

Volume Sold and Estimated Aggregate Gasoline Refining Margin

	Dec-25
Total Gasoline Volume Sold (gallons)*	939,570,000
Estimated Aggregate Gross Margin	\$413,410,800

Note: *Total gasoline volume sold does not include spot pipeline sales and may be considered a conservative estimate as a result.

Volume-Weighted Gasoline Refining Margin

Margin Type	Reported Margin (Dollars per Gallon)
Gross	\$0.44
Net	TBD

Gross Gasoline Refining Margin (By Refiner)

Operating Refinery*	Reported Gross Margin (Dollars per Gallon)
Refiner 1	\$0.50
Refiner 2	\$0.29
Refiner 3	\$0.29
Refiner 4	

Net Gasoline Refining Margin (By Refiner)

Operating Refinery*	Reported Net Margin (Dollars per Gallon)
Refiner 1	TBD
Refiner 2	TBD
Refiner 3	TBD
Refiner 4	

Note: *Operators with more than one refinery within California

Aggregated Data Reported - December 2025

Product	Volume (Thousand Gallons)	Price (Dollars per Gallon)	LCFS (Dollars per Gallon)	Cap and Trade (Dollars per Gallon)
Crude Domestic	649,746	\$1.52	N/A	N/A
Crude Foreign	1,255,232	\$1.53	N/A	N/A
Unbranded Rack	281,534	\$1.77	\$0.14	\$0.24
Branded Rack	43,513	\$2.10	\$0.14	\$0.24
Bulk	320,460	\$1.90	N/A	\$0.00
Spot Pipeline	137,011	\$1.85	N/A	\$0.00
Dealer Tankwagon	257,777	\$2.34	\$0.14	\$0.24
Internally Priced Sales	36,286	\$1.77	\$0.14	\$0.24

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Phillips 66 provides notice of its plan to cease operations at Los Angeles-area refinery

October 16, 2024

- Facility expects to cease operations in the fourth quarter of 2025
- Company will work with the state of California to supply fuel markets and meet ongoing consumer demand

HOUSTON--(BUSINESS WIRE)-- Phillips 66 (NYSE: PSX) announced plans to cease operations at its Los Angeles-area refinery in the fourth quarter of 2025 and will work with the state of California to supply fuel markets and meet ongoing consumer demand.

"We understand this decision has an impact on our employees, contractors and the broader community," said Mark Lashier, chairman and CEO of Phillips 66. "We will work to help and support them through this transition." Approximately 600 employees and 300 contractors currently operate the Los Angeles-area refinery.

"With the long-term sustainability of our Los Angeles Refinery uncertain and affected by market dynamics, we are working with leading land development firms to evaluate the future use of our unique and strategically located properties near the Port of Los Angeles," said Lashier. "Phillips 66 remains committed to serving California and will continue to take the necessary steps to meet our commercial and customer demands."

As the California Energy Commission's analysis has indicated, expanding supply capabilities will be critical. Phillips 66 supports these efforts and will work with California to maintain current levels and potentially increase supplies to meet consumer needs. The company will supply gasoline from sources inside and outside its refining network as well as renewable diesel and sustainable aviation fuels from its Rodeo Renewable Energy Complex in the San Francisco Bay area.

Phillips 66 has engaged [Catellus Development Corporation](#) and [Deca Companies](#), two leading real estate development firms, to evaluate the future use of the 650-acre sites in Wilmington, California, and Carson, California. The firms bring strong track records of solving complex redevelopment challenges and will collaborate with Phillips 66 in an advisory role to advance potential commercial development options that support the regional economy and other key stakeholder objectives.

"These sites offer an opportunity to create a transformational project that can support the environment, generate economic development, create jobs and improve the region's critical infrastructure," Lashier said.

About Phillips 66

Phillips 66 (NYSE: PSX) is a leading integrated downstream energy provider that manufactures, transports and markets products that drive the global economy. The company's portfolio includes Midstream, Chemicals, Refining, Marketing and Specialties, and Renewable Fuels businesses. Headquartered in Houston, Phillips 66 has employees around the globe who are committed to safely and reliably providing energy and improving lives while pursuing a lower-carbon future. For more information, visit phillips66.com or follow [@Phillips66Co](#) on LinkedIn.

CAUTIONARY STATEMENT FOR THE PURPOSES OF THE "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

This news release contains forward-looking statements within the meaning of the federal securities laws relating to Phillips 66's operations. Words such as "anticipated," "estimated," "expected," "planned," "scheduled," "targeted," "believe," "continue," "Intend," "will," "would," "objective," "goal," "project," "efforts," "strategies" and similar expressions that convey the prospective nature of events or outcomes generally indicate forward-looking statements. However, the absence of these words does not mean that a statement is not forward-looking. Forward-looking statements included in this news release are based on management's expectations, estimates and projections as of the date they are made. These statements are not guarantees of future events or performance, and you should not unduly rely on them as they involve certain risks, uncertainties and assumptions that are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecast in such forward-looking statements. Factors that could cause actual results or events to differ materially from those described in the forward-looking statements include: changes in governmental policies or laws that relate to our operations, including regulations that seek to limit or restrict refining, marketing and midstream operations or regulate profits, pricing, or taxation of our products or feedstocks, or other regulations that restrict feedstock imports or product exports; our ability to timely obtain or maintain permits necessary for projects; fluctuations in NGL, crude oil, refined petroleum, renewable fuels and natural gas prices, and refining, marketing and petrochemical margins; the effects of any widespread public health crisis and its negative impact on commercial activity and demand for refined petroleum or renewable fuels products; changes to worldwide government policies relating to renewable fuels and greenhouse gas emissions that adversely affect programs including the renewable fuel standards program, low carbon fuel standards and tax credits for biofuels; unexpected changes in costs for constructing, modifying or operating our facilities; our ability to successfully complete, or any material delay in the completion of, any asset disposition, acquisition or conversion that we may pursue; unexpected difficulties in manufacturing, refining or transporting our products; the level and success of drilling and production volumes around our midstream assets; risks and uncertainties with respect to the actions of actual or potential competitive suppliers and transporters of refined petroleum products, renewable fuels or specialty products; lack of, or disruptions in, adequate and reliable transportation for our products; potential liability from litigation or for remedial actions, including removal and reclamation obligations under environmental regulations; failure to complete construction of capital projects on time and within budget; our ability to comply with governmental regulations or make capital expenditures to maintain compliance with laws; limited access to capital or significantly higher cost of capital related to illiquidity or uncertainty in the domestic or international financial markets, which may also impact our ability to repurchase shares and declare and pay dividends; potential disruption of our operations due to accidents, weather events, including as a result of climate change, acts of terrorism or cyberattacks; general domestic and international economic and political developments, including armed hostilities (such as the Russia-Ukraine war), expropriation of assets, and other diplomatic developments; international monetary conditions and exchange controls; changes in estimates or projections used to assess fair value of intangible assets, goodwill and property and equipment and/or strategic decisions with respect to our asset portfolio that cause impairment charges; investments required, or reduced demand for products, as a result of environmental rules and regulations; changes in tax, environmental and other laws and regulations (including alternative energy mandates); political and societal concerns about climate change that could result in changes to our business or increase expenditures, including litigation-related expenses; the operation, financing and distribution decisions of equity affiliates we do not control; and other economic, business, competitive and/or regulatory factors affecting Phillips 66's businesses generally as set forth in our filings with the Securities and Exchange Commission. Phillips 66 is under no obligation (and expressly disclaims any such obligation) to update or alter its forward-looking statements, whether as a result of new information, future events or otherwise.

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Source: Phillips 66



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Valero Announces Notice to the California Energy Commission Regarding its Benicia, California, Refinery

April 16, 2025

SAN ANTONIO--(BUSINESS WIRE)-- Valero Energy Corporation (NYSE: VLO, "Valero") announced today that its subsidiary, Valero Refining Company-California, has submitted notice to the California Energy Commission of its current intent to idle, restructure, or cease refining operations at Valero's Benicia Refinery by the end of April 2026. Valero continues to evaluate strategic alternatives for its remaining operations in California. "We understand the impact that this may have on our employees, business partners, and community, and will continue to work with them through this period," said Lane Riggs, Chairman, CEO and President of Valero.

In connection with the evaluation of strategic alternatives for Valero's operations in California, a combined pre-tax impairment charge of \$1.1 billion was recorded for the Benicia and Wilmington refineries, and is expected to be treated as a special item and excluded from first quarter 2025 adjusted earnings. Also included in this amount is the recognition of expected asset retirement obligations of \$337 million as of March 31, 2025.

About Valero

Valero Energy Corporation, through its subsidiaries (collectively, Valero), is a multinational manufacturer and marketer of petroleum-based and low-carbon liquid transportation fuels and petrochemical products, and sells its products primarily in the United States (U.S.), Canada, the United Kingdom (U.K.), Ireland and Latin America. Valero owns 15 petroleum refineries located in the U.S., Canada and the U.K. with a combined throughput capacity of approximately 3.2 million barrels per day. Valero is a joint venture member in Diamond Green Diesel Holdings LLC, which produces low-carbon fuels including renewable diesel and sustainable aviation fuel (SAF), with a production capacity of approximately 1.2 million gallons per year in the U.S. Gulf Coast region. See our annual report on Form 10-K for more information on SAF.

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Statements contained in this press release that state Valero's or management's expectations or predictions of the future are forward-looking statements intended to be covered by the safe harbor provisions of the Securities Act of 1933 and the Securities Exchange Act of 1934. The words "evaluate," "believe," "potential," "expect," "should," "estimates," "intend," "target," "commitment," "plans," "forecast," "guidance" and other similar expressions identify forward-looking statements. Forward-looking statements in this release include statements relating to Valero's actions and operations in California, expected timing and cost of obligations, future market and industry conditions, and future operating and financial performance, among other matters. It is important to note that actual results could differ materially from those projected in such forward-looking statements based on numerous factors, including those outside of Valero's control, such as legislative or political changes or developments, market dynamics, cyberattacks, weather events, and other matters affecting Valero's operations and financial performance or the demand for Valero's products. These factors also include, but are not limited to, the uncertainties that remain with respect to current or contemplated legal, political or regulatory developments that are adverse to or restrict refining and marketing operations, or that impose taxes or penalties on profits, windfalls, or margins above a certain level, tariffs, global geopolitical and other conflicts and tensions, the impact of inflation on margins and costs, economic activity levels, and the adverse effects the foregoing may have on Valero's business plan, strategy, operations and financial performance. Other unpredictable or unknown factors not discussed in this release could also have material adverse effects on forward-looking statements. Additionally, the asset retirement obligations recorded require significant judgment and are subject to changes in the underlying assumptions. For more information concerning these and other factors that could cause actual results to differ from those expressed or forecasted, see Valero's annual report on Form 10-K, quarterly reports on Form 10-Q, and other reports filed with the Securities and Exchange Commission and available on Valero's website at www.valero.com.

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California Auto Outlook™

Comprehensive Information on the California Vehicle Market

Released January 2026

Covering Fourth Quarter 2025

Publication Sponsored By:



New Vehicle Registrations Predicted to Decline Slightly in 2026

KEY TRENDS IN NEW VEHICLE MARKET



State new vehicle market improved in 2025.

California new light vehicle registrations increased 3.3 percent from 2024 to 2025, slightly below the 4.2 percent improvement in the nation. As expected, the market declined in the fourth quarter, with registrations falling 1.9 percent versus the year earlier.

California new vehicle registrations predicted to decline slightly in 2026.

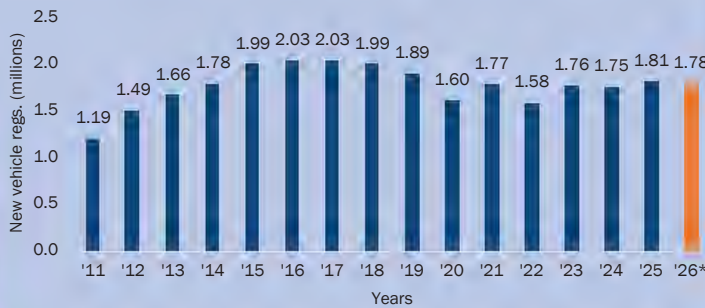
Transaction prices nearing \$50,000 are making new vehicle purchases a stretch for many consumers. Additionally, tariffs will almost certainly lead to rising vehicle prices, the labor market is weakening, and household incomes are barely keeping pace with inflation. However, the news isn't entirely bleak. The average age of vehicles on the road is at a record high, partly due to postponed purchases since the pandemic. This resulting pent-up demand, coupled with the prospects of lower interest rates, should limit any potential decline in sales in 2026. New vehicle registrations this year are predicted to slip below 1.8 million units and fall 1.5 percent from 2025.

ZEV sales declined sharply at the end of 2025.

New registrations of ZEVs headed lower during the last few months of 2025 due to the expiration of federal government tax credits. ZEV share of the new vehicle market was 22.2 percent during the first ten months of 2025 and declined to just 12.8 percent in November and December. Hybrid registrations increased 36 percent last year, and market share reached 19.4 percent, up more than ten percentage points versus points three years earlier.

California Annual New Light Vehicle Registrations - 2011 thru 2026

ANNUAL TRENDS



Historical Data sourced from Experian Automotive. *2026 forecast by Auto Outlook. Historical figures have been updated since the previous release.

California and U.S. New Light Vehicle Registrations 2024 and 2025 Annual Totals

TWO YEAR PERSPECTIVE

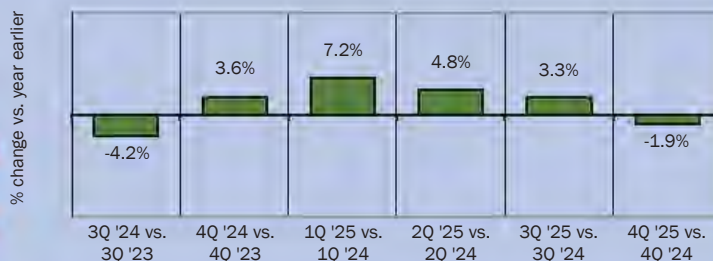


	California			U.S.		
	2024	2025	Change	2024	2025	Change
Registrations						
TOTAL	1,748,689	1,806,762	3.3%	15,457,894	16,102,983	4.2%
Car	478,419	463,741	-3.1%	2,914,244	2,688,920	-7.7%
Light Truck	1,270,270	1,343,021	5.7%	12,543,650	13,414,063	6.9%
Domestic	583,201	586,050	0.5%	6,448,504	6,766,496	4.9%
European	259,825	255,684	-1.6%	1,584,766	1,543,626	-2.6%
Japanese	731,941	774,618	5.8%	5,766,721	5,976,113	3.6%
Other Asian	173,722	190,410	9.6%	1,657,903	1,816,748	9.6%
Market Share						
Car	27.4	25.7	-1.7	18.9	16.7	-2.2
Light Truck	72.6	74.3	1.7	81.1	83.3	2.2
Domestic	33.4	32.4	-1.0	41.7	42.0	0.3
European	14.9	14.2	-0.7	10.3	9.6	-0.7
Japanese	42.0	42.9	0.9	37.3	37.1	-0.2
Other Asian	9.9	10.5	0.6	10.7	11.3	0.6

Data sourced from Experian Automotive. Other Asian brands includes Genesis, Hyundai, Kia, and VinFast.

California Quarterly New Light Vehicle Registrations Percent Change vs. Year Earlier

QUARTERLY RESULTS

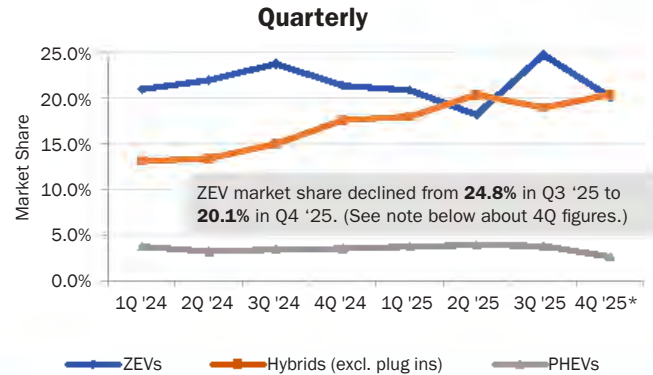
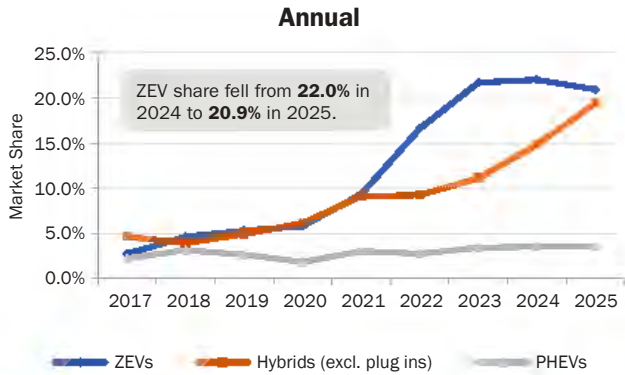


Data sourced from Experian Automotive.

Vehicle Powertrain Dashboard



Electric and Hybrid Vehicle Market Share



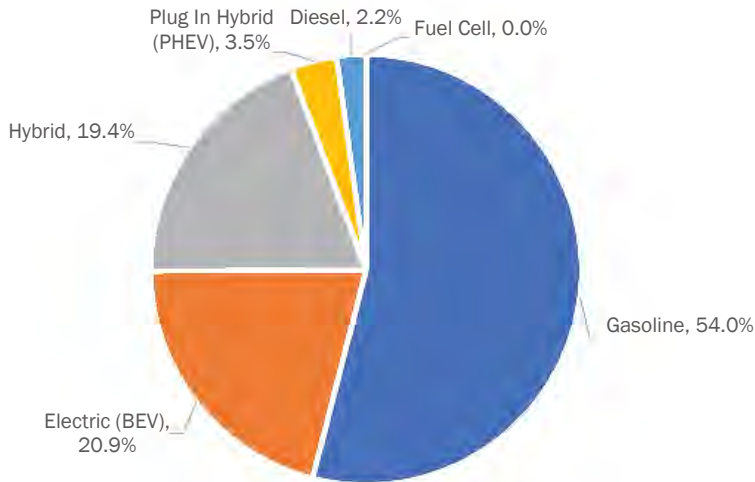
Annual Registrations and Market Share					
	2021	2022	2023	2024	2025
ZEV registrations	164453	262209	382335	385513	378216
ZEV share	9.3%	16.6%	21.7%	22.0%	20.9%
Hybrid regs. (excl. plug ins)	161076	144900	196211	258273	351391
Hybrid share (excl. plug ins)	9.1%	9.2%	11.1%	14.8%	19.4%
PHEV regs.	53166	41919	60517	60839	63701
PHEV share	3.0%	2.7%	3.4%	3.5%	3.5%

Quarterly Registrations and Market Share					
	4Q '24	1Q '25	2Q '25	3Q '25	4Q '25*
ZEV registrations	93166	95561	87464	109099	86092
ZEV share	21.4%	20.9%	18.2%	24.8%	20.1%
Hybrid regs. (excl. plug ins)	76541	82512	98280	83540	87059
Hybrid share (excl. plug ins)	17.6%	18.0%	20.4%	19.0%	20.4%
PHEV regs.	15454	17055	18885	16702	11059
PHEV share	3.5%	3.7%	3.9%	3.8%	2.6%

*Due to customary processing delays, vehicle registration data lags the reporting of actual sales. This has impacted the measurement of ZEV market share during the last few months of 2025. ZEV sales were high in the second half of September due to the expiration of federal government tax credits, but many of these transactions were likely recorded as October registrations, inflating the measurement of BEV share in 4Q '25. BEV share for the entire fourth quarter (October through December) was 20.1 percent vs. just 12.8% in November and December. The two-month figure is more reflective of BEV share following the expiration of the tax credits.

Data sourced from Experian Automotive. ZEVs are full battery electric vehicles and include fuel cell vehicles. PHEVs are plug in hybrids.

