

GET CONNECTED

ELECTRIC VEHICLE QUARTERLY REPORT



FOURTH QUARTER, 2021

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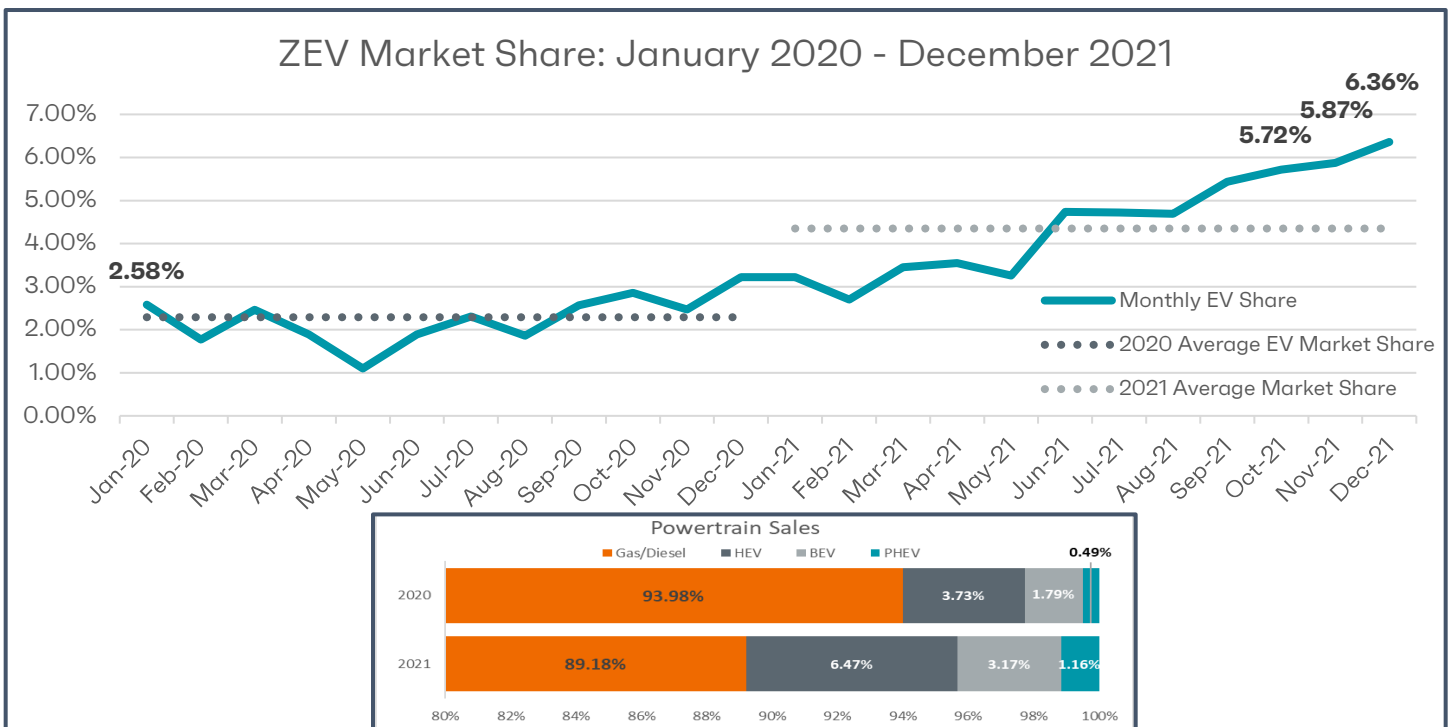
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Electric Vehicle Sales Overview (2021)

More than 187,490 electric vehicles (EVs, including battery, plug-in hybrid, and fuel cell electric vehicles; BEV, PHEV, and FCEV, respectively) were sold in the fourth quarter in the United States. While the total volume of all sales for the quarter decreased 9 percent from the third quarter, the volume of EV sales increased 11 percent. Year-over-year (YoY), the fourth quarter had 76,000 more EV unit sales than the same period in 2020 (+69 percent, YoY). For the months of October–December, EVs represented 6 percent of overall light-duty vehicle sales, the highest for any quarter to date and a 1.1 percentage point (pp) increase over the third quarter¹. For the full year, EV sales averaged 4.4 percent.² For comparison, internal combustion engine (ICE) vehicle sales decreased by 1.3 pp during the fourth quarter compared to the third quarter and nearly 6 percent compared against the same quarter a year ago³. For the full year, ICE sales decreased 4.8 percent from 2020.



¹ See, the “[Get Connected: Electric Vehicle Report](#)” for the third quarter.

² For the full year 2020, EVs comprised just two percent, or roughly 320,000 of the nation’s 14.5 million new light-duty vehicle sales.

³ Hybrid vehicles comprised the remainder of the gains in vehicle share.

