



August 28, 2023

VIA ELECTRONIC MAIL

Maine Board of Environmental Protection
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333

RE: Sierra Club Comments on Chapter 128, Advanced Clean Trucks Program

Dear Chair Lessard and Members of the Board of Environmental Protection:

On behalf of its 22,000 members and supporters in Maine, Sierra Club respectfully submits the following comments in response to the Board of Environmental Protection’s July 26, 2023 Notice of Rulemaking. Sierra Club thanks the Board for commencing the rulemaking process for the Advanced Clean Trucks rule (ACT) and supports adoption of ACT in 2023. The policy will function as a gradual but guaranteed way to increase the percentage of electric medium- and heavy-duty vehicles (MHDVs) on Maine’s roads and decrease the percentage of polluting diesel trucks. The ACT rule has already been adopted in California, Colorado, Massachusetts, New Jersey, New York, Oregon, Vermont, and Washington. Several more states are considering adoption or are in the process of finalizing the rule, including Maryland, New Mexico, and North Carolina. Sierra Club urges that Maine join these states in adoption of the ACT in 2023.

I. Adoption of the ACT Rule is Critical to Meeting Maine’s Climate Targets

Maine’s climate law requires the state to reduce greenhouse gas emissions 45% below 1990 levels by 2030, achieve net zero emissions by 2045, and reduce emissions 80% below 1990 levels by 2050.¹ Maine cannot achieve those reductions without greatly reducing emissions from the transportation sector, which accounts for nearly half of Maine’s carbon dioxide equivalent (CO₂e) emissions from fossil fuels,² with medium- and heavy-duty vehicles (MHDVs) contributing about 27% of that total.³ As recognized in the Maine Clean Transportation Roadmap, “[e]lectrifying MHDVs is critical for meeting Maine’s 2030 and 2050 GHG goals.”⁴

¹ 38 M.R.S. § 576-A.

² Maine Department of Environmental Protection, Bureau of Air Quality, *Ninth Biennial Report on Progress toward Greenhouse Gas Reduction Goals* (July 2022), at 10.

³ Governor’s Energy Office, Governor’s Office on Policy, Innovation, and the Future, Cadmus, *Maine Clean Transportation Roadmap* (Dec. 2021), at 1.

⁴ Maine Clean Transportation Roadmap at 3.

The ACT rule will reduce medium- and heavy-duty vehicle emissions by requiring an increasing number of vehicles sold each year to be zero-emission. The gradual ramp-up will require manufacturers to sell zero emission vehicles for up to 55% of Class 2b to Class 3 trucks, 75% of Class 4 to Class 8 straight trucks, and 40% of truck tractor sales by 2035.⁵ The Maine Clean Transportation Roadmap emphasized that ACT adoption is “critically important in terms of impact on GHG emissions” and would have a “profound impact on GHG emissions from the transportation sector.”⁶ In order to comply with the climate law’s 2030 target, Maine must adopt the ACT rule this year so that the regulation can take effect beginning with model year 2027. To meet the 2050 emissions reduction target, Maine’s must adopt the ACT rule to achieve XX% electric new vehicle sales by XX.

Data from the International Council on Clean Transportation (ICCT) illustrates the emissions benefits adoption of the ACT rule would bring to Maine.⁷ The table below shows the estimated cumulative emissions avoided between 2020 and 2050 with ACT adoption in Maine as compared to a Business as Usual (BAU) emissions scenario, including 22.13 million metric tons of CO₂e.

Table 2. Cumulative M/HD emissions benefits in Maine compared to BAU, 2020–2050

Program	Cumulative emissions reduction		
	NO _x (U.S. tons)	PM _{2.5} (U.S. tons)	CO ₂ e (MMT*)
ACT	20,440	182	22.13
HDV omnibus	14,600	N/A	N/A
ACT + HDV omnibus	28,730	182	22.13
ACT + HDV omnibus + 100% HD ZEV sales in 2040	34,786	266	28.59

*million metric tons

The figure below, also from the ICCT,⁸ further shows that a business-as-usual case in Maine results in an unacceptable increase in GHG emissions from heavy-duty vehicles through 2050, which would prohibit Maine from meeting its climate mandates.

⁵ *Id.* at 29.

⁶ Governor’s Energy Office, Governor’s Office on Policy, Innovation and the Future, Cadmus, *Maine Clean Transportation Roadmap* (Dec. 2021) (“Clean Transportation Roadmap”) at 53.

⁷ International Council on Clean Transportation, Benefits of adopting California’s Advanced Clean Truck Program, Heavy Duty Vehicle Omnibus Standards and a 100% sales requirement in Maine, September 2022, <https://theicct.org/wp-content/uploads/2022/09/HDV-fact-sheet-ME-092122.pdf>

