

February 9, 2023

Maryland General Assembly,
Senate Committee on Education,
Energy, and the Environment

Re: Clean Air Task Force’s *Support* for the Clean Trucks Act of 2023, S.B. 224

Clean Air Task Force (“CATF”) is pleased to provide testimony in support of Maryland S.B. 224, titled “Clean Trucks Act of 2023.” CATF is a global nonprofit organization working to safeguard against the worst impacts of climate change by catalyzing the rapid development and deployment of low-carbon energy and other climate-protecting technologies.

Maryland has taken important steps to reduce climate pollution, improve air quality, and transition to a clean economy. Reducing transportation pollution is an essential next step in Maryland and the rest of the United States to avoid the worst impacts of climate change.

CATF strongly supports S.B. 224, which would put Maryland on a clear path to reducing pollution from medium- and heavy-duty trucks and buses. By passing this bill, Maryland would join an increasing number of states¹ that have adopted or are in the process of adopting the Advanced Clean Truck rule (“ACT”).² This rule will curb climate change pollution, improve public health, and strengthen Maryland communities.

Transportation accounts for 35 percent of Maryland’s annual greenhouse gas (“GHG”) emission, totaling 85.05 million metric tons (“MMT”) per year, according to the 2020 Maryland Greenhouse Gas Inventory.³ Of that 35 percent, diesel vehicles -- many of which are medium- and heavy-duty vehicles, contribute 24 percent or 5.89 MMT per year. Globally, medium- and heavy-duty trucking produces around 2.25 billion metric tons⁴ per year of carbon dioxide (“CO₂”), of which about 487 MMT⁵ per year are emitted in the U.S. These 487 MMT of CO₂ represent 26 percent of total GHG emissions from the U.S. transportation sector.⁶

¹ **Adopted:** California, Massachusetts, New Jersey, New York, Oregon, Vermont, Washington. **Considering:** Connecticut, Maryland, Maine, Colorado, Washington, D.C., Hawaii, North Carolina, Pennsylvania, Rhode Island, Virginia.

² Advanced Clean Trucks Regulation, Cal. Code Regs. tit. 13, §§ 1963-1963.5, 2012-2012.2 (2019).

³ *Greenhouse Gas Inventory*, Maryland Department of the Environment, <https://mde.maryland.gov/programs/Air/ClimateChange/Pages/GreenhouseGasInventory.aspx> (last visited Feb. 6, 2023).

⁴ See *CO₂ emissions from trucks and buses, 2000-2021, and 2030 in the Net Zero Scenario*, Int’l Energy Agency (“IEA”), <https://www.iea.org/data-and-statistics/charts/co2-emissions-from-trucks-and-buses-2000-2021-and-2030-in-the-net-zero-scenario> (last visited Feb. 1, 2023) (sum of heavy, medium trucking and transit bus emissions for 2019).

⁵ See, *Fast Facts on Transportation Greenhouse Gas Emissions*, U.S. Env’t Prot. Agency (“EPA”) (Jul. 14, 2022), <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions> [hereinafter EPA, *Fast Facts*]; see also *Greenhouse Gas Inventory Data Explorer*, EPA, <https://cfpub.epa.gov/ghgdata/inventoryexplorer/#allsectors/allsectors/allgas/econsect/current> (last visited Feb. 1, 2023).

⁶ EPA, *Fast Facts*, *supra* note 5.

Medium- and heavy-duty vehicles also emit high rates of other dangerous pollutants, such as nitrogen oxides and particulate matter.⁷ According to CATF’s Deaths by Dirty Diesel tool, diesel vehicle pollution (both on- and off-road) are projected to contribute to 186 deaths and approximately \$2 billion in monetized health impacts in the state of Maryland this year.⁸ Further, it is well-documented that these pollutants disproportionately harm people of color and low-income communities.⁹ The U.S. Environmental Protection Agency (“EPA”) found that communities living near “high-traffic roadways” are “more likely to be people of color and have lower incomes.”¹⁰

By adopting the ACT,¹¹ Maryland will take meaningful steps toward addressing the health inequities stemming from diesel pollution. The ACT aims to accelerate the transition of Class 2b to Class 8 medium- and heavy-duty diesel trucks to zero emission vehicles (“ZEV”) while providing flexibility to manufacturers to reach this goal. Specifically, the ACT defines a “zero-emission vehicle” as “an on-road vehicle with a drivetrain that produces zero exhaust emission of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.”¹² This definition allows manufacturers to comply with the rule by producing and selling several types of vehicles, including battery electric vehicles and hydrogen fuel-cell electric vehicles. In this way, the ACT creates flexibility that will result in both environmental and economic benefits. Adopting ACT also will give Maryland a competitive edge in the global market transition to zero-emission vans, buses, and trucks by ensuring that new vehicle technologies will be available to businesses across the state.

Importantly, new federal policies will provide historic levels of funding for clean energy and climate change solutions. States such as Maryland have access to billions of dollars in federal funding that can be used to implement the ACT. The Inflation Reduction Act (“IRA”), for example, offers billions of dollars in financial support through tax credits for manufacturing,¹³

⁷ American Lung Association (“ALA”), *Delivering Clean Air: Health Benefits of Zero-Emission Trucks and Electricity* 3 (2022), <https://www.lung.org/getmedia/e1ff935b-a935-4f49-91e5-151f1e643124/zero-emission-truck-report>.

⁸ See *Deaths by Dirty Diesel*, CATF, <https://www.catf.us/deathsbydiesel/> (last visited Feb. 1, 2023).