ELECTRIC VEHICLE ADOPTION BY SEGMENT

While passenger cars once dominated the EV market, new models are being introduced, especially in the crossover utility vehicle (CUV) segment. As a result, other segments are starting to make gains, and today, light truck – CUVs, SUVs, minivans, and pickups – sales comprise nearly 58 percent of the EV market.

Monthly sales of BEV and PHEV CUVs have grown from less than 16 percent of EVs at the start of 2020 to an average of 49 percent in the fourth quarter of 2021 (averaging 51 percent of EV sales for the full year).

Plug-in hybrid SUVs entered the market in 2019 and account for a relatively small share of all EV sales (4.4%).

The very first commercially available battery electric pickup trucks arrived in September 2021 – with more models and deliveries expected soon.

EV MODEL AVAILABILITY

78 Vehicle Models Sold in Q4 2021:

32 Battery Electric Vehicles

- 17 Cars
- 14 CUVs
- 1 Pickup
- 1 Van

43 Plug-in Hybrid Vehicles

- 20 Cars
- 17 CUVs
- 4 SUVs
- 1 Van

3 Fuel Cell Electric Vehicles

- 2 Cars
- 1 CUV

See more information about
[EV CHOICE HERE](#)

U.S. PUBLIC CHARGING INFRASTRUCTURE

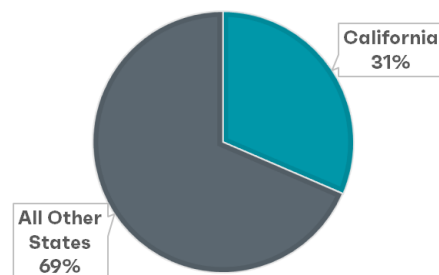
While the U.S. Department of Energy notes that roughly 80 percent of all electric vehicle charging occurs at home, reliable and convenient access to workplace and public charging and refueling stations support customers that adopt EVs. Workplace and public charging infrastructure not only eases perceived "range anxiety" concerns but also increases consumer awareness of the technology. The bipartisan Infrastructure Investment and Jobs Act that was signed into law in November 2021, includes \$5 billion in funding for states to establish a nationwide EV charging network and \$2.5 billion in competitive grants to deploy publicly available EV charging, hydrogen fueling, propane fueling, and natural gas fueling stations through 2026. Here is a snapshot of publicly available EV charging and refueling infrastructure available across the United States at the end of 2021:

Level 2: 39,678 Locations, 88,416 EVSE Ports (+14% since 1/1/21)
DC Fast: 5,689 Locations, 21,742 EVSE Ports (+24% since 1/1/21)
Hydrogen Refueling: 48 Stations (47 of 48 are in California)
U.S. Total: 44,500 Locations, 110,158 EVSE Ports (+16% since 1/1/21)

See more about state-by-state charging infrastructure on [page 7](#)

