

Electric Vehicle Readiness Roadmap

EV Community Questionnaire Summary

Key Takeaways:

- ❖ Based on survey responses, the current generation of EVs could meet the travel needs of most respondents.
- ❖ Survey respondents were generally comfortable with EVs and have had some degree of interaction with them, but there was a low awareness of federal and state incentives for EVs.
- ❖ There was a split in opinion about EVs; for each respondent that associated the words “zippy” or “fast” with EVs, there were respondents that considered EVs “slow” and “low-power.”
- ❖ Respondents were primarily concerned about the range of vehicles and lack of public charging infrastructure.
- ❖ A notable number of respondents (28) were worried about the environmental impact of EVs, including the impact of battery manufacturing and the emissions from the electric grid.
- ❖ Many respondents associated EVs with “the future;” whether this indicates that they believe the technology is futuristic and modern or that they think that EVs are not yet practical but will be useful in the future is not clear.

Responses

457 responses between March 21, 2018, and April 9, 2018.

Respondent Driving Habits

- 91% drive a vehicle, with 64% driving 0-20 miles a day.
- In the next 12 months, the average driver (mean) will make 17 trips over 100 miles long. The median number of trips over 100 miles is 2.5.
- 52% are likely to buy their next vehicle more than 2 years from now, and 30% expect to buy a new vehicle. 40% expect to buy a mini or compact SUV, and 24% expect to buy a mid- or full-size car.

Familiarity with EVs

- Respondents were familiar with EVs.
 - 77.68% of respondents were familiar with PHEVs, and 78.5% were familiar with BEVs.
 - Of respondents with a household income under \$25,000, 55% were familiar with PHEVs and 55% were familiar with BEVs.

- Respondents have interacted with EVs.
 - 20% own/lease an EV, and 56% know someone who owns/leases an EV. 42% have driven an EV, and 10% have not interacted with an EV at all.
 - 30% of respondents with a household income under \$25,000 have not interacted with an EV.
- Respondents are not familiar with federal and state financial incentives.
 - 67% were not at all or a little familiar with federal financial incentives.
 - 70% were not at all or a little familiar with Colorado financial incentives.
- Respondents were split on whether they would consider buying an EV.
 - 32% are definitely or likely to buy an EV as their next vehicle, while 23% could be convinced and 36% are unlikely or definitely won't.
 - 64% of respondents that do not live in single family homes reported that they are unlikely or definitely won't buy an EV.
 - 40% prefer to buy a gasoline vehicle. 33% prefer to buy an EV, and 44% would consider buying an EV. 20% prefer to buy an HEV, and 66% would consider buying one. 19% would not consider buying an EV.
 - For respondents with a household income of under \$50,000, 22% prefer to buy an EV and 37% would consider it.
 - For respondents with a household income of under \$30,000, 27% would prefer to buy an EV and 41% would consider it.

Perception of EVs

Statement	% of Respondents that Agree
Electric vehicles are very quiet.	93%
I could use an electric vehicle to drive to most places I regularly drive.	77%
Electric vehicles save money on fuel.	77%
Sales of electric vehicles in Colorado will continue to increase.	76%
I am familiar with electric vehicles.	73%
Electric vehicles are the most fuel efficient option available.	69%
I like electric vehicles.	68%
Electric vehicles are the most environmentally friendly vehicles out there.	66%
Electric vehicles are safe.	65%
Electric vehicles look good.	54%
Electric vehicles have great performance.	50%
Electric vehicles are an affordable option for me.	42%
In the next three years, I expect to own or lease an electric vehicle.	31%

- Motivators and Barriers: Not all respondents agreed on what was a motivator or a barrier. For example, the fifth most popular barrier (of 16 considerations) was considered a motivator by nearly the same number of respondents.

Top 5 Motivators

- Environmental impact (76% motivator, 7% barrier)
- Government incentives for purchasing (71% motivator, 4% barrier)
- Ability to charge at home (62% motivator, 22% barrier)
 - 31% of residents that do not live in a single family home found this to be a barrier
- Cost of fuel/charging (61% motivator, 16% barrier)
- Ability to charge at work (53% motivator, 25% barrier)

Top 5 Barriers

- Purchase price (52% barrier, 25% motivator)
 - Number of public charging stations available (51% barrier, 26% motivator)
 - Vehicle range (49% barrier, 38% motivator)
 - Performance in snow and on dirt roads (35% barrier, 34% motivator)
 - Battery health over the life of the vehicle (34% barrier, 35% motivator)
- Words that come to mind when thinking about EVs: Respondents were asked to list words that they associate with EVs. A full list of answers is available in the questionnaire summary sheet.

The top ten topics mentioned were:

- Environment (118)
- Range Anxiety (110)
- Efficient (53)
- Expensive (47)
- Quiet (44)
- Poor Performance (34)
- Inadequate Charging Infrastructure (30)
- The Future (30)
- Fuel Cost Saving (26)
- Small (26)

Demographics

The race and ethnic demographics of survey respondents are similar to those of Fort Collins as a whole; however household income and level of education are significantly higher for respondents than for Fort Collins generally. That being said, respondents answered most questions similarly across income levels. Significant differences in answers among income levels are noted above.

- 27% of respondents do not live in Fort Collins but 87% work in Fort Collins.
- 56% of respondents are male.
- 82% live in a single-family home, 79% own their residence, and 73% have a private garage.
- 84% are white.
 - According to the 2010 census, Fort Collins residents are 82% white.
- 78% are non-Hispanic/latinx.
 - According to the 2010 census, 10.79% of Fort Collins residents identify as Hispanic/latinx.
- 63% have a household income of over \$75,000 (and 44% have a household income of over \$100,000).
 - The median household income of Fort Collins is \$55,647.
(<https://www.fcgov.com/planning/trends.php>)
- 78% have a bachelor's degree or higher.
 - 52% of Fort Collins residents have a bachelor's degree or higher.
(<https://www.fcgov.com/planning/trends.php>)