

Consumer Attitudes Towards Electric Vehicles and Fuel Efficiency in California: 2020 Survey Results

Nationally representative phone and internet survey
Prepared by CR Survey Research Department and Advocacy Division

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INTRODUCTION

The purpose of this survey was to better understand familiarity with and attitudes toward electric vehicles (EVs) and vehicle fuel economy among people living in California. This survey of 455 adults residing in California was conducted by phone or internet from July 29 through August 12, 2020. Questions about electric vehicles were asked of the 384 who have a valid driver's license, while questions about fuel economy were asked of the 220 people who plan to purchase or lease a vehicle in the next two years, except a few questions about policy that were asked of the full sample. The data are weighted separately for each section to be representative of all Californians.



HIGHLIGHTS

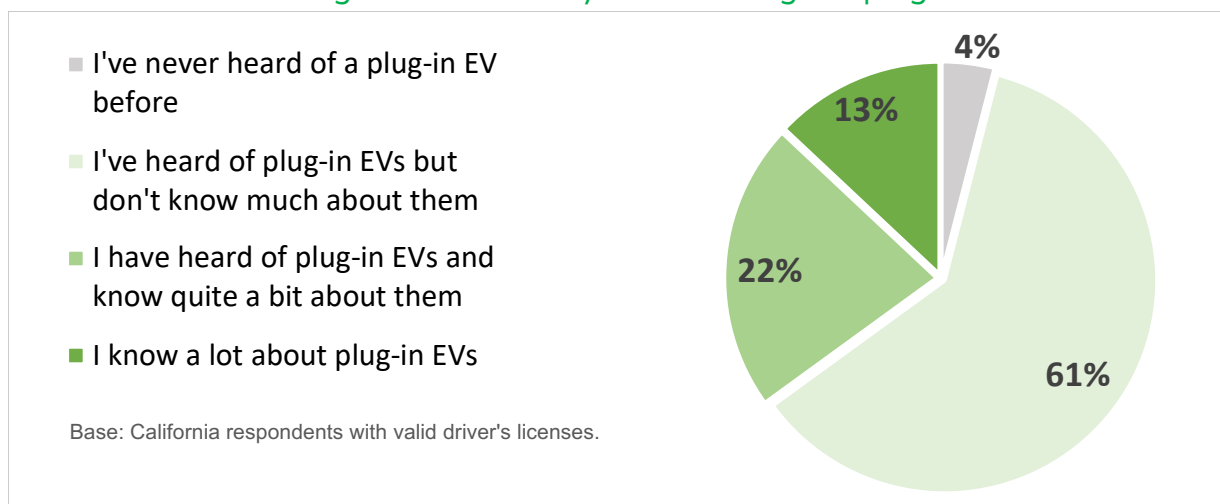
- **EV KNOWLEDGE:** About 96 percent of drivers in California say they've heard of electric vehicles, but only 35 percent say they're "know quite a bit" or "know a lot" about them. Fifty-eight percent say they have "heard of" plug-in EVs but "don't know much about them."
- **ENCOURAGING EV USE:** Drivers who are not planning to purchase or lease a plug-in EV for their next vehicle say the most common attributes holding them back are purchase price (49 percent) and concerns about charging (not enough public charging stations, 39 percent; insufficient driving range, 38 percent). These issues crop up elsewhere as well:
 - Sixty-six percent of California drivers say that if they had an EV, they would do most of their charging in their own private driveway or garage.
 - Among drivers, discounted home charging rates (41 percent), discounted home chargers (37 percent), and rebates at the time of purchase or lease (37 percent) were the policies most-commonly selected as ways to increase consumer interest in purchasing or leasing an EV.
- **FUEL ECONOMY:** Fuel economy was chosen most often by prospective car buyers who currently own or lease a vehicle as the attribute in their current vehicle with the most room for improvement (38 percent).
 - Fewer than one percent of prospective vehicle buyers said fuel economy isn't important to them in deciding which vehicle to buy or lease next.
 - Ninety-three percent of Californians, regardless of purchase intent, agree that automakers should improve fuel economy for all vehicle types.

ELECTRIC VEHICLES: Understanding and Interest

Questions about EVs were asked of 384 adult Californians who have a valid driver's license. For this survey, CR defined plug-in electric vehicles (EVs) as "vehicles that are electric only" and do not use gasoline. Hybrids like Toyota's Prius or Prius Prime, for example, use both gasoline and electric power, and for the purposes of this survey are not EVs.