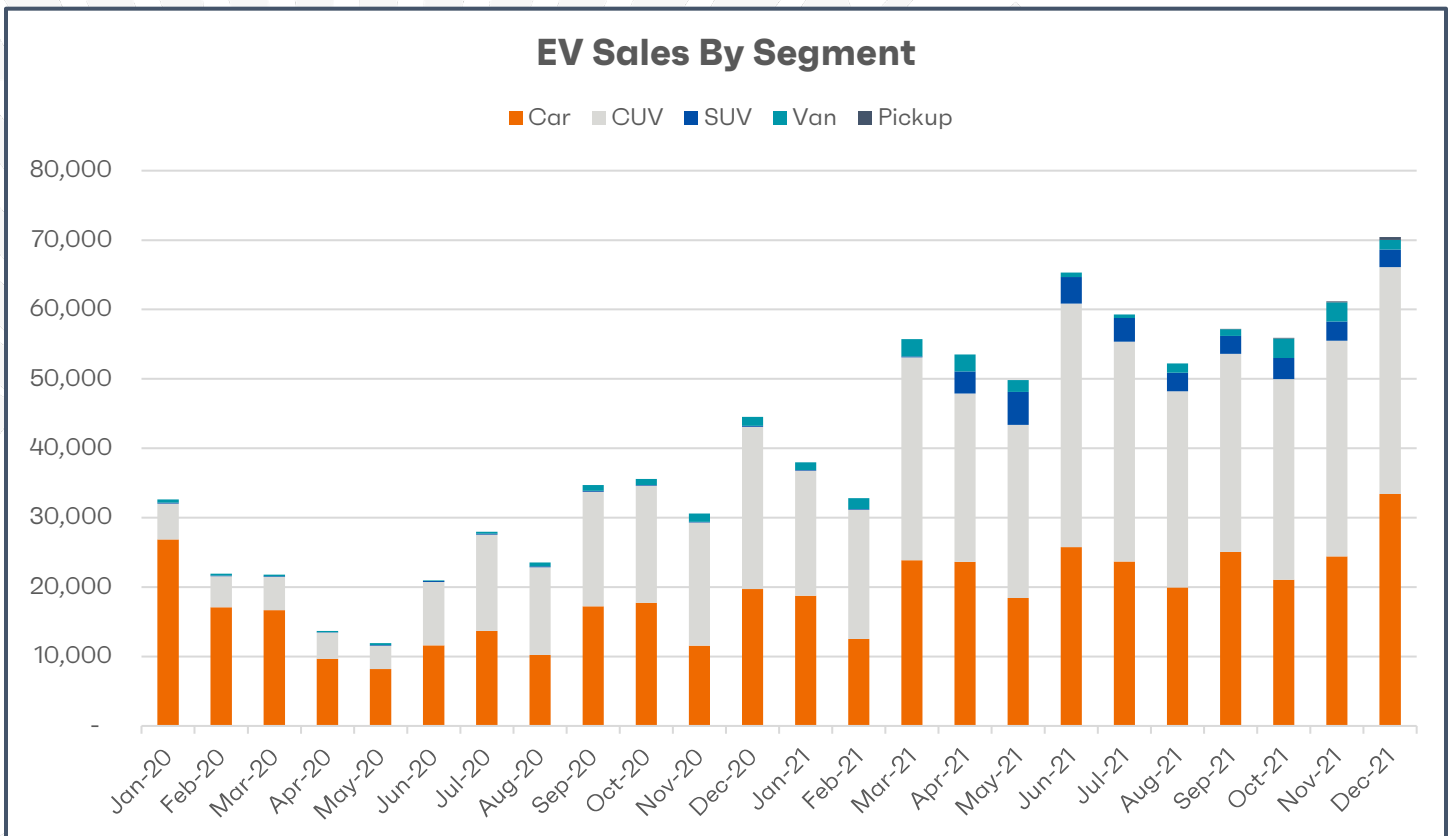
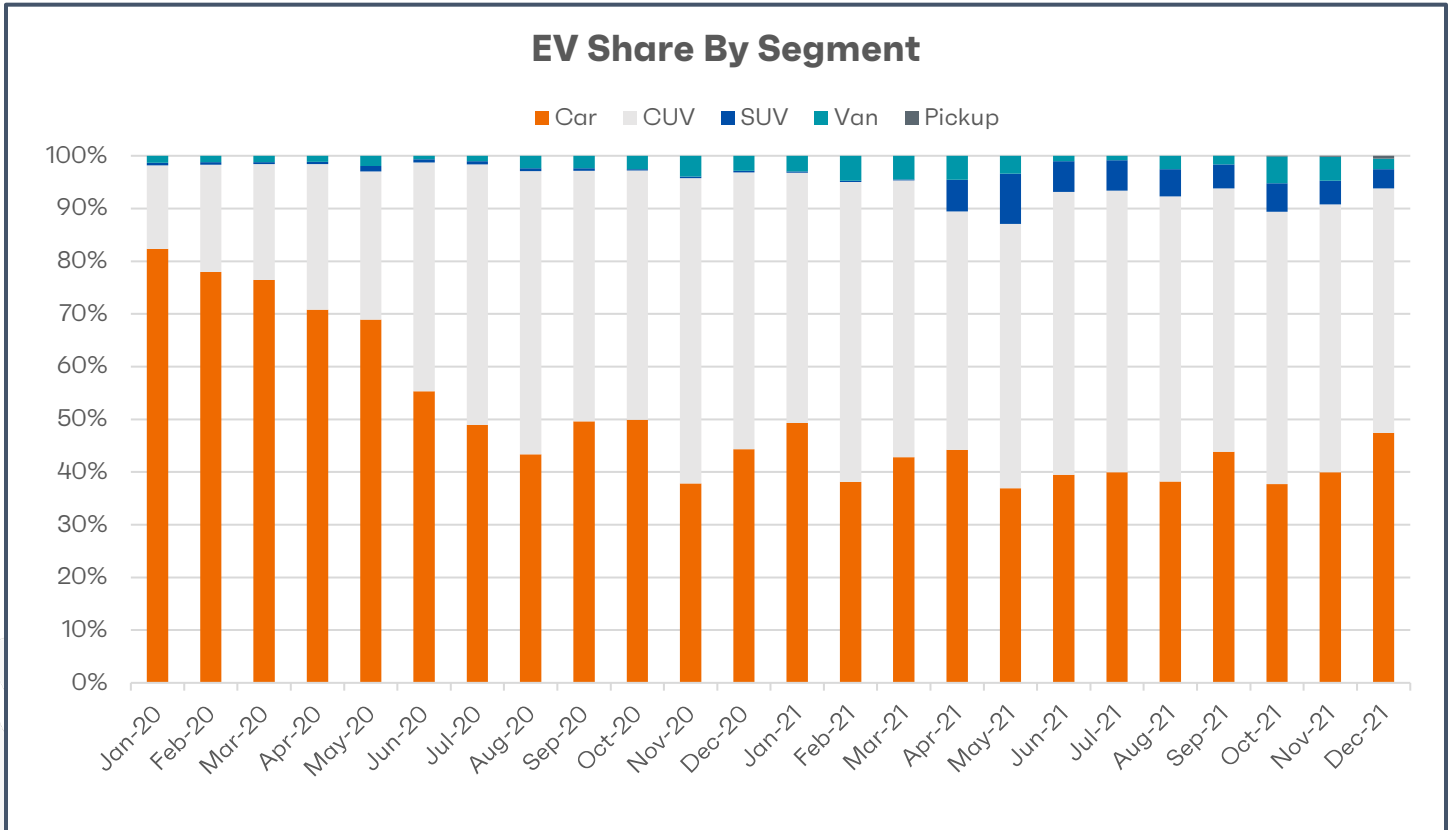
[See Recommended Attributes for EV Charging Stations](#)

