

EXECUTIVE SUMMARY

California's Low Carbon Fuel Standard has operated since 2011. Amendments effective 1 July 2025 strengthened the carbon-intensity trajectory to 30% below the 2010 baseline by 2030 and 90% by 2045, including a one-time 9% benchmark adjustment. The reforms also introduced an Automatic Acceleration Mechanism that may advance the benchmark schedule when specified credit-bank and generation conditions are met. In 2025, 34.19 million metric tonnes of credits and 31.85 million metric tonnes of deficits were reported, with the cumulative bank reaching 39.69 million metric tonnes by the fourth quarter.

AUTHORS

Nikhil Agarwal, Director, cKinetics,
nagarwal@ckinetics.com

Radhika Khandelwal, Analyst, cKinetics,
rkhandelwal@ckinetics.com



Years in Operation	Since 2011
Regulated Fuels	Gasoline, Diesel, Fossil compressed natural gas (Fossil CNG), fossil liquefied natural gas (Fossil LNG), or fossil liquefied compressed natural gas (Fossil L-CNG), Compressed or liquefied hydrogen, Renewable Diesel, Biodiesel and Ethanol.
Carbon Intensity (CI) Trajectory	CI reduction target: 30% below 2010 baseline by 2030 and 90% reduction by 2045. Annual benchmark reductions apply to gasoline and diesel substitutes. A one-time 9% adjustment on July 1 st 2025, was implemented.
Opt-In Fuels	Electricity, Bio-CNG, Bio-LNG, Bio-L-CNG, Alternative Jet Fuel and Renewable Propane are not regulated under the program but are eligible to generate credits.
Exempt for Specific Fuels	(1) Alternative fuels that are not biomass-based and supplied in quantities less than 420 million MJ annually; (2) fossil jet fuel; (3) deficit-generating fuels for military tactical vehicles; (4) credit-generating fossil CNG or propane dispensed at stations with throughput of 150,000 gasoline-gallon equivalents or less.
Exempt for Specific Applications	Fuels used in ocean-going vessels, locomotives, and small producers under specific thresholds.
Covered Entities (2024)	There are 599 unique regulated entities registered in the LCFS Reporting Tool as last reported by CARB in July 2024.
Annual report deadline	Reporting opens: April 1 each year; Submission deadline: April 30 each year Prerequisites: All previous quarterly and annual reports must be submitted
Penalties & Program Funding	If companies subject to California LCFS fail to meet their required carbon intensity targets, they must purchase credits to cover any shortfall; if they do not do so, they face civil penalties, along with potential forfeiture of credits and fines, making accurate reporting and prompt compliance critical to avoid significant financial consequences.
Credit Clearance Market	Price cap: \$200/credit in 2016 (inflation-adjusted to \$275.39 in 2026).

Major Developments

- Effective July 1st, 2025, the California Air Resources Board (CARB) adopted significant amendments to its Low Carbon Fuel Standards (LCFS), placing the transportation sector on a more stringent path of carbon intensity reduction. The revised framework increases the LCFS target to reduce the carbon intensity (CI) of California's transportation fuel pool by 30% below the 2010 baseline by 2030, compared with the previous 20% target, while maintaining a long-term objective of achieving a 90% reduction by 2045. The one-time 9% step-down in carbon intensity starting in Q3 2025 led to a drop to 76.60 gCO₂e/MJ (from 85.77) for gasoline and 81.70 gCO₂e/MJ (from 86.64) for diesel for Q3 & Q4 2025.
 - The amendments also introduce an Automatic Acceleration Mechanism (AAM) designed to further tighten CI benchmarks if excess credit supply persists. Beginning May 15, 2027, the AAM can be triggered if two conditions are met: the credit bank-to-average quarterly deficit ratio exceeds 3, and credit generation surpasses deficit generation over the trailing four quarters. If activated, the CI benchmark schedule is advanced by one year, effectively accelerating the pace of carbon-intensity reductions. An AAM cannot be triggered in the calendar year that immediately follows an announcement that the Automatic Acceleration Mechanism has been triggered.
- On July 13, 2026, Governor Newsom signed SB 168, announcing a \$600 million clean transportation investment package under its 2026–27 state budget, including the new MyFirstEV instant rebate program. The program provides \$3,500 for new ZEVs priced up to \$50,000 and \$1,750 for used ZEVs priced up to \$25,000 to Californians purchasing their first ZEV. The state will contribute \$135.5 million, matched by participating automakers, creating \$270M in total consumer incentives. The broader package also funds clean transportation and air-quality programs, such as California's Clean Truck and Bus Voucher Incentive Project (HVIP), the Carl Moyer Program, Clean Cars 4 All, and clean off-road equipment. The initiative aims to improve EV affordability, accelerate ZEV adoption, reduce emissions, and strengthen California's clean transportation economy.

