Electric Vehicle Survey Findings and Methodology: Colorado

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Methodology

To better understand American attitudes toward plug-in electric vehicles (PEVs), the Union of Concerned Scientists and Consumer Reports fielded a nationally representative survey to investigate the car buying intentions of U.S. adults. We also investigated the potential impacts that incentives for buying electric vehicles may have on drivers purchase decisions, as well as how they feel about federal and state policies aimed at increasing the usability and convenience of driving PEVs.

The total nationally representative sample consisted of 1,659 American adults, ages 18 and older, who are considering buying or leasing a new or used vehicle within the next two years. This survey was administered online and by phone from April 8, 2018 to April 19, 2019 to members of NORC's AmeriSpeak panel. The Colorado sample consisted of a demographically representative sample of 405 Coloradan adults, who are considering buying or leasing a new or used vehicle within the next two years. Coloradan respondents were obtained from probability and non-probability sample sources.

The margin of error for the Colorado cohort of 405 respondents is +/- 4.9 percent at a 95 percent confidence level. Findings presented in this report represent analyses of data after weighting was applied to respondent-level data to approximate demographic-based estimates.

Highlights

- Two-thirds (66 percent) of all prospective automobile buyers in Colorado have some interest in purchasing an electric vehicle, including about a third (35 percent) who say they would consider buying one within the next two years, and 4 percent who definitely plan to buy one within the next two years.
- 74 percent of prospective car buyers in Colorado believe that incentives and tax rebates for PEVs should be available to all consumers.
- Three-quarters of prospective car buyers in Colorado agree that widespread PEV use will reduce U.S. oil use, and seven in ten agree that PEV adoption will decrease pollution.
- Most prospective car buyers in Colorado agree that lower purchase prices (61 percent) and longer PEV driving ranges (55 percent) would be most effective in increasing their interest in getting a PEV.
- While more than two-thirds (69 percent) think that Colorado should make it easier for consumers to purchase PEVs, most prospective car buyers in Colorado (85 percent) are unaware Colorado currently offers a tax credit for consumers purchasing or leasing a new PEV.
- If drivers do end up buying a PEV and need to charge it when away from home, grocery stores appear to be the most convenient place to do it. 70 percent of potential car buyers in Colorado would find it most expedient to charge a PEV while shopping for groceries. Around a third (33-36 percent) feel that charging while dining at restaurants, shopping at malls, and in recreational areas such as parks would also be the most convenient options.

Plug-in Electric Vehicle Purchase Intentions

Thirty-nine percent of prospective car buyers in Colorado are considering getting a PEV within the next two years, and an additional 27 percent have some interest in a PEV, but not for their next vehicle (see Figure 1).

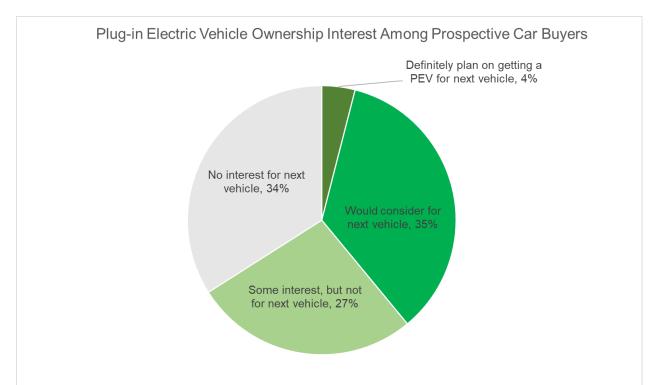


Figure 1: Plug-in Electric Vehicle Ownership Interest Among Prospective Car Buyers

Despite this interest and intentions, most prospective car buyers in Colorado aren't seeing advertisements for plug-in electric vehicles, and aren't noticing them for sale at their local automotive dealerships (see Table 1). 36 percent of Coloradans saw or noticed a plug-in electric vehicle available for purchase the last time they were at a car dealership or store, which is less than the national average (43 percent). Coloradans are also seeing fewer advertisements for plug-in electric vehicles (45 percent) compared to the average American (67 percent). However, Coloradans say they are seeing electric vehicle infrastructure, with 70 percent of Coloradans saying they have seen public charging stations, in line with the national average (69 percent).

