

**ALA\_MD Clean Trucks Testimony\_SB 224.pdf**

Uploaded by: Aleks Casper

Position: FAV



American Lung Association Testimony Senate Bill 224  
Education, Energy, and the Environment  
February 9, 2023  
Support

Chair Feldman and Members of the Committee:

Thank you for the opportunity to provide comments. **The American Lung Association in Maryland strongly supports Senate Bill 224 – Clean Trucks Act of 2023.** The Lung Association believes that Maryland must continue to enact policies that will make meaningful reductions in harmful air and climate pollution and ultimately protect the health and well-being of Marylanders. Senate Bill 224 would be an important step toward health protection.

The American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease, through research, education and advocacy. The work of the American Lung Association is focused on four strategic imperatives: to defeat lung cancer; to improve the air we breathe; to reduce the burden of lung disease on individuals and their families; and to eliminate tobacco use and tobacco-related diseases.

The American Lung Association's [2022 State of the Air](#)<sup>1</sup> report revealed that four in ten Americans, more than 137 million people live in counties that had unhealthy levels of ozone and/or particle pollution. In Maryland there were mixed results with 54% living in a community with unhealthy levels of ozone or particle pollution. Ozone and particle pollution can harm the health of all Maryland residents and of particular risk are children, older adults, pregnant people, and those living with chronic diseases – approximately 100,000 children and 422,000 adults are living with asthma in Maryland. Both ozone and particle pollution can cause premature death and other serious health effects such as asthma attacks, cardiovascular damage, and developmental and reproductive harm.

Climate change is one of the most urgent threats to human health of the 21<sup>st</sup> century. Reduction of harmful pollutants caused by burning fossil fuels and other combustion is critical to improving the local health today and ensuring a stable climate for future generations. Climate change is first and foremost a public health issue and one that creates disproportionate impacts across the state's diverse communities. Further, climate change is making the job of cleaning our air much more difficult as temperatures rise and drive conditions for unhealthy ozone pollution days, among other health challenges.

The American Lung Association supports measures to reduce all emissions that contribute to climate change. Such measure should include but are not limited to transitioning away from fossil fuels to increased use of clean, non-combustion, renewable energy sources and zero-

emission transportation technologies, expanding energy conservation and efficiency measures and establishing enforceable and science-based limits on emissions for all sectors including industrial, energy, commercial, residential and transportation. We support measures to reduce other outdoor air pollutants while reducing emissions that cause climate change.

The transportation sector is the leading source of air and climate pollutants. The American Lung Association recently issued our [Zeroing In on Healthy Air](#)<sup>2</sup> report which finds that a widespread transition to zero-emission vehicles powered by clean energy sources could result in up to 110,000 avoidable deaths and \$1.2 trillion in public health benefits across the United States over the next 30 years. In Maryland specifically, the report found that transition to clean energy transportation could have \$27.8 billion in public health benefits including 2,530 avoided deaths, 63,600 avoided asthma attacks and 315,000 avoided lost workdays. Achieving these public health benefits requires strong policies and investments at the local, state, and national levels to spur the transition to zero-emission vehicles and non-combustion, electricity generation. The transition to zero-emission technologies would benefit residents across the United States and in Maryland and especially those most burdened by power plants and transportation hubs like highways, ports, and warehouses therefore policies should be enacted to support this transition as Senate Bill 224 proposes to do.

More specific to the benefits of zero-emission trucks, the Lung Association recently issued [Delivering Clean Air: Health Benefits of Zero-Emission Trucks](#)<sup>3</sup> that examined the health benefits of transitioning to zero-emission trucks and power generation in counties impacted by major trucking routes. Heavy-duty trucks deliver major doses of pollution to communities throughout the United States along with their cargo. The report indicated the transition to zero-emission trucking in communities with heavy trucking traffic could generate \$735 billion in public health benefits, 66,800 in fewer premature deaths, 1.7 million fewer asthma attacks and 8.5 million fewer lost workdays. Maryland specifically could see \$19.8 billion in health benefits, 1,803 avoided premature deaths, 46,875 asthma attacks avoided and 231,260 in lost workdays through the shift to zero-emission trucks and energy. We support Maryland's efforts to accelerate the transition of heavy-duty trucks to zero emission as a significant opportunity to reduce health impacts and disparities in pollution-burdened communities.

The American Lung Association believes that all people are entitled to breathe healthy air and to be free of the adverse health effects of air pollution. We support the protection of all people from the harm of air pollution, especially those who suffer disproportionate exposure from local sources of emissions. We recognize that major sources of air pollution are often located near where many people especially communities of color or lower-income residents, live and work which means their pollution burdens can be more immediate and disproportionately harmful.

**The Lung Association strongly supports Senate Bill 224 as an integral way to address the problem of air pollution in our state and significantly reduce harmful emissions and health disparities. We urge the committee to give a favorable report and pass this legislation through the General Assembly.**

We thank you for the opportunity to provide comments and if you need any additional information, please do not hesitate to contact me at [aleks.casper@lung.org](mailto:aleks.casper@lung.org) or 202-719-2810.

Sincerely,



Aleks Casper  
Director of Advocacy

<sup>1</sup> American Lung Association. State of the Air Report, 2022. Available at: <https://www.lung.org/research/sota>

<sup>2</sup> American Lung Association. Zeroing in on Healthy Air, 2022. Available at: <https://www.lung.org/clean-air/electric-vehicle-report#>

<sup>3</sup> American Lung Association. Delivering Clean Air: Health Benefits of Zero-Emission Trucks, 2022. Available at: <https://www.lung.org/getmedia/e1ff935b-a935-4f49-91e5-151f1e643124/zero-emission-truck-report>

# HealthyAirFactSheet\_Maryland\_Final.pdf

Uploaded by: Aleks Casper


Position: FAV




## State of the Air 2022

**More than 4 in 10 Americans breathe unhealthy air. In Maryland, it's worse.** 54% of Marylanders live in counties impacted by air pollution. Tailpipe emissions and record heat drive up ozone pollution, while prolonged drought conditions and other impacts from climate change, such as historic wildfires, contribute to particle pollution.

The American Lung Association's [State of the Air](#) 2022 report finds Maryland is home to significant air pollution challenges.

Maryland has  
**522,982**   
adults and children  
with asthma.

**54%** live in a   
community  
with **unhealthy levels of ozone  
or particle pollution.**

**3.3 Million**   
live in a community  
with **unhealthy levels of  
ozone or particle pollution.**

Poor air quality contributes to a wide range of negative health impacts, including childhood asthma attacks, impaired lung function and development, lung cancer, heart attacks and strokes, and premature deaths. Many Marylanders, especially those in lower-income communities and communities of color, often face disproportionate impacts due to multiple, local sources of pollution.

# Zeroing in on Healthy Air

Moving away from combustion to zero-emission technologies is critical to clean air, health equity and a healthy climate. The American Lung Association's [Zeroing in on Healthy Air](#) report finds that a widespread shift to zero-emission transportation and clean energy would yield major health benefits between 2020 and 2050.

The widespread transition to zero-emission cars, buses, trucks and clean energy would yield billions in avoided health costs and climate change impacts in Maryland.

## MARYLAND

### Health Impacts Avoided (2020-2050)

- Premature Deaths: 2,530
- Asthma Attacks: 63,600
- Lost Work Days: 315,000

· **Public Health Benefit: \$27.8 Billion**

## Taking Action = Clean, Healthy Air for All

State policies must ensure a rapid shift to zero-emission transportation and non-combustion energy so that all communities can breathe cleaner, healthier air. To achieve this, Maryland should move quickly to:

- **Accelerate the deployment of zero-emission vehicle infrastructure** and non-combustion renewable energy resources.
- **Adopt the Advanced Clean Truck (ACT) standard** to ensure health and equity benefits of increasing sales of zero-emission trucks over the coming decade.
- **Adopt the Advanced Clean Cars II (ACCII) to deliver the health benefits** of 100 percent zero-emission passenger vehicle sales by 2035.

## American Lung Association Poll

Americans want stronger standards to protect the environment, reduce air pollution and transition toward zero-emission vehicles.\*



**88%** support the Environmental Protection Agency enforcing stronger air-quality standards.



**85%** say protecting the environment and growing the economy go hand-in-hand.



**72%** support significant investments in zero-emission vehicles as part of our efforts to rebuild the economy.



**70%** agree the federal government should implement policies supporting a transition to zero-emission vehicles.



Baltimore, Maryland

**“A nationwide transition to electric vehicles is urgently needed to improve lung health and advance health equity. Policies to eliminate emissions from cars, trucks, buses and delivery vans are a win-win. Zero-emission vehicles curb climate change and provide immediate benefits to health at the same time.”**

Harold Wimmer, National President and CEO  
American Lung Association  
*Electric Vehicle Poll, June 2021*

# **2023 TESLA MD SB 224 Clean Trucks Act Support Lett**

Uploaded by: Ashlie Bagwell

Position: FAV



**TESTIMONY REGARDING SB224**  
**being heard by the Maryland Senate Education, Energy, and the Environment Committee**  
**on Thursday, February 9 at 1:00 PM**

Dear Chair Feldman, Vice-Chair Kagan, and Members of the Committee:

Thank you for the opportunity to comment on SB224, Department of the Environment – Zero-Emission Medium and Heavy-Duty Vehicles - Regulations, which requires the Department of the Environment to adopt the Advanced Clean Truck (ACT) Regulation by December 1, 2023. In 2021 and 2022, California’s ACT Regulation was adopted by six additional states – Massachusetts, New Jersey, New York, Oregon, Washington, and Vermont — and several states, including Connecticut, Colorado, and North Carolina, are finalizing the proposed rules for adoption in 2023. As one of the initial signatories to the 2020 Multi-State Zero Emission Medium- and Heavy-Duty Vehicle Memorandum of Understanding, Maryland joined 15 other states and the District of Columbia in committing to make sales of all new medium- and heavy-duty vehicles in signatory jurisdictions zero emission vehicles by no later than 2050, including at least 30% of new truck sales by 2030. To have any chance of meeting its goals, truck operators in Maryland must have access to the newest models of zero emissions trucks in all classes on the market and the ACT is the key regulatory tool to ensure that these advanced vehicles are available to Maryland’s truck fleets. The ACT rule will encourage manufacturers to focus more time, energy, and resources on selling electric trucks to operators in the state. This will not only help accelerate the adoption of these trucks but will guarantee there is ample supply of electric trucks of all classes available in Maryland.

Tesla’s mission is to accelerate the world’s transition to sustainable energy. Moreover, Tesla believes the world will not be able to solve the climate change crisis without directly reducing air pollutant emissions—including carbon dioxide (CO<sub>2</sub>) and other greenhouse gases (GHG)—from the transportation and power sectors. To accomplish its mission, Tesla designs, develops, manufactures, and sells high-performance fully electric vehicles and energy generation and storage systems, and installs, and maintains such systems. Tesla currently produces and sells four fully electric, zero emissions vehicles (ZEVs): the Model S sedan, the Model X sport utility vehicle (SUV), the Model 3 sedan, and the Model Y mid-sized SUV. Tesla will also soon be introducing a medium duty pickup truck, the Cybertruck.

The ACT rule is not only an essential tool for addressing GHG and tailpipe emissions from the truck sector, it is also reasonable and warranted given the level of demand that can be observed in the marketplace. In December 2022, Tesla delivered the first Tesla Semis, an all-electric Class 8 heavy-duty truck, to Pepsi-Co. The Tesla Semi comes in two models with ranges of 300 and 500 miles respectively demonstrating that an all-electric truck can meet virtually any duty cycle when paired with Tesla’s charging system. Since unveiling the Tesla Semi in late 2017, a significant number of fleets with substantial freight needs have placed reservations for the truck, indicating broad industry demand for heavy-duty electric vehicles. These fleets will be deploying the Tesla Semi in a wide range of applications, including but not limited to, manufacturing, retail, grocery and food distribution, package delivery, dedicated trucking, rental services, intermodal, drayage, and other applications. Companies with operations throughout North America representing every major trucking sector and category of the economy have reserved the Tesla Semi, ranging from food service to logistics to retail.

The reason for this strong interest is clear – the economics of electrified heavy-duty vehicles are incredibly compelling for end-users. With the per mile operational costs being so much less expensive than that of diesel trucks, economic minded operators will maximize the use of their electric trucks and quickly expand the number of electric trucks in their fleets.

Just last week, Tesla announced that we were investing in building our first high-volume Semi factory.<sup>1</sup> Tesla is not alone in its efforts to manufacture electrified medium and heavy-duty vehicles, with numerous other major manufacturers announcing plans to make zero emission Class 8 trucks.<sup>2 3</sup> A similar picture emerges in the context of electric pick-up trucks, with several major legacy and new automakers producing electric pick-up trucks.<sup>4 5</sup> According to a report from CalStart,<sup>6</sup> there will be nearly 200 models of zero emission medium and heavy-duty vehicle models in commercial production by the end of 2023 (several years before the ACT requirements would even come into effect for Maryland).

Strong consumer demand helps drive investments from vehicle manufacturers. Yet, strong regulations that set a clear direction for industry, such as the ACT rule, accelerate the pace of innovation and ensure the industry makes these vehicles available to consumers. As has been the case with the ZEV regulations on light-duty vehicles, EV model availability and supply is significantly more robust in states that adopted the ZEV rule, than in those that did not. In a similar vein, states that adopt the ACT should see more electric trucks models available to operators in those states compared to states that do not put a regulatory scheme in place. With growing demand and wide availability, supported by a strong regulatory framework, the broader industry could easily exceed the targets in the rule, giving momentum towards meeting state emission reduction goals.

Thank you for the opportunity to provide this testimony in support of SB224.

Shatorah Roberson

Staff Policy Advisor

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<sup>1</sup> See Continuing Our Investment in Nevada *available at* <https://www.tesla.com/blog/continuing-our-investment-nevada>

<sup>2</sup> “Keep your eyes on these 9 electric truck and van companies in 2021”; Shane Downing, GreenBiz, January 14, 2021. <https://www.greenbiz.com/article/keep-your-eyes-these-9-electric-truck-and-van-companies-2021>

<sup>3</sup> “Big Rigs Begin to Trade Diesel for Electric Motors”, Susan Carpenter, New York Times, March 19, 2020; <https://www.nytimes.com/2020/03/19/business/electric-semi-trucks-big-rigs.html>

<sup>4</sup> *Id.*

<sup>5</sup> <https://www.ford.com/trucks/f150/f150-lightning/2022/>

<sup>6</sup> <https://calstart.org/zero-emission-model-numbers-expected-double-2023/>

## **2.09.2023 SB 224 Department of the Environment - Z**

Uploaded by: Bee Ditzler

Position: FAV



**TESTIMONY TO THE SENATE ENERGY, EDUCATION, and the ENVIRONMENT  
COMMITTEE**

**SB 224 Department of the Environment - Zero-Emission Medium- and Heavy-Duty  
Vehicles - Regulations (Clean Trucks Act of 2023)**

**POSITION: Support**

**BY: Nancy Soreng – President**

**Date: February 9, 2023**

The League of Women Voters of Maryland (LWVMD) supports proposed legislation SB 224 as it will reduce our reliance on fossil fuels and helps to promote a cleaner environment. We have similar standards for passenger cars and it is important for the state to have requirements for the sale of other heavier vehicles.

The reasons LWVMD favors this bill are multiple:

1. By requiring all fleets to meet a reporting requirement we help to actually identify areas with high freight traffic and therefore we help to identify areas with diesel pollution.
2. This is a cost saving and health saving measure by helping to avoid more cases of respiratory illness like asthma in the long term.
3. By helping Maryland meet the requirements for cleaner air with larger vehicles, we help the state to meet our own state environmental standards.
4. Technology is now available to supply the sales of environmentally friendly zero and low emission fleets and more vehicles will be coming on the market in coming years.
5. Gradual implementation of sales of cleaner vehicles is built into the bill and guidelines are concrete.

We know that trucks, buses, and heavier commercial vehicles have a large impact on air quality and impacts all who are exposed. Multiple states have taken action already and it's time for Maryland to pass this bill to require medium and heavy-duty trucks to raise sales standards and codify a timeline of implementation.

LWVMD urges a favorable report on SB 224.

# **SB 224 Department of the Environment - Zero-Emissi**

Uploaded by: Cait Kerr

Position: FAV

**Thursday February 9, 2023**

**TO:** Brian Feldman, Chair of the Senate Education, Energy, and the Environment Committee, and Committee Members

**FROM:** Michelle Dietz, The Nature Conservancy, Director of Government Relations; Caitlin Kerr, The Nature Conservancy, Conservation & Climate Policy Analyst

**POSITION:** Support SB 224 Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)

The Nature Conservancy (TNC) supports SB 224 offered by Senator Augustine. SB 224 will update Maryland's regulations on medium- and heavy-duty vehicle emissions in order to better protect public health and our environment. This bill is consistent with Maryland's commitments under the Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding as well as with state emissions reduction goals set by the Climate Solutions Now Act of 2022 (CSNA). Furthermore, the Maryland Commission on Climate Change recommends that the state adopt the Advanced Clean Trucks Rule by this year. SB 224 represents a key step in following through on Maryland's commitments to our residents and to other state governments.

The transportation sector is the largest contributor to climate change in our country, our region, and in Maryland. It accounts for approximately 40% of greenhouse gas emissions statewide, predominately from on-road sources. Gas-powered vehicles also emit air pollutants like particulate matter that harm pulmonary and cardiovascular health. Of the particulate matter that diesel-powered vehicles emit, 80%-95% is 'ultrafine' size, which has the ability to penetrate deep into the lungs and enter the circulation system. Nitrogen oxides from fossil fuel combustion, including diesel exhaust, are the major precursors of ground level ozone, which triggers asthma attacks. These dangerous health risks disproportionately impact Black and brown communities and low-income neighborhoods. Nitrogen oxides contribute to increasing new cases of childhood asthma. According to a recent report from the International Council on Clean Transportation, implementing updated emissions regulations for medium- and heavy-duty vehicles through enacting the Advanced Clean Trucks and the Heavy-Duty Omnibus Rules would bring Maryland over \$2.2 billion in public health benefits between 2020-2050, by avoiding over 314 hospital admissions and emergency room visits, 370 premature deaths, and more than 150,000 cases of respiratory illnesses.

Maryland has set ambitious goals to reduce greenhouse gas emissions and combat climate change through the CSNA of 2022. In 2021, the Maryland Department of the Environment modeled the Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding and determined that this is a critical contribution to achieving even fifty percent reductions by 2030, which is less than CSNA targets. We need to act now in order to meet our state climate goals and SB 224 will bring us closer to reaching these targets.

We commend Senator Augustine on introducing this bill, which would improve public and environmental health in our state by reducing emissions in medium- and heavy-duty vehicles in Maryland.

**Therefore, we urge a favorable report on SB 224.**

# **SB0224 Clean Trucks Act of 2023 FAV.pdf**

Uploaded by: Cecilia Plante

Position: FAV



## TESTIMONY FOR SB0224

### Department of the Environment – Zero-Emission Medium and Heavy Duty Vehicles – Regulations (Clean Trucks Act of 2023)

**Bill Sponsor:** Senator Augustine

**Committee:** Education, Energy, and the Environment

**Organization Submitting:** Maryland Legislative Coalition

**Person Submitting:** Cecilia Plante, co-chair

**Position:** FAVORABLE

I am submitting this testimony in favor of SB0224 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of individuals and grassroots groups with members in every district in the state with well over 30,000 members.

This important legislation would require that the Maryland Department of Environment adopt the Advanced Clean Truck rule by December 1, 2023. This rule requires that vehicle manufacturers sell an increasing annual percentage of electrified medium and heavy-duty vehicles including pickup, delivery, and semi-trucks as well as school buses between Model Year 2026 (for states that adopt in 2022) and 2035. These vehicles represent 10% of vehicles on the road but disproportionately contribute to 30% of carbon emissions, 45% of toxic nitrogen oxide emissions, and 57% of health harming particulate matter emitted by the entire transportation sector in the US.

We have to electrify vehicles as soon as possible, and that will not happen without some requirements for it to happen. Manufacturers are disinclined to re-tool their factories and sell electrified vehicles when they are able to sell gas-combustion vehicles.

Under Section 177 of the Clean Air Act, states other than California are not allowed to set their own emissions standards. However, states can choose to follow and adopt vehicle standards that California has enacted. Maryland first adopted California's clean car standards for personal vehicle electrification through legislative action in 2007. Maryland has the opportunity to enact similar standards again and clean up large dirty diesel vehicles that continue to harm our health and exacerbate climate change.

This legislation would help Maryland follow through on its commitment for 30% of all medium and heavy-duty vehicles sales to be electric by 2030 and could create high quality green jobs in the process. Maryland would also be included in the growing number of states adopting the Advanced Clean Truck Rule, including California, Massachusetts, New York, New Jersey, Washington, and Oregon.

We support this bill and recommend a **FAVORABLE** report in committee.





**SB0224\_Clean\_Trucks\_FAV.pdf**

Uploaded by: Cecilia Plante

Position: FAV



## TESTIMONY FOR SB0224

### Department of the Environment – Zero-Emission Medium and Heavy Duty Vehicles – Regulations (Clean Trucks Act of 2023)

**Bill Sponsor:** Senator Augustine

**Committee:** Education, Energy, and the Environment

**Position:** FAVORABLE

The undersigned organizations express their strong support for **SB0224 Department of the Environment – Zero-Emission Medium and Heavy Duty Vehicles – Regulations (Clean Trucks Act of 2023)** and thank the sponsor, Senator Augustine, for introducing the bill.

This important legislation would require that the Maryland Department of Environment adopt the Advanced Clean Truck rule by December 1, 2023. This rule requires that vehicle manufacturers sell an increasing annual percentage of electrified medium and heavy-duty vehicles including pickup, delivery, and semi-trucks as well as school buses beginning in Model Year 2027. The rule increases sales targets at a pace that is gradual and technologically feasible. These vehicles represent 10% of vehicles on the road but disproportionately contribute to 30% of carbon emissions, 45% of toxic nitrogen oxide emissions, and 57% of health harming particulate matter emitted by the entire transportation sector in the US.

We have to electrify vehicles as soon as possible, and that will not happen without some requirements for it to happen. Manufacturers are disinclined to re-tool their factories and sell electrified vehicles when they are able to sell gas-combustion vehicles.

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This legislation would help Maryland follow through on its commitment for 30% of all medium and heavy-duty vehicles sales to be electric by 2030 and could create high quality green jobs in the process. Maryland would also be included in the growing number of states adopting the Advanced Clean Truck Rule, including California, Massachusetts, New York, New Jersey, Washington, and Oregon.

We support this bill and recommend a **FAVORABLE** report in committee.

## Endorsing Organizations

350 Baltimore  
350 Montgomery County  
Adat Shalom Climate Action  
Assateague Coastal Trust  
Audubon Naturalist Society  
Casa de Maryland  
Cedar Lane Unitarian  
Universalist Church  
CHEER  
Chesapeake Bay Foundation  
Chesapeake Climate  
Action Network Action Fund  
Chesapeake Physicians for  
Social Responsibility  
Chispa MD  
Clean Air Prince Georges  
Clean Air Prince Georges  
Clean Water Action  
Climate Law & Policy Project  
Climate Parents of Prince  
Georges  
Climate Reality Montgomery  
County  
Climate Solutions  
Climate Stewards of  
Greater Annapolis  
Climate XChange - Maryland  
Coalition For Smarter Growth  
Columbia Association Climate  
Change  
Concerned Citizens Against  
Industrial CAFOs  
Do The Most Good  
Montgomery County  
Echotopia  
Elders Climate Action  
Environmental Justice Ministry  
Frack Free Frostburg  
Glen Echo Heights Mobilization  
Greenbelt Climate  
Action Network

HoCo Climate Action  
Howard County Indivisible  
Howard County Sierra Club  
Interfaith Power and Light, DC,  
MD, NoVa  
Labor Network for  
Sustainability  
Laurel Resist  
Maryland Environmental  
Health Network  
Maryland League of  
Conservation Voters  
Maryland Legislative  
Coalition  
Maryland NAACP  
State Conference,  
Environmental Justice  
Committee  
Maryland Poor People's  
Campaign  
MCPS Clean Energy  
Campaign  
MD Campaign for  
Environmental Human  
Rights  
Mid-Atlantic  
Ministry of Maryland  
MoCo DCC  
Montgomery Countryside  
Alliance  
Montgomery County Faith  
Alliance  
Mountain Maryland  
Movement  
National Parks Conservation  
Association  
Nuclear Information &  
Resource Service

Potomac Conservancy  
Sustainability Advisory  
Committee  
Sierra Club, Maryland  
Chapter  
Strong Future Maryland  
Sunrise Baltimore  
Takoma Park Mobilization  
Environment Committee  
Talbot Rising  
The Climate Mobilization  
Montgomery County  
The Nature Conservancy  
Unitarian Universalist  
Legislative Ministry  
Wicomico NAACP  
WISE

# **CSG SB224 Clean Truck Rule - Support.docx.pdf**

Uploaded by: Cheryl Cort

Position: FAV

**Support** for SB 224 - Clean Trucks Act of 2023

Education, Energy, and the Environment Committee

Position: Favorable

Feb. 8, 2023

Cheryl Cort, Policy Director

Thank you for the opportunity to provide testimony in support of SB 224, Clean Trucks Act of 2023. Please accept this testimony on behalf of the Coalition for Smarter Growth, the leading organization advocating for walkable, bikeable, inclusive, transit-oriented communities as the most sustainable and equitable way for the Washington, DC region to grow and provide opportunities for all. We work extensively in Suburban Maryland, focused in Montgomery and Prince George's County.

We would like to express our support for SB 224, which will implement the Advanced Clean Truck Rule. The rule requires that vehicle manufacturers sell an increasing percentage of new zero-emission trucks and school buses through 2035. By requiring the electrification of school buses and large pickup, delivery, drayage, and semi-trucks, the Advanced Clean Truck Rule is a critical tool in the effort to combat toxic air pollution that makes us sick and contributes to climate change.

Trucks and other large vehicles account for an outsized share of carbon and particulate matter pollution thus controlling damaging emissions from these sources is essential to stepping up our efforts to clean the air to protect public health, and address climate change.

We ask that the committee give this bill a favorable report.

Thank you for your consideration.

**FAVORABLE SB 687 Written Testimony Berg.pdf**

Uploaded by: Christine Berg

Position: FAV

**SB 0224: Zero-Emission Truck Act of 2023**

**Date: February 9, 2023**

**Committee: Senate Education, Energy, and the Environment**

**Position: FAVORABLE**

**Christine D. Berg, M.D.**

**Oncologist**

As a concerned oncologist, internationally recognized in cancer screening, I respectfully submit the following public comments in **FAVOR** of SB 0224 the Zero-Emission Truck Act of 2023. This is a robust bill that will significantly lower emissions from medium- and heavy-duty trucks in Maryland. I would like to particularly acknowledge D47 Senator Augustine who is the Senate Sponsor and the co-sponsors Senators Feldman, Smith, Washington, Watson and Zucker.

Importantly, zero-emission trucks will not have CO<sub>2</sub> emissions which are the leading greenhouse gas contributing to the devastating health effects being experienced from climate change. Of concern to all of us, our friends and loved ones is the effect of worsening climate change on the risks of developing cancer, adverse effects on survival from cancer, and increases in the risk of cancer patients suffering from other diseases such as infections. As an oncologist it is my goal to raise awareness of these issues and help to mitigate them. Two peer-reviewed manuscripts I have co-authored document these worsening impacts<sup>1,2</sup>. All of the climate bills before the House in this session will help to lower this devastating toll.

Additionally, the fine particulate matter, primarily PM 2.5, which is included in diesel exhaust, is responsible for [nearly 1 in 6 lung cancer cases worldwide](#)<sup>3</sup>. While lung cancer survival is improving with improved treatment and early detection, for which my research was instrumental for implementation, it still remains poor<sup>4</sup>. These types of pollutants are also linked to numerous other respiratory and cardiovascular diseases such as asthma, emphysema, and heart attacks. When inhaled, PM<sub>2.5</sub> impacts the entire length of the respiratory tract, from tracheobronchial tree to the air sacs (alveoli) in the lungs. Polyaromatic hydrocarbons bind to PM<sub>2.5</sub> and cause oxidative damage and low-grade, chronic inflammation, [resulting in DNA adducts and gene mutations, among other molecular changes](#)<sup>5</sup>. [This also worsens viral respiratory infections by various mechanisms](#)<sup>6</sup>, including impairment of the immune response, damage of the cilia in the respiratory tract, and intracellular oxidative stress. Another recent study published in Nature Aging showed that short-term exposure to polluted air, [even at levels generally considered "acceptable," can impair mental ability in the elderly](#)<sup>7</sup>.

Nitrous oxide is another harmful pollutant from our transportation system that has dramatic health consequences. When combined with volatile organic compounds (VOCs), the reaction creates ozone in the presence of sunlight and heat. Exposure of healthy individuals to [relatively low ozone concentrations can cause harmful respiratory conditions](#) and cardiopulmonary impacts, including lung irritation, breathing difficulties, reduced lung capacity, aggravated asthma, COPD, and increased mortality from cardiopulmonary and lung disease<sup>8</sup>. Millions of



Americans suffer from the [harmful effects of ground-level ozone pollution](#) —be they children too sick to go to school, high school football players not allowed to practice outdoors in the summer, 65-year-olds with lung disease unable to take a walk in the park, or farmers at risk when they harvest their fields<sup>9</sup>. Ozone pollution will also worsen as climate change worsens.

In one year, in the Northeast and mid-Atlantic alone, tailpipe-related pollution caused an estimated 7,100 premature deaths<sup>10</sup>. According to a study, [many of these deaths were from the pollution that crosses state lines](#). The authors said that this new, detailed modeling of the damages from specific pollutants and classes of vehicles could help policymakers target regional efforts and replicable efforts (such as the ACT rule) to curb interstate transportation pollution<sup>11</sup>. An additional study by the Clean Air Task Force focusing on Maryland, see Figure attached, documents adverse health effects localized to Maryland from diesel exhaust here in the state<sup>12</sup>.

Based on my discussions with transportation and climate change experts, including at the Union of Concerned Scientists, I am confident this Act is a reasonable policy solution to meet our mutual goal of improving the health of Maryland residents while also curbing climate change which has additional negative health consequences. By joining with other states in our region, who have passed this legislation, Vermont, Massachusetts, New Jersey, and New York, this will serve as a model for all states to reduce a significant source of particulate and greenhouse gas emissions. Maine and Rhode Island are also considering this.

In summary, I urge a **FAVORABLE** vote on **SB0224** Zero-Emission Truck Act of 2023,

Sincerely,

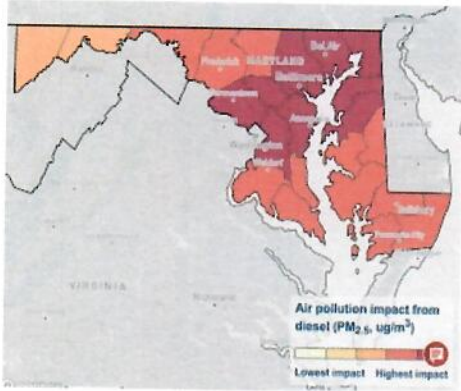


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301-908-0398 (cell)

Note: The ideas expressed in these written comments are solely my own and do not express the views or opinions of my employers.

# FIGURE

## Health Effects of Diesel | Maryland



| Annual Projected Impacts in 2023: Health |       |                               |
|--|-------|-------------------------------|
| Deaths                                   | 186   | # of deaths                   |
| Heart Attacks                            | 73    | # of heart attacks            |
| Acute Bronchitis                         | 115   | # of cases                    |
| Upper Respiratory Symptoms               | 2,088 | # of cases                    |
| Lower Respiratory Symptoms               | 1,462 | # of cases                    |
| Emergency Room Visits, Asthma            | 48    | # of visits                   |
| Asthma Exacerbation                      | 2,149 | # of cases                    |
| Lifetime Cancer Risk Per Million         | 246   | # of cases per million people |

Clean Air Task Force <https://www.catf.us/work>

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# **Maryland\_SB-hearing-statement.pdf**

Uploaded by: Claire Buysse

Position: FAV

## ICCT testimony on Maryland Senate Bill 224

9 Feb 2023

The ICCT is an independent, non-profit research organization that provides technical analysis to inform clean transportation policies. We appreciate the opportunity to testify on Senate Bill 244, the Clean Trucks Act of 2023.

The ICCT strongly supports the proposed bill that would require the Maryland Department of Environment to adopt the Advanced Clean Trucks rule this year. These requirements are needed to reduce the harmful emissions from combustion-engine medium- and heavy-duty vehicles and to achieve the state's climate goals. ICCT analysis shows that the adoption of the ACT rule in Maryland would reduce cumulative CO<sub>2</sub>-equivalent emissions by 46 million tons through 2050. Annual avoided CO<sub>2</sub>-equivalent emissions would amount to 540,000 tons in 2031 and 3.9 million tons in 2050. Adoption of the ACT rule would also reduce cumulative NO<sub>x</sub> emissions by 70,000 tons and PM<sub>2.5</sub> emissions by 613 tons. More detail on our analysis can be found in ICCT's fact sheet on the benefits of adopting California's ACT program in Maryland, which is posted on our website.<sup>1</sup>

Maryland has committed to strive towards a 30% sales share of zero-emission medium- and heavy-duty vehicles by 2030, alongside 18 other jurisdictions in the United States and Canada as signatories to the multi-state medium- and heavy-duty zero-emission vehicle memorandum of understanding. Full implementation of the state's 2030 greenhouse gas reduction plan also includes meeting this 30% target. Adoption of the ACT rule would ensure that this 30% sales target is legally binding for manufacturers. It would additionally align Maryland with seven other leading state governments that have also adopted the regulation, including California, Massachusetts, New York, New Jersey, Oregon, Vermont, and Washington. Zero-emission sales exceeding this 30% target would contribute to closing the 19.7 million tons of CO<sub>2</sub>-equivalent emissions gap between full implementation of the 2030 greenhouse gas reduction plan and the state's new 60% reduction target for 2031.

We strongly support this important legislation, which would require adoption of the ACT rule in 2023 such that Maryland ACT sales requirements would apply starting in model year 2026, delivering critical climate and air quality benefits to Maryland communities. Any delay in adoption would reduce the cumulative benefits to the state's communities. Thank you very much for your attention.

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<sup>1</sup> <https://theicct.org/benefits-ca-multi-state-reg-data/>

**SB 224 - HB 230.pdf**

Uploaded by: Dave Arndt

Position: FAV

February 2, 2023

**Testimony on SB 224/HB 230**

***Clean Trucks Act of 2023***

**Position: Favorable**

Dave Arndt of Baltimore MD supports SB 224/HB 230

Hello,

I live in Baltimore where we have several interstates, port facilities and large distribution warehouses.

Areas with the most truck traffic have a higher rate of asthma and a lower lifespan, by up to 15 years, than the other residents of Baltimore who live away from these diesel generating sources.

This proposed legislation would require that the Maryland Department of Environment adopt the Advanced Clean Truck rule. This rule requires that vehicle manufacturers sell an increasing annual percentage of medium and heavy-duty vehicles including pickup, delivery, and semi-trucks as well as school buses. These vehicles represent 10% of vehicles on the road but disproportionately contribute to 30% of carbon emissions, 45% of toxic nitrogen oxide emissions, and 57% of health harming particulate matter emitted by the entire transportation sector in the US.

Maryland first adopted California's clean car standards for personal vehicle electrification through legislative action in 2007. Maryland has the opportunity to enact similar standards again and clean up large dirty diesel vehicles that continue to harm our health and exacerbate climate change. This will save lives and increase the quality of life for thousands of Maryland residents. Let's not leave anybody behind.

I encourage a FAVORABLE report for this important legislation.

Thank you,

Dave Arndt  
1445 Haubert St.  
Baltimore MD, 21230  
240-328-7383

# **Ceres MD Clean Trucks Act 2023.pdf**

Uploaded by: Dave Robba

Position: FAV





Chair Brian Feldman  
Education, Energy and Environment Committee  
Miller Senate Office Building, 2 West Wing  
11 Bladen St., Annapolis, MD 21401

**RE: Business, Investor, and Employer Support for the Advanced Clean Trucks Rule**

Dear Chair Feldman, Vice Chair Kagan, and Members of the Senate Committee on Education, Energy and the Environment:

My name is Dave Robba and I am a member of the state policy team at Ceres – a nonprofit organization that advances leadership among investors, companies, and capital market influencers to transform the economy and create a just and sustainable future for people and the planet. **I am writing to express Ceres’ support for SB 0224 - the Clean Trucks Act of 2023, which would require the state to adopt the Advanced Clean Trucks (ACT) rule.**

Ceres organizes several influential business networks including the [Business for Innovative Climate and Energy Policy Network](#) (BICEP) - a coalition of over 80 major businesses - all committed to driving sustainability throughout the economy; the [Ceres Investor Network](#), which includes 175 members with collectively nearly \$30 trillion in assets under management; and the [Corporate Electric Vehicle Alliance](#) (CEVA) - a collaboration of 30 companies looking to completely decarbonize and electrify their fleets that collectively own, lease or operate nearly 1.3 million on-road vehicles in the United States.

The companies and investors in our networks see climate change as a significant risk and reducing carbon emissions as an economic opportunity. In fact, [thousands of businesses](#) are working to reduce their short-term emissions in line with climate science and have committed to reaching net-zero no later than 2050. To make progress on these commitments, many businesses are focused on transitioning their MHD fleets to the use of zero-emission vehicles.

A growing number of clean vehicles offer significant cost savings through lower fuel and maintenance costs, and reduce the risk associated with the volatility of fossil fuel prices and supply. A recent survey and analysis of CEVA members revealed plans to procure approximately [330,000 electric vehicles](#) over the next five years, as appropriate models become available. However, commercial vehicle electrification still faces significant challenges due to higher upfront costs, weight, charging time, battery range, and the availability of charging infrastructure.

This is why more than **85 major businesses**, institutions, healthcare systems, employers, and investors with nearly **\$43 billion in assets under management** - including many with operations or business interests in Maryland - [signed a letter calling on states across the nation to adopt the ACT Rule](#).

Market-enabling policies like the ACT address the current challenges facing the business community by rapidly unlocking the long-term savings, climate, and clean air benefits of medium- and heavy-duty vehicle (MHDV) electrification, while spurring the much-needed widespread deployment of charging infrastructure. The ACT rule will help bring down costs by requiring manufacturers to increase model availability to meet the needs of fleet operators and invest in clean transportation research and development.

These actions will enable cost-effective electrification of commercial vehicles at the pace and scale needed for the members of Maryland’s business community to align their operations with the state’s

commitment to reduce emissions 60% by 2031 and achieve net-zero emissions economy-wide by 2045. With transportation accounting for more emissions than any other sector in the state and MHDVs emitting a disproportionate amount of carbon, nitrous oxide, and particulate matter emissions, transitioning to zero-emission MHDVs will be critical to the state's ability to meet these ambitious goals.

Choosing not to adopt the ACT rule could also make it increasingly difficult for companies in Maryland to access the electric and zero-emission MHDV models they need. This is because OEMs will be incentivized to sell the electric and zero-emission models they produce to states that have adopted the rule to ensure they comply with its supply requirements. If OEMs provide more vehicles than required by the rule, they receive a credit that they can sell, so there will be considerable incentives to supply ACT adopters over non-participating states.

**Seven states have already adopted the rule**, including: California, Massachusetts, New Jersey, New York, Oregon, Vermont, and Washington. Two additional states, Colorado and North Carolina, are in the process of adopting the rule.

The Clean Cars Act of 2023 will bring Maryland into the vanguard of clean transportation policy, accelerate the cost-effective deployment of electric medium- and heavy-duty vehicles, drive local innovation and investment in clean technology development and manufacturing, allow our fleet owners and operators to meet financial and climate goals, and significantly reduce air pollution-related health impacts and costs across the state.

We encourage a favorable report on this legislation and look forward to working with you to continue reducing transportation emissions.

Sincerely,  
Dave Robba

# **Testimony SB0224 Clean Trucks Act of 2023-EEE -MoC**

Uploaded by: Debbie Cohn

Position: FAV

**Committee: Education, Energy, and the Environment**  
**Testimony on: SB0224 - Dept. of the Environment-Zero-Emission Medium- and Heavy-Duty Vehicles-Regulations (Clean Trucks Act of 2023)**  
**Organization: Montgomery County Climate Action Plan Coalition (MoCo CAP Coalition)**  
**Submitting: Deborah A. Cohn; Diana J. Younts**  
**Position: Favorable**  
**Hearing Date: February 9, 2023**

Dear Mr. Chairman and Committee Members:

Thank you for allowing our testimony today. The MoCo CAP Coalition (Montgomery County Climate Action Plan Coalition) is a county-wide coalition dedicated to helping Montgomery County achieve its goal of reducing greenhouse gas emissions by 80% by 2027 and 100% by 2035. We urge you to vote favorably on SB0224.

The Clean Trucks Act of 2023 would require Maryland's Department of the Environment to adopt on or before December 1, 2023 regulations establishing requirements for the sale of new zero emission medium- and heavy-duty vehicles, in effect adopting the Advanced Clean Truck Rule. Maryland's Advanced Clean Truck Rule would not require local businesses to purchase these zero emission vehicles (ZEVs). Rather, it would require that vehicle manufacturers sell an increasing annual percentage of new zero emission medium- and heavy-duty vehicles, including pickup, delivery, and semi-trucks as well as school buses between Model Years 2027 and 2035. **Over 100 models from more than 30 manufacturers are either currently on the market or will be before 2024. Over 70 major companies, including fleet operators, are urging adoption of the Advanced Clean Truck Rule.**

**Although medium- and heavy-duty trucks and buses make up only nine percent of Maryland's 4.2 million registered vehicles, they contribute 39 percent of nitrogen oxide (NOx) emissions, 48 percent of fine particulate matter (PM2.5), and 21 percent of climate-changing carbon pollution from all on-road vehicles in the state.**

**The transportation sector is Maryland's number one generator of climate-damaging greenhouse gas emissions.** The state's 2017 Greenhouse Gas Emissions Inventory<sup>1</sup> shows that gasoline and diesel powered on-road and off-road vehicles accounted for roughly 40 percent of state greenhouse gases; **the 2020 Greenhouse Gas Emissions Inventory shows emissions from both types of vehicles rising to 46 percent of state greenhouse gas emissions.**<sup>2</sup>

**Tailpipe emissions from these vehicles are hazardous to human health and contribute to**

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<sup>1</sup> [MD GHG EI Base Year and Projection Years \(maryland.gov\)](#), Figure ES-1 and Section 1.3.3.

<sup>2</sup> Ibid, Figure ES-2.

**cancers, heart disease, asthma, emphysema and other respiratory diseases.** Nitrogen oxides and fine particulate matter can lead to the production of soot, smog and ozone. **More than 80% of Marylanders live in counties that do not meet federal clean air standards for ozone, due in significant part to tailpipe emissions.** Many black and brown communities in Maryland are particularly hard hit with health issues caused by tailpipe pollution due to the cumulative impact created by their proximity to major highways and roadways and to industry polluters such as incinerators, landfills, fossil fuel power plants, electric sub stations, and open coal transfer stations. **Data from a report<sup>3</sup> by the International Council on Clean Transportation shows that by adopting the California Advance Clean Truck standards, Maryland would significantly reduce nitrogen oxides and fine particulate matter and thus cases of respiratory illnesses.**

**This bill would benefit local governments and businesses, making it easier for them to purchase zero emission buses and other medium- and heavy-duty vehicles.** Without regulations adopting the Advance Clean Truck Rule, manufacturers will shift their supply and sales to states that have adopted ACT such as California, Massachusetts, New Jersey, New York, Oregon, Washington and Vermont.

