

# GET CONNECTED®

ELECTRIC VEHICLE QUARTERLY REPORT

SECOND QUARTER, 2025



#### SECOND QUARTER, 2025

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**Editor's Note:** Since 2024, federal policies on EVs have shifted dramatically, including the elimination of consumer EV tax credits after September 30, 2025. This Get Connected report is backward-looking, covering the EV market in the

second quarter of 2025—just before the tax incentive's elimination was signed into law at the start of Q3. Since then, national sales data have shown a noticeable uptick as consumers rush to purchase EVs while the credit is still available. Nevertheless, EVs remain an important part of the U.S. market, both in response to consumer demand and in the larger picture of U.S. global competitiveness. This report continues our commitment to delivering the facts and figures on EV sales and charging infrastructure, and it closes with our spotlight on the importance of EV battery recycling.

#### Second Quarter, 2025

In the second quarter of 2025, automakers sold 385,075 electric vehicles (EVs, including battery, plug-in hybrid, and fuel cell electric vehicles) in the United States, representing 9.46 percent of overall light-duty vehicle sales. This represents a 0.17 percentage point (pp) market share decrease over the first quarter of 2025 amounting to a decrease of about 9,000 vehicle sales. This is the first time in the modern EV era (since



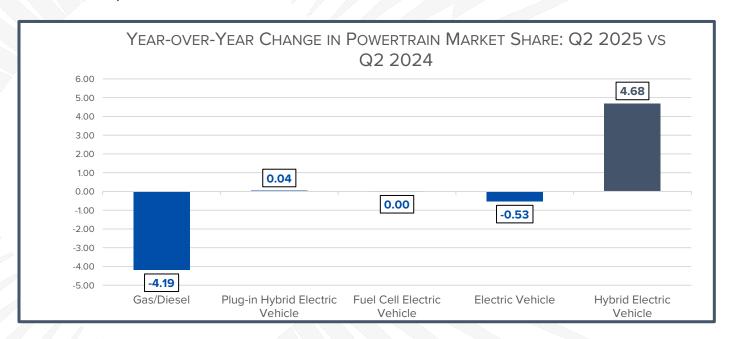
2020) that the second quarter EV market share declined from the first quarter. This is also the first time in that period that EV market share has declined for two consecutive quarters.





## Year-Over-Year (Q2 2025 vs Q2 2024)

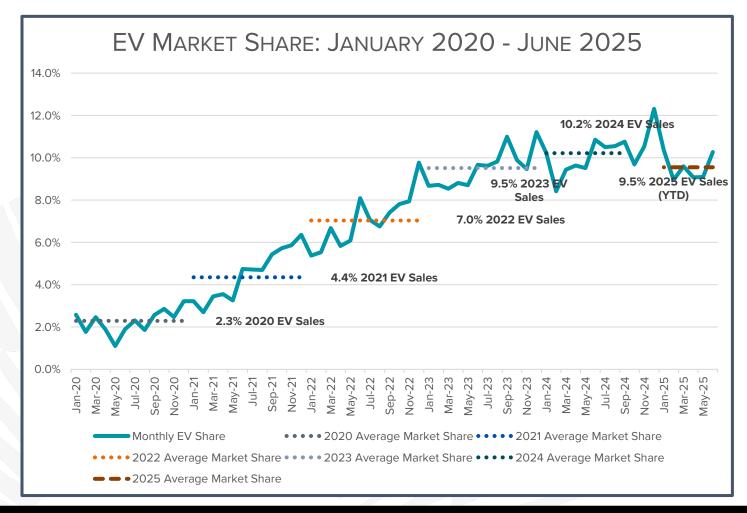
Year-over-year (YoY), EV market share decreased 0.5 pp from the second quarter of 2024. The total volume of all light-duty sales in Q2 2025 increased 4.7 percent over Q2 2024, while the volume for EVs decreased 0.5 percent (a decrease of about 2,000 vehicles). For comparison, internal combustion engine (ICE) vehicle market share decreased by 4.2 pp during Q2 2025 compared to the same period last year. Nearly all of ICE market share was displaced by gains of traditional hybrids, offset slightly by market share losses from BEVs and FCEVs. See more on the evolving market share of powertrains below.





#### First Half, 2025

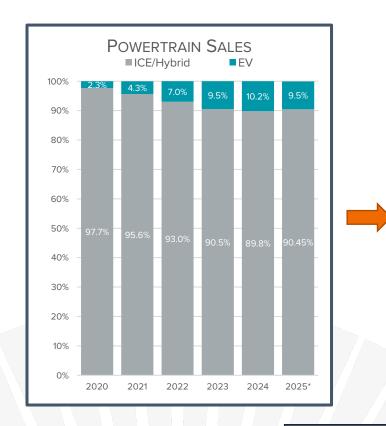
Nearly 761,000 EVs were sold in the first half of 2025, 9.55 percent of all light vehicle sales and a decreased market share of 0.1 pp from the first half of 2024. The total volume of all light-duty sales for the first half of the year is 5.2 percent above the same period a year ago, while the volume for EVs increased 4.0 percent (an increase of about 29,000 vehicles).

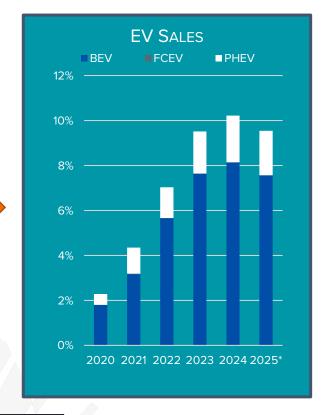










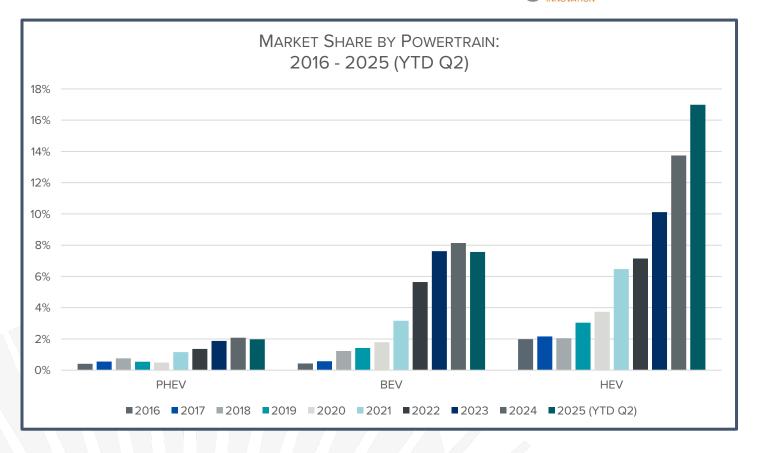


\*Year to date, Q2 2025

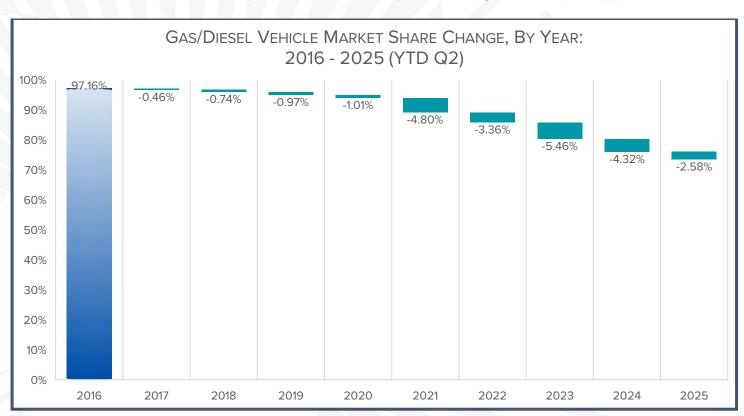
# Evolving Market Share of Powertrains: 2016 - 2025

From 2016 through 2025 (Q2), traditional internal combustion engine (ICE) market share steadily declined. In 2016, ICE vehicles comprised more than 97 percent of all vehicle sales. Through the second quarter of 2025, the year-to-date ICE share dropped to 73.5 percent for an overall loss of 23.7 pp. The ICE market share was replaced by increases in share of traditional (mild and strong) hybrids, BEVs, and PHEVs. Traditional hybrids made up most of the alternative vehicle gains (+15 pp) followed by BEVs (+7.1 pp) and PHEVs (+1.6 pp) over the last nine plus years.



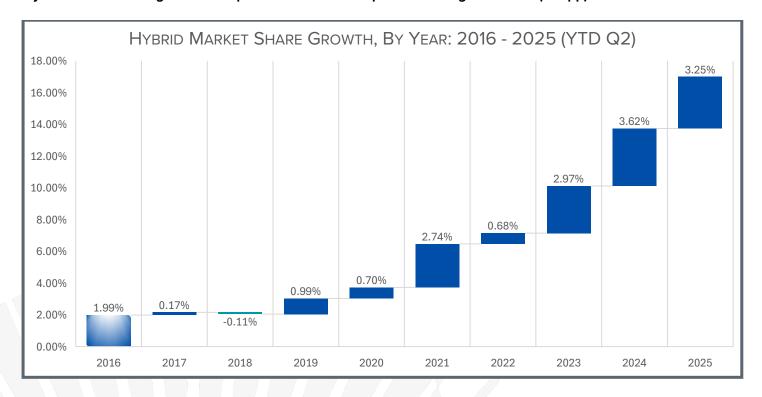


#### ICE market share decreased from 97 percent in 2016 to 73.5 percent through 2025 Q2 (-23.7 pp):

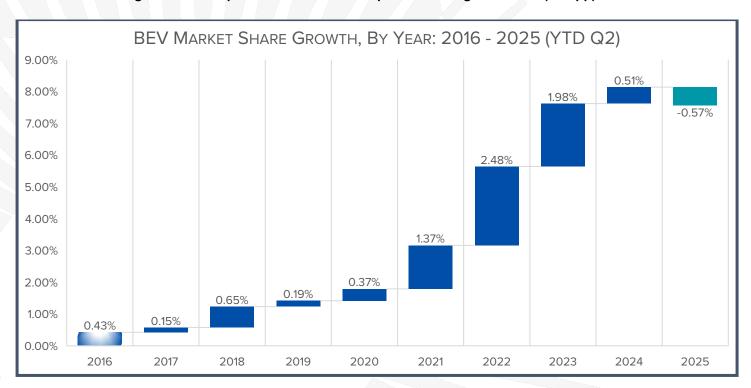




#### Hybrid market share grew from 2 percent in 2016 to 17 percent through 2025 Q2 (+15 pp):



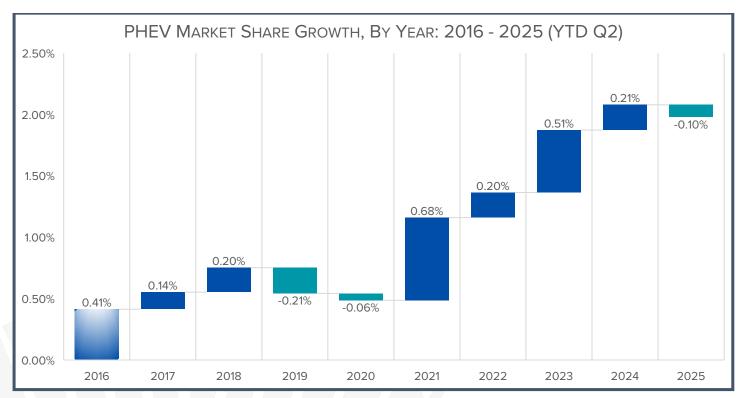
#### BEV market share grew from .43 percent in 2016 to 7.56 percent through 2025 Q2 (+7.1 pp):



PHEV market share grew from .41 percent in 2016 to 2.0 percent through 2025 Q2 (+1.6 pp):







SEE ADDITIONAL HISTORIC DATA ON EV SALES HERE







# **ELECTRIC VEHICLE SALES BY SEGMENT**

While passenger cars once dominated the EV market, manufacturers continue to introduce new models to satisfy a variety of consumer needs. Utility vehicle (UV) offerings continue to grow, and while electric pickup trucks are a relatively new entry to the market (making their commercial debut in September 2021), there are 7 models available now, with more expected in the future. As a result, non-car segments are continuing to make gains, and in the second quarter of 2025, light truck (UVs, minivans, and pickups) sales comprised 79 percent of the EV market – a 5 pp decrease from a high of 84 percent in the first quarter of 2024.

Quarterly sales of BEV and PHEV UVs have grown from about 19 percent of EVs at the start of 2020 to 71 percent in the second quarter of 2025. Year-over-year, UV sales have fallen about 4 pp (15,887 fewer vehicles).

#### EV MODEL AVAILABILITY

155 Vehicle Models Sold in Q2 2025

#### 95 Battery Electric Vehicles

- 26 Cars
- 52 Utility Vehicles
- 7 Pickups
- 10 Vans

#### 57 Plug-in Hybrid Vehicles

- 24 Cars
- 32 Utility Vehicles
- 1 Van

#### 3 Fuel Cell Electric Vehicles\*

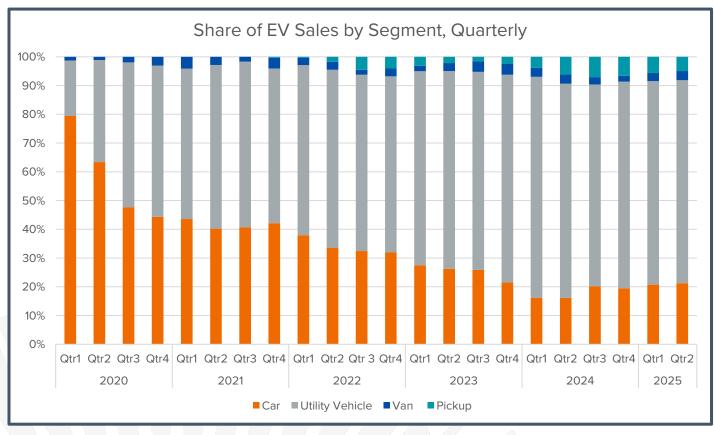
- 1 Car
- 2 Utility Vehicle

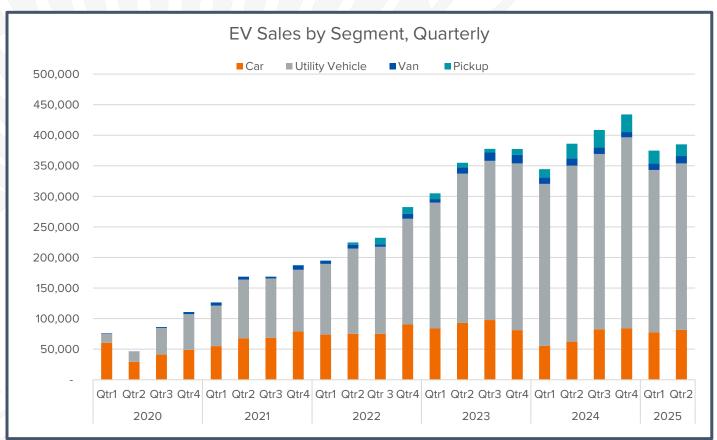
\*Includes Plug-in Hybrid Fuel Cell

See more information about **EV CHOICE HERE** 







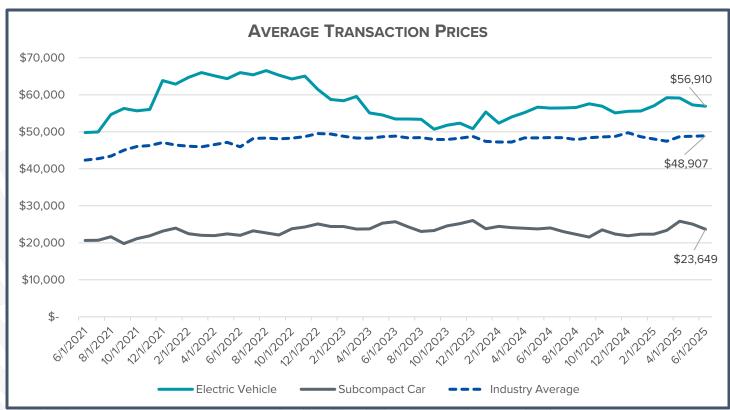


Source: Figures compiled by Alliance for Automotive Innovation with new registrations for retail and fleet data provided by S&P Global Mobility covering January 1, 2020 – June 30, 2025



#### **ELECTRIC VEHICLE TRANSACTION PRICES**

"In June, the average transaction price (ATP) for new electric vehicles dipped slightly to \$56,910, reflecting a 0.6% decrease from May and a 2.8% decline year over year. The price gap between EVs and ICE+ vehicles [ICE+ is comprised of traditional ICE vehicles as well as hybrids and plug-in hybrids] narrowed to \$8,785, down from \$9,260 the previous month. EV incentives rose for the third consecutive month, reaching a record 14.8% of ATP, or \$8,451 – more than twice the incentive level offered on ICE+ vehicles. This underscores the continued push to make EVs more accessible amid softening demand."



Compiled from Kelley Blue Book Press Releases, 6/2021 – 6/25

# **ELECTRIC VEHICLE SALES BY STATE**

#### For the Second Quarter of 2025

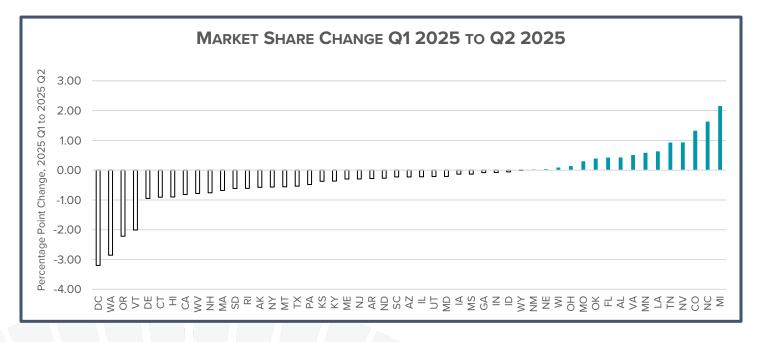
California again leads the nation in EV sales, with BEVs, PHEVs and FCEVs making up 22.9 percent of new light-duty vehicle registrations in the second quarter of 2025. California and Colorado were the only two states above 20 percent market share in Q2. There are nine additional states and the District of Columbia with new EV registrations above 10 percent (but below 20 percent).

More than two-thirds of states saw the EV market share decrease from the first quarter of 2025. Michigan made the biggest gains in EV market share after increasing 2 pp from the prior quarter while DC lost the most (3 pp).

<sup>&</sup>lt;sup>1</sup> Cox Automotive, "EV Market Monitor – June 2025," 7/18/2025







Looking at year-over-year, for the second quarter of 2025 vs. 2024, the market share of new EVs registered decreased in 29 states. Twelve states witnessed a decreased market share of EVs by 1 pp or more. Making the largest increase was Michigan (5 pp) while Hawaii saw a decrease of 4 pp.

#### For the First Half of 2025

Through the first half of the year, EV sales represented 9.55 percent of the market – a 0.11 pp decrease over the same period of 2024. Over 23 percent of sales in California were EVs but California also saw the third largest decline in market share (2.5 pp). Michigan realized the greatest increase in market share, year-over-year with a 4.1 pp increase. Following Michigan, the states with the largest market share gains were Florida (1.85 pp), Nevada (1.6 pp), Georgia (1.6 pp) and Louisiana (1.3). Seven states increased their year-over-year EV market share by 1 pp or more. Twenty-one states decreased. Hawaii saw the largest decline in market share, down 4.5 pp.

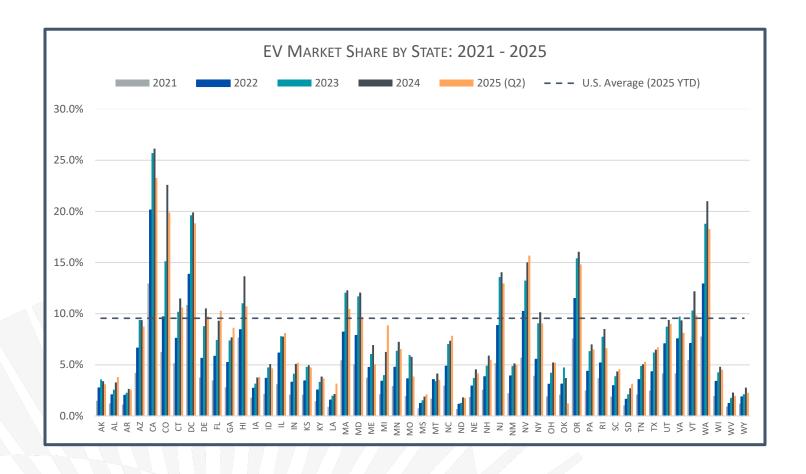
While some states continue to have strong EV sales, six states had new EV registrations of less than 3 percent; three of those states were under 2 percent. All states had a market share above 1 percent for new EV sales.

Year to date (through Q2), ten states and the District of Columbia had an EV market share above 10 percent while three states had an EV market share under 2 percent; California was the only state above 20 percent.<sup>2</sup>

					2025 EV Ma	arket	Share	by State (	YTD	Q2)				
1	CA	23.27%	11	FL	10.28%	21	IL	8.11%	31	ME	5.05%	41	KY	3.66%
2	CO	19.89%	12	VT	9.85%	22	NC	7.84%	32	NM	4.99%	42	MT	3.53%
3	DC	18.84%	13	DE	9.73%	23	TX	6.72%	33	KS	4.74%	43	LA	3.15%
4	WA	18.27%	14	MD	9.68%	24	RI	6.62%	34	ID	4.64%	44	SD	3.14%
5	NV	15.69%	15	NY	9.02%	25	MN	6.54%	35	SC	4.58%	45	AK	3.10%
6	OR	14.82%	16	UT	8.99%	26	PA	6.51%	36	WI	4.52%	46	AR	2.57%
7	NJ	12.95%	17	MI	8.85%	27	NH	5.47%	37	NE	4.16%	47	WY	2.27%
8	HI	10.71%	18	ΑZ	8.73%	28	TN	5.29%	38	МО	3.86%	48	MS	2.09%
9	CT	10.59%	19	GΑ	8.62%	29	ОН	5.22%	39	IA	3.81%	49	WV	1.96%
10	MA	10.47%	20	VA	8.13%	30	IN	5.20%	40	AL	3.80%	50	ND	1.76%
												51	OK	1.22%

<sup>&</sup>lt;sup>2</sup> Figures compiled by Alliance for Automotive Innovation with new registrations for retail and fleet data provided by S&P Global Mobility covering January 1, 2021 – June 30, 2025









		ations By Po	wei ti dili		Change In Market Share (2025 Q2 vs 2024 Q2), New Light- Duty Vehicle Registrations Powertrain					
State	Adva	nced Powertra	in Market Sha	re	Advanced Powertrain Market Share (Percentage Point Change)					
	PHEV	BEV	FCEV	EV Total	PHEV	BEV	FCEV	EV Total		
ιK	0.73%	2.10%	0.00%	2.82%	0.06	-0.03	0.00	0.0		
\L	0.65%	3.36%	0.00%	4.01%	0.07	0.93	0.00	1.0		
.R	0.61%	1.83%	0.00%	2.44%	0.12	-0.31	0.00	-0.		
Z	1.09%	7.53%	0.00%	8.62%	-0.04	-0.62	0.00	-0.		
Α	3.66%	19.19%	0.02%	22.86%	0.44	-4.29	-0.01	-3.		
0	5.21%	15.32%	0.00%	20.53%	-0.28	1.38	0.00	1.		
CT	3.08%	7.06%	0.00%	10.14%	-0.78	-0.51	0.00	-1.		
C	4.57%	12.82%	0.00%	17.40%	-1.46	-0.50	0.00	-1.		
DE	2.26%	6.98%	0.00%	9.24%	-0.19	1.87	0.00	1.		
L	1.48%	9.01%	0.00%	10.49%	0.20	0.82	0.00	1.		
SA .	1.31%	7.28%	0.00%	8.58%	0.54	0.45	0.00	0.		
41	2.00%	8.22%	0.00%	10.21%	-2.55	-1.62	-0.01	-4		
Α	1.02%	2.73%	0.00%	3.75%	0.06	0.04	0.00	0		
D	1.30%	3.31%	0.00%	4.61%	0.11	-0.03	0.00	0.		
L \	2.01%	5.99%	0.00%	8.00%	0.71	-0.92	0.00	-0		
N	1.14%	4.02%	0.00%	5.16%	0.26	0.26	0.00	0.		
(S	0.98%	3.58%	0.00%	4.56%	-0.07	0.01	0.00	-0.		
(Y	1.03%	2.46%	0.00%	3.49%	0.36	-0.49	0.00	-0		
_A	0.55%	2.91%	0.00%	3.46%	0.13	1.44	0.00	1		
ΛA	2.98%	7.16%	0.00%	10.14%	-0.62	-0.81	0.00	-1.		
MD	2.29%	7.28%	0.00%	9.57%	-0.11	-1.63	0.00	-1.		
ME	2.20%	2.71%	0.00%	4.91%	-0.78	-1.17	0.00	-1.		
MI	3.81%	6.28%	0.00%	10.09%	2.77	2.21	0.00	4.		
MN	2.15%	4.67%	0.00%	6.82%	0.29	-0.37	0.00	-0.		
ON	0.95%	3.06%	0.00%	4.00%	-1.77	-0.17	0.00	-1.		
MS	0.37%	1.66%	0.00%	2.03%	-0.02	0.19	0.00	0		
MT	1.31%	1.96%	0.00%	3.27%	0.19	-0.45	0.00	-0.		
NC	1.75%	6.48%	0.00%	8.23%	0.66	0.58	0.00	1.		
ND	0.39%	1.24%	0.00%	1.62%	-0.16	0.12	0.00	-0.		
NE	1.10%	3.07%	0.00%	4.18%	-0.09	0.14	0.00	0.		
NH	1.73%	3.40%	0.00%	5.13%	-0.68	0.32	0.00	-0.		
<b>N</b> J	2.83%	9.97%	0.00%	<mark>1</mark> 2.80%	0.04	-0.48	0.00	-0.		
MM	1.28%	3.72%	0.00%	5.00%	0.22	0.00	0.00	0		
٧V	2.11%	14.07%	0.00%	<b>16.</b> 17%	0.50	0.27	0.00	0		
VY	2.69%	6.06%	0.00%	8.76%	-0.97	0.29	0.00	-0.		
ЭН	1.45%	3.82%	0.00%	5.27%	0.37	-0.13	0.00	0.		
ОК	0.70%	0.72%	0.00%	1.42%	-2.79	-0.13	0.00	-2.		
OR	3.86%	9.90%	0.00%	13.76%	-0.16	-2.05	0.00	-2		
РА	1.96%	4.31%	0.00%	6.27%	-0.23	-0.20	0.00	-0.		
રા	1.80%	4.53%	0.00%	6.32%	-1.57	-0.14	0.00	-1		
SC	1.02%	3.45%	0.00%	4.47%	-0.10	0.48	0.00	0.		
SD	1.30%	1.56%	0.00%	2.85%	0.51	0.13	0.00	0.		
ΓN	1.25%	4.49%	0.00%	5.74%	0.70	-0.16	0.00	0.		
ΓX	0.99%	5.46%	0.00%	6.45%	0.26	0.08	0.00	0.		
JT	2.40%	6.48%	0.00%	8.88%	0.85	-1.39	0.00	-0.		
/A	2.29%	6.08%	0.00%	8.37%	0.68	-1.23	0.00	-0.		
/T	3.27%	5.58%	0.00%	8.85%	-1.10	-1.98	0.00	-3.		
VA	3.18%	13.70%	0.00%	16.88%	0.45	-1.44	0.00	-0		
VI	1.24%	3.32%	0.00%	4.56%	0.20	-0.09	0.00			
NV	0.45%	1.14%	0.00%	1.59%	-0.27	-0.23	0.00	-0.		
WY	0.79%	1.47%	0.00%	2.26%	0.01	-0.24	0.00	-0.		
J.S.	2.00%	7.45%	0.00%	9.46%	0.04	-0.54	0.00	-0.		

Source: Figures compiled by Alliance for Automotive Innovation with new registrations for retail and fleet data provided by S&P Global Mobility covering April 1 – June 30, 2024, and April 1 – June 30, 2025