Nearly One-Third of the Nation's Charging Infrastructure is Located in California



California has 39% of all registered EVs

Charging information from U.S. Department of Energy Alternative Fuels Data Center, as captured on 1/1/2021 and 12/31/2021



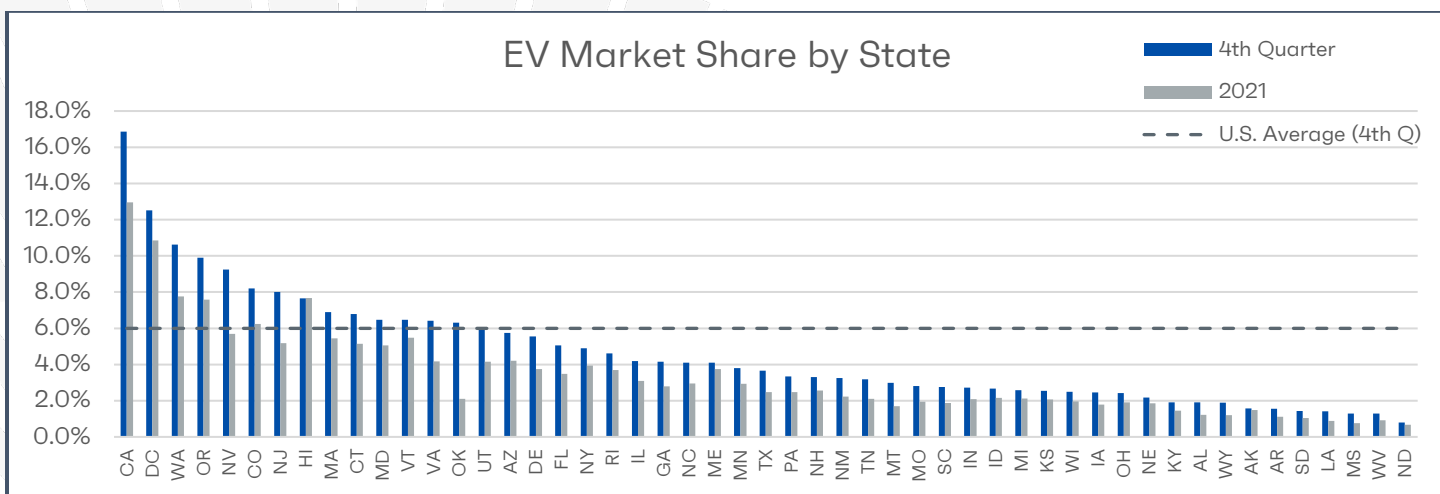
Source: Figures compiled by Alliance for Automotive Innovation with new registrations for retail and fleet data provided by IHS Markit covering January 1, 2020 – December 31, 2021.

ELECTRIC VEHICLE ADOPTION BY STATE

For the Fourth Quarter:

California continues to lead the nation in EV adoption, with BEVs, PHEVs and FCEVs making up nearly 17 percent of new light-duty vehicle registrations in the fourth quarter of 2021. There are currently 16 additional states⁴ and the District of Columbia with new vehicle EV registrations above 5 percent, 5 more states than in the third quarter (new states include Arizona, Delaware, Florida, Oklahoma, and Virginia). Nationally, EV new vehicle registrations in October 2021 – December 2021 were 6 percent, a 1.07 pp increase from the third quarter of 2021.

The market share of new EV vehicles registered increased in all states, year-over-year, in the fourth quarter of 2021. Twenty-five states witnessed increased market share of EVs by 2 pp or more. Making the largest increases were California (7.6 pp), Oklahoma (6.1 pp), the District of Columbia (5.4 pp), Nevada (5.1 pp), and Washington (4.3 pp). The national average for EV sales in the fourth quarter increased by 3.1 pp YoY (from 2.9 percent to 6.0 percent EV sales).



