

California Advanced Clean Trucks Rule Public Hearing August 17, 2023

What is the California Advanced Clean Truck (ACT) Regulation that Maine is looking to adopt?

The Maine DEP has been petitioned to undertake rulemaking requiring Maine to adopt California's Advanced Clean Trucks Rule (ACT) to accelerate sales of zero-emission medium- and heavy-duty vehicles in an effort to further reduce greenhouse gas emissions. The manufacturer ZEV Sales Percentage Schedule by vehicle class starts with model year 2027 and increases incrementally through model year 2038.

The Mainers for Smart Energy Coalition Supports a Reasonable Transition to ZEV Trucks

Most businesses and industries support protecting the environment and want cleaner air. However, regulations that create uncertainty and are cost prohibitive are not advantageous to the environment, manufacturers, supply chains or the nation's economy. We agree with the need to be engaged in the reduction of GHG emissions and air pollutants and believe the market should drive innovation.

Threshold Concerns

- Maine's grid cannot sustain Medium and Heavy-Duty (M&HD) vehicle electrification without significant investment – we would need to increase generation by at least 60% according to the [American Transportation Research Institute \(ATRI\)](#).
- Maine's charging infrastructure is not even close to being ready for Zero Emission Vehicles (ZEV's.) This becomes more complicated when considering point-to-point truck deliveries are made to irregular destinations without charging units such as temporary construction sites, or rural residences.
- The cost of M&HD ZEV's is significantly greater than the diesel equivalent.
- Range anxiety is real for ZEV passenger car owners. For M&HD users who are critical to the supply chain, this will create unnecessary chaos.
- Truck availability continues to be problematic and is a major consideration before investing in expensive charging and utility upgrades.
- Reliability is a concern. Our cold weather climate and heavy-duty applications are not well suited to electrification technology.
- Many commercial truck uses, such as truck-mounted cranes, dump bodies, and snow plows, will require an additional power source.
- Fire safety policies, education, and training should precede policy implementation.

Maine's Financial Position is Different Than California

We recognize and understand the purpose of adopting this rule and that it impacts manufacturers to encourage them to sell more medium and heavy-duty (ZEV's). We are not commenting on whether this is a good or bad idea for California because the reality is that the Maine market and the Maine economy are vastly different than that of California. According to the US Bureau of Economic Data, Maine's 2022 GDP was miniscule in comparison – only 2.4% of California's GDP – with Vermont, Rhode Island, Wyoming, North Dakota, South Dakota, Montana, and Alaska's being the only states with a smaller GDP than Maine. Yet we look to hamper our economy to adopt California regulations.

California Can Encourage Adoption with Significant Incentives – Will Maine?

A quick look at the [California Air Resources Board \(CARB\)](#) website shows some significant rebates being offered to incentivize commercial ZEV adoption – nothing in the rule before the Maine Board of Environmental Protection (BEP) addresses rebates. Considering adopting a CA standard without the CA incentives makes it destined for failure. According to CARB, there is over [\\$2.6 BILLION](#) in their current Clean Transportation Incentives program.



Mission Statement:

Provide information and resources that support the voluntary adoption of Medium & Heavy-Duty Vehicle and industrial equipment clean energy technology that is viable, practical and cost effective.

The Market Should Drive Adoption

We support market-driven choices for commercial adoption of ZEV's when applications warrant it, not an arbitrary sales threshold that may jeopardize the availability of non-ZEV's that are necessary until technology catches up to aspirations.

Solutions Should Focus on Lower Hanging Fruit

ZEV's might be ready for some applications before others. For instance, vehicles that travel short distances and return to the same location after each shift might be the first adopters of this clean technology. But in trucking, equipment doesn't always end up in the same place after each use because it goes where it is needed to move freight for customers – which presents likely logistics problems, infrastructure problems and efficiency optimization problems. A fleet's ZEV's will only be able to be used in certain circumstances, in certain regions and for specific purposes depending upon the range and there is no way to know whether the arbitrary sales thresholds are too burdensome.

The Probability of Unintended Consequences

- If passed, this rule will encourage longer vehicle life cycles while ZEV technology and infrastructure catch up to real-world needs. The older the truck, the less emission-reducing technology it will have at a time when the objective is to improve air quality now.
- Added to the exponentially higher cost of ZEV trucks is the specter of the 12% Federal Excise Tax (FET) being charged on this much higher number, creating a serious investment disincentive.
- As all vehicles get more efficient, the impact on the Highway Fund will be felt and safety must be considered.

Range and Payload Examples

Assumptions (*in order to simplify, does not include hours-of-service considerations):

- A Diesel Day cab weight of 17,000 lbs. (which includes 125 gallons of diesel)
 - 125 gallons of diesel would give a range of 905 miles (7.24 mpg average according to The North American Council for Freight Efficiency (NACFE))
- A Battery Electric Vehicle (BEV) day cab with a range of 200 miles and a weight of 22,000 lbs.
- An empty trailer weight of 10,000 lbs.

Analysis #1:

- The diesel truck could go from Bangor to Cleveland, OH before filling up (867 miles).
- The BEV truck could go from Bangor to Seabrook, NH before needing a charge (196 miles).

Analysis #2:

- Widgets need to go from Bangor to Portland (130 miles one-way, 260 miles round-trip) and the company requires the gross weight to be 80,000 lbs.
 - The diesel truck can haul a payload of 53,000 lbs. each load (80k – 17k -10k).
 - The BEV truck can haul a payload of 48,000 lbs. each load (80k – 22k – 10k).
- The diesel truck can make 3 trips/day (905-mile range on 125 gallons, 260 miles round trip)
- The BEV truck can make it to Portland once and then back to Gardiner before it needs to charge in order to eventually make it back to Bangor.
 - Due to charging time, effectively it will only be able to make one trip per day.
 - This assumes there is charging availability in Gardiner.
- If the company wants to do three loads per day, they will need either one diesel truck... or 3 BEV trucks – investing in three more units at a much higher cost while staffing these extra units (and paying labor costs) with drivers that are few and far between due to the workforce shortage.
- If only one unit is used, at the end of a 5-day week, the diesel truck will have hauled 795,000 lbs. (3 trips x 5-days x 53,000 lb. payload) whereas the BEV truck will have hauled 240,000 lbs. (1 trip x 5-days x 48,000 lb. payload) which is only 30% of the payload that the diesel truck was able to haul.

Result: More ZEV Trucks Will be Needed to Haul the Same Amount of Freight