

Responses to Questions about H.B. 5039 Medium & Heavy-Duty Vehicle Standards

[H.B. 5039](#) would authorize CT DEEP to adopt California's medium and heavy-duty vehicle standards, which are more protective of human health and the environment than the baseline federal standards. Below are responses to questions or concerns that may be raised.

Regulation of Motor Vehicles Under the Clean Air Act

1. How are motor vehicle standards established?

- a. The federal Clean Air Act [authorizes EPA](#) to adopt motor vehicle standards.
- b. The law also [authorizes CA](#) to adopt more stringent vehicle standards.
 - i. Other states can [choose](#) to adopt the CA standards instead of the federal standards that would otherwise apply.
 - ii. States like CT therefore have two options for vehicle standards:
 1. Baseline federal standards (less protective).
 2. CA standards (more protective).

2. Why does CA get to set its own motor vehicle standards?

- a. CA was far ahead of other states in regulating air pollution when the Clean Air Act was passed in 1970 and they had the worst air quality, which led Congress to conclude that CA had a compelling need to tackle the problem more aggressively.
- b. CA must get approval from EPA (a waiver) to set more stringent standards.

3. Can other states petition EPA to set their own vehicle standards?

- a. No, that would require amending the Clean Air Act.
- b. It is extremely unlikely that would ever happen because vehicle manufacturers do not want to contend with a complex patchwork of vehicle regulations.

4. Can't CT just set its own vehicle standards independent of the Clean Air Act?

- a. No, states are preempted by the federal Clean Air Act.
- b. Adopting the CA standards is the only alternative to the federal standards.

5. Why shouldn't we just stick with the baseline federal standards for medium and heavy-duty vehicles, which EPA recently proposed strengthening?

- a. The federal standards probably won't be finalized for 5 years and could be weakened by future administrations.
- b. CT can't wait to reduce emissions from medium and heavy-duty vehicles. Transportation is the [largest source of greenhouse gas emissions](#) in the state and every county in the state is [not in attainment](#) with federal air quality standards.

- c. Historically the federal standards have not been protective enough to address the air pollution crisis.
- d. NOx standards like the proposed federal rule do absolutely nothing to reduce our dependence on oil or gas. While important in the short term to reduce the health impacts of fossil-fuel vehicles that will still be purchased in the early years of the electric truck program, NOx emissions standards alone keep us tethered to a volatile global oil market that is subject to the whims of foreign regimes.
- e. And we cannot drill our way out of a global oil market. Oil and gas prices can be impacted - no matter where the oil comes from - by many things, from bad weather to grounded ships and wars.
- f. The only way to eliminate the impact of [volatile oil prices](#) on our economy and our wallets is to electrify our vehicles.

Concerns about State Sovereignty

6. Wouldn't adopting the CA standards mean giving up our autonomy?

- a. No. CT is preempted by federal law from directly establishing motor vehicle standards. We can choose either to follow the baseline federal standards or to adopt the CA standards, which are more protective of public health and the environment.
- b. Any future changes to the CA standards must be approved by the CT DEEP Commissioner and the [Legislative Regulation Review Committee](#) before taking effect in CT.
- c. The CT General Assembly also retains the ability to revoke DEEP's authority to adopt the CA standards and revert to the federal baseline if there was ever a compelling reason to do so.

7. Would CT have any opportunity to influence future changes to the CA standards?

- a. Yes. Anyone can participate in CA's rulemaking process for subsequent updates to the CA standards.
- b. CT DEEP is in direct communication with CA regulators regarding updates to the light-duty standards, as are other states that have adopted the CA standards. The same would be true for the medium and heavy-duty standards.
 - i. Given this longstanding relationship between CT and CA, we probably have more ability to influence the CA standards than the federal ones.