⁹ See Emily Kent & Jonathan Lewis, CATF, *Diesel Pollution is a Deadly Problem in the United States* (Jan. 20, 2022), <https://www.catf.us/2022/01/diesel-pollution-deadly-problem-united-states/> (noting that air pollution from diesel trucks and other diesel-fueled equipment “often occurs in industrial or urban hubs and causes health disparities that further inequitable harms on historically marginalized communities.”); ALA, *New Report: Transition to Zero-Emission Trucks Could Save More Than 66,000 Lives* (Oct. 4, 2022), <https://www.lung.org/media/press-releases/new-report-transition-to-zero-emission-trucks-cou> (“Truck traffic produces harmful pollution, and approximately 45% of residents living in counties with major truck traffic are people of color.”).

¹⁰ EPA, Office of Transportation and Air Quality, EPA-420-F-22-008, *Transportation and Environmental Justice Regulatory Announcement 2* (Mar., 2022), <https://nepis.epa.gov/Exe/ZyPDF.cgi/P10144Y3.PDF?Dockey=P10144Y3.PDF>.

¹¹ Advanced Clean Trucks Regulation, Cal. Code Regs. tit. 13, §§ 1963-1963.5, 2012-2012.2 (2019).

¹² *Id.* § 1963(c)(21).

¹³ See, e.g., 26 U.S.C. § 45X (advanced manufacturing production credit with direct pay available for states); *id.* § 48C (advanced energy project credit with direct pay available for states).

vehicle replacements,¹⁴ charging and fueling infrastructure,¹⁵ supply chain development,¹⁶ worker training,¹⁷ emissions monitoring,¹⁸ and community benefits.¹⁹ In particular, the IRA provides tax credits for clean fuel production,²⁰ credits to reduce the effective cost of commercial ZEVs such as trucks and buses,²¹ credits for domestic manufacturing of battery components and critical minerals,²² and credits for the development of qualified alternative fuel vehicle refueling property, including charging and refueling stations.²³ The IRA also appropriates \$1 billion to EPA to create a program that awards grants and rebates for the costs of replacing existing vehicles with ZEVs, purchasing, installing, operating, and maintaining infrastructure needed for ZEVs, associated workforce development and training, and planning and technical activities needed to support the deployment of ZEVs.²⁴ These new federal policies, along with many others,²⁵ will provide important financial incentives to industry in support of Maryland's transition away from diesel-powered trucks.

Additionally, the Infrastructure Investment and Jobs Act provides \$8 billion to the Department of Energy ("DOE") to fund regional hydrogen hubs across the country.²⁶ Although the DOE has yet to finalize the locations of these hubs, the Mid-Atlantic Hydrogen Hub coalition, which covers Maryland, Virginia, and the District of Columbia, has submitted a proposal for DOE funding and has received a notice of encouragement from the DOE to continue with its application.²⁷ Federal investment in clean fuel production will support a growing fleet of ZEVs and financially aid in the implementation of the ACT.

Given the urgency of climate change and the significant opportunity to improve public health, strengthen communities, boost Maryland's economic competitiveness, and leverage federal funding, now is the time for Maryland to adopt the ACT.

Therefore, Clean Air Task Force urges the Maryland Senate to adopt S.B. 224.

¹⁴ Inflation Reduction Act of 2022 § 60101, 42 U.S.C. § 7432 (adding new Clean Air Act § 132 to provide grants for clean heavy-duty vehicles); 26 U.S.C. § 45W (clean vehicle credit with direct pay available for states and other government vehicles).

¹⁵ See, e.g., 26 U.S.C. § 30C (alternative fuel vehicle refueling property credit with direct pay available for states); *id.* § 45V (clean hydrogen credit with direct pay available for states).

¹⁶ See, e.g., *id.* §§ 48C & 45X.

¹⁷ See 42 U.S.C. § 7432.

¹⁸ See Inflation Reduction Act of 2022 § 60105(c) (appropriating \$3 million to "deploy, integrate, and operate air quality sensors in low-income and disadvantaged communities").

¹⁹ See, e.g., 42 U.S.C. § 7438 (Environmental and Climate Justice Block Grants).

²⁰ See 26 U.S.C. § 45V (tax credit for clean hydrogen production); *id.* § 45Z (tax credit for clean fuel production).

²¹ *Id.* § 45W.

²² *Id.* § 45X.

²³ *Id.* § 30C.

²⁴ 42 U.S.C. § 7432.

²⁵ For a more comprehensive summary of federal government funding opportunities, see CATF's forthcoming resource, *IRA and IIJA Funding Programs that Support Advanced Clean Trucks Implementation*.

²⁶ See 42 U.S.C. § 16161a.

²⁷ David Iaconangelo, *DOE eyes winners for nation's first hydrogen hubs*, Politico (Jan. 3, 2023, 6:49 A.M.), <https://subscriber.politicopro.com/article/eenews/2023/01/03/doe-eyes-winners-in-hydrogen-hub-competition-00075864>.

Please reach out to CATF's Senior Manager of U.S. State Policy and Advocacy, Angela Seligman (email: aseligman@catf.us, cell: 314.922.5293) with any questions.

CATF is a global nonprofit organization working to safeguard against the worst impacts of climate change by catalyzing the rapid development and deployment of low-carbon energy and other climate-protecting technologies. With over 25 years of internationally recognized expertise on climate policy and a fierce commitment to exploring all potential solutions, CATF is a pragmatic, non-ideological advocacy group with the bold ideas needed to address climate change. CATF has offices in Boston, Washington D.C., and Brussels, with staff working remotely around the world.