In 2013, Maryland joined seven other states in signing a memorandum of understanding committing to have 300,000 zero-emission vehicles (including plug-ins) on the road by 2025, and 600,000 ZEVs on the road by 2030. Maryland has a goal to reduce state greenhouse gas emissions 60% by 2031 (compared to 2006 levels) and 100% by 2045. **SB0224 would significantly increase the likelihood the state will meet its greenhouse emission reduction goals and improve the lives of its residents.**

We support this bill and recommend a **FAVORABLE** report in committee.

**MoCo CAP Coalition:**

**350 Montgomery County (350 MoCo)**

**Ask the Climate Question (ACQ)**

**Chesapeake Climate Action Network (CCAN)**

**Elders Climate Action Maryland**

**Environmental Justice Ministry Cedar Lane Unitarian Universalist Church**

**Friends of Sligo Creek**

**Glen Echo Heights Mobilization**

**Green Sanctuary Committee of the Unitarian Universalist Church of Silver Spring**

**Montgomery County Faith Alliance for Climate Solutions (MCFACS)**

**One Montgomery Green**

**Safe Healthy Playing Fields**

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<sup>3</sup> 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 Maryland (Sept. 2022), <https://theicct.org/wp-content/uploads/2022/09/HDV-fact-sheet-MD-092122.pdf>

**Sugarloaf Citizens Association**

**Takoma Park Mobilization Environment Committee (TPMEC)**

**The Climate Mobilization, Montgomery County Chapter (TCM MoCo)**

**Transit Alternatives to Mid-County Highway Extended (TAME Coalition)**

**SB224 CATF Favaorable.pdf**

Uploaded by: Dru Schmidt-Perkins

Position: FAV

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 states<sup>1</sup> that have adopted or are in the process of adopting the Advanced Clean Truck rule (“ACT”).<sup>2</sup> 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.<sup>3</sup> 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 tons<sup>4</sup> per year of carbon dioxide (“CO<sub>2</sub>”), of which about 487 MMT<sup>5</sup> per year are emitted in the U.S. These 487 MMT of CO<sub>2</sub> represent 26 percent of total GHG emissions from the U.S. transportation sector.<sup>6</sup>

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<sup>1</sup> **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.

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

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

<sup>4</sup> See *CO<sub>2</sub> 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).

<sup>5</sup> 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).

<sup>6</sup> 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.<sup>7</sup> 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.<sup>8</sup> Further, it is well-documented that these pollutants disproportionately harm people of color and low-income communities.<sup>9</sup> 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.”<sup>10</sup>

By adopting the ACT,<sup>11</sup> 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.”<sup>12</sup> 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,<sup>13</sup>

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<sup>7</sup> 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>.

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

<sup>9</sup> 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.”).

<sup>10</sup> 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>.

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

<sup>12</sup> *Id.* § 1963(c)(21).

<sup>13</sup> 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,<sup>14</sup> charging and fueling infrastructure,<sup>15</sup> supply chain development,<sup>16</sup> worker training,<sup>17</sup> emissions monitoring,<sup>18</sup> and community benefits.<sup>19</sup> In particular, the IRA provides tax credits for clean fuel production,<sup>20</sup> credits to reduce the effective cost of commercial ZEVs such as trucks and buses,<sup>21</sup> credits for domestic manufacturing of battery components and critical minerals,<sup>22</sup> and credits for the development of qualified alternative fuel vehicle refueling property, including charging and refueling stations.<sup>23</sup> 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.<sup>24</sup> These new federal policies, along with many others,<sup>25</sup> 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.<sup>26</sup> 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.<sup>27</sup> 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.

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<sup>14</sup> 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).

<sup>15</sup> 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).

<sup>16</sup> See, e.g., *id.* §§ 48C & 45X.

<sup>17</sup> See 42 U.S.C. § 7432.

<sup>18</sup> 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").

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

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

<sup>21</sup> *Id.* § 45W.

<sup>22</sup> *Id.* § 45X.

<sup>23</sup> *Id.* § 30C.

<sup>24</sup> 42 U.S.C. § 7432.

<sup>25</sup> 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*.

<sup>26</sup> See 42 U.S.C. § 16161a.

<sup>27</sup> 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](mailto:aseligman@catf.us), cell: 314.922.5293) with any questions.

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*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.*

**SB224\_CLEANTRUCKS\_MDPIRG\_ENVMD\_FAV.pdf**

Uploaded by: Emily Scarr

Position: FAV



**SB224: Clean Trucks Act of 2023**  
**Education, Energy and the Environment**  
**Feb. 9th, 2023**  
**FAVORABLE**

*Maryland PIRG is a state based, small donor funded public interest advocacy organization with grassroots members across the state. We work to find common ground around common sense solutions that will help ensure a healthier, safer, more secure future*

*Environment Maryland is a citizen-based environmental advocacy organization. We work to protect clean air, clean water, and open space.*

Throughout the state, Maryland children and families are suffering from the damaging effects of living with unhealthy air quality. Maryland PIRG Foundation and Environment Maryland Research and Policy Center released "[Trouble in the Air](#)" in 2021, which outlined elevated air pollution days throughout the state. The Baltimore area experienced 43 elevated air pollution days in 2020, and many metropolitan areas throughout Maryland faced similar levels of air pollution. Elevated air pollution increases the risk of premature death, asthma attacks, cancer and other adverse health impacts.

**And in the [American Lung Association's 2022 State of the State Report](#), six Maryland counties received an "F" for air quality. [[See chart to view your county here](#)]**

The Clean Trucks Act of 2023 will direct the Department of the Environment to adopt new regulations for the sale of zero-emission medium and heavy duty trucks in the state by the end of 2023..

**Diesel fumes from medium and heavy duty trucks on the road is a true health hazard.**

Diesel particulate matter contributes to numerous health impacts including increased hospital admissions, particularly for heart disease, but also for respiratory illnesses, and even premature death.

Diesel trucks, like all fossil fuel vehicles, are also a source of global warming pollution.

Zero-emission trucks provide savings to fleets: many trucks are already cost competitive on a total cost of ownership basis; larger vehicles are expected to achieve parity by 2025, and heavy-duty long-haul vehicles are expected to achieve parity by 2030 (ZEV owners

are anticipated to save \$30,000 over the lifetime and especially after model year 2035).<sup>1</sup> This is largely due to fuel cost savings from charging with less expensive fuel and anticipated lower maintenance costs.

The upfront price of vehicles is also expected to continue to decline significantly as battery prices decline; state action to push towards zero emissions trucks will only further that trend by increasing supply and improving economies of scale in a way that continues to depress prices. That being said, it is important to remember in the nearer term that looking only at these upfront expenses results in a myopic point of view - one that tells only a small part of the story and doesn't take into account public health impacts and related healthcare costs.

States are moving towards cleaner trucks, including California, Massachusetts, New York, New Jersey, Washington, and Oregon. This legislation would also help Maryland follow through on its commitment for 30% of all medium and heavy duty vehicles sales to be electric by 2030.

**We respectfully request a favorable report.**

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<sup>1</sup> North American Council for Freight Efficiency, *Electric Trucks: Where They Make Sense* (May 2019) at 13-14, <https://nacfe.org/emerging-technology/electric-trucks/>; ICF, Comparison of Medium- and Heavy-Duty Technologies in California – Executive Summary (Dec. 2019) at 4, [https://www.caletc.com/assets/files/ICF-Truck-Report\\_Final\\_December-2019.pdf](https://www.caletc.com/assets/files/ICF-Truck-Report_Final_December-2019.pdf).

**SB224\_MoCo\_SUPPORT.pdf**

Uploaded by: Garrett Fitzgerald

Position: FAV



# Montgomery County

## Office of Intergovernmental Relations

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**ROCKVILLE: 240-777-6550**

**ANNAPOLIS: 240-777-8270**

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**SB 224**

**DATE: February 8, 2023**

**SPONSOR: Senator Augustine**

**ASSIGNED TO: Education, Energy, and the Environment**

**CONTACT PERSON: Garrett Fitzgerald (garrett.fitzgerald@montgomerycountymd.gov)**

**POSITION: FAVORABLE**

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### **Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)**

Senate Bill 224 would require the Maryland Department of the Environment (MDE) to adopt new regulations by December 1, 2023 establishing requirements for the sale of new zero-emission medium- and heavy-duty vehicles in the state. The bill instructs MDE to reference standards adopted by the State of California in 2020, as has already been done in New York, New Jersey, Massachusetts, Oregon, and Washington. Those standards would require all manufacturers that sell medium- and heavy-duty vehicles in the state to sell an increasing annual percentage of those as zero-emission vehicles.

The combustion of fossil fuels in medium- and heavy-duty vehicles results in significant greenhouse gas emissions and criteria air pollution, which is often concentrated in overburdened communities where it contributes to undesirable health outcomes. Technological innovation now allows manufacturers to offer zero-emission models of these vehicles. More than 70 models of zero-emission vans, trucks and buses are already commercially available from several manufacturers, and more are forthcoming.<sup>1</sup>

This bill aligns with a recent recommendation of the Maryland Commission on Climate Change.<sup>2</sup> It will reduce greenhouse gas emissions and criteria air pollution in Maryland, improving public health. The bill will also support the County's efforts to transition our own fleet to zero-emission vehicles by encouraging vehicle manufacturers to offer more options at potentially lower prices.

Montgomery County respectfully urges the Committee to issue a favorable report on Senate Bill 224.

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<sup>1</sup> California Air Resources Board, "Advanced Clean Trucks Fact Sheet," <https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-trucks-fact-sheet>.

<sup>2</sup> Maryland Commission on Climate Change, "2022 Annual Report," Page 11, <https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Pages/index.aspx>.



# **Senate Bill 224 - Support - Zero Emmission Trucks**

Uploaded by: Henry Bogdan

Position: FAV

February 9, 2022

**Testimony on Senate Bill 224**  
**Clean Trucks Act of 2023**  
**Senate Education, Energy, and Environment Committee**

**Position: Favorable**

Maryland Nonprofits is a statewide association of more than 1500 nonprofit organizations and institutions. We strongly urge you to support Senate Bill 224 to join other states in adopting the Advanced Clean Truck Rule for Maryland.

Air quality, like other aspects of the environment, has a significant impact on the health of our communities. **Public infrastructure, and environmental hazards (including factors such as traffic congestion and truck-routing) often have disproportionate effects on low-income communities and communities of color.**

Trucks and other large vehicles account for 9% of vehicles on the road but **contribute 21% of carbon pollution and 48% of particulate matter pollution (PM2.5)** emitted by the entire transportation sector in Maryland. People who are heavily exposed to PM2.5 and other toxic truck emissions like nitrogen oxides are at a greater risk for developing asthma and other lung diseases like chronic obstructive pulmonary disease and lung cancer.

To help meet its long-term climate, air quality, and public health goals, Maryland should pass legislation to adopt the Advanced Clean Truck (ACT) Rule. The rule requires that vehicle manufacturers sell an increasing percentage of new zero-emission trucks and school buses through 2035. By requiring the electrification of school buses and large pickup, delivery, drayage, and semi-trucks, the Advanced Clean Truck Rule is a critical tool in the effort to combat toxic air pollution that makes us sick and contributes to climate change.

The Clean Trucks Act of 2023 would require the Maryland Department of Environment to adopt the Advanced Clean Truck Rule by the end of 2023. The rule requires vehicle manufacturers to sell an increasing annual percentage of zero-emission trucks and school buses that varies by size beginning in Model Year 2027. The rule increases sales targets at a pace that is gradual and technologically feasible.

The Advanced Clean Truck rule has a one-time reporting requirement for all fleets. The collected data will help identify areas with high rates of freight traffic and consequently, diesel pollution. In 2022, the Maryland Commission on Climate Change included a recommendation in its annual report that Maryland adopt the Advanced Clean Truck Rule.

We urge you to give Senate Bill 224 a **favorable report**

# **CCAN AF testimony on Clean Trucks Rule.pdf**

Uploaded by: Jamie DeMarco

Position: FAV

**Testimony in Support of Clean Trucks Rule  
SB 224  
Education, Energy, and the Environment  
2/09/2023**

**Jamie DeMarco, Maryland Director  
Chesapeake Climate Action Network Action Fund**

On behalf of the Chesapeake Climate Action Network Action Fund, I urge a favorable report on SB 224.

Last year Maryland set in statute mandatory goals to cut our climate pollution 60% by 2031 and eliminate our emissions entirely by 2045. These are legally binding goals and failing to meet them would make the state liable to legal action.

Meeting this goal will require that none of the trucks on Maryland's roads in 2045 are powered by fossil fuels. Some people will keep trucks for well over a decade, so to be sure we meet our goals Maryland should set ambitious requirements for the percentage of new trucks that are all electric as soon as possible.

The climate crisis is already incurring costs for Marylanders that is eating up state and local budgets. Annapolis is already spending [\\$50 million to update their dock](#). There are public schools in Maryland that never used to need air conditioning that now need to have air conditioning installed, which will [cost more than \\$700 million in new equipment](#). Our 3,000 miles of low lying coastline makes Maryland one of the states most exposed to the damage of sea level rise. By 2040, [rising sea levels are expected to cost Maryland more than \\$27 billion](#). These changes and others will keep costing Marylanders, and urgent action is needed to reduce climate pollution.

The good news is that [electric vehicles are already cheaper to own over their lifetime than their fossil fuel counterparts](#). By adopting a more ambitious timeline for adopting electric trucks, the Maryland government can save residents money, improve health outcomes, and help meet our climate mandates.

**CONTACT**  
**Jamie DeMarco, Maryland Director**  
[jamie@chesapeakeclimate.org](mailto:jamie@chesapeakeclimate.org), 443-845-5601

# 0224.pdf

Uploaded by: John Ford

Position: FAV

**TESTIMONY IN SUPPORT OF SENATE BILL 0224:**

**Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations  
(Clean Trucks Act of 2023)**

TO: Members of the Senate Education, Energy, and the Environment Committee.

FROM: **John Preston Ford**

DATE: February 8, 2023

I support SENATE BILL 0224 establishing requirements for the sale of new zero-emission medium- and heavy-duty vehicles in the State.

Every single opportunity for moving away from carbon emissions needs to be pursued in this looming climate crisis we have created for ourselves. If this bill does anything to move closer to a zero-emissions future, it must be passed, and it must be passed now before it is too late. I am 31 years old, looking to have my first child in the next few years, and I am terrified what the future being created by carbon emissions looks like.

For these reasons and more, I urge a favorable report on SENATE BILL 0224.

**John Ford  
3301 Fleet St.  
Baltimore, MD 21224**

# **SB0224 Written Testimony.pdf**

Uploaded by: Jose Coronado Flores

Position: FAV



**Testimony in SUPPORT of SB224**

Department of Environment - Zero-Emission Medium- and Heavy Duty Vehicles - Regulations  
Clean Trucks Act of 2023

Senate Education, Energy, and the Environment Committee

Jose Coronado-Flores , On Behalf of CASA

February 9, 2023

Dear Honorable Chair Feldman and Members of the Committee,

CASA is pleased to offer **favorable testimony in support of SB224, Department of Environment - Zero-Emission Medium- and Heavy Duty Vehicles - Regulations, or the Clean Trucks Act of 2023.** CASA is the largest immigrant services and advocacy organization in Maryland, and in the Mid-Atlantic region, with a membership of over 120,000 Black and Latino immigrants and working families.

SB224 is important legislation that will address the large amounts of air pollution heavy-and medium-duty trucks produce by requiring the sale of electric versions of these vehicles. In particular, CASA members and communities of color are exposed to the negative effects of transit related air pollution, and this bill will support those communities in reducing local pollution.

Maryland Department of the Environment data<sup>1</sup> in 2020, indicated that 45 metric tons of CO<sub>2</sub> emissions, which is 21% of the entire transportation sector's emissions, are produced by medium- and heavy- duty vehicles. Even though these vehicles represent about 9% of all vehicles, their pollution is proportionately higher than light vehicles. The same report emphasizes the opportunity to transition a small sector of the vehicles and receive a major reduction in emissions. The Union of Concerned Scientists outlines the tangible inequities in vehicle emissions here in Maryland<sup>2</sup>:

*“Looking at the state as a whole, African Americans are exposed to 12 percent higher PM<sub>2.5</sub> concentrations from on-road transportation than the average PM<sub>2.5</sub> exposure for all Marylanders. Latinos experience concentrations 11 percent higher than the average resident. At the same time, white residents have an average exposure that is 8 percent lower than the average for the state.”*

From communities in Hyattsville to Silver Spring to Baltimore City, highly transited and congested routes run right through our living space. CASA urges a favorable report.

Jose Coronado-Flores

Research and Policy Analyst

jcoronado@wearecasa.org, 240-393-7840

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<sup>1</sup> <https://mde.maryland.gov/programs/workwithmde/Documents/AQCAC/2021MeetingMaterials/AQCAC%20CARB%20FINAL.pdf>

<sup>2</sup> <https://blog.ucsusa.org/cecilia-moura/air-pollution-from-vehicles-maryland/>



**SB224\_MDSierraClub\_fav 9Feb2023.pdf**

Uploaded by: Josh Tulkin

Position: FAV



P.O. Box 278  
Riverdale, MD 20738

**Committee:** Education, Energy, and Environment Committee  
**Testimony on:** Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)  
**Position:** Favorable  
**Hearing Date:** February 9, 2023

The Maryland Chapter of the Sierra Club strongly supports SB224 and considers it to be one of our high priority bills this session. SB224 would require the Maryland Department of the Environment to adopt the Advanced Clean Trucks (ACT) Rule by the end of this year. The rule would require vehicle manufacturers to sell an increasing annual percentage of zero-emission trucks and school buses in the state beginning in Model Year 2027 and concluding in 2035. The rule would increase the percentage of new zero-emission trucks and school buses required to be sold each year at a pace that would be gradual and technologically feasible.

Transportation is the largest source of climate-damaging greenhouse gas emissions and a leading source of toxic air pollution that is hazardous to human health. According to data from a report by the International Council on Clean Transportation, if Maryland adopts the ACT, the state would avoid more than 116,000 cases of respiratory illnesses like asthma cumulatively through 2050. Residential neighborhoods located near major roads and highways face disproportionate burdens from traffic and transportation pollution. These neighborhoods are far more often communities of color due to decades of residential segregation, and bear a burden of higher rates of asthma and other health conditions.

Section 177 of the Clean Air Act allows states to adopt vehicle emissions standards that are identical to those adopted by the state of California. In 2020, in the absence of federal regulations, California set the first-in-the-nation standards for the sale of zero-emission medium and heavy-duty trucks through adoption of the ACT Rule. Since then, New York, New Jersey, Massachusetts, Oregon, Vermont, and Washington have adopted the same ACT Rule, and a number of other states are considering doing so, too. In 2023, the Maryland Commission on Climate Change included a recommendation in its annual report that the state adopt the ACT Rule.

Companies across the nation are increasingly demanding electric trucks and vans to help them meet their climate and pollution goals, and to save on the costs of fuel and maintenance. More than 70 major corporations, including IKEA and Nestle that have large truck fleets, signed a letter urging state governors to accelerate the growth of electric trucks by adopting the ACT Rule. Electric trucks are increasingly available. There are over 100 models from more than 30 manufacturers that are currently on the market or will be before 2024.

By requiring the electrification of school buses and large pickup trucks, drayage, delivery, and semi-trailer trucks sold in Maryland, the ACT Rule would be a crucial step in the effort to combat climate change and reduce the toxic air pollution that makes us sick. We urge a favorable report on this bill.

Lindsey Mendelsohn  
Transportation Representative  
[Lindsey.mendelson@MDSierra.org](mailto:Lindsey.mendelson@MDSierra.org)

Josh Tulkin  
Chapter Director  
[Josh.Tulkin@MDSierra.org](mailto:Josh.Tulkin@MDSierra.org)

Founded in 1892, the Sierra Club is America's oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.

# **SB224\_Clean Trucks\_Educ Energy Environment\_CJW\_FAV**

Uploaded by: Laurie McGilvray

Position: FAV



**Committee:** Education, Energy & Environment  
**Testimony on:** SB224 - Dept. of Environment-Zero-Emission Medium and Heavy Duty Vehicles-Regulation (Clean Trucks Act of 2023)  
**Organization:** Maryland Legislative Coalition Climate Justice Wing  
**Submitting:** Laurie McGilvray Co-Chair  
**Position:** Favorable  
**Hearing Date:** February 9, 2023

Dear Mr. Chairman and Committee Members:

Thank you for allowing our testimony today. The Maryland Legislative Coalition Climate Justice Wing, a statewide coalition of over 50 grassroots and professional organizations, urges you to vote favorably on SB224.

The Clean Trucks Act would require Maryland's Department of the Environment to issue regulations on or before December 1, 2023, which would establish requirements for the sale of new zero emissions medium- and heavy-duty vehicles (in essence adopting the Advance Clean Truck Rule). This rule would require vehicle manufacturers to sell an increasing annual percentage of new zero emission medium- and heavy-duty vehicles including pickup, delivery, and semi-trucks as well as school buses between Model Years 2026 and 2035. It would not require local businesses to purchase zero emissions medium-and heavy-duty vehicles.

Transportation is Maryland's number one source of greenhouse gas emissions. The State's 2020 Greenhouse Gas Emissions Inventory shows that gasoline and diesel powered on-road and offroad vehicles account for nearly 46 percent of the State's greenhouse gas emissions, which represent increases for both types of vehicles since 2019. Although medium- and heavy-duty trucks and buses make up only nine percent of Maryland's 4.2 million registered vehicles, they contribute 39 percent of nitrogen oxide emissions, 48 percent of fine particulate matter, and 21 percent of emissions from all on-road vehicles in the state.

Tailpipe emissions from these vehicles are hazardous to human health and contribute to cancers, heart disease, asthma, emphysema, and other respiratory diseases. More than 80% of Marylanders live in counties that do not meet federal clean air standards for ozone, due in significant part to tailpipe emissions. The health of residents in many black and brown communities is more severely impacted by these emissions, because of their proximity to major highways, plus the cumulative impacts of other environmental assaults (e.g., industrial facilities,

landfills, coal and gas-fired power plants, and coal transfer stations). By adopting the Advance Clean Truck standards, Maryland will significantly reduce nitrogen oxides and fine particulate matter, and reduce the risk of respiratory illnesses like asthma.