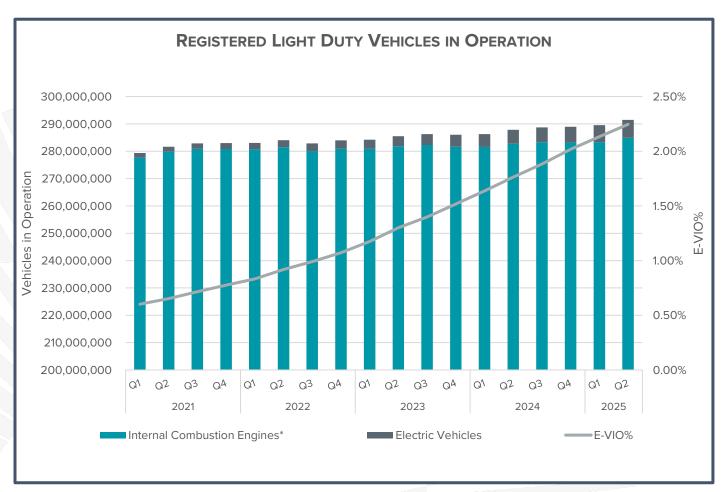


		By Powertra	in		Change In Market Share YTD (2025 Q2 vs 2024 Q2), New Light-Duty Vehicle Registrations Powertrain					
State	Adva	nced Powertra	in Market Sha	re	Advanced Po	nge Point Change)				
	PHEV	BEV	FCEV	EV Total	PHEV	BEV	FCEV	EV Total		
λK	0.67%	2.43%	0.00%	3.10%	0.04	0.12	0.00	0.1		
\L	0.70%	3.09%	0.00%	3.80%	-0.11	-0.80	0.00	0.9		
AR	0.60%	1.98%	0.00%	2.57%	-0.13	-0.03	0.00	0.1		
λZ	1.23%	7.50%	0.00%	8.73%	0.21	0.36	0.00	-0.5		
CA	3.71%	19.55%	0.02%	23.27%	-0.22	2.70	0.02	-2.5		
CO	4.96%	14.94%	0.00%	19.89%	1.24	-2.28	0.00	1.0		
CT	3.28%	7.31%	0.00%	10.59%	0.70	-0.14	0.00	-0.5		
C	4.58%	14.26%	0.00%	18.84%	0.63	-0.03	0.00	-0.6		
DE	2.38%	7.35%	0.00%	9.73%	0.03	-0.76	0.00	0.7		
L	1.52%	8.76%	0.00%	10.28%	-0.38	-1.37	0.00	1.7		
SA .	1.22%	7.40%	0.00%	8.62%	-0.35	-1.25	0.00	1.6		
11	1.64%	9.07%	0.00%	10.71%	3.91	0.57	0.00	-4.4		
Δ	1.10%	2.71%	0.00%	3.81%	-0.11	-0.24	0.00	0.3		
D	1.39%	3.25%	0.00%	4.64%	-0.03	-0.14	0.00	0.		
L ()	1.83%	6.28%	0.00%	8.11%	-0.45	-0.44	0.00	0.8		
N	1.16%	4.05%	0.00%	5.20%	-0.15	-0.62	0.00	0.7		
(S	1.09%	3.65%	0.00%	4.74%	0.05	-0.28	0.00	0.2		
Ϋ́	1.05%	2.61%	0.00%	3.66%	-0.38	0.05	0.00	0.3		
Α	0.52%	2.64%	0.00%	3.15%	0.02	-1.34	0.00	1.3		
ИΑ	3.21%	7.26%	0.00%	10.47%	0.69	0.21	0.00	-0.8		
ИD	2.38%	7.30%	0.00%	9.68%	0.32	1,38	0.00	-1.7		
ΛE	2.05%	3.00%	0.00%	5.05%	1.18	0.51	0.00	-1.6		
ΛI	2.96%	5.89%	0.00%	8.85%	/-1.91	-2.22	0.00	4.		
ΛN	1.93%	4.61%	0.00%	6.54%	-0.16	0.36	0.00	-0.4		
10	0.87%	2.99%	0.00%	3.86%	0.97	0.34	0.00	-1.3		
ИS	0.39%	1.70%	0.00%	2.09%	0.03	-0.39	0.00	0.3		
ΛT	1.40%	2.13%	0.00%	3.53%	-0.16	0.48	0.00	-0.3		
1C	1.69%	6.15%	0.00%	7.84%	-0.61	-0.58	0.00	1.		
1D	0.44%	1.31%	0.00%	1.76%	0.13	-0.26	0.00	0.		
1E	1.10%	3.07%	0.00%	4.16%	0.17	-0.34	0.00	0.		
1H	1.93%	3.55%	0.00%	5.47%	0.51	-0.54	0.00	0.0		
11	2.86%	10.10%	0.00%	<b>1</b> 2.95%	0.04	-0.36	0.00	0.		
IM	1.15%	3.84%	0.00%	4.99%	-0.10	-0.21	0.00	0.3		
1V	1.96%	13.73%	0.00%	<b>15.</b> 69%	-0.29	-1.32	0.00	1.0		
1Y	2.98%	6.05%	0.00%	9.02%	1.46	-0.82	0.00	-0.6		
DH	1.40%	3.82%	0.00%	5.22%	-0.23	-0.27	0.00	0.5		
OK	0.43%	0.79%	0.00%	1.22%	4.08	0.11	0.00	-4.		
)R	3.85%	10.96%	0.00%	14.82%	0.62	0.47	0.00	-1.0		
PΑ	2.06%	4.45%	0.00%	6.51%	0.43	-0.36	0.00	-0.0		
81	2.04%	4.58%	0.00%	6.62%	1.58	-0.19	0.00	-1.3		
C	1.11%	3.47%	0.00%	4.58%	-0.07	-0.45	0.00	0.5		
D	1.46%	1.68%	0.00%	3.14%	-0.68	-0.20	0.00	0.8		
N	1.13%	4.16%	0.00%	5.29%	-0.57	-0.08	0.00	0.6		
Χ	0.99%	5.73%	0.00%	6.72%	-0.14	-0.42	0.00	0.!		
IT	2.14%	6.85%	0.00%	8.99%	-0.56	0.51	0.00	0.0		
Ά	2.13%	6.00%	0.00%	8.13%	-0.63	0.74	0.00	-0		
Т	3.28%	6.57%	0.00%	9.85%	1.02	0.48	0.00	-1.		
VA	3.34%	14.93%	0.00%	18.2 <mark>7</mark> %	-0.12	0.88	0.00	-0.		
VI	1.21%	3.30%	0.00%	4.52%	-0.27	0.07	0.00	0.2		
VV	0.61%	1.35%	0.00%	1.96%	0.06	0.00	0.00	-0.0		
ΝΥ	0.75%	1.51%	0.00%	2.27%	0.11	0.21	0.00	-0.3		
J.S.	1.98%	7.56%	0.00%	9.55%	0.15	-0.05	0.00	-0.		



#### REGISTRATIONS AND CHARGING/REFUELING

Share of Registered EVs In U.S. Light-Duty Fleet Continues to Increase Incrementally. As sales of EVs increase, so does the total number of EVs operating on U.S. roads. There are now more than 6.5 million EVs in operation in the United States, representing 2.25 percent of all light vehicles in operation (an increase of 0.11 pp from Q1 2025). EVs represented more than 1 percent of total vehicles in operation (VIO) for the first time at the end of 2022 and topped 2 percent for the first time at the end of 2024. The electric vehicles in operation (E-VIO) of 2.25 percent is an increase of 0.5 pp since the second quarter of 2024 and nearly four times the E-VIO from the first quarter in 2021 (0.60 percent).<sup>3</sup> Since the beginning of 2023, the average increase quarter-over-quarter is 0.10 pp. The continued growth in E-VIO has implications for the number of chargers needed to support their operation.



#### U.S. Public Charging Infrastructure: Overview

While the U.S. Department of Energy notes that roughly 80 percent of all EV charging occurs at home<sup>4</sup>, reliable and convenient access to workplace and public charging and refueling stations help to support customers who purchase EVs or are considering purchasing an EV. Workplace and public charging infrastructure not only eases perceived "range anxiety" concerns but also increases consumer awareness of the technology. In addition, achieving increased EV market share will require moving beyond customers who have access to charging via privately-owned single-family dwellings.

<sup>4</sup> Department of Energy, National EV Charging Network, Accessed 3/15/2025

<sup>&</sup>lt;sup>3</sup> Registered vehicles in operation compiled by Alliance for Automotive Innovation with data provided by S&P Global Mobility as June 30, 2025





Here is a snapshot of publicly available EV charging and refueling infrastructure<sup>5</sup> available across the United States at the end of the second quarter of 2025<sup>6</sup>:

#### Station and Charging Ports Through Q2 2025

Level 2: 62,538 Stations, 160,330 EVSE Ports
DC Fast: 12,755 Stations, 57,599 EVSE Ports
Hydrogen Refueling: 56 Stations (54 are in California)
U.S. Total: 73,899<sup>7</sup> EVSE Stations, 217,929 EVSE Ports

See Recommended Attributes for EV Charging Stations

State	Locations	L2 Ports	DC Fast Ports	State	Locations	L2 Ports	DC Fast Ports
AK	61	103	44	MT	127	205	239
AL	385	755	814	NC	1,434	3,770	1,557
AR	310	813	191	ND	81	112	121
AZ	1,001	3,135	1,209	NE	243	452	216
CA	9,661	42,442	14,769	NH	216	473	289
CO	1,737	4,968	1,282	NJ	1,168	3,283	1,661
CT	1,107	3,456	644	NM	292	527	455
DC	250	1,029	55	NV	422	1,460	982
DE	171	433	288	NY	3,646	15,401	2,318
FL	2,974	8,777	3,489	OH	1,408	3,545	1,296
GA	1,453	4,409	1,714	OK	340	632	968
HI	293	767	148	OR	1,135	2,712	1,115
IA	381	686	491	PA	1,442	3,764	1,501
ID	191	365	240	RI	208	696	115
IL	1,203	2,981	1,545	SC	523	1,138	685
IN	542	1,115	822	SD	97	154	137
KS	332	976	298	TN	742	1,911	869
KY	314	656	374	TX	2,779	7,274	3,868
LA	242	474	345	UT	611	2,105	532
MA	2,112	8,006	1,407	VA	1,200	3,716	1,434
MD	1,107	3,084	980	VT	374	989	246
ME	426	1,023	307	WA	1,651	5,416	1,679
MI	1,378	3,676	1,233	WI	617	1,252	673
MN	827	1,979	737	WV	157	337	178
MO	756	2,435	686	WY	97	145	145
MS	165	318	208	US. Total	50,389	160,330	57,599

**Level 2 Chargers and DC Fast Chargers.** Both Level 2 and DC Fast charging play important roles in electrifying the light-duty vehicle fleet. However, the key difference between Level 2 and DC Fast chargers is how quickly each will charge an EV's battery. Level 2 equipment is common for home, workplace, and public charging with longer dwell

<sup>&</sup>lt;sup>5</sup> "Stations" denotes stations as counted and identified by U.S. Department of Energy Alternative Fuels Data Center. Stations differs from number of locations as many stations can be at a singular location. Locations denote unique addresses.