Market Share for all Powertrain Types - 2025



- Gasoline powered vehicles accounted for 54.0 percent of state new vehicle registrations in 2025.
- ICE vehicle market share (including gasoline and diesel vehicles) was 56.2 percent last year, down from 59.7 percent in 2024. ICE vehicle share should move slightly higher due to the expiration of federal government ZEV incentives, while sales of hybrids should continue to accelerate this year.
- Combined share for BEVs, PHEVs, hybrids, and fuel cell vehicles was 43.8 percent last year, up from just 11.6 percent in 2018.

Data sourced from Experian Automotive.

California and U.S. Markets

20.9%



California ZEV market share 2025

8.2%



U.S. ZEV market share 2025

28.5%



California share of U.S. ZEV registrations 2025

Data sourced from Experian Automotive.

Vehicle Powertrain Dashboard



Make and Model Registrations for Hybrids, ZEVs, and PHEVs in California

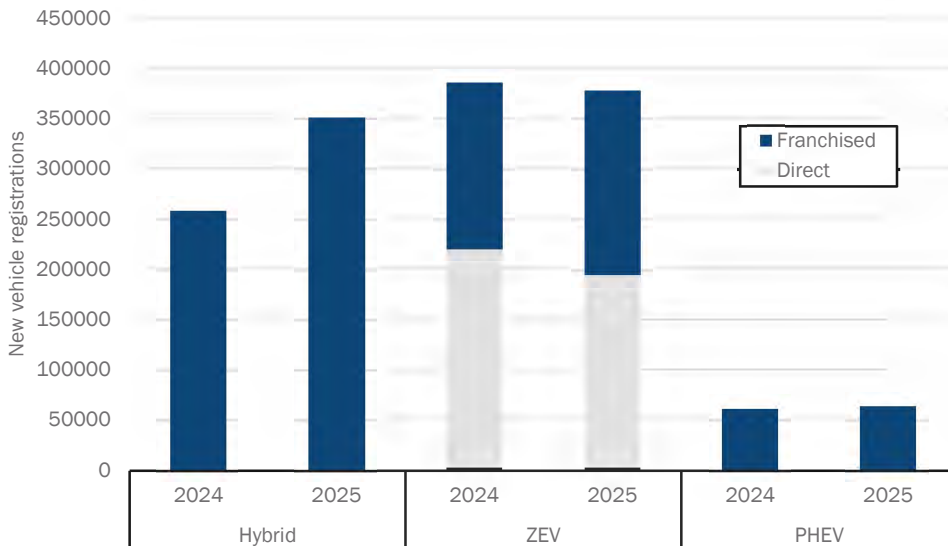
California New Zero Emission Vehicle Registrations by Make 2024 and 2025 Annual Totals						
	Registrations			Market Share (%)		
	2024	2025	% Change	2024	2025	Change
TOTAL	385,513	378,216	-1.9			
Acura	1,102	4,488	307.3	0.3	1.2	0.9
Audi	10,071	12,484	24.0	2.6	3.3	0.7
BMW	18,430	17,520	-4.9	4.8	4.6	-0.2
Cadillac	5,062	7,906	56.2	1.3	2.1	0.8
Chevrolet	13,840	18,837	36.1	3.6	5.0	1.4
Dodge	0	833	-	0.0	0.2	0.2
Ford	17,184	19,245	12.0	4.5	5.1	0.6
Genesis	1,744	1,510	-13.4	0.5	0.4	-0.1
GMC	2,579	3,687	43.0	0.7	1.0	0.3
Honda	6,985	14,470	107.2	1.8	3.8	2.0
Hyundai	22,684	25,123	10.8	5.9	6.6	0.7
Jeep	0	1,213	-	0.0	0.3	0.3
Kia	13,890	10,117	-27.2	3.6	2.7	-0.9
Lexus	4,077	2,409	-40.9	1.1	0.6	-0.5
Lucid	2,464	3,910	58.7	0.6	1.0	0.4
Mazda	8	2	-75.0	0.0	0.0	0.0
Mercedes-Benz	17,220	10,946	-36.4	4.5	2.9	-1.6
MINI	870	597	-31.4	0.2	0.2	0.0
Nissan	5,851	5,956	1.8	1.5	1.6	0.1
Other	7,327	2,239	-69.4	1.9	0.6	-1.3
Polestar	1,957	1,139	-41.8	0.5	0.3	-0.2
Porsche	2,244	4,456	98.6	0.6	1.2	0.6
Ram	4	35	775.0	0.0	0.0	0.0
Rivian	12,031	11,133	-7.5	3.1	2.9	-0.2
Subaru	2,625	3,180	21.1	0.7	0.8	0.1
Tesla	202,865	179,656	-11.4	52.6	47.5	-5.1
Toyota	5,948	4,648	-21.9	1.5	1.2	-0.3
Volkswagen	5,435	7,782	43.2	1.4	2.1	0.7
Volvo	1,016	2,695	165.3	0.3	0.7	0.4

Top 25 Selling Hybrid, ZEV, and PHEV Models - 2025

Rank	Model	Type	Regs.
1	Tesla Model Y	ZEV	110,120
2	Toyota Camry	Hybrid	62,294
3	Tesla Model 3	ZEV	53,989
4	Honda CR-V	Hybrid	34,955
5	Toyota RAV4	Hybrid	30,927
6	Honda Civic	Hybrid	20,984
7	Hyundai Ioniq 5	ZEV	18,919
8	Honda Accord	Hybrid	18,507
9	Toyota Corolla	Hybrid	14,602
10	Honda Prologue	ZEV	14,308
11	Toyota Sienna	Hybrid	14,062
12	Ford Mustang Mach-E	ZEV	12,620
13	Chevrolet Equinox	ZEV	11,754
14	Ford Maverick	Hybrid	11,055
15	Toyota Prius	Hybrid	10,967
16	Toyota Grand Highlander	Hybrid	10,374
17	Rivian R1S	ZEV	8,658
18	Hyundai Tucson	Hybrid	8,496
19	Lexus NX	Hybrid	8,366
20	BMW i4	ZEV	8,274
21	Hyundai Santa Fe	Hybrid	8,184
22	Lexus RX	Hybrid	7,786
23	Lexus ES	Hybrid	7,347
24	Tesla Cybertruck	ZEV	7,312
25	Mazda CX-50	Hybrid	6,742

ZEVs are full battery electric vehicles (BEVs) and fuel cell vehicles. PHEVs are plug in hybrids. Data sourced from Experian Automotive.

Alternative Powertrain Sales by Type of Selling Dealership - 2024 and 2025



- ❑ The graph on the left shows new vehicle registrations for Hybrids, ZEVs, and PHEVs broken down by type of selling dealership. Franchised dealerships accounted for more than **75 percent** of combined sales for all three alternative powertrain types.
- ❑ Franchised dealership share of the ZEV only market increased to **48.4 percent** in 2025, up from **42.6 percent** a year earlier.
- ❑ Hybrid registrations exceeded **350,000 units** last year, all of these vehicles were sold by franchised dealerships.

Data sourced from Experian Automotive.

MODEL RANKINGS

Tesla Model Y is Top-Selling Light Truck in California; Camry Expanded Lead in Passenger Car Market

The table below shows the top five selling models during 2025 in 18 segments. In addition to unit registrations, it also shows each model's market share in its respective segment.



BEST SELLERS IN PRIMARY SEGMENTS

- Small Cars: Honda Civic
- Full Size Pickup: Ford F-Series
- Mid-Size and Large Cars: Toyota Camry
- Compact SUV: Toyota RAV4
- Near Luxury Cars: Tesla Model 3
- 2 Row Mid-Size SUV: Honda Prologue
- Comp./Mid Size Pickup: Toyota Tacoma
- Luxury Mid-Size SUV: Lexus RX

Top Selling Models in Each Segment - New Retail Light Vehicle Registrations (2025)

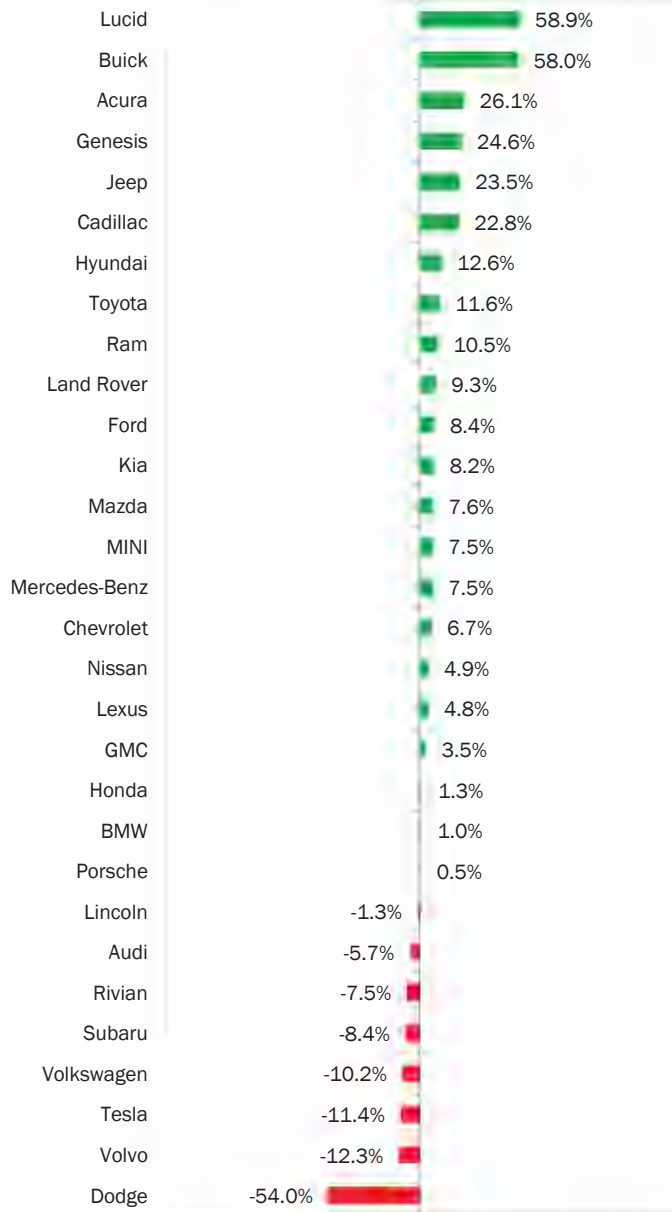
Small Cars			Mid Size and Large Cars			Sports/Pony Cars			Near Luxury Cars		
Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share
Honda Civic	53085	30.4	Toyota Camry	62324	50.0	Ford Mustang	4458	44.2	Tesla Model 3	53989	48.5
Toyota Corolla	39208	22.5	Honda Accord	30455	24.4	Toyota 86	2228	22.1	Lexus ES	10512	9.4
Toyota Prius	15888	9.1	Nissan Altima	10079	8.1	Mazda MX5	1464	14.5	BMW i4	8274	7.4
Kia K4/Forte	15352	8.8	Kia K5	7268	5.8	Subaru BRZ	611	6.1	Mercedes C-Class	7588	6.8
Nissan Sentra	14954	8.6	Hyundai Sonata	6803	5.5	Nissan Z	577	5.7	BMW 3-Series	6296	5.7
Luxury and High End Sports Cars			Compact/Mid Size Pickup			Full Size Pickup			Mini Van		
Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share
BMW 5-Series	3373	7.8	Toyota Tacoma	45258	51.3	Ford F-Series	39502	26.6	Toyota Sienna	14062	40.4
Lucid Air	3338	7.7	Ford Maverick	14904	16.9	Chevrolet Silverado	33634	22.7	Kia Carnival	8466	24.3
Mercedes E-Class	3212	7.4	Chevrolet Colorado	6798	7.7	Ram Pickup	20953	14.1	Honda Odyssey	7046	20.2
BMW i5	3193	7.4	Ford Ranger	5310	6.0	GMC Sierra	19689	13.3	Chrysler Pacifica	3298	9.5
Mercedes CLE-Class	3104	7.2	Nissan Frontier	4892	5.5	Toyota Tundra	15471	10.4	Volkswagen ID.Buzz	1431	4.1
Large Van			Subcompact SUV			Compact SUV			2 Row Mid Size SUV		
Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share
Ford Transit Connect	9318	37.4	Subaru Crosstrek	18189	15.5	Toyota RAV4	65604	20.8	Honda Prologue	14308	16.4
Mercedes Sprinter	5834	23.4	Honda HR-V	18168	15.5	Honda CR-V	52311	16.6	Ford Mustang Mach-E	12620	14.5
Ram Promaster	3435	13.8	Toyota Corolla Cross	14382	12.3	Chevrolet Equinox	20388	6.5	Hyundai Santa Fe	12545	14.4
Chevrolet Express	2138	8.6	Chevrolet Trax	13301	11.3	Hyundai Ioniq 5	18919	6.0	Subaru Outback	11152	12.8
Ford E-Series	2069	8.3	Nissan Kicks	9542	8.1	Kia Sportage	17524	5.6	Toyota 4Runner	8341	9.6
3 Row Mid Size SUV			Large SUV			Luxury Subcompact SUV			Luxury Compact SUV		
Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share
Toyota Grand Highlan	15598	13.6	Ford Bronco	12480	26.3	Mercedes EQB	4192	15.6	Tesla Model Y	110120	59.0
Ford Explorer	13372	11.6	Chevrolet Tahoe	7339	15.5	Audi Q3	3640	13.6	Lexus NX	15542	8.3
Honda Pilot	11924	10.4	Chevrolet Suburban	5980	12.6	Mercedes GLA-Class	3306	12.3	Mercedes GLC-Class	14815	7.9
Kia Sorento	9506	8.3	Toyota Land Cruiser	5458	11.5	BMW X1	2975	11.1	BMW X3	9480	5.1
Kia Telluride	9099	7.9	GMC Yukon XL	3414	7.2	Audi Q4 E-Tron	2812	10.5	Porsche Macan	6753	3.6
Luxury Mid Size SUV			Luxury Large SUV			Top Selling Passenger Cars			Top Selling Light Trucks		
Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share	Model	Regs.	Share
Lexus RX	17446	16.3	Rivian R1S	8658	19.5	Toyota Camry	62324	13.4	Tesla Model Y	110120	8.2
Mercedes GLE-Class	11411	10.7	Lexus TX	7421	16.7	Tesla Model 3	53989	11.6	Toyota RAV4	65604	4.9
BMW X5	9749	9.1	Land Rover Range Rover	4867	10.9	Honda Civic	53085	11.4	Honda CR-V	52311	3.9
Audi Q6 e-tron	6368	5.9	Cadillac Escalade	4752	10.7	Toyota Corolla	39208	8.5	Toyota Tacoma	45258	3.4
Tesla Model X	5411	5.1	Mercedes GLS-Class	4125	9.3	Honda Accord	30455	6.6	Ford F-Series	39502	2.9

Data sourced from Experian Automotive. Figures for Prius include Prius Prime.

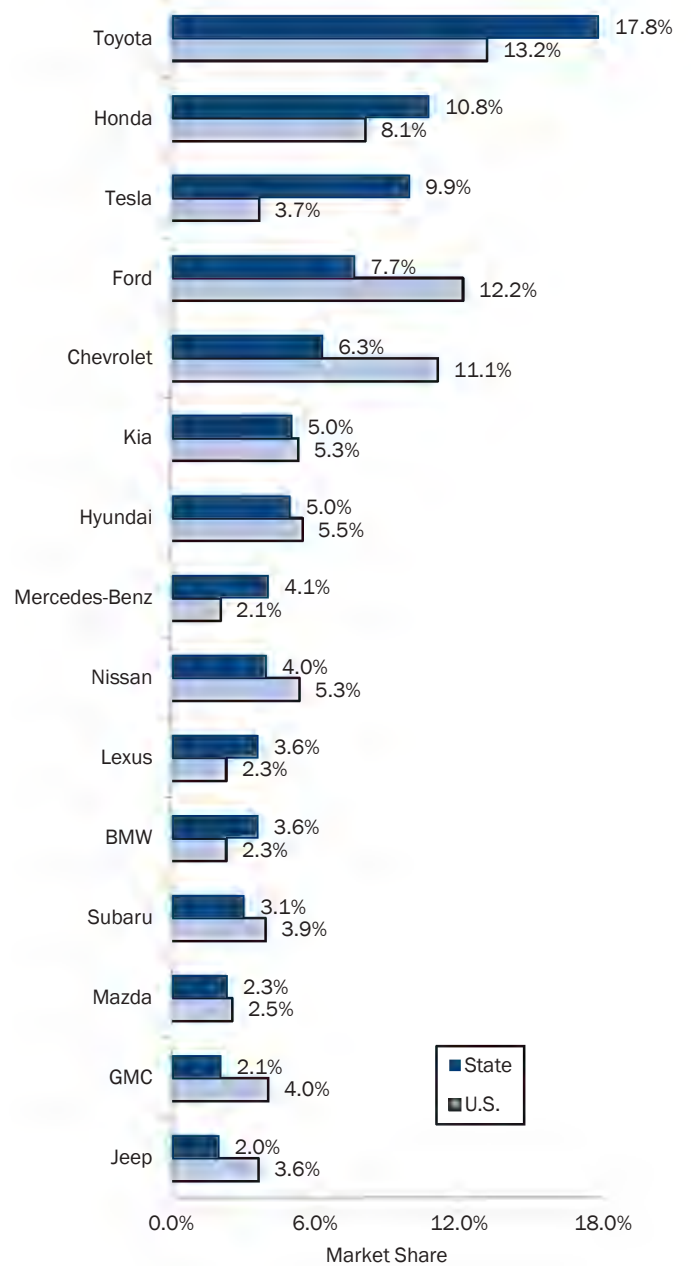
BRAND SUMMARY

Registrations Increased by More Than 20 Percent for Six Brands; Toyota and Honda are Market Leaders

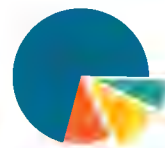
Percent Change in Brand Registrations
2025 vs. 2024
(Top 30 selling brands in CA)



California and U.S. Market Share - 2025
(Top 15 selling brands in CA)



Registrations increased by more than 20 percent for Lucid, Buick, Acura, Genesis, Jeep, and Cadillac



Toyota, Honda, Tesla, Ford, and Chevrolet were market share leaders in California.

