



Statement of

Andrew Boyle
First Vice Chair of the American Trucking Associations
and
Co-President, Boyle Transportation

Before the

United States Senate
Committee on Environment and Public Works
Subcommittee on Clean Air, Climate, and Nuclear Safety

Hearing on

“Cleaner Vehicles: Good for Consumers and Public Health”

April 18, 2023

Introduction

Chairman Markey, Ranking Member Ricketts, and Members of the Subcommittee, I appreciate the opportunity to testify before you today on behalf of the American Trucking Associations (ATA) and my company, Boyle Transportation. In addition to my duties as Co-President of Boyle Transportation, I also serve as 1st Vice Chairman on the Board of Directors for the ATA, as a member of the American Transportation Research Institute's (ATRI's) Board of Directors, and as a member of the business advisory committee for the Northwestern University Transportation Center.

ATA is a 90-year-old federation and the largest national trade organization representing the 7.65 million men and women working in trucking-related jobs. ATA is a fifty-state federation that encompasses 34,000 motor carriers and their suppliers, working in all sectors of the industry, from less-than-truckload (LTL) to truckload, refrigerated transport for food and beverage and life sciences, intermodal trucking, auto haulage, and household goods movement. Our members range from the nation's largest motor carriers to mom-and-pop one-truck operations.

Boyle Transportation is a 51-year-old motor carrier providing transportation services to select clients in the bio-pharmaceutical and government/defense sectors. We employ 200 people, including 160 of the nation's finest professional truck drivers, and were recognized as having the #1 work environment among smaller fleets in all of the US and Canada in 2020 and 2021. We have the honor of doing important work – transporting critical materiel to support national defense and delivering life-saving medicine. In December 2020, the first batches of the Pfizer COVID vaccine were shipped on Boyle Transportation trucks.¹ Boyle is a subsidiary of Andlauer Healthcare Group, a highly regarded logistics provider to the Canadian healthcare industry.

Our company has made enormous investments in environmental sustainability. We are the only trucking company in North America to achieve certification for the International Standards Organization's rigorous 14001 Environmental Management System. Boyle has been an Environmental Protection Agency (EPA) SmartWay Partner since 2008, including the last 5 consecutive years as a SmartWay "High Performer." We are a recipient of EPA's Region 1 Environmental Merit Award. Thanks to continual investment in equipment and adoption of best practices, in the last 6 years we have reduced fuel consumption per truck by 20%, reduced CO2 emissions by 14%, and Particulate Matter emissions by more than 50%. Our headquarters is solar powered.

I welcome the opportunity to discuss how the trucking industry has made progress in reducing emissions by deploying cleaner heavy-duty trucks on our nation's highways, as well as the challenges that we face in meeting ambitious goals for achieving further environmental benefits. Boyle Transportation, and the trucking industry as a whole, recognizes the importance of reducing our emissions footprint. I hope that my testimony today will assist the Committee in evaluating the path forward on achievable regulations to improve sustainability in the transportation industry.

The Facts on Trucking's Environmental Progress

The trucking industry has a positive story to tell about our progress in reducing emissions over the past few decades. A new truck today emits 99% fewer particulate matter emissions than one in 1985, and 99% fewer nitrogen oxide (NOx) emissions than one in 1975. 60 trucks today emit what one truck

¹ Smith, J. (2020, December 14). Vaccine Transport Leans on Tight Network of Refrigerated-Truck Operators. *Wall Street Journal*. https://www.wsj.com/articles/vaccine-transport-leans-on-tight-network-of-refrigerated-truck-operators-11607987480?reflink=desktopwebshare_permalink

emitted in 1988. Those cleaner trucks are meeting American’s demands to move more freight than ever before. More than 80% of U.S. communities rely *exclusively* on trucking to meet their freight transportation needs, and trucking currently moves more than 70% of the nation’s annual freight tonnage.² Over the next decade, trucks will be tasked with moving 2.4 billion more tons of freight than they do today, and trucks will continue to deliver the vast majority of goods to American communities.³ As we meet the needs of our domestic supply chains, we look forward to working with Congress, agencies and stakeholders to continue improving our environmental sustainability.

Boyle Transportation proudly participates in the voluntary EPA SmartWay program, which works with transportation service providers to track, document, and share information about reducing fuel use and freight emissions across supply chains. For the last five years, as a SmartWay “High Performer,” we reduced our emissions output to a level 59% lower than that of the average tractor trailer fleet, and we look forward to continuing to achieve emissions reductions through this program.

Since 2004, EPA SmartWay partners in trucking have saved billions of dollars in fuel costs, reduced oil consumption, and eliminated millions of tons of air pollutants. EPA estimates that the program has helped its partners save 357 million barrels of oil since 2004.⁴ If one barrel of oil produces 11 to 12 gallons of diesel fuel,⁵ that means trucking companies participating in the SmartWay program have saved more than 4 billion gallons of fuel—over \$19 billion at current prices—in the last eighteen years. Critically, those fuel savings resulted in massive emissions reductions of 2.7 million short tons of nitrogen oxide (NOx); 112,000 short tons of particulate matter, and 143 million metric tons of CO2.

Trucking began phasing out harmful sulfur from diesel fuel in 2006, practically eