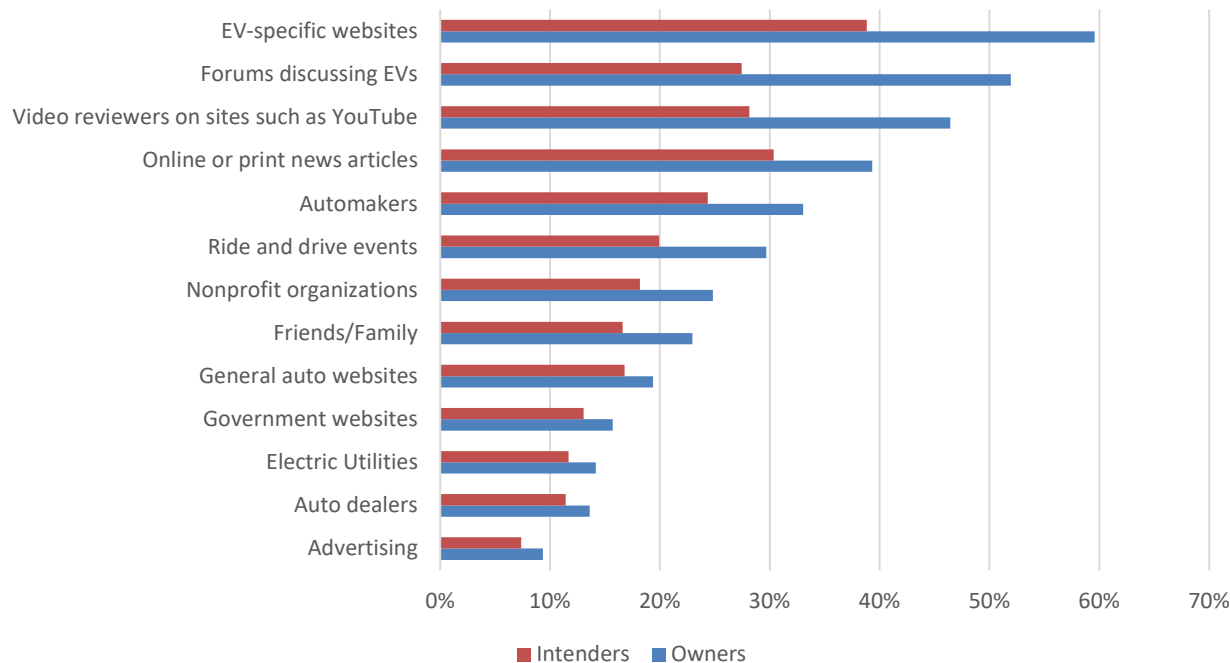
About 30% of LEAF drivers reported using only level 1 charging at home, as did about 20% of Bolt drivers and 11% of Model 3 drivers.

What type of home charger do you use?



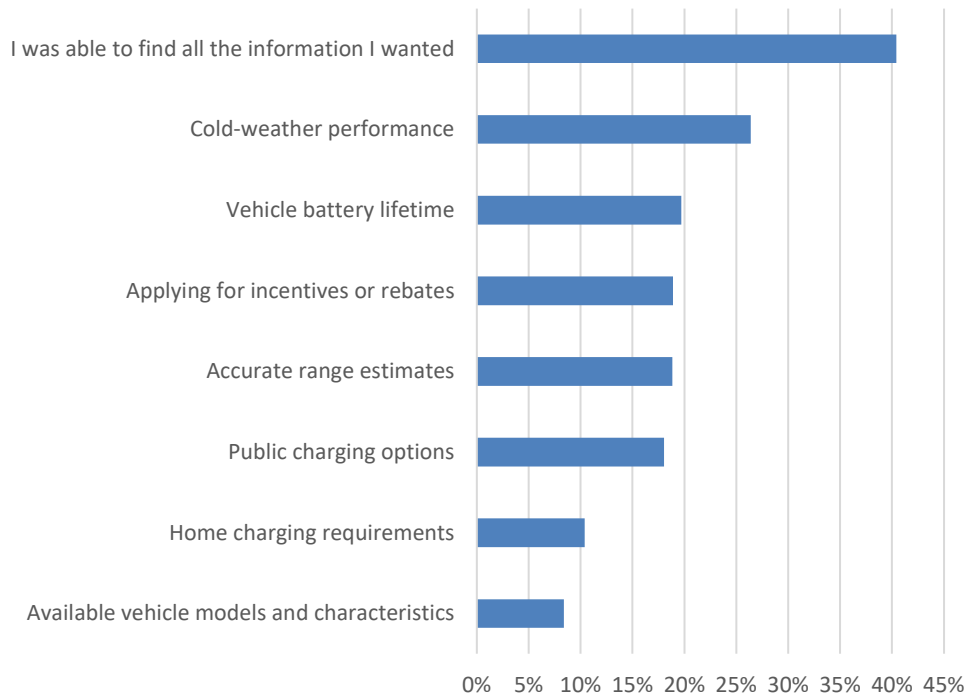
Information Sources

- EV websites, forums, and video reviewers most important in 2021
- Ride and drives still influential
 - Pandemic has limited in-person outreach
 - May see increased value of these in 2022
- General auto websites are low
- Advertising barely registers

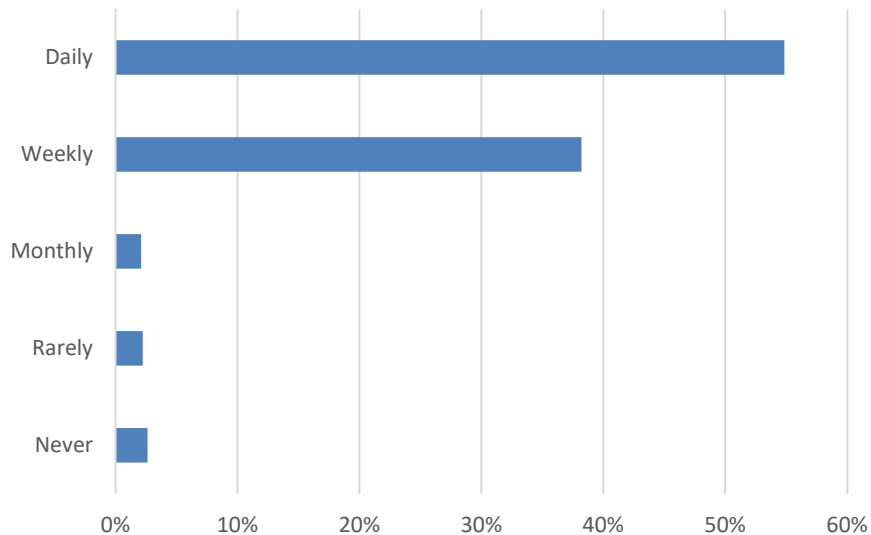


“What information, if any, did you have difficulty finding?”