Furthermore, without regulations adopting the Advance Clean Truck Rule, manufacturers will shift their supply and sales to states that have adopted it, such as California, Massachusetts, New Jersey, New York, Oregon, and Washington. SB224 will benefit local governments and businesses by making it easier for them to purchase zero emissions buses and other medium- and heavy-duty vehicles.

Maryland has a goal to reduce greenhouse gas emissions by 60% by 2031 (compared to 2006 levels) and 100% by 2045. SB224 will significantly increase the likelihood the state will meet these ambitious greenhouse emission reduction goals, not to mention improving the lives its residents. Therefore, we support SB224 and recommend a **FAVORABLE** report.

**sb224- ZEV^J state fleet- EEE 2-9-'23.pdf**

Uploaded by: Lee Hudson

Position: FAV



**Delaware-Maryland Synod**  
**Evangelical Lutheran Church in America**  
God's work. Our hands.

Testimony Prepared for the  
**Education, Energy, and the Environment Committee**  
on  
**Senate Bill 224**  
February 9, 2023  
Position: **Favorable**

Mr. Chairman and members of the Committee, thank you for this opportunity to support a cleaner energy future via State purchasing. I am Lee Hudson, assistant to the bishop for public policy in the Delaware-Maryland Synod, Evangelical Lutheran Church in America. We are a faith community with three judicatories across our State.

My community advocates for reductions of current and future greenhouse gas emissions through public policies that influence energy demand and consumption.

Lower emissions from vehicles are feasible with current technology and product. What is needed is expansion of demand to scale the product.

Commercial demand for zero emission vehicles is presently strong, suggesting the public is making a deliberate decision. Supporting market growth for zero emissions will hasten the result necessary for the desired effect, GGR. The State of Maryland can do its part by recruiting its purchasing power to increase ZEVs in its market.

**Senate Bill 224** would adopt the relevant standards in California's ACT policy to increase ZEVs in the State's vehicle fleets. We support this policy instrument and its goal and ask your favorable report.

Lee Hudson

**SB0224-133225-01.pdf**

Uploaded by: Malcolm Augustine

Position: FAV





SB0224/133225/1

AMENDMENTS  
PREPARED  
BY THE  
DEPT. OF LEGISLATIVE  
SERVICES

07 FEB 23  
14:53:07

BY: Senator Augustine  
(To be offered in the Education, Energy, and the Environment  
Committee)

AMENDMENTS TO SENATE BILL 224  
(First Reading File Bill)

AMENDMENT NO. 1

On page 1, in line 7, after “State;” insert “requiring the Department, in consultation with certain units of State government, to prepare and submit to the General Assembly a certain needs assessment and deployment plan; authorizing the Department to delay implementation of regulations adopted under this Act under certain circumstances; altering the definition of “grant” for purposes of the Medium–Duty and Heavy–Duty Zero–Emission Vehicle Grant Program;”; and after line 13, insert:

“BY repealing and reenacting, with amendments,  
Article – State Government  
Section 9–2011  
Annotated Code of Maryland  
(2021 Replacement Volume and 2022 Supplement)”.

AMENDMENT NO. 2

On page 1, in line 21, strike “**26,001**” and substitute “**14,001**”.

On page 2, in line 2, strike “**10,000**” and substitute “**8,501**”; in line 3, strike “**26,000**” and substitute “**14,000**”; in line 8, strike “**MAY**” and substitute “**SHALL**”; in line 9, strike “**AND**”; in line 11, strike “**VEHICLE STANDARDS**” and substitute “**ADVANCED CLEAN TRUCKS REGULATIONS**”; and in the same line, strike “**UPDATED.**” and substitute “**UPDATED; AND**”

(III) SUBJECT TO SUBSECTION (D) OF THIS SECTION, TAKE EFFECT STARTING WITH MODEL YEAR 2027.

(C) (1) THE DEPARTMENT, IN CONSULTATION WITH THE DEPARTMENT OF TRANSPORTATION, THE DEPARTMENT OF GENERAL SERVICES, THE MARYLAND ENERGY ADMINISTRATION, AND THE PUBLIC SERVICE COMMISSION, SHALL PREPARE A NEEDS ASSESSMENT AND DEPLOYMENT PLAN RELATING TO THE SUCCESSFUL IMPLEMENTATION OF REGULATIONS ADOPTED UNDER THIS SECTION.

(2) THE NEEDS ASSESSMENT AND DEPLOYMENT PLAN SHALL, AT A MINIMUM, ASSESS AND PLAN FOR:

(I) THE ADDITIONAL ELECTRICAL CAPACITY, TRANSMISSION, AND DISTRIBUTION DEMANDS THAT WILL RESULT FROM IMPLEMENTATION OF THE REGULATIONS, AND THE ABILITY OF THE STATE'S ELECTRIC UTILITIES AND GRID TO MEET THOSE DEMANDS;

(II) THE NUMBER OF ZERO-EMISSION MEDIUM- AND HEAVY-DUTY VEHICLE RECHARGING STATIONS THAT WILL BE REQUIRED IN THE STATE TO IMPLEMENT THE REGULATIONS, AND THE COSTS, PERMITTING PROCESSES, AND TIMELINES FOR INSTALLING THOSE STATIONS;

(III) THE PURCHASE INCENTIVES THAT WILL BE NECESSARY TO ENSURE THE SUCCESSFUL IMPLEMENTATION OF THE REGULATIONS, AND POTENTIAL SOURCES OF FUNDING FOR THOSE INCENTIVES; AND

(IV) HOW QUICKLY MEDIUM- AND HEAVY-DUTY VEHICLES IN THE STATE VEHICLE FLEET, INCLUDING STATE-CONTRACTED MEDIUM- AND HEAVY-DUTY VEHICLES, CAN BE REPLACED WITH ZERO-EMISSION VEHICLES.

(3) ON OR BEFORE DECEMBER 1, 2024, THE DEPARTMENT SHALL SUBMIT THE NEEDS ASSESSMENT AND DEPLOYMENT PLAN TO THE GENERAL ASSEMBLY IN ACCORDANCE WITH § 2-1257 OF THE STATE GOVERNMENT ARTICLE.

(D) THE DEPARTMENT MAY DELAY IMPLEMENTATION OF THE REGULATIONS AUTHORIZED UNDER THIS SECTION BY ONE OR MORE MODEL YEARS IF, AFTER CONSULTING WITH THE DEPARTMENT OF TRANSPORTATION, THE DEPARTMENT OF GENERAL SERVICES, THE MARYLAND ENERGY ADMINISTRATION, AND THE PUBLIC SERVICE COMMISSION, THE DEPARTMENT DETERMINES THAT THE IMPLEMENTATION CRITERIA IDENTIFIED THROUGH THE NEEDS ASSESSMENT AND DEPLOYMENT PLAN HAVE NOT BEEN MET.”.

AMENDMENT NO. 3

On page 2, before line 12, insert:

“Article – State Government

9-2011.

(a) (1) In this section the following words have the meanings indicated.

(2) “Grant” means a medium-duty or heavy-duty zero-emission vehicle grant issued by the Administration under this section for up to [20%] 100% of the INCREMENTAL cost of a qualified medium-duty or heavy-duty zero-emission vehicle, qualified medium-duty or heavy-duty zero-emission vehicle supply equipment, or

(Over)

zero-emission heavy equipment property.

(3) “INCREMENTAL COST” MEANS:

(I) THE DIFFERENCE IN PRICE OF A CONVENTIONAL MODEL VEHICLE AND A ZERO-EMISSION MODEL THAT IS ATTRIBUTABLE TO THE FUNCTIONAL FEATURES OF THE VEHICLE; OR

(II) THE COST TO RETROFIT A CONVENTIONAL MODEL VEHICLE TO OPERATE AS A ZERO-EMISSION VEHICLE.

(4) “Program” means the Medium-Duty and Heavy-Duty Zero-Emission Vehicle Grant Program.

[(4)] (5) “Qualified medium-duty or heavy-duty zero-emission vehicle” means a motor vehicle that is:

- (i) rated at more than 8,500 pounds unloaded gross weight; and
- (ii) powered by electricity that is stored in a battery or produced by a hydrogen fuel cell.

[(5)] (6) “Qualified medium-duty or heavy-duty zero-emission vehicle supply equipment” means property in the State that is used for recharging or refueling medium-duty or heavy-duty zero-emission vehicles or zero-emission heavy equipment property.

[(6)] (7) (i) “Zero-emission heavy equipment property” means construction, earthmoving, or industrial heavy equipment, including any attachment for the equipment, that:

1. is mobile; and
2. does not use an internal combustion engine.

(ii) “Zero-emission heavy equipment property” includes:

1. a self-propelled vehicle that is not designed to be driven on a highway; and
2. industrial electrical generation equipment, industrial lift equipment, industrial material handling equipment, or other similar industrial equipment.

(b) (1) There is a Medium-Duty and Heavy-Duty Zero-Emission Vehicle Grant Program.

(2) The Administration shall administer the Program.

(c) (1) For each of fiscal years 2024 through 2027, a person or a unit of local government may apply to the Administration for a grant under the Program.

(2) For the purpose of calculating the amount of a grant, the Administration may allow an applicant to include reasonable installation costs in the cost of qualified medium-duty or heavy-duty zero-emission vehicle supply equipment.

(d) Program grants are subject to available funding and § 9-20B-05(j)(4) of this title.

(e) (1) Notwithstanding § 9-20B-05(g) of this title, in each of fiscal years 2024 through 2027, the Governor shall include in the annual budget bill an appropriation of at least \$1,000,000 from the Strategic Energy Investment Fund for grants for qualified medium-duty or heavy-duty zero-emission vehicles under the

(Over)

Program.

(2) Notwithstanding § 9–20B–05(g) of this title, in each of fiscal years 2024 through 2027, the Governor shall include in the annual budget bill an appropriation of at least \$750,000 from the Strategic Energy Investment Fund for grants for zero–emission heavy equipment property under the Program.”.

**SB224 EDF favorable.pdf**

Uploaded by: Neda Deylami

Position: FAV



February 9, 2023

Testimony on SB 224 – Clean Trucks Act of 2023  
Education, Energy, and Environment Committee  
Position: Favorable  
Environmental Defense Fund supports SB 224

The proposed legislation would require the Maryland Department of Environment to adopt the Advanced Clean Trucks (ACT) rule, joining 7 other states that have adopted, recognizing the substantial benefits the ACT would provide. The rule requires vehicle manufacturers to sell an increasing percentage of zero-emission medium- and heavy-duty vehicles through 2035 and must be adopted now for it to take effect on Model Year 2027 vehicles.

Adopting the ACT will result in significant health benefits for Marylanders, who are facing emissions from transportation in a quantity only second to New York State. A large share of that comes from the diesel trucks and buses that drive on the state's roads – nearly 20% of transportation greenhouse emissions in the state come from diesel. The pollution that causes climate change and harms health is not evenly felt – Baltimore City and Prince George's County, home to more than 25% of the state's population, face exposure from fine particulate matter that is 37 and 23 percent higher, respectively, than the state average. In Baltimore City, average exposure is almost twice the nation's average and not too far below Los Angeles County. The most polluted census tracts, those living near freight corridors, ports, and depots, have a higher concentration of low-income and residents of color – almost 15 percent of people living in the highest burden areas are Latino, compared with a state Latino population of just 9 percent. The ACT's one-time fleet reporting requirement would help further pinpoint how fleets are contributing to these hot spots of high pollution exposure.

The message is clear. The ACT will help electrify a sector that is disproportionately responsible for pollution that warms the climate and harms the health of Maryland's residents. It will also go a long way in helping Maryland achieve Governor Moore's target of reducing greenhouse gases 60% by 2030 and is a core means of achieving a transition to 100% zero-emission truck and bus sales, the overarching goal of the medium-and heavy-duty memorandum of understanding signed by former Governor Hogan in 2020.

The ACT will provide much needed policy certainty to market participants that may be hesitant to commit to zero-emission vehicles without a clear pathway to make the transition. Fleets such as FedEx and Walmart have expressed a desire to adopt zero-emission vehicles but need to know there will be ample vehicles to purchase. Increasing supply to meet demand will help the market achieve economies of scale, which will bring down upfront costs and continue to lower the total cost of ownership. The ACT is designed to be flexible and gradual, giving manufacturers room to take advantage of technology and cost improvements, transfer credits between manufacturers and vehicle classes, and adjust to possible fluctuations in sales from year to year. By adopting the ACT, alongside other complementary policies such as the Heavy-Duty Omnibus rule, equitable infrastructure deployment and effective rate design, the state can reduce energy consumption and emissions from the transportation sector, meet federal ambient air quality standards, and, with the right mechanisms in place, achieve renewable energy goals.

Maryland is on the right path to cleaning our transportation sector, and the ACT is a powerful tool to continue the state's commitment and complement other programs and policies. EDF urges a favorable report for SB 224.



# **SB 224\_Maryland Catholics for Our Common Home\_FAV.**

Uploaded by: Robert Simon

Position: FAV



Hearing before the Senate Education, Energy, and the Environment Committee  
Maryland General Assembly  
February 9, 2023

**Statement of Support (FAVORABLE)  
of Maryland Catholics for Our Common Home on  
SB 224, Clean Trucks Act of 2023**

Maryland Catholics for Our Common Home (MCCH) is a lay-led organization of Catholics from parishes in the three Catholic dioceses in Maryland: the Archdiocese of Baltimore, the Archdiocese of Washington, and the Diocese of Wilmington. It engages in education about, and advocacy based on, the teachings of the Catholic Church relating to care for creation. MCCH is a voice for the understanding of Catholic social teaching held by a wide array of Maryland Catholics, but should be distinguished from the Maryland Catholic Conference, which represents the public policy interests of the bishops who lead these three dioceses.

MCCH would like to express its strong support for passage of Senate Bill 224, the Clean Trucks Act of 2023. As Catholics, we see care for God’s creation and care for vulnerable groups in society as an integral part of our faith, as taught by recent Popes, including the forceful statements of Pope Francis. In his 2015 encyclical, entitled *Laudato Si’: On Care for Our Common Home*,<sup>1</sup> Pope Francis specifically mentions that “Exposure to atmospheric pollutants produces a broad spectrum of health hazards, especially for the poor, and causes millions of premature deaths,” and identifies transport as one of the sources of this pollution (no. 20). Studies of the role of trucks (including both medium-duty vehicles [MDVs] and heavy-duty vehicles [HDVs]) in air pollution bear this out in two important ways. First, they show that while MDVs and HDVs are about 10 percent of the vehicles on the road, they disproportionately contribute to emissions: about 29 percent of transportation GHG emissions, 45 percent of on-road NO<sub>x</sub> emissions, and 57 percent of direct PM<sub>2.5</sub> (particulate matter ≤ 2.5 microns in diameter) emissions.<sup>2</sup> Second, because residential neighborhoods located near major highways and truck traffic are often poorer communities and communities of color, their residents bear a greater burden of these emissions and their health effects. We believe that addressing air pollution from MDVs and LDVs is responsive to Pope Francis’s call to “integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor” (no. 49).

Senate Bill 224 will require that the State of Maryland adopt regulations establishing requirements for the sale of new zero-emission MDVs and HDVs in the State by December 1, 2023, based on California’s standards for these vehicles. These regulations will address a key source of air pollution with disproportionate negative impacts on overburdened and vulnerable populations in our society.

Thank you for your consideration of our views and our respectful request for a **favorable** report on Senate Bill 224.

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<sup>1</sup> The English text of the encyclical, to which the paragraph numbers in the following parentheses refer, can be found at: [https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco\\_20150524\\_enciclica-laudato-si.html](https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html)

<sup>2</sup> K. L. Fleming, et al., “Electrification of Medium- and Heavy-Duty Ground Transportation: Status Report,” *Curr Sustainable Renewable Energy Rep* 8, 180–188 (2021). <https://doi.org/10.1007/s40518-021-00187-3>

**SB 224 2.9.23.pdf**

Uploaded by: Robin Budish

Position: FAV



**516 N. Charles Street, Suite 312 - Baltimore, Maryland 21201**

February 9, 2023

**Testimony on SB 224**  
***Zero-Emission Truck Act of 2022***  
**Education, Energy, and the Environment Committee**

**Position: Favorable**

Transit Choices supports **SB 224**.

This proposed legislation would require that the Maryland Department of Environment adopt the Advanced Clean Truck rule by December 1, 2023. This rule requires that vehicle manufacturers sell an increasing annual percentage of medium and heavy duty vehicles including pickup, delivery, and semi trucks as well as school buses between Model Year 2027 (for states that adopt in 2023) and 2035. Trucks and other large vehicles account for 9% of vehicles on the road but contribute 21% of carbon pollution and 48% of particulate matter pollution (PM2.5) emitted by the entire transportation sector in Maryland.

Pollution created by gasoline engines is widely understood by the medical community to cause premature deaths and asthma attacks. One in 13 Americans live with asthma, and millions of Americans who have had the coronavirus may suffer from long-term respiratory complications.

Carbon pollution from cars is also a leading cause of the climate crisis that has been driving catastrophic storms, wildfires, heat waves, and droughts.

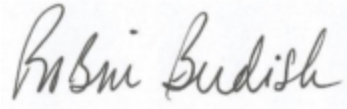
By moving aggressively now, we can help save Americans from the dire health and economic impacts of the climate crisis.

Under Section 177 of the Clean Air Act, states other than California are not allowed to set their own emissions standards. However, states can choose to follow and adopt vehicle standards that California has enacted. Maryland first adopted California's clean car standards for personal vehicle electrification through legislative action in 2007. In November 2022, the Maryland Commission on Climate Change recommended that Maryland adopt the Advanced Clean Truck rule in its annual report. Maryland has the opportunity to enact similar standards again and clean up large dirty diesel vehicles that continue to harm our health and exacerbate climate change.

This legislation would help Maryland follow through on its commitment for 30% of all medium and heavy duty vehicles sales to be electric by 2030 and could create high quality green jobs in the process. Maryland would also be included in the growing number of states adopting the Advanced Clean Truck Rule, including California, Massachusetts, New York, New Jersey, Vermont, Washington, and Oregon.

We encourage a FAVORABLE report for this important legislation.

Sincerely,

A handwritten signature in cursive script that reads "Robin Budish". The signature is written in black ink on a light-colored background.

Robin Budish  
Director

Phone: 410.340.4878

Email: [robin@transitchoices.org](mailto:robin@transitchoices.org)

# **SB224\_Fav\_RuthAuerbach.pdf**

Uploaded by: Ruth Auerbach

Position: FAV

February 9, 2022

**Testimony on SB 224**  
***Zero-Emission Truck Act of 2022***  
Education, Energy, and the Environment Committee

**Position: Favorable**

For the sake of the climate and the health of Maryland residents, we need to take action to reduce pollution from trucks. Trucks and other large vehicles account for 9% of vehicles on the road but contribute 21% of carbon pollution and 48% of particulate matter pollution (PM2.5) emitted by the entire transportation sector in Maryland. This proposed legislation would lead to a requirement that vehicle manufacturers sell an increasing annual percentage of zero-emission trucks and school buses.

I live in Columbia, in a neighborhood that is hemmed in by highways, MD-32, I-95, and US-29. In particular, my home is about a third of a mile from MD-32. The noise from the highways are so loud at my home during rush hour that, if I wake up early in the dark, I can estimate the hour by the amount of highway noise I hear. The Advanced Clean Truck Rule would greatly improve quality of life in my neighborhood by reducing noise and improving air quality.

This legislation would help Maryland follow through on its commitment for 30% of all medium and heavy duty vehicles sales to be electric by 2030 and could create high quality green jobs in the process. Maryland would also be included in the growing number of states adopting the Advanced Clean Truck Rule, including California, Massachusetts, New York, New Jersey, Vermont, Washington, and Oregon.

I encourage a FAVORABLE report for this important legislation.

Ruth Auerbach, Ph.D.  
9455 Clocktower Lane  
Columbia, MD 21046

# **SB0224-Fav Testimony POLICY FOUNDATION OF MARYLAND**

Uploaded by: Sarahia Benn

Position: FAV



## Policy Foundation of Maryland

**Committee:** Judiciary

**Testimony on:** SB0224-Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)

**SPONSOR:** Senator Malcolm Augustine

**Organization:** Policy Foundation of Maryland, TMT Coalition, MD Legislative Coalition

**Person Submitting:** Sarahia Benn (Executive Dir.)

**Position:** Favorable

**Hearing Date:** February 9, 2023 1:30PM

Mr. Chair and Members of the Committee,

Thank you for allowing testimony today in support of SB0224. Policy Foundation of Maryland is a grassroots organization focused on State and County level legislation and policies that impacts Black, Brown, marginalized, low income communities and veterans affairs. Environmental legislation is of massive importance to these communities particularly due to how impacted these communities have been historically and currently.

[It's 6 a.m. and Spesutia & Perryman Road](#) in Perryman Peninsula in Harford County is already clogged with rumbling big-rigs, tractor trailers, semis, 18-wheelers and delivery trucks. By 9 a.m. they hadn't slowed. By noon, the line of large vehicles rolling past is even longer.

[Truck traffic is here and in the surrounding areas everyday. 24 hours a day.](#)

Warehouse industrialization is responsible for this increased traffic near homes, local businesses, restaurants, and our children. All day, every day, this historic Black community is being pummeled by deadly diesel exhaust and soot.

The new access point that was added in 2019 has made my community a free-for-all with 5 new warehouses projected to be the biggest in the Eastern region.

This is a two-lane road. It's unsafe for pedestrians, people can't get out of the driveways, they can not receive emergency services easily, these truck backups leave them idling, spewing smoke that settles into a thick, greasy, gray layer on our front doors, windows, plants...and in our lungs. Literally diesel truck traffic has been killing many in our community from lung cancer to reproductive and developmental harm, diabetes, and dementia to name a few. It has long been established that living within just one third of a mile of a highway or close to ports, warehouse

distribution centers or other freight corridors is devastating for lung health and can lead to early death. Black and Brown and Military/Veteran Marylanders and specific to my area are being exposed to these deadly toxins even in a higher percentage than the remainder of the County.

In Maryland, Black residents are exposed to 12% higher diesel soot concentrations from on-road transportation than the average. Latinos experience concentrations 11% higher than the average. At the same time, white residents have an average exposure that is 8% lower than the state average. That's not by accident.

This is why the Advanced trucks clean act 2023 is so important to be passed. We can no longer speak about diversity, inclusion, and equity and continue to disproportionately harm Black and Brown communities as is being done with the diesel pollution in my community. Our children in our community literally are not playing outside because the air they breathe they can not breathe in.

Passing this Advanced Clean Trucks Act of 2023 bill will be a game changer for my community in terms of finance as well. Financially speaking the move to a more healthy and electric system will ensure financial opportunities in an area wherein Black business ownership is low or nonexistent. High paying jobs being more readily available can transform my community's life.

My community and many like it depend on leadership from the State to move towards a better tomorrow.

For these reasons, I urge an **FAVORABLE REPORT** on **SB0224**.

Respectfully submitted,



Sarahia Benn  
(Policy Foundation of Maryland, TMT Coalition, Maryland Legislative Coalition)

**(Dedicated to Black History month)**

““Racism is not getting worse, it’s getting filmed.”

— [Will Smith](#)

**SB244\_ShilpaShenvi\_FAV.pdf**

Uploaded by: Shilpa Shenvi

Position: FAV

February 8, 2023

Testimony on SB 224:  
*Clean Trucks Act of 2023*

**Position: Favorable**

Most vehicles require fossil fuels to function. Unsurprisingly, transportation is the leading cause of air pollution. The toxins emitted by these vehicles cause both immediate and long-term harm. People, especially children, who live in areas of poor quality are more likely to suffer from respiratory illnesses, including asthma and chronic obstructive pulmonary disorder. These same pollutants contribute heavily to climate change, which is now irreversibly underway. As climate change worsens, more people will get sick and die from floods, extreme heat, extreme cold, and lack of clean water.

Only 9% of the vehicles on the road are trucks or other large vehicles. Nonetheless, they cause 21% of carbon pollution and 48% of particulate matter pollution. If these vehicles were electric, we would see a huge improvement in air quality. Those with homes near busy roads would be less likely to fall ill, and one of the main drivers of climate change would be reduced. We would see a reduction in noise pollution as well; most gasoline- and diesel-powered vehicles have loud motors that can disrupt people's sleep and general sense of well-being.

The Clean Trucks Act of 2023 (SB244) would require manufacturers to make sure that an increasing number of the trucks and other large vehicles that they sell are zero-emission. According to data from a report by the International Council on Clean Transportation, if Maryland passes the Clean Trucks Act, the state could avoid more than 116,000 cases of respiratory illnesses cumulatively through 2050. By passing SB 244, you, as legislators, can prevent hundreds of thousands of our citizens from getting sick and possibly dying. In addition, we, as a state, would be doing our part to help keep climate change from worsening as quickly; although climate change is irreversible, perhaps we, as a state, can avert the worst effects of it by taking bold steps now. Extreme weather occurrences, like droughts, floods, and fires, cause illness and death, and by passing SB 244, you, as legislators, can help protect innocent people from these dire events. In addition, you would be helping Maryland follow through on its commitment for 30% of all medium and heavy-duty vehicles sales to be electric by 2030, and the law could create high-quality green jobs in the process.

Please vote for SB 244, the Clean Trucks Act of 2023!

Sincerely,

Shilpa Shenvi



# **Earthjustice SB 224 Support Letter ACT legislation**

Uploaded by: Susan Miller

Position: FAV



February 7, 2023

Chair Brian J. Feldman  
Members of the Senate Education, Energy and Environment Committee

Re: Earthjustice **support** of SB 224:  
Department of the Environment – Zero-Emission Medium – and Heavy-Duty  
Vehicles – Regulations (Clean Trucks Act of 2023)

Earthjustice<sup>1</sup> strongly supports the passage of SB 224. SB 224 requires the Maryland Department of the Environment (MDE) to adopt regulations establishing requirements for the sale of new zero-emission (ZEV) medium- and heavy-duty vehicles in the State by December 1, 2023.

To achieve Maryland’s Greenhouse Gas (“GHG”) emissions reduction goals, Maryland must reduce and ultimately eliminate the pollution caused by the transportation sector. SB 224 is a vital step in achieving the commitment Maryland made when then Governor Hogan signed the Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding (“MOU”) on July 13, 2020. Almost two years have passed since Maryland announced its commitment to adopt the California Advanced Clean Truck rules. Further delay will only continue the public health and climate harms caused by Maryland’s reliance on non-electric vehicles.

### **BACKGROUND**

On July 14, 2020, Maryland took another significant step forward in its effort to address the climate crisis and the health impacts of air pollution as it joined fourteen other states and the District of Columbia in signing a MOU to work collaboratively to advance and accelerate the market for electric medium- and heavy-duty vehicles, including large pickup trucks and vans, delivery trucks, box trucks, school and transit buses, and long-haul delivery trucks (big-rigs). The goal is to ensure that 100 percent of all new medium- and heavy-duty vehicle sales be zero emission vehicles by 2050 with an interim target of 30 percent zero emission vehicle sales by 2030. Massachusetts, New York, New Jersey, Oregon, Vermont, and Washington have already joined California in adopting these standards.

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<sup>1</sup> Earthjustice is a non-profit public interest environmental law organization that represents other non-profits free of charge. Earthjustice uses the power of law and the strength of partnerships to advance clean energy, combat climate change, protect people’s health and preserve magnificent places and wildlife.

## **ADOPTION OF THE CLEAN TRUCK RULE IS NECESSARY TO PROTECT PUBLIC HEALTH AND ACHIEVE MARYLAND'S CLIMATE OBJECTIVES**

Maryland adopted very challenging, aggressive mandates to reduce Greenhouse Gas emissions to protect public health and to meet state climate change targets. The Climate Solutions Now Act (“CSNA”) calls for a reduction of emissions of 60% by 2031 (from 2006 levels) and requires the state to reach net-zero by 2045. Meeting these goals requires a bold transformation in all sectors including transportation.

Transportation is now the largest source of GHG emissions in Maryland, and where reductions are needed most in the future. Transitioning to Medium - and Heavy -Duty ZEVs will be a key component of achieving additional reductions. In the Northeast corridor, 42% of all GHG emissions come from transportation. Similarly, 54% of all Nox emissions in the Northeast corridor also come from transportation.

Adoption of the Advanced Clean Truck Rule will go a long way toward slashing these harmful emissions. The transportation sector is the nation’s largest source of greenhouse gas emissions and also contributes to unhealthy levels of smog. Accelerating the electrification of trucks and buses is an essential step to achieve the deep emission reductions needed to avoid the worst consequences of climate change and protect the health of millions of Marylanders.

Maryland needs zero-emission technology in the transportation sector not only to achieve its climate objectives but also to protect the health of Maryland residents. Mobile sources and the fossil fuels that power them are the largest contributors to Nox (which is the greatest contributor to ozone), greenhouse gas emissions, fine particulate matter (PM2.5), and toxic diesel particulate matter. Trucks and other large vehicles account for 9% of vehicles on the road but contribute 21% of carbon pollution and 48% of particulate matter pollution (PM2.5) emitted by the entire transportation sector in Maryland. While we have known the brutal health impact of diesel use for decades, recent research shows it’s far worse than previously thought. Updated evidence of air pollution toxicity demonstrates its impacts are roughly double what was previously assumed.<sup>2</sup> Even low levels of diesel pollution damage virtually every system in the human body – lungs, hearts, brains, skin, and nervous system.

Truck and bus electrification also promises to deliver wide-spread health benefits, particularly in communities with heavy truck traffic that are burdened with higher levels of air pollution. Diesel trucks are one – if not the – starkest forms of environmental racism. A recent study determined that they are the largest source of air pollution disparity in the United States.<sup>3</sup> A new wave of freight infrastructure – warehouses and distribution centers – is spreading across

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<sup>2</sup> David Roberts, *Air pollution is much worse than we thought*, Vox (Aug. 12, 2020), <https://www.vox.com/energy-and-environment/2020/8/12/21361498/climate-change-air-pollution-us-india-china-deaths>.

<sup>3</sup> Mary Angelique G. Demetillo et al., *Space-Based Observational Constraints on NO<sub>2</sub> Air Pollution Inequality From Diesel Traffic in Major US Cities*, Geophysical Research Letters (Aug. 25, 2021), <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021GL094333>.



the country, unsurprisingly concentrating in low-income communities of color. Parts of the Chesapeake Bay and surrounding areas of Baltimore have become epicenters of the warehouse boom.<sup>4</sup> Medium- and heavy-duty trucks are a major source of harmful smog-forming pollution, particulate matter, and air toxics. These emissions disproportionately impact low-income communities and communities of color often located near major trucking corridors, ports, and distribution hubs.

By adopting these rules, Maryland will reduce emissions of greenhouse gases, carbon dioxide, nitrogen oxides, fine particulate matter, and other pollutants. The rule also has significant public health impacts—reducing cases of acute bronchitis, exacerbated asthma, and other respiratory conditions.

Maryland has experienced firsthand the severe cost in people and capital from some combination of climate-induced tornados, hurricanes, flooding, or elevated temperatures that worsen air quality and stifle economic activity. Tackling climate change means removing diesel and gasoline from transportation.

### **AVAILABILITY AND COST OF ELECTRIC MODELS**

SB 224 comes at an important transition point for the industry as investment in zero emission vehicle technology for the medium- and heavy-duty sector continues to ramp up. Today, over one hundred electric truck and bus models are on the market, and manufacturers are expected to continually make many more new electric models commercially available over the next decade. Sixty-five percent of medium-duty and half of heavy-duty trucks are electrifiable today.<sup>5</sup>

Every credible analysis has found that zero emission trucks save businesses and drivers money – even faster than electric cars, because of their lower fuel and maintenance costs. Even without incentives, the U.S. Department of Energy found that they would be cheaper to operate in every category by 2035, and for many categories much sooner.<sup>6</sup> Researchers at Lawrence Berkeley National Laboratory found that by 2035 Class 8 tractor will cost less than half of what it costs for the diesel equivalent.<sup>7</sup> Now, with the IRA adding a 30% tax credit for commercial EVs (and their chargers), analysts find that ZE trucks will actually be cheaper to purchase

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<sup>4</sup> Ad Crable & Jeremy Cox, *Mega-Warehouses Take Toll on Environment, Localities*, Bay Journal (Jul. 19, 2021), [https://www.bayjournal.com/news/growth\\_conservation/mega-warehouses-take-toll-on-environment-localities/article\\_2cf71ea8-e55b-11eb-aacc-bfa8835d9767.html](https://www.bayjournal.com/news/growth_conservation/mega-warehouses-take-toll-on-environment-localities/article_2cf71ea8-e55b-11eb-aacc-bfa8835d9767.html).

<sup>5</sup> Jessie Lund et al., *Charting the Course for Early Truck Electrification*, RMI (2022), <https://rmi.org/insight/electrify-trucking/>.

<sup>6</sup> Catherine Ledna et al., *Decarbonizing Medium- & Heavy-Duty On-Road Vehicles: Zero-Emission Vehicles Cost Analysis*, NREL (Mar. 2022), <https://www.nrel.gov/docs/fy22osti/82081.pdf>.

<sup>7</sup> Goldman School of Public Policy UC Berkeley, *Plummeting Costs and Dramatic Improvements in batteries Can Accelerate Our Clean Transportation* (June 2021), [http://www.2035report.com/transportation/wp-content/uploads/2020/05/GridLab\\_2035-Transportation-Appendix.pdf?hsCtaTracking=c4d392a4-96ff-474c-86c3-bfa335c67aa2%7Ce2107ae8-40d7-44ff-8b5b-72016d87fe98](http://www.2035report.com/transportation/wp-content/uploads/2020/05/GridLab_2035-Transportation-Appendix.pdf?hsCtaTracking=c4d392a4-96ff-474c-86c3-bfa335c67aa2%7Ce2107ae8-40d7-44ff-8b5b-72016d87fe98).

*upfront* than diesel in every category by 2031 – and in some categories as early as this year. Meaning they would produce positive cashflow for fleets immediately.

### **EV CHARGING IS BENEFICIAL TO ELECTRIC UTILITIES AND RATEPAYERS**

There's a misconception that widespread charging of EVs will necessarily stress the electric grid, resulting in costly upgrades that drive up electric rates. However, analysis of the two utility service territories with the most EVs of any in the U.S., Pacific Gas & Electric (PG&E) and Southern California Edison (SCE), conducted by Synapse Energy Economics ("Synapse") found the opposite has been observed in the real world.

EVs are pushing electric rates down, largely because they tend to charge overnight when people are sleeping and there is plenty of spare capacity on the grid. In particular, EV customers on time-of-use (TOU) rates, only do 9-14 percent of their charging during on-peak hours when total demand for electricity is at its greatest. And even EV owners that remain on default rates that do not encourage off-peak charging consume less electricity during on-peak hours than typical households.

EVs are not straining the grid to this point, Thus, there is little to no increased utility costs associated with accommodating EV charging, but significant new revenues that is returned to all customers in the form of lower rates and bills.

Synapse evaluated the revenues and costs associated with EVs from 2012 through 2019 in the PG&E and SCE service territories. They compared the new revenue the utilities collected from EV drivers to the cost of the energy required to charge those vehicles, plus the costs of any associated upgrades to the distribution and transmission grid and the costs of utility EV programs that are deploying charging stations for all types of EVs.

In total, EV drivers contributed an estimated \$806 million more than the associated costs. And this finding is not merely a result of the fact most EV drivers in PG&E and SCE territory remain on default rates and pay high upper-tier prices as a result. Even if 3 in 4 were on time-of-use rates designed for EVs, those drivers would still have provided approximately \$621 million in net-revenues.

### **ADOPTION OF THE ADVANCED CLEAN TRUCK REGULATIONS BY DECEMBER IS VITAL**

The federal Clean Air Act requires two years of lead time before a state can enforce a California motor vehicle emission standard.<sup>8</sup> If MDE fails to finalize the rules before December 31, 2023, Maryland will lose a compliance year and the rule's implementation will be delayed.

As noted above, several states have already adopted the Advanced Clean Truck Rule. Because these states met Clean Air Act-related deadlines to issue the rules before the end of the year, these states can begin to enforce the rules, reduce air pollution, and protect public health

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<sup>8</sup> 42 U.S.C. § 7507(2).

earlier than they could have otherwise. Maryland is being left behind in the transition to clean, electric trucks.

Maryland signed the MOU almost two years ago and cannot afford to lose another year of implementation. The MOU establishes a 30% sales goal by 2030. Each year of delay makes it much harder and much less likely that Maryland will achieve the initial goal set forth in the MOU. Moreover, Maryland cannot achieve the GHG emissions reductions set forth in the CSNA without addressing the transportation sector's significant contribution to this problem.

### **CONCLUSION**

The rule's adoption will result in climate and public health benefits, net savings to fleets operating zero-emission trucks, and benefits to commercial and residential electricity customers due to lower electricity rates made possible by additional electricity sales for electric vehicle charging.

Finally, Earthjustice thanks Chairman Feldman and Senators Augustine, Smith, Washington, Watson and Zucker for their leadership on this important issue.

Earthjustice strongly urges a favorable report for SB 224.

Thank you in advance for your support. Should you have any questions, please contact me at [smiller@earthjustice.org](mailto:smiller@earthjustice.org).

Respectfully submitted,



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Susan Stevens Miller  
Senior Attorney, Clean Energy Program  
Earthjustice

**COG CEEPC Comment Letter Supporting SB 224.pdf**

Uploaded by: Timothy Masters

Position: FAV



February 1, 2023

The Honorable Brian J. Feldman  
Chair of the Senate Education, Energy and the Environment Committee  
Senator, Maryland General Assembly  
Miller Senate Office Building, 2 West Wing  
11 Bladen Street  
Annapolis, Maryland 21401

RE: Support for SB 224, Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)

Dear Senator Feldman:

On behalf of the Climate, Energy, and Environment Policy Committee (CEEPC) of the Metropolitan Washington Council of Governments (COG), I am writing in support of SB 224, which requires the Maryland Department of the Environment to adopt regulations on or before December 1, 2023, that establish requirements for the sale of new zero-emission medium- and heavy-duty vehicles in the State of Maryland.

Climate change is a regional priority for COG, the association of local governments in metropolitan Washington. Medium- and heavy-duty vehicles are responsible for 27 percent of transportation emissions and 10 percent of total greenhouse gas (GHG) emissions in metropolitan Washington. Electrification of the vehicle fleet is one of the highest impact strategies for reducing GHG emissions between now and 2030. Local policies and programs to accelerate the adoption of zero-emission medium- and heavy-duty vehicles, such as those required by SB 224, have the potential to significantly reduce emissions. As such, COG supports the adoption of these zero-emission medium- and heavy-duty vehicles requirements.

Please contact Jeffrey King, COG Director of Climate, Energy, and Air Programs at (202) 962-3238 or [jking@mwkog.org](mailto:jking@mwkog.org) if you have any questions. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink that reads 'Takis Karantonis' with a horizontal line underneath.

Takis Karantonis  
Chair, Climate, Energy, and Environment Policy Committee

cc: Honorable Cheryl C. Kagan  
Honorable Malcolm L. Augustine  
Honorable Benjamin T. Brooks, Sr.  
Honorable Mary Beth Carozza

The Honorable Brian J. Feldman  
February 1, 2023

Honorable Jason C. Gallion  
Honorable Katie Fry Hester  
Honorable Bryan W. Simonaire  
Honorable Mary L. Washington  
Honorable Ronald L. Watson  
Honorable Karen Lewis Young  
Honorable William C. Smith, Jr.  
Honorable Craig J. Zucker

**NIKOLA Testimony SB224 Clean Trucks Act of 2023.pd**

Uploaded by: William Higgins

Position: FAV



February 8, 2023

Education, Energy & the Environment Committee

Miller Senate Office Building, 2 West Wing

11 Bladen St.

Annapolis, MD 21401

**SB224 Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)**

Position: Favorable

Chair Feldman, Vice Chair Kagan, and Members of the Committee:

Nikola Corporation appreciates the opportunity to provide testimony in support of SB224, Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023). This measure requires the Maryland Department of the Environment to adopt, by reference, California's Advanced Clean Trucks (ACT) rule by December 1, 2023. As a company committed to decarbonizing heavy transport, we believe the aggressive standards set by the ACT rule will go a long way toward advancing Maryland's objectives regarding greenhouse gas (GHG) emission reductions, improving air quality, and ensuring a just transition with green, equitable, high-quality jobs for Maryland residents.

GHG emissions from transportation account for about 28 percent of total greenhouse gas emissions in the United States, with commercial trucks playing a key role contributing 23% of the total carbon emissions from the transportation sector, following passenger vehicles<sup>1</sup>. The transportation sector is Maryland's largest source of GHG emissions, accounting for more than 24% of carbon emissions in the state.<sup>2</sup>

As a global leader in zero-emissions transportation and infrastructure, Nikola firmly believes that the electrification of medium and heavy-duty vehicles in the transportation sector is critical to reducing carbon emissions. Nikola and other manufacturers in the sector stand ready, with numerous zero-

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<sup>1</sup> <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

<sup>2</sup> <https://mde.maryland.gov/programs/air/ClimateChange/Pages/GreenhouseGasInventory.aspx>





emission medium and heavy-duty vehicle and charging offerings available now. Nikola began serial production of the Tre BEV in March 2022. The Tre BEV is a cabover battery electric truck for short-haul metro-regional applications with a maximum range of up to 330 miles. We expect to begin delivery of our longer-range hydrogen fuel cell truck, the Tre FCEV, in quarter 4 of 2023, and recently announced the creation of a new global brand, HYL A, to encompass the company's energy products for producing, distributing, and dispensing hydrogen to fuel its FCEV zero-emission trucks.

Nikola is dedicated to growing its zero-emission transportation and infrastructure operations in Maryland. The adoption of California's ACT will play a critical role in cultivating and accelerating market and fleet adoption of zero-emission and low-carbon transportation technology. Moreover, if Maryland adopts the ACT rule, the state will be well-positioned to build a market centered around the transition to clean fuels, improving public health, and will also help the state achieve its climate goals in a timely manner.

We greatly appreciate your consideration of our testimony and urge a favorable report on SB224.

Thank you,

Will Higgins

State and Local Affairs Manager, Eastern US

Nikola Corporation

**Rivian\_CommitteeSupportLetterACTBill\_Senate\_FINAL.**

Uploaded by: Beau Whiteman

Position: FWA



February 9, 2022

Education, Energy, and the Environment Committee  
Miller Senate Office Building, 2 West Wing  
11 Bladen Street  
Annapolis, MD 21401

**Re: Support for SB 224, Clean Trucks Act of 2023**

To the Education, Energy, and the Environment Committee,

Thank you for the opportunity to submit this letter in support of SB 224. Rivian Automotive, LLC (“Rivian”) strongly supports the Advanced Clean Trucks (“ACT”) regulations and encourages the state of Maryland to take the necessary steps to establish the rules. This could include legislative action by passage of SB 224 directing the Maryland Department of the Environment (“MDE”) to initiate a rulemaking in 2023.

Founded in 2009, Rivian is an independent U.S. company with more than 13,000 employees worldwide. It is Rivian’s mission to Keep the World Adventurous Forever. Our focus is the design, development, manufacture, and distribution of all-electric adventure vehicles, specifically the R1T pickup, R1S 7-passenger SUV, and a commercial van for Amazon. All our vehicle products meet the requirements of the ACT regulations and show the market’s readiness for sales requirements on manufacturers that achieve a full transition away from fossil fuel-powered medium- and heavy-duty (“MHD”) vehicles.