BRAND REGISTRATIONS

Detailed Results for All Brands in California Market

California New Car and Light Truck Registrations												
	Fourth Quarter						Annual Totals					
	Registrations			Market Share (%)			Registrations			Market Share (%)		
	4Q '24	4Q '25	% Change	4Q '24	4Q '25	Change	2024	2025	% Change	2024	2025	Change
TOTAL	435,881	427,432	-1.9				1,748,689	1,806,762	3.3			
Acura	3,642	3,568	-2.0	0.8	0.8	0.0	13,583	17,134	26.1	0.8	0.9	0.1
Alfa Romeo	156	97	-37.8	0.0	0.0	0.0	870	493	-43.3	0.0	0.0	0.0
Audi	7,902	7,018	-11.2	1.8	1.6	-0.2	33,559	31,641	-5.7	1.9	1.8	-0.1
BMW	16,740	16,295	-2.7	3.8	3.8	0.0	64,859	65,500	1.0	3.7	3.6	-0.1
Buick	1,191	1,873	57.3	0.3	0.4	0.1	5,734	9,059	58.0	0.3	0.5	0.2
Cadillac	3,610	4,274	18.4	0.8	1.0	0.2	13,632	16,743	22.8	0.8	0.9	0.1
Chevrolet	28,444	24,835	-12.7	6.5	5.8	-0.7	106,985	114,125	6.7	6.1	6.3	0.2
Chrysler	1,022	512	-49.9	0.2	0.1	-0.1	4,647	3,727	-19.8	0.3	0.2	-0.1
Dodge	1,682	1,470	-12.6	0.4	0.3	-0.1	13,247	6,093	-54.0	0.8	0.3	-0.5
Ford	31,282	32,947	5.3	7.2	7.7	0.5	127,598	138,266	8.4	7.3	7.7	0.4
Genesis	2,003	2,261	12.9	0.5	0.5	0.0	7,382	9,196	24.6	0.4	0.5	0.1
GMC	10,005	8,669	-13.4	2.3	2.0	-0.3	36,253	37,533	3.5	2.1	2.1	0.0
Honda	48,661	43,204	-11.2	11.2	10.1	-1.1	191,808	194,343	1.3	11.0	10.8	-0.2
Hyundai	21,045	20,965	-0.4	4.8	4.9	0.1	79,598	89,658	12.6	4.6	5.0	0.4
Ineos	195	206	5.6	0.0	0.0	0.0	833	779	-6.5	0.0	0.0	0.0
Infiniti	1,006	786	-21.9	0.2	0.2	0.0	4,511	3,190	-29.3	0.3	0.2	-0.1
Jeep	7,630	6,500	-14.8	1.8	1.5	-0.3	29,060	35,903	23.5	1.7	2.0	0.3
Kia	21,613	23,878	10.5	5.0	5.6	0.6	84,057	90,965	8.2	4.8	5.0	0.2
Land Rover	3,886	3,216	-17.2	0.9	0.8	-0.1	13,752	15,028	9.3	0.8	0.8	0.0
Lexus	14,548	15,840	8.9	3.3	3.7	0.4	62,603	65,623	4.8	3.6	3.6	0.0
Lincoln	1,183	962	-18.7	0.3	0.2	-0.1	4,908	4,845	-1.3	0.3	0.3	0.0
Lucid	584	1,315	125.2	0.1	0.3	0.2	2,464	3,910	58.7	0.1	0.2	0.1
Mazda	9,688	8,992	-7.2	2.2	2.1	-0.1	39,190	42,179	7.6	2.2	2.3	0.1
Mercedes-Benz	19,124	17,319	-9.4	4.4	4.1	-0.3	68,433	73,538	7.5	3.9	4.1	0.2
MINI	1,112	1,067	-4.0	0.3	0.2	-0.1	4,027	4,330	7.5	0.2	0.2	0.0
Mitsubishi	749	480	-35.9	0.2	0.1	-0.1	2,920	3,100	6.2	0.2	0.2	0.0
Nissan	16,861	16,946	0.5	3.9	4.0	0.1	68,326	71,700	4.9	3.9	4.0	0.1
Polestar	198	240	21.2	0.0	0.1	0.1	1,957	1,139	-41.8	0.1	0.1	0.0
Porsche	4,561	3,666	-19.6	1.0	0.9	-0.1	16,911	16,992	0.5	1.0	0.9	-0.1
Ram	6,280	6,893	9.8	1.4	1.6	0.2	22,101	24,423	10.5	1.3	1.4	0.1
Rivian	2,983	2,417	-19.0	0.7	0.6	-0.1	12,031	11,133	-7.5	0.7	0.6	-0.1
Subaru	14,910	11,582	-22.3	3.4	2.7	-0.7	60,320	55,281	-8.4	3.4	3.1	-0.3
Tesla	43,402	44,302	2.1	10.0	10.4	0.4	202,865	179,656	-11.4	11.6	9.9	-1.7
Toyota	73,758	81,377	10.3	16.9	19.0	2.1	288,680	322,068	11.6	16.5	17.8	1.3
Volkswagen	7,070	7,652	8.2	1.6	1.8	0.2	31,820	28,576	-10.2	1.8	1.6	-0.2
Volvo	3,878	2,807	-27.6	0.9	0.7	-0.2	14,688	12,876	-12.3	0.8	0.7	-0.1
Other	3,277	1,001	-69.5	0.8	0.2	-0.6	12,477	6,017	-51.8	0.7	0.3	-0.4

Data sourced from Experian Automotive.

The table above shows new light vehicle (car and light truck) registrations in California. Figures are shown for the fourth quarters of 2024 and 2025, and annual totals. Vehicle registrations are recorded based on when the vehicle title information is processed by the state, which typically occurs after the vehicle is sold. The top ten ranked brands for change in market share are shaded yellow. Historical figures have been updated since the previous release.

California Auto Outlook

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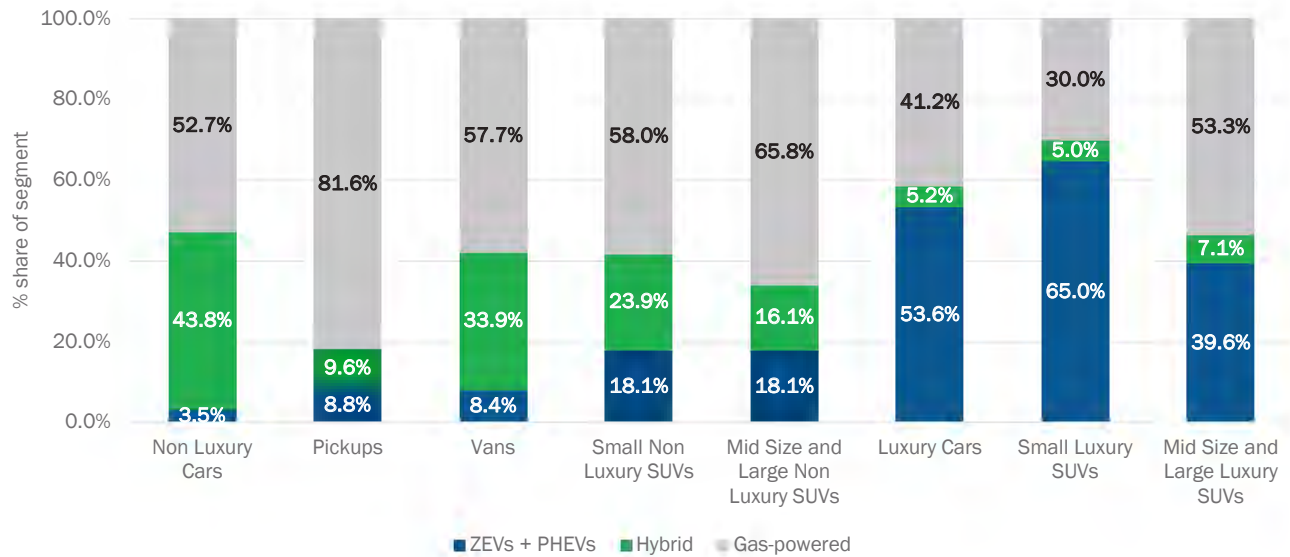
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POWERTRAIN MARKET SHARE FOR VEHICLE SEGMENTS

Hybrid Vehicle Market Share Approached 44 Percent in Non-Luxury Car Segment

Percent Share of Segment Registrations by Powertrain Type - Fourth Quarter 2025



The graph above shows market share by powertrain type for eight vehicle segments. Gray bars show gasoline-powered vehicle market share, green is hybrids, and blue is combined share for ZEVs and PHEVs. Luxury segments are shown on the right side of the graph. ZEV/PHEV share exceeded 53% for Luxury Cars and Small Luxury SUVs. Data sourced from Experian Automotive.

REGIONAL MARKETS IN CALIFORNIA

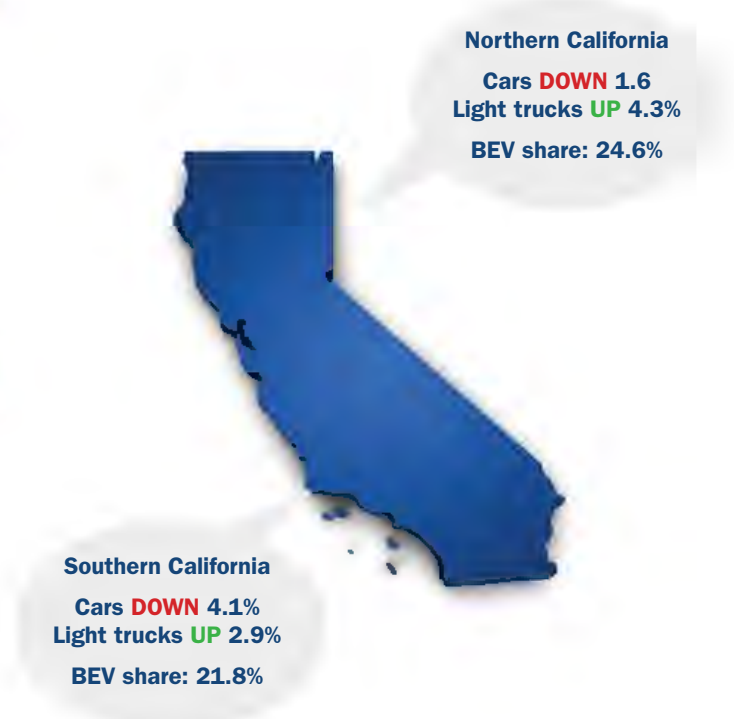
Northern California New Retail Market Improved by 2.8 Percent in 2025

BEV share in Northern California was 24.6 percent

New Retail Registrations (excluding fleets) Annual Totals			
North and South California	2024	2025	% chg.
Statewide Total	1,557,916	1,582,031	1.5%
Cars	431,919	417,679	-3.3%
Light Trucks	1,125,997	1,164,352	3.4%
Northern California	528,824	543,368	2.8%
Cars	136,814	134,592	-1.6%
Light Trucks	392,010	408,776	4.3%
Southern California	1,029,092	1,038,663	0.9%
Cars	295,105	283,087	-4.1%
Light Trucks	733,987	755,576	2.9%
Selected Regional Markets			
San Francisco Bay	295,458	302,000	2.2%
Cars	78,906	76,465	-3.1%
Light Trucks	216,552	225,535	4.1%
LA and Orange Counties	593,878	595,112	0.2%
Cars	174,825	167,978	-3.9%
Light Trucks	419,053	427,134	1.9%
San Diego County	142,477	143,203	0.5%
Cars	35,861	33,370	-6.9%
Light Trucks	106,616	109,833	3.0%

Data sourced from Experian Automotive.

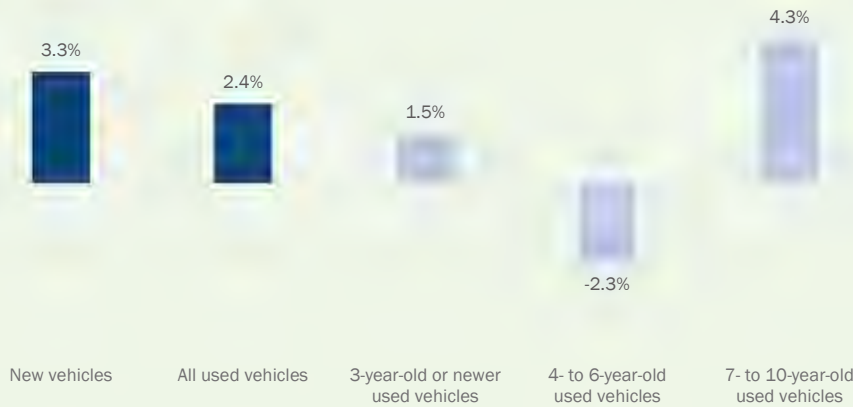
Percent Change in New Retail Registrations - 2025 and 2024



CALIFORNIA USED VEHICLE MARKET

Used Vehicle Market Increased 2.4 Percent from 2024 to 2025

Percent Change in New and Used Vehicle Registrations
2025 vs. 2024



Data sourced from Experian Automotive.

THREE KEY TRENDS IN USED VEHICLE MARKET



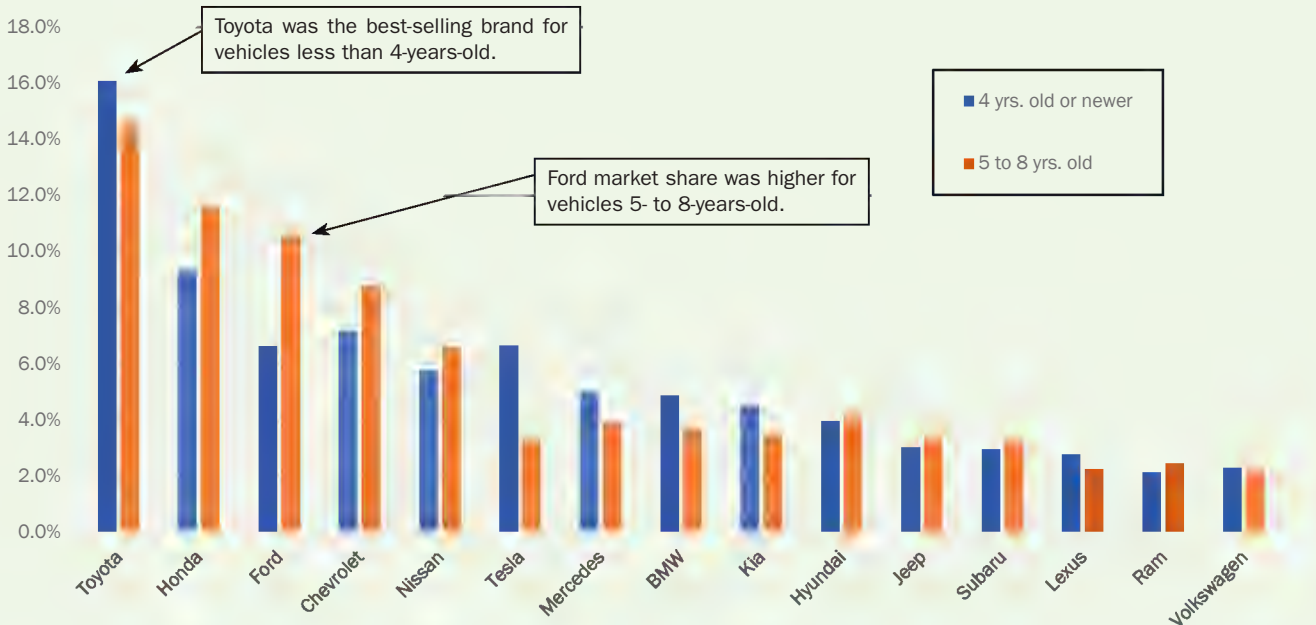
- 01.** The state used vehicle market increased 2.4 last year. The new vehicle market was up 3.3 percent.
- 02.** As shown on the graph to the left, registrations for 7- to 10-year-old used vehicles increased 4.3 percent from 2024 to 2025. The 4- to 6-year old market declined 2.3 percent.
- 03.** Toyota, Honda, Ford, Chevrolet, Nissan, Tesla, Mercedes, BMW, Kia, and Hyundai were the top 10 sellers in 2025. Ford and Honda market shares were higher for older vehicles (see graph below).

USED VEHICLE BRAND MARKET SHARE

Toyota is Top Seller in California Used Vehicle Market

The graph below shows used light vehicle registrations by brand for two age categories: vehicles less than 4-years-old and vehicles 5- to 8-years-old. Brands are positioned from left to right based on overall market share.

Brand Market Share for Top 15 Selling Brands, by Vehicle Age (2025)



Data sourced from Experian Automotive.



Tanya DeRivi

Senior Director, California Climate and Fuels

October 26, 2023

Cap-and-Trade Workshop
California Air Resources Board
1001 I Street,
Sacramento, CA 95814

Submitted via the Workshop Comment Submittal Form
and by email to ctworkshop@arb.ca.gov

Re: Comments on the CARB Public Workshop: Potential Amendments to the Cap-and-Trade Regulation

The Western States Petroleum Association (WSPA) appreciates the opportunity to comment on the California Air Resources Board's (CARB) Public Workshop: Potential Amendments to the Cap-and-Trade Regulation, hosted on October 5, 2023.¹ WSPA is a non-profit trade association that represents companies that import and export, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states, and has been an active participant in air quality planning issues for over 30 years.

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, sets ambitious greenhouse gas (GHG) emission reduction goals that will continue to position the State as a global leader in green technologies. In carrying out these goals, AB 32 directs CARB to adopt regulations to achieve the maximum technologically feasible GHG emission reductions. However, AB 32 places two key *limits* on CARB's broad authority to regulate emissions: (1) CARB must minimize the leakage potential of the actions taken; and (2) CARB must ensure that the emissions reductions are technologically feasible *and* cost-effective.² CARB should carefully consider these factors in revising the Cap-and-Trade program.

WSPA supports CARB's objective to adopt a 2030 reduction target for the Cap-and-Trade program that can maintain a steady and stable carbon market in California. Market-based approaches like the Cap-and-Trade program will help California make significant progress towards its emissions reduction goals while ensuring that these reductions are cost-effective.

WSPA encourages CARB to integrate carbon-negative technologies into the Cap-and-Trade framework to support their successful development and use. Including carbon capture, utilization, and storage (CCUS) and carbon dioxide removal (CDR) technology within the Cap-and-Trade program will be critical to achieving the State's decarbonization objectives. As CARB emphasized in the 2022 Scoping Plan Update, it will not be possible to meet the 2045 carbon neutrality target without the deployment CCUS and CDR technologies at significant scale. The Scoping Plan set targets for 20 million metric tons of carbon dioxide equivalents (MMTCO_{2e}) removal and capture by 2030 and 100 MMTCO_{2e} by 2045. However, deploying CDR and CCUS

¹ CARB. California Public Workshop: Potential Amendments to the Cap-and-Trade Regulation. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-10/nc-CapTradeWorkshop_Oct052023_0.pdf and https://ww2.arb.ca.gov/sites/default/files/2023-10/nc-CapTradeWorkshop_Oct052023_afternoon_0.pdf. Accessed: October 2023.

² AB 32. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32. Accessed: October 2023.

technologies is currently infeasible at scale due to cost, technology readiness, and permitting barriers that delay even pilot projects. It is therefore imperative that CARB incentivize research and investment to support deployment of CCUS and CDR technologies at the scales required to meet the State's climate goals.

CARB must also ensure that the Cap-and-Trade amendments are consistent with other legislative goals. Senate Bill (SB) X1-2 (2023) directs State agencies to evaluate measures to ensure that petroleum and alternative transportation fuels are adequate, affordable, reliable, and equitable. In updating the Cap-and-Trade Regulation, CARB must consider impacts to gasoline costs consistent with SB X1-2. According to the California Energy Commission, the Cap-and-Trade Regulation and the Low Carbon Fuel Standard (LCFS) together add approximately 39 cents per gallon to the cost of gasoline.³ The natural gas sector recently experienced similar supply constraints during periods of strong demand, challenging suppliers to deliver an adequate supply of affordable liquid fuels. The impacts of these cost increases are likely to be significant for California consumers. California continues to face serious supply constraints for transportation fuels, leading energy affordability to be a pressing priority for many Californians. The legislature recognized the importance of these impacts in enacting SB X1-2. Given these already-significant impacts, it is critical for CARB to ensure that its proposed Cap-and-Trade Regulation amendments do not considerably increase California fuel costs. WSPA is concerned that proposed amendments to the Cap-and-Trade Regulation could further compromise the supply reliability of critical transportation fuels, a consequence of which could increase energy costs and further burden California drivers, conflicting with clear legislative priorities in SB X1-2.

Overall, WSPA encourages CARB to adopt a Cap-and-Trade program that can maintain a steady and stable carbon market in California, while facilitating the continued development of critical carbon-negative technologies and integrating these technologies into the Cap-and-Trade framework. WSPA also supports CARB's proposal to expand biogenic emission exemptions within the Cap-and-Trade program to recognize the growth of biofuels within the State since 2010. However, WSPA strongly opposes CARB's inclusion of 'hypothetical' reductions for 2021-2024 budgets when assessing allocation cap adjustments for 2025-2030. Retrospective or cumulative allowance mechanisms accounting for these 'hypothetical' reductions would lead to unrealistic reduction requirements in allowances allocated to industrial entities and natural gas suppliers through potential Cap Adjustment Factors (CAFs) changes.

³ CEC. 2023. California Oil Refinery Cost Disclosure Act Monthly Report: Aggregated Data Reported. July. Available at: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/california-oil-refinery-cost-disclosure>. Accessed: October 2023.

Our detailed comments are provided below:

1. CARB should not reduce industrial assistance allocations for 2025-2030 on 'hypothetical' reductions for historical inventories or allowance budgets.