Table 1: Availability of Plug-in Electric Vehicles and Infrastructure

Availability of Plug-in Electric Vehicles and Infrastructure			
Statement	U.S. %	Colorado %	
Seen a public charging station	69	70	
Seen an ad for a plug-in electric vehicle	67	45	
Seen a plug-in electric vehicle in your neighborhood	44	39	
Seen a plug-in electric vehicle at an auto dealership or store	43	36	

Plug-in Electric Vehicle Beliefs and Incentives

Prospective car buyers are generally optimistic in their assessments about the benefits PEVs can provide, from both a financial and environmental perspective (see Table 2). They are also more likely than not to be supportive of federal and state governments providing the public with incentives to promote the purchase of these vehicles and spending money on building the infrastructure that will make ownership of these vehicles more practical (see Table 3).

74 percent of prospective car buyers in Colorado believe that incentives and tax rebates for PEVs should be available to all consumers. There is also a strong consensus among prospective Colorado car buyers (73 percent) that automakers should make PEVs in a variety of types, such as SUVs, pickup trucks, and minivans.

Most Coloradans (53 percent) say their state should require automakers to offer plug-in electric vehicle options for purchase. A quarter of Coloradans (25 percent) say they neither agree or disagree with this policy option, and only about one-fifth (21 percent) say they disagree.

Table 2: Recognition of Plug-in Electric Vehicle Benefits

Recognition of Plug-in Electric Vehicle Benefits			
Statement	U.S. %	Colorado %	
Widespread electric vehicle use will help reduce U.S. oil use	73	75	
Widespread electric vehicle use will help reduce pollution	72	70	
Having an electric vehicle will help save consumers money on gasoline and maintenance	65	67	

Table 3: Support for Plug-In Electric Vehicle Policies

Support for Plug-in Electric Vehicles				
Statement	U.S. %	Colorado %		
Incentives and tax rebates for plug-in electric vehicles should be available to all consumers	75	74		
Automakers should make a variety of vehicle types available as plug-in electric models	72	73		
Electric utility providers should offer discounts to charge plug-in electric vehicles	67	68		
My state should support increasing the number of plug-in electric vehicle charging stations	67	68		
My state should support increasing the use of plug-in electric school buses, public transit, and fleets	64	70		
My state should make it easier for consumers to purchase and charge plug-in electric vehicles	63	69		
Incentives and tax rebates for plug-in electric vehicles should be targeted towards low and moderate income consumers	59	56		

More than half of all prospective Coloradan car buyers agree that lower purchase prices (61 percent) and/or longer driving ranges (55 percent) would be most effective in increasing their interest in getting a PEV. Conversely, few prospective car buyers feel that renting a PEV (5 percent), getting a PEV recommendation from family or friends (7 percent), or riding in a PEV as part of a taxi or rideshare (2 percent) would increase their interest in PEVs. When it comes to efforts focused on widening the adoption of PEVs, increased familiarity therefore does not seem as important as targeting the current cost and range limitations of these vehicles (see Table 4).

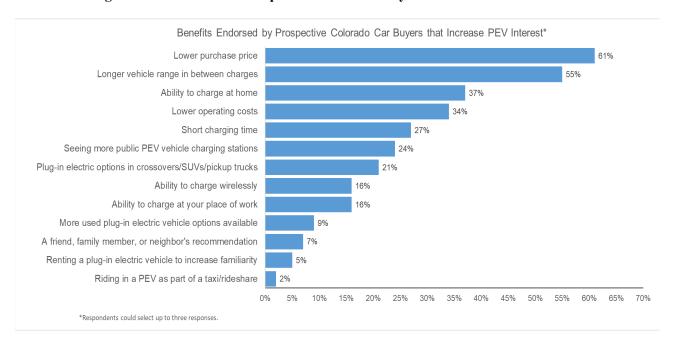


Table 4: Changes that would make PEV purchases more likely in Colorado

The Potential Impact of State Policy on PEV Purchases

Almost half (48 percent) of prospective car buyers in Colorado say that rebates at the time of purchase would be one of the things that most increases their interest in buying or leasing a PEV (see Table 5). More than one-third say that getting discounted rates from their electric utility provider to charge PEVs would be something that would most increase their interest in getting a PEV.