For the Full Year:

For 2021, EV sales represented 4.4 percent of the market – a 2.1 pp increase over 2020. Nearly 13 percent of sales in California were EV, which made the largest gains of just over 5 pp YoY, but close behind with the next largest increase in market share was the District of Columbia, which improved its YoY standing by 4.9 pp. Following D.C., the states with the largest market share gains were Nevada (2.9 pp), Oregon (2.8 pp), and Connecticut (2.8). Fourteen states in total increased their year-over-year EV market share by 2 pp or more.

Some states continue to have strong EV sales, like California (13 percent), D.C. (10.9 percent), Washington (7.7 percent), Hawaii (7.7 percent), Oregon (7.6 percent) and Colorado (6.2 percent). However, 17 states had new EV registrations of less than 2 percent. All states had an EV market share of new vehicle sales above 0.5 percent.

[SEE ADDITIONAL HISTORIC DATA ON EV SALES HERE](#)

⁴ States with more than a 5 percent market share of EVs: California, Washington, Oregon, Nevada, Colorado, New Jersey, Hawaii, Massachusetts, Connecticut, Maryland, Vermont, Virginia, Oklahoma, Utah, Arizona, Delaware, Florida and the District of Columbia.

Fourth Quarter 2021, New Light-Duty Vehicle Registrations By Powertrain					Change In Market Share (2021 Q4 vs 2020 Q4), New Light-Duty Vehicle Registrations Powertrain			
State	Advanced Powertrain Market Share				Advanced Powertrain Market Share (Percentage Point Change)			
	PHEV	BEV	FCEV	ZEV	PHEV	BEV	FCEV	ZEV
AK	0.52%	1.05%	0.00%	1.57%	0.23	0.21	0.00	0.43
AL	0.69%	1.21%	0.00%	1.90%	0.54	0.66	0.00	1.20
AR	0.48%	1.08%	0.00%	1.56%	0.30	0.72	0.00	1.02
AZ	1.08%	4.66%	0.00%	5.74%	0.63	1.48	0.00	2.11
CA*	3.03%	13.66%	0.17%	16.86%	0.69	6.84	0.10	7.63
CO*	2.17%	6.04%	0.00%	8.21%	1.15	1.92	0.00	3.07
CT*	2.18%	4.61%	0.00%	6.79%	1.36	2.28	0.00	3.64
DC	4.21%	8.30%	0.00%	12.51%	1.58	3.77	0.00	5.35
DE	1.55%	4.01%	0.00%	5.56%	0.88	2.56	0.00	3.44
FL	0.70%	4.35%	0.00%	5.06%	0.39	2.45	0.00	2.84
GA	0.88%	3.27%	0.00%	4.16%	0.59	2.01	0.00	2.59
HI	1.54%	6.10%	0.01%	7.65%	0.22	0.40	0.01	0.63
IA	0.79%	1.67%	0.00%	2.46%	0.52	1.07	0.00	1.59
ID	0.94%	1.73%	0.00%	2.67%	0.59	0.51	0.00	1.10
IL	1.05%	3.13%	0.00%	4.18%	0.62	1.52	0.00	2.15
IN	0.95%	1.77%	0.00%	2.73%	0.62	0.85	0.00	1.47
KS	1.01%	1.54%	0.00%	2.55%	0.76	0.55	0.00	1.32
KY	0.54%	1.38%	0.00%	1.91%	0.33	0.60	0.00	0.93
LA	0.62%	0.79%	0.00%	1.41%	0.51	0.46	0.00	0.97
MA*	2.32%	4.57%	0.00%	6.90%	1.21	2.09	0.00	3.30
MD*	2.02%	4.45%	0.00%	6.48%	1.11	2.27	0.00	3.38
ME*	2.26%	1.84%	0.00%	4.10%	1.20	0.71	0.00	1.92
MI	0.99%	1.59%	0.00%	2.58%	0.77	0.84	0.00	1.60
MN*	1.01%	2.78%	0.00%	3.79%	0.52	1.05	0.00	1.56
MO	1.14%	1.67%	0.00%	2.81%	0.91	0.93	0.00	1.84
MS	0.57%	0.71%	0.00%	1.29%	0.47	0.39	0.00	0.86
MT	0.76%	2.22%	0.00%	2.99%	0.51	1.49	0.00	2.01
NC	0.98%	3.13%	0.00%	4.11%	0.62	1.85	0.00	2.46
ND	0.36%	0.44%	0.00%	0.80%	0.18	0.31	0.00	0.49
NE	0.90%	1.27%	0.00%	2.17%	0.58	0.53	0.00	1.11
NH	1.32%	1.98%	0.00%	3.31%	0.79	0.93	0.00	1.72
NJ*	1.49%	6.53%	0.00%	8.01%	0.98	2.84	0.00	3.82
NM	0.77%	2.48%	0.00%	3.25%	0.36	1.56	0.00	1.93
NV*	1.29%	7.95%	0.00%	9.25%	0.72	4.42	0.00	5.14
NY*	1.74%	3.15%	0.00%	4.90%	0.94	1.33	0.00	2.27
OH	0.72%	1.70%	0.00%	2.41%	0.48	0.76	0.00	1.23
OK	4.89%	1.43%	0.00%	6.32%	4.83	1.30	0.00	6.13
OR*	3.36%	6.53%	0.00%	9.89%	1.87	1.93	0.00	3.80
PA	0.96%	2.37%	0.00%	3.33%	0.50	0.99	0.00	1.48
RI*	1.96%	2.65%	0.00%	4.61%	1.33	1.36	0.00	2.69
SC	0.75%	2.00%	0.00%	2.75%	0.48	1.22	0.00	1.70
SD	0.67%	0.77%	0.00%	1.44%	0.48	0.46	0.00	0.94
TN	0.76%	2.41%	0.00%	3.17%	0.54	1.22	0.00	1.76
TX	0.68%	2.98%	0.00%	3.66%	0.47	1.74	0.00	2.21
UT	1.15%	4.79%	0.00%	5.94%	0.65	2.40	0.00	3.04
VA	1.26%	5.16%	0.00%	6.42%	0.64	3.03	0.00	3.67
VT*	2.80%	3.66%	0.00%	6.47%	1.53	1.61	0.00	3.14
WA*	1.55%	9.08%	0.00%	10.63%	0.55	3.76	0.00	4.31
WI	0.82%	1.68%	0.00%	2.50%	0.49	0.91	0.00	1.40
WV	0.51%	0.77%	0.00%	1.28%	0.17	0.41	0.00	0.58
WY	0.98%	0.90%	0.00%	1.89%	0.75	0.28	0.00	1.03
U.S.	1.43%	4.55%	0.02%	6.00%	0.78	2.34	0.01	3.13

