Consumer Attitudes Towards Electric Vehicles and Fuel Efficiency in Virginia: 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 Virginia. This survey of 425 adults residing in Virginia was conducted by phone or internet from July 29 through August 12, 2020. Questions about electric vehicles were asked of the 378 who have a valid driver’s license, while questions about fuel economy were asked of the 180 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 Virginians.

HIGHLIGHTS

- **EV KNOWLEDGE**: About 97 percent of drivers in Virginia say they’ve heard of electric vehicles, but only about 29 percent say they “know quite a bit” or “know a lot” about them. Sixty-nine percent say they have “heard of” plug-in EVs but “don't know much about them.”

- **EV BARRIERS**: 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 insufficient driving range (42 percent), purchase price (41 percent), and that there are not enough public charging stations (41 percent).

- **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 (43 percent).
  - Only about 1 percent of prospective vehicle buyers said fuel economy isn’t important to them in deciding which vehicle to buy or lease next.
  - Ninety percent of Virginians, regardless of purchase intent, agree automakers should improve fuel economy for all vehicle types.
ELECTRIC VEHICLES: Understanding and Interest

Questions about EVs were asked of 378 adult Virginians who have a valid driver's license. 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 (3 percent have not). However, a sizeable majority (69 percent) say they have heard of EVs but don't know much about them.

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

- I’ve never heard of a plug-in EV before
- I’ve heard of plug-in EVs but don’t know much about them
- I have heard of plug-in EVs and know quite a bit about them
- I know a lot about plug-in EVs

Despite this lack of knowledge, many Virginia drivers are generally interested in EVs. Sixty-eight percent of adult drivers in the state have at least some interest in getting an EV, with 26 percent saying they would consider getting, and 3 percent saying they will definitely get, an EV 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?

- I definitely plan on getting a plug-in EV for my next vehicle
- I would consider getting a plug-in EV as my next vehicle
- I have some interest in getting a plug-in EV in the future, but not for my next vehicle
- I have no interest in ever getting a plug-in EV

Base: Adult Virginians with valid driver's licenses. NOTE: Percentages may not equal 100 because of rounding.
**ELECTRIC VEHICLES: Attitudes and Barriers**

We asked Virginia 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 (81 percent) said they would charge an EV in their private driveway or garage; the next-most-common response, at just 7 percent, was "At public fast-charging stations in my community."

<table>
<thead>
<tr>
<th>Charging Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my private driveway or garage</td>
<td>81%</td>
</tr>
<tr>
<td>At public fast-charging stations in my community</td>
<td>7%</td>
</tr>
<tr>
<td>At a charger provided by my apartment building or complex</td>
<td>5%</td>
</tr>
<tr>
<td>At public charging stations at places like restaurants and shopping centers</td>
<td>4%</td>
</tr>
<tr>
<td>At a charger provided at work</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Base:** Virginia respondents with a valid driver's license 376

We also asked drivers except the 3 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?**

- Insufficient driving range (number of miles vehicles can be driven on a single charge) 42%
- Purchase price 41%
- Not enough public charging stations 41%
- Nowhere to charge it at home 30%
- Don't know enough about EVs to buy one 30%
- Long charging times 23%
- Lack of options among plug-in electric models currently on the market 11%
- Higher state registration fees for plug-in electric vehicles 7%
- Difficult to use technology 3%
- Other 7%

**Base:** Virginians 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 Virginia drivers which, if any, of a set of state or federal policies, would most likely encourage them to purchase an electric vehicle. 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?

- Public charging stations along highways: 40%
- Discounts to install a home charging station: 35%
- Rebates at the time of purchase or lease: 34%
- Rebates as tax credits: 33%
- Discounted charging rates from your electric utility provider: 32%
- Access to workplace charging stations: 16%
- Access to HOV lanes with only the driver in the vehicle: 9%
- Charging stations or access to plug-in spots at apartment buildings: 9%
- Preferential parking spaces for plug-in electric vehicles: 8%
- None of these: 20%

Base: Virginia respondents with valid driver’s licenses.
We asked Virginia drivers about federal and state policies related to electric vehicle use, and programs that might incentivize drivers to switch to an electric vehicle.