CARB presented three scenarios that would adjust the 2025-2030 annual allowance budgets based on specific GHG reduction targets. These targets are 40%, 48%, or 55% from 1990 levels by 2030. As part of these adjustments, CARB presented hypothetical linear decline scenarios for 2021 to 2030 that estimated allowance reductions that *could have* been achieved beyond the 2016 Cap-and-Trade Regulation, based on information from the 2022 Scoping Plan Update, the updated 2021 GHG Emission Inventory, and recent State climate policy. The proposed 2025-2030 adjustment includes industrial assistance allocations that would decrease based on what could have been achieved under the hypothetical linear decline scenarios. For example, CARB's first scenario, based on a 40% GHG reduction target, would reduce initial 2021 allowances by **11.5 million**. In calculating this proposed allocation adjustment, CARB first determined the total reductions achieved between 2012 and 2015, as reflected by the 2017 and 2022 GHG inventories—13.7 MMTCO_{2e}— weighted by the level of Cap-and-Trade program participation, based on the percentage of AB 32 emission sources covered by the program—77%, as discussed in its July 27 workshop.⁴ WSPA would caution that 77% of 13.7 MMTCO_{2e} should be 10.5 MMTCO_{2e}. CARB then applied this *same* level of reduction to *all* years from 2021 to 2030, based on a supposed 'linear decline.' According to this method, CARB proposed the 'cumulative reduction target' would be 115 million allowances based on actual GHG reductions achieved *beyond* the targeted levels. To help ensure such a substantial reduction adheres to the original AB 32 cost effectiveness requirements, WSPA urges that any allowances removed from the program only be removed from those available in the price ceiling.

However, as WSPA has previously emphasized, adjusting the 2030 emission target based on actual achieved reductions in previous years will severely impact the stability and predictability of the Cap-and-Trade program and harm long-term decarbonization planning efforts. CARB's proposed methodology would create a disincentive for companies to take early action to maximize their GHG emissions reductions and set a concerning precedent that would undermine confidence in the Cap-and-Trade program by retroactively manipulating the allowance market. This is contrary to the existing Cap-and-Trade framework, which recognizes early actions and is built around encouraging companies to undertake longer-term, higher-capital investments that are necessary to achieve the State's carbon neutrality goals. CARB should reconsider this 'cumulative reduction target' method and assure companies that early actions they take will not be used against them to restrict

⁴ CARB. July 27, 2023. California Public Workshop: Potential Amendments to the Cap-and-Trade Regulation. Slide 22. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-07/nc-CapTradeWorkshop_July272023_0.pdf. Accessed: October 2023.

their future activities. The 2030 emission target should be 40% of the 1990 base year (i.e., 199 MMT CO₂e) regardless of the actual GHG inventory values in interim years.

CARB's preferred scenario, based on a reduction target of 48%, creates additional challenges by artificially inflating required reductions well beyond the targets in AB 32. Under the 48% scenario, CARB would require a cumulative reduction of 265 million allowances by 2030, which assumes a 'linear decline' of 26.5 million every year from 2021 to 2030, equivalent to 8% of 1990 base year emissions from all AB 32 covered entities (e.g., 431 MMT CO₂e * 0.77 * 0.08 = 26.5 MMT CO₂e).⁵ CARB would therefore effectively be requiring all covered entities to achieve additional reductions equivalent to 8% of the 1990 base year GHG emissions starting from 2021 in order to meet the 48% reduction goal. However, this level of reduction is inconsistent with CARB's prior findings in the 2022 Scoping Plan Update, where CARB determined that a 48% reduction would be achieved by setting the 2030 budget at 173 million allowances.⁶ Instead, CARB's revised scenario would lower the 2030 budget to 139 million, an additional reduction of nearly 20%. This would place an unnecessary burden upon the California economy to achieve immediate additional emission reductions far greater than the 2022 Scoping Plan Update targets.

For example, all entities that received allowances within the industrial sector would be subject to substantial increases in compliance burdens based on CARB's proposed CAFs incorporating 'hypothetical' cumulative allowance reductions. Under the 2023 Vintage allocations, the total amount of allowances allocated to the industrial sector is approximately 34.6 million.⁷ Using this metric as a baseline and applying the current CAFs, the total allocation (in the aggregate) would decline to approximately 23 million by 2030 under the current Cap-and-Trade program, which represents overall reductions of just over 30%.⁸ However, under CARB's proposed 48% reduction scenario, the allowances to this sector would be cut down to (approximately) 16 million in 2030, a further 30% reduction beyond the current Regulation, which represents a cumulative reduction of approximately 32 million allowances to all entities in the industrial sector between 2025 and 2030.⁹

WSPA urges CARB to revise its methodology for calculating the annual budget and cumulative allowance reductions to eliminate consideration of 'hypothetical' reductions based on actual emissions levels in order to ensure that the Cap-and-Trade program remains consistent with AB 32, AB 398 (2017), and the 2022 Scoping Plan Update.

⁵ CARB. October 5, 2023. Cap-and-Trade Program Workshop: Potential Amendments to the Cap-and-Trade Regulation. Slide 16. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-10/nc-CapTradeWorkshop_Oct052023_0.pdf. Accessed October 2023.

⁶ Ibid.

⁷ CARB. 2022. Cap-and-Trade Program Vintage 2023 Allocation Summary. Available at: <https://ww2.arb.ca.gov/sites/default/files/2022-12/nc-v2023%20Public%20Allocation%20Summary.pdf>. Accessed: October 2023.

⁸ Ramboll calculation based on application of CARB's published CAFs for 2024-2030, and CARB's reported 2023 vintage allocation in the Natural Gas Suppliers sector. Actual allowances are subject to change based on production data.

⁹ Ibid.

2. CARB has not provided stakeholders with information to support a finding that a 55% GHG reduction target compared to 1990 levels is technologically feasible by 2030.

CARB's 55% GHG reduction target scenario is not technologically feasible. In modeling used to support its 2022 Scope Plan Update, CARB found that even a 48% GHG reduction target may not be achievable by 2030. As CARB acknowledged in the July 27th and October 5th workgroup meetings,^{10,11} the Scoping Plan's carbon neutrality target was *only* achievable by relying on a significant amount of mechanical CDR, CCUS, and renewable hydrogen, among other carbon-negative and low-carbon technologies. However, achieving a 48% reduction by 2030 will require significant *additional* reductions that will further depend on these technologies, but at present, these technologies have not been deployed at rates necessary to meet this target. These concerns would only be amplified under a 55% reduction target scenario.

AB 32 requires CARB to consider technological feasibility and cost-effectiveness in regulating GHG emissions. WSPA has expressed concerns on the feasibility of the 55% scenario in previous comment letters.¹² CARB has not provided stakeholders with information to find that a 55% GHG reduction target might be achievable, however, WSPA understands that the Environmental Justice Advisory Committee (EJAC) has requested the 55% scenario be included. If this scenario continues to be included in discussions about the Cap-and-Trade program, CARB must also include modeling of the leakage risks that will result from the reduction when discussing the viability of this scenario.

WSPA continues to urge CARB to consider near-term reductions using readily available technologies, in accordance with AB 32's statutory mandate. CARB must set reduction targets based on achievable limits using these technologies, while facilitating investment in emerging technologies like CDR and CCUS in order to increase the scale at which these technologies can be deployed. Mandating infeasible reductions now will harm these efforts. For similar reasons, CARB must also consider the cost-effectiveness of these reductions in order to comply with AB 32's legislative directive and to encourage investment in CDR and CCUS technologies.

3. CARB should freeze the current allowance caps to allow adequate time to develop and deploy CDR and CCUS technologies.

As detailed above, CARB's proposed methodology for incorporating 'hypothetical' cumulative allowance reductions based on additional reductions achieved in early

¹⁰ CARB. July 27, 2023. California Public Workshop: Potential Amendments to the Cap-and-Trade Regulation. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-07/nc-CapTradeWorkshop_July272023_0.pdf. Accessed: October 2023.

¹¹ CARB. October 5, 2023. Cap-and-Trade Program Workshop: Potential Amendments to the Cap-and-Trade Regulation. Slide 16. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-10/nc-CapTradeWorkshop_Oct052023_0.pdf. Accessed October 2023.

¹² WSPA. 2023. WSPA Comments on 7-27-2023 Cap-and-Trade Workshop. Available at: https://ww2.arb.ca.gov/system/files/webform/public_comments/5326/WSPA%20Cap-and-Trade%20July%202023%20Workshop%20Comments%208-17-2023.pdf. Accessed: October 2023.

implementation years will significantly reduce the 2025-2030 allowance budgets and will result in a dramatic and rapid reduction of allowances allocated to all industrial facilities, far beyond what was anticipated under the previous rulemaking.

CARB's preferred scenario is based on a 48% reduction target, consistent with recommendations from the 2022 Scoping Plan Update. That Scoping Plan determined that the 2030 GHG reduction target should be accelerated from 40% to 48% in order to meet the AB 1279 (2022) target of 85% below 1990 levels by 2045.¹³ However, the Update recognized that achieving this level of reductions is dependent on the *immediate deployment* of CCUS and CDR technology, 20 MMTCO₂e by 2030 and 100 MMTCO₂e by 2045. While WSPA agrees that CCUS and CDR are absolutely necessary elements to achieve a 48% reduction target, consistent with the 2022 Scoping Plan Update, the feasibility of implementing these technologies at the required scale is still uncertain. No such projects have yet been implemented at scale in the State. CARB's 48% reduction scenario anticipates that nearly 20% of the 265 million cumulative allocation reductions would come from the transportation sector. However, these reductions will not be feasible without the deployment of CCUS and CDR technologies. As discussed in WSPA's comments on the AB 32 Scoping Plan Recirculated Environmental Analysis dated October 24, 2022,¹⁴ deploying these technologies will require the State to make substantial changes to streamline and speed-up permitting for CCUS projects. WSPA urges CARB to take action to incorporate the CCS Protocol into the Cap-and-Trade Regulation in order to incentivize petroleum refineries to participate in CCS projects. The current Cap-and-Trade Regulation allows suppliers of CO₂ to subtract emissions from their compliance obligation through a Board-approved carbon capture and geologic sequestration quantification methodology that ensures that the emissions reductions are real, permanent, quantifiable, verifiable, and enforceable. However, the Regulation also requires the Board-approved quantification methodology to be incorporated into the Regulation before it can be used to reduce a compliance obligation.¹⁵ WSPA requests that CARB incorporate a "quantification methodology" (i.e., a CCS protocol) into the Cap-and-Trade Regulation or remove the requirement for incorporating the Board-approved quantification methodology in the Regulation.

Following the adoption of SB 905 (2022),¹⁶ WSPA recommended that CARB work with the Office of Planning and Research to develop an improved project environmental review under the California Environmental Quality Act (CEQA) to ensure that regulatory

¹³ CARB. 2022. 2022 Scoping Plan Update. Available at: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>. Accessed: October 2023.

¹⁴ WSPA. Comments on the Recirculated Draft Environmental Analysis for the Draft 2022 Scoping Plan Update. October 24, 2022. Available at: <https://www.arb.ca.gov/lists/com-attach/35-sp22-recirc-ea-ws-UzICZlCJAmlKPIAP.pdf>. Accessed: October 2023.

¹⁵ CARB. Cap and Trade Regulation Section 95852 (g). 2018. Available at: https://ww2.arb.ca.gov/sites/default/files/2021-02/ct_reg_unofficial.pdf. Accessed October 2023.

¹⁶ SB 905, Chapter 359, Statutes of 2022, Section 71465(a). Available at: https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=20210220SB905. Accessed: October 2023.

proceedings do not unjustly stall or halt these crucial technologies. Other concerns include (1) the lack of clarity of authority between CARB and its sister agencies regarding permitting of technologies, installation of pipelines, and land use authorities and (2) the prohibition of use of pipelines to transport CO₂ until a federal rulemaking is completed by the Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), which could take years to finalize. If not addressed, these issues will cause significant delays and interfere with the State's ability to meet near-term reduction targets.

In light of these potential delays and the centrality of CCUS to the proposed Cap-and-Trade targets, along with the concerns raised in the previous points, WSPA recommends that CARB freeze the reduction of allowance caps under the current Cap-and-Trade program until at least one large-scale CCUS project has been successfully implemented. Once it has been demonstrated that CCUS can be deployed in California and a roadmap has been provided for permitting and infrastructure development, CARB could include an assumed rate of CCUS deployment along with other market signals to determine the appropriate rate of statewide GHG reductions. This approach could result in a non-linear reduction, beginning with gradual reductions in the early years and leading to more rapid decreases in the later years of the program when CCUS technologies are readily available.

Including CCUS under the Cap-and-Trade program would incentivize the deployment of CCUS technologies in line with the 2022 Scoping Plan Update's schedule and will still achieve the same overall reductions without jeopardizing industry's ability to meet the reduction targets or penalizing them for regulatory delays outside of their control. This approach would also be more consistent with AB 32's clear directives that CARB consider technical feasibility and cost-effectiveness in promulgating its regulations.

4. CARB's proposed adjustments to the Cap-and-Trade framework will increase fuel costs in California, which is inconsistent with the legislature's directive in SB X1-2.

CARB has taken several recent actions to address emissions from the transportation sector by increasing the number of zero-emission vehicles (ZEVs). For instance, CARB recently finalized its Advanced Clean Cars II and Advanced Clean Fleets regulations requiring significant increases in ZEV sales through 2035 and 2040.^{17,18} However, CARB has acknowledged that internal combustion engine vehicles will continue to operate in California well past 2035, even with CARB's 100% ZEV sales mandates. Reducing transportation emissions therefore requires CARB to continue to consider and address internal combustion engine vehicles and petroleum and alternative transportation fuels.

¹⁷ CARB. 2022. Advanced Clean Cars II. Available at: <https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii>. Accessed: October 2023.

¹⁸ CARB. 2023. Advanced Clean Fleets. Available at: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets>. Accessed: October 2023.

SB X1-2 requires State agencies to “ensure that the supply of petroleum and alternative transportation fuels is affordable, reliable, equitable, and adequate.”¹⁹ WSPA has been working diligently with the California Energy Commission (CEC) and CARB as they develop the Transportation Fuels Assessment Report and Transportation Fuels Transition Study to facilitate a transition to a carbon neutral transportation sector. Consistent with SB X1-2, this transition must minimize market volatility and impacts to fuel costs.

As proposed, the combined impacts of the Cap-and-Trade and LCFS programs may significantly increase transportation fuel costs. CARB’s proposed adjustments to the Cap-and-Trade allocation cap starting in 2025 will substantially increase the program compliance cost for the industry, as detailed above, which will likely have adverse impacts to transportation fuel costs for consumers. At the same time, CARB is considering a potential step down of the carbon intensity benchmark in 2025 for its LCFS program, which may range from 2%-5%.²⁰ CARB’s Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed LCFS amendments will increase gasoline and diesel cost in 2025 by \$0.47 and \$ 0.59 per gallon, respectively.²¹

These proposed programmatic updates will exacerbate existing state-wide issues that already impact transportation fuel costs. As of July 2023, California’s motor vehicle fuel excise tax rate has increased to \$0.58/gallon.²² This tax is increased every calendar year based on the California Consumer Price Index (CPI) for inflation. The California Legislative Analyst’s Office (LAO) expects the annual inflation to remain at around 4%,²³ which indicates that the tax rate in July 2025 will increase to approximately \$0.62/gallon. Under this tax rate, consumers will already bear heightened fuel transportation costs that will be substantially increased under CARB’s current Cap-and-Trade and LCFS proposals.

The combined impact of these factors will result in increased fuels costs in 2025, counter to the legislature’s express directive in SB X1-2. CARB must account for cumulative cost impacts when designing and updating the suite of regulations that could impact the transportation fuels industry and all Californians.

¹⁹ SB X1-2. Available at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320241SB2. Accessed: October 2023.

²⁰ CARB. May 23, 2023. LCFS Public Workshop: Auto-Acceleration Mechanism and Step Down Benchmark Considerations. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-05/LCFSPresentation_052223_0.pdf. Accessed: October 2023.

²¹ CARB. September 8, 2023. Low Carbon Fuel Standard 2023 Amendments Standardized Regulatory Impact Assessment (SRIA). Available at: https://ww2.arb.ca.gov/sites/default/files/2023-09/lcfs_sria_2023_0.pdf. Accessed: October 2023.

²² California Department of Tax and Fee Administration (CDTFA). Sales Tax Rates for Fuels. Available at: <https://www.cdtfa.ca.gov/taxes-and-fees/sales-tax-rates-for-fuels.htm>. Accessed: October 2023.

²³ California Legislative Analyst’s Office (LAO). November 2022. The 2023-24 Budget: Considering Inflation’s Effects on State Programs Sales Tax Rates for Fuels. Available at: <https://lao.ca.gov/reports/2022/4647/Inflation-Effects-on-State-Programs-111622.pdf>. Accessed: October 2023.

5. CARB should ensure that any post-2030 reductions targets provide adequate flexibility to encourage large-scale reduction projects.

At the outset, as WSPA has previously explained in its comment letter dated August 17 2023,²⁴ CARB requires legislative authorization to extend the Cap-and-Trade program beyond 2030, which includes the proposed 30.3 million allowance target in 2045.²⁵ WSPA encourages CARB to work with the State Legislature to establish legally defensible post-2030 targets that will send clear market signals for the multi-decade capital investments industries will make to deploy decarbonization technologies.

With respect to post-2030 reduction targets, CARB has proposed two options for determining the 2031-2045 allowance budget: (1) capping 2030 allowance at a value that is consistent with emission reduction target below 1990 levels (i.e., 40%, 48%, and 55%) for the scenario (Emission Target Method); or (2) projecting future budgets from an adjusted 2030 allowance cap that incorporates cumulative achieved emissions reductions (Allowance Budget Method). WSPA strongly encourages CARB to base post-2030 budgets on a 2030 value that is consistent with emission reduction target from 1990 levels. This approach aligns with the statewide net-zero goals. In contrast, projecting future budgets based on CARB's target allowance budget exacerbates existing issues with CARB's proposed 2025-2030 budget adjustment, as explained by WSPA in Comment 1, and is not suitable as the starting point or baseline for the future trajectory.

CARB determined in its 2022 Scoping Plan Update that its 2030 reduction target should be accelerated from 40% to 48% in order to achieve AB 1279's 85% reduction target by 2045.²⁶ A 48% reduction target translates to a Cap-and-Trade budget of 173 million allowances in 2030.²⁷ The Emission Target Method reasonably approximates the long-term Cap-and-Trade allowance trajectory under this scenario. By contrast, the Allowance Budget Method uses a starting budget of 139 million allowances in 2030, which represents a 58% reduction from 1990 levels. However, CARB lacks authority to impose these heightened reduction requirements through 2030, which go well beyond the targets set by AB 32. The Allowance Budget Method would *exacerbate* this issue, significantly increasing the stringency of long-term emissions reduction targets without an adequate legal or technical basis. This Method would reduce 235 million additional allowances as compared to the Emission Target

²⁴ WSPA. 2023. WSPA Comments on 7-27-2023 Cap-and-Trade Workshop. Available at: https://ww2.arb.ca.gov/system/files/webform/public_comments/5326/WSPA%20Cap-and-Trade%20July%202023%20Workshop%20Comments%208-17-2023.pdf. Accessed: October 2023.

²⁵ CARB. October 5, 2023. Cap-and-Trade Program Workshop: Potential Amendments to the Cap-and-Trade Regulation. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-10/nc-CapTradeWorkshop_Oct052023_0.pdf. Accessed: October 2023.

²⁶ CARB. 2022. 2022 Scoping Plan Update. Available at: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>. Accessed: October 2023.

²⁷ CARB. October 5, 2023. Cap-and-Trade Program Workshop: Potential Amendments to the Cap-and-Trade Regulation. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-10/nc-CapTradeWorkshop_Oct052023_0.pdf. Accessed October 2023.

Method,²⁸ with over two-thirds of these allowance reductions occurring in the first 5 years (i.e., 2031-2036, Table 1).

Both of these Methods also fail to incorporate needed flexibility for industrial facilities to facilitate long-term reduction strategies. This problem is most apparent under the Allowance Budget Method—this Method is based on a trajectory that falsely assumes the long-term feasibility of all short-term compliance methods and fails to recognize the long lead time for investment in sustainable and low-carbon initiatives. Basing post-2030 allowance budgets on this Method will therefore constrain the ability of industry to further invest in large-scale capital projects that are necessary to achieve the long-term emission targets but may not yield immediate reductions.

However, the Emission Target Method suffers from a similar problem. This Method bases post-2030 allowance budgets on a linear reduction trajectory, which assumes a consistent rate of emissions reductions between 2030 and 2045, using the 2030 target as the starting point and 30.3 million allowances in 2045 as the endpoint. However, this Method is oversimplified and does not fully account for the implementation timelines for large-scale carbon reduction programs.

