

COX
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EV Consumer Study

EIA Energy Conference

Washington, DC

June 27, 2017



Kelley Blue Book
KBB.COM
The Trusted Resource

DEALER.COM

About Cox Automotive

Cox Automotive is a leading provider of products and services that span the automotive ecosystem worldwide.

Our goal is to simplify the trusted exchange of vehicles and maximize value for dealers, manufacturers and car shoppers.

We've built the industry's strongest family of more than 25 brands to provide industry-leading digital marketing, software, financial, wholesale and e-commerce solutions to help our clients thrive in a rapidly changing automotive marketplace.

Our Vision

Transform the way the world buys, sells and owns cars.

33,000+
team members

40,000+
clients

MOST RECOGNIZED
BRANDS
Autotrader & Kelley Blue Book

73% OF ALL CAR
BUYERS

use Autotrader or KBB.com

About Cox Automotive

Our client-obsessed culture breeds passionate, proactive people who ensure each client gets the right solution.

As a subsidiary of 116-year-old Cox Enterprises Inc., one of the world's largest privately owned communications, media and automotive services companies, innovation and leadership is in our DNA.

Our focus on building a better future for our clients, consumers and the industry is ingrained in everything we do, from responsible services and solutions development, to team member care and giving back to the communities where we live, work and play.

\$50B+

vehicle values sold
annually through Manheim

45M+

financed titles managed
by Dealertrack

\$4.2B+ IN LOANS TO
23,000+ DEALERS

NextGear Capital

 INVENTORY SOLUTIONS

-  Manheim
-  **DEAL SHIELD**
Be Assured.
-  **Ready**
Logistics
-  **AiM**
Automotive Management
-  **RMS**
AUTOMOTIVE
-  **CentralDispatch**

 RETAIL SOLUTIONS

-  Dealertrack 
-  vAuto
LIVE MARKET VIEW
-  VinSolutions
-  xtime
-  **HomeNet**
AUTOMOTIVE

 MEDIA SOLUTIONS

-  Autotrader
-  Kelley Blue Book
KBB.COM
The Trusted Resource
-  **DEALER.COM**

 FINANCIAL SOLUTIONS

-  **NEXTGEAR**
CAPITAL

 INTERNATIONAL

-  Manheim **MOTORS**
Search Smart. Buy Right. Sell Big.
-  **NEXTGEAR** 
CAPITAL
-  **First Choice** 
-  **Dealer Solutions** 
Here's Performance
-  **AUTOST** 汽车街 **RMS**
AUTOMOTIVE
-  **BitAuto** 易车 **精真估**
JINGZHENGU
-  Dealer-Auction.com 

Survey Field Dates: 9/16/2016 – 9/30/2016

Goals:

- Understand the current value proposition of EVs
- Learn how to market EVs to multiple consumers: EV owners, EV considerers, and non-EV considerers
- Recognize the gap from consumers' expectations and current EV realities
- Learn what brands and models are successful in marketing EVs

Sampling Information:

- Mobile Survey: fielded to individuals visiting the KBB.com mobile websites
- Total of **6499** Respondents
- Sample representative of a geographically spread of the U.S.

- Other sources of information: U.S. Department of Energy, Vehicle Technology Office.

- Sources are listed in the slide footers

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EV continues as a niche market



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Consumers feel the road to mass EV ownership is long



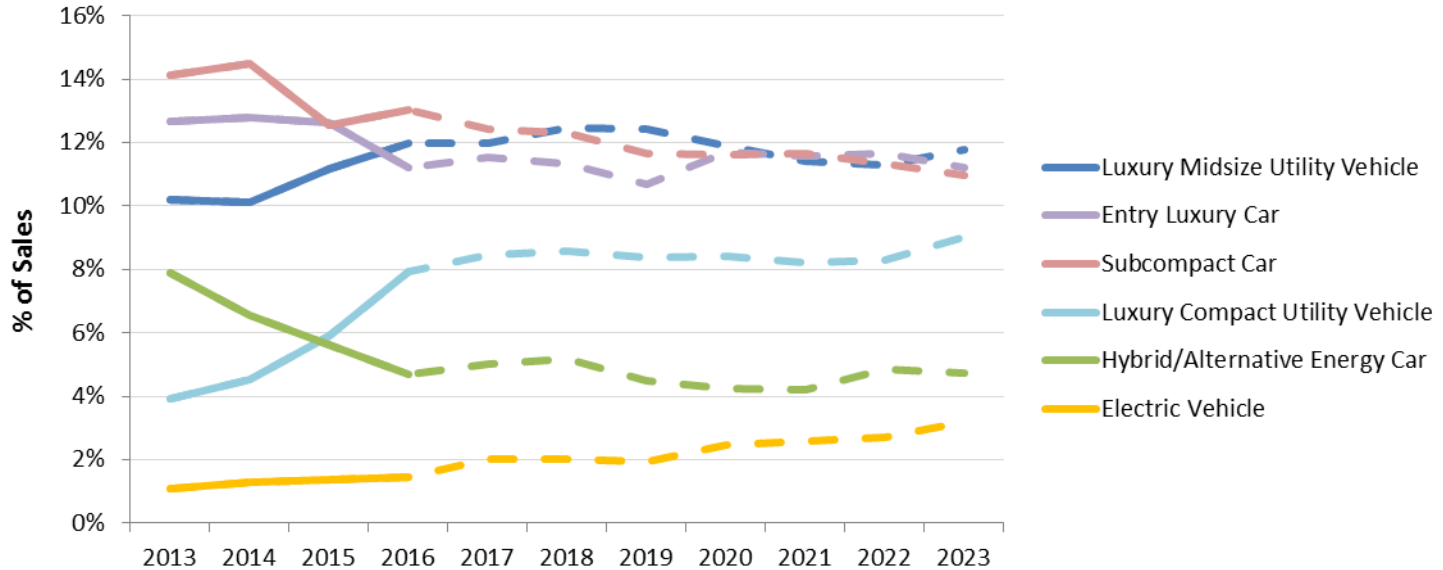
In HOW MANY YEARS
do you expect EVs to be
AS COMMON on the road
as NON-EVs?

10
years

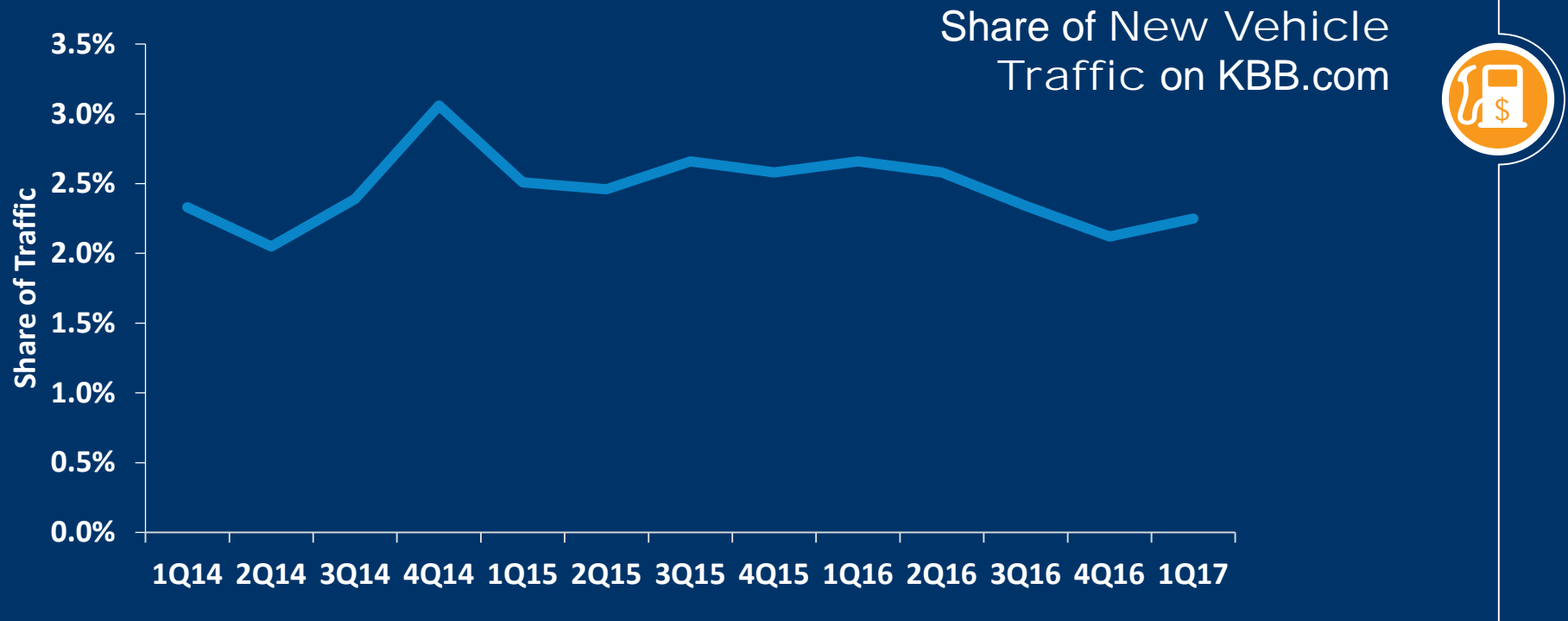
There's little indication consumer demand will increase even as new products emerge



US Automotive Sales Forecast - Volume Projections



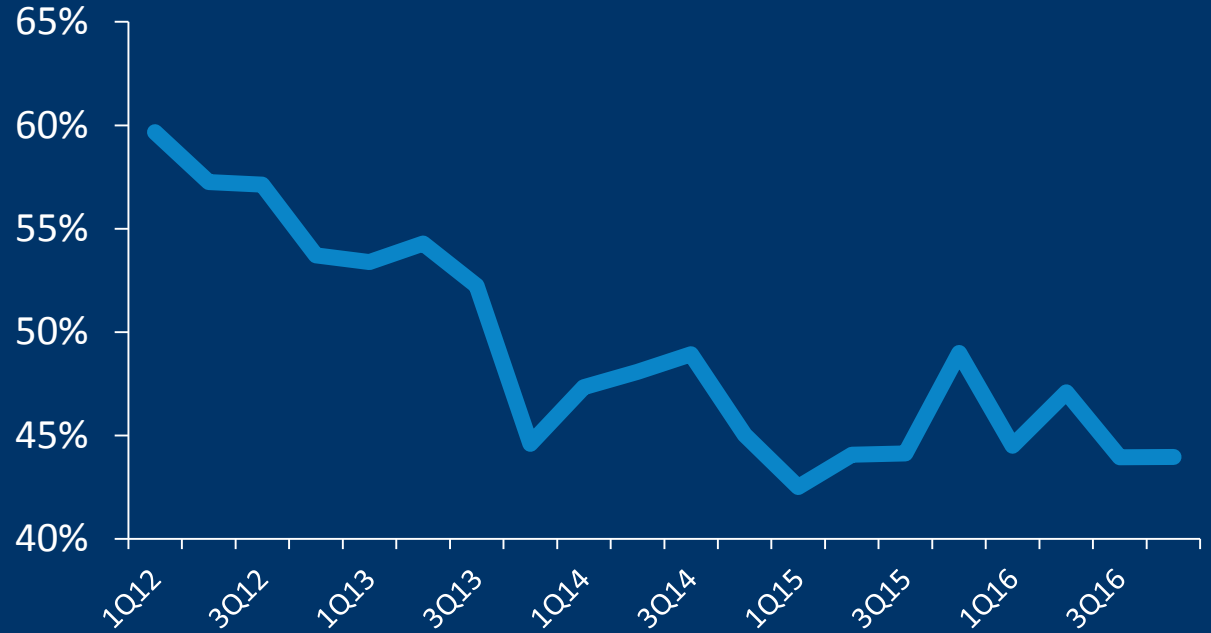
After declining through 2016, EV traffic increased slightly due to interest in Chevrolet Bolt



Fuel efficiency has declined in importance to consumers

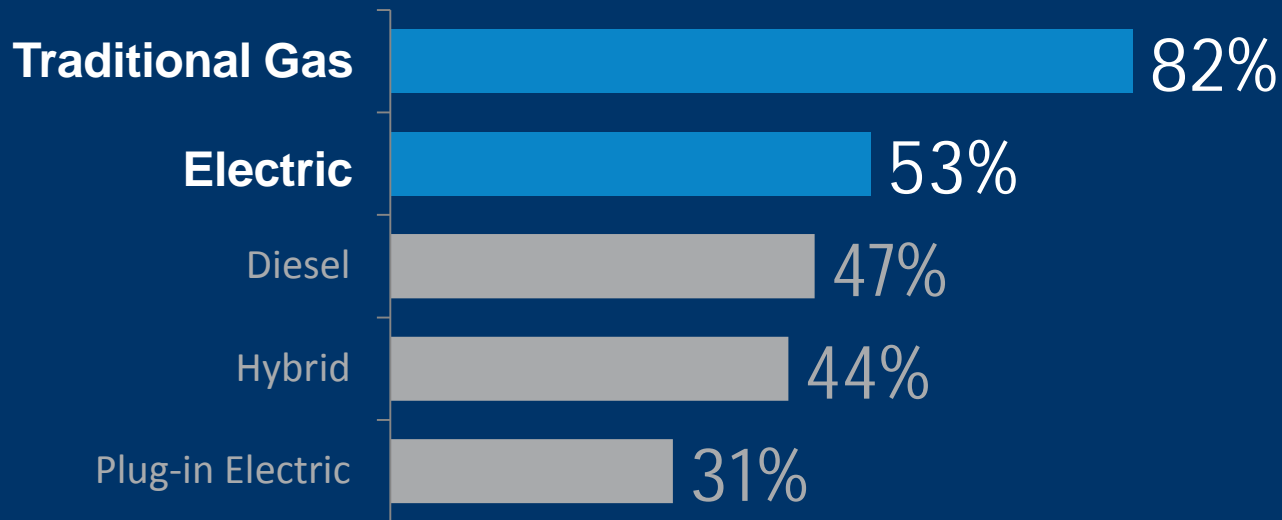


BrandWatch
Factor Importance
- Fuel Efficiency



More than half of current EV owners would buy again, but is that enough?

Repurchase Likelihood



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Q: Do you currently own any of the following types of vehicles? (Please select all that apply) N = 6499

Q: Which of the following are you most likely to purchase/lease for your next vehicle? (Please select one response only) N = 5402

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How do consumers
think about EVs?



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It's less about the environment and more about the economics

Owners' & Considerers' PRIMARY REASON to purchase EVs



SAVE
MONEY
on fuel costs

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Q: Which of these is the primary reason you feel people purchase electric vehicles? N = 2165

Q: Which of the following types of vehicles would you consider? (Select all that apply) N = 2165

Q: Do you currently own any of the following types of vehicles? (Select all that apply) N = 2165

After that, owners are driven by practical factors

▶ PRACTICAL



Lower maintenance



Cheaper monthly payment/lease



Receiving an HOV sticker



Consideration split into Curious vs. Serious



Curious

Considering an EV



Serious

Considering an EV

PLUS

Will most likely purchase an EV for their next vehicle



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Q: Which of these is the primary reason you feel people purchase electric vehicles? N = 2165

Q: Which of the following types of vehicles would you consider? (Select all that apply) N = 2165

Q: Which of the following are you most likely to purchase/lease for your next vehicle? N = 1713



Curious



Saving \$\$ on fuel costs



Serious



Helping The Environment



Lower Maintenance



Receiving a HOV Sticker



Available Incentives



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Q: Which of these is the primary reason you feel people purchase electric vehicles? N = 2165

Q: Which of these questions do you think would be top of mind for someone shopping for an electric vehicle? (Select 2) N = 2165

Q: Which of the following types of vehicles would you consider? (Select all that apply) N = 2165

Q: Which of the following are you most likely to purchase/lease for your next vehicle? N = 1713

Mass market pricing could put EVs on more shoppers' radars

What it would take for non-EV considerers to think about purchasing EVs?



Affordable Pricing

52%



Longer Driving Range

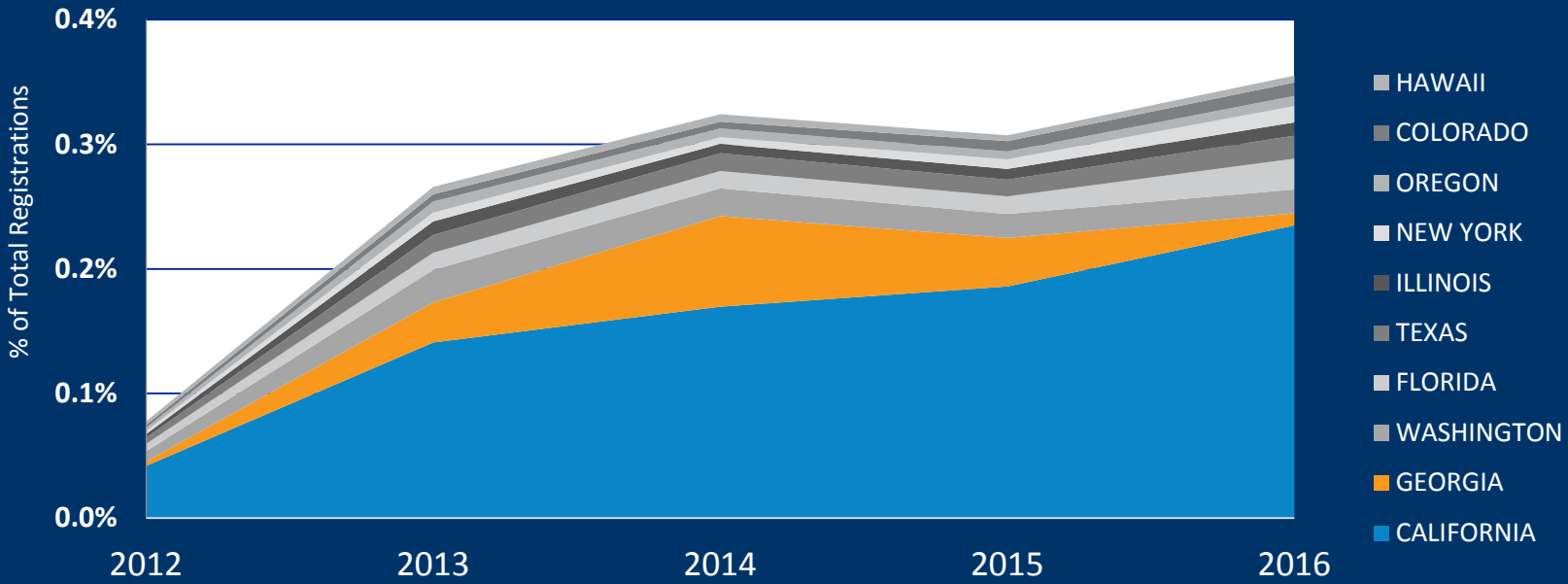
37%



Improved Infrastructure

19%

EV purchases dropped after Georgia's \$5K Zero Emission Vehicle Tax Credit ended in 2015



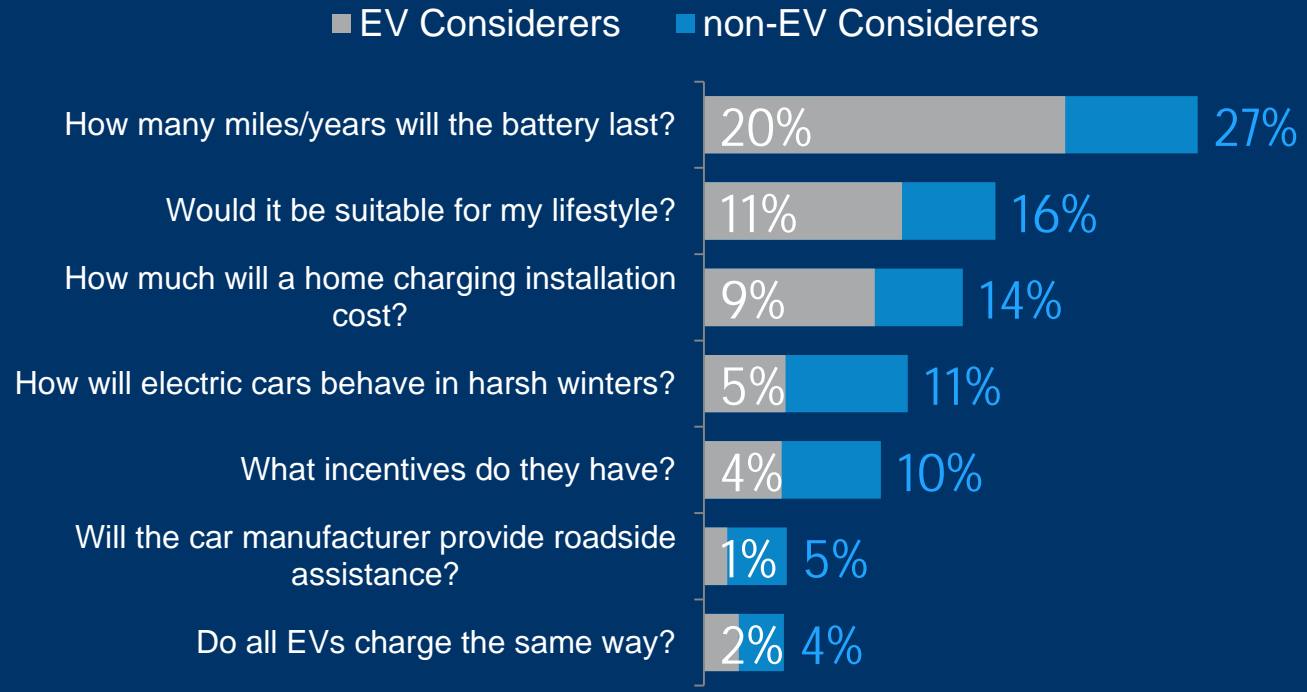
© 2016 Cox Automotive, Inc. All Rights Reserved.
Experian Automotive 2012 – 2016, New Vehicle Registration (Retail only) (chart)
Georgia Environmental Protection Division, <https://epd.georgia.gov/air/alternative-fuels-and-tax-credits> (Georgia Alternative Fuel Tax Credit)



There are many concerns that keep people from considering EVs



Non-Considerers care more about these issues than Considerers



EV considerers are concerned about obsolescence, so are more likely to lease

EV Considerers



EV Considerers' Biggest Drivers To Lease



Outdated Technology



Long-Term Battery Reliability



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Q: Are you more likely to buy or lease an Electric Vehicle? N = 293

Q: Why are you more likely to lease (vs buy)? N = 53

Q: Which of the following types of vehicles would you consider? (Select all that apply) N = 2165

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Consumers Need More Education on EVs

Autotrader 

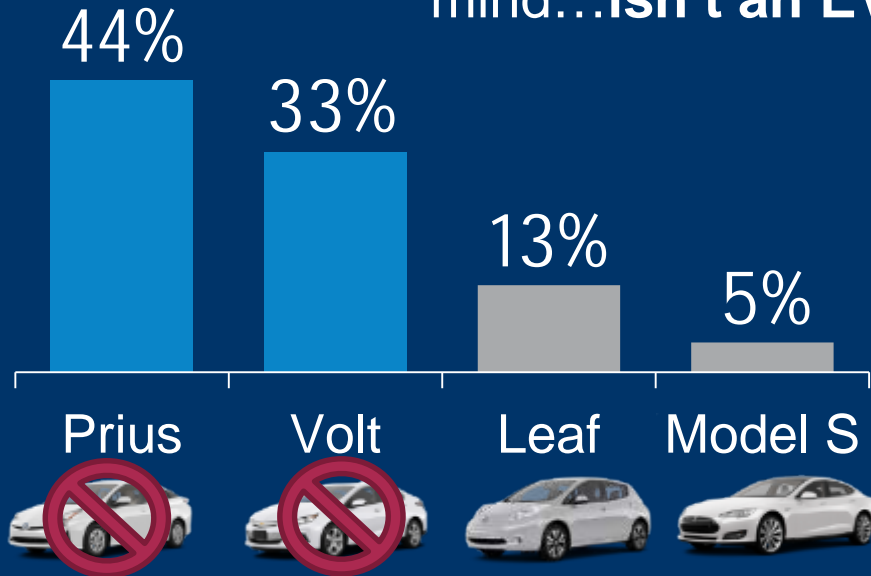


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Consumers have trouble distinguishing hybrids from EVs 22

