



Michigan Alliance for Greater Mobility Advancement Advisory Council Meeting

Regulatory Affairs in the Automotive Industry

December 6, 2024



















































































Uber







ZOOX

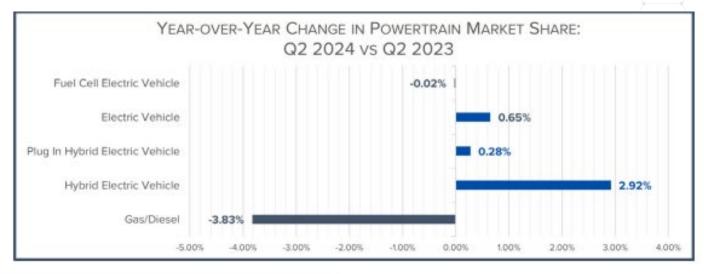
Agenda

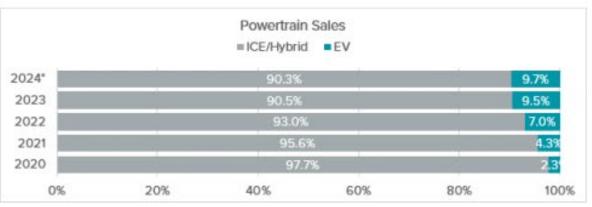
- State of the light-duty auto industry
 - Sales
 - Model and powertrain availability
- Incentives, regulations, and litigation
- What a new Administration and Congress could mean for the auto industry?