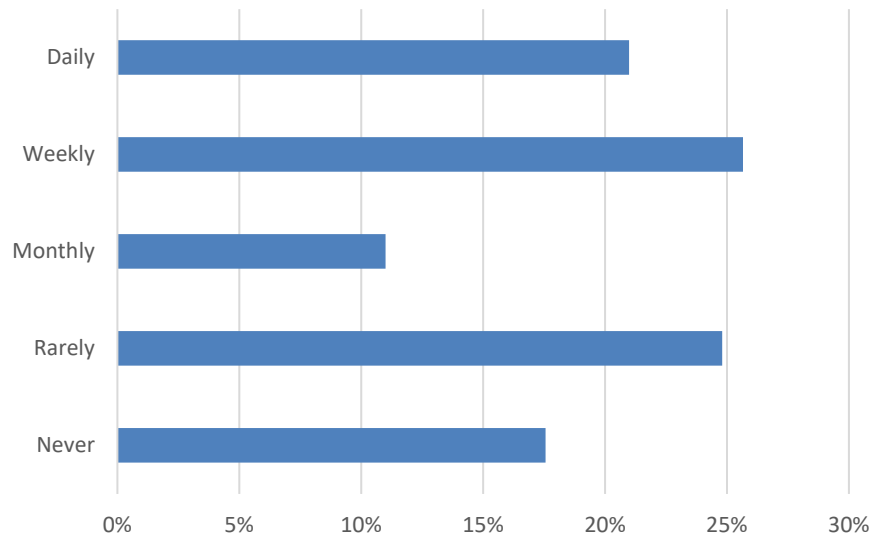
- Cold-weather performance the most common question
- A few respondents wrote in other answers such as “life cycle environmental impacts of batteries” or “impact of regular DCFC”



Home Charging

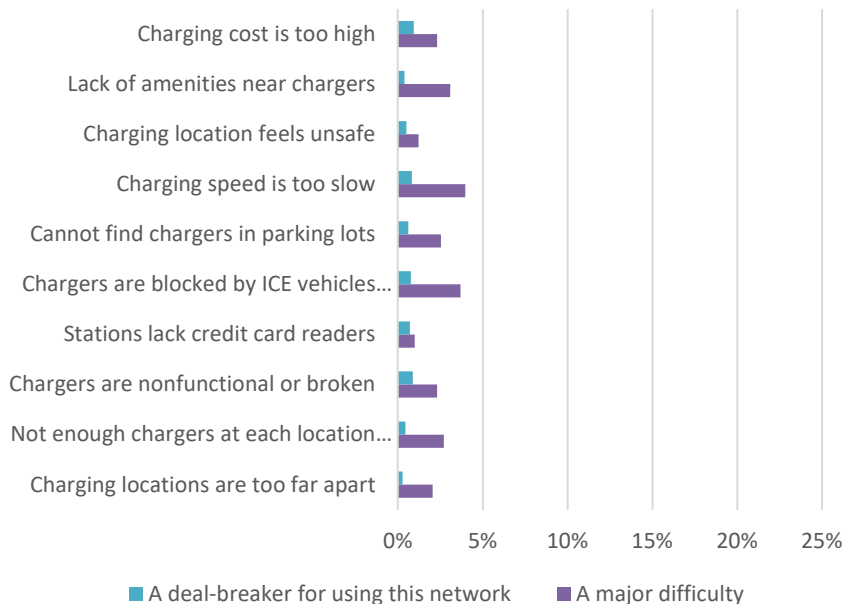


Workplace Charging (among those who have it)