3. Senate Bill 79 was enacted on August 28, 2026, intended to remedy implementation obstacles that have impeded the retail availability of E15 (gasoline blended with more than 10% and up to 15% ethanol) since its initial authorization under Assembly Bill 30 in 2025. The measure establishes that, until January 1, 2029, vapor-control systems, enhanced vapor-control systems, underground storage tank equipment, and fuel-dispensing devices currently certified or approved for use with gasoline containing up to 10% ethanol (E10) shall be deemed compatible with E15, provided the equipment manufacturer submits a statement of compatibility, signed under penalty of perjury, to the relevant state agencies attesting that the manufacturer has determined that the equipment is safe to use with those blends. Facilities that satisfy this requirement are not obliged to obtain new or amended certifications, permits, or approvals solely on the basis of dispensing E15.

Market Performance & Pricing

	Q1-Q4 2024	Q1-Q4 2025
Credits Generated	37.16 million MT	34.19 million MT
Deficits Generated	23.48 million MT	31.85 million MT
Cumulative Bank	37.35 million MT by Q4 2024	39.69 million MT by Q4 2025
Credit Price	In 2024, the average credit price was \$63.79/MT.	In 2025, the average credit price reported was \$60.44/MT.
Credit Generation by Pathway in % of Total for the year	Renewable Diesel 39% Electricity 24% Biomethane 20% Ethanol 9% Biodiesel 5% Other (Hydrogen, Renewable Naphtha, Propane, Innovative Crude & Low Complexity / Low Energy Use Refining, etc.) 1%	Renewable Diesel 34% Electricity 29% Biomethane 23% Ethanol 8% Biodiesel 4% Other (Hydrogen, Renewable Naphtha, Propane, Innovative Crude & Low Complexity / Low Energy Use Refining, etc.) 1%

References

- California Air Resources Board. (n.d.). *LCFS reporting tool—Registered parties*. California Air Resources Board. <https://ww2.arb.ca.gov/resources/documents/lcfs-reporting-tool-registered-parties>
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- California Air Resources Board. (2026, March). *Low Carbon Fuel Standard (LCFS) Guidance 26-01, Automatic Acceleration Mechanism (AAM) Implementation Schedule*. California Air Resources Board <https://ww2.arb.ca.gov/sites/default/files/2026-03/AAM%20Guidance%20Document%20-%20Final.pdf>
- Governor Newsom Signs SB 168, Launching ZEV Rebates for First-Time Buyers <https://www.gov.ca.gov/2026/07/13/as-trump-cedes-global-clean-car-race-to-china-governor-newsom-fights-back-with-instant-zev-rebates-for-first-time-buyers/>
- California Lawmakers Approve E15 Clean-Up Act https://leginfo.ca.gov/faces/billStatusClient.xhtml?bill_id=202520260SB795
- California Air Resources Board. (n.d.). *Low Carbon Fuel Standard reporting tool—Quarterly summaries*. <https://ww2.arb.ca.gov/resources/documents/low-carbon-fuel-standard-reporting-tool-quarterly-summaries>

Point of contact: Lilly Flawn, Policy Analyst, flawn@ieta.org