Table 1. Estimated Annual Allowances (million) Under the 48% Scenario²⁹			
Calendar Year	Option #1: Emission Target Method	Option #2: Allowance Budget Method	Cumulative Allowance Difference From 2031
2030 (base year)	172	139	--
2031	163	132	31
2032	153	125	60
2033	144	117	87
2034	135	110	112
2035	125	103	134
2036	116	96	154
2037	106	88	172
2038	97	81	187
2039	87	74	201
2040	78	67	212
2041	68	59	221

²⁸ Ibid

²⁹ Data for the 2030 base year and 2045 end year are from CARB's October 5th Cap-and-Trade Program Workshop. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-10/nc-CapTradeWorkshop_Oct052023_0.pdf. Accessed October 2023. For the middle years, linear interpolation was tabulated by Ramboll based on the method described by CARB in the slides.

Table 1. Estimated Annual Allowances (million) Under the 48% Scenario²⁹			
Calendar Year	Option #1: Emission Target Method	Option #2: Allowance Budget Method	Cumulative Allowance Difference From 2031
2042	59	52	227
2043	49	45	232
2044	40	38	234
2045	30.3	30.3	235
2031-2045 Total	1450	1215	235

WSPA strongly encourages CARB to adjust its post-2030 reduction targets to better facilitate long-term reduction strategies by imposing fewer reductions in earlier years and increasing reductions in later years. This strategy would still allow California to meet its reduction targets, while being more consistent with the long-term planning and significant up-front capital investment necessary to install large-scale emissions controls. Using this approach, CARB would encourage innovation and would facilitate more cost-effective reductions, consistent with the requirements of AB 32.

6. WSPA supports CARB’s proposal to update biogenic emission exemptions in the Cap-and-Trade program to support low-carbon fuel production and use in California.

WSPA encourages CARB to expand the exemptions for biogenic emissions which are essential for continued production of renewable fuels in California, including sustainable aviation fuels and propane.

Exempting biogenic emissions encourages the continued development of low-carbon and carbon-negative technologies. Biogenic feedstocks can be utilized in hard-to-decarbonize and hard-to-electrify sectors. Electrical grid infrastructure upgrades, as addressed in the 2022 Scoping Plan Update, require extended implementation timelines—biogenic fuels are readily available and help secure near-term emissions reductions while these upgrades are implemented. In addition, increased reliance on renewable generation, combined with significant increases in electricity demand due to the electrification of additional sectors of the economy, may create intermittency or reliability challenges—biogenic fuels can help mitigate these risks by providing reliable, consistent power.

Exempting biogenic emissions is consistent with existing State programs seeking to expand carbon reduction potential in natural and working lands. SB 1383 (2016)³⁰ and ongoing

³⁰ Senate Bill 1383. Short-Lived Climate Pollutant Reduction Law. September 19, 2016. Available at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB1383. Accessed: June 2023.

forestry management programs³¹ will expand the supply of biogenic feedstocks that can be utilized in hard-to-decarbonize and hard-to-electrify sectors.

CARB should ensure that the biogenic fuel provisions in the Cap-and-Trade program align with existing requirements in the LCFS program and the Mandatory Greenhouse Gas Reporting Regulation (MRR). While both the LCFS and Cap-and-Trade programs regulate the transportation fuel production and use in California, there are inconsistencies among these two programs, including program scope and quantification mechanisms. WSPA recommends that CARB form a separate working group to address changes to the MRR that are necessary for consistent reporting and compliance requirements for biogenic fuels across Cap-and-Trade, LCFS, and MRR. The goal of this alignment should be to support the low-carbon transportation fuel production and use in California.

Thank you for considering our comments. We would welcome the opportunity to discuss these concerns in more detail. If you have any immediate questions, please feel free to contact me at tderivi@wspa.org. We look forward to working with you on these important issues.

Sincerely,



Tanya DeRivi
Senior Director, California Climate and Fuels

³¹ CARB. Draft California 2030 Natural and Working Lands Climate Change Implementation Plan, January 2019. Available at: <https://ww2.arb.ca.gov/sites/default/files/2019-06/draft-nwl-ip-040419.pdf>. Accessed: October 2023.



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Senior Director, California Climate and Fuels

May 8, 2024

Cap-and-Trade Workshop
California Air Resources Board
1001 I Street,
Sacramento, CA 95814

Submitted via the Workshop Comment Submittal Form
and by email to ctworkshop@arb.ca.gov

Re: Comments on the April 23, 2024, CARB Public Workshop: Potential Amendments to the Cap-and-Trade Regulation

The Western States Petroleum Association (WSPA) appreciates the opportunity to comment on the California Air Resources Board's (CARB) Cap-and-Trade program public workshop hosted on April 23, 2024.¹ WSPA is a non-profit trade association that represents companies that import and export, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states, and has been an active participant in air quality planning issues for over 30 years.

WSPA supports CARB's objective to adopt a 2030 reduction target for the Cap-and-Trade program that can maintain a steady and stable carbon market in California. Market-based approaches like the Cap-and-Trade program will help California make significant progress towards its emissions reduction goals while ensuring that these reductions are more cost-effective. However, WSPA reiterates, as noted in comment letters for previous workshops, that CARB's proposed updates to the Cap-and-Trade program must be consistent with requirements under Assembly Bill (AB) 32, AB 398, and Senate Bill (SB) 32; should integrate carbon-negative technologies; and should limit cost impacts, consistent with other legislative programs seeking to mitigate consumer burdens related to petroleum and alternative transportation fuels.

CARB's authority to adopt and implement the Cap-and-Trade program is governed by AB 32, SB 32, and AB 398. AB 32, the California Global Warming Solutions Act of 2006, sets ambitious greenhouse gas (GHG) emission reduction goals that will continue to position the State as a global leader in green technologies. In carrying out these goals, AB 32 directs CARB to adopt regulations to achieve the maximum technologically feasible GHG emission reductions, but places key limits on CARB's broad authority to regulate emissions, requiring CARB to minimize the leakage potential of the actions taken, ensure that the emissions reductions are technologically feasible *and* cost-effective, and ensure that any reductions achieved are real, permanent, quantifiable, verifiable, and enforceable.² SB 32, the California Global Warming Solutions Act of 2016, builds on and expands the requirements in AB 32, but reiterates that reduction measures must be technologically feasible and cost-effective.³ AB 398 outlines specific requirements for the Cap-and-Trade program through 2030 intended to limit the program's cost impacts for consumers and industry, including a price ceiling, price containment points, and industry assistance factors.⁴ In particular, in setting a price ceiling, CARB must consider any

¹ CARB. 2024. Cap-and-Trade Program Workshop. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-04/nc-CapTradeWorkshop_Apr232024_1.pdf. Accessed: May 2024.

² AB 32. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32. Accessed: May 2024.

³ California Legislative Information. Senate Bill No. 32. Available at: [Bill Text - SB-32 California Global Warming Solutions Act of 2006: emissions limit](#). Accessed: May 2024.

⁴ California Legislative Information. Assembly Bill No. 398. Available at: [Bill Text - AB-398 California Global Warming Solutions Act of 2006: market-based compliance mechanisms: fire prevention fees: sales and use tax manufacturing exemption](#). Accessed: May 2024.

adverse impacts on businesses, 2020 tier prices of the allowance price containment reserve, leakage potential, the auction reserve price, and the cost per metric ton of greenhouse gas emissions reductions, among other factors. Therefore, in amending the Cap-and-Trade program, CARB is statutorily bound to carefully consider these factors and to account for these legislative priorities. CARB's analysis to date has failed to appropriately quantify and assess potential consumer impacts or leakage risks under various proposed update scenarios, in violation of CARB's statutory mandate.

CARB has also not taken sufficient action to integrate carbon-negative technologies into the Cap-and-Trade program. WSPA has repeatedly emphasized that CARB must incorporate mechanisms within the Cap-and-Trade program to support the successful development and deployment of carbon dioxide removal (CDR) technology, including carbon capture, utilization, and storage (CCUS). As CARB itself has recognized, these technologies are necessary to achieve the State's decarbonization objectives. In the 2022 Scoping Plan for Achieving Carbon Neutrality, CARB found that it will not be possible to meet the 2045 carbon neutrality target without the deployment at scale of CDR and CCUS.⁵ Indeed, the 2022 Scoping Plan Update set targets for 20 million metric tons of carbon dioxide equivalents (MMT CO_2e) removal and capture by 2030 and 100 MMT CO_2e by 2045. However, these targets are currently infeasible due to cost and regulatory barriers that delay even pilot projects. To address these barriers, CARB must incentivize research and investment to support deployment of CCUS and CDR technologies at the scales and expedited timelines required to meet the State's climate goals. Incorporating such mechanisms into the Cap-and-Trade program will make significant progress towards easing existing burdens and increase access to these critical technologies.

CARB has also failed to adequately assess how the proposed Cap-and-Trade Regulation amendments align with other legislative programs seeking to minimize consumer burdens associated with transportation fuels. SB X1-2 (2023) directs State agencies to evaluate measures to ensure that petroleum and alternative transportation fuels are adequate, affordable, reliable, and equitable. According to the California Energy Commission, the existing Cap-and-Trade Regulation and the Low Carbon Fuels Standard (LCFS) together add approximately 42 cents per gallon to the cost of gasoline.⁶ CARB must therefore consider impacts to gasoline costs in updating the Cap-and-Trade Regulation, consistent with this legislative mandate.

Given these already-significant burdens, CARB's proposed amendments to the Cap-and-Trade program are likely to have an impact on transportation fuel supply and costs. In particular, WSPA is concerned that the proposed amendments to the Regulation could exacerbate existing impacts by further compromising the supply reliability of critical transportation fuels, leading to increased energy costs and possibly further burdening California drivers. In enacting SB X1-2, the California legislature recognized the importance of ongoing supply constraints for transportation fuels, leading energy affordability to be a pressing priority for many Californians. Consistent with this clear legislative priority, CARB must ensure that its proposed Cap-and-Trade Regulation amendments do not unreasonably increase California fuel costs.

In response to the April 23, 2024, workshop, WSPA offers the following comments:

⁵ CARB. 2022 Scoping Plan for Achieving Carbon Neutrality. Available at: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>. Accessed: May 2024.

⁶ CEC. 2023. California Oil Refinery Cost Disclosure Act Monthly Report: Aggregated Data Reported. July. Available at: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/california-oil-refinery-cost-disclosure>. Accessed: May 2024.

1. CARB should not base allocations for 2025-2030 on hypothetical reductions from the 2021 to 2024 budgets.

CARB presented three scenarios it has considered that would adjust the 2025-2030 annual allowance budgets based on specific GHG reduction targets (40%, 48%, or 55% from 1990 levels by 2030).⁷ As part of these adjustments, CARB included a “correction” to the share of covered entities and reduced the 2021 through 2030 allowance budget by a total of 13.7 MMTCO_{2e}.

In addition, CARB’s preferred scenario, a 48% GHG reduction target in 2030, means the 2021 through 2030 allowance budget is reduced by an additional 265 MMTCO_{2e}, for a total of 278 MMTCO_{2e} allowances removed with all of these allowances proposed to be removed from the 2025 through 2030 budget. While WSPA agrees with CARB that the Cap-and-Trade program is a cumulative emissions reduction program, this proposal amounts to a significant step change to the allowance budgets going forward. When comparing the 2018 Cap-and-Trade Regulation allowance budgets to those presented as CARB’s preferred 48% in 2030 case, the change results in a decrease of available allowances by 31% in 2030.

This 31% reduction in 2030 is significant and would place an unnecessary burden on the California economy to absorb this change over such a short period of time.

Adopting more aggressive targets is particularly unreasonable, given ongoing challenges in deploying CCUS and CDR. Deploying CDR and CCUS technologies is currently infeasible at scale due to cost, technology readiness, and permitting barriers that delay even pilot projects built into the 2022 Scoping Plan Update that informed the 48% target. While CARB is in the process of developing a CCUS and CDR strategy in accordance with SB 905, CARB’s progress on this strategy has been delayed, and these delays will leave 40 MMTCO_{2e} of assumed reductions by 2030 without a framework to achieve the reductions. Post-2030, the 2022 Scoping Plan Update again includes significant emission reductions attributable to CCUS and CDR. However, without a framework to achieve the reductions, regulated parties and the economy should not bear the cost of these gaps. Without these technologies being available and readily deployable, accelerating reduction targets and increasing stringency of the caps will result in infeasible requirements, in conflict with CARB’s statutory duty under AB 32 and SB 32 to ensure that reduction measures are both cost-effective and technologically feasible.

Further, as WSPA has emphasized in a previous comment letter,⁸ adjusting the 2030 emission target based on actual achieved reductions in previous years will severely impact the stability of the Cap-and-Trade program and could harm long-term decarbonization planning efforts. CARB’s proposed methodology would create a disincentive for companies to take early action to maximize their GHG emissions reductions and set a concerning precedent that would undermine confidence in the Cap-and-Trade program by retroactively manipulating the allowance market. This is contrary to the existing Cap-and-Trade framework, which recognizes early actions and is built around encouraging companies to undertake longer-term, higher-capital investments that are necessary to achieve the State’s long-term carbon

⁷ CARB. 2024. Cap-and-Trade Program Workshop. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-04/nc-CapTradeWorkshop_Apr232024_1.pdf. Accessed: May 2024.

⁸ WSPA. 2023. WSPA Comments on 10-05-2023 Cap-and-Trade Workshop. Available at: https://ww2.arb.ca.gov/system/files/webform/public_comments/6456/WSPA%20Cap-and-Trade%20October%202023%20Workshop%20Comments%2010-26-2023.pdf. Accessed: May 2024.

neutrality goals. This is also contrary to the statutory directive in AB 398 that requires CARB to design regulations to “encourage[] early action to reduce greenhouse gas emissions.”⁹ WSPA urges CARB to reconsider its proposal with the principle to ensure that companies retain sufficient confidence in the predictability of the program so that they invest in early actions that will be essential for long-term compliance.

2. CARB should retain robust allowance banking and address any concerns about market liquidity through monitoring and reporting procedures.

Allowance banking has been an essential part of the Cap-and-Trade program since its inception and has supported a well-functioning market with nearly 100% compliance for regulated entities. Banked allowances provide a strong incentive to regulated entities to take early action to reduce emissions, so that they have more flexibility in the long-term to invest in more extensive decarbonization efforts. As CARB recognized in the April 23 public workshop, allowance banking is also an important cost-containment mechanism, in furtherance of the edicts in AB 32 and SB 32 that CARB ensure that its reduction measures are cost-effective.

CARB is evaluating potential updates to allowance holdings and trading behavior based on concerns about market liquidity. CARB suggested that adjusting the holding limit formula in the context of allowance budget scenarios could address this concern. However, WSPA urges CARB to avoid curtailing holding limits for covered entities as a method of maintaining market liquidity. The holding limit is one of the important cost-containment mechanisms within the program because it encourages early action so that allowances can be banked in anticipation of year-over-year increases in allowance prices. This mechanism serves the purposes of AB 398, which requires CARB to design regulations to “encourage[] early action to reduce greenhouse gas emissions.”¹⁰ Decreasing the number of allowances that can be banked by covered entities would also impact future long-term emission reduction projects. With lower holding limits, industrial facilities will have less flexibility to meet the compliance requirements. WSPA strongly encourages CARB to address concerns about market liquidity due to allowance banking with methods that do not include reducing the holding limit. CARB’s proposal to adjust the current holding limit formula would undermine covered entities’ abilities to achieve cost-effective emission reductions in-line with the program targets, in violation of AB 32 and SB 32.

Rather than limit allowance banking, CARB should instead address market liquidity by updating monitoring and reporting requirements for Voluntarily Associated Entities (VAEs). As WSPA has noted in previous comment letters, the number of VAEs participating in the Cap-and-Trade program has significantly increased in recent years, which raises concerns about their ability to accumulate an outsized proportion of allowances for investment purposes, rather than compliance requirements. Over-participation of VAEs, without appropriate constraints, creates an outsized risk of artificial inflation of allowance prices and restricts market liquidity, since these entities do not need to surrender allowances for compliance. As Slide 15 of CARB’s April 23, 2024, workshop illustrates, a majority of registered market participants are currently VAEs. Rather than limiting allowance banking, CARB should develop tracking and monitoring mechanisms to ensure VAEs’ activities do not disturb market liquidity.

⁹ California Health & Safety Code § 38562(b)(1).

¹⁰ *Ibid*

3. CARB should revise the holding limit formula to reduce market shocks due to the significant reductions proposed in its 2025-2030 Annual Allowance Budget, increasing the holding limits for covered entities to provide additional compliance flexibility.

Under the current Cap-and-Trade program, the maximum number of allowances that can be held in a single year is governed by the holding limit, which is scaled based on the annual allowance budget. CARB is proposing to rapidly decrease annual allowance budgets between 2025 and 2030, in excess of the 2030 48% reduction target in SB 32, as discussed above. These budget decreases will also reduce holding limits under the current calculation methodology.

WSPA encourages CARB to reevaluate the holding limit to provide entities with additional compliance flexibility to meet the aggressive reduction targets in the proposed Cap-and-Trade program revisions. The current holding limit formula would undermine covered entities' abilities to achieve cost-effective emission reductions in-line with the future reduction targets, in violation of CARB's statutory obligation under AB 32 and SB 32. A significant decrease in the holding limit would require all entities to dispose of allowances during a brief period, introducing as many as 20 million allowances into the market in 2025, and causing volatility in allowance prices.¹¹ As projected by the University of California-Davis modeling presented at the November 16, 2023, workshop, future allowance prices could surge towards the price ceiling from 2030 through 2040 under a majority of the modeled scenarios.¹² CARB should be seeking to expand cost-containment mechanisms, including an increase of the holding limit for covered entities.

As noted in the workshop one impact of a reduced annual allowance budget is a reduction to a firm's holding limit. Banking is a fundamental function of the Cap-and-Trade program that provides firms an opportunity to cost effectively reduce emissions. Without the ability to bank a sufficient number of allowances, the costs of the program will be more apparent to the economy. Under CARB's 48% reduction by 2030 scenario, holding limits will be reduced in 2025 through 2030 by 15% assuming California's linked jurisdiction does not implement allowance reduction strategies as well. As noted above, the reduction in the allowance budget is abrupt and does not serve a Cap-and-Trade purpose to provide a steady signal to reduce emissions. To alleviate these concerns, WSPA recommends CARB adjust its 2025 through 2030 holding limit formula to provide additional room for entities to manage their compliance instrument holding accounts. One method CARB should employ is to create a table accompanying the Holding Limit Formula that updates the 2018 Cap-and-Trade Regulation value of 0.025 annually starting in 2025 through 2030. With this table, holding limits for firms would remain as currently expected for the rest of the decade, and reduce the impacts of the proposed annual allowance budget significantly. To facilitate this change, WSPA proposes the following amendment to the Holding Limit Formula for years 2025 through 2030:

$$\text{Holding Limit} = 0.1 \times \text{Base} + \text{HLF} \times (\text{Annual Allowance Budget} - \text{Base})$$

In which:

"Base" equals 25 million metric tons of CO₂e

"Annual Allowance Budget" is the number of allowances issued for the current budget year

¹¹ CARB. 2024. Cap-and-Trade Program Workshop. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-04/nc-CapTradeWorkshop_Apr232024_1.pdf. Accessed: May 2024.

¹² CARB. 2023. Joint Cap-and-Trade Program Workshop. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-11/nc-combinedSlides_Nov162023.pdf. Accessed: May 2024.

“HLF” is the Holding Limit Factor for a corresponding Annual Allowance Budget year

Holding Limit Factor (HLF)	
Calendar Year	HLF
2025	0.027
2026	0.029
2027	0.030
2028	0.032
2029	0.034
2030	0.035

4. CARB should consider the impacts of its proposed changes to the Annual Allowance Budgets on the number of allowances provided for industrial assistance.

WSPA is aware that CARB intends to hold one additional workshop in the coming months to discuss allocations to the industrial sector. Like banking, industrial allocation is a core function of the program to ensure it operates cost effectively. For this expected future workshop, WSPA requests that CARB include an assessment of the impact to the industrial sector were CARB to utilize the 2018 Cap-and-Trade Regulation’s Cap Adjustment Factors for years 2025 through 2030 to apportion allowances for industrial allocation rather than update the adjustment factors for any reduced allowance budget.

