



Automotive
Engineering

FACT SHEET

CONSUMER ATTITUDES ELECTRIC VEHICLES



BACKGROUND

Thanks to their compatibility with autonomous vehicle technologies and energy efficiency, electric vehicles are emerging as the centerpiece of the future. In 2018, a new AAA survey has found an increased interest in electric vehicles, with 20 percent of Americans (50 million people) saying they are likely to buy one for their next car, up from 15 percent in 2017. Concern for the environment remains the top reason for purchase (80 percent), followed by lower long-term costs (67 percent), cutting edge technology (54 percent) and access to car pool lane (35 percent).

As popularity for electric vehicles grows, automakers will expand the electric vehicle portfolio even more, offering consumers a wide variety of choices. This combined with rising gas prices, easing of range anxiety and the lower long-term costs of ownership leads AAA to believe the future for electric vehicles is fertile and will continue to grow.

KEY FINDINGS

Electric Vehicle Appetite:

- Two-in-ten (20%) Americans say they **are likely to buy an electric vehicle** the next time they are in the market for a new or used vehicle, an increase from 15 percent over 2017.
- Americans who are likely to buy an electric vehicle would do so out of **concern for the environment** (80%), **lower long-term costs** (67%), **cutting edge technology** (54%) and **access to the car pool lane** (35%).
 - Women (90%) are more likely to buy an electric vehicle out of concern for the environment over men (68%).

To understand consumer attitudes toward electric vehicles, AAA pursued three lines of inquiry:

1. How many Americans are interested in buying an electric or hybrid vehicle?

2. What is motivating Americans to purchase an electric vehicle?

3. What prevents Americans from purchasing an electric vehicle?

4. How convenient is charging an electric vehicle?



- Three in 10 adults (31%) say they are **likely to buy a hybrid vehicle** the next time they are in the market for a new or used vehicle. This level of interest is unchanged from 2017.
- Reliability and fuel economy/range are the most important criteria for consumers when choosing which hybrid or electric vehicle to buy.
 - Nine-in-ten (92%) Americans who are likely to buy an electric or hybrid vehicle, **consider reliability important**, followed by fuel economy or how far the vehicle can go on one charge (87%).
 - Other considerations include crash rating (77%), cost (71%), vehicle performance (69%) advanced safety technology such as automatic emergency braking and lane keeping assistance (60%).

Range Anxiety:

- Six-in-ten Americans (63%) who are unlikely (or unsure) to purchase an electric vehicle are concerned there are **not enough places to charge**. This, however, is down from 69 percent in 2017.
- Drivers are less concerned this year over last regarding the following purchase barriers:
 - **Running out of charge while driving** (58% versus 68%) and **higher cost to repair or replace the battery** (49% versus 55%).
 - Baby Boomers (66%) and Generation X (64%) are more likely than Millennials (48%) to be concerned about running out of charge while driving.

Charging Expectations:

- Consumer expectation regarding the amount of time they would be willing to wait to charge their vehicle while on the road may not align with reality. Seven-in-ten Americans (68%) feel that **a charging time of no more than 30 minutes is reasonable**, when in fact, if a Level 2 charger is available, it can take several hours to charge a fully depleted battery. If a normal 120 volt outlet is all that is available, an overnight charge may be required to get you back on the road.
 - Women (44%) are more likely than men (33%) to feel that charging time of no more than 15 minutes would be reasonable.

AAA Green Car Guide

The Automobile Club of Southern California's Automotive Research Center rates and ranks electric, hybrid, compressed natural gas-powered (CNG), diesels and high fuel economy gasoline-powered vehicles for the annual AAA Green Car Guide. Vehicles are rated on the criteria that are most important to car buyers, including ride quality, safety and performance. Visit AAA.com/greencar to learn more information.

In 2018, the following vehicles earned AAA's Top Green Vehicle Award:

CATEGORY	VEHICLE
Overall	Tesla Model X 75D
Subcompact Car	Chevrolet Bolt EV Premier
Compact Car	Nissan Leaf SL
Midsize Car	BMW 530e i-Performance
Large Car	Tesla Model S 75
Pickup	Ford F-150 4X4 XLT Sport
SUV/Minivan	Tesla Model X 75D
Best Under \$30K	Kia Niro LX
Best \$30K - \$50K	Chevrolet Bolt EV Premier
Best Over \$50K	Tesla Model X 75D

METHODOLOGY

A telephone omnibus survey was conducted March 8-11, 2018. A total of 1,003 interviews were completed among adults, 18 years of age or older.

A dual-frame approach was used that combined landline and cell phone interviews to ensure that adults who only or primarily communicate via cell phones are included and properly represented. Survey responses are weighted by six variables (age, gender, geographic region, race/ethnicity, education, and landline vs. cell phone only) to ensure reliable and accurate representation of the total continental US population, 18 years of age and older.

Generation groups defined as: Millennials (20-37 years old), Generation X (38-53 years old) and Baby Boomers (54-72 years old).

The margin of error for the study is 4% at the 95% confidence level. Smaller subgroups will have larger error margins.