

ADVANCED CLEAN FLEETS

ZERO-EMISSION VEHICLE REGULATIONS

STATUS: On April 28, the California Air Resources Board (CARB) unanimously approved the Advance Clean Fleets regulation. The rule still needs approval from the U.S. Environmental Protection Agency (EPA) before going into full effect, which is expected to take place soon.

AT-A-GLANCE

The Advanced Clean Fleets regulation has two key components:

- **Zero-emission truck sales:** manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines will be required to sell zero-emission trucks as an increasing percentage of their annual CA sales from 2024 to 2035.
- **Company and fleet reporting:** retailers, manufacturers, brokers, and others are required to report information about shipments and shuttle services. Fleet owners with 50+ trucks are required to report about their existing fleet operations.

Background:

- To meet California's health-based air quality standards and greenhouse gas emission reduction goals, the Zero-Emission Vehicle (ZEV) program is part of the California Air Resource Board (CARB)'s Advance Clean Fleets package of coordinated standards that controls smog-causing pollutants and emissions of vehicles operating across the state.
- While trucks represent 6% of the vehicles on California's roads, they account for over 35% of the state's transportation generated nitrogen oxide emissions and a quarter of the state's on-road greenhouse emissions.
- CARB and the Environmental Protection Agency (EPA) agree that this rule helps California lead by example on standards to mitigate air pollution produced by heavy-duty trucks.
- Trade has been integral to California's success as the 4th largest economy in the world. Furthermore, Mexico is the state's top export destination, with 90% of exports traveling through our land ports of entry.
- San Diego is home to California's largest commercial land port of entry with 3,500-4,500 trucks crossing across the border every day.
- SANDAG and Caltrans released a white paper on the transition in our border community (available [here](#)). The report highlights unique challenges and barriers to the transition such as incongruencies in regulations across the nation and CA-BC border, limited performance and charging infrastructure for ZEV trucks, and a decline in marginal economic activity and loss of jobs. The California Transportation Commission to publish a report on infrastructure needs to support clean fleets by December, 2023.
- The CA Trucking Association stated that the regulation is "overly ambitious, unrealistic, and unfeasible" and "does not take into account the lack of charging infrastructure, the availability of electric trucks, the weight batteries will add to vehicles, the environmental impact of battery production and disposal, and potential impact on smaller truck companies with no resources to overturn their operation in such a rushed timeframe".

Overview:

- Starting January 1, 2024, trucks must be registered in the Carb Online System to conduct drayage activities in California. Non-zero-emission “legacy” drayage trucks may register through December 31, 2023 and may continue to operate through their “useful life” (defined as 800,000 vehicle miles or 18 years from engine certification).
- All drayage trucks will need to be zero-emissions by 2035.
- High priority and federal fleets must comply with the Model Year Schedule or may elect to use the optional ZEV Milestones Option to phase-in zero-emission vehicles into their fleets:
 - Model Year Schedule: Fleets must purchase only ZEVs beginning 2024 and, starting 2025, must remove internal combustion engine vehicles at the end of their useful life as specified.
 - ZEV Milestone Option: fleets may choose to meet targets as a percentage of the total fleet starting with vehicle types that are most suitable for electrification.

Percentage of vehicles that must be zero-emission	10%	25%	50%	75%	100%
Milestone Group 1: Box trucks, vans, buses with two axles, yard tractors, light-duty package delivery vehicles	2025	2028	2031	2033	2035 and beyond
Milestone Group 2: Work trucks, day cab tractors, buses with three axles	2027	2030	2033	2036	2039 and beyond
Milestone Group 3: Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042 and beyond

- The rule includes an end to combustion truck sales in California by 2036.
- Some extensions/exceptions apply, including an infrastructure delay extension or lack of availability of ZEV trucks to recognize circumstances beyond the fleet owner’s control. This is, fleets may continue to temporarily operate existing vehicles beyond their useful life.

Industry concerns:

- The weight of the batteries (an additional 5,000 to 7,000 pounds) will reduce the carrying capacity of a commercial truck by approximately one-third of its current capacity. This will translate into 33% additional trucks on the highway and across the border to transport the same load as a Diesel truck, with a proportional increase in transportation cost that will be passed on to the industry or final consumer (an estimate of up to \$1,000 USD per delivery).
- In California, there is an 11-hour driving limit for commercial truck drivers. By adding technical stops with an estimated time of 2 hours for a full charge based on the current capacity of batteries and chargers, delivery times and your ability to get from point “A” to point “B” will be increased.

- The current available batteries that meet the weight requirements have an approximate battery life of up to 178 miles. This would allow them to reach Los Angeles County at most before requiring a recharge.
- The increase in delivery times will impact our supply and co-production chains, whose success and efficiency depend to a large extent on the "just-in-time" dynamic.
- The cost of electric cargo trucks is 3.5 times higher than the cost of a Diesel truck, with a waiting list for deliveries starting in 2025.
- Charging stations are built over a 12-16 month period, and there are currently no charging stations available to ensure transportation from San Diego to Sacramento, or at all ports of entry.
- There is also concern based on the energy capacity on both sides of the border to supply a growing fleet of electric charging vehicles, and to cover the purchase of battery chargers of up to \$75,000 USD per unit.

Next Steps:

Without appropriate adjustments, CARB's regulations to transition to electric commercial vehicles jeopardize our region's ability to meet the needs of the industries we host, and which are economic promoters that drive our global competitiveness. If we do not find the tools and support for a gradual and realistic transition to electric commercial vehicle fleets, we face the possibility of them migrating out of state and potentially losing multinationals and investment projects that flee from the uncertainty this causes.

- Gather specific data on the impact on integrated, co-producing supply chains and the impact on California businesses and economy. This includes:
 - List of U.S. and/or California-based companies and industries that are serviced by Mexican-operated trucking companies,
 - Percentage of overall trade transported across the border by Mexican-operated fleets, and
 - Information on services with destination in the U.S. other than California, etc.
- Industry analysis on the detailed impact on their operations and/or feasibility to comply.
- Policies and infrastructure that should be facilitated by authorities south of the border to ensure a smooth transition to ZEVs between California and Baja California.

Additional details of CARB's Advanced Clean Fleets Regulation are available [here](#) and [here](#).