5. WSPA strongly opposes eliminating the offsets program or establishing “no-trade zones.”

Consistent with recommendations from the Environmental Justice Advisory Committee, CARB is evaluating potential trading restrictions, including no-trade zones and limitations to the existing offset program. These limitations would conflict with CARB’s statutory mandate under AB 32, SB 32, and AB 398, and would exacerbate price volatility, emissions leakage, and market liquidity issues.

CARB recognizes in its Standardized Regulatory Impact Assessment (“SRIA”) that including trading limits or discontinuing the use of offsets would put “upward pressure on allowance costs” and “exacerbate the potential for emissions leakage.”¹³ CARB further explains that “the compliance offset program has served as an important cost-containment feature of the Program” and “financially supports action to reduce GHG emissions outside of the sectors directly covered by the Cap-and-Trade Program.”¹⁴ Imposing new trading limits or eliminating offsets would conflict with the legislative directives in AB 32, SB 32, and AB 398. These statutes require CARB to achieve “maximum technologically feasible *and cost-effective* greenhouse gas emission reductions,” “minimize leakage,” and consider “overall societal benefits” in implementing this program.¹⁵ As CARB recognizes in its SRIA, eliminating offsets would remove important benefits from other sectors, such as “projects to sustainably manage natural and working lands to increase carbon sequestration, to capture and destroy fugitive emissions from high global warming gases, and to reduce fugitive methane emissions from

¹³ CARB. 2024 Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms 2024 Amendments: Standardized Regulatory Impact Assessment. Available at: [Cap-and-Trade SRIA 2024](#). Accessed: May 2024.

¹⁴ *Ibid.*

¹⁵ California Health & Safety Code §§ 38562(a), (b)(6), (b)(8).

mines and livestock operations.”¹⁶ Further, “[d]iscontinuing the use of any offsets would further limit compliance instruments and put further upward pressure on allowance costs, which increases the emissions leakage risk.”¹⁷ Similarly, trading restrictions would “increas[e] compliance costs for all entities, increas[e] the potential for leakage, and increas[e] economy-wide costs to California consumers,” in violation of CARB’s requirement to ensure that its reduction measures are cost-effective.¹⁸

These revisions would also directly conflict with AB 398’s provisions related to Cap-and-Trade program design. AB 398 gives CARB authority to “adopt a regulation that establishes a system of market-based declining annual *aggregate emissions limits* for sources or categories of sources that emit greenhouse gases.”¹⁹ As CARB explains in its SRIA, “AB 398 does not include any provisions to support new trading limits and any such limits would be inconsistent with an aggregate cap as mentioned in AB 398 and direction on cost-effectiveness.”²⁰ AB 398 plainly encompasses *all* sources of GHG emissions, and does not permit CARB to restrict trading among certain categories of sources. Importantly, the California legislature considered *and rejected* an amendment that would have included no-trade zones or declining caps for facilities where “emissions contribute to a cumulative pollution burden that creates a significant health impact.”²¹ CARB cannot circumvent this legislative action by adopting no-trade zones.

Similarly, AB 398 recognizes the continued importance of the offset program and sets specific program guidelines intended to *increase* offset projects in the State.²² Further, AB 398 establishes specific offset limits of 4 percent between 2021 and 2025, and 6 percent between 2026 and 2030.²³ Eliminating the offset program would conflict with this clear statutory directive, which contemplates expanded use of offsets between 2026 and 2030. The Offset Program remains an integral compliance option that increases cost-effectiveness within the Cap-and-Trade program and diversifies strategies for decarbonization. Rather than *eliminating* this program, WSPA encourages CARB to retain its proposal to increase the offset usage limit to 6% in 2026 and to further investigate alternative offset protocols and expand the program. The offset program will be increasingly important for maintaining the efficacy and cost-effectiveness of the program. AB 398 mandates that CARB increase the offset limit to 6 percent, and further contemplates that covered entities will expand their reliance on offsets. In accordance with this statutory mandate, CARB must increase the offset limit rather than eliminate the offset program.

Any policy that incorporates no trading provisions or allowance caps would undermine the efficiency of Cap-and-Trade as a market-based program by reducing cost-effectiveness and market liquidity, limiting compliance options, and increasing allowance costs and risk of emissions leakage, in direct conflict with CARB’s statutory directives in AB 32, SB 32, and the program design of AB 398.

¹⁶ CARB. 2024 Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms 2024 Amendments: Standardized Regulatory Impact Assessment. Page 19 Available at: https://ww2.arb.ca.gov/sites/default/files/2024-04/nc-Cap-and-Trade_SRIA2024.pdf. Accessed May 2024.

¹⁷ *Id.* at 17-18.

¹⁸ *Id.* at 20.

¹⁹ California Health & Safety Code § 38562(c) (emphasis added).

²⁰ CARB. 2024 Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms 2024 Amendments: Standardized Regulatory Impact Assessment. Page 17 Available at: https://ww2.arb.ca.gov/sites/default/files/2024-04/nc-Cap-and-Trade_SRIA2024.pdf. Accessed May 2024.

²¹ California Assembly Members Garcia, Holden, and Garcia (Apr. 2017).

²² California Health & Safety Code § 38591.1.

²³ California Health & Safety Code § 38562(c)(2)(E).

6. CARB should retain existing compliance period (CP) schedules.

CARB is considering updates to compliance period (CP) end years in order to align requirements with GHG emission reduction target years.²⁴ Under Option 1, CARB would expand CP6 to four years, ending in 2030, and all subsequent CPs to five years. Under Option 2, CARB would establish two-year compliance periods until 2030 and subsequently alternate two- and three-year periods until 2045. CARB explains that the main objective of proposing a change is to “ensure data reconciliation between linked jurisdictions.” In order to further this objective, CARB must ensure the proposed CP schedules are also consistent with Quebec, since California is also linked to this jurisdiction.

In considering these updates, CARB should recognize that any changes to the existing CP schedules will introduce market volatility and uncertainty to the Cap-and-Trade program. Each option introduces new challenges for covered entities. WSPA encourages CARB to retain existing compliance schedules, but at minimum, urges CARB to consider the following feedback in order to carefully balance and address these challenges.

- **Option 1:** The Option 1 schedule would result in significant compliance obligations due at the end of each period, and may delay emission reductions, therefore hindering progress towards statewide targets. Covered entities would be required to comply with longer compliance periods, which risks significant compliance deficits if a covered entity cannot meet the steep reductions CARB has proposed between 2025 and 2030. CARB’s proposals restricting allowance banking compounds this risk. To address these challenges, CARB should increase the holding limit for covered entities to accommodate this longer compliance period to ensure that covered entities can effectively plan compliance obligations for longer four-year periods. However, the longer compliance periods in Option 1 could also allow for long-term planning and investment. By maintaining longer compliance periods, Option 1 offers a framework that incentivizes continuous improvement in emissions reduction efforts and fosters business practices that are sustainable. Option 1 also provides more regulatory certainty due to longer compliance periods which can help ensure that business operations remain stable. CARB must seek stakeholder feedback to ensure that these benefits are retained while also addressing the compliance challenges associated with longer compliance periods.
- **Option 2:** This includes shorter two-year compliance periods until 2030 and subsequently then alternating two- and three-year compliance periods until 2045. Under this option, compliance obligations are divided into smaller increments, which seeks to ensure continuous reductions by assessing compliance more frequently. However, WSPA is concerned that Option 2’s irregularity between the alternative two- and three-year periods may cause challenges for entities’ planning cycles. Further, the additional reporting periods that Option 2 presents limits entities’ abilities to engage in long-term strategies, such as investments into CCUS and CDR, due to the need to meet earlier compliance deadlines. Shorter compliance periods would also increase the administrative burden and compliance costs for regulated entities. Rapid adjustments or changes in the market could create volatility that could potentially impact investment decisions and overall market stability.

²⁴ CARB. 2024. Cap-and-Trade Program Workshop. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-04/nc-CapTradeWorkshop_Apr232024_1.pdf. Accessed: May 2024.

Given the challenges associated with each proposed option, WSPA recommends that CARB maintain the existing CP schedules. The current three-year CP model provides an appropriate balance between the two proposed options, avoiding the potential negative consequences of either option.

7. WSPA supports the proposed clarification and amendments to forest projects.

WSPA supports CARB's proposed clarifications for revisions regarding forest projects. Including an Offset Project Data Report as an alternative to continue a forest project instead of an automatic termination in instances when carbon stocks fall below the baseline increases program flexibility, provides covered entities with more assurance on the reliability of these compliance options in the long-term, and will generate additional benefits in California, consistent with the legislature's directive in AB 398.

8. WSPA reaffirms the need for carbon negative technologies under Cap-and-Trade to achieve the 2045 target for carbon neutrality under the 2022 Scoping Plan Update.

As WSPA has pointed out in its previous comment letters,^{25,26} CCUS and CDR technologies will be critical to the overall success of the 2022 Scoping Plan Update to achieve carbon neutrality by 2045. Therefore, WSPA recommends that CARB amend the Cap-and-Trade Regulation to include a mechanism for generating additional allowances based on emissions reductions achieved by CDR technology including CCUS. For instance, CARB should consider changes to existing Cap-and-Trade Regulation that are necessary to enable companies to offset their compliance obligations by the amount of CO₂ that is geologically sequestered through CDR (including CCUS) or to generate tradable credits from these actions. Such a mechanism would provide incentive for companies to take on the long-term, costly investments and implementation uncertainty associated with these technologies, while facilitating substantial emissions reductions in future years. CARB has already established a placeholder for such a concept in California Code Regulations title 17 Section 95852(g), and WSPA encourages CARB to finalize this concept.

WSPA continues to urge CARB to utilize the existing market-based regulatory programs – including Cap-and-Trade framework and the corresponding Mandatory Reporting Regulation – to develop a robust CDR program, rather than pursue an additional rulemaking process, such as that proposed under SB 308 (2023), which would require CARB to establish a separate CDR market. As WSPA explained in its August 17, 2023, comment letter,²⁷ the addition of CDR to Cap-and-Trade would provide entities with another tool to achieve the emission reductions necessary to meet the State's climate goals and further develop Cap-and-Trade as an economy-wide emissions reduction program. Creating an additional market when a successful market currently exists would be duplicative and would create an unnecessary compliance obligation secondary to the existing Cap-and-Trade requirements, further burdening emitting entities.

²⁵ WSPA. 2023. WSPA Comments on 6-14-2023 Cap-and-Trade Workshop. Available at: https://carbstage.arb.ca.gov/system/files/webform/public_comments/4411/WSPA%20Cap-and-Trade%20Workshop%20Comment%20Letter%207-7-2023.pdf. Accessed: May 2024.

²⁶ WSPA. 2023. WSPA Comments on 7-27-2023 Cap-and-Trade Workshop. Available at: https://ww2.arb.ca.gov/system/files/webform/public_comments/5326/WSPA%20Cap-and-Trade%20July%202023%20Workshop%20Comments%208-17-2023.pdf. Accessed: May 2024.

²⁷ *Ibid.*

9. WSPA supports the proposed revisions to the Corporate Association Groups (CAG) triggers and recommends the release of the associated allowances in a way that minimizes price volatility while ensuring market liquidity and allowance availability.

CARB's proposed revisions to the CAG triggers would address many of CARB's stated concerns regarding associated entities. WSPA recommends that these changes be implemented no more than one year after these Cap-and-Trade Regulation amendments are approved. Impacted CAGs would then need to manage their account holdings accordingly through approved transactions with other parties. The other alternative, to delay implementation until 2031, would undermine the intended purpose of the proposal by allowing coordinating operations to continue in the coming years and could be harmful to the market due to potential market manipulation concerns and lack of transparency.

Thank you for considering our comments. We would welcome the opportunity to discuss these concerns in more detail. If you have any immediate questions, please feel free to contact me at tderivi@wspa.org. We look forward to working with you on these important issues.

Sincerely,



Tanya DeRivi
Senior Director, California Climate and Fuels



Tanya M. DeRivi

Senior Director, California Climate and Fuels

November 12, 2025

Cap-and-Invest Workshop
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Submitted via the [Workshop Comment Submittal Portal](#)
and by email to ctworkshop@arb.ca.gov

Re: WSPA Workshop Comments on Potential Cap-and-Invest Program Amendments

The Western States Petroleum Association (WSPA) appreciates the opportunity to comment on the California Air Resources Board's (CARB) Public Workshop: Potential Amendments to the Cap-and-Invest Program, hosted on October 29, 2025 (October 2025 Workshop).¹ WSPA is a non-profit trade association that represents companies that produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states, and has been an active participant in air quality planning issues for over 30 years.

In summary, WSPA urges CARB to consider the following key recommendations:

- Strengthen the industrial allowance allocation program;
- Provide incentives that reduce industry's decarbonization costs without replacing existing cost containment tools;
- Confirm that 2027 is the earliest feasible start year for implementing any adjustments to allowances through 2030;
- Mitigate the adverse effects of AB 1207 on investment in offset projects, existing offset programs, and the Greenhouse Gas Reduction Fund (GGRF);
- Account for any potential delays and significant costs associated with large-scale carbon capture projects; and
- Issue new offset protocols and amend related regulations to ensure that Carbon Dioxide Removal (CDR) projects serve as compliance instruments.

WSPA supports CARB's objective to adopt a 2030 reduction target for the Cap-and-Invest (formerly "Cap-and-Trade") program that can maintain an affordable, steady and stable carbon market in California. Market-based approaches like the Cap-and-Invest program can help California make significant progress towards its emissions reduction goals while helping to ensure that these reductions are more cost-effective and technologically feasible. However, as explained in our previous workshop comment letters, WSPA reiterates that CARB's proposed program updates must be consistent with requirements under Assembly Bill (AB) 32 (2006), Senate Bill (SB) 32 (2016), AB 398 (2017), AB 1207 (2025), and SB 840 (2025); should integrate carbon-negative technologies; and should limit cost impacts consistent with other legislative policies seeking to mitigate consumer burdens related to petroleum and alternative transportation fuel products.

Additionally, WSPA agrees with CARB that significant federal changes will likely impact technology deployment and associated costs considered during the development of the Agency's 2022 Scoping Plan Update. As a result, programmatic modifications should avoid over-reliance on technologies or policies that are unlikely to achieve meaningful emission reductions within a reasonable timeframe.

¹ CARB. Cap-and-Invest Program Workshop, (Oct. 29, 2025) ("Cap-and-Invest Presentation"). Available at: https://ww2.arb.ca.gov/sites/default/files/cap-and-trade/meetings/nc_CapInvestWorkshop_October2925.pdf. Accessed: November 10, 2025.

CARB's authority to adopt and implement the Cap-and-Invest program is governed by AB 32, SB 32, AB 398, AB 1207, and SB 840. AB 32, the California Global Warming Solutions Act of 2006, sets ambitious greenhouse gas (GHG) emission reduction goals that will continue to position the State as a global leader in green technologies. In carrying out these goals, AB 32 directs CARB to adopt regulations to achieve the maximum technologically feasible GHG emission reductions, but places key limits on CARB's broad authority to regulate emissions, requiring CARB to minimize the leakage potential of the actions taken, ensure that the emissions reductions are technologically feasible *and* cost-effective, and ensure that any reductions achieved are real, permanent, quantifiable, verifiable, and enforceable.² SB 32, the California Global Warming Solutions Act of 2016, builds on and expands the requirements in AB 32, but reiterates that reduction measures must be technologically feasible and cost-effective.³ AB 398 outlines specific requirements for the Cap-and-Invest program through 2030 intended to limit the program's cost impacts for consumers and industry, including a price ceiling, price containment points, and industry assistance factors.⁴ In particular, when setting a price ceiling, CARB must consider any adverse impacts on businesses, 2020 tier prices of the allowance price containment reserve, leakage potential, the auction reserve price, and the cost per metric ton of GHG emissions reductions, among other factors. In extending CARB's legislative authorization for the Cap-and-Invest program through 2045, AB 1207 emphasized the importance of maintaining a "cost-effective, market-based approach to reduce emissions of greenhouse gases" and directed that this program should "minimize ratepayer impacts."⁵ In furtherance of these goals, AB 1207 directed CARB to evaluate "additional compliance offset protocols... including carbon dioxide removal."⁶ Therefore, in amending the Cap-and-Invest program, CARB is statutorily bound to carefully consider these factors and to account for these legislative priorities, including impacts on affordability, cost-effectiveness, and minimizing leakage. WSPA looks forward to reviewing CARB's latest analysis to quantify and assess potential consumer impacts and leakage risks under proposed scenarios.

CARB is further obligated to address potential conflicts between proposed Cap-and-Invest amendments and other legislative policies seeking to minimize consumer burdens associated with transportation fuels. SB X1-2 (2023) directs State agencies to evaluate measures to ensure that petroleum and alternative transportation fuels are adequate, affordable, reliable, and equitable. However, according to the California Energy Commission, the existing Cap-and-Invest program and the Low Carbon Fuel Standard (LCFS) together add approximately 38 cents per gallon to the cost of gasoline.⁷ As currently proposed, CARB's amendments to the Cap-and-Invest program are likely to increase these already-significant burdens and potentially conflict with statutory direction under SB X1-2. In particular, WSPA is concerned that the proposed regulatory amendments could exacerbate existing impacts by further compromising the supply reliability of critical transportation fuels, leading to increased energy costs and possibly further burdening California drivers. CARB must consider impacts to gasoline costs when updating the Cap-and-Invest Regulation and seek to minimize costs, consistent with SB X1-2's legislative mandate. In enacting SB X1-2, the California legislature recognized the importance of ongoing supply constraints for transportation fuels, leading energy affordability to be a pressing priority for many Californians.

In response to the October 2025 Workshop, WSPA offers the following comments:

1. CARB should strengthen the industrial allowance allocations mechanism and include an assessment of the financial and operational impacts to the industrial sector for all potential scenarios.

Industrial allowance allocation has been an essential part of the Cap-and-Invest program since its inception, fostering a well-functioning market with nearly 100% compliance for regulated entities. Free industrial allowance allocations provide a strong incentive for regulated entities to sustain in-state

² AB 32. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32. Accessed: November 10, 2025.

³ *Ibid.*

⁴ AB 398. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398. Accessed: November 10, 2025.

⁵ AB 1207. Available at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202520260AB1207#95CHP. Accessed: November 10, 2025.

⁶ *Ibid.*

⁷ CEC. 2025. California Oil Refinery Cost Disclosure Act Monthly Report: Aggregated Data Reported. August 2025. Available at: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/california-oil-refinery-cost-disclosure>. Accessed: November 10, 2025.

production while reducing financial burdens associated with compliance. As CARB recognized in the October 2025 workshop, industrial allowance allocation is the key mechanism to reduce emission leakage,⁸ which is an obligation established under AB 32 and reaffirmed in AB 1207. CARB must maintain and enhance this mechanism to ensure the program operates more cost-effectively.

In its October 2025 workshop, CARB presented two concepts for allowance adjustments through 2030, both of which involve removing allowances from the combined industrial allocation and State-owned auction allowance pools.⁹ Concept 1 proposes reductions to both pools, whereas Concept 2 applies reductions solely to the State-owned auction allowance pool. WSPA strongly opposes both concepts because they would unduly constrain the future supply of allowances available to covered entities. Industry has already utilized every available mechanism under the existing Cap-and-Invest program to comply with an increasingly stringent cap while maintaining in-state business production. Any further reduction of allowances from the industrial allocation pool would only increase compliance costs. Such actions would also contravene CARB's stated goal of maintaining and strengthening the industrial allocation mechanism to preserve affordability.