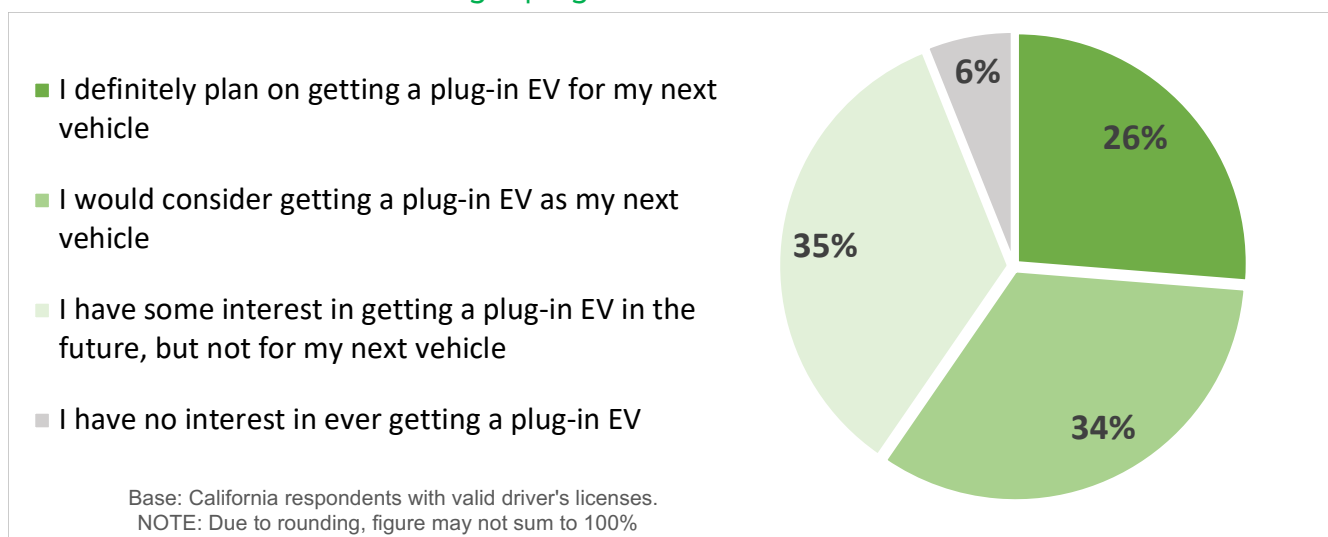
We had drivers characterize their EV knowledge. Nearly all say they have heard of them (4 percent have not). However, the majority (61 percent) say they don't know much about them.

Which of the following best describes your knowledge of plug-in electric vehicles?



Despite this lack of knowledge, California drivers are generally interested in electric vehicles. Seventy-four percent of adult drivers in the state have at least some interest in getting an electric vehicle, with 40 percent saying they would consider getting, or would definitely get, an electric vehicle the next time they purchase a vehicle.

Which of the following statements best describes your thoughts on buying or leasing a plug-in electric vehicle?



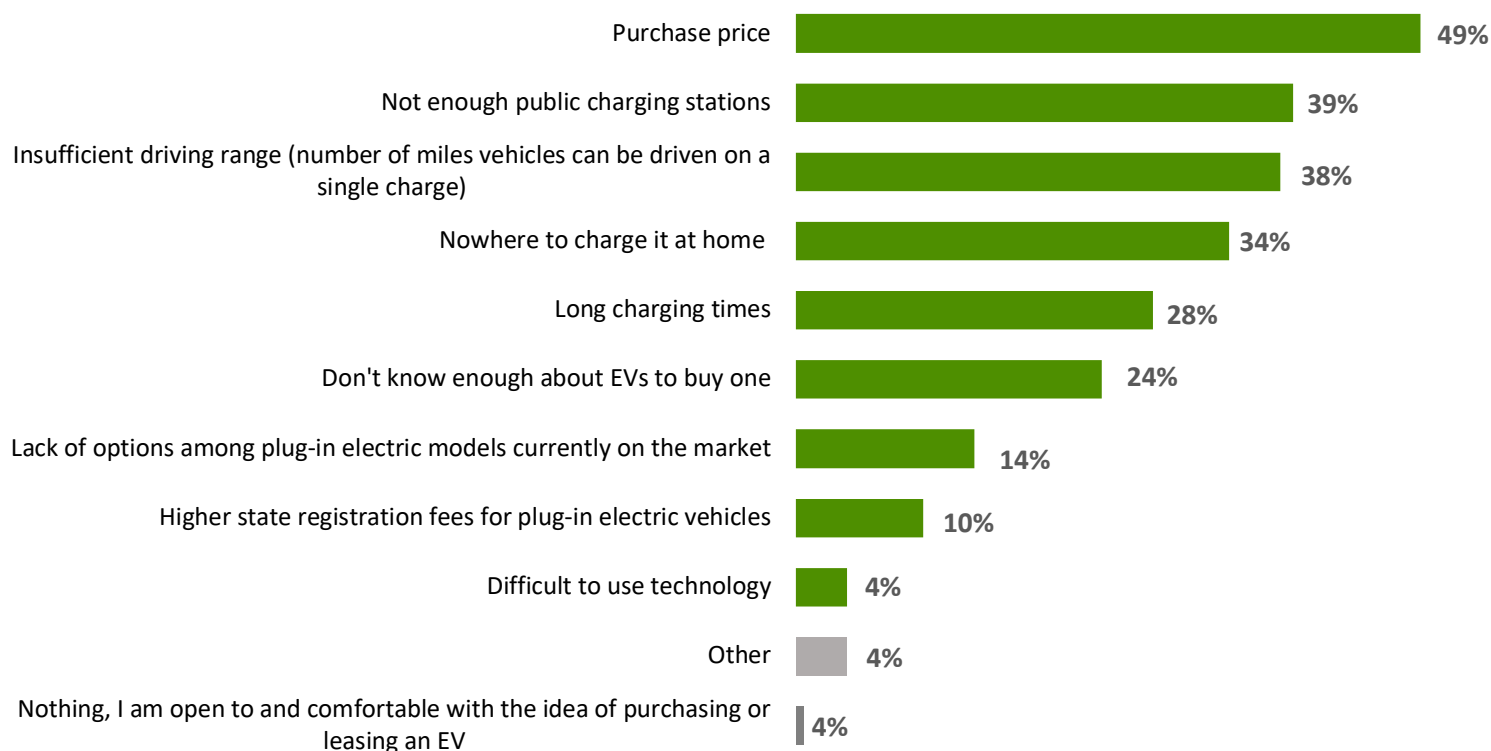
ELECTRIC VEHICLES: Attitudes and Barriers