In the face of climate change, the transition from fossil fuels to electric transportation is critical to ensuring that forever is possible. Rivian strongly supports programs of ambitious emissions regulation and zero-emission vehicle (“ZEV”) sales requirements as core to our values and vision for the world. SB 224 would leverage the state’s authority under Section 177 of the federal Clean Air Act to direct MDE to adopt the ACT regulations pioneered by California. The rules would establish Maryland as a priority market for MHD ZEVs, thereby driving critical emissions reductions in the state’s transportation sector.

The ACT rules complement existing standards governing light-duty vehicles, also known as the Advanced Clean Cars program. Maryland has shown national leadership as an ACC state for more than a decade and Rivian looks forward to the state formally adopting the next phase of ACC standards for model years 2026 and beyond.

Setting ambitious, companion requirements for the MHD sector is a critical task. Conventional MHD vehicles contribute disproportionately to GHG emissions and air pollution. Nationwide, MHD vehicles comprise just 10 percent of vehicles on the road but they emit 20 percent of all transportation sector GHGs and more than 60 percent of tailpipe nitrogen oxides (NOx) and particulate matter (PM). In 2020, approximately 60 percent of those NOx and PM emissions occurred in urban areas. That’s why electrifying MHD vehicles can have particular benefits for frontline communities, which often neighbor ports, highways, and warehouse districts. According to the International Council for Clean Transportation (“ICCT”), adoption of the ACT rule in Maryland would avoid almost 70,000 tons of NOx, 613 tons of PM2.5,

and more than 7 million metric tons of GHG emissions by 2050.<sup>1</sup> These reductions would represent a crucial down payment on ever stronger public health improvements and the achievement of Maryland's larger climate goals. With transportation contributing more to the state's GHG emissions than any other economic sector, the state cannot afford to leave any emissions reductions from vehicles on the table.

Implementing the ACT rule will help catalyze growth in the MHD ZEV market and should be viewed as foundational for any state approach to eliminating emissions from the MHD sector. With its strong yet achievable standards, vehicle class-specific sales targets, and provisions for credit trading, the regulation is thoughtfully designed to support industry's compliance efforts while driving accelerated deployment of EVs by manufacturers. This helps industry grow more quickly and cost-effectively to large-scale production—crucial for the long-term success of the industry as well as Maryland's transportation electrification efforts.

Once again, Rivian applauds the goals of SB 224 and Maryland's broader efforts to electrify transportation. To ensure this bill achieves its aims, we note that an amendment to the bill's definitions of medium- and heavy-duty vehicles is required to conform with the California code, which the ensuing regulation would reference. Companion bill HB 230 includes the correct definitions that the Senate should reflect in its version of the legislation. We understand that this issue has been recognized and the necessary amendment will be made during the hearing. We urge this amendment and your support for this important bill to put Maryland on a path to being an ACT state by the end of 2023.

Sincerely,

Beau Whiteman  
Public Policy Manager  
Rivian Automotive, LLC  
[bwhiteman@rivian.com](mailto:bwhiteman@rivian.com) | 814-746-6615

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<sup>1</sup> The International Council on Clean Transportation, *Benefits of Adopting California Medium- and Heavy-Duty Vehicle Regulations* (2022), available at [www.theicct.org/benefits-ca-multi-state-reg-data/](http://www.theicct.org/benefits-ca-multi-state-reg-data/).

# **SB 224 - Maryland Motor Truck Association - Favors**

Uploaded by: Louis Campion

Position: FWA



# Maryland Motor Truck Association

9256 Bendix Road, Suite 203, Columbia, MD 21045  
Phone: 410-644-4600 Fax: 410-644-2537



**HEARING DATE:** February 9, 2023

**BILL NO/TITLE:** **Senate Bill 224 – Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)**

**COMMITTEE:** Senate Education, Energy and the Environment

**POSITION:** **Favorable with Amendments**

Maryland Motor Truck Association (MMTA) recognizes the continued need to lower greenhouse gas emissions from the transportation sector. The trucking industry is fuel neutral; however, we must have access to a readily available fuel supply that meets our operational needs so that we can deliver the food, clothing, medical supplies and other products that citizen's need.

MMTA members are testing electric trucks on a very limited basis. Drivers are offering positive feedback as the trucks have less noise, lower emissions, and a smoother ride. Primarily those members are engaged in medium-duty local delivery operations where the truck returns to its home terminal each day and has access to on-site charging. However, there are large segments of the trucking industry that are not currently suitable for electrification. Those trucks are unlikely to be able to meet our operating needs in accordance with the timetable that would be mandated with the passage of SB224.

There are a number of challenges to deployment of electric trucks in Maryland. These include grid capacity, lack of charging infrastructure, permitting, battery range and weight, cost, and lost payload to name just a few. SB224 attempts to move us further down the path to electrification, however, prior to automatically advancing California's standard, MMTA believes proper study and planning is warranted. As such MMTA offers support for SB224, but with amendments that require the state to conduct a needs assessment and develop an implementation plan. The amendments also allow for the delayed implementation of the Advance Clean Trucks regulation if the needs assessment determines that the state is not prepared for successful implementation of the California rule and manufacturers cannot meet the sales thresholds required.

With regards to electrification, the trucking industry is 10 years behind the car industry. A conversation about necessary incentives, infrastructure development, and the timeline for a realistic transition needs to occur. MMTA believes the amendments we have offered provide a chance to do that. Yes, ZEV trucks are coming, but it does not make sense to simply adopt an artificial mandate that cannot be achieved in our state without proper planning and development.

For the reasons noted above, MMTA asks for a favorable report with the amendments the association has offered.

**About Maryland Motor Truck Association:** Maryland Motor Truck Association is a non-profit trade association representing the trucking industry since 1935. In service to its 1,000 members, MMTA is committed to support, advocate and educate for a safe, efficient and profitable trucking industry in Maryland.

**For further information, contact:** Louis Campion, (c) 443-623-4223

Amendments to Senate Bill 224 – 1<sup>st</sup> Reader  
Offered by Maryland Motor Truck Association

- On page 2, in line 11, strike “vehicle standards” and replace it with “ADVANCE CLEAN TRUCKS REGULATION”
- On page 2, after line 11, insert:

(III) TAKE EFFECT STARTING IN MODEL YEAR 2027.

(C) ON OR BEFORE DECEMBER 1, 2024, THE DEPARTMENT OF THE ENVIRONMENT, THE DEPARTMENT OF TRANSPORTATION, AND THE MARYLAND ENERGY ADMINISTRATION SHALL PREPARE AND SUBMIT TO THE LEGISLATURE A NEEDS ASSESSMENT AND DEPLOYMENT PLAN RELATING TO THE SUCCESSFUL IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION IN MARYLAND, WHICH SHALL, AMONG OTHER THINGS:

(I) ASSESS AND PLAN FOR THE ADDITIONAL ELECTRICAL CAPACITY, TRANSMISSION AND DISTRIBUTION DEMANDS THAT WILL NEED TO BE MET TO IMPLEMENT THE ADVANCED CLEAN TRUCKS REGULATION, AND THE CAPABILITY OF THE STATE’S UTILITIES AND GRID TO MEET THOSE DEMANDS;

(II) ASSESS AND PLAN FOR THE NUMBER OF HEAVY-DUTY AND MEDIUM-DUTY ZEV-RECHARGING AND HYDROGEN-REFUELING STATIONS THAT WILL BE REQUIRED IN THE STATE TO IMPLEMENT THE ADVANCED CLEAN TRUCKS REGULATION, AND THE COSTS, PERMITTING ISSUES, AND NECESSARY TIMELINES FOR INSTALLING THOSE STATIONS;

(III) ASSESS AND PLAN FOR THE ZEV PURCHASE INCENTIVES THAT WILL BE REQUIRED TO ENSURE THE SUCCESSFUL IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION, AND THE POTENTIAL SOURCES OF THAT INCENTIVE FUNDING; AND

(IV) ASSESS AND PLAN FOR WHEN AND HOW QUICKLY STATE MEDIUM AND HEAVY-DUTY VEHICLE FLEET OPERATIONS, INCLUDING STATE-CONTRACTED MEDIUM AND HEAVY-DUTY VEHICLES, CAN BE CONVERTED TO ZERO-EMISSIONS.

(D) THE DEPARTMENT OF THE ENVIRONMENT SHALL PROVIDE REGULATORY MECHANISMS TO ALLOW FOR THE DELAY OF THE IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION BY ONE OR MORE MODEL YEARS IF THE DEPARTMENT DETERMINES, IN CONSULTATION WITH THE DEPARTMENT OF TRANSPORTATION AND THE MARYLAND ENERGY ADMINISTRATION, THAT THE IMPLEMENTATION CRITERIA IDENTIFIED THROUGH THE NEEDS ASSESSMENT AND DEPLOYMENT PLAN HAVE NOT BEEN MET.

**SB 224\_MAA\_FWA.pdf**

Uploaded by: Nicolae Copper

Position: FWA



CHAIRMAN:  
Jeff Graf  
VICE CHAIRMAN  
David Slaughter

**MARYLAND ASPHALT ASSOCIATION**



TREASURER:  
Paul Bramble  
SECRETARY:  
Curtis Hall  
PRESIDENT:  
G. Marshall Klinefelter

February 9, 2023

Senator Brian J. Feldman, Chair  
Senate Education, Energy, and the Environment Committee  
2 West, Miller Senate Office Building  
Annapolis, MD 21401

**RE: SB 224 – FAVORABLE WITH AMENDMENTS – Department of the Environment – Zero-Emission Medium- and Heavy-Duty Vehicles – Regulations (Clean Trucks Act of 2023)**

Dear Chair Feldman and Members of the Committee:

The Maryland Asphalt Association (MAA) is comprised of 18 producer members representing more than 47 production facilities, 24 contractor members, 24 consulting engineer firms and 41 other associate members. MAA works proactively with regulatory agencies to represent the interests of the asphalt industry both in the writing and interpretation of state and federal regulations that may affect our members. We also advocate for adequate state and federal funding for Maryland's multimodal transportation system.

Senate Bill 224 requires the Maryland Department of the Environment to adopt regulations regarding the sale of new zero-emission medium- and heavy-duty vehicles in the state by December 1, 2023. These regulations must incorporate by reference the recently adopted California Air Resources Board's vehicle standards.

While MAA recognizes the impact of climate change, the regulatory directive proposed by Senate Bill 224 is shortsighted and too unwieldy to be accomplished in a six-month timeframe. If it is the will of the Committee to enact legislation to address this issue, we respectfully ask that the Committee incorporate the amendments proffered by the Maryland Motor Truck Association. These amendments address several critical shortcomings of the bill as proposed. For example, they would specify which California regulations must be incorporated by reference and give the industry four years to phase them in. In addition, they would create a second reporting deadline of December 1, 2024 for the submission of a detailed implementation plan aimed at preparing our infrastructure for the forthcoming changes, such as assessing the additional impact on the state's electric grid, increasing geographic coverage of public recharging stations, and outlining the level of purchase incentives that will be required to meet the goals of implementation.

MAA would add that the implementation plan should also make recommendations on the purchase and zoning of storage and disposal facilities adequate to process the inevitable influx of spent batteries, fuel cells, and other critical components brought on by the shift to zero-emission vehicles; moreover, MAA believes that the Administration should be required to conduct a complete environmental impact study of

The Honorable Brian J. Feldman

February 9, 2023

Page 2

those facilities, including a period for public review and comment, prior to the effective date of the regulations.

We appreciate you taking the time to address our request on Senate Bill 224.

Sincerely,

A handwritten signature in cursive script that reads "Marshall Klinefelter". The signature is written in a dark ink and is positioned above the printed name.

Marshall Klinefelter

President

Maryland Asphalt Association

**SB 224\_MTBMA\_FWA.pdf**

Uploaded by: Nicolae Copper

Position: FWA



February 9, 2023

Senator Brian J. Feldman, Chair  
Senate Education, Energy, and the Environment Committee  
2 West, Miller Senate Office Building  
Annapolis, MD 21401

**RE: SB 224 – FAVORABLE WITH AMENDMENTS – Department of the Environment – Zero-Emission Medium- and Heavy-Duty Vehicles – Regulations (Clean Trucks Act of 2023)**

Dear Chair Feldman and Members of the Committee:

The Maryland Transportation Builders and Materials Association (MTBMA) has been and continues to serve as the voice for Maryland's construction transportation industry since 1932. Our association is comprised of 200 members. MTBMA encourages, develops, and protects the prestige of the transportation construction and materials industry in Maryland by establishing and maintaining respected relationships with federal, state, and local public officials. We proactively work with regulatory agencies and governing bodies to represent the interests of the transportation industry and advocate for adequate state and federal funding for Maryland's multimodal transportation system.

Senate Bill 224 requires the Maryland Department of the Environment to adopt regulations regarding the sale of new zero-emission medium- and heavy-duty vehicles in the state by December 1, 2023. These regulations must incorporate by reference the recently adopted California Air Resources Board's vehicle standards.

While MTBMA recognizes the impact of climate change, the regulatory directive proposed by Senate Bill 224 is shortsighted and too unwieldy to be accomplished in a six-month timeframe. If it is the will of the Committee to enact legislation to address this issue, we respectfully ask that the Committee incorporate the amendments proffered by the Maryland Motor Truck Association. These amendments address several critical shortcomings of the bill as proposed. For example, they would specify which California regulations must be incorporated by reference and give the industry four years to phase them in. In addition, they would create a second reporting deadline of December 1, 2024 for the submission of a detailed implementation plan aimed at preparing our infrastructure for the forthcoming changes, such as assessing the additional impact on the state's electric grid, increasing geographic coverage of public recharging stations, and outlining the level of purchase incentives that will be required to meet the goals of implementation.

MTBMA would add that the implementation plan should also make recommendations on the purchase and zoning of storage and disposal facilities adequate to process the inevitable influx of spent batteries, fuel cells, and other critical components brought on by the shift to zero-emission vehicles; moreover,

The Honorable Brian J. Feldman

February 9, 2023

Page 2

MTBMA believes that the Administration should be required to conduct a complete environmental impact study of those facilities, including a period for public review and comment, prior to the effective date of the regulations.

We appreciate you taking the time to address our request on Senate Bill 224.

Thank you,

A handwritten signature in blue ink, appearing to read 'Michael Sakata', written over a faint, circular embossed seal or watermark.

Michael Sakata

President and CEO

Maryland Transportation Builders and Materials Association

# **SB224 Testimony.pdf**

Uploaded by: Richard Tabuteau

Position: FWA

# V O L V O

TO: The Honorable Brian Feldman, Chair  
Members, Senate Education, Energy, & Environment Committee  
The Honorable Malcolm Augustine

FROM: Richard A. Tabuteau

DATE: February 9, 2023

RE: **FAVORABLE WITH AMENDMENT** – Senate Bill 224 – *Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)*

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The Volvo Group drives prosperity through transport and infrastructure solutions, offering trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers' uptime and productivity. Founded in 1927, the Volvo Group is committed to shaping the future landscape of sustainable transport and infrastructure solutions. The Volvo Group employs more than 100,000 people worldwide and serves customers in more than 190 markets. Volvo Group North America employs around 14,000 people in the United States and operates 11 manufacturing and remanufacturing facilities in seven states.

In Maryland, Volvo Group North America's Hagerstown Powertrain Production facility employs nearly 2,000 people including over 1,400 members of the UAW Locals 171 and 1247 and is the last major automotive manufacturer in the state. The plant develops, manufactures, and tests heavy-duty powertrains, transmissions and axles for its Mack and Volvo trucks as well as Prevost and Volvo buses at its 280-acre campus. Volvo Group also employs more than 60 people at one of its U.S. parts distribution facilities in Elkridge.

In 2020, the Volvo Group made a global commitment to having 100% of its product sales being fossil free by 2040, including a nearer term goal of 35% of product sales being zero-emission by 2030. The Hagerstown plant plays a key role in this transition through the manufacturing of all modular power boxes for the Volvo VNR electric and Mack LR electric Class 8 trucks. It has also taken action to reduce its own emissions through completion of two solar installations and committing to using 100% renewable sources to meet its energy needs, part of overall energy efficiency measures under the U.S. Energy Department's Better Buildings Better Plants Program.

Senate Bill 224 requires the Maryland Department of the Environment, by December 1, 2023, to adopt regulations establishing requirements for the sale of new zero-emission medium- and heavy-duty vehicles in the State. The regulations may update existing regulations and

incorporate by reference the California Air Resources Board's (CARB) vehicle standards, as revised and updated.

Volvo and Mack Trucks are the North American industry leaders in Zero-Emission (ZE) Class 8 trucks. We applaud Senator Augustine's commitment to the environment and share the same goal of accelerating medium- and heavy-duty zero-emission vehicles in the marketplace; however, we don't believe that Maryland's adoption of the Advanced Clean Truck regulation (ACT) can succeed without careful planning and creation of a supportive ecosystem for these vehicles.

Senate Bill 224 effectively mandates that Volvo Group and its competitors sell pre-established percentages of ZE Class 8 trucks each year without incorporating measures to address numerous structural impediments to achieving those sales. For example, this bill, as introduced, does not provide any financial support for power assessments of the electricity grid or installation of necessary charging infrastructure that must precede the utilization of these vehicles. Electric trucks are not big electric cars. They use completely different charging hardware, need more parking space, and have batteries that are about 5x larger, 5x heavier, 5x more powerful, and 5x more expensive than light-duty vehicles. Currently, it does not appear that the state's major utilities or the grid operators are remotely prepared to handle the anticipated electrical load that will be needed to support this sales mandate.

In addition, these early ZE Class 8 trucks are approximately 2-3 times more expensive than their diesel-powered equivalents. This, together with the cost of installing charging infrastructure and equipment, makes it virtually impossible for commercial fleets to absorb these higher up-front costs until the vehicle's total cost of ownership is similar to that of today's vehicles. We understand Governor Moore has an incentives package for ZE Class 8 truck purchases and charging infrastructure investments. We share the Administration's belief that incentives and other supportive policies must be adopted to ensure a successful transition to a ZE Class 8 truck future. Sustained funding for these purchase incentives is also necessary.

Sustained adoption of ZE Class 8 trucks requires a complex network of programs, policies, and regulations to facilitate cooperation across multiple key stakeholders, including energy providers – utilities and grid operators, charger manufacturers, state and local government officials, component suppliers, commercial fleets, dealerships, and many others. Senate Bill 224 only addresses one facet of this ecosystem and will fail unless additional measures are adopted to complement the ACT's sales mandate percentages.

Below are amendments that Volvo Group believes could make adoption of the Advanced Clean Truck regulation feasible in Maryland, beginning Page 2, Line 10:

**“(II) INCORPORATE BY REFERENCE THE CALIFORNIA AIR RESOURCES BOARD’S ADVANCE CLEAN TRUCKS REGULATION, AS REVISED AND UPDATED.**

**(III) TAKE EFFECT STARTING IN MODEL YEAR 2027.**



**(C) ON OR BEFORE DECEMBER 1, 2024, THE DEPARTMENT OF THE ENVIRONMENT, THE DEPARTMENT OF TRANSPORTATION, AND THE MARYLAND ENERGY ADMINISTRATION SHALL PREPARE AND SUBMIT TO THE LEGISLATURE A NEEDS ASSESSMENT AND DEPLOYMENT PLAN RELATING TO THE SUCCESSFUL IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION IN MARYLAND, WHICH SHALL, AMONG OTHER THINGS:**

**(I) ASSESS AND PLAN FOR THE ADDITIONAL ELECTRICAL CAPACITY, TRANSMISSION AND DISTRIBUTION DEMANDS THAT WILL NEED TO BE MET TO IMPLEMENT THE ADVANCED CLEAN TRUCKS REGULATION, AND THE CAPABILITY OF THE STATE’S UTILITIES AND GRID TO MEET THOSE DEMANDS;**

**(II) ASSESS AND PLAN FOR THE NUMBER OF HEAVY-DUTY AND MEDIUM-DUTY ZEV RECHARGING AND HYDROGEN-REFUELING STATIONS THAT WILL BE REQUIRED IN THE STATE TO IMPLEMENT THE ADVANCED CLEAN TRUCKS REGULATION, AND THE COSTS, PERMITTING ISSUES, AND NECESSARY TIMELINES FOR INSTALLING THOSE STATIONS;**

**(III) ASSESS AND PLAN FOR THE ZEV PURCHASE INCENTIVES THAT WILL BE REQUIRED TO ENSURE THE SUCCESSFUL IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION, AND THE POTENTIAL SOURCES OF THAT INCENTIVE FUNDING; AND**

**(IV) ASSESS AND PLAN FOR WHEN AND HOW QUICKLY STATE MEDIUM AND HEAVY DUTY VEHICLE FLEET OPERATIONS, INCLUDING STATE-CONTRACTED MEDIUM AND HEAVY DUTY VEHICLES, CAN BE CONVERTED TO ZERO-EMISSIONS.**

**(D) THE DEPARTMENT OF THE ENVIRONMENT SHALL PROVIDE REGULATORY MECHANISMS TO ALLOW FOR THE DELAY OF THE IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION BY ONE OR MORE MODEL YEARS IF THE DEPARTMENT DETERMINES, IN CONSULTATION WITH THE DEPARTMENT OF TRANSPORTATION AND THE MARYLAND ENERGY ADMINISTRATION, THAT THE IMPLEMENTATION CRITERIA IDENTIFIED THROUGH THE NEEDS ASSESSMENT AND DEPLOYMENT PLAN HAVE NOT BEEN MET.”**

Volvo Group urges the Senate Education, Energy, & Environment Committee to adopt the proffered amendments for Senate Bill 224.

**For more information call:**  
Richard A. Tabuteau  
347.886.2904

**SB224\_FWA\_MRA.pdf**

Uploaded by: Sarah Price

Position: FWA

# MARYLAND RETAILERS ASSOCIATION

*The Voice of Retailing in Maryland*



**SB224 Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)  
Senate Education, Energy, and the Environment Committee  
February 9, 2023**

**Position:** Favorable with Amendments

**Background:** SB224 would require the State to adopt regulations for the sale of zero-emission vehicles and incorporate standards established in California law.