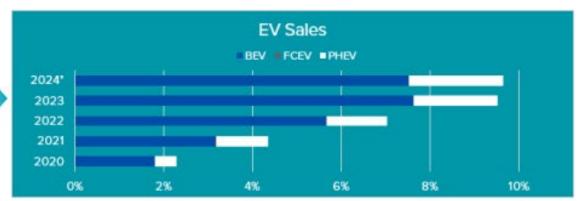




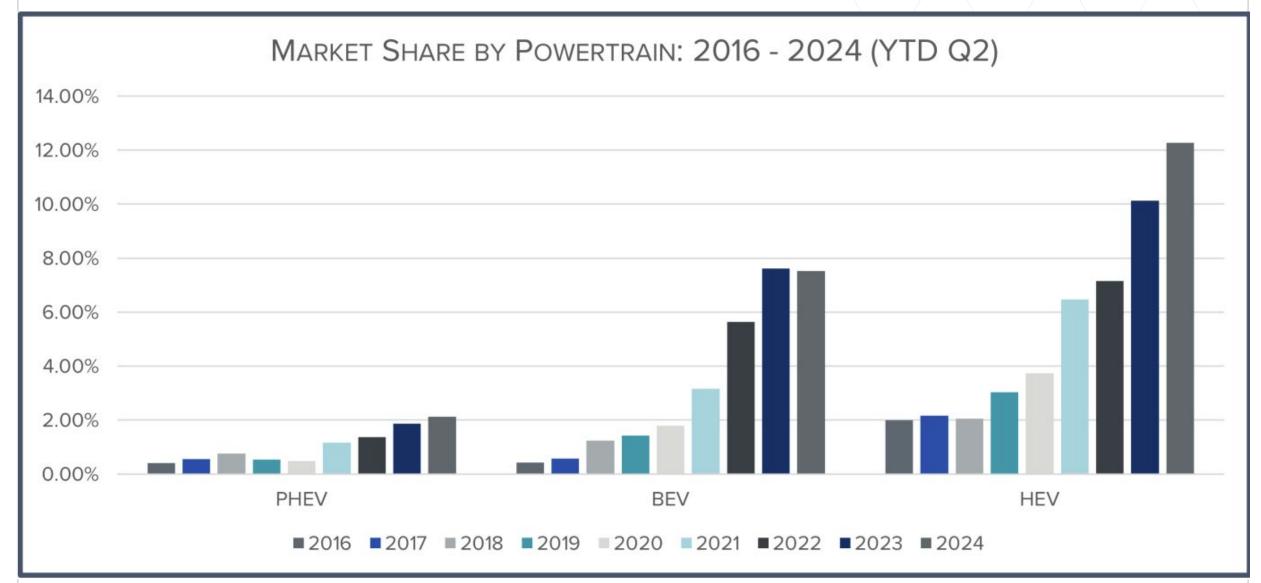
Powertrain Market Share







Market Share by Powertrain



EV Model Availability

EV MODEL AVAILABILITY

117 Vehicle Models Sold in Q2 2024:

68 Battery Electric Vehicles

20 Cars

38 Utility Vehicles

5 Pickups

5 Vans

47 Plug-in Hybrid Vehicles

17 Cars

29 Utility Vehicles

1 Van

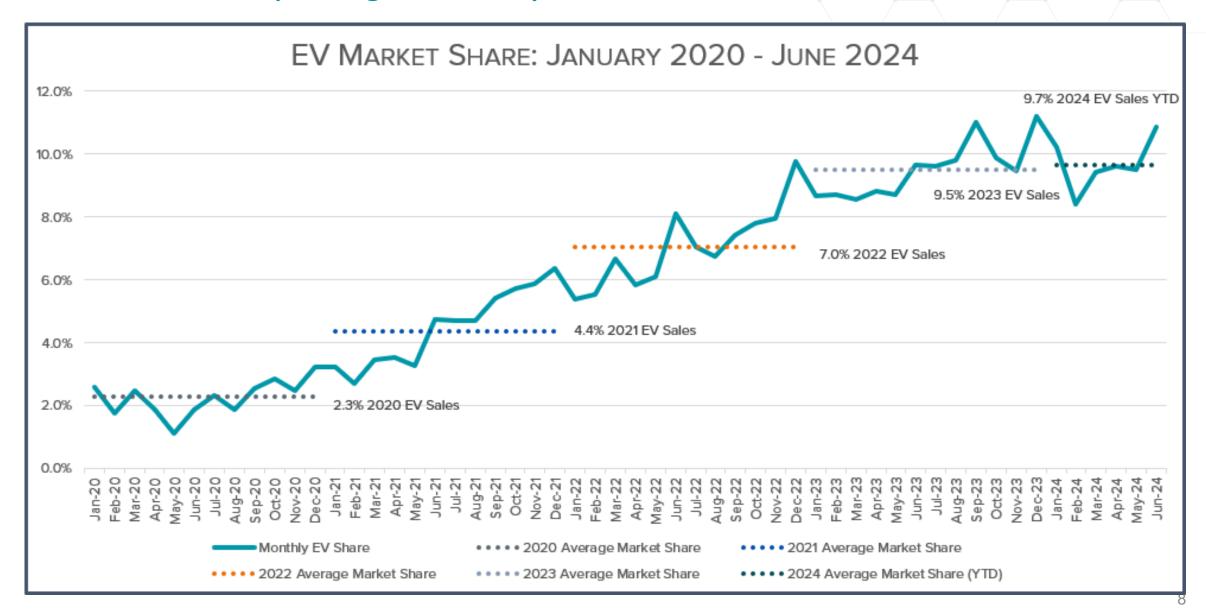
2 Fuel Cell Electric Vehicles

1 Car

1 Utility Vehicle

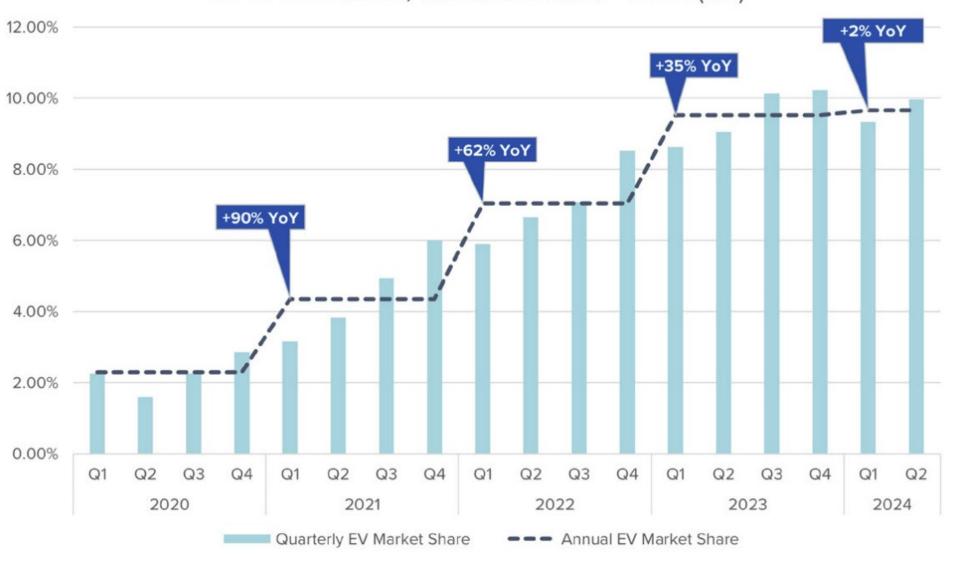
