CDK GLOBAL®

EV Confusion Carries On

CONNECTIONS THAT MOVE YOU

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Overview

The electric revolution is at a pivotal pit stop in the U.S. market. Tesla is charging ahead at full speed with massive cuts in prices and sales accelerating to match. Other automakers are rolling out competitive electric vehicles that seem to go toe-to-toe with Tesla's models, except for their sticker price.

Complex federal tax incentives favoring vehicles made in the U.S. are also boosting the now Texas-based EV maker. And just recently, some of the largest automakers — including Ford, GM and Nissan — have decided to use Tesla's charging standard as their own, hoping to make public charging more accessible to all EV owners.

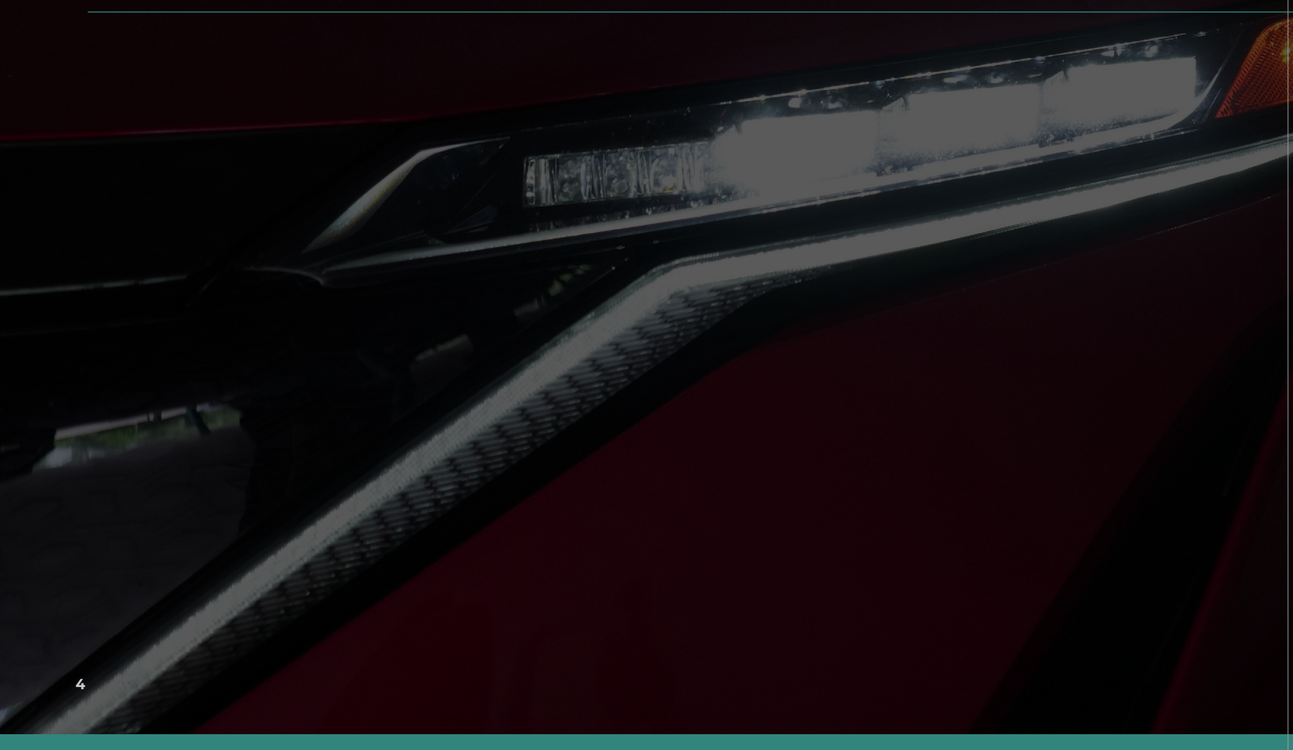
Tesla's dominance looms large but each day there are new EV models introduced and sold from nearly every automaker, and their plans seem loaded with electrified lineups just over the horizon.