Regional Considerations

8. What other states have adopted CA's motor vehicle standards?

- a. Thirteen states (not including CA) and the District of Columbia have [adopted CA's light duty vehicle standards](#).
 - i. CT adopted these standards in [2004](#) - almost unanimously.
- b. Five states (not including CA), have [adopted CA's medium and heavy-duty vehicle standards](#) since they were finalized in 2020, and other states are considering it.
 - i. CT's neighboring states of MA, NJ, and NY have adopted the standards.
 - ii. In 2021, the CT Senate voted [almost unanimously](#) in favor of a [bill](#) that would have authorized adoption of CA's medium and heavy-duty vehicle standards.

9. CT is a pass-through state, so won't these standards have limited benefits?

- a. No. Multiple [studies](#), including a [study by CT DEEP](#), concluded that adopting the CA standards would bring [substantial benefits](#) to CT.
- b. There are over 145,000 medium and heavy-duty vehicles currently registered in the state and thousands of vehicles getting registered every year.
- c. Our neighboring states (MA, NJ, and NY) have all adopted CA's medium and heavy-duty vehicle standards, and joining them would further strengthen the regional benefits of clean trucks.

10. Why should we adopt stronger standards for vehicles when we're a downwind state and get a lot of air pollution from other states?

- a. Motor vehicles, and especially trucks and buses, generate a lot of local air pollution that harms people's health and leads to bad air quality.
- b. Reducing these emissions is even more critical given that we also have air pollution blowing in from other states. Stronger standards are an impactful way that CT can help its own residents.

How the CA Medium and Heavy-Duty Vehicle Standards Work

11. How do the CA medium and heavy-duty vehicle standards work?

- a. [Advanced Clean Trucks \(ACT\) Rule](#): *manufacturers* must make available for sale an increasing % of new zero-emission medium and heavy-duty vehicles in CA and states that adopt the CA standards. [Full text](#) of ACT Rule.
- b. [NOx Heavy-Duty Omnibus Rule](#): stricter standards for NEW heavy-duty trucks to reduce tailpipe pollution that harms people's health. The standards are not retroactive and do not affect existing trucks. [Full text](#) of NOx Rule.

12. When does the Advanced Clean Trucks Rule go into effect?

- a. In CA, the ACT Rule goes into effect starting for model year 2024 vehicles and the zero-emission sales requirements gradually increase.

- i. [By 2035 \(in CA\)](#), zero-emission truck sales will be 55% of Class 2b-3 truck sales, 75% of Class 4-8 straight truck sales, and 40% of truck tractor sales.
- b. For other states, the ACT Rule goes into effect two years after the rule is adopted. This phased-in approach is [required](#) under the Clean Air Act.

13. Will adopting the CA standards mean you can't buy gas or diesel medium and heavy-duty vehicles in CT?

- a. No. They just require vehicle *manufacturers* to make an increasing % of new zero-emission medium and heavy-duty vehicles available for sale annually in states that adopt the rule.
 - i. The ACT Rule does NOT require fleets to purchase electric vehicles. It simply guarantees a minimum supply of electric vehicles, allowing fleets to decide if they make sense for their operations. Over the next few years, as technology improves, fleet operators will become familiar with electric vehicles and more charging infrastructure will be built.

14. What medium and heavy-duty vehicles are covered by the CA standards?

- a. School buses and medium and heavy duty trucks are covered. The regulations start at Class 2b (think of Ford F-250 pickup or some vans) all the way through Class 8 (semi-tractor). See vehicle classes [infographic](#).

15. Are there exemptions to the CA medium and heavy-duty vehicle standards?

- a. Yes. Most notably, transit buses are not covered. CA has a separate rule for transit buses, which would not apply in CT. Exemptions also include emergency vehicles and military tactical vehicles.

16. Do the CA standards ban existing gas or diesel medium and heavy-duty vehicles?

- a. No. Those vehicles can continue operating. The standards do not affect them.
- b. Neither CA nor anywhere else has any plans to ban existing gas or diesel vehicles. The vehicle standards are always forward-looking and apply to NEW vehicles.