<sup>&</sup>lt;sup>6</sup> Charging information from U.S. Department of Energy Alternative Fuels Data Center, stations in operation as of June 30, 2025

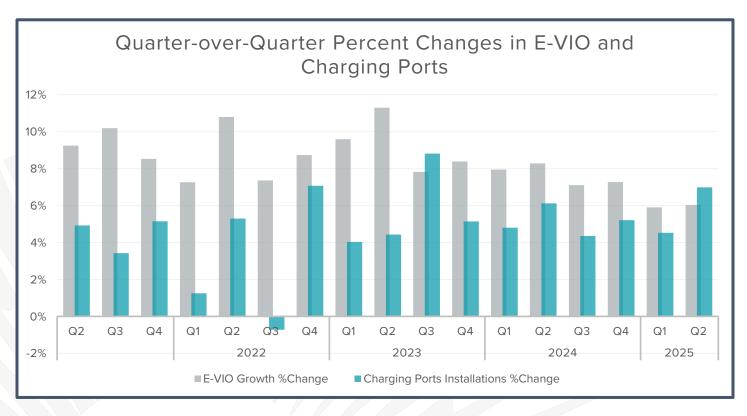
Note: prior editions of this report excluded proprietary chargers, however Tesla opened their previously proprietary chargers in November 2022 and their "North American Charging Standard" will be widely adopted by automakers.

<sup>&</sup>lt;sup>7</sup> Some station locations have both Level 2 and DC Fast installed.



times. Level 2 chargers can fully charge a BEV from empty in 4-10 hours and a PHEV from empty in 1-2 hours. DC Fast charging equipment enables rapid charging of BEVs in 20 minutes to 1 hour along heavy-traffic corridors, in city centers, at transportation hubs, and fleet depots. Wider installation of Level 2 chargers, DC Fast chargers, and hydrogen fueling will be necessary to support current and future EV sales.

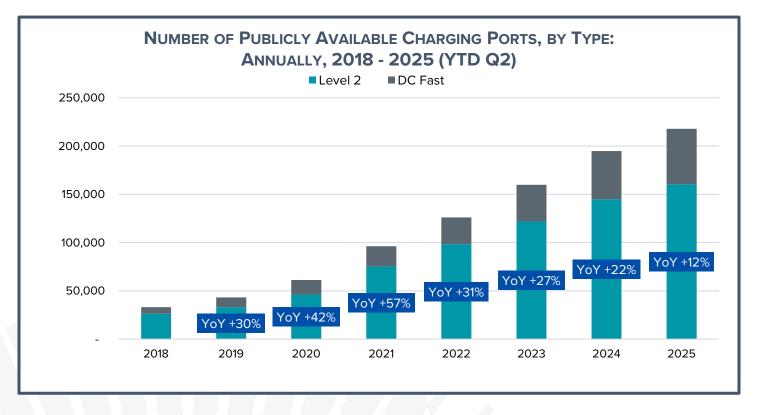
So far in 2025, the number of public Level 2 chargers increased by 11 percent over 2024. DC Fast chargers increased 16 percent. Total charging ports increased 12 percent from the end of 2024. § (For context, E-VIO increased 12 percent from the end of 2024 to the end of Q2 2025.) On a quarter-over-quarter basis, this is only the second time EV charging port growth has outpaced increases in E-VIO (only prior time was in Q3 2023).



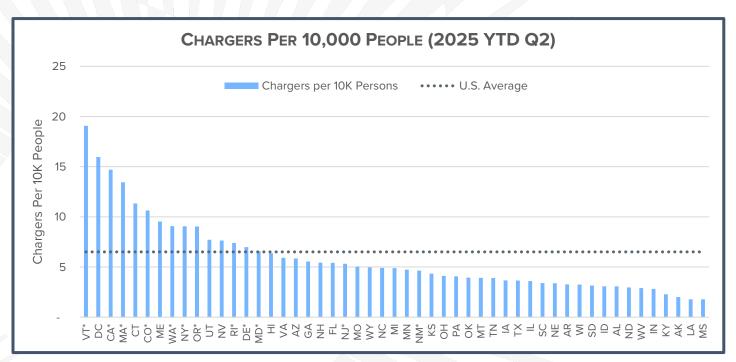
<sup>&</sup>lt;sup>8</sup> Charging information from U.S. Department of Energy Alternative Fuels Data Center, stations in operation as of 3/31/2025





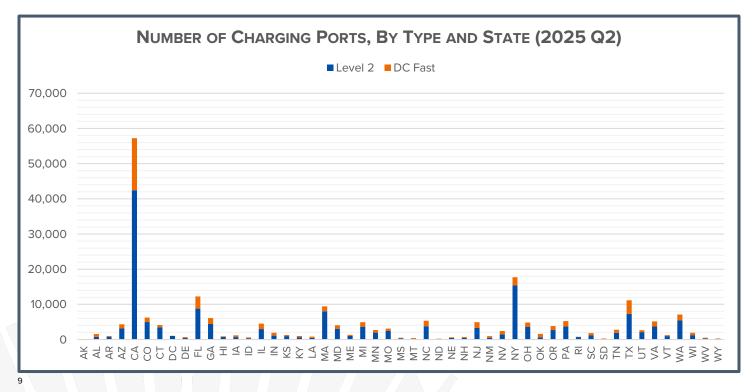


While it's useful to understand how many charging ports are installed, it's also important to understand the number of chargers in comparison to each state's population. While some states may seem better positioned due to a higher number of chargers, those states shift when compared at a per capita basis. California has by far the most installed public charging equipment, but due to the state's size, their per capita rate is 15 chargers per 10,000 people. The national average is 7 chargers per 10,000 people.



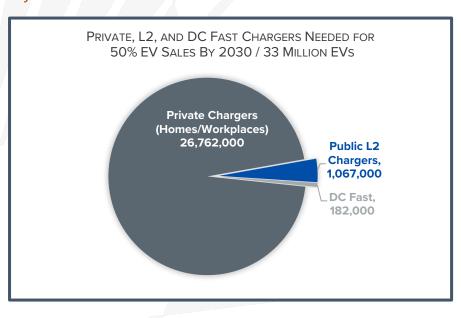






#### Infrastructure Investment Necessary

An assessment by the U.S. National Renewable Energy Laboratory (NREL) released in June 2023 estimated that a network of 28 million charging ports would be necessary to support 50 percent EV sales by 2030 (and 33 million EVs on the road). 10 NREL estimates that 96 percent of those charging ports would be privately accessible L1 and L2 chargers located at single-family homes, multifamily properties, and workplaces. The remaining 4 percent (1,249,000 ports) would be split between public L2 and high-speed DC Fast charging ports, with L2 making up 85 percent of those public chargers.