We asked California drivers where, out of a list of public and private charging options, they think they would do most of their charging if they were to own an EV. A majority (66 percent) said they would charge an EV in their private driveway or garage; the next-most-common response, at just 11 percent, was "At a charger provided at work."

If you were to own a plug-in electric vehicle in the future, where do you think you would do most of your charging?	
In my private driveway or garage	66%
At a charger provided at work	11%
At a charger provided by my apartment building or complex	8%
At public charging stations at places like restaurants and shopping centers	8%
At public fast-charging stations in my community	6%
Other	1%
Base: California respondents with a valid driver's license	382

We also asked drivers except the 6 percent who definitely plan to buy or lease an EV which of a set of attributes, if any, are holding them back. Respondents could select up to three choices.

Of the following attributes, which, if any, are holding you back from purchasing or leasing a plug-in electric vehicle for your next vehicle?

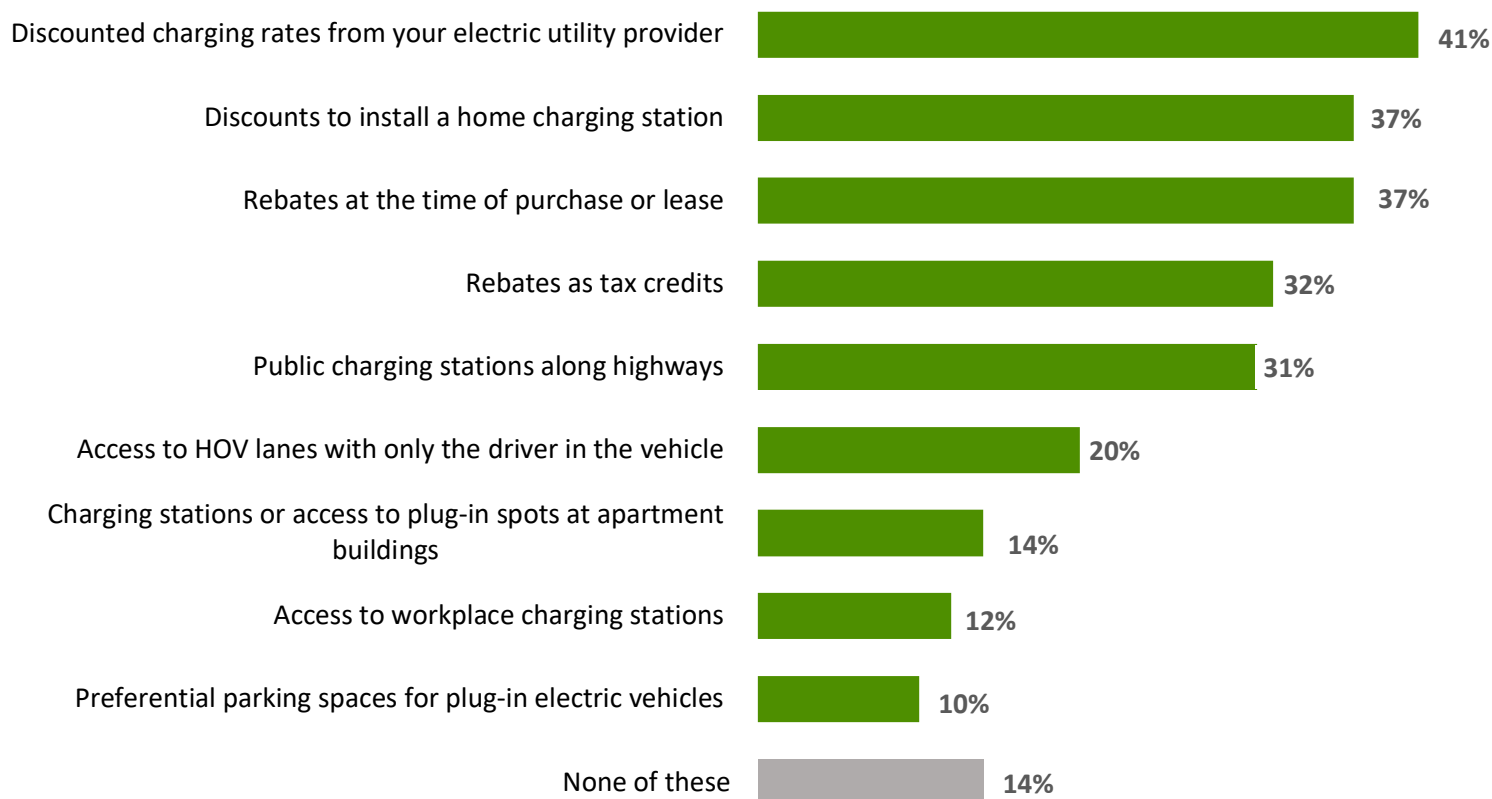