Instead, WSPA urges CARB to increase industrial allowance allocation levels for emissions-intensive and trade-exposed (EITE) industries, including the transportation fuels sector, through 2030. Industrial allocations are indispensable for sustaining in-state production, minimizing emissions leakage, and promoting long-term decarbonization investments, while simultaneously ensuring that energy costs are more affordable. This approach would be more consistent with AB 1207, which requires CARB to "design [its updated Cap-and-Invest] regulations... in a manner that is equitable, seeks to minimize costs and maximize the total benefits to California, and **encourages early action to reduce greenhouse gas emissions.**"¹⁰

Additionally, WSPA emphasizes that the in-state fuel production sector is already experiencing high compliance costs, and the current regulatory framework may not provide sufficient industrial allocations to preserve affordability. Specifically, as CARB acknowledges in its October 2025 workshop, industrial allocations under the Cap-and-Invest program are lower than those in most other major emissions trading systems worldwide, thereby highlighting a gap in support for California industries.¹¹ Further compounding these existing challenges, a series of publicly announced California petroleum refinery closures¹² are anticipated in the near future, which will reduce the state's refining capacity by up to 20%. To mitigate these concerns, WSPA recommends that CARB designate the transportation fuel sector as a highly exposed EITE industry, thus qualifying it for an increased number of allocations to in-state fuel production facilities starting in 2027 through 2045. WSPA is especially concerned that failure to do so could lead to additional leakage risks, contrary to statutory directives.

Furthermore, WSPA recommends that CARB establish a minimum baseline level of allocations for the transportation fuel sector that is not tied to the statewide declining cap, consistent with AB 1207. Should CARB determine that a cap adjustment factor (CAF) is required, CARB should apply an Alternate Cap Adjustment Factor (Alt-CAF) designed to decline at no more than half the annual decline rate of the statewide declining cap through 2045. These recommendations would provide additional allowances through 2030 and beyond, helping to mitigate compliance costs and reduce emissions leakage risks, while contributing to the availability of more affordable critical transportation fuels for end consumers.

Finally, WSPA is concerned about the effects on California's industry and consumers of CARB's proposed removal of an additional 118 million metric tons (MMT) of carbon dioxide equivalent

⁸ See Cap-and-Invest Presentation at 41.

⁹ See *id.* at 43–45.

¹⁰ HSC §38562(b) (emphasis added).

¹¹ See Cap-and-Invest Presentation at 38.

¹² See California Energy Commission Vice Chair Siva Gunda's June 27, 2025, letter to Governor Newsom; available at: https://www.energy.ca.gov/sites/default/files/2025-07/CEC%27s_Response_to_Governor_Newsom%27s_Letter_June-27-2025_ada.pdf; see also California Energy Commission Business Meeting presentation on Information Item #4 (July 10, 2025); available at: <https://www.energy.ca.gov/files/july-10-2025-business-meeting-presentations>.

(MMTCO₂e) reduction (discussed in a later comment). CARB should consider alternative options to achieve this level of reductions without reducing allocations from the industrial or State-owned auction pools. For example, CARB should evaluate the feasibility of achieving all required reductions through the Allowance Price Containment Reserve (APCR). Alternatively, CARB should consider adopting a mechanism to transfer those allowances into the APCR rather than simply removing them, similar to the approach taken in its 2016 rulemaking. These approaches could help mitigate negative impacts on the carbon market through 2030 and beyond. In developing and evaluating these options, CARB must conduct a comprehensive assessment of the relative financial and operational impacts on the industrial sector under each potential approach. It is important to recognize that AB 1207 also calls on CARB to adjust the APCR or price ceiling (or both) if they “do not adequately protect California consumers.” WSPA believes this is an important affordability consideration and will be necessary to reduce energy costs.

2. CARB should provide incentives that reduce industry’s decarbonization costs without replacing existing cost containment tools like free allocations and usage of the APCR.

WSPA emphasizes that significant decarbonization investments depend upon long-term regulatory certainty. Therefore, CARB should provide incentives that reduce industrial decarbonization costs, particularly to help maintain an affordable and reliable supply of transportation fuels for California consumers. Given the recent loss of significant federal funding, WSPA understands that CARB is exploring opportunities to leverage the Cap-and-Invest program to increase support for industrial decarbonization projects that could reduce GHG emissions and minimize leakage risks.

WSPA supports providing additional resources to EITE industries, including the transportation fuel sector, through mechanisms such as decarbonization incentives or grant programs. These tools can sustain long-term capital investments and accelerate the deployment of technologies that reduce emissions while maintaining economic competitiveness, consistent with AB 1207’s mandate that CARB “[e]nsure that entities that have voluntarily reduced their greenhouse gas emissions before the implementation of this section receive appropriate credit for early voluntary reductions.”¹³

In adopting these new mechanisms, WSPA offers the following additional recommendations aimed at ensuring stability, cost-effectiveness, and transparency:

- Any new mechanisms should not replace or reduce the existing cost containment provisions of the Cap-and-Invest program, such as free allocation of allowances and access to the APCR. As WSPA explained in the previous section, maintaining the free allowance allocation and other existing cost-containment mechanisms is critical to ensuring cost-effectiveness, preventing leakage, and preserving regulatory certainty for covered entities.
- Any new mechanisms should be incorporated with an appropriately long-term compliance horizon and provide assurances regarding the stability of incentives to enable EITEs to confidently invest in long-term capital investments in emissions reduction equipment and projects.
- CARB must ensure new incentive programs are adequately funded, flexible, transparent, and readily accessible to covered entities. An incentive program that is not meaningfully funded will not assist industry in making significant investments in emissions reduction equipment. The application and eligibility criteria should not be overly restrictive or administratively burdensome, thereby encouraging broad and meaningful participation from all industries seeking to decarbonize.

3. WSPA agrees that elements of CARB’s proposal align with the 40% reduction target in SB 32, and that 2027 is the earliest feasible start year for implementing any adjustments to allowances through 2030. However, WSPA remains concerned that a significant reduction in allowances could be detrimental to the overall stability and effectiveness of the program.

¹³ HSC §38562(b).

WSPA observes that CARB's current proposal to remove approximately 118 million allowances through 2030 is generally consistent with the previously proposed 40% reduction scenario (CARB previously estimated 115 million).¹⁴ This 40% reduction level aligns with the statutory requirement under SB 32 to achieve a 40% reduction in statewide GHG emissions below 1990 levels by 2030. WSPA appreciates CARB's transition from the previously proposed higher target (i.e., 48%), which WSPA had previously identified as inconsistent with legislative requirements and technically infeasible.¹⁵ As CARB develops and finalizes the allowance adjustment scenarios, it is imperative that the pace and magnitude of allowance removals remain aligned with the technological and economic feasibility of achieving near-term emission reductions. AB 32 explicitly requires CARB to consider both cost-effectiveness and technological feasibility in establishing regulations to achieve the state's climate goals. Therefore, any adjustment to the allowance budget must reflect realistic deployment timelines for decarbonization technologies across key sectors, including transportation fuels, and preclude the creation of market conditions that outpace available compliance options.

Regarding the timeline, WSPA agrees that, should any adjustments be made to the existing allowance budget, the 2027 budget year is the earliest reasonable point of implementation, given the timing required for amendment adoption, compliance planning, and market preparation.

However, any removal of allowances through 2030 based on a "GHG inventory adjustment," regardless of magnitude, could impose a significant step change to future allowance budgets. Specifically, as WSPA has emphasized in previous Cap-and-Invest program comment letters,¹⁶ adjusting pre-2030 emission allowances based on actual achieved reductions in previous years would severely impact the stability of the Cap-and-Invest program and could harm long-term decarbonization planning efforts. CARB's proposed methodology would create a disincentive for companies to take early action to maximize their GHG emissions reductions and establish a concerning precedent that would undermine confidence in the Cap-and-Invest program through retroactive manipulation of the allowance market.

4. CARB should mitigate the adverse effects of AB 1207 on investment in offset projects, existing offset programs, and the Greenhouse Gas Reduction Fund.

AB 1207 mandates that the supply of allowances issued in a given year be reduced by the number of offsets used for compliance in the previous year. Although the stated purpose of this new requirement is to integrate offsets "under the cap," WSPA is concerned that this approach may lead to unintended adverse consequences for the offsets market, the overall Cap-and-Invest program, and the GGRF.

While offset projects already operate under strict constraints and a compliance cap, offsets have historically played an important role as a cost-containment method—an original statutory mandate since AB 32—by promoting cost-effective emission reductions, diversifying decarbonization pathways, and supporting co-benefits such as habitat restoration, forest conservation, and improved air quality in disadvantaged communities. By effectively neutralizing the compliance value of offsets "under the cap," AB 1207 further reduces the flexibility of this tool, tightens the overall supply of compliance instruments, and imposes additional compliance burdens on covered entities. Such an adjustment could significantly reduce both the incentive to invest in existing projects and the financing available for new offset developments. This outcome would undermine a key cost-containment tool under the Cap-and-Invest program to achieve cost-effective GHG emission reductions consistent with AB 32 and weaken the broader portfolio of mitigation options available to regulated entities.

¹⁴ CARB. Cap-and-Trade Program Workshop. April 2024. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-04/nc-CapTradeWorkshop_Apr232024_1.pdf. Accessed: November 10, 2025.

¹⁵ WSPA. WSPA Comments on 4/23/2024 CARB Cap-and-Trade Workshop. 2024. Available at: <https://ww2.arb.ca.gov/form/public-comments/submissions/10651>. Accessed: November 10, 2025.

¹⁶ WSPA. 2023. WSPA Comments on 10-05-2023 Cap-and-Trade Workshop. Available at: <https://ww2.arb.ca.gov/form/public-comments/submissions/6456>. Accessed November 10, 2024.

WSPA understands CARB's obligation to implement the allowance adjustments required by AB 1207 and appreciates the Agency's acknowledgment of the potential impacts these adjustments may have on California's carbon market and the GGRF. However, CARB must fully recognize that this requirement represents a fundamental structural change to the existing Cap-and-Invest program and introduces new sources of variability into the market. WSPA emphasizes that simply making this variability "predictable" would not resolve the underlying investment disincentives created by these adjustments. Covered entities would need to revise their compliance strategies within each three-year compliance period, potentially shifting resources away from offset projects and other compliance instruments. Over time, reduced offset participation could increase compliance costs, distort market signals, and constrain the State's ability to achieve GHG reductions cost-effectively. In addition, because auction proceeds are directly linked to allowance volumes, the removal of allowances from future budgets could also reduce revenues to the GGRF, thereby affecting the availability of funds for statewide climate and equity programs.

To mitigate these negative impacts, WSPA urges CARB to develop and evaluate meaningful mitigation strategies as part of this rulemaking. Potential strategies could include adjusting the number of allowances removed from the allowance budget to account for placing offsets "under the cap," as well as establishing an annual accrual that would cover offset-based allowance removals. The scale of an annual accrual rate could be informed by historical offset data, with the allowance retirement from this reserve adjusted based on actual offset usage. Addressing these issues proactively will be essential to sustaining program affordability, environmental integrity, and long-term effectiveness of the Cap-and-Invest program.

5. CARB should fully account for any potential delays and significant costs associated with large-scale carbon capture projects.

CARB has not yet taken sufficient action to incorporate additional mechanisms to encourage carbon-negative technologies into the Cap-and-Invest program. WSPA has consistently emphasized that CARB must incorporate mechanisms that facilitate the successful development and deployment of CDR technology, including carbon capture, utilization, and storage (CCUS). CARB's own assessments, including the 2022 Scoping Plan Update, acknowledge that achieving the 2045 carbon neutrality target is contingent upon deploying CDR and CCUS at a significant scale.¹⁷ The 2022 Scoping Plan Update specifically targeted the removal and capture of 20 MMTCO₂e by 2030 and 100 MMTCO₂e by 2045. However, these targets are currently unattainable due to persistent regulatory and cost barriers, which hinder even pilot projects. CARB's updated modeling since the 2022 Scoping Plan Update suggests that continued delays in implementing CDR and CCUS may result in a deficit of up to 40 MMTCO₂e in planned reductions by 2030, without viable alternative solutions to bridge this gap.

To effectively address these barriers, CARB must issue the regulatory package required under SB 905 (2022). Integrating CCUS and CDR technologies, which directly reduce the release of GHG emissions into the atmosphere, requires their proper accommodation under the Mandatory GHG Reporting (MRR) regulation. This would enable compliance entities to directly reduce their compliance obligations within the Cap-and-Invest program. Such measures are crucial for incentivizing long-term capital investments in these critical technologies and facilitating substantial future emission reductions, consistent with statewide goals. Absent these essential changes, companies would remain hesitant to incur the significant upfront costs required for advancing the deployment of these technologies.

CARB indicated at the October 2025 workshop their intention to propose a "[s]mooth decline from 2030 budget to 2045 budget." WSPA appreciates CARB's proposal for a smooth transition in allowance budgets after 2030, and supports a gradual reduction trajectory in early years. This

¹⁷ CARB. 2022 Scoping Plan for Achieving Carbon Neutrality. Available at: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>. Accessed November 10, 2025.

approach is vital for providing market certainty and enabling industry to plan and invest in the long lead-time technologies essential for deep decarbonization.

WSPA understands that CARB's long-term GHG reduction targets, as outlined in its 2022 Scoping Plan, depend on the large-scale deployment of CDR and CCUS to meet the 2045 carbon neutrality target. Specifically, the Scoping Plan anticipated significant progress by this stage in (1) streamlining permitting processes, (2) adopting a regulatory framework for these technologies, and (3) updating the Cap-and-Invest and MRR programs to incentivize CCUS investment. However, CARB's progress in developing and implementing a comprehensive CCUS and CDR strategy under SB 905 has been notably delayed. Therefore, WSPA urges CARB to incorporate realistic deployment timelines into post-2030 allowance scenarios to ensure continued progress toward the State's long-term climate objectives.

WSPA remains committed to collaborating with CARB in developing a smooth post-2030 program trajectory that upholds the legislatively required climate commitments while effectively accommodating the deployment of large-scale CCUS/CDR projects.

6. CARB should issue new offset protocols and amend related regulations to ensure that CDR/CCUS projects reduce compliance obligations.

WSPA agrees with CARB that new offset protocols may be appropriate for CDR technologies such as direct air capture (DAC), which do not directly reduce onsite emissions at covered facilities. However, for projects that directly reduce onsite GHG emissions from covered facilities, such as CCUS, CARB must allow these projects to directly reduce the covered emissions. Accordingly, further amendments to the Cap-and-Invest program and the accompanying MRR regulation are necessary to ensure that verified removals from these projects are appropriately accounted for in a facility's reported emissions and compliance obligation, consistent with the actual GHG reductions achieved.

In accordance with the SB 905 rulemaking, WSPA urges CARB to establish practical policy mechanisms that distinguish between project types. For project types not directly linked to covered facility emissions, such as DAC or agricultural and land-based CDR, CARB should prioritize the development of new offset protocols. For projects that directly reduce GHG emissions from covered entities, corresponding reductions must be reflected in the facility's covered emissions under the Cap-and-Invest program through MRR updates.

Finally, WSPA emphasizes that the Cap-and-Invest program's quantitative limit of 6% on offset use renders treating all CDR/CCUS activities solely as offset mechanisms insufficient for covered entities and the broader market to meet long-term compliance obligations. Without appropriate regulatory amendments to allow CDR/CCUS to be reflected within a covered facility's emissions inventory, CARB risks sending an adverse market signal that undervalues the environmental benefits and economic value of CDR/CCUS projects (i.e., by capping them at 6% of the California carbon market), ultimately hindering their deployment in California.

7. CARB must address leakage risks and maintain cost-effective and affordable compliance pathways to the Cap-and-Invest program.

AB 1207 reaffirms CARB's obligation to minimize emission leakage, which has been an integral part of the Cap-and-Invest program since it was authorized by AB 32. CARB must address the leakage risks of the program and maintain in-state business production, while ensuring that any program amendments do not constrain the forward supply of compliance instruments available to covered entities in California's economy, thereby compromising the program's cost-effectiveness for California consumers.

First, it is imperative that CARB promptly share any existing leakage studies to inform stakeholder dialogue during this rulemaking process. CARB must provide stakeholders with a clear understanding of whether the Cap-and-Invest program has already resulted in significant emissions leakage within

the industrial sector before adopting additional amendments that would further constrain the future supply of compliance instruments. A transparent discussion of the data and assumptions used in prior leakage assessments will be critical to developing an informed and balanced approach moving forward.

Second, as WSPA has noted in Comments 1 and 2 above, strengthening industrial allowance allocations and all existing cost-containment mechanisms are essential to maintaining affordable in-state business production. These measures not only help protect California's industrial competitiveness and workforce but also create the regulatory and market certainty necessary to encourage long-term decarbonization investments that align with the state's climate goals.

Third, to further reduce future leakage risks, CARB should enhance program flexibility and implement additional policy and economic tools to mitigate compliance costs. This includes developing new industrial incentives, integrating CCUS and CDR as eligible compliance pathways, expanding offset opportunities, and developing other cost-containment mechanisms to preserve market stability. To support these policy directions, CARB should also conduct a comprehensive and updated analysis of emissions leakage to date to ensure that program design decisions are grounded in current economic and emissions data.

WSPA appreciates your consideration of these comments. We welcome the opportunity to discuss these concerns in more detail. If you have any immediate questions, please feel free to contact me at tderivi@wspa.org. We look forward to working with you on these important issues.

Sincerely,



Tanya DeRivi
Senior Director, California Climate and Fuels

**HEALTH AND SAFETY CODE - HSC**

DIVISION 25.5. CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006 [38500 - 38599.11] (Division 25.5 added by Stats. 2006, Ch. 488, Sec. 1.)

PART 4. GREENHOUSE GAS EMISSIONS REDUCTIONS [38560 - 38568] (Part 4 added by Stats. 2006, Ch. 488, Sec. 1.)

38562. (a) The state board shall adopt greenhouse gas emissions limits and emissions reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions to achieve the requirements of Sections 38562.2 and 38566 and the purposes of this division.

(b) In adopting regulations pursuant to this section and Part 5 (commencing with Section 38570), to the extent feasible, to achieve the requirements of Sections 38562.2 and 38566 and the purposes of this division, the state board shall do all of the following:

- (1) (A) Design the regulations, including distribution of emissions allowances where appropriate, in a manner that is equitable, seeks to minimize costs and maximize the total benefits to California, and encourages early action to reduce greenhouse gas emissions.
 - (B) (i) Design the regulations, including distribution of emissions allowances where appropriate, in a manner that transitions support from gas corporations to electrical distribution utilities, as defined in Section 95802 of Title 17 of the California Code of Regulations, on or before January 1, 2031, to minimize ratepayer impacts and achieve the requirements of Sections 38562.2 and 38566 and the purposes of this division.
 - (ii) For purposes of this subparagraph, "gas corporation" has the same meaning as set forth in Section 222 of the Public Utilities Code.
 - (iii) Except as provided in clause (i), this subparagraph shall not be construed to impact the distribution of emissions allowances to emissions-intensive, trade-exposed industrial sectors.
- (2) Ensure that activities undertaken to comply with the regulations do not disproportionately impact low-income communities.
- (3) Ensure that entities that have voluntarily reduced their greenhouse gas emissions before the implementation of this section receive appropriate credit for early voluntary reductions.
- (4) Ensure that activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminant emissions.
- (5) Consider cost-effectiveness of these regulations.
- (6) Consider overall societal benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment, and public health.
- (7) Consider the effect of these regulations on affordability, cost effectiveness, minimization of leakage in California, and achieving the requirements of Sections 38562.2 and 38566 and the purposes of this division.
- (8) Minimize the administrative burden of implementing and complying with these regulations.
- (9) Minimize leakage.
- (10) Consider the significance of the contribution of each source or category of sources to statewide emissions of greenhouse gases.

(c) (1) Unless otherwise required by context, terms in this subdivision shall have the definitions that apply pursuant to Section 95802 of Title 17 of the California Code of Regulations, as they read on January 1, 2017.

(2) To achieve the requirements of Sections 38562.2 and 38566 and the purposes of this division, the state board shall adopt a regulation that establishes a system of market-based declining annual aggregate emissions limits for sources or categories of sources that emit greenhouse gases, applicable from January 1, 2012, to December 31, 2045, inclusive, that the state board determines will achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions, in the aggregate, from those sources or categories of sources, and ensures that programwide aggregate emissions from covered sources, at a minimum, decline with the requirements of Sections 38562.2 and 38566. In adopting a regulation applicable from January 1, 2021, to December 31, 2045, inclusive, pursuant to this subdivision, the state board shall do all of the following:

- (A) (i) Establish a price ceiling. In establishing the price ceiling, the state board shall consider, using the best available science, all of the following:
 - (I) The need to avoid adverse impacts on resident households, businesses, and the state's economy.
 - (II) The 2020 tier prices of the allowance price containment reserve.
 - (III) The full social cost associated with emitting a metric ton of greenhouse gases.
 - (IV) The auction reserve price.
 - (V) The potential for environmental and economic leakage.