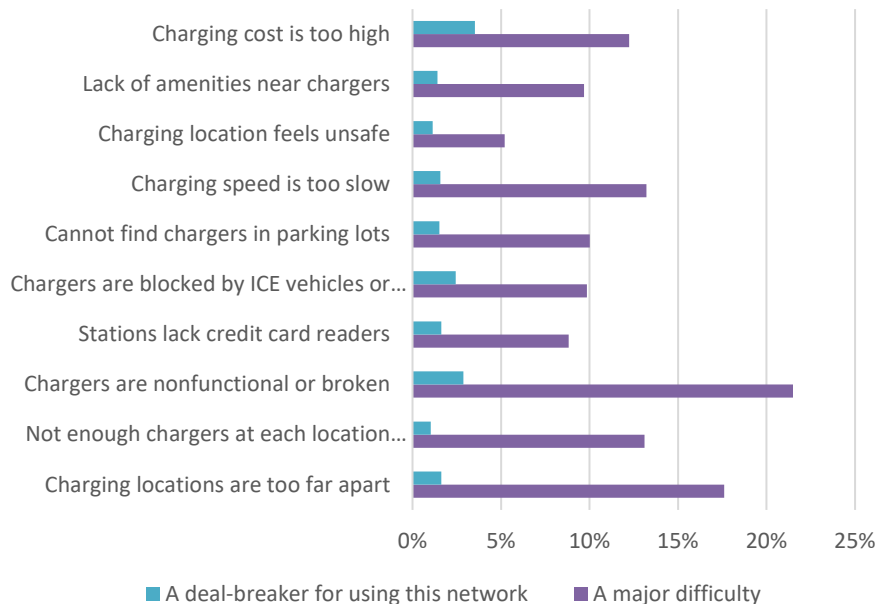


Public Charging Problems

Tesla Supercharger Network



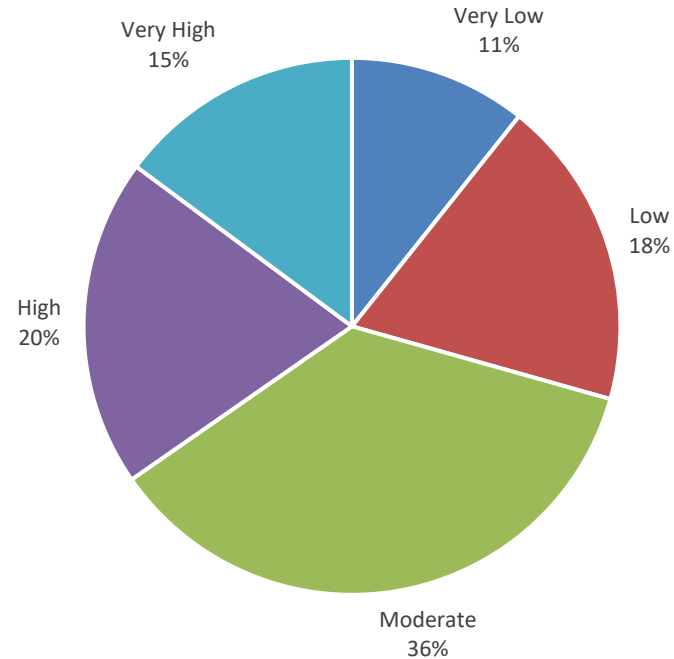
All Other Networks



- Most common problem was public chargers being broken or nonfunctional
- Charging locations being too far apart was the second most common problem
 - “Not enough chargers” can mean either not enough charging stations (too sparse), or not enough ports at each locations (crowded), so we asked two separate questions
- Non-Tesla DCFC networks were generally similar to each other on issues encountered within the past year

