

EPA Heavy Truck Standards to Drive Down GHG Emissions

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On March 29, 2024, EPA finalized new [greenhouse gas \(GHG\) standards](#) for the manufacture, sale, or importation of heavy-duty trucks. The new standards are expected to drive the production of trucks fueled by electricity and hydrogen and aim to reduce GHG emissions up to 60 percent by 2032 for some vehicle classes. Heavy-duty vehicles currently account for 25 percent of GHGs from the transportation sector. The rule applies to manufacturers and does not mandate the sale of new vehicles, nor does it remove any heavy-duty vehicles currently on the road.

The new “Phase 3” standards apply to the sale of on-highway heavy-duty vocational vehicles, including delivery trucks, refuse haulers, public utility trucks, transit, shuttle, and school buses, as well as tractors, including day cabs and sleeper cabs on tractor-trailer trucks. The standards apply to heavy-duty vehicles manufactured starting in model year (MY) 2028 through MY 2032 and revise certain GHG standards for MY 2027 that were established under a prior rulemaking, the Phase 2 GHG standards. Nonroad or offroad vehicles such as construction equipment are not covered by the present rulemaking.

Phase 3 Standards

EPA states that the final standards are technology-neutral, allowing compliance through technologies including advanced internal combustion engines, hybrid vehicles, plug-in hybrid electric vehicles, battery electric vehicles, and hydrogen fuel cell vehicles. Some stakeholders believe the standards are technology-forcing, implementing electrification mandates. Others have expressed concern with the lack of available electric and hydrogen infrastructure and note that the timeline does not allow for these charging and refueling systems to be built.

EPA’s rule establishes standards by model year and vehicle type from 2027 – 2032 for grams carbon dioxide per ton-mile (CO₂ g/ton-mi). See 40 C.F.R. § 1037.105(a). The agency projects these standards will result in reductions from the Phase 2 standards as follows:

Percent Reduction from the Phase 2 CO ₂ Emission Standards						
Model Year:	2027	2028	2029	2030	2031	2032
Light-Heavy Vocational	17%	22%	27%	32%	46%	60%
Medium-Heavy Vocational	13%	16%	19%	22%	31%	40%
Heavy-Heavy Vocational	--	--	13%	15%	23%	30%
Day Cab Tractors	--	8%	12%	16%	28%	40%
Sleeper Cab Tractor	--	--	--	6%	12%	25%

Source: [Fact Sheet to Final Rulemaking, EPA 2024](#)

EPA projects the final standards will avoid 1 billion tons of GHGs and provide \$13 billion in net benefits. EPA received much feedback on the proposed rule, including over 175,000 public comments.

As compared to the proposed rule, the final Phase 3 standards differ in three ways:

1. The final rule eases near-term limits; the standards for all affected vehicle categories are less stringent in MYs 2027-2030 than proposed. However, standards for some vehicle classes are tightened in later years, and overall emission reductions are expected to be similar. According to EPA, relaxing the early standards allows more time for the development of vehicle technologies and deployment of charging and refueling infrastructure.
2. The rulemaking tightens longer-term limits for some vehicle classes. Beginning MY 2031, standards for light-heavy and medium-heavy-duty vocational vehicles are more stringent. By MY 2032, the final rule is more stringent for certain heavy-duty vehicle categories, including medium-heavy vocational vehicles that are 40 percent stronger than existing limits. The proposed standards for that vehicle class were 35 percent more restrictive.
3. The final rule calls for reporting on charging and refueling infrastructure. Beginning as soon as 2026, EPA will issue periodic reports reflecting the collected information throughout the lead-up to and during implementation of the Phase 3 program. Based on these reports, EPA stated the agency may decide to issue guidance documents, initiate a future rulemaking to consider modifications to the Phase 3 rule, or make no changes to the program. If EPA fails to prepare the reports, or fails to act based upon any report, it is not clear whether parties can use judicial challenges to require EPA to take action.

Clean Trucks Plan

The Phase 3 standards are the final component of EPA's "Clean Trucks Plan." In August 2021, EPA set a comprehensive strategy that lays out a series of clean air and climate regulations that the agency has developed to reduce pollution from large commercial heavy-duty trucks and buses, as well as advance a transition to a zero-emission transportation future. The two other steps of the Clean Trucks Plan are the already-finalized multipollutant standards for heavy trucks ("Low-NOx Rule") and the recently finalized multipollutant standards for light- and medium-duty passenger vehicles. For more discussion on EPA's multipollutant standards for passenger vehicles, see [VNF's prior alert](#).

In late December 2022, EPA finalized the Low-NOx Rule, the most stringent national clean air standards to cut pollutants that create ozone and particulate matter (PM) from heavy-duty vehicles and engines starting in MY 2027. The requirements in the final Low-NOx Rule lower emissions of NOx and other air pollutants, including PM, hydrocarbons (HC), carbon monoxide (CO), and air toxics. Nearly all in-use operations are covered by the Low-NOx Rule. The criteria pollutant provisions adopted apply for all heavy-duty engine (HDE) classes: spark-ignition (SI) HDE, compression-ignition (CI) Light HDE, CI Medium HDE, and CI Heavy HDE.

EPA's new Phase 3 GHG standards will work in tandem with the prior finalized Low-NOx Rule, along with the recently finalized multipollutant standards for passenger vehicles. These standards will together affect technological decisions that heavy-duty manufacturers will make for future model years.