(VI) The cost per metric ton of greenhouse gas emissions reductions to achieve the statewide emissions targets established in Sections 38550 and 38566.

(ii) To implement the price ceiling, the state board shall develop a mechanism that consists of both of the following:

(I) Allowances remaining in the allowance price containment reserve as of December 31, 2020, shall be used solely for the purpose of sale at the price ceiling established by this section.

(II) If the allowances from the allowance price containment reserve are exhausted, the state board shall offer covered entities additional metric tons at the price ceiling if needed for compliance. Notwithstanding any other law, all moneys generated pursuant to this clause shall be deposited into the California Climate Mitigation Fund, which is hereby created in the State Treasury. Moneys in that fund shall be available, upon appropriation by the Legislature, for purposes, including, but not limited to, providing direct rebates and investments to reduce household energy costs, including incentives to transition to zero-emission vehicles and energy efficient housing.

(iii) If the state board finds that the price containment reserve or the price ceiling, or both the price containment reserve and price ceiling do not adequately protect California consumers, the state board shall consider additional actions to ensure consumers are protected. Those actions may include, but are not limited to, adjustment to the allowance price containment reserve or the price ceiling, or both the allowance price containment reserve and the price ceiling.

(B) Establish two price containment points at levels below the price ceiling. The state board shall offer to covered entities nontradable allowances for sale at these price containment points. The price containment points shall be established using two-thirds, divided equally, of the allowances in the allowance price containment reserve as of December 31, 2017.

(C) Require that current vintage allowances designated by the state board for auction that remain unsold in the auction holding account for more than 24 months to be transferred to the allowance price containment reserve.

(D) Evaluate and address concerns related to overallocation in the state board's determination of the number of available allowances for years 2021 to 2030, inclusive, as appropriate.

(E) (i) Establish offset credit limits according to the following:

(I) From January 1, 2021, to December 31, 2025, inclusive, a total of 4 percent of a covered entity's compliance obligation may be met by surrendering offset credits of which no more than one-half may be sourced from projects that do not provide direct environmental benefits in state.

(II) From January 1, 2026, to December 31, 2045, inclusive, no greater than a total of 6 percent of a covered entity's compliance obligation may be met by surrendering offset credits of which no more than one-half may be sourced from projects that do not provide direct environmental benefits in the state.

(ii) For purposes of this subparagraph, "direct environmental benefits in the state" are the reduction or avoidance of emissions of any air pollutant in the state or the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state.

(iii) A number of allowances equal to the total number of offset credits used for compliance obligations in the prior year shall be removed from the next year's annual allowance budget and retired.

(F) Develop approaches to increase offset projects in the state considering guidance provided by the Compliance Offsets Protocol Task Force, established pursuant to Section 38591.1.

(G) Set industry assistance factors for allowance allocation commencing in 2021 through 2030 at the levels applicable in the compliance period of 2015 to 2017, inclusive. Commencing January 1, 2031, the state board shall distribute industrial sector allowances in a manner that minimizes emissions leakage risk to cost-effectively achieve the requirements of Sections 38562.2 and 38566 and the purposes of this division.

(H) Consider developing additional compliance offset protocols to address sectors that are not covered by the market-based compliance mechanism but are identified in the scoping plan prepared pursuant to Section 38561, including carbon dioxide removal, or the targets established pursuant to Section 38561.5.

(I) Establish allowance banking rules that discourage speculation, avoid financial windfalls, and consider the impact on complying entities and volatility in the market.

(J) Report to the Legislature, by December 31, 2025, on the progress toward meeting the greenhouse gas emissions reduction targets established pursuant to Sections 38550 and 38566 and the leakage risk posed by the regulation. The state board shall include recommendations to the Legislature on necessary statutory changes to the program to reduce leakage, including the potential for a border carbon adjustment, while maintaining the state's ability to reach its targets.

(K) (i) Report to the Legislature, in consultation with the Independent Emissions Market Advisory Committee, established pursuant to Section 38591.2, if two consecutive auctions exceed the lower of the price containment levels established pursuant to subparagraph (B). The report shall assess the potential for allowance prices to reach the price ceiling for multiple auctions.

(ii) A report submitted to the Legislature pursuant to this section shall be submitted in compliance with Section 9795 of the Government Code.

(L) Report to the relevant fiscal and policy committees of the Legislature, including the Joint Committee on Climate Change Policies, on all of the following:

(i) Updates to the scoping plan prepared pursuant to Section 38561 before adopting the update.

(ii) Updates on the implementation of the scoping plan prepared pursuant to Section 38561.

(iii) Updates on the implementation of the market-based compliance mechanism adopted pursuant to this subdivision.

(d) Any regulation adopted by the state board pursuant to this part or Part 5 (commencing with Section 38570) shall ensure all of the following:

(1) The greenhouse gas emission reductions achieved are real, permanent, quantifiable, verifiable, and enforceable by the state board.

(2) For regulations pursuant to Part 5 (commencing with Section 38570), the reduction is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.

(3) If applicable, the greenhouse gas emission reduction occurs over the same time period and is equivalent in amount to any direct emission reduction required pursuant to this division.

(e) The state board shall rely upon the best available economic and scientific information and its assessment of existing and projected technological capabilities when adopting the regulations required by this section.

(f) The state board shall consult with the Public Utilities Commission in the development of the regulations as they affect electricity and natural gas providers in order to minimize duplicative or inconsistent regulatory requirements.

(g) The state board may revise regulations adopted pursuant to this section and adopt additional regulations to further the provisions of this division.

(h) In the updates to the scoping plan prepared pursuant to Section 38561, the state board shall include the progress toward meeting the greenhouse gas emissions reduction targets established pursuant to Section 38562.2. The state board shall include recommendations to the Legislature on necessary statutory changes to the market-based compliance mechanism to further cost-effectively reduce emissions.

(i) The state board shall evaluate the cost impact of the market-based compliance mechanism on California consumers when it revises regulations implementing that mechanism pursuant to this section.

(j) This section shall remain in effect only until January 1, 2046, and as of that date is repealed.

(Amended (as amended by Stats. 2017, Ch. 135, Sec. 4) by Stats. 2025, Ch. 117, Sec. 3. (AB 1207) Effective September 19, 2025. Repealed as of January 1, 2046, by its own provisions. See later operative version amended by Sec. 4 of Stats. 2025, Ch. 117.)

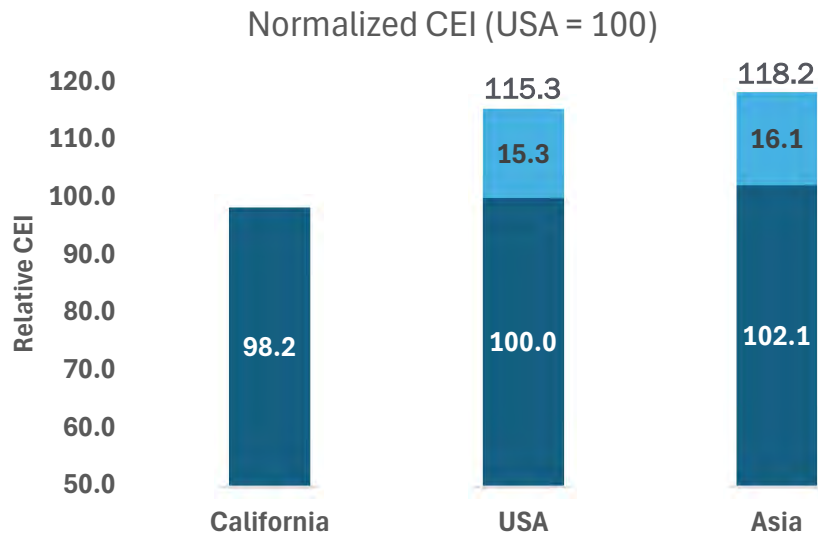


Solomon CEI & CTF Sensitivities

February 2026

Normalized Refinery CEI Including Shipping to West Coast

Product Shipping Emissions Intensity Basis = 5 kg CO₂/Bbl from Asia and 4.5 kg CO₂/Bbl from US Gulf Coast



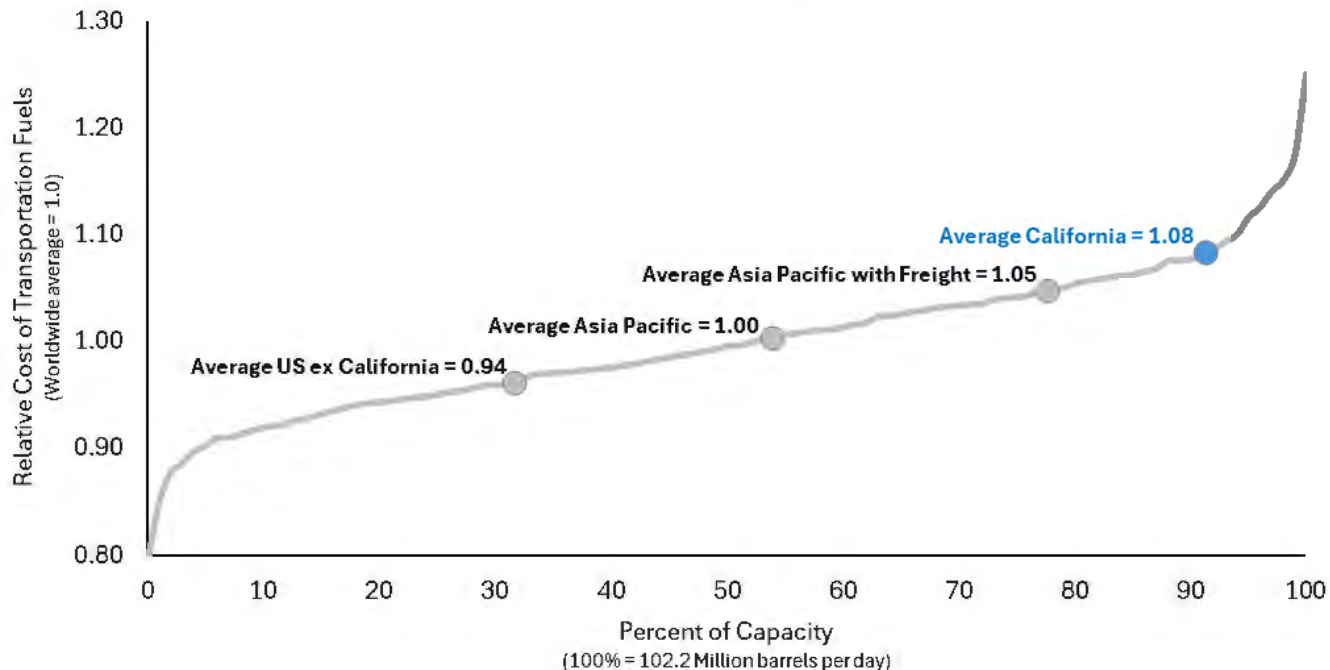
$$\text{Refinery CEI with Shipping} = (\text{Actual Net CO}_2\text{e Emissions} + \text{Shipping CO}_2\text{e Emissions}) / (\text{Refinery Standard CO}_2\text{e Emissions})$$

CEI = Carbon Emissions Index

Cost of Producing Transportation Fuels

Worldwide Distributions - 2024

Worldwide CTF Curve with Asia Pacific + Freight and California Average

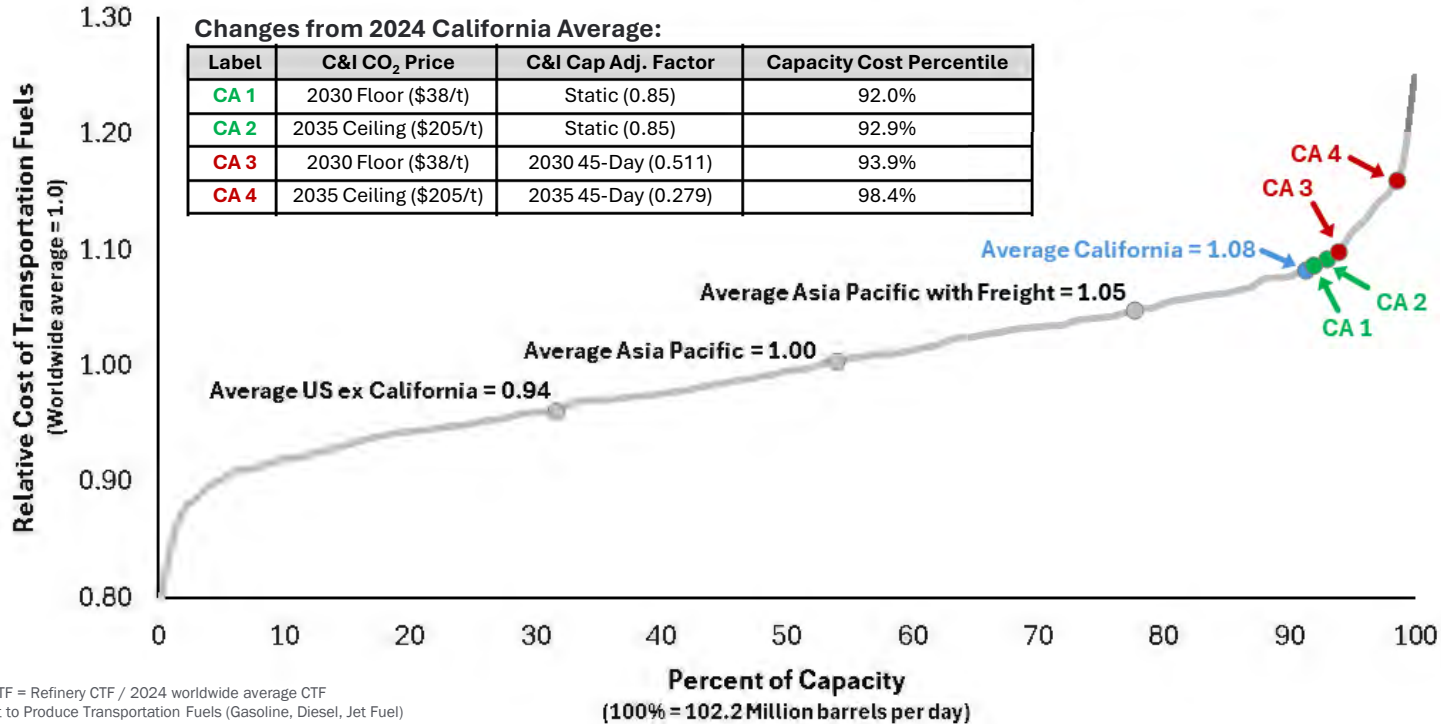


Relative CTF = Refinery CTF / 2024 worldwide average CTF
CTF = Cost to Produce Transportation Fuels (Gasoline, Diesel, Jet Fuel)

Cost of Producing Transportation Fuels

Worldwide Distributions – 2024

Worldwide CTF Curve with Asia Pacific + Freight and California Average

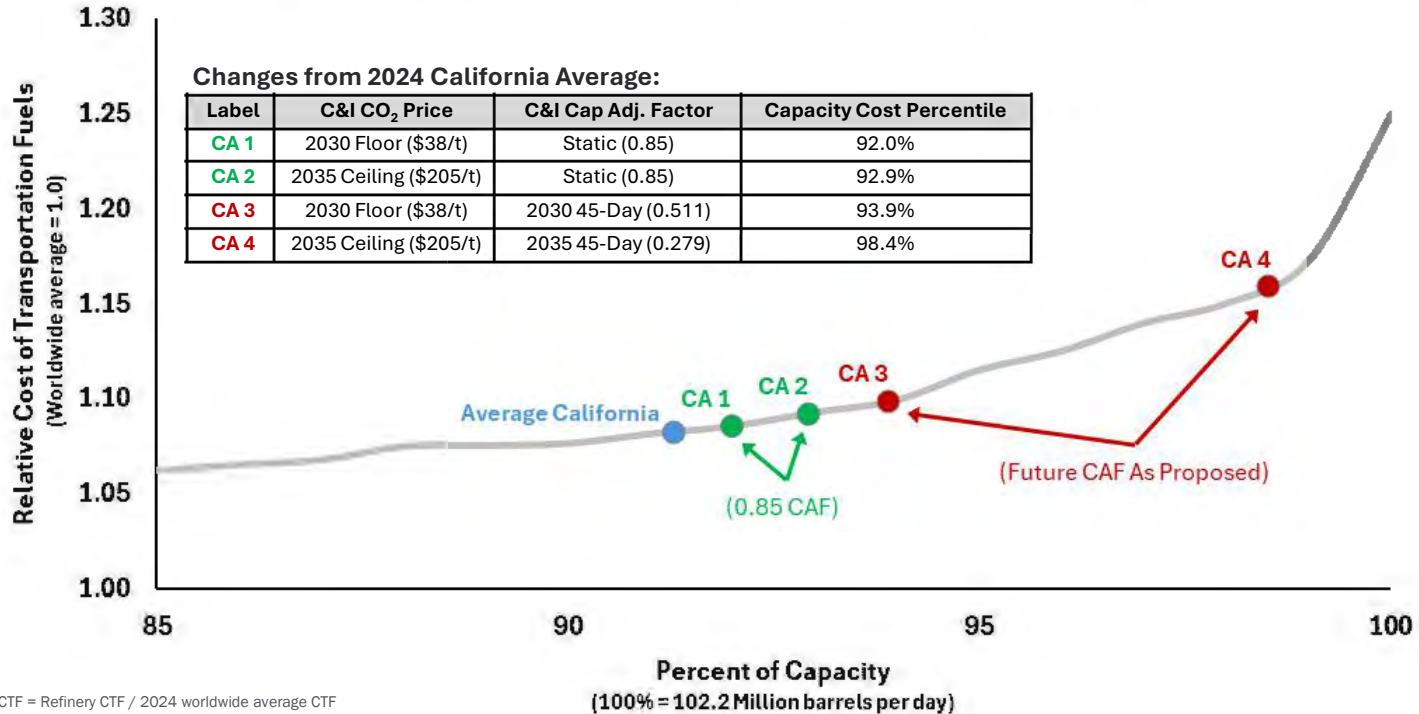


Relative CTF = Refinery CTF / 2024 worldwide average CTF
 CTF = Cost to Produce Transportation Fuels (Gasoline, Diesel, Jet Fuel)

Cost of Producing Transportation Fuels

Worldwide Distributions – 2024 (zoomed view)

Worldwide CTF Curve Zoomed to the 15% Highest Cost



Carbon Emissions Index (CEI) Calculation

Upstream, Midstream, Refining and Chemical Process

- **CEI (Carbon Emissions Index)** - CEI is a complexity-based metric measuring a facility's carbon emissions efficiency taking into account the manufacturing complexity of the facility.
- CEI is the ratio of actual Scope 1 + Scope 2 GHG emissions relative to a standard GHG emissions calculated for the facility.
- The formula for the calculation is as follows:

$$\text{CEI} = \frac{\text{Actual Net CO}_2\text{e Emissions}}{\text{Standard CO}_2\text{e Emissions}} \times 100$$

Carbon Emissions Index, %

Standard CO₂e emissions are the expected CO₂e emissions from a refinery operating at an industry average performance level based on the refinery's configuration, process unit characteristics and utilized capacity.

The standard is built up from Solomon industry performance data for all refinery processing units at industry average energy efficiencies.

Cost of Transportation Fuels (CTF) Calculation

The Cost of Transportation Fuel (CTF) is defined by Solomon as:

$$\text{CTF} = \frac{\text{Cost of Transportation Fuels}}{\text{TFvolume}}$$

Raw Material Cost + Cash Operating Expense - BYPvalue - Other Revenue

Where

- *CTF* is the cost to produce the average barrel of transportation fuel in USD / bbl
- *BYPvalue* is the total value of refinery-produced byproducts
- *Tfvolume* is the barrels of transportation fuel produced by the refinery

Refinery-produced byproducts include all products other than transportation fuels, including refinery-produced fuels consumed as energy by the refinery.



Thank you
for your time.

Action from Insight®