Base: California respondents with valid driver's licenses who do not "definitely" plan to get a plug-in EV for their next vehicle purchase/lease.

ELECTRIC VEHICLES: Policies and Incentives

We asked all California drivers which, if any, of a set of state or federal policies, would most likely encourage them to purchase an EV. Respondents were asked to select their top three choices.

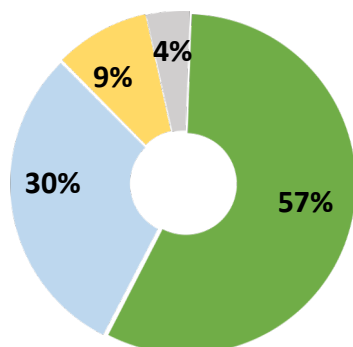
Of the following state or federal policies, which, if enacted, would most likely increase your interest in purchasing or leasing a plug-in electric vehicle?



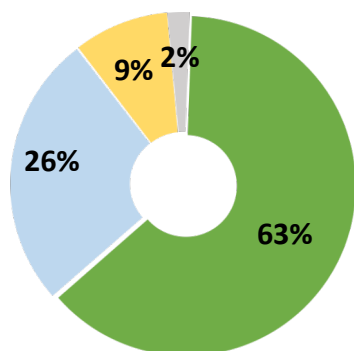
Base: California respondents with valid driver's licenses.

We asked California drivers about federal and state policies related to electric vehicle use, and programs that might incentivize drivers to switch to an electric vehicle.

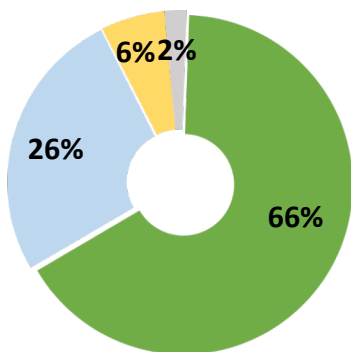
Strongly agree / agree Neither agree nor disagree Disagree / Strongly disagree Unsure



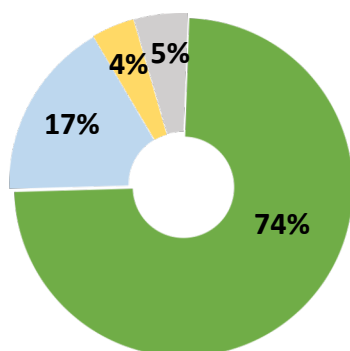
Statement: Incentives and tax rebates for plug-in electric vehicles should be targeted towards low- and moderate-income consumers.



Statement: My state should invest money to increase the availability of plug-in EV charging stations.