California's Heavy-Duty Regulations

The new federal regulations must be considered alongside California's standards, given the state's unique status in establishing clean air regulations that impact the national transportation sector. The federal Clean Air Act (CAA) allows California to seek a waiver of preemption that would otherwise prohibit states from enacting emission standards for new motor vehicles. EPA must grant a waiver before California's rules may be enforced.

The California Air Resources Board (CARB) approved the Advanced Clean Trucks (ACT) Regulation with an effective date of March 15, 2021. EPA granted such a waiver for the ACT Regulation, published in the *Federal Register* on April 6, 2023. The purpose of the

ACT Regulation is to accelerate the market for zero-emission vehicles in the medium- and heavy-duty truck sector and reduce emissions of NOx, fine PM, toxic air contaminants, GHGs, and other criteria pollutants generated from on-road mobile sources. The California rulemaking applies to medium- and heavy-duty vehicles from Class 2b to Class 8, and requires manufacturers sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. The regulation also requires large employers including retailers, manufacturers, brokers, and others to report information about shipments and shuttle services, and fleet owners with 50 or more trucks are required to report about their existing fleet operations. As of June 2023, six other states have adopted the ACT Regulation: Maryland, Massachusetts, New Jersey, New York, Oregon, and Washington. The ACT Regulation is pending in at least three additional states, including Connecticut, Maryland, and Maine.

Furthermore, the federal standards will need to be harmonized with California's Heavy-Duty Omnibus (Low-NOx) regulation. CARB has committed to modifying the regulation in an agreement with heavy-duty manufacturers, the Clean Trucks Partnership, and the changes will likely require additional approval from EPA. Under the agreement, CARB will amend the rules to grant manufacturers additional compliance options and flexibility, and to better align with EPA's heavy-duty criteria pollutant regulations. In exchange, the manufacturers pledged to adhere to the new rules and advance heavy-duty zero-emission vehicles regardless of the outcome of pending litigation challenging CARB's authority to promulgate the regulations. Moreover, other states' potential adoption of the modified California Low-NOx rule, and the timing thereof, further complicates the regulatory landscape.

Next Steps

The final rule will take effect 60 days after publication in the *Federal Register*. The final rule launches a technology planning and production process but also an intricate web of legal and political issues that will impact the heavy truck sector over the coming years.

There will likely be legal challenges against the Phase 3 standards. Opponents may argue the rule is an EV mandate and claim, like the passenger vehicle standards, that EPA has asserted highly consequential regulatory authority beyond what Congress could reasonably be understood to have granted in violation of the Major Questions Doctrine, which places limits on federal agencies adopting regulations of significant social, economic, or political importance without specific statutory authorization.

Some truck manufacturers and fleets claimed the proposed version of the Phase 3 standards and projected truck electrification rates are unrealistic, while environmental groups and certain states argued the plan is too weak for reasons including not accounting for ongoing state actions to electrify trucking. EPA's new Phase 3 GHG standards are not considered as stringent as California's ACT requirements.

Through funding provided by the Infrastructure Investment and Jobs Act (P.L. 117-58), the Joint Office of Energy and Transportation will continue to provide funding for charging and refueling infrastructure. These funds are requested by states annually and sometimes include funding for heavy-duty infrastructure.

How Stakeholders Are Responding

Environmental groups are praising the final rulemaking. The American Lung Association supports the standards, stating the rule "will improve the air we breathe and curb the pollution that is driving climate change." The Sierra Club offered support to the Phase 3 initiative, saying the "new standards reflect Congress' long standing demand for healthy air along with its recent historic investments in getting cleaner vehicles on our roads, corridors, and ports. Together, they are a game changer."

The Truck and Engine Manufacturers Association (EMA), a leading industry group, stated they are “committed to a zero-emission future for the U.S. trucking industry, designing and building the heavy-duty ZEVs that can deliver that future.” However, EMA noted that “all parties need to be better aligned on the realistic timing for delivering the products and infrastructures critical to achieving the successful outcome we all want. [EMA] will continue to work with EPA, the Department of Energy, the Department of Transportation, and all interested stakeholders to make the GHG Phase 3 rule successful.” EMA previously entered into the aforementioned Clean Trucks Partnership with the California Air Resources Board whereby the manufacturers are provided a certain amount of flexibility to meet emissions requirements while still reaching the state’s climate and emission reduction goals.

The Edison Electric Institute, a trade association for the nation’s electric utility sector, echoed EMA’s views on infrastructure needs, stating “electrifying the transportation sector will be key to reducing emissions across the economy and to achieving our goals for a carbon-free future.” They went on to state that they “look forward to working with EPA Administrator Regan to help build the electric vehicle charging infrastructure needed to accelerate the clean energy and electric transportation transition.”

The United Autoworkers (UAW), an important stakeholder as noted by President Biden at this year’s State of the Union when he acknowledged the labor union’s leadership, has not issued any public comments on the final Phase 3 rulemaking as of the time this analysis was released.

For More Information

Van Ness Feldman closely monitors and advises clients on EPA priorities, rules, and actions and their implications for regulated industries. For additional information, please contact [Britt Fleming](#), [Tracy Tolk](#), [A.J. Singletary](#), [Paul Libus](#), [Richard Penna](#), or any member of the firm’s [Environmental](#) or [Policy Practice](#) in Washington, D.C. at (202) 298-1800.

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