The first EV that comes to mind...**isn't an EV**



So it comes to no surprise that they aren't familiar with which brands have EVs in their product line-up



Some of the first brands that come to mind...
don't have EVs (*prior to Bolt launch, but announced*)



Current range doesn't meet the average consumer's expectations, even for EV shoppers

Consumers are willing to spend an additional \$5K for an increased range from 150 to 200 miles



107 mi



215 mi



238 mi

ACCEPTABLE

minimum driving range



EV Shoppers

245-250 mi



Other Shoppers

300 mi

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Q: For an EV, what is the minimum driving range that is acceptable between battery charges? (Please indicate the number of miles per full charge) (Free response) N = 2165 (Median reported)

Q: Which of the following types of vehicles would you consider? (Select all that apply) N = 2165, Q: Do you currently own any of the following types of vehicles? (Select all) N = 2165

Q: Imagine a \$30,000 electric vehicle that has a range of 150 miles when fully charged. What would you expect the price to be for a version of the same vehicle that had a 200 mile range?

150 mile range = \$30,000, 200 mile range = (enter price) N = 2165 (Median reported)

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And Then There's
This...



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Changing trends in mobility may change consumer perceptions of EVs



WHAT A CITY WITH DRIVERLESS CARS MIGHT LOOK LIKE

Autonomous vehicles would likely be electric, which would keep the air clean.

There would be more room for parks and expanded walks.

There would be no more traffic jams because cars don't need them.

Fewer human drivers would allow driverless cars to work more flawlessly and safely.

Cars will be able to communicate with each other, which would help eliminate traffic.

Parking spaces could be largely removed since people won't need to own cars.

SOURCE: Chris Dixon

BUSINESS INSIDER

SUSTAINABLE ENERGY | A CNBC SPECIAL REPORT

SUSTAINABLE ENERGY | TV SHOWS | BRAINSTORM EVENT | BETTER ENERGY

Lyft sets out climate impact goals, wants all electric autonomous vehicles on platform to run on 100 percent renewable energy