- Roughly 5 million EVs in operation in the U.S. (1.76 percent of light vehicles in operation).
- EVs represented more than 1 percent of total vehicles in operation for the first time at the end of 2022.
- In the first quarter of 2024, 1.76 percent of vehicles in operation were EVs, an increase of 0.5 pp since the second quarter of 2023

Current Market (through Q2 2024)

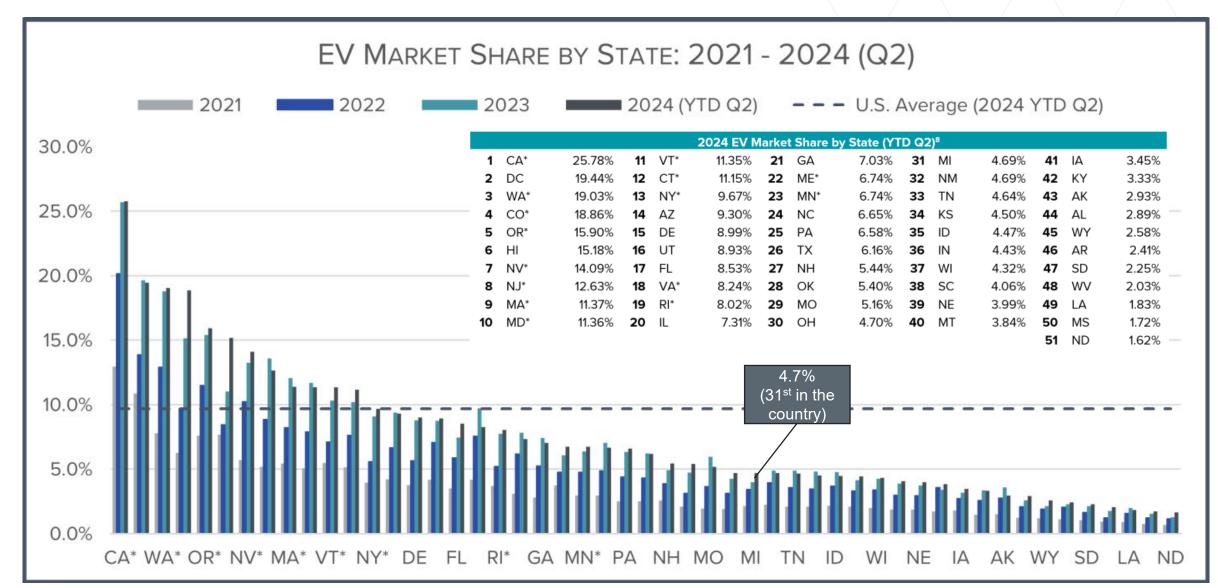


EV Market Share

EV MARKET SHARE, QUARTERLY 2020 - 2024 (Q2)



EV Market Share by State



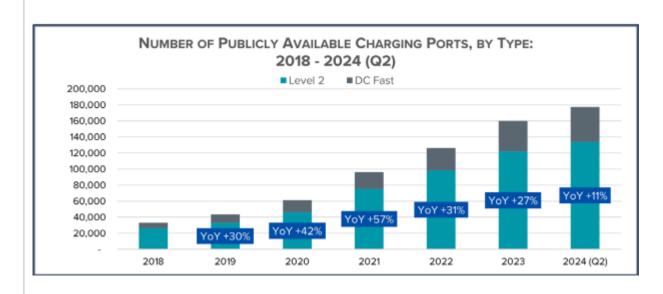
Public Charging Infrastructure (through Q2 2024)

