

June 7, 2021

A recently completed survey of California voters conducted by David Binder Research (DBR)* shows that interest in buying or leasing a zero-emission vehicle (ZEV) grows when voters are informed about ZEV's that can be charged in minutes at a local gas station and have range similar to a gas-powered vehicle.

Voters also have a more favorable opinion of fuel-cell vehicles than battery electric vehicles when presented with a brief summary of both types of vehicles. Among those who say they are interested in purchasing or leasing a ZEV, more say that they would prefer a fuel cell vehicle than a battery electric vehicle.

In this context, a plurality of voters also believe that the state should be dedicating more funding to building charging infrastructure for fuel cell vehicles than it currently is.

Current ZEV Interest

Of the 87 percent of survey respondents who do not currently own a zero-emission vehicle, 39 percent say they currently have interest in buying or leasing one, while 52 percent say that they do not have interest.

Those who do not currently have interest were presented with a series of potential reasons why they are not currently interested and asked to what degree each is a factor in their lack of interest. Over half (53%) say that the limited range of ZEV's is a very important factor in their lack of interest, while 49 percent say that not having a convenient place to charge a ZEV is a very important factor. 39 percent say that ZEV's taking too long to charge is a very important factor.

Next are some reasons that some people give for why they are not interested in purchasing or leasing a zero emissions vehicle. For each one, please indicate to what extent this is a factor in why you personally do not have interest.

	Percent <u>Very</u> Important Factor
Zero emission vehicles have limited range	53
Zero emission vehicles are too expensive	52
I don't have a convenient place to charge a zero-emission vehicle.	49
I prefer the benefits of gas-powered vehicles	44
Zero emission vehicles take too long to charge	39

This same segment of voters who initially was uninterested in buying a ZEV was subsequently asked whether they would be more likely to buy a ZEV if charging took 3 to 5 minutes, and could be done at their local gas station. More than half (55%) say they would be more interested if this were the case. This includes 1 in 4 (24%) who say they would be much more likely to purchase a ZEV.

^{*} David Binder Research (DBR) conducted a survey of 800 likely November 2022 voters in California between April May 19^{th} and 24^{th} 2021. Likely voters completed interviews by cell phone, landline, and online, and were given the choice to conduct the survey in English or Spanish. The margin of error for the survey is $\pm 3.5\%$.

If charging a zero emissions vehicle took 3 to 5 minutes, and could be done at your local gas station, would this make you more or less likely to want to purchase or lease a zero emissions vehicle?

	Percent		
Much more likely	24%	- 55% More Likely	
Somewhat more likely	31		
Somewhat less likely	9	– 25% Less Likely	
Much less likely	16		
Don't Know	20		

Preference for fuel-cell vehicles over battery electric

Voters were subsequently given a brief description of fuel cell vehicles and battery electric vehicles and asked whether they have a favorable or unfavorable opinion of each type of vehicle. After being informed, 74 percent had a favorable impression of fuel cell vehicles, while 63 percent had a favorable opinion of battery electric vehicles.

	Favorable	Unfavorable	Don't Know
As you may know, <u>fuel cell electric vehicles</u> are a type of zero emissions vehicle which combines hydrogen stored onboard with oxygen from the air to produce electricity to power an electric motor to propel the vehicle. The only emission is pure water. A fuel cell electric vehicle is filled with hydrogen in 3 to 5 minutes in a similar manner as a gasoline vehicle and all have a driving range over 300 and up to 400 miles.	74%	15%	11%
As you may know, <u>battery electric vehicles</u> are a type of zero emission vehicle that uses power stored onboard from a rechargeable battery to power an electric motor to propel the vehicle. If a fast charger is available, it can be charged up to 80% capacity in 30 mins. For typical home charging, it can take several hours to charge the battery. The driving range of battery electric vehicles varies from 150 miles to up to 350 for high end models.	63%	31%	6%

In addition, after being exposed to basic facts about these two types of ZEV's, those voters who had previously stated they were interested in purchasing a ZEV were asked whether they would prefer a fuel cell vehicle or a battery electric vehicle. A significant plurality (47%) say that they would prefer a fuel cell vehicle, while only 32 percent prefer a battery electric vehicle.

If you were to purchase or lease a zero emissions vehicle, would you prefer a fuel cell electric vehicle or a battery electric vehicle			
	Percent		
Fuel cell, strongly	26%	- 47% Fuel Cell	
Fuel cell, somewhat	21		
Battery electric, strongly	16	- 32% Battery	
Battery electric, somewhat	16		

21

Support for Governor's Mandate

Don't Know

A strong majority of California voters support the Governor's executive order to require all in-state sales of new passenger cars and trucks to be zero emission by the year 2035. Overall, 59% support the executive order, including 41% who feel so strongly.

While Republicans oppose the Governor's order, it is strongly supported by both Democrats and independents. 88% of Democrats support this order, as do 58% of Independents.

Last year, California Governor Gavin Newsom signed an executive order setting a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. Do you support or oppose this executive order?

	Percent		
Support strongly	41%	- 59% Support	
Support somewhat	18		
Oppose strongly	10	37% Oppose	
Oppose somewhat	27		
Don't Know	4		