Statement: Incentives and tax rebates for plug-in EVs should be available to all consumers, including high income.

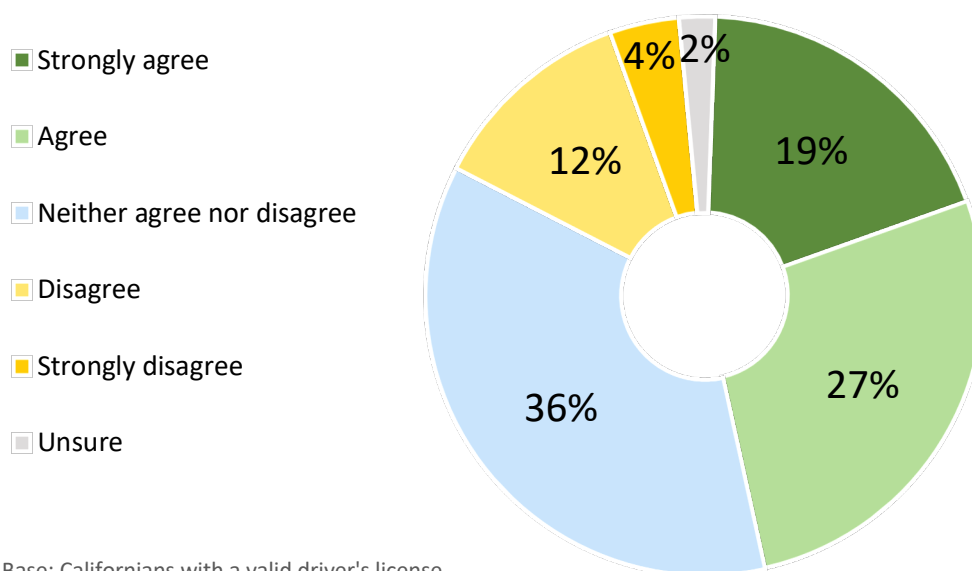


Statement: Electric utility providers should offer discounts to charge EVs at times when electricity demand is low.

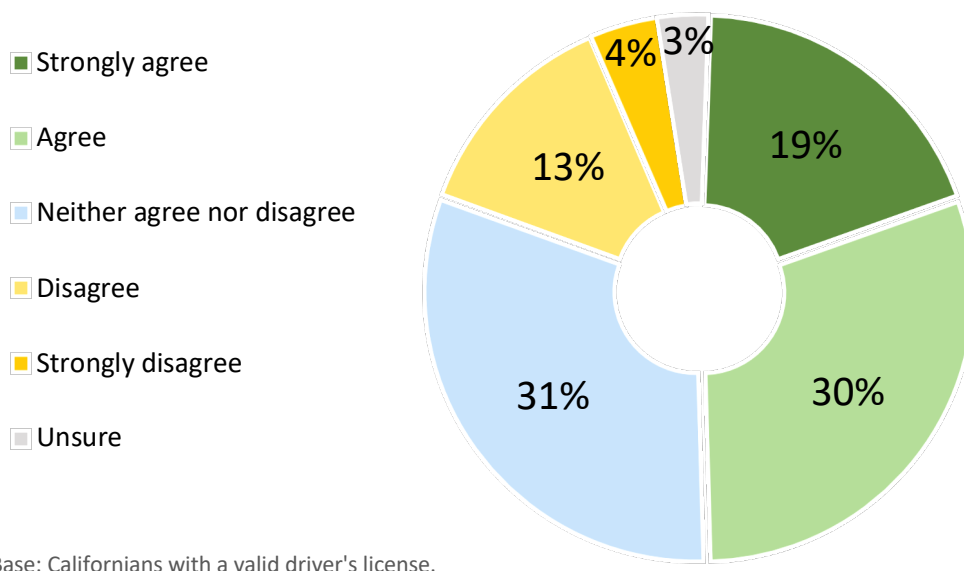
Base: California respondents with a valid driver's license.

We also asked if state governments and the federal government should require automakers to offer EVs. In both cases, just under half of respondents said they support these policies, about a third are neutral on the subject, and about one in six say they disagree.