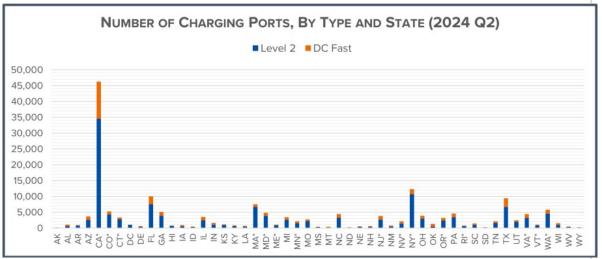
Level 2: 56,002 Locations, 133,339 EVSE Ports

DC Fast: 10,338 Locations, 43,391 EVSE Ports

Hydrogen Refueling: 58 Stations (57 are in California)

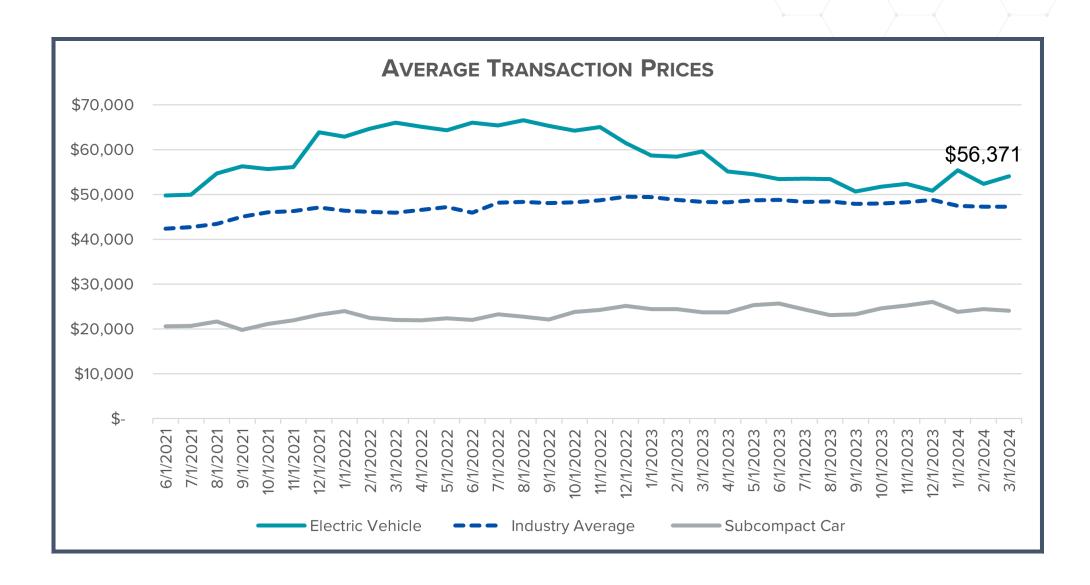
U.S. Total: 65,083 Locations, 177,330 EVSE Ports





NOTE: Michigan through Q2 2024 had 2,622 L2 charging locations and 765 DCFC (3,387 total)

Kelly Blue Book Transaction Price





The Future Is Electric

PRIVATE SECTOR INVESTMENTS 2020-2024

\$86 BILLION BATTERY FACILITIES

\$10 Billion - \$20 Billion

More than \$20 Billion

\$33 BILLION
EV FACILITIES

\$119 BILLION*



JOBS

109,000**
TOTAL PROJECTED JOBS CREATED

48,000 61,000

Source: Compiled from company reports, press statements, and other media related to EV and battery investments.

\$5 Billion - \$10 Billion

\$10 Billion - \$20 Billion

Michigan EV Investments 2020-Present

Total Investments \$20.8 Billion

EV Facility
Investments
\$10.5 Billion

Battery Facility
Investments
\$10.3 Billion

1st in the U.S.