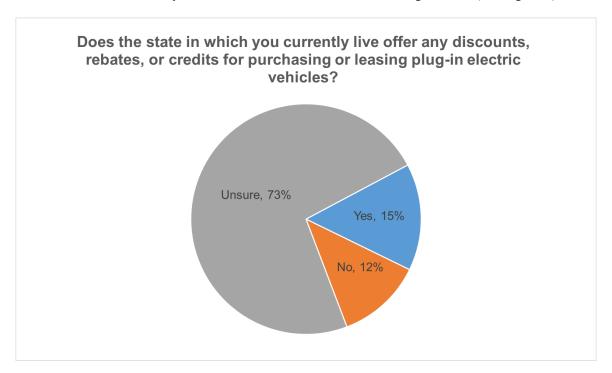
	Table 5: Pot	tential State and	Federal Policies th	iat can Increase PEV	V Purchases
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Potential State and Federal Policies that can Increase PEV Purchases*				
Potential Policy	U.S. (%)	Colorado (%)		
Rebates at the time of purchase	49	48		
Discounted charging rates from your electric utility provider	42	37		
Rebates as tax credits	40	40		
Public charging stations along highways	36	31		
Discounts to install a home charging station	31	33		
Access to workplace charging stations	17	19		
Preferential parking spaces for plug-in electric vehicles	11	13		
Charging stations or access to plug in vehicles at multi-family housing	11	10		
Access to HOV lanes with only the driver in the vehicle	8	11		

^{*}Respondents could select up to three responses.

Figure 3: Knowledge of Colorado PEV incentives

While nearly three-quarters (74 percent) of prospective car buyers in Colorado feel that incentives and tax rebates for PEVs should be available to all consumers, and more than two-thirds (69 percent) think that Colorado should make it easier for consumers to purchase PEVs, awareness about existing incentives remains a major issue. Most prospective car shoppers in Colorado (85 percent) are unaware Colorado currently offers a tax credit for consumers purchasing or leasing a new PEV, including twelve percent who said Colorado doesn't offer any discounts, rebates, or credits, even though it does (see Figure 3).



The Convenience of Charging Plug-in Electric Vehicles in Colorado

Out of five charging options we inquired about in our survey, 67 percent of prospective car buyers in Colorado say that charging a PEV overnight at home 2 times per week for a full charge would be "completely" or "very" convenient (see Table 6). The second most convenient option appears to be charging at a nearby fast charging station for 10 minutes twice a week, reported as highly convenient by 49 percent of these consumers.

Table 6: Convenience of PEV Charging Options

Convenience of PEV Charging Options*				
Charging Option	U.S. %	Colorado %		
Charging overnight at home 2 times per week	72	67		
Charging at a nearby fast charging station for 10 minutes twice a week	50	48		
Charging at a nearby fast charging station for 30 minutes once a week	36	38		
Charging at a shopping center or restaurant for 2 hours twice a week	22	26		
Charging at a shopping center or restaurant for 4 hours once a week	17	17		

*Percentages represents the proportion of respondents rating option as "completely convenient" or "very convenient." Other options included "moderately convenient," "slightly convenient" and "not at all convenient."

If drivers must charge their vehicle outside their homes, grocery stores would be the most popular place to do it. 70 percent of prospective car buyers in Colorado would find it most convenient to charge a PEV while shopping for groceries (see Table 7). Around a third also feel that charging while dining at restaurants (36 percent), shopping at malls (35 percent), and/or hanging out in recreational areas (33 percent) such as parks would also be particularly convenient options.

Table 7: Convenience of Potential PEV Charging Locations

Convenience of Potential PEV Charging Locations*			
Charging Location	U.S. %	Colorado %	
Grocery stores	66	70	
Restaurants	37	36	
Shopping malls	36	35	
Recreational areas (e.g., parks)	32	33	
Major warehouse clubs (e.g., Costco, Sam's Club)	25	28	
Entertainment locations (e.g., museums, music venues, movie theaters)	24	24	
Pharmacy chains (e.g., Walgreens, CVS)	17	13	
Other	17	15	

^{*}Respondents could select up to three responses.

END

^{*}Percentages represents the proportion of respondents rating option as "completely convenient" or "very convenient." Other options included "moderately convenient," "slightly convenient" and "not at all convenient."