Statement: **My state should require automakers to offer plug-in EV options.**

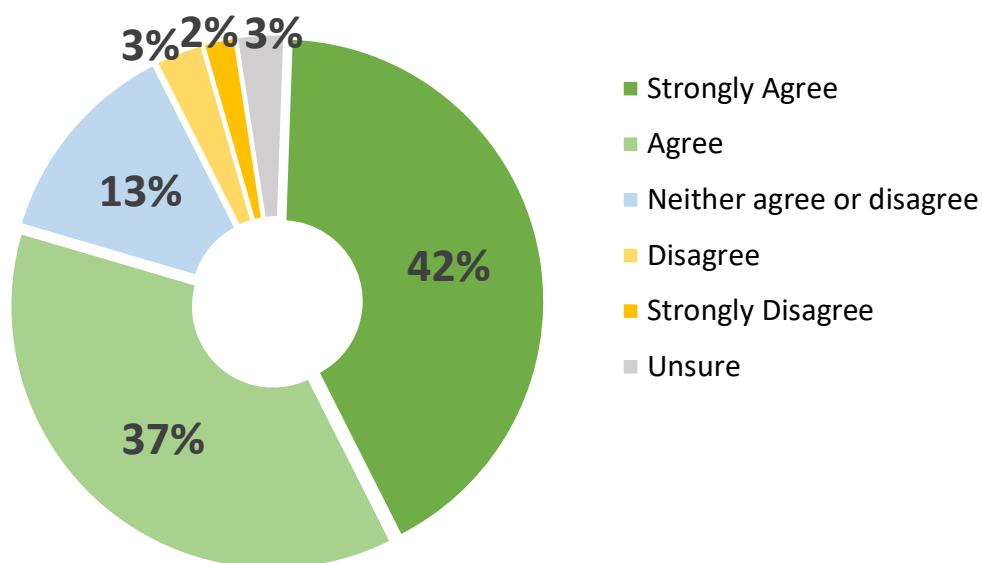


Statement: **The federal government should require automakers to offer plug-in EV options.**



We also asked California drivers if they agreed, disagreed, or were unsure about whether increased electric vehicle use would help reduce air or climate pollution. Eighty percent said they agree (agree or strongly agree) with only 5 percent saying they disagree (disagree or strongly disagree).

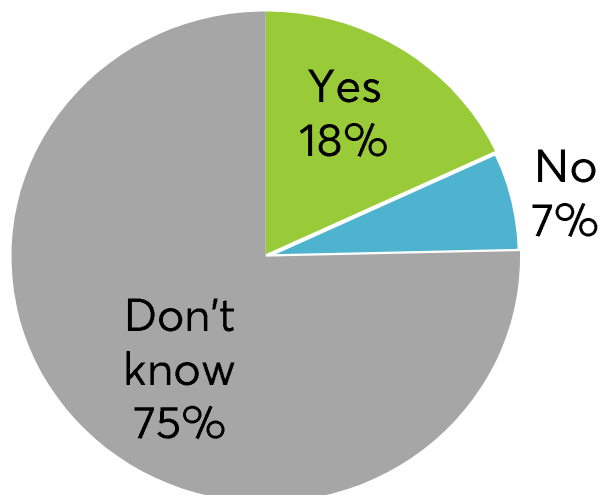
Statement: Widespread electric vehicle use will help reduce air or climate pollution.



Base: Californians with a valid driver's license

Finally, we asked: Does the state in which you currently live offer any discounts, rebates, or credits for purchasing or leasing plug-in electric vehicles? California does offer rebates for EV purchases, but most California drivers aren't aware of them.

Does the state in which you currently live offer any discounts, rebates, or credits for purchasing or leasing plug-in electric vehicles?