		/	
Company	Investment	Jobs	Capacity GWh
American Battery Solutions	\$7,000,000	115	0
Ford	\$2,000,000,000	3200	0
Ford	\$700,000,000	1958	0
Ford	\$2,200,000,000	1700	20
Ford	\$160,000,000	250	0
General Motors	\$130,000,000	0	0
General Motors	\$81,000,000	0	0
General Motors	\$4,000,000,000	2350	0
General Motors	\$2,200,000,000	0	0
General Motors	\$300,000,000	0	0
Gotion	\$2,300,000,000	2350	0
LG Energy Solution	\$3,000,000,000	1200	25
Magna	\$100,000,000	500	
Magna	\$96,000,000	159	0
Magna	\$427,000,000	920	0
Magna	\$70,000,000	304	0
Samsung SDI	\$41,000,000	368	0
Stellantis	\$235,500,000	0	0
Stellantis	\$97,600,000	0	0
Stellantis	\$73,000,000	0	0
Ultium Cells (GM, LG Energy Solution)	\$2,600,000,000	1700	41
	\$20,818,100,000	17,074	86



1 Tailpipe, 4 Agencies, 7 Regulations

California+S177
Advanced Clean Cars
(ACC II)

U.S. EPA Tier 4 NHTSA CAFE

In progress expected Fall 2025

GHG, 2021-25MY (GHG, Fuel Economy) Adopted 2012 **GHG**, 2027-32MY

(GHG, Fuel Economy)
Adopted March 2024

CAFE, 2027-32MY

(Fuel Economy)

Adopted Jun 2024

DOE - PEF
Adopted Apr
2024

LEV IV, 2026-35MY

(Criteria Emissions)
Adopted 2022

Tier 4, 2027-32MY

(Criteria Emissions)