CleanTechnica

About

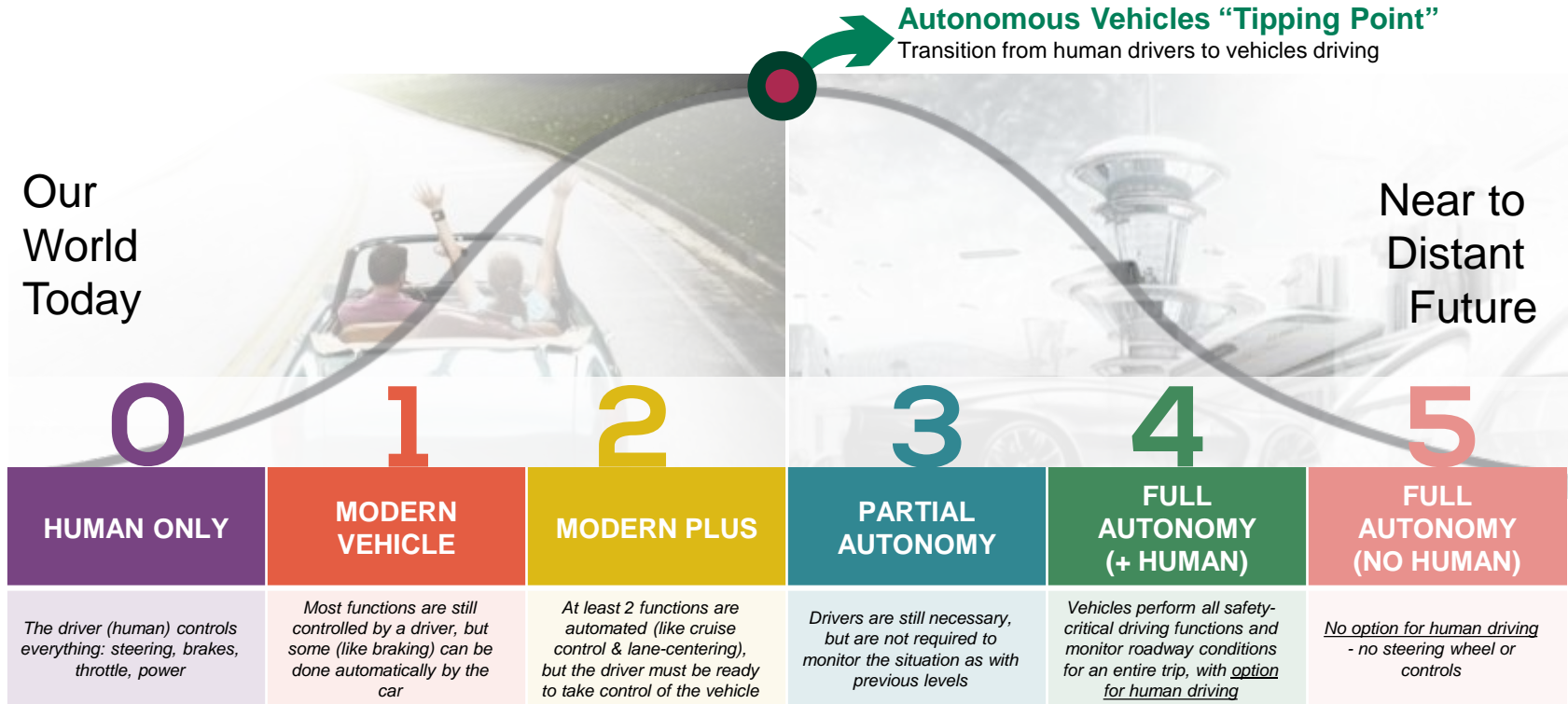
Electric Car Reviews

Exclusives

Power

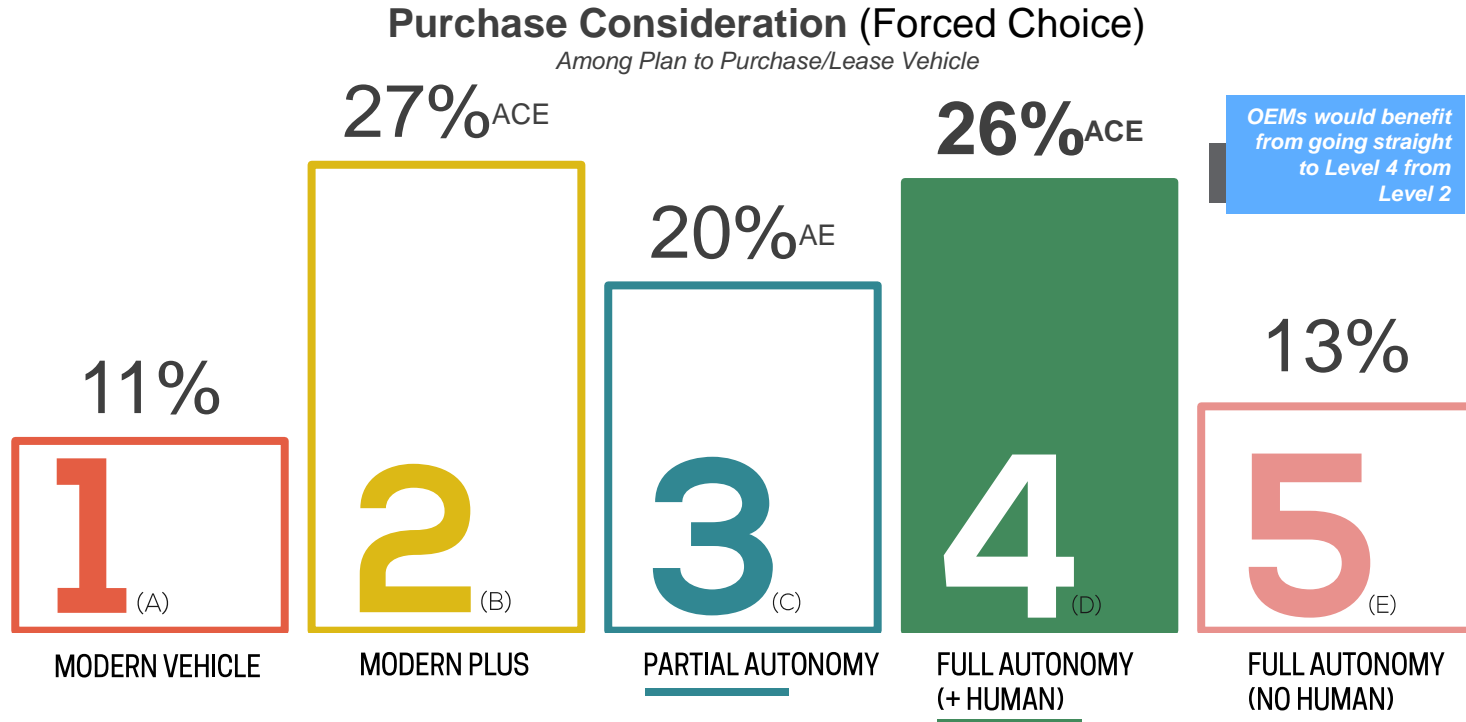
Here's Why Tesla's Autonomous Vehicle Tech Will Make Driving Safer

Levels of Autonomy





Americans want to buy Level 4 Full Autonomy (+ Human) as much as vehicles available today



LEVEL 4

is the most appealing to me because it allows the vehicle to take over all driving tasks for the human, **while still allowing the human to have 'executive control'** in case of emergencies, system errors, or other unforeseen circumstances.