**Comments:** The Maryland Retailers Association (MRA) understands the need to incorporate methods for lowering greenhouse gas emissions into the transportation sector. Many members of the retail industry are beginning to incorporate low emission and electric vehicles into their delivery fleets, whether through pilot programs or established transition goals. Progress is being made in this area, but the existing technology and infrastructure are not evolving at a pace that could meet the goals that would be established by SB224. Challenges including current charging infrastructure and availability, grid capacity, and vehicle battery range and weight present barriers to swift implementation of electrification requirements in Maryland.

MRA would recommend that the Committee strongly consider the amendments that have been recommended by the Maryland Motor Truck Association (MMTA). The amendments would require the State to conduct a needs assessment and develop an implementation plan unique to Maryland. This would permit the State to delay implementation if the needs assessment determines that the current infrastructure and manufacturing cannot support the standards established in California, allowing for Maryland's trucking industry to adapt at an appropriate and attainable pace.

Thank you for your consideration.

# **EMA Testimony - SB 224 (favorable with amendments)**

Uploaded by: Timothy French

Position: FWA

**SB 224/HB 230**  
**Timothy A. French ([tfrench@clpchicago.com](mailto:tfrench@clpchicago.com))**  
**Truck and Engine Manufacturers Association**

**Favorable Only With Amendments**

## **EMA Testimony on Maryland Legislation to Incorporate by Reference California's Advanced Clean Truck Rule**

The Truck and Engine Manufacturers Association (EMA) respectfully opposes the proposed bill, as currently drafted, to incorporate by reference California's Advanced Clean Trucks (ACT) regulations because those increasing ZEV-truck sales mandates, unaccompanied by any provisions to ensure that the necessary ZEV-truck purchase incentives and infrastructure build-out are assessed and planned for, will frustrate, not foster, the accelerated deployment of ZEV trucks in Maryland. EMA represents the world's leading manufacturers of medium-duty and heavy-duty trucks and truck engines — the types of commercial vehicles that would be covered under the proposed opt-in to California's ACT Rule. EMA actively participated in the underlying California rulemaking process.

EMA and its members fully support a conversion of the commercial trucking fleet to ZEVs, and agree that 2040 could be a reasonable target date for the broad deployment of ZEV trucks wherever feasible. EMA members are spending billions of dollars toward that end, and already are producing ZEVs for some applications. However, to bring about our shared vision for the future, **a comprehensive and coordinated state and federal strategy is required** to develop and implement the widespread deployment of ZEV trucks, not the adoption of naked stand-alone state-specific ZEV-truck sales mandates.

To ensure the successful deployment of ZEV trucks on an accelerated timeline, very large public investments will be required **up-front**, not after ZEV-sales mandates take effect. More

specifically, a critical first step in accelerating the deployment of ZEV trucks – **before** the imposition of increasing sales mandates under CARB’s ACT program – is the assessment and establishment of a comprehensive program to invest in and develop the robust electric and hydrogen infrastructure necessary to recharge or refuel ZEV trucks. Maryland can and must be a leader in those broad-based **up-front** ZEV-readiness efforts which, for trucks, will involve longer infrastructure-planning and installation timelines (for both battery-powered and hydrogen-fueled trucks), much greater demands on the State’s electricity grid and inter-connections, and significantly larger public investments than for passenger cars.

In addition, since the cost of a ZEV-truck is currently 2-3 times higher than for a conventionally-fueled truck, and since there is no obligation under the ACT program that any fleet operator **buy** a more costly ZEV truck, other significant public investments will need to be assessed and implemented in Maryland. In particular, and as another critical first step **before** implementing CARB’s ACT Rule, Maryland will need to assess and provide sustained incentive funding to offset the significantly higher price differential for ZEV trucks. Otherwise, the assumed increasing purchases of ZEV trucks will simply not occur. Moreover, Maryland should set an example by requiring the purchase of ZEV trucks for a portion of all of the State’s purchases of new heavy-duty vehicles going forward.

EMA and other stakeholders have discussed with Delegate Love and other legislators potential amendments to the bill at issue that would address the significant concerns that EMA has raised. A copy of the potential amendments that EMA would support is attached. The proposed amendments – which include directives for the relevant State agencies to assess and plan for the necessary ZEV-infrastructure build-out and ZEV-purchase incentives – will greatly enhance the prospects for successfully accelerating the deployment of ZEV trucks in Maryland.

In sum, successfully implementing California's ACT Rule in Maryland will require the State to assess and plan for the significant ZEV-truck infrastructure and ZEV-truck purchase incentives that will be necessary to ensure the deployment of heavy-duty and medium-duty ZEVs on the timeline and at the rate spelled out in the ACT Rule. The proposed amendments will help to ensure that the necessary planning is completed and implemented in a timely manner **before** the ACT sales mandates take effect, and will result in the type of opt-in legislation that other States can and should look to as they consider how best to transition the vitally important goods-movement industry to ZEVs. Accordingly, if the attached amendments to the bill are adopted, EMA could support its enactment.

# HOUSE BILL 230

M3  
HB 829/22 – ENT

3lr1059  
CF SB 224

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By: **Delegates Love, Fraser–Hidalgo, Charkoudian, Foley, Guyton, Moon, Queen,  
Terrasa, Turner, and Vogel**

Introduced and read first time: January 23, 2023 Assigned to:  
Environment and Transportation

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## A BILL ENTITLED

1 AN ACT concerning

2 **Department of the Environment – Zero–Emission Medium– and Heavy–Duty**  
3 **Vehicles – Regulations**  
4 **(Clean Trucks Act of 2023)**

5 FOR the purpose of requiring the Department of the Environment to adopt regulations on or before a  
6 certain date establishing requirements for the sale of new zero–emission medium– and heavy–  
7 duty vehicles in the State; and generally relating to the sale of zero–emission vehicles in the  
8 State.

9 BY adding to

10 Article – Environment Section 2–  
11 1103.1  
12 Annotated Code of Maryland  
13 (2013 Replacement Volume and 2022 Supplement)

14 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND,  
15 That the Laws of Maryland read as follows:

16 **Article – Environment**

17 **2–1103.1.**

18 **(A) (1) IN THIS SECTION THE FOLLOWING WORDS HAVE THE MEANINGS**  
19 **INDICATED.**

20 **(2) “HEAVY–DUTY VEHICLE” MEANS A VEHICLE WITH A GROSS**  
21 **VEHICLE WEIGHT RATING EQUAL TO OR GREATER THAN 14,001 POUNDS.**

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EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.

**\*hb0230\***



1           **(3) “MEDIUM-DUTY VEHICLE” MEANS A VEHICLE WITH A GROSS**  
2 **VEHICLE WEIGHT RATING OF NOT LESS THAN 8,501 POUNDS AND NOT MORE THAN**  
3 **14,000 POUNDS.**

4           **(B) (1) ON OR BEFORE DECEMBER 1, 2023, THE DEPARTMENT SHALL**  
5 **ADOPT REGULATIONS ESTABLISHING REQUIREMENTS FOR THE SALE OF NEW**  
6 **ZERO-EMISSION MEDIUM- AND HEAVY-DUTY VEHICLES IN THE STATE.**

7           **(2) THE REGULATIONS ADOPTED UNDER PARAGRAPH (1) OF THIS**  
8 **SUBSECTION SHALL:**

9                   **(I) UPDATE EXISTING REGULATIONS; AND**

10                   **(II) INCORPORATE BY REFERENCE THE CALIFORNIA AIR**  
11 **RESOURCES BOARD’S ~~VEHICLE STANDARDS~~ **ADVANCE CLEAN TRUCKS****  
12 **REGULATION, AS REVISED AND UPDATED.**

13                   **(III) TAKE EFFECT STARTING IN MODEL YEAR 2027.**

**(C) ON OR BEFORE DECEMBER 1, 2024, THE DEPARTMENT OF THE ENVIRONMENT, THE DEPARTMENT OF TRANSPORTATION, AND THE MARYLAND ENERGY ADMINISTRATION SHALL PREPARE AND SUBMIT TO THE LEGISLATURE A NEEDS ASSESSMENT AND DEPLOYMENT PLAN RELATING TO THE SUCCESSFUL IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION IN MARYLAND, WHICH SHALL, AMONG OTHER THINGS:**

**(I) ASSESS AND PLAN FOR THE ADDITIONAL ELECTRICAL CAPACITY, TRANSMISSION AND DISTRIBUTION DEMANDS THAT WILL NEED TO BE MET TO IMPLEMENT THE ADVANCED CLEAN TRUCKS REGULATION, AND THE CAPABILITY OF THE STATE’S UTILITIES AND GRID TO MEET THOSE DEMANDS;**

**(II) ASSESS AND PLAN FOR THE NUMBER OF HEAVY-DUTY AND MEDIUM-DUTY ZEV-RECHARGING AND HYDROGEN-REFUELING STATIONS THAT WILL BE REQUIRED IN THE STATE TO IMPLEMENT THE ADVANCED CLEAN TRUCKS REGULATION, AND THE COSTS, PERMITTING ISSUES, AND NECESSARY TIMELINES FOR INSTALLING THOSE STATIONS;**

**(III) ASSESS AND PLAN FOR THE ZEV PURCHASE INCENTIVES THAT WILL BE REQUIRED TO ENSURE THE SUCCESSFUL IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION, AND THE POTENTIAL SOURCES OF THAT INCENTIVE FUNDING; AND**

**(IV) ASSESS AND PLAN FOR WHEN AND HOW QUICKLY STATE MEDIUM AND HEAVY-DUTY VEHICLE FLEET OPERATIONS, INCLUDING STATE-CONTRACTED MEDIUM AND HEAVY-DUTY VEHICLES, CAN BE CONVERTED TO ZERO-EMISSIONS.**

**(D) THE DEPARTMENT OF THE ENVIRONMENT SHALL PROVIDE REGULATORY MECHANISMS TO ALLOW FOR THE DELAY OF THE IMPLEMENTATION OF THE ADVANCED CLEAN TRUCKS REGULATION BY ONE OR MORE MODEL YEARS IF THE DEPARTMENT DETERMINES, IN CONSULTATION WITH THE DEPARTMENT OF TRANSPORTATION AND THE MARYLAND ENERGY ADMINISTRATION, THAT THE IMPLEMENTATION CRITERIA IDENTIFIED THROUGH THE NEEDS ASSESSMENT AND DEPLOYMENT PLAN HAVE NOT BEEN MET.**

**SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect June 1, 2023.**

# **SB224 MDE Favorable with Amendments.pdf**

Uploaded by: Tyler Abbott

Position: FWA



**The Maryland Department of the Environment  
Secretary-Designee Serena McIlwain**

***SB0224***

***Department of the Environment – Zero–Emission Medium– and Heavy–Duty Vehicles  
– Regulations (Clean Trucks Act of 2023)***

**Position: Favorable with Amendments**

**Committee:** Education, Energy, and the Environment Committee

**Date:** February 09, 2023

**From:** Gabrielle Leach

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The Maryland Department of the Environment (MDE) urges **FAVORABLE WITH AMENDMENTS** on Senate Bill 224. SB 224 will provide Maryland with the ability to expand the use of Medium Heavy-Duty (MHD) zero emission vehicles (ZEVs) in the State by requiring certain manufacturers of MHD trucks to sell ZEVs as an increasing percentage of annual truck and bus sales in Maryland.

**Bill Analysis:** This bill will require MDE to adopt the California Advanced Clean Truck Rule (ACT) by December 1, 2023. If adopted, the ACT would require certain manufacturers of MHD trucks to sell ZEVs as an increasing percentage of annual truck and bus sales in Maryland. ZEV sales would be phased-in beginning in Model Year (MY) 2027 and increase through MY 2035, remaining constant thereafter.

**Position Rationale:** Maryland's ability to expand the use of ZEVs into the MHD sector will play an important role in helping Maryland achieve its air quality and climate goals. Transportation accounts for almost half of all greenhouse gas (GHG) emissions generated in the State. The Climate Solutions Now Act (CSNA) established a statewide goal of a 60% reduction in GHG emissions from 2006 levels by 2031. Additionally, transportation is a significant source of nitrogen oxides (NO<sub>x</sub>) emissions that contribute to ground-level ozone pollution. In Maryland and the Northeast region, MHD trucks are the second leading contributor to both NO<sub>x</sub> and GHG emissions. Maryland has made a lot of progress over the past few decades towards clean air and is now measuring statewide attainment of all federal air quality standards for all criteria pollutants, including ozone. In order to achieve the CSNA goals and attain and maintain the federal air quality standards, further reductions from the transportation sector are needed, and electrification of this sector is one of the best reduction strategies.

The action proposed in this bill will allow Maryland to expand the use of ZEVs into the key MHD vehicle sector. Maryland has already been active in this area; in July of 2020, Maryland joined sixteen other states and the District of Columbia in signing a MHD ZEV MOU. Under this MOU, a ZEV sales goal was established that by 2030 at least 30% of all MHD trucks sold in the MOU states would be ZEVs. To achieve this goal, a multi-state MHD ZEV Action Plan was released in summer 2022.

MHD ZEVs currently are more expensive than conventionally powered MHDs trucks and adequate recharging infrastructure will be needed to support these trucks. In addition, vehicle availability could be

an early concern. However, as with all new technologies and markets, we do expect these challenges to be overcome as the market evolves, and Maryland agencies are using both federal and state resources to provide vehicle purchase rebates and to deploy recharging infrastructure. MDE also notes that more substantial increases in investment in ZEV charging infrastructure, other decarbonization measures, and new, dedicated funding sources for transportation decarbonization programs are necessary to achieve our goals and avoid significant impacts from climate change. As MDE continues to prioritize equity and environmental justice, we also support the flexibility to take additional benefits for communities with environmental justice concerns into account.

While the Department supports SB 224, it will have a fiscal impact on MDE. General funds will be needed to cover MDE's activities associated with the initial adoption of the required regulations as well as MDE's ongoing responsibilities under this bill. In order to maintain the program regulations and ensure compliance, track new truck sales and credits, oversee the administration of the ZEV Truck Credit, Banking and Trading Program, and perform other technical activities associated with this program, MDE would need, at a minimum, two new positions. Adopting the necessary regulations will also require MDE to conduct a stakeholder process prior to adoption. Contractual assistance will also be needed to facilitate the stakeholder process, develop the regulatory language, develop an environmental analysis of the program, and analyze the economic impacts.

**Amendments:** **1)** Due to the tight timeline to adopt the regulations, extending the deadline to adopt the regulations until December 31, 2023, instead of December 01, 2023, would be helpful. As long as the regulations are adopted by December 31, 2023, there would be no change to the MY captured by the regulations. **2)** Additionally, the California ACT regulations include a ZEV requirement for Class 2b Trucks which covers vehicles that weigh between 8,501 to 10,000 pounds. As drafted, SB 224 does not cover this weight class of trucks. Section 177 of the Clean Air Act, which establishes state authorities to adopt California vehicle standards, requires that states' regulations be identical to California's, so Maryland would also be required to cover trucks 8,501-10,000 lbs. As such, MDE supports this bill with an amendment to match the language on weight classes in HB 230, which includes trucks that weigh between 8,501 and 14,000 lbs.

For the reasons detailed above, MDE urges a **FAVORABLE WITH AMENDMENTS** report for SB 224.

# **SB224\_MDCC\_Environment\_Clean Trucks Act of 2023\_UN**

Uploaded by: Andrew Griffin

Position: UNF



**LEGISLATIVE POSITION:**

**Unfavorable**

**Senate Bill 224**

**Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)**

**Senate Education, Energy, and the Environment Committee**

**Thursday, February 9, 2023**

Dear Chairman Feldman and Members of the Committee:

Founded in 1968, the Maryland Chamber of Commerce is the leading voice for business in Maryland. We are a statewide coalition of more than 6,400 members and federated partners working to develop and promote strong public policy that ensures sustained economic recovery and growth for Maryland businesses, employees, and families.

Senate Bill 224 requires the Department of Environment to adopt California's Air Resources Board Vehicle Standards by December 1 of this year. These regulations will establish requirements for the sale of new zero-emission medium and heavy-duty vehicles (ZEV) in the state. Under this, auto manufacturers will be required to produce a certain number of ZEVs each year. That number is based on the total number of cars sold in California by the manufacturer.

The Maryland Chamber of Commerce understands the goal of this legislation and many of our members are working toward emission reduction goals. However, ZEV truck adoption is a very complex process and requires cooperation across key stakeholders. ZEV trucks use completely different chargers and there are zero public charging stations as of today. The batteries are 5x more expensive and the chargers are 4x more expensive. Additionally, successful deployment of ZEV trucks requires cooperation between manufacturers of both the vehicles and chargers, energy providers, component suppliers and dealerships. Lastly, preparation for such an endeavor will take, at minimum, 12 months.

Truck buying is a unique process, in that you don't buy a new truck off a dealer's lot. Instead, you work with a dealer on specifications and price, and they place an order from a manufacturer and then deliver the vehicle to the purchaser. Ultimately, many companies that require these trucks will take their business out of state to jurisdictions that are able to order what they need. As Maryland businesses continue to prepare for a potential economic recession, now is not the time to place added burdens and costs on our businesses.

With these concerns in mind, the Maryland Chamber of Commerce respectfully requests an **unfavorable report** on **SB 224**.

**API oppose SB 224 and HB 230.pdf**

Uploaded by: Bernie Marczyk

Position: UNF



American Petroleum Institute  
Comments Relative to [SB 224](#) and [HB 230](#) (Clean Trucks Act of 2023)  
February 8, 2023

The American Petroleum Institute (API)<sup>1</sup> appreciates the state’s desire to be at the front of the curve with respect to energy and environmental policies. While some legislators may believe that SB 224 and HB 230 will help effectuate that goal, API encourages Maryland policymakers to retain state sovereignty and refrain from acceding authority to California by having the state automatically adopt California’s medium- and heavy-duty truck rules.

API specifically recommends that the state not effectively delegate its authority by having laws and rules that “incorporate by reference” California’s rules “as revised and updated.” API supports policies that provide customer choice with respect to vehicle purchases and emphasize the need to have the market and technology dictate the evolution of the truck fleet, which in turn can help address consumer cost concerns.

The free market has a proven track record of demonstrating that competition has achieved policy objectives and effectuated advanced technology at a reduced cost to the consumer. Maryland should support policies that allow all technologies, including biofuel blends, battery electric vehicles, hybrids and efficient gasoline and diesel vehicles to compete in the marketplace. These types of policies can be developed to ensure that the most efficient and effective technologies are implemented to achieve the goal of reducing GHG emissions in the transportation sector.

Industry members are applying their abilities and resources to meet emission reduction policies in the transportation sector in a manner that allows Maryland, and all consumers, the ability to choose the technology that best meets their needs. As the association representing the natural gas and oil industry, we are uniquely positioned to think about fuels, safety, and innovation for the next generation. API welcomes discussion on viable solutions to the dual challenge of ensuring reliable and affordable energy supplies to support economic growth and human prosperity, while advancing environmental progress.

API strongly encourages Maryland’s legislature to retain its authority to review the actions of the Department of the Environment to direct the agency to adopt different rules, or to set different emissions standards through legislation. Through SB 224, Maryland would allow but not require the Department of the Environment to “incorporate by reference” California’s rules “as revised and updated.” Presumably, Maryland intends to automatically include into state regulations all future amendments to the California regulations.

Currently, Maryland’s Low Emissions Vehicle Program regulations incorporate by reference certain enumerated sections of Title 13 of the California Code of Regulations, which do not include California’s requirements for the sale of new zero- emission medium- and heavy-duty vehicles adopted in 2021 through its Advanced Clean Trucks rules.<sup>2</sup>

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<sup>1</sup> The American Petroleum Institute represents all segments of America’s natural gas and oil industry, which supports more than ten million U.S. jobs and is backed by a growing grassroots movement of millions of Americans. Our 600 members produce, process and distribute the majority of the nation’s energy, and participate in API Energy Excellence, which is accelerating environmental and safety progress by fostering new technologies and transparent reporting. API was formed in 1919 as a standards-setting organization and has developed more than 700 standards to enhance operational and environmental safety, efficiency, and sustainability.

<sup>2</sup> See Md. Code Regs. 26.11.34.01 et. seq. at <https://www.law.cornell.edu/regulations/maryland/title-26/part-2/subtitle-11/chapter-26.11.34>.





Historically, when California has conducted a major update to the rules it has done so by promulgating entirely new sections within the California Code of Regulations, such as through its Advanced Clean Trucks rulemaking. That rulemaking adopted new sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, and 1963.5 of Title 13 of the California Code of Regulations, along with new sections 2012, 2012.1, and 2012.2 of Title 13, codified under new article 3.1.<sup>3</sup> SB 224 was filed to adopt those provisions because the Maryland statute presently requires the state to follow California standards for light duty motor vehicles only, and the new sections were not (and could not have been) among those previously enumerated and incorporated.<sup>4</sup>

Maryland should retain jurisdiction over its air rules rather than incorporate by reference California standards. This will prevent substantive changes from automatically taking effect in the state if California adopts those changes by amending existing sections of its Code of Regulations that have been previously incorporated in Maryland. What is best for California is not necessarily what is best for Maryland.

Under existing state law Maryland can cite specific California regulations and still follow the Maryland regulatory process. This is a prudent and practical approach and ensures a thorough and deliberate debate and rulemaking process before implementing rules from a state that has different needs than Maryland.

Furthermore, given that Maryland's needs may vary from time to time, it makes sense from time to time to have the state's environmental regulators and the legislature (through its legislative oversight authority) consider the appropriate regulations for the state and not simply defer that responsibility to another state's air resources board.

In conclusion, automatically adopting future California rules without review by Maryland constituents and businesses bypasses Maryland's oversight authority and should not be pursued.

Respectfully submitted,

Michael S. Giaimo  
API Northeast Region Director

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<sup>3</sup> Final Regulation Order, Advanced Clean Trucks Regulation (2021) at <https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks>.