Adopted March 2024

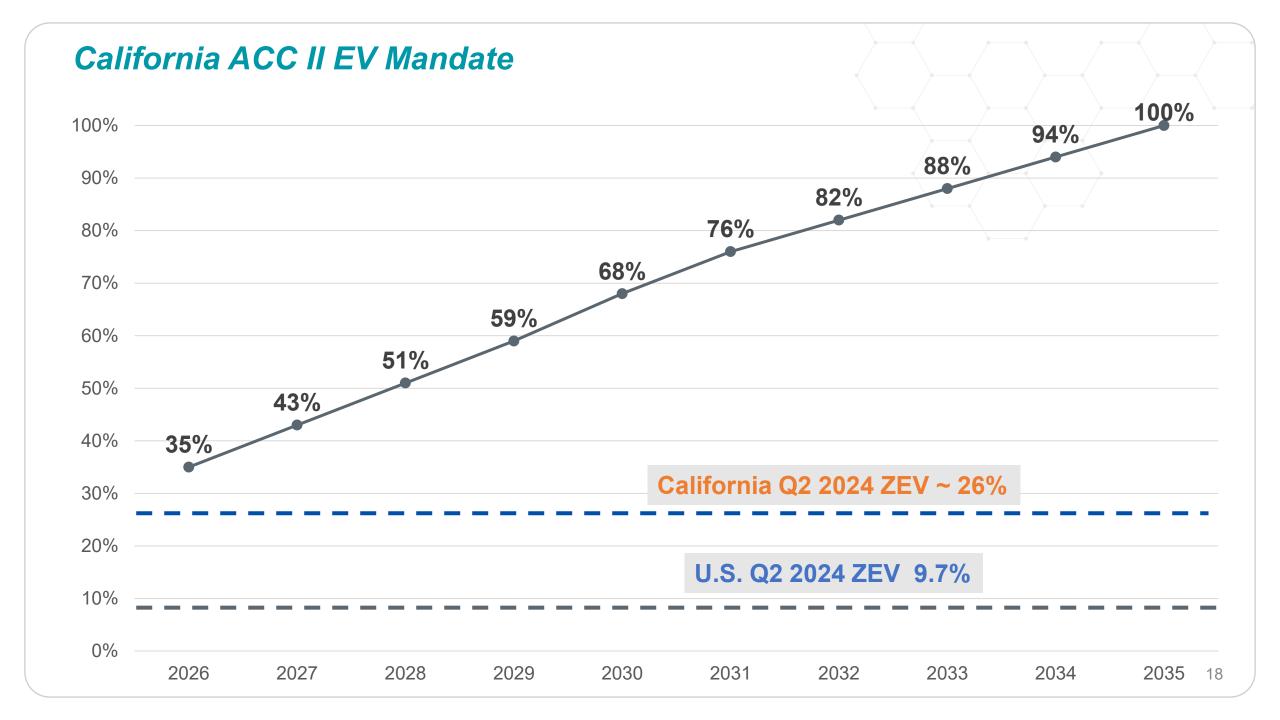
ACC II

Adopted August 2022

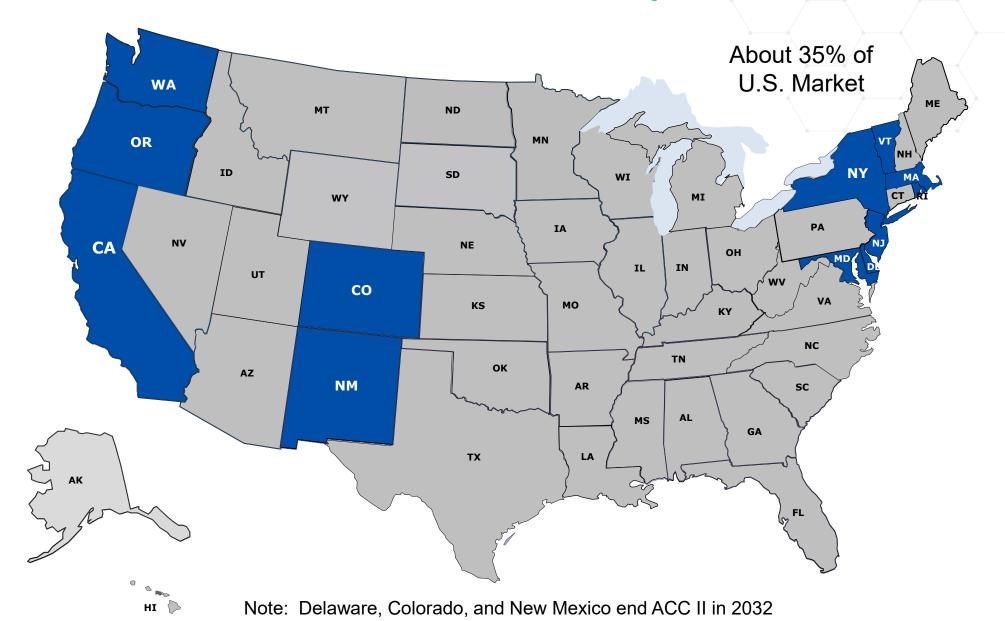
ZEV, 2026-35

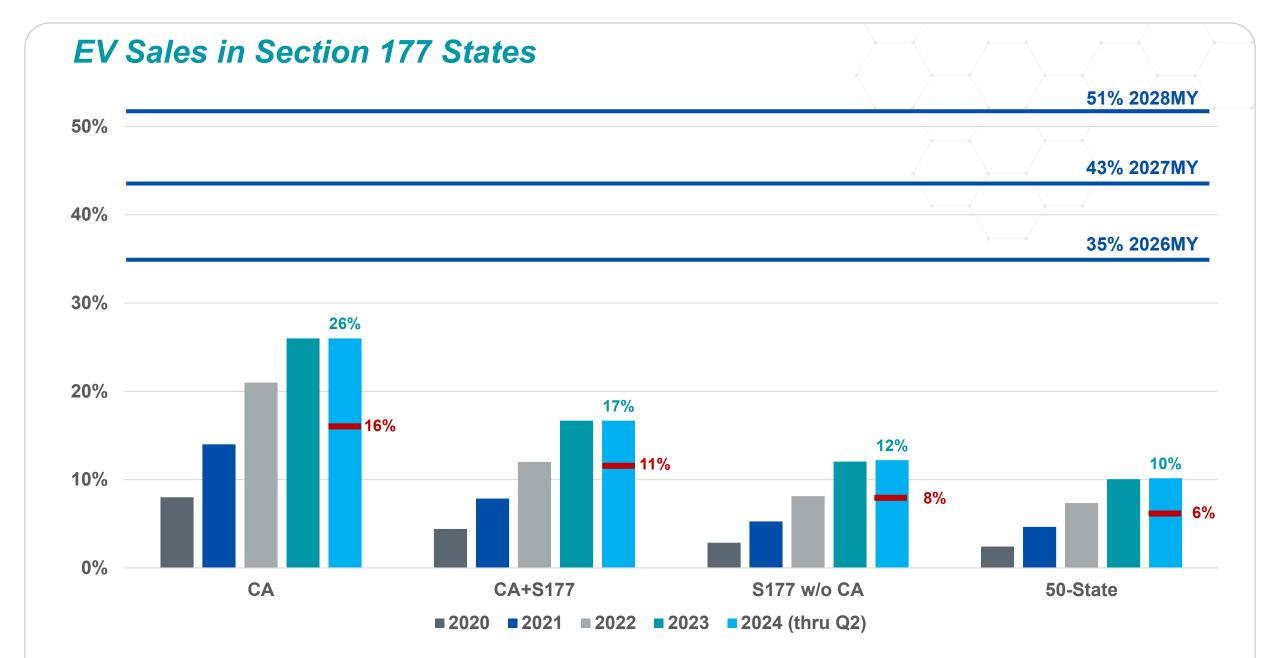