⁸ *Id.*

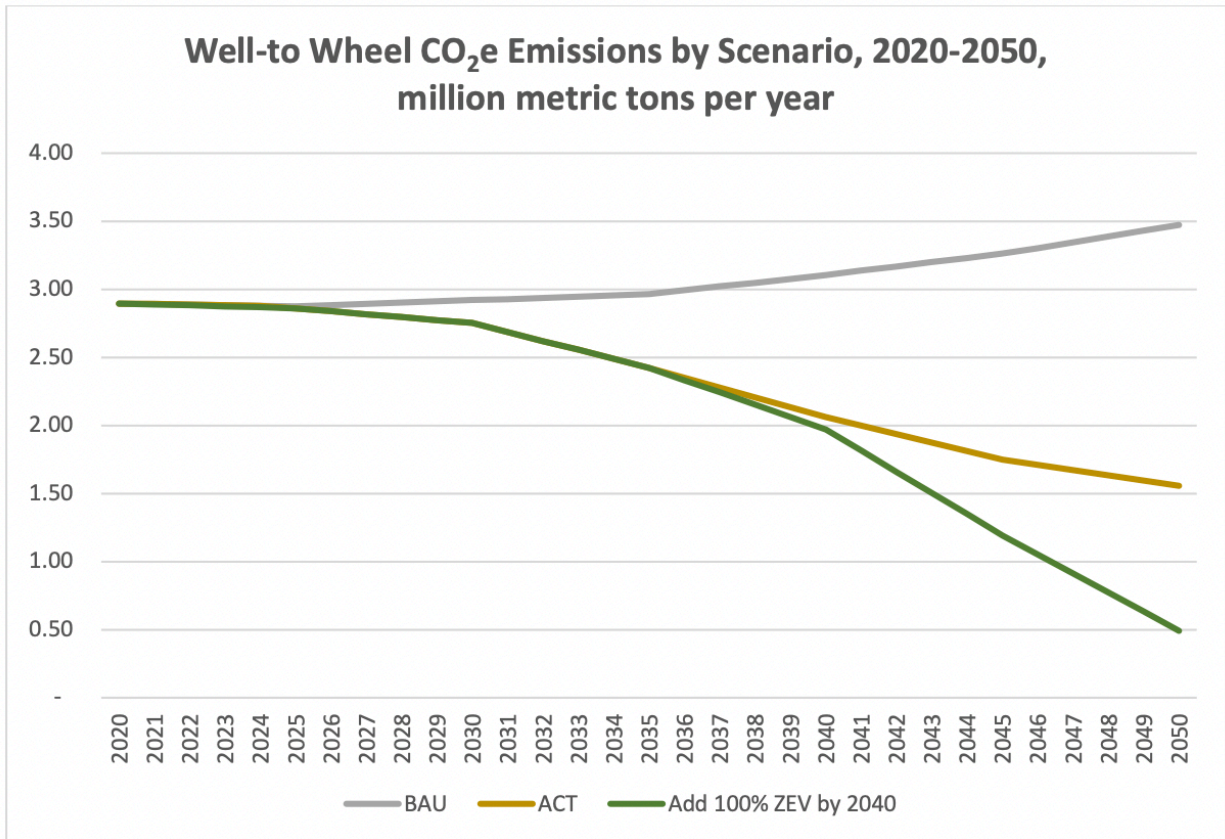


Figure 3. Well-to-wheel HDV CO₂e emissions by scenario 2020–2050

II. ACT Adoption Will Benefit the Health of Maine Residents

In addition to CO₂, gasoline and diesel-powered vehicles emit many other pollutants that are harmful to human health and lead to increased risk of asthma, lung disease and cancer.⁹ Diesel pollution is overwhelmingly concentrated in environmental justice populations, which are more likely to be located near major highways, trucking corridors, marine terminals, and distribution hubs. As illustrated in the table above, Maine can greatly reduce emissions of NO_x and PM 2.5 through adoption of the ACT, including a decrease of 20,440 U.S. tons of NO_x and 182 U.S. tons of PM 2.5. The Board should adopt the ACT rule to ensure these public health benefits are realized for all Maine residents.

III. EV Adoption Will Benefit All Maine Consumers and the Electric Grid

Increased EV adoption will benefit all Maine residents, regardless of whether they are EV owners because EVs drive electricity costs down for all ratepayers. EVs present significant opportunity to reduce electricity costs for all customers by spreading utility fixed costs over a greater quantity of kilowatt-hour sales, particularly if the additional load occurs during off-peak

⁹ American Lung Association, *Zeroing in on Healthy Air* (Mar. 2022) (“Zeroing in on Healthy Air”) at 3.

times.¹⁰ Analysis by Synapse Energy Economics, Inc. of empirical evidence from the two utility service territories with the highest EV penetrations in the country (Pacific Gas & Electric’s and Southern California Edison’s service territories in California) shows that EV load puts downward pressure on rates: over eight years from 2012-2019, EV drivers in these service territories contributed \$806 million more in revenues than associated costs, and drove rates down for all customers.¹¹ As Synapse concluded, “in the two utility service territories with the most EVs in the US, EVs have increased utility revenues more than they have increased utility costs—leading to downward pressure on electric rates for EV-owners and non-EV owners alike.”¹² Importantly, Synapse’s analysis shows that EVs generated more utility revenue than costs and put downward pressure on rates even when most customers were on traditional tiered rates and these benefits were amplified when time of use rates were implemented.¹³ Similar benefits are expected in Maine as the state accelerates transportation electrification and optimizes charging loads to occur during off-peak hours.

Further, the ACT rule will save fleet operators money in the long term. While the upfront costs for electric trucks may be higher than those of diesel vehicles today, those costs are rapidly declining as battery costs decline and are expected to drop further as sales volumes increase over the ACT rule’s implementation schedule. Electric trucks have lower service, fueling, and maintenance costs compared to their diesel and gasoline counterparts over their lifetime—most segments of electric trucks are expected to reach total cost of ownership parity with their internal combustion counterparts by 2030 if not sooner, even without incentives.¹⁴ Money saved by fleet owners on maintenance will re-enter the local economy.

IV. Conclusion

Sierra Club urges the Board to take this vital step to meet Maine’s climate mandates and to protect the health of Maine residents by adopting the ACT rule this year. Thank you for your consideration.

Respectfully submitted,

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¹⁰ Synapse Energy Economics, *Electric Vehicles Are Driving Electric Rates Down* (June 2020 Update), available at https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ M.J. Bradley & Associates, *Medium- and Heavy-Duty Vehicles: Market Structure, Environmental Impact, and EV Readiness*, July 2021.

<https://www.edf.org/sites/default/files/documents/EDFMHDVEVFeasibilityReport22jul21.pdf>