*Denotes states that have adopted California's ZEV program.

Source: Figures compiled by Alliance for Automotive Innovation with new registrations for retail and fleet data provided by IHS Markit covering October 1, 2020 – December 31, 2020, and October 1, 2021 – December 31, 2021.

Full Year 2021, New Light-Duty Vehicle Registrations By Powertrain					Change In Market Share (2021 vs 2020), New Light-Duty Vehicle Registrations Powertrain				
State	Advanced Powertrain Market Share				Advanced Powertrain Market Share (Percentage Point Change)				
	PHEV	BEV	FCEV	ZEV	PHEV	BEV	FCEV	ZEV	
AK	0.45%	1.03%	0.00%	1.49%	0.33	0.44	0.00	0.77	
AL	0.41%	0.82%	0.00%	1.23%	0.31	0.40	0.00	0.70	
AR	0.37%	0.74%	0.00%	1.11%	0.28	0.46	0.00	0.74	
AZ	0.82%	3.39%	0.00%	4.20%	0.49	1.49	0.00	1.98	
CA*	3.09%	9.68%	0.19%	12.96%	1.29	3.61	0.13	5.02	
CO*	1.67%	4.57%	0.00%	6.24%	0.92	1.55	0.00	2.47	
CT*	1.96%	3.19%	0.00%	5.15%	1.30	1.49	0.00	2.79	
DC	3.91%	6.94%	0.00%	10.84%	1.78	3.12	0.00	4.89	
DE	1.08%	2.68%	0.00%	3.75%	0.60	1.34	0.00	1.93	
FL	0.59%	2.90%	0.00%	3.48%	0.39	1.35	0.00	1.72	
GA	0.60%	2.20%	0.00%	2.80%	0.40	1.13	0.00	1.52	
HI	1.44%	6.22%	0.01%	7.66%	0.60	1.96	0.00	2.56	
IA	0.66%	1.12%	0.00%	1.78%	0.50	0.66	0.00	1.16	
ID	0.72%	1.43%	0.00%	2.15%	0.47	0.62	0.00	1.09	
IL	0.84%	2.26%	0.00%	3.10%	0.57	0.91	0.00	1.49	
IN	0.69%	1.40%	0.00%	2.09%	0.50	0.65	0.00	1.14	
KS	0.67%	1.40%	0.00%	2.07%	0.45	0.56	0.00	1.01	
KY	0.44%	1.00%	0.00%	1.44%	0.30	0.46	0.00	0.76	
LA	0.33%	0.57%	0.00%	0.89%	0.27	0.30	0.00	0.56	
MA*	2.13%	3.32%	0.00%	5.45%	1.23	1.26	0.00	2.49	
MD*	1.65%	3.41%	0.00%	5.06%	1.01	1.42	0.00	2.43	
ME*	2.11%	1.63%	0.00%	3.74%	1.22	0.79	0.00	2.01	
MI	0.82%	1.31%	0.00%	2.13%	0.69	0.69	0.00	1.38	
MN*	0.80%	2.13%	0.00%	2.93%	0.46	0.92	0.00	1.38	
MO	0.64%	1.30%	0.00%	1.94%	0.44	0.62	0.00	1.07	
MS	0.30%	0.47%	0.00%	0.76%	0.24	0.24	0.00	0.47	
MT	0.56%	1.14%	0.00%	1.69%	0.36	0.57	0.00	0.93	
NC	0.77%	2.18%	0.00%	2.95%	0.54	1.08	0.00	1.61	
ND	0.29%	0.38%	0.00%	0.68%	0.20	0.25	0.00	0.45	
NE	0.76%	1.09%	0.00%	1.85%	0.58	0.50	0.00	1.08	
NH	1.10%	1.47%	0.00%	2.57%	0.72	0.63	0.00	1.34	
NJ*	1.23%	3.96%	0.00%	5.19%	0.76	1.55	0.00	2.31	
NM	0.66%	1.56%	0.00%	2.22%	0.38	0.83	0.00	1.20	
NV*	1.02%	4.68%	0.00%	5.70%	0.65	2.21	0.00	2.86	
NY*	1.59%	2.34%	0.00%	3.93%	0.84	1.00	0.00	1.83	
OH	0.57%	1.34%	0.00%	1.91%	0.42	0.53	0.00	0.95	
OK	1.20%	0.89%	0.00%	2.10%	1.17	0.76	0.00	1.93	
OR*	2.62%	4.96%	0.00%	7.58%	1.44	1.39	0.00	2.83	
PA	0.79%	1.69%	0.00%	2.48%	0.46	0.66	0.00	1.12	
RI*	1.62%	2.07%	0.00%	3.69%	0.86	0.95	0.00	1.81	
SC	0.57%	1.32%	0.00%	1.87%	0.41	0.71	0.00	1.11	
SD	0.46%	0.58%	0.00%	1.04%	0.32	0.35	0.00	0.67	
TN	0.51%	1.59%	0.00%	2.10%	0.37	0.76	0.00	1.13	
TX	0.49%	1.99%	0.00%	2.48%	0.34	1.05	0.00	1.39	
UT	0.90%	3.25%	0.00%	4.16%	0.52	1.33	0.00	1.85	
VA	1.05%	3.12%	0.00%	4.16%	0.65	1.55	0.00	2.20	
VT*	2.50%	2.99%	0.00%	5.48%	1.40	1.27	0.00	2.67	
WA*	1.36%	6.41%	0.00%	7.76%	0.62	2.09	0.00	2.71	
WI	0.60%	1.36%	0.00%	1.96%	0.39	0.67	0.00	1.06	
WV	0.38%	0.54%	0.00%	0.92%	0.23	0.27	0.00	0.50	
WY	0.58%	0.63%	0.00%	1.21%	0.47	0.21	0.00	0.68	
U.S.	1.16%	3.17%	0.02%	4.35%	0.68	1.38	0.02	2.06	

*Denotes states that have adopted California's ZEV program.

Source: Figures compiled by Alliance for Automotive Innovation with new registrations for retail and fleet data provided by IHS Markit covering January 1, 2020 – December 31, 2020 and January 1, 2021 – December 31, 2021.