(Criteria Emissions, GHG, Fuel Economy) Adopted 2022

CA + S177 states represent ~35% of new LDV sales



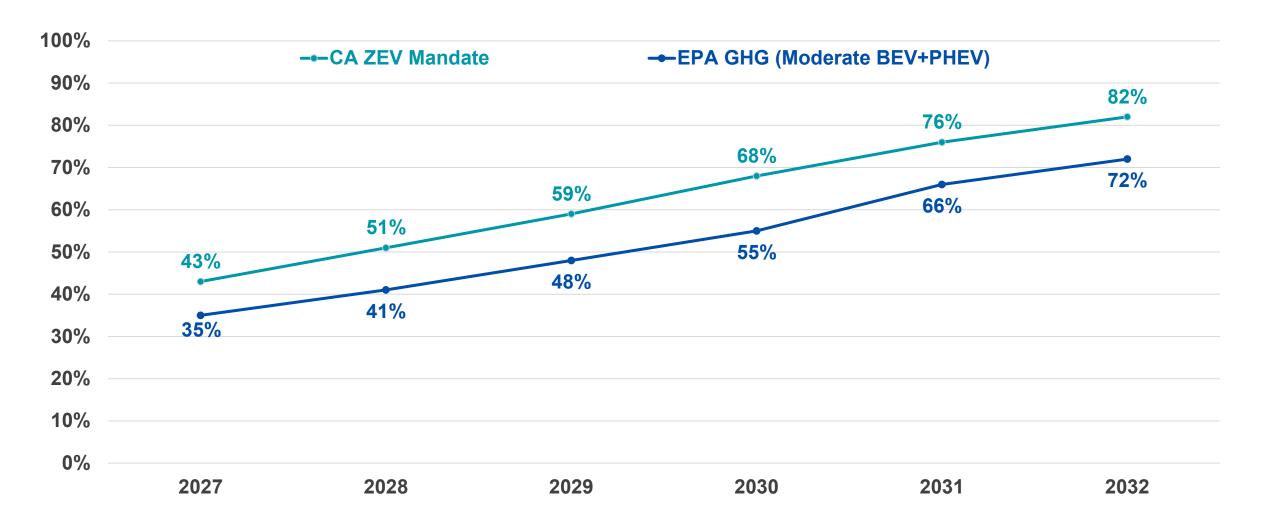
California and Section 177 States – ACC II Adoption





