EARTHJUSTICE

February 23, 2022
Chair Paul G. Pinsky
Members of the Education, Health, and Environmental Affairs Committee

Re: Earthjustice **Support** of SB 687: Department of the Environment – Zero–Emission Medium and Heavy Duty Vehicles – Regulations (Zero–Emission Truck Act of 2022)

Earthjustice[1] strongly supports the passage of SB 687. To achieve Maryland's greenhouse gas ("GHG") emissions reduction goals, Maryland must reduce and ultimately eliminate the pollution caused by the transportation sector. SB 687 is a vital step in achieving the commitment Maryland made when 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 climate and public health harms caused by Maryland's reliance on gas and diesel vehicles.

BACKGROUND

On July 13, 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. States signing the MOU are: California, Connecticut, Colorado, Hawaii, Maine, Maryland, Massachusetts, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington.

New Jersey adopted the Advanced Clean Truck Rule on December 20, 2021, becoming the first state on the East Coast to do so. New York adopted the rule on December 30, 2021. The New Jersey and New York mandates require manufacturers of medium- and heavy-duty vehicles to participate in a program intended to increase the percentage of zero-emission vehicles sold in New York and New Jersey, beginning with Model Year 2025. With the rule's adoption, both states have taken a significant step in reducing air pollution and protecting public health.

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.[2] If the Maryland Department of the Environment ("MDE") fails to

[1] 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.
[2] 42 U.S.C. § 7507(2).

finalize the rules before December 31, 2022, Maryland will lose a compliance year and the rule's implementation will be delayed.

As noted above, New Jersey and New York adopted the Advanced Clean Truck Rule before the end of 2021. Because both states met Clean Air Act-related deadlines to issue the rules before the end of that year, these states can begin to enforce the rules, reduce air pollution, and protect public health earlier than they could have otherwise.

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.

ADOPTION OF THE CLEAN TRUCK RULE IS NECESSARY TO ACHIEVING 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 Greenhouse Gas Emissions Reduction Act of 2016 ("GGRA") calls for a reduction of emissions of 40% by 2030 (from 2006 levels). The Maryland Department of the Environment's ("MDE") 2030 GGRA Plan calls for the State to pursue a more ambitious goal of 50% reduction in emissions by 2030.

Meeting these goals requires a bold transformation in all sectors including transportation.

Maryland needs zero-emission technology in the transportation sector. Mobile sources and the fossil fuels that power them are the largest contributors to nitrogen oxides (NOx) (which is the greatest contributor to ozone), greenhouse gas emissions, fine particulate matter (PM2.5), and toxic diesel particulate matter.

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.

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. 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. The MOU 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, at least 70 electric truck and bus models are on the market, and manufacturers are expected to make many more new models commercially available over the next decade.

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.

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.

AVAILABILITY OF EV MODELS

The MOU 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. The zero-emission truck and bus market is growing rapidly, with over a hundred models commercially available today. Dozens of manufacturers, including established original equipment manufacturers and startups new to the heavy-duty market, have announced plans to release commercially available zero-emission vehicles.

These models also have a lower total lifetime cost than gas or diesel power vehicles. The UC Berkeley School of Public Policy, 2035 transportation report[3] focused on the feasibility, economic savings, and climate and health benefits of 100% ZE light-duty sales by 2030, and 100% ZE medium-and-heavy duty sales by 2035. The Appendix includes detailed cost breakdowns for 6 different vehicle classes (from Class 1 LDV to Class 7-8 HDT) and finds every truck class evaluated has (or will have prior to 2025) a lower lifetime cost per mile driven than its combustion equivalent.

In sum, adoption of the Advanced Clean Truck Rule 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 Senators Young, Lam, and Washington for their leadership on this important issue.

Earthjustice strongly urges a favorable report for SB 687.

Thank you in advance for your support. Should you have any questions, please contact me at smiller@earthjustice.org.

Respectfully submitted,

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[3] 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