Costs and Availability of Electric Trucks and Buses

17. Aren't electric trucks and buses super expensive?

- a. The upfront cost of electric trucks and buses is higher than trucks and buses that run on gasoline or diesel, but their [fueling and operating costs are lower](#).
- b. Some electric trucks and buses have already reached or are approaching parity with conventional trucks on a life-cycle basis. Some estimate that a majority of market segments will achieve life-cycle cost parity by [model year 2025](#), before this rule would go into effect in CT.

- c. The status quo is already massively expensive. [Gas and diesel vehicles impose huge societal costs](#) because of the public health impacts and resulting health costs of poor air quality.

18. Are there incentives to help cover the upfront cost of electric trucks and buses?

- a. Yes. There is a huge amount of [federal funding](#) available for electric vehicles.
 - i. CT DOT recently received an [\\$11.4 million federal grant](#) to purchase 22 electric buses.
 - ii. In 2021, CT DOT received a [\\$7.4 million federal grant](#) to purchase 10 electric buses in Waterbury.
- b. [S.B. 4](#) would create a \$15 million voucher program for zero-emission medium and heavy-duty vehicles in CT.

19. Are electric trucks and buses readily available?

- a. Yes. “There are [more than 70 different models](#) of zero-emission vans, trucks and buses that already are commercially available from several manufacturers.”
 - i. Manufacturers are constantly innovating and improving their electric trucks. For example, the second generation of the Volvo eVNR tractor-trailer can recharge to [80% in 90 minutes](#).
- b. The CA standards are pushing manufacturers to produce more models. “Most [major truck manufacturers have announced plans](#) to introduce market ready zero-emission trucks in the near future.”
- c. There is strong national demand for electric trucks. Companies like [Amazon](#), [UPS](#), and [FedEx](#) have already preordered tens of thousands of electric vans and trucks.
 - i. A [recent survey](#) of major corporate fleets conducted by Ceres shows an overwhelming preference for electric vehicles and existing procurement plans to acquire 330,000 zero-emission vehicles in the next five years.

Addressing Edge Cases

20. Do the CA standards affect vehicles with functions that rely heavily on power supplied from the engine like snowplows and fire trucks?

- a. No. The CA standards do not require electrification of these advanced applications.
- b. They do start the process of transitioning to electric medium and heavy-duty vehicles and encourage the development of technology to accommodate these difficult to electrify use cases.

21. Don't electric vehicle batteries lose range in winter weather?

- a. Cold weather can reduce the range of electric battery powered vehicles. However, more than 60% of commercially available medium and heavy-duty electric vehicles have [ranges that exceed average daily use](#) by around 50%.
 - i. For example, electric truck manufacturer [Rivian uses thermal control systems and battery preconditioning](#) to maximize the cold weather range of their trucks.

Preparing the Grid for Widespread Vehicle Charging

22. Is our grid prepared to charge all those electric vehicles?

- a. Yes. CT's public utility commission, PURA, is planning for medium and heavy-duty vehicle charging in Docket No. 21-09-17.
 - i. Utilities, state entities, and stakeholders across the country are starting to implement tactics such as [on-site generation](#), [storage efficiency](#), and [load management - including electric trucks as flexible storage](#) to mitigate grid issues and increase resiliency.
 - ii. Preparing for changes in electricity demand is feasible, already underway, and could [lower consumer electricity prices](#) by increasing grid utilization.
- b. PURA and the electric utilities already established a [statewide EV charging program](#) to ensure the grid is prepared to charge light-duty electric vehicles.
- c. The federal government has allocated [\\$5 billion](#) to fund EV charging infrastructure over the next five years.

23. Don't electric vehicles generate a lot of air pollution when you take the emissions from generating electricity into account, making them no better than gas or diesel vehicles?

- a. No. [Electric vehicles are much cleaner](#) than vehicles with internal combustion engines even based on our current grid, and they'll continue to become even cleaner as we transition to renewable energy.
- b. Electric vehicles produce no tailpipe pollution, which has significant health benefits for people who live close to highways and busy roads.