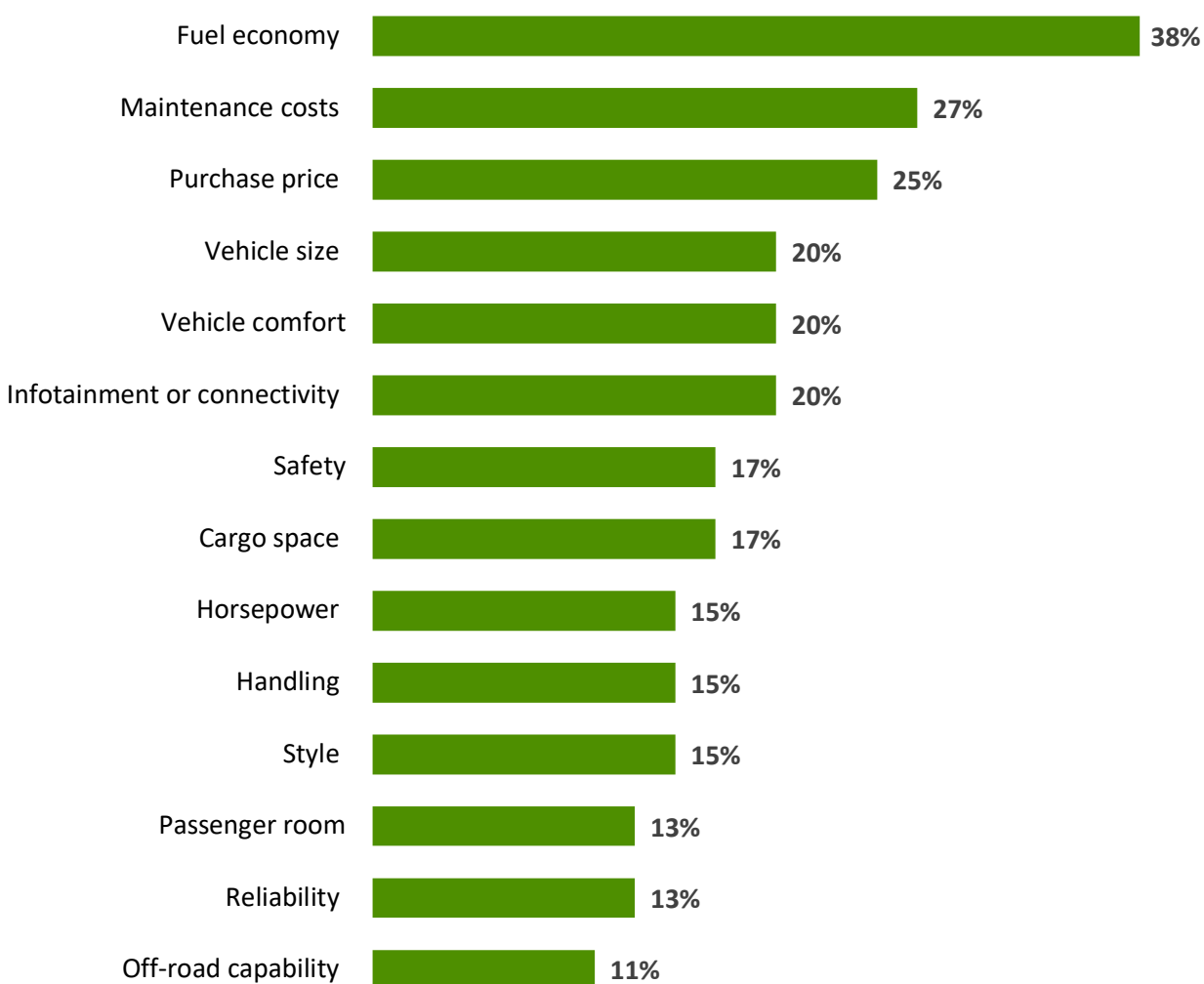
Base: Californians with a valid driver's license

FUEL ECONOMY: Interest and Importance

Except for a few questions on policy, which will be clearly labeled, all questions in this survey about fuel economy were asked of Americans who plan to purchase or lease a vehicle sometime within the next two years. In this report, we refer to these people as “prospective vehicle buyers.”

We asked prospective vehicle buyers in California *who currently have a vehicle* which three attributes of their current vehicle have the most room for improvement.

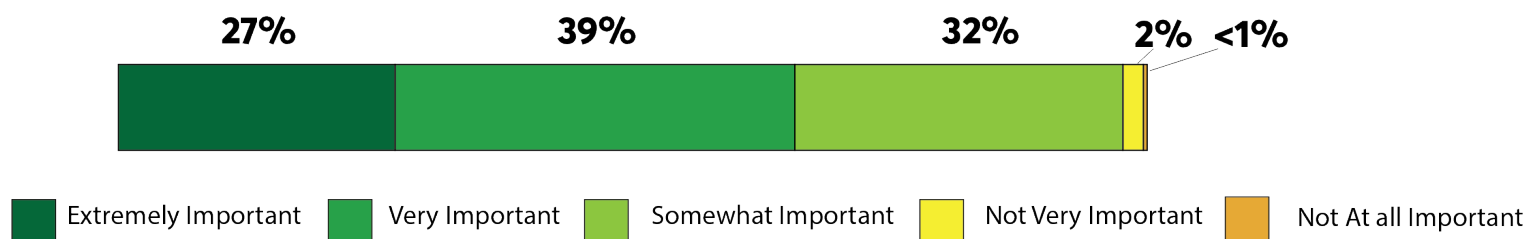
Thinking about your current vehicle, which three attributes have the most room for improvement?



Base: California respondents planning to buy or lease a vehicle within the next two years. Some responses abbreviated.

We asked prospective car buyers how important fuel economy is to them when considering a vehicle. Sixty-seven percent said it was highly important ('extremely important' or 'very important'). Only two percent said it was not important ('not very important' or 'not at all important').

How important is fuel economy to you when considering what vehicle to purchase or lease?