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

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

**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: Virginia 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, about two-fifths of respondents support these policies. Forty-one percent agree that their state government should require automakers to offer EVs, while 40 percent agree that the federal government should do so. About a third are neutral on the subject when thinking of state governments, while only about a quarter of people are neutral on if the federal government should put these requirements in place. On both the state and federal lever, fewer than three in ten say they disagree.

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

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>14%</td>
</tr>
<tr>
<td>Agree</td>
<td>10%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>13%</td>
</tr>
<tr>
<td>Disagree</td>
<td>27%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>33%</td>
</tr>
<tr>
<td>Unsure</td>
<td>10%</td>
</tr>
</tbody>
</table>

Base: Adult Virginians with a valid driver’s license.

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

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>16%</td>
</tr>
<tr>
<td>Agree</td>
<td>11%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>18%</td>
</tr>
<tr>
<td>Disagree</td>
<td>24%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>27%</td>
</tr>
<tr>
<td>Unsure</td>
<td>4%</td>
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</table>

Base: Adult Virginians with a valid driver’s license.
We also asked Virginia drivers if they agreed, disagreed, or were unsure about whether increased electric vehicle use would help reduce air or climate pollution. Seventy-four percent said they agree (agree or strongly agree) with only 8 percent saying they disagree (disagree or strongly disagree).

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

Base: Virginia respondents 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 the section 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 Virginia 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?

- Fuel economy: 43%
- Infotainment or connectivity: 24%
- Reliability: 22%
- Passenger room: 22%
- Horsepower: 21%
- Maintenance costs: 19%
- Purchase price: 18%
- Vehicle comfort: 17%
- Safety: 14%
- Vehicle size: 14%
- Cargo space: 14%
- Style: 11%
- Off-road capability: 10%
- Handling: 9%

Base: Virginians planning to buy or lease a vehicle within the next two years. Some responses abbreviated.
Consumer Attitudes Towards Electric Vehicles and Fuel Economy in Virginia: 2020 Survey Results

We asked prospective car buyers and leasers how important fuel economy is to them when considering a vehicle. Seventy-two percent said it was highly important (‘extremely important’ or ‘very important’). 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?

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Important</td>
<td>32%</td>
</tr>
<tr>
<td>Very Important</td>
<td>40%</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>26%</td>
</tr>
<tr>
<td>Not Very Important</td>
<td>1%</td>
</tr>
<tr>
<td>Not At all Important</td>
<td>1%</td>
</tr>
</tbody>
</table>

Base: Virginians planning to buy a vehicle within the next two years.

FUEL ECONOMY: Policies and Expectations

We asked all Virginians, 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:

- Automakers should continue to improve fuel economy for all vehicle types: 90%
- I expect each new generation of vehicles available on the market to be more fuel-efficient than the last: 89%
- Making larger vehicles such as SUVs or trucks more fuel-efficient is important: 85%
- Automakers have a responsibility to consumers to improve gas mileage: 83%
- The U.S. government should continue to increase fuel-efficiency standards: 73%
- Automakers are doing a good job of making fuel-efficient passenger vehicles: 51%
- Automakers care about lowering fuel costs for their customers: 38%
- The federal government should prevent states from setting stronger vehicle emissions standards than the federal government: 25%

Base: All Virginia respondents.
SURVEY METHODOLOGY

This survey was administered from July 29 through August 12, 2020, to 425 adults residing in Virginia. The survey was fielded through NORC’s AmeriSpeak Panel, a nationally representative probability-based panel, with additional sample recruited through Dynata’s nonprobability opt-in panel.

Questions about electric vehicles were asked of the 378 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=180) -- 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 Virginia’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 +/- 6.40 percent, and for the fuel economy sample it is +/- 12.0 percent.