At the end of Q2 2025, there were about 218,000 public charging ports across the country and 6.5 million EVs on the road. <u>Total installed public charging ports are about 17 percent of the estimated chargers needed to support 50% EV sales and 33 million EVs in operation by 2030.</u>

More than 1 million additional public chargers (906,670 L2 and 124,401 DC Fast) will need to be installed in the U.S. to support 33 million EVs in operation by 2030. This means that between the end of Q2 2025 and December 31, 2030,

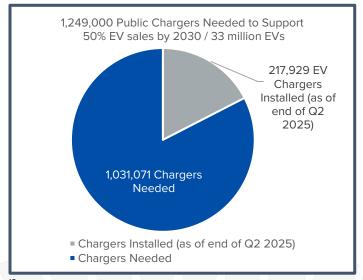
<sup>&</sup>lt;sup>9</sup> Charging information from U.S. Department of Energy Alternative Fuels Data Center, stations in operation as of 6/30/2025;

National Renewable Energy Laboratory, "The 2030 National Charging Network: Estimating U.S. Light-Duty Demand for Electric Vehicle Charging Infrastructure," June 2023 National Renewable Energy Laboratory, "The 2030 National Charging Network: Estimating U.S. Light-Duty Demand for Electric Vehicle Charging Infrastructure," June 2023





513 chargers would need to be installed every day, for the next 5.5 years. Or 3.6 chargers every 10 minutes through the end of 2030.



Between the end of Q2 2025 and December 31, 2030, **513 chargers** would need to be installed every day, for the next **5.5** years. Or 3.6 chargers every 10 minutes through the end of 2030.

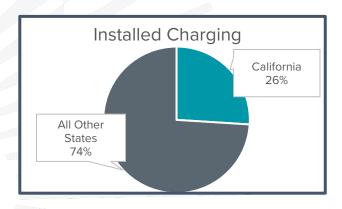
12

The Cost of This Substantial Infrastructure Necessity Will Largely Fall on Consumers and Commercial Real Estate Owners as They Install Home and Workplace Charging. According to NREL, a national capital investment of \$53–\$127 billion in charging infrastructure is needed by 2030 (including as much as \$72 billion for private residential charging) to support 33 million EVs. The large range of potential costs is a result of variable and evolving equipment and installation costs across charging networks, locations, and site designs<sup>13</sup>. Notably, the estimates exclude the cost of grid upgrades and distributed energy resources. The estimated cumulative capital investment includes<sup>14</sup>:

- \$22–\$72 billion for privately accessible Level 1 and Level 2 charging ports
- \$27–\$44 billion for publicly accessible DC Fast charging ports
- \$5-\$11 billion for publicly accessible Level 2 charging ports

# Infrastructure Distribution and Disparities by Geography

Geographic disparities in charging infrastructure are pervasive. At the end of Q2 2025, just over a quarter of all public charging infrastructure was in California, which had 32 percent of all registered EVs.



Alliance for Automotive Innovation is proactively engaging to address EV policy needs through participation in the Joint Office of Energy and Transportation's <u>Electric Vehicle Working Group</u>, development of a <u>lithium-ion battery recycling policy framework</u>, <u>recommendations for attributes</u> of EV charging stations.

<sup>&</sup>lt;sup>12</sup> National Renewable Energy Laboratory, "The 2030 National Charging Network: Estimating U.S. Light-Duty Demand for Electric Vehicle Charging Infrastructure," June 2023

<sup>&</sup>lt;sup>15</sup> Various state and federal incentives are available to consumers or businesses that install EV charging infrastructure, including from power utilities

Mational Renewable Energy Laboratory, "The 2030 National Charging Network: Estimating U.S. Light-Duty Demand for Electric Vehicle Charging Infrastructure," June 2023





## Vehicles in Operation and Charging Infrastructure by State

	Public Charging Outlets And Registerd EVs (as of 6/30/2025)											
	EV Level 2	EV DC Fast	H2* Fueling	Total	Percent EVs of Total VIO**	Share of Registered EVs***	EVs Per Charger	EVs Per 10K Residents				
AK	103	44		147	0.81%	0.07%	33	66.38				
AL	755	814		1,569	0.52%	0.41%	17	52.60				
AR	813	191		1,004	0.49%	0.22%	14	46.51				
ΑZ	3,135	1,209		4,344	2.28%	2.44%	37	214.88				
CA	42,442	14,769	54	57,265	6.64%	31.85%	36	535.12				
СО	4,968	1,282		6,250	3.50%	2.97%	31	<b>3</b> 31.25				
СТ	3,456	644		4,100	2.20%	1.04%	17	188.38				
DC	1,029	55		1,084	4.60%	0.24%	14	226.99				
DE	433	288		721	1.97%	0.28%	25	175.44				
FL	8,777	3,489		12,266	2.34%	7.03%	38	203.54				
GA	4,409	1,714		6,123	1.65%	2.44%	26	144.94				
НІ	767	148	1	916	3.61%	0.62%	44	283.40				
IA	686	491		1,177	0.64%	0.32%	18	65.07				
ID	365	240		605	0.95%	0.30%	32	99.78				
IL-	2,981	1,545		4,526	1.82%		41	149.39				
IN	1,115	822		1,937	0.89%	0.86%	29	81.68				
KS	976	298		1,274	0.80%	0.36%	19	80.38				
KY	656	374		1,030	0.59%	0.37%	24	53.68				
LA	474	345		819	0.49%	0.28%	23	40.76				
MA	8,006	1,407		9,413	2.81%		17	225.92				
MD	3,084	980		4.064	2.75%		35	229.97				
ME	1,023	307		1,330	1.53%	0.32%	16	148.93				
MI	3,676	1,233		4,909	1.38%		24	119.01				
MN	1,979	737		2,716	1.40%	1.13%	27	129.22				
		686										
MO	2,435			3,121	0.91%	0.81%	/17/ 16	85.46				
MS	318	208		526	0.27%	0.13%		28.86				
MT	205	239		444	0.54%	0.16%	23	89.71				
NC	3,770	1,557		5,327	1.40%		26	127.54				
ND	112	121		233	0.30%	0.04%	11	32.02				
NE	452	216		668	0.72%	0.24%	23	77.86				
NH	473	289		762	1.59%	0.33%	28	153.19				
NJ	3,283	1,661		4,944	3.15%	3.66%	48	257.75				
NM	527	455		982	1.03%	0.32%	22	99.92				
NV	1,460	982		2,442	3.43%	1.35%	36	276.29				
NY	15,401	2,318		17,719	2.58%	4.50%	17	150.38				
ОН	3,545	1,296		4,841	1.03%	1.71%	23	94.96				
OK	632	968		1,600	1.36%	0.96%	39	155.22				
OR	2,712	1,115		3,827	3.11%		32	287.24				
PA	3,764	1,501		5,265	1.41%		30	121.03				
RI	696	115		811	1.69%	0.20%	16	116.87				
SC	1,138	685		1,823	0.76%		23	77.75				
SD	154	137		291	0.45%	0.07%	16	49.26				
TN	1,911	869		2,780	0.92%		/ 23	90.76				
TX	7,274	3,868	1	11,143	1.59%	6.11%	36	131.18				
UT	2,105	532		2,637	2.40%	1.15%	29	220.69				
VA	3,716	1,434		5,150	1.86%	2.23%	28	167.51				
VT	989	246		1,235	3.27%	0.28%	15	280.83				
WA	5,416	1,679		7,095	3.75%	4.02%	37	<b>3</b> 37.16				
WI	1,252	673		1,925	0.95%	0.79%	27	87.99				
WV	337	178		515	0.41%	0.10%	13	37.00				
WY	145	145		290	0.41%	0.04%	10	47.92				

# **REGISTRATIONS**

EV registrations as a share of all registered light-duty vehicles are 2.25 percent (as of June 30, 2025). There are more than 291 million registered light-duty vehicles in the U.S.

At the end of Q2 2025, California accounted for 32 percent of all registered light-duty EVs in the U.S.