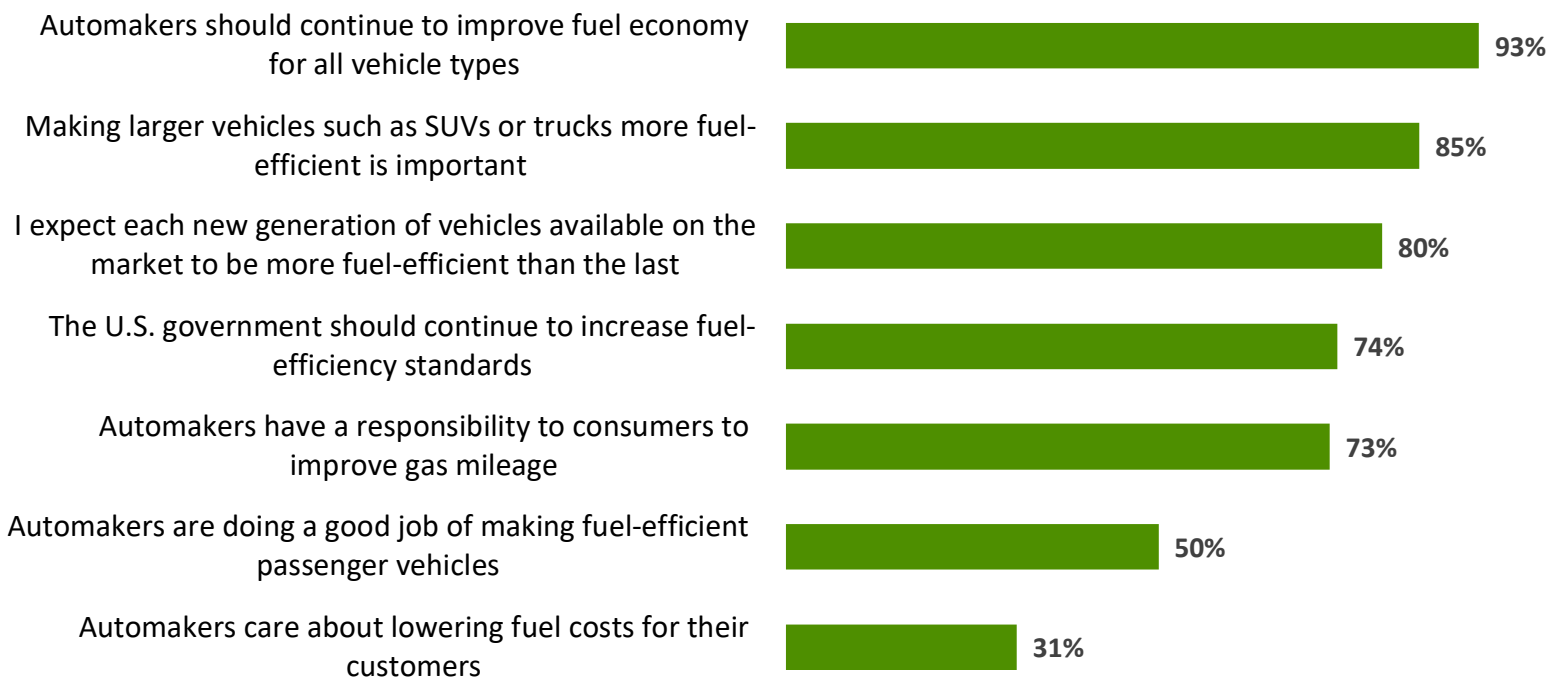


Base: California respondents planning to buy or lease a vehicle within the next two years.

FUEL ECONOMY: Policies and Expectations

We asked *all* Californians, regardless of purchase plans, about agreement or disagreement with some more general beliefs and opinions related to fuel economy and related policies.

Percentage of Americans who agree (agree + strongly agree) with certain policies and attitudes related to fuel economy:



SURVEY METHODOLOGY

This survey was administered from July 29 through August 12, 2020, to 455 adults residing in California. The survey was fielded through NORC's AmeriSpeak Panel, a nationally representative probability-based panel.

For this report, data from California, which was oversampled, are weighted to be representative of the state's population. Questions about electric vehicles were asked of the 384 who have valid driver's licenses, while questions about fuel economy were asked of those who plan to purchase or lease a vehicle in the next two years (n=220) -- except a few about policy that were asked of the full sample.

Panelists were initially offered the cash equivalent of \$2 for taking the survey regardless of which section they qualified for, or whether they qualified for both. This was increased to \$5 on August 11 to boost engagement toward the end of the field period.

The data were weighted separately for each section to provide state-representative estimates of California's adult population based on sex, age, education, race/ethnicity, census region, housing tenure, and telephone status.

The margin of error for the electric vehicle sample is +/- 7.71%, and for the fuel economy sample it is +/- 11.8%.