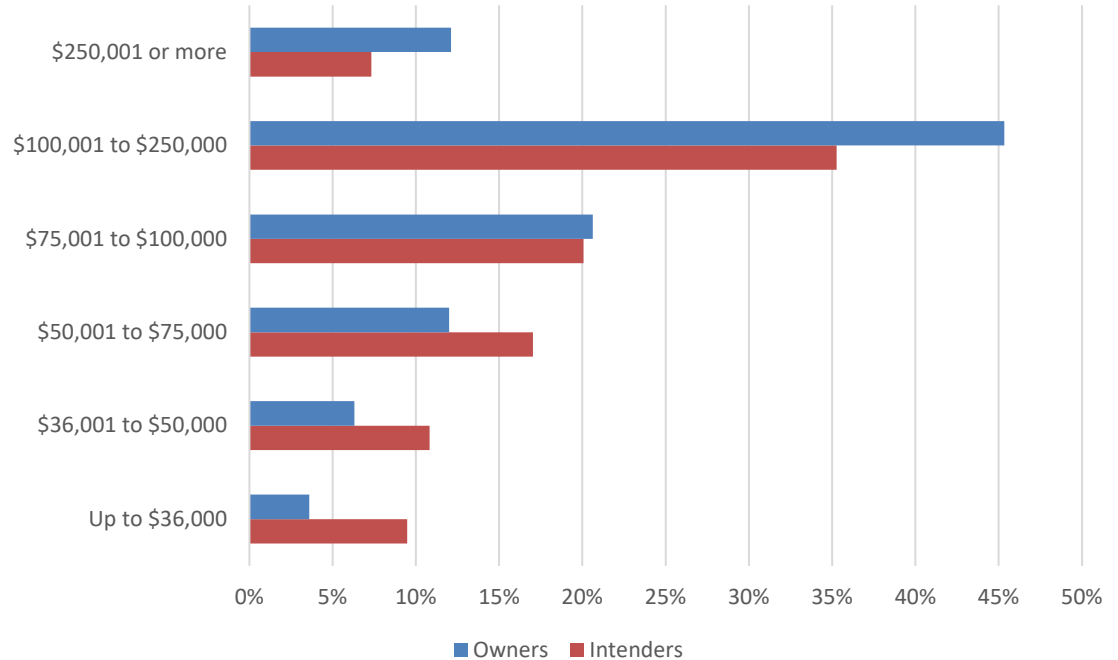
Dealer Knowledge: Good but not Great

If you shopped at a dealership, how would you rate the salesperson's knowledge about EVs?

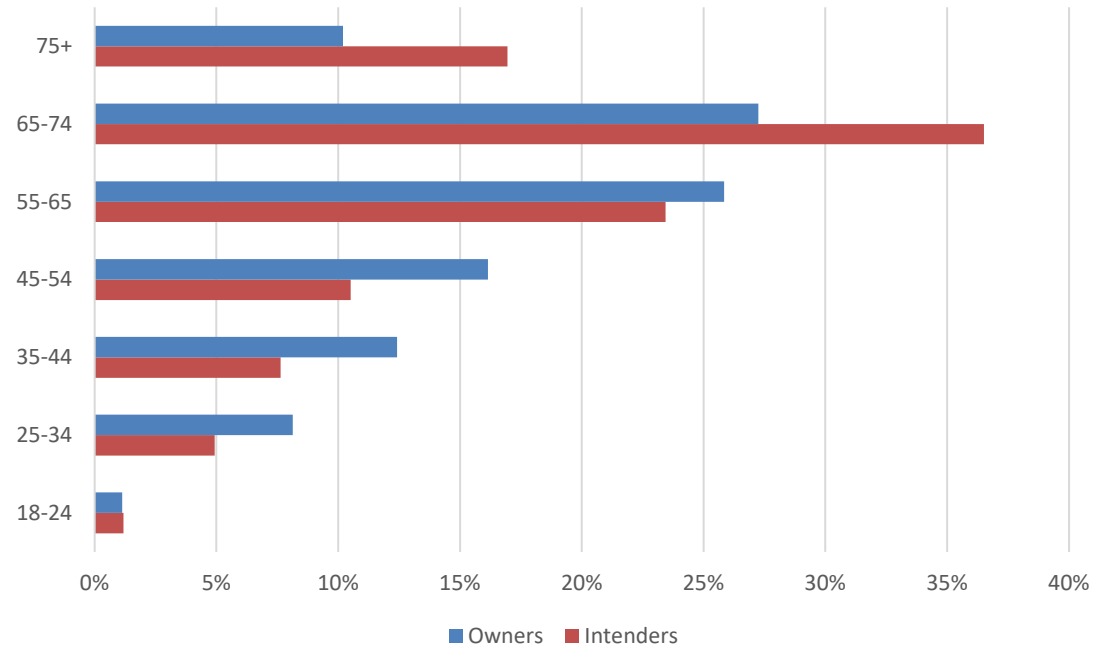


EVs were about 4% of LDV sales in 2021

Still in the early adopter phase



This year, “intenders” were older than “owners”



- Some feedback that survey is too long
- Will be judicious with additions
 - Model year of primary EV
 - Towing performance, for trucks?
 - EV value for its price?