States with highest portion of total EVs registered:

- CA (2,085,086, 6.64%)
- 2. DC (15,412, 4.6%)
- WA (263,418, 3.75%)
- HI (40,672, 3.61%)
- 5. CO (194,695, 3.5%)
- 6. NV (88,251, 3.43%)
- VT (18,183, 3.27%)
- 8. NJ (239,474, 3.15%)
- 9. OR (121,597, 3.11%)
- 10. MA (158,178, 2.81%)

States with worst ratio of registered EVs per public charger:

- NJ

- OK
- WA
- 8. CA
- NV

Read more about automakers plans for

**ELECTRIC VEHICLES HERE** 

<sup>\*</sup>Hydrogen count denotes stations \*\* VIO is vehicles in operation;

<sup>\*\*\*</sup> State share of U.S. Total

Source: Figures compiled by Alliance for Automotive Innovation with registered vehicle data provided by S&P Global Mobility as of March 31, 2025; Charging information from U.S. Department of Energy Alternative Fuels Data Center, as of 6/30/2025





#### SPOTLIGHT ON: EV BATTERY RECYCLING

Electric vehicles are driving unprecedented demand for critical minerals like lithium, cobalt, nickel, and graphite — the foundation of lithium-ion batteries. But global supply chains for these minerals are fragile, marked by geographic concentration and geopolitical risk. A circular economy for EV batteries — focused on recycling, reusing, and repurposing — offers a path to strengthen supply chains, improve affordability, and ensure sustainable growth.

#### Importance of EV Battery Recycling

China dominates the critical mineral and rare earths space. In 2024, it produced more than 69 percent of global rare earths and processed nearly 90 percent of them. Additionally, China processes over 90 percent of the world's graphite, and by 2022 Chinese firms controlled more than two-thirds of global cobalt and lithium processing capacity—the midstream step essential to turning raw ore into battery-ready materials. Its dominance extends deep into the battery sector: over 80 percent of global recycling capacity is in China, compared with less than 2 percent in the U.S. Coverreliance on a single country exposes the U.S. to supply disruptions, trade disputes, and volatile markets.

Recycling reduces that vulnerability. Demand for lithium, cobalt, nickel, and graphite is projected to rise by factors of 26, 6, 12, and 9 respectively by 2050. <sup>19</sup> According to the IEA, recycling and reuse could cut primary mineral demand by 12 percent by 2040. <sup>20</sup> By then, recovered materials could supply more than half of the global demand for cobalt (60 percent), lithium (53 percent), manganese (57 percent), and nickel (53 percent) — reducing costs by as much as \$25 billion annually while limiting environmentally damaging mining.<sup>21</sup>

For consumers, the benefits are direct: recycling lowers input costs and makes EVs more affordable. For industry, it strengthens supply security and resilience. And for the environment, recycled materials generate about four times fewer emissions than newly mined ones, cutting the carbon footprint of battery production by more than 25 percent per kilowatt-hour. <sup>22</sup>

#### The Scale of the Opportunity

# BATTERY RECYCLING PROCESS

"In 2025, China is forecast to account for 78% of battery pre-treatment capacity and 89% of black mass refining capacity, as assessed by Benchmark's Recycling Forecast."

- Collection & Transport: Used batteries are safely removed from vehicles and shipped to specialized recycling facilities.
- Discharge & Dismantling: Batteries are discharged (to prevent fire risk) and broken down into modules and cells.
- Mechanical Processing: Batteries are shredded or crushed; plastics, aluminum, and steel casings are separated.
- Material Separation: Chemical or physical processes (such as hydrometallurgy or pyrometallurgy) extract "black mass" (a mix of lithium, cobalt, nickel, manganese, graphite).
- Refining & Purification: Metals are refined into high-purity compounds (e.g., lithium carbonate, nickel sulfate, cobalt sulfate) suitable for new cathodes.
- Re-manufacturing: Recovered materials are sent back into the supply chain to produce new EV batteries.

Benchmark Minerals, "Infographic: How much of the battery recycling industry does China control?" 5/15/2025

<sup>&</sup>lt;sup>15</sup> Alex Irwin Hunt, "China To Remain Dominant Rare Earths Supplier For Another Decade," FDI Intelligence, 6/18/2025

<sup>&</sup>lt;sup>16</sup> "China currently controls over 69% of global rare earth production," Mining Technology, 1/18/2025

<sup>&</sup>lt;sup>17</sup> U.S. EIA, "China Dominates Global Trade Of Battery Minerals," 5/212/2025

<sup>&</sup>lt;sup>18</sup> IEA, "Outlook For Battery And Energy Demand," 2024

<sup>&</sup>lt;sup>19</sup> Anahita Jannesar Niri, Et.al, "<u>Sustainability Challenges Throughout The Electric Vehicle Battery Value Chain</u>," Renewable And Sustainable Energy Reviews, 3/2024

<sup>&</sup>lt;sup>20</sup> IEA, "The Role Of Critical Minerals In Clean Energy Transitions," 2021

<sup>&</sup>lt;sup>21</sup> Premium Autos Inc. Blog, "<u>Ultimate Guide to EV Battery Recycling</u>" Accessed 9/15/2025

<sup>&</sup>lt;sup>22</sup> McKinsey, <u>Battery Recycling Takes The Driver's Seat</u>, 3/13/2023



The numbers are enormous. McKinsey projects more than five terawatt-hours of annual gigafactory capacity worldwide by 2030. At the same time, over 100 million vehicle batteries will reach end-of-life in the next decade, creating a massive pool of recoverable material.<sup>23</sup> Capturing even a portion of this resource would transform used batteries from a waste stream into a strategic asset for EV and other industrial growth.

#### U.S. Challenges

The U.S. recycling industry is still in its infancy. ABI Research estimates recyclers are building enough capacity to handle 1.3 million EV batteries annually, but by 2030 only 341,000 end-of-life batteries will actually be available, leaving facilities underutilized. <sup>24</sup> Less than 1 percent of critical minerals are recycled globally today<sup>25</sup>, and the U.S. struggles with fragmented collection systems and competition from artificially cheap virgin materials, particularly from China's surplus<sup>26</sup>.

#### China's Lead

China's dominance is no accident. Its government has spent years aligning policy, investment, and infrastructure to capture every step of the EV battery value chain — from collection to refining to manufacturing. By 2025, it is projected to recycle more than one million tonnes of retired EV batteries, rising toward 3.5 million tonnes by 2030. <sup>27</sup> Meanwhile, U.S. capacity remains fragmented and small in scale, with few integrated facilities. Without decisive action, the gap will widen further.

#### The Path Forward

The U.S. has a narrow window to act. Recycling capacity is coming online, but without better collection and incentives, it will sit idle. Strategic steps such as policies to keep end-of-life batteries onshore and support for blackmass refining are critical. Targeted R&D, data-sharing platforms, and coordinated collection systems can accelerate progress.

By making EV battery recycling a national priority, the U.S. can strengthen its economic and national security, domesticate supply chains, cut costs for consumers, and reduce reliance on geopolitically fragile sources. With smart policy and investment, America can narrow the gap with China, build a resilient circular economy, and lead on both EV affordability and global sustainability.

<sup>&</sup>lt;sup>23</sup> McKinsey, <u>Battery Recycling Takes The Driver's Seat</u>, 3/13/2023

<sup>&</sup>lt;sup>24</sup> ABI Research, Press Release, "U.S. EV Battery Recycling Industry Faces Challenge as Input Supply Reaches Only a Quarter of Capacity by 2030," 3/13/2024

<sup>25</sup> World Economic Forum, "Circularity Of Critical Metals In The Energy Transition: What We Can Learn From Platinum Group Metals, 4/22/2024

<sup>&</sup>lt;sup>26</sup> Center on Global Energy Policy at Columbia, Strengthening the US EV Battery Recycling Industry to Onshore Critical Material Supply, 9/2024

<sup>27 &</sup>quot;China's EV Battery Recycling Boom Fuels Green Transition, Taps Global Market," Xinhua, 5/6/2025