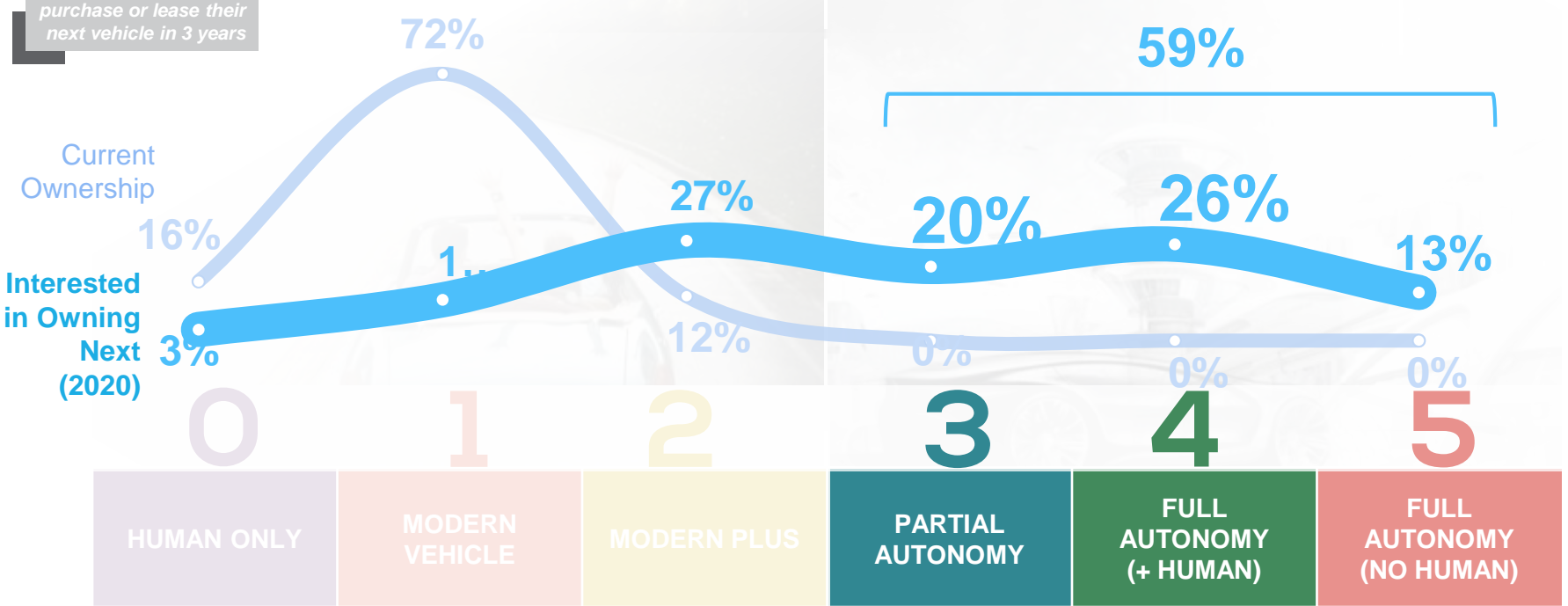


Please Note: Capital letters indicate statistical differences at the 95% confidence level: A-E
Base: Plan to Purchase/Lease Vehicle at Some Point (n=1695)
AV11. Assuming each level of autonomy was available on the market today, what level of autonomy would you be most likely to purchase/lease?



By 2020, assuming all levels of autonomy are available, 59% of consumers would be interested in purchasing/leasing higher levels of autonomy

On average, Americans plan to purchase or lease their next vehicle in 3 years



Base: Currently Own/Lease (n=1550); Planning to Purchase in the Future (n=1234)
S16. When are you planning to purchase or lease your next vehicle? (n=1770)

AV4. Please select what level of vehicle autonomy applies to a car you currently own or lease, or have owned or leased in the past.

AV11. Assuming each level of autonomy was available on the market today, what level of autonomy would you be most likely to purchase/lease?



Disconnect between regulator/government pressure to advance EVs and consumer demand will continue

- Slow change in perceptions and low fuel prices remain the challenge

More concerted education effort is needed

- Consumers are hoping for better pricing, but missing many advantages of EVs

Autonomous/self-driving vehicles could change all this

- If most AVs are EVs, consumers could become amenable to EVs

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Thank you!

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