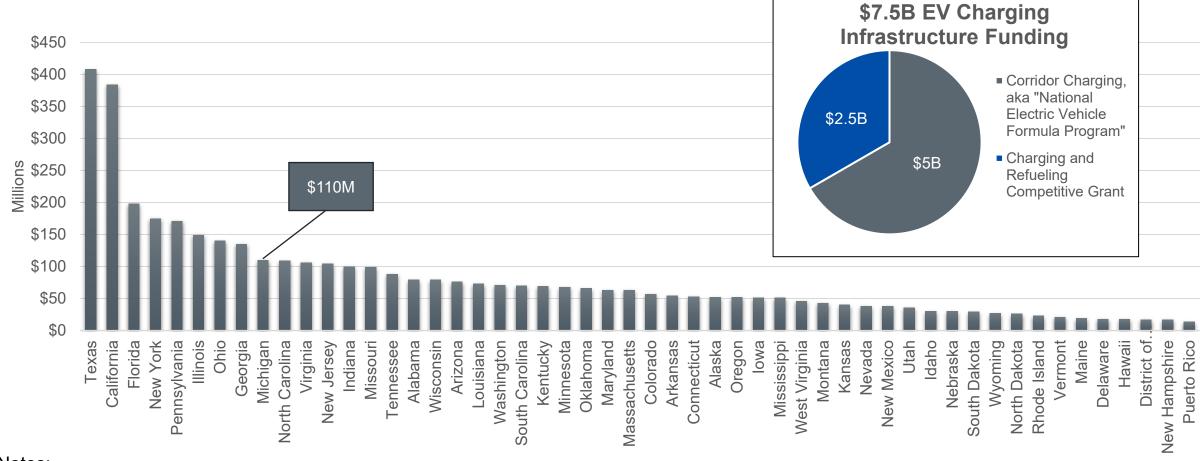
Non-EV Only Manufacturer Market-Share (1H 2024)

BEV and PHEV Requirements: CARB ZEV Mandate vs EPA GHG





Bipartisan Infrastructure Law



Notes:

- Values rounded to the nearest \$million
- Does not take into account \$2.5B for competitive grants
- Source White House Fact Sheets

Inflation Reduction Act

Manufacturing and Supply Chain

- 45X Manufacturing tax credits
- Advanced Technology Vehicle Manufacturing loans
- Domestic manufacturing conversion grants
- Defense Production Act to spur onshoring of critical minerals

Infrastructure

- 30C Alternative Fuel Refueling Property Credit
- 48C Advanced Energy Project Credit

Inflation Reduction Act

Customer Incentives

- 30D Clean Vehicle Tax Credit
 - Up to \$7,500 per vehicle
 - Removes per manufacturer cap on credits
 - Requires N. American production
 - Adds income and MSRP limits
 - N. American battery and component manufacturing requirements
 - Critical mineral sourcing / processing restrictions
- 25E Previously-Owned Clean Vehicle Tax Credit
 - Up to \$4,000 per used vehicle
- 45W Qualified Commercial Vehicle Tax Credit
 - Light vehicles qualify for up to \$7,500 per vehicle
 - Commercial lessors of personal vehicles can qualify



Litigation that will have a direct impact on the automotive industry...

California Advanced Clean Cars 1 Waiver

Pending at the Supreme Court

NHTSA CAFE

- NRDC v. NHTSA (2024-2026 CAFE) Awaiting decision from the D.C. Circuit Court of Appeals (argued in Sept. 2023)
- West Virginia v. NHTSA (2027-2031 CAFE) Waiting to be heard in the 6th Circuit Court

EPA GHG

Kentucky v. EPA (2027-2032 GHG) – Waiting to be heard in the D.C. Circuit Court of Appeals

DOE Petroleum Equivalency Factor

• Iowa v. Granholm (PEF) – Waiting to be heard in the D.C. Circuit Court of Appeals



Potential Political Impact on the Auto Industry

What impact could a new Administration and Congress have on the auto industry?

- Emissions regulations
- California
- EV and infrastructure incentives
- Use of the Congressional Review Act
- Increased litigation
- Stepped-up trade policies / tariffs / export controls



It remains to be seen what will change in 2025 and beyond...



https://www.autosinnovate.org/posts/papers-reports/get-connected-q2-2024



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