REGISTRATIONS AND INFRASTRUCTURE

Public Charging Outlets And Registered EVs (as of 12/31/2021)									
	EV Level 2	EV DC Fast	H2** Fueling	Total	Percent EVs of Total VIO***	Share of Registered EVs****	EVs Per Charger	Additional Chargers Needed to Support 25% EV VIO*****	EVs Per 10K Residents
AK	72	16	-	88	0.31%	0.08%	20.24	20,569	24.15
AL	364	114	-	478	0.15%	0.35%	16.29	180,164	15.94
AR	371	66	-	437	0.14%	0.17%	8.72	99,290	12.65
AZ	1,664	420	-	2,084	0.83%	2.58%	27.13	241,010	78.85
CA*	27,847	6,666	47	34,560	2.73%	39.18%	24.89	1,090,261	217.47
CO*	2,760	584	-	3,344	0.94%	2.29%	15.07	187,582	88.47
CT*	889	310	-	1,199	0.73%	0.99%	18.21	105,608	61.13
DC	606	39	-	645	1.77%	0.28%	9.43	11,637	86.60
DE	200	90	-	290	0.56%	0.23%	17.44	32,114	52.29
FL	4,544	1,220	-	5,764	0.70%	5.79%	22.05	646,159	59.68
GA	2,845	575	-	3,420	0.49%	2.09%	13.40	329,427	43.57
HI	658	78	1	737	1.56%	0.84%	25.03	41,488	129.87
IA	359	159	-	518	0.22%	0.32%	13.63	112,503	22.37
ID	177	79	-	256	0.31%	0.28%	24.05	69,592	35.10
IL	1,752	506	-	2,258	0.52%	2.41%	23.48	360,936	41.62
IN	572	275	-	847	0.28%	0.79%	20.41	217,486	25.83
KS	815	104	-	919	0.27%	0.35%	8.47	102,257	26.73
KY	386	103	-	489	0.18%	0.33%	14.84	146,046	16.24
LA	249	81	-	330	0.14%	0.23%	15.58	135,647	11.03
MA*	3,968	431	-	4,399	0.95%	2.36%	11.78	190,669	75.11
MD*	2,334	564	-	2,898	0.85%	1.97%	14.89	178,550	71.43
ME*	471	137	-	608	0.54%	0.33%	11.85	46,806	53.85
MI	1,232	398	-	1,630	0.38%	1.48%	19.88	301,569	32.42
MN*	953	234	-	1,187	0.44%	1.05%	19.47	186,471	41.19
MO	1,841	232	-	2,073	0.30%	0.76%	8.09	198,855	27.37
MS	210	72	-	282	0.08%	0.11%	8.67	106,375	8.19
MT	100	102	-	202	0.18%	0.12%	13.48	52,570	25.63
NC	1,808	497	-	2,305	0.42%	1.79%	17.08	336,172	37.92
ND	77	57	-	134	0.10%	0.04%	5.92	28,228	10.43
NE	258	80	-	338	0.22%	0.21%	13.84	74,358	24.24
NH	220	108	-	328	0.54%	0.33%	22.24	47,611	53.79
NJ*	1,030	553	-	1,583	0.88%	2.87%	39.79	253,690	70.71
NM	278	123	-	401	0.34%	0.31%	16.97	70,043	32.47
NV*	919	335	-	1,254	0.97%	1.09%	19.08	87,202	78.83
NY*	5,790	837	-	6,627	0.83%	4.37%	14.49	407,453	49.15
OH	1,608	354	-	1,962	0.32%	1.58%	13.78	383,563	29.73
OK	334	658	-	992	0.31%	0.62%	13.78	156,694	34.68
OR*	1,578	436	-	2,014	1.24%	2.13%	23.21	132,104	111.56
PA	1,937	494	-	2,431	0.41%	2.06%	18.65	395,541	35.39
RI*	472	37	-	509	0.55%	0.21%	9.12	29,602	43.92
SC	598	175	-	773	0.23%	0.54%	15.29	185,591	23.24
SD	88	67	-	155	0.14%	0.06%	8.98	35,206	15.78
TN	1,124	230	-	1,354	0.29%	0.87%	14.18	235,153	28.35
TX	3,995	936	-	4,931	0.45%	4.83%	21.53	842,752	36.99
UT	1,613	239	-	1,852	0.80%	1.05%	12.48	101,309	73.10
VA	1,900	732	-	2,632	0.58%	1.98%	16.49	266,762	50.95
VT*	688	74	-	762	1.15%	0.29%	8.42	19,221	102.46
WA*	2,954	715	-	3,669	1.27%	4.07%	24.33	248,277	118.48
WI	607	196	-	803	0.31%	0.75%	20.57	190,144	28.41
WV	197	77	-	274	0.13%	0.09%	7.42	55,343	11.26
WY	92	75	-	167	0.14%	0.04%	5.53	23,177	15.99
U.S.	88,404	21,740	49	110,193	0.78%	100.00%	19.93	9,996,835.07	67.11

REGISTRATIONS

EV registrations as a share of all registered light-duty vehicles are 0.8 percent (as of December 31, 2021). There are nearly 283 million registered light vehicles in the U.S.

In 2021, California accounted for nearly 40 percent of all registered light-duty EVs in the U.S.

States with highest portion of total EVs registered in the U.S.:

1. CA* (860,256, 39%)
2. FL (127,123, 5.8%)
3. TX (106,157, 4.8%)
4. NY* (96,055, 4.4%)
5. WA* (89,281, 4.1%)
6. NJ* (62,994, 2.9%)
7. AZ (56,548, 2.6%)
8. IL (53,024, 2.4%)
9. MA* (51,840, 2.4%)
10. CO* (50,387, 2.3%)

States with highest share of registered EVs per 10,000 residents:

1. CA*
2. HI
3. WA*
4. OR*
5. VT*
6. CO*
7. DC
8. AZ
9. NV
10. MA*

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*Denotes states that have adopted California's ZEV program; **Hydrogen count denotes stations;

*** VIO is vehicles in operation; **** State share of U.S. Total;

***** Calculated at 1:7 ratio at 25 percent of the existing state fleet. Ratio derived from [CEC AB 2127 Report](#) of July 14, 2021

Source: Figures compiled by Alliance for Automotive Innovation with registered vehicle data provided by IHS Markit as of December 31, 2021; Charging information from U.S. Department of Energy Alternative Fuels Data Center, as of 12/31/2021.