<sup>4</sup> See: [Md. Code Ann., Env't § 2-1102, 1103, Md. Code Ann., Transp. § 23-206.4; Md. Code Regs. 26.11.34.01 et. seq.](#)

# **Opposition of SB 224 - Department of the Environme**

Uploaded by: Colby Ferguson

Position: UNF



# Maryland Farm Bureau, Inc.

3358 Davidsonville Road • Davidsonville, MD 21035 • (410) 922-3426

February 9, 2023

To: Senate Education, Energy & the Environment Committee

From: Maryland Farm Bureau, Inc.

Re: **Opposition of SB 224 - Department of the Environment - Zero-Emission Medium- and Heavy-Duty Vehicles - Regulations (Clean Trucks Act of 2023)**

On behalf of our member families, I submit this written testimony opposing SB 224. This bill requires the state, by December 1, 2023, to enact the California Air Resources Board's vehicle standards which establishes the requirements for the sale of new zero-emission medium and heavy-duty vehicles in the State.

Since these standards do not include any requirements for implementing the needed charging infrastructure to meet this new demand, the industry will be at the mercy of truck stops and rest areas to offer charging options. Currently, there are no initiatives or programs being made available for the necessary charging infrastructure to be able to meet this sales mandate. Until proper charging infrastructure is in the pipeline to be built, the state should not move forward with these types of sales mandates. Medium and heavy-duty trucks require significantly more vehicle miles traveled than the typical light duty electric vehicle. Therefore, expecting the same implementation as the passenger vehicle is not realistic and shouldn't be required.

Agriculture is affected as farmers need to move their crops, livestock, poultry, and ag products from the farm to the processing facilities. This requires travel on highways, which would make farm trucks meet the zero emission restrictions required under this proposed law.

**MARYLAND FARM BUREAU RESPECTFULLY OPPOSES SB 224**

A handwritten signature in black ink, appearing to read "Colby Ferguson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Colby Ferguson  
Director of Government Relations

*For more information contact Colby Ferguson at (240) 578-0396*

# **SB 224 (Clean Trucks Act) - Opposition Letter - FI**

Uploaded by: Grayson Middleton

Position: UNF



*Educate. Advocate. Innovate.*

Date: February 8, 2023  
To: Members of the Senate Committee on Education, Energy, and the Environment  
From: Holly Porter, Executive Director  
Re: SB 0224 – Clean Trucks Act of 2023 – **OPPOSE**

Delmarva Chicken Association (DCA) the 1,600-member trade association representing the meat-chicken growers, processing companies, and allied business members on the Eastern Shore of Maryland, the Eastern Shore of Virginia, and Delaware opposes SB 224 as written and urges an unfavorable committee report.

Heavy and medium-duty trucks are integral to every piece of the Delmarva chicken industry. From transporting seed to fields for planting, to taking the broilers to the processing plant, our industry simply cannot function without widespread, reliable means of heavy and medium-duty transport.

We look forward to a time when electric semi-trucks are a logistically sound and comparatively priced alternative to existing diesel vehicles, however that time is far off. Under the most ideal conditions and using the very latest technology, electric semi-trucks are only capable of traveling between 200-300 miles on one charge, compared with the 700-900 miles a conventional diesel truck can travel with one tank of fuel. This means a fully charged electric semi could not even cover some of our truck's daily journeys, to and from. Furthermore, it takes a matter of minutes to fill a diesel tank, compared with 8-12 hours it takes to fully charge an electric semi.

This presents an obvious animal welfare issue. If a truck carrying chicks or full-size broilers cannot make its destination in time, birds will suffer the elements and die in an inhumane manner. Current battery technology used in electric heavy-duty vehicles is not suited to the intemperate climate of the Delmarva peninsula, whose extreme hot and cold temperatures can easily drain a battery and make for an unreliable mode of transportation. Even if the current technology in a perfect setting could provide an entire day's journey, the weather alone could change that. This is simply unacceptable when transporting living animals. Furthermore, our trucks are most often traveling through rural, sparsely populated areas where even a gas station is a rarity. The complete lack of EV infrastructure in these areas alone is enough to warrant great concern for this legislation.

It is not enough to assume that the required technology and infrastructure will be ready, and then give an unreasonable and subjective deadline that our industry and the public must adhere to. If this body is truly interested in moving toward green heavy and medium-duty transportation, we must first seriously investigate the feasibility of this technology in all settings and circumstances. We must also address the lack of grid capacity (particularly in rural areas), and the widespread shortage of EV charging stations for heavy-duty trucks. Unfortunately, this legislation provides for none of those things.



*Educate. Advocate. Innovate.*

We urge an **unfavorable** vote on SB 0224.

Should you have any additional questions, please feel free to contact me at [porter@dcachicken.com](mailto:porter@dcachicken.com) or 302-222-4069 or Grayson Middleton at [middleton@dcahicken.com](mailto:middleton@dcahicken.com) or 410-490-3329.

Sincerely,

Holly Porter  
Executive Director

# **SB224 written.pdf**

Uploaded by: Kirk McCauley

Position: UNF



WMDA/CAR Service Station  
and Automotive Repair Association

February 9, 2023

Chair: Brian Feldman

Members of Education, Energy, and Environment Committee

RE:SB224 Environment- Zero Emission Medium and Heavy-Duty vehicles

Position: Unfavorable

Putting a regulation in place when current infrastructure will not support EV deployment would only discourage purchases of EV vehicles. Charging locations will need to be built in areas that can support large vehicles with lots of fast chargers. Working trucks cannot wait in line to get charged.

- Cost is another factor that must be solved, the cost of land and installing chargers. Cost of EV truck as opposed to conventional diesel.
- Power grid that can support charging locations.

State vehicles, Trash haulers, local delivery trucks and over the road trucks all face the same problem – How far away can I travel from a charging outlet:

- In Cold temperatures- in warmer Temperatures
- Fully loaded or empty
- Where is a charger that will accept large vehicle

These issues should be solved before we put mandates in place that are doomed to fail.

Please give HB 224 an unfavorable Report

WMDA/CAR is a trade association that has represented service stations, convenience stores and independent repair shops since 1937. Any questions can be addressed to Kirk McCauley, 301-775-0221 or [kmccauley@wmda.ne](mailto:kmccauley@wmda.ne)





# **SB224test - Clean Truck Act of 2023(abc).pdf**

Uploaded by: Marcus Jackson

Position: UNF



**Maryland Joint  
Legislative Committee**

*The Voice of Merit Construction*

**Mike Henderson**

*President  
Greater Baltimore Chapter  
mhenderson@abcbbaltimore.org*

**Chris Garvey**

*President & CEO  
Chesapeake Shores Chapter  
cgarvey@abc-chesapeake.org*

**Dan Bond CAE**

*President & CEO  
Metro Washington Chapter  
dbond@abcmetrowashington.org*

**Amos McCoy**

*President & CEO  
Cumberland Valley Chapter  
amos@abccvc.com*

**Gregory Brown**

*Chairman  
Joint Legislative Committee  
greg@waynesboroconstruction.com*

**Marcus Jackson**

*Director of Government Affairs  
Metro Washington Chapter  
mjackson@abcmetrowashington.org*

Additional representation by:  
**Harris Jones & Malone, LLC**

6901 Muirkirk Meadows Drive  
Suite F  
Beltsville, MD 20705  
(T) (301) 595-9711  
(F) (301) 595-9718

February 9, 2023

**TO: EDUCATION, ENERGY, AND THE ENVIRONMENTAL  
COMMITTEE**

**FROM: ASSOCIATED BUILDERS AND CONTRACTORS**

**RE: S.B. 224 – ZERO – EMISSION MEDIUM – AND HEAVY-DUTY  
VEHICLES REGULATIONS (CLEAN TRUCKS ACT OF 2023)**

**POSITION: OPPOSE**

Associated Builders and Contractors (ABC) opposes S.B. 224 which is before you today for consideration. This bill would require the Department of the Environment to adopt regulations on or before December 1, 2023, establishing requirements for the sale of new zero-emission medium- and heavy-duty vehicles in the State, defining a "heavy-duty vehicle" as one with a gross vehicle weight rating equal to or greater than 14,001 pounds.

The California Advance Clean Truck rule would have an adverse fiscal impact on our businesses that depend on medium and heavy-duty vehicles in their daily operations. Compared to conventional trucks, zero-emission trucks are generally more expensive to purchase. If passed by the legislature, it would be beneficial to our members to have a program that would incentivize companies to purchase zero-emission vehicles, when the time comes to phase out their older fleet of trucks.

Currently, there is little to no infrastructure set up to handle the transmission and distribution demands that are required by the California Advance Clean Truck rules. It is ABC's belief that a study should be conducted to fully understand the state's current grid capacity, the number of recharging stations that will be needed statewide, and the fiscal impact that it will have on small businesses that operate medium to heavy duty vehicles, particularly in the construction industry.

On behalf of the over 1,500 ABC business members in Maryland, we respectfully request an unfavorable report on S.B. 224, as written.

Marcus Jackson, Director  
Government Affairs

# **SB0224\_UNF\_NWRA\_MDE - Zero-Emission Medium- & Heav**

Uploaded by: Pam Kasemeyer

Position: UNF

**Maryland-Delaware Solid Waste Association**

a chapter of the



TO: The Honorable Brian J. Feldman, Chair  
Members, Senate Education, Energy, and the Environment Committee  
The Honorable Malcolm Augustine

FROM: Pamela Metz Kasemeyer  
J. Steven Wise  
Danna L. Kauffman  
Andrew G. Vetter  
410-244-7000

DATE: February 9, 2023

RE: **OPPOSE UNLESS AMENDED** – Senate Bill 224 – *Department of the Environment – Zero-Emission Medium- and Heavy-Duty Vehicles – Regulations (Clean Trucks Act of 2023)*

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The Maryland Delaware Solid Waste Association (MDSWA), a chapter of the National Waste and Recycling Association, is a trade association representing the private solid waste industry in the State of Maryland. Its membership includes hauling and collection companies, processing and recycling facilities, transfer stations, and disposal facilities. MDSWA and its members **oppose** *Senate Bill 224: Department of the Environment – Zero-Emission Medium- and Heavy-Duty Vehicles – Regulations (Clean Trucks Act of 2023)*, **unless the legislation is amended.**

Our member companies include waste and recycling haulers with large fleets of hauling vehicles. Especially given our role in promoting recycling and reducing waste, we are generally supportive of efforts to promote sustainability and reduce emissions within our industry. Our concerns with the bill, as drafted, are practical in nature – specifically the cost, availability, infrastructure, and suitability of electric hauling vehicles. First, the cost of electric waste hauling vehicles is significantly more than a traditional vehicle, imposing a significant burden on our member companies that could result in increased rates. Second, while some manufacturers have started to make electric vehicles, they are not yet widely available in the market, making compliance with a mandate a practical difficulty. Third, it is not yet clear whether electric waste hauling vehicles have the range to handle our typical collection routes, and the infrastructure for charging these vehicles is not fully developed and would be another source of substantial additional cost. MDSWA would support an amendment to require a needs assessment on key

issues of cost, infrastructure, and availability, and to delay implementation until certain criteria established by the needs assessment is satisfied. Adding such an amendment would make this proposal more practical to the waste and recycling hauler industry.

In summary, while the industry is fully supportive of reducing emissions and improving the efficiency of waste hauling vehicles, this legislation creates significant challenges for our members, making compliance an impracticality.

We request an unfavorable report, unless amended as described in this letter.

# **SB224 testimony.pdf**

Uploaded by: Robert Phillips

Position: UNF

# MARYLAND STATE FIREMEN'S ASSOCIATION

REPRESENTING THE VOLUNTEER FIRE, RESCUE, AND EMS PERSONNEL OF MARYLAND.



**Robert P. Phillips**

**Chairman**

Legislative Committee

17 State Circle

Annapolis, MD 21401

email: rfcchief48@gmail.com

cell: 443-205-5030

Office: 410-974-2222

## **SB224: Department of the Environment – Zero–Emission Medium– and Heavy–Duty Vehicles – Regulations (Clean Trucks Act of 2023)**

My name is Robert Phillips and I am the Legislative Committee Chairman for the Maryland State Firefighters Association (MSFA)

I wish to present testimony in opposition to **Senate Bill 224: Department of the Environment – Zero–Emission Medium– and Heavy–Duty Vehicles – Regulations (Clean Trucks Act of 2023)**

This bill could create an issue for the fire service. As of this time there is work being done to develop zero emission vehicles for the fire service but with only a few in service or still being tested we do not feel there is enough information at this time to develop proper guidelines. If the fire service were to be exempted until such time as there is sufficient equipment available then re-visit the inclusion of the fire service we could support this bill.

I thank the committee for their time and attention to this important bill and ask that you vote in opposition to Senate Bill 224.

I will now be glad to answer any questions, or my contact information is listed above



# **SB 224 – Zero Emissions Medium and Heavy Duty Veh**

Uploaded by: Tom Ballentine

Position: UNF



February 8, 2023

The Honorable Brian J. Feldman, Chair  
Education, Energy, and the Environment Committee  
Miller Senate Office Building, 2 West  
Annapolis, MD 21401

**Oppose: SB 224 – Zero-Emissions Medium and Heavy-Duty Vehicles – California Regulations**

Dear, Chair Feldman and Committee Members:

The NAIOP Maryland Chapters represent more than 700 companies involved in all aspects of commercial, industrial, and mixed-use real estate. Our membership includes some of the largest operators of warehouses, distribution centers and light industrial buildings in the state. These facilities serve as essential supply chain links in the flow of products to and from our region. NAIOP is concerned that adoption of the California zero emissions standards for medium and heavy-duty vehicles in Maryland is premature and recommends the state continue to progress through the [Multi-State Zero Emission Medium and Heavy-Duty Vehicle Memorandum of Understanding](#) signed by Maryland in July of 2020.

**The zero-emission vehicle (ZEV) landscape in California is far more advanced than Maryland.**

California level Incentives and policy support have not been put in place to prepare for the transition to medium and heavy-duty ZEVs. Funding for charging stations and make-ready electrical infrastructure has been in place and is expanding. For example, over the next four years California has budgeted \$1.7 billion for medium and heavy-duty ZEV infrastructure – which includes funding for both hydrogen refueling and EV charging. While the federal Infrastructure Investment and Jobs Act provides significant funding to build out a national charging network, the majority of these funds are dedicated to providing charging infrastructure for personal vehicles. Maryland will have to fill the gap with significant funding for electric power upgrades and charging infrastructure to support a heavy-duty ZEV requirement. Maryland also lags in other areas of policy support. For example, the details of siting hundreds of thousands of pieces of infrastructure on private property and in public right of ways can slow review and approval by local governments and utilities. In 2015 California legislated streamlining the permitting of ZEV infrastructure. Eight years later implementation is still in progress.

**Electricity supply and demand charges must be addressed.**

Electrifying medium and heavy-duty vehicles will require solutions beyond simply scaling up the model used for electric cars and light duty trucks. Charging infrastructure for medium and heavy-duty vehicles requires addressing electric capacity and high demand charges applied to the peak electric loads of commercial utility customers.

Charging one heavy-duty vehicle can use as much power as simultaneously fast-charging 10-20 light-duty vehicles. Warehouses and distribution centers have some of the lowest power requirements per square foot of any building type. Electrification of heavy-duty vehicles will often require bringing far more power to the site than is necessary to run the building. Warehouse and distribution center locations are based on zoning, site conditions, supply chain and logistics needs. Access to high levels of electric power are not necessarily significant factors in siting.

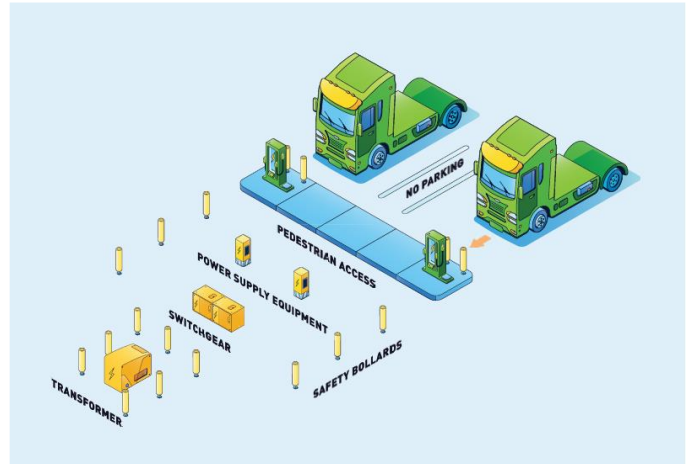
Commercial electricity rates are not conducive to the high-power charging required for heavy-duty vehicle charging. In addition to charges for the energy commodity, commercial utility customers are also assessed demand charges for the maximum power used during a billing cycle. Demand charges are designed to discourage excessive electricity use. Demand charged associated with EV charging can be significantly higher than the energy commodity price. Rate reform is needed to reconcile the mismatch between rate structure and EV charging needs.

**Charging of heavy-duty vehicles needs time to be standardized and battery technologies improved.**

Reports from the California Energy Commission, The Port of Long Beach and the Northeast States for Coordinated Air Use Management warn that a common charging standard for trucks is needed to avoid stranded assets and minimize the need for future modifications to charging connectors. Manufacturers are working on advances to battery chemistry for heavy-duty trucks that could improve charge times but increase power demands. Early adopters anticipate that expanded electricity supplies and upgraded charging infrastructure will be needed to accommodate changing technologies as electric truck charging technology evolves.

**Space requirements and logistics challenges.**

Space requirements for equipment and parking of tractor trailers may dictate where and how much charging can take place on any given site. Studies have concluded that 700 square feet per charger and 5,000 square feet for electrical power supply equipment may be necessary. This will require reconfiguring or expanding some sites. The State Highway Administration has warned that the additional weight of electric tractor trailers could exceed limits for some roads and bridges. Weight could also be an issue for paving on warehouse truck courts and access roads.



**Gap analysis and resource planning is needed.**

Work needs to be done to reconcile, coordinate, prioritize and appropriately sequence the electrification of light and heavy-duty vehicles and the simultaneous electrification of building heat and hot water systems. House Bill 230 would add significant challenges to existing requirements that buildings and light-duty vehicles be electrified. In a letter to the Maryland Department of Environment, the Alliance for Automotive Innovation reported that by 2035 Maryland will need 282,762 charging stations to accommodate light-duty vehicle charging. The number of non-proprietary level two public charging outlets in Maryland is currently 2,557. The state has zero hydrogen fueling stations. Providing that many charging stations would require installation of charging stations at an average rate of 1,900 per month over the next 12 years. Adopting California’s heavy-duty ZEV requirements would represent a substantial increase in deliverables and the level of incentives and policy support needed from state government.

**Continue working with the Multi-State MOU.**

Before adopting a heavy-duty ZEV sales requirement, Maryland needs to accurately acknowledge and make the public investments and adopt the supportive policies necessary to address the barriers to the deployment of medium and heavy-duty ZEV’s. Maryland should continue laying the foundation for this transition by expanding access to biofuels and continuing to work through the multi-state MOU on medium and heavy-duty ZEVs. Reference has been made to Connecticut’s law. It is important to note that the Connecticut law authorizes but does not require adoption of the California regulations for medium and heavy-duty trucks.

**For these reasons, NAIOP respectfully recommends your unfavorable report on Senate Bill 224.**

Sincerely,

Tom Ballentine, Vice President for Policy  
NAIOP Maryland Chapters -*The Association for Commercial Real Estate*

cc: Education, Energy, and the Environment Committee Members  
Nick Manis – Manis, Canning Assoc.

# **SB0224 - SHA - Zero Emissions Medium and Heavy - L**

Uploaded by: Patricia Westervelt

Position: INFO

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February 9, 2023

The Honorable Brian J. Feldman  
Chair, Senate Education, Energy, and the Environment Committee  
2 West, Miller Senate Office Building  
Annapolis, MD 21401

***RE: Letter of Information – Senate Bill 224 – Department of Environment – Zero Emission Medium and Heavy-Duty Vehicles – Regulations (Clean Trucks Act of 2023)***

Dear Chair Feldman and Committee Members:

The Maryland Department of Transportation (MDOT) takes no position on Senate Bill 224 but offers the following information for the Committee’s consideration.

Senate Bill 224 requires the Maryland Department of Environment to adopt regulations that establish requirements for the sale of zero-emission medium and heavy-duty vehicles in the State of Maryland.

The MDOT State Highway Administration’s (SHA) Statewide fleet currently includes 1,515 medium and heavy-duty vehicles. These vehicles operate across the State, utilized by the seven SHA districts to perform various maintenance and emergency response services. This includes, but is not limited to, snow removal, litter clean up, and Coordinated Highways Action Response Team (CHART) emergency roadside response, which encompasses temporary traffic control, relocation of disabled vehicles, and general support for stranded motorists on roadways. The SHA is actively pursuing methods to lower the carbon footprint and support Maryland’s goals for reducing Statewide greenhouse gas emissions. The SHA is reviewing creative methods to fund equipment purchases through the Carbon Reduction Program in the Infrastructure Investment and Jobs Act (IIJA), which may allow for diesel engines to be retrofitted with diesel emission reduction technology.

Currently, there is insufficient electrical capacity to support an entirely zero-emission medium and heavy-duty fleet at SHA. Large scale charging stations will need to be installed at all SHA maintenance shop facilities. There are additional concerns about the capability of electric heavy-duty equipment and performance during long-lasting extreme weather events or other emergency on-call operations. Converting SHA’s medium and heavy-duty fleet to fully electric would require an increased number of vehicles or additional contractor resources to maintain the current level of service. This conversion would also require a form of training for current fleet mechanics or the creation of new mechanic positions that specialize in the repair and installation of parts required by a fully electric fleet.

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The SHA anticipates a significant fiscal impact from Senate Bill 224. The preliminary estimate indicates that it could cost approximately \$950 million to replace the existing fleet with electric medium and heavy-duty vehicles. This estimate does not include the cost of acquiring and installing adequate charging infrastructure across the State, the need to invest in additional vehicle units to meet the operational demand, or the cost of training and recruiting qualified mechanics to maintain the fleet. These additional requirements would increase the fiscal impact to well over \$1 billion.

The Maryland Department of Transportation respectfully requests the Committee consider this information when deliberating Senate Bill 224.

Respectfully submitted,

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