This dizzying array of change, from new models and incentives to new ways of charging, has made an impact on car shoppers. CDK Global surveyed over 1,200 car shoppers and found that the state of electrification has put them in a state of confusion. The most astounding part is that the EV shopper seems just as confused as those ready to buy a gas guzzler.

Total Participants

1,237

shoppers planning to buy a new car in the next six months



DEMOGRAPHICS

GEN Z
18 to 26 years

YOUNG MILLENNIALS
27 to 33 years

OLD MILLENNIALS
34 to 42 years

GEN X
43 to 58 years

BOOMER + SILENT
59 years or older

BUYER GENDER

Male	46%	566
Female	53%	661
Nonbinary	1%	8

BUYER TYPE

EV Buyer	Hybrid Buyer	Gas Buyer
29%	35%	36%
362	432	443

Today’s EV Shopper

To say all car shoppers aren’t the same is an understatement. And when looking closely at the differences between gas, hybrid and EV shoppers, there were some distinct variations that surfaced.

The EV shopper was typically a millennial with a higher level of education and annual salary than either gas or hybrid shoppers. Gas shoppers were a broader group of ages from Generation Z to Generation X, while hybrid shoppers bridge millennials and baby boomers.

But what’s perhaps most interesting about EV shoppers is that they drive considerably more than their gas or hybrid shopping counterparts.

A third of EV shoppers say they put between 15,000 to 20,000 miles on their cars every year, with the longest average commute distance of 20 miles. According to the U.S. Department of Transportation, that’s significantly more than the average 13,500 annual miles driven, with most of the workforce (Gen Z through Gen X) driving the most.

These ultra-commuters are the optimal fit for EV’s promise of zero emissions and lower fueling costs. When the first EVs hit the market, like the Nissan Leaf, they only had enough range — around 80 miles — to be commute cars. But even then, the concept of limiting what a car could do hampered sales, especially as $4 gas prices began to evaporate.

Today’s EVs almost all claim over 200 if not 250 miles of range and some form of rapid charging capabilities so they can more reasonably handle a road trip as well as a commute. This clearer focus on longer drives and commutes also surfaced in a recent J.D. Power survey, which found that among those commuters who travel more than 45 minutes each way, 35% say they are “very likely” to consider an EV.

A third of EV shoppers drive 15,000 to 20,000 miles every year

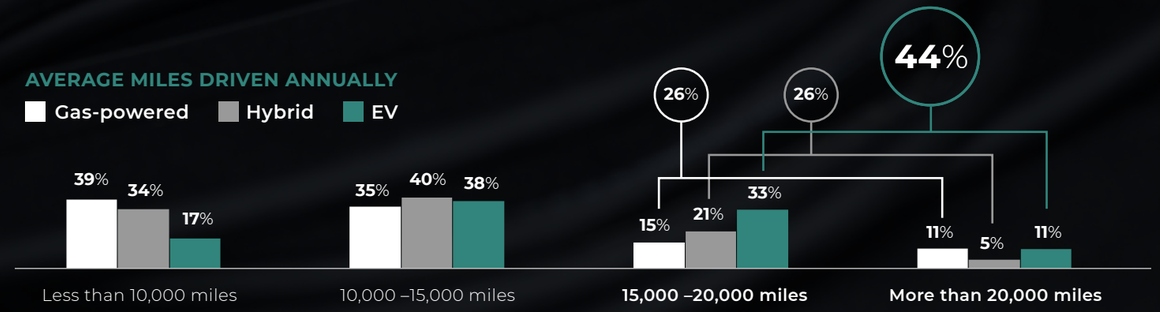
EV shoppers also have clear perceptions of which brands build the best EVs, with an overwhelming 49% pointing to Tesla. On the hybrid side, Toyota, with its long dominance with the Prius and newer, more popular RAV4 and Corolla hybrids, came out on top.

A prime consideration for an EV shopper to choose Tesla could be the fact that range is so important. Nine out of ten (90%) EV shoppers said they would buy from the brand that offered a longer driving range. Currently, the Hyundai Ioniq 6 is the only non-luxury model that can claim a longer range with 361 miles compared to Tesla’s popular Model 3 at 358 miles and Model Y at 330 miles.

EV SHOPPERS TRAVEL MORE COMPARED TO NON-EV SHOPPERS

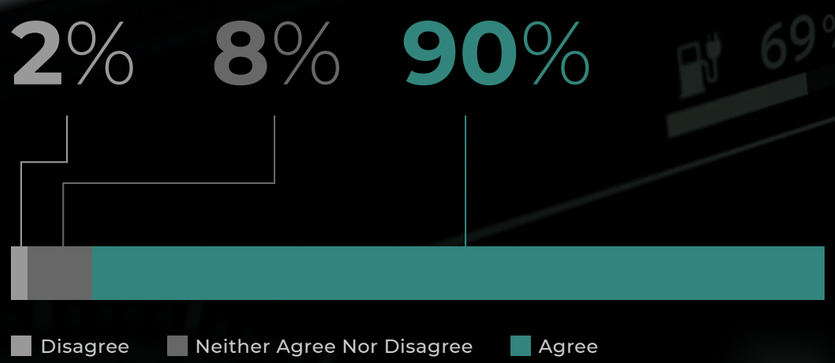
DAILY COMMUTE DISTANCE

AVERAGE MILES DRIVEN ANNUALLY



RANGE MATTERS TO EV SHOPPERS

"I plan to purchase my EV from a brand that has a longer driving range."



BRANDS WITH THE BEST EVS

EV Shopper

01. Tesla **49%**

02. BMW **7%**

03. Chevrolet **7%**

BRANDS WITH THE BEST HYBRIDS

Hybrid Shopper

01. Toyota **24%**

02. Ford **11%**

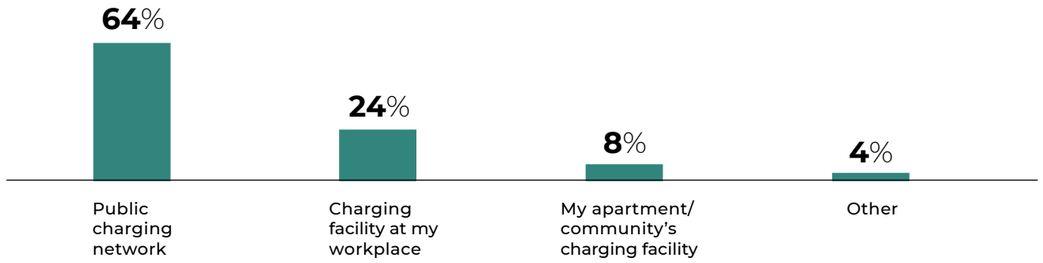
03. BMW **10%**

Homeownership's Impact

In last year's study of EV owners, it was clear a vast majority waited until they had a home before they purchased an EV. Similarly, 87% of the EV shoppers in this year's survey said they plan to set up a charging system at their home. The rest of the EV shoppers predominantly plan to use public charging stations or a charging facility at their place of work.

87%
of EV shoppers plan to set up a charging system at home

WHERE DO NON-HOMEOWNERS PLAN TO CHARGE THEIR EV?



Car Shopper Confusion

The most startling findings in our survey spread across all types of shoppers. They were all fundamentally confused or unsure about EVs. Even those shoppers looking specifically for an EV simply didn't understand their costs, benefits, or how tax incentives would be applied.

One thing they did agree on was that EVs have the most expensive purchase price. This is generally true across all EV shoppers and their hybrid or gas counterparts, but Tesla's Model 3 and Model Y have seen drastic price cuts paired with federal incentives that can put them on par with a traditional gas sedan or SUV from a mass-market Japanese brand, for example.

Repairs and Maintenance

The most interesting divergence with reality came from the cost of maintenance and repairs. Those in the automotive industry have made it almost common knowledge that EVs will require less maintenance than a gas-powered vehicle, most notably because there's no oil to change every 3,000 miles or even 10,000 miles. But respondents across the board had annual maintenance costs highest for EVs.

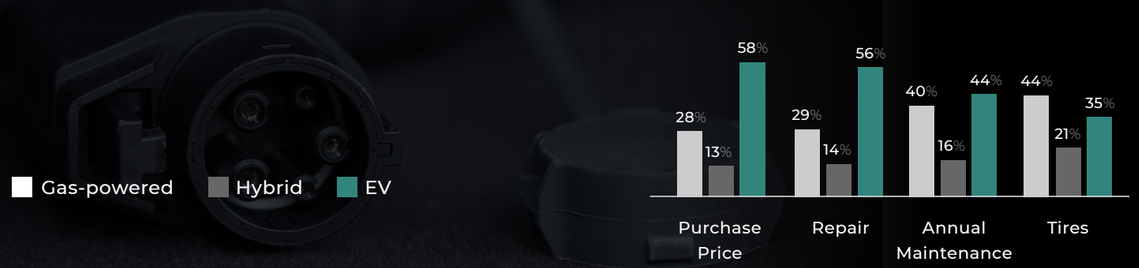
Both 44% of gas shoppers and EV shoppers thought these costs would be higher, with 39% of hybrid shoppers agreeing. All also believed hybrids would cost the least to maintain. Similarly to EVs, most hybrids use regenerative braking, allowing traditional brake pads and rotors to last far longer than in a gas car. However, that's basically the only difference.

EVs should have far fewer maintenance costs and it's surprising so many shoppers are misinformed. The study even pulled the cost of tires out of the maintenance question, asking it separately.

Again, common wisdom in the industry is that the torque-laden EV will shred through rubber faster than other cars. This time, though, EV shoppers did land on the correct path, with 49% saying EV tire costs would be highest as opposed to just 35% of gas shoppers and 33% of hybrid shoppers.

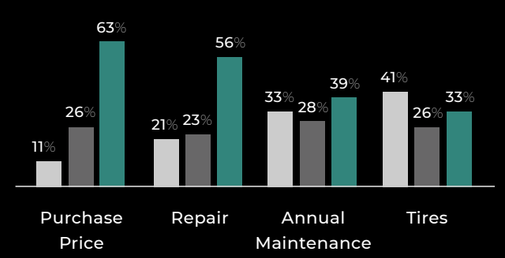
However, the added weight of EVs may indeed impact not just tire costs but possibly suspension components — like bushings and struts — more than a comparable lighter gas car. Those costs, when applied to the total ownership of an EV, are unlikely to tip the balance one way or the other.

SHOPPERS BELIEVE EVS ARE THE MOST EXPENSIVE CARS TO OWN AND MAINTAIN

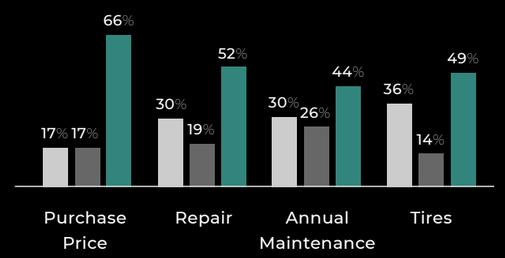


Which vehicle is more expensive as per Gas-powered shoppers?

Which vehicle is more expensive as per Hybrid shoppers?



Which vehicle is more expensive as per EV shoppers?



CAR SHOPPER CONFUSION

On the repair side, numbers also stacked up against the EV once again. No matter if it was a gas (56%), hybrid (56%) or EV shopper (52%), a majority believed that EVs would cost more in repairs. And while we as an industry are at an early stage of adoption, there's been no evidence EVs would cost more to repair over their lifetime for the owner with the notable exception of recall and other warranty work. For dealers, that may lead to an offset in the anticipated drop in Service revenue since the cost for those fixes would come from the automaker, not the customer.

Some of the most expensive repairs a car owner is likely to face are related to the engine and transmission. Those clearly aren't an issue for EVs, which feature an electric motor with far fewer parts than a gas engine and no transmission. Another generally overlooked benefit of EVs is that the motor and battery are typically in a sealed system, greatly reducing the risk of water damage from flooding. Of course, no one should drive an EV through high standing water.

"No matter if it was a gas, hybrid or EV shopper, a majority believed that EVs would cost more in repairs."

82%

of EV shoppers believe that **tax incentives** will make an EV **more affordable**

Tax Incentives

The confusion around car basics, like maintenance and repairs, spread to the very EV-specific, very new realm of tax incentives. While the previous round of tax incentives for EVs had mostly expired, the latest round of incentives enacted in 2023 are unique with different guidelines around where the vehicles are assembled, how much the vehicles cost, and how much a buyer lists as income on their annual taxes.

When asked, four out of five EV shoppers said they were both aware (83%) and understood how to claim tax credits (80%). Also, they believe that tax incentives will make an EV more affordable (82%), while only 66% of hybrid shoppers and 48% of gas shoppers feel the incentive would make an EV closer to their financial reach.

All these rules can be confusing to shoppers — especially when it comes to leasing. There's currently a loophole in the federal tax incentive rule that allows any EV leased to anyone to receive the full $7,500 tax credit — no matter their income. This is the mechanism many automakers and dealers are promoting for vehicles built outside of the U.S.

Yet, our EV shoppers had the exact opposite understanding of the new incentive.

Nine out of 10 EV shoppers planned to purchase versus lease, but a vast majority (78%) would consider leasing if they could take advantage of tax incentives in the lease deal.

This disconnect could be even more harmful to EV adoption curves because a lease provides a bit of a security blanket for those unsure if an EV will fit their lifestyle or living/charging situation.

Social Networks' Outsized Impact on EV Shoppers

There's been a bit of a "neighbor effect" with EVs since the time of Nissan's Leaf and it certainly spread with Tesla. Once one person in a neighborhood got an EV, others would soon follow — especially after hearing about and seeing the benefits firsthand.

In our survey, we saw an even more significant impact of a car shopper's environment and friend group on EV consideration.

82%

of EV shoppers said their purchase decision is influenced by friends and family members

Four out five (82%) of EV shoppers said their purchase decision was influenced by friends or family members. But the makeup of the shoppers' social network is also key. Gas shoppers simply aren't exposed to EVs like hybrid and EV shoppers are. Slightly more than a third (37%) of gas shoppers know someone who owns an EV. That's far behind hybrid shoppers (54%) and especially EV shoppers (84%). These social bubbles are likely primary drivers in consideration, keeping gas and hybrid shoppers in their existing lanes.

SHOPPERS WHO KNOW SOMEONE WHO OWNS AN EV

84%
of EV shoppers

54%
of hybrid shoppers

37%
of gas shoppers

GO-TO SOURCE FOR EV NEWS

60% YouTube

53% Television

47% facebook

This direct contact with existing EV owners in their social spheres also far outpaces influence from news sources. Just over half of EV shoppers seek out EV news (56%). **Interestingly enough, almost as many hybrid shoppers (53%) are seeking out EV news.** Less than a third of gas shoppers do the same.

This strong interest in EV news from hybrid shoppers is one area dealers and automakers can take advantage of when targeting potential EV buyers.

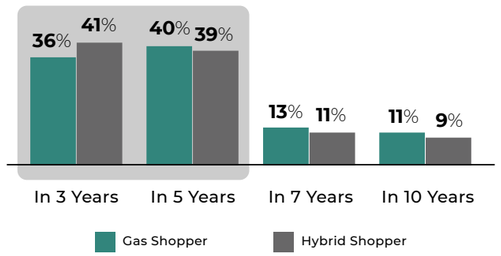
The Dealer's Role

As confusion runs rampant about both the technology and costs of EVs, the dealership sits as a crucial lynchpin in swaying shoppers toward — or away — from going electric.

More EV Shoppers Are On the Way

From helping them to understand tax incentives to test drives, car shoppers overwhelmingly said the dealer is who they want and trust answers from. And while the number of EV shoppers today may be relatively small, many of the gas shoppers (76%) and hybrid shoppers (80%) we surveyed said they would buy an EV in the next five years.

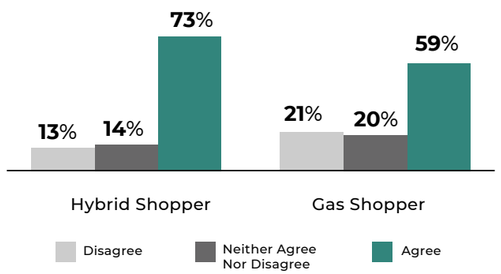
When in the future will they be purchasing an EV?



Reconsider the Test Drive

Because owning an EV is a change in lifestyle, a traditional test drive is unlikely to reveal the benefits of ownership. Nearly three out of four hybrid shoppers (73%) said an EV loan for a day or more would help them decide if it was the right purchase for them. It was lower for gas shoppers at 59%, but that still seemed to be more positive than other responses from that group.

Loaning an EV from a dealership for a day or more would help me decide if I want to consider purchasing one.



89%

of **EV shoppers** want the salesperson at the **dealership to explain** how they can claim their **tax incentives**

Incentive Education Falls to the Dealer

It was clear too that EV shoppers want the dealer to navigate the landscape of tax incentives. Most shoppers said they knew how to claim the incentive, but the nearly nine out of 10 (89%) who didn't know want the salesperson at the dealership to explain the incentive process.

The salesperson is also in a terrific position to explain maintenance plans offered in the Service department since this was such a source of confusion to shoppers of all types. While some automakers, like Volkswagen, offer complimentary maintenance for the first few years of ownership across their lineup, most automakers and dealerships offer prepaid plans that are rolled into the car loan. These may alleviate the concerns on cost of maintenance even if those concerns may be somewhat exaggerated.

In previous EV studies, we recommended that dealers create a map of charging stations in their communities. Just having a total number to cite could sway those EV and hybrid shoppers concerned about not having enough access to charging if their homes lack easy access. If they understood how accessible it is in their areas — or on common road-trip routes like Los Angeles to Las Vegas and Miami to Orlando, etc. — EVs will seem like less of a trade-off.

And most of all, a salesperson should understand the shopper's lifestyle. If the vast majority are looking for a car to do extensive daily driving and they own a home, the stars should be aligned to purchase an EV. If they're buying an EV as a second car to a gas or hybrid vehicle already in the garage, then the decision should become that much easier.

About This Study

CDK Global endeavors to connect dealers with the broader retail ecosystem as well as car shoppers and owners. Understanding the trends in buying, owning and servicing electric vehicles is paramount for the automotive retail industry as we move to an all-electric future, even if that may take many years.

Peter Kahn

CDK Global Head of Research

With over 20 years of experience in researching all aspects of the automotive retail industry, Peter's work is focused mainly on how dealerships and brands can improve efficiencies and meet the changing needs of the vehicle buyer and service consumer. As the Senior Director of the CDK Global Research and Insights group since 2015, Peter has produced work that covers a range of topics, such as Artificial Intelligence in the Dealership, Women in Automotive, the State of the Automotive Retail Industry, Job Seekers in Automotive Retail and many more that help inform decision-makers in our industry.

Devika Birnale

Market Research Analyst

Devika Birnale is a Market Research Analyst at CDK Global, where she works on a variety of research initiatives across thought leadership and the Product Technology and Marketing teams. Her research focuses on bridging the gap between end customers, dealerships and CDK.

Devika holds a master's degree in marketing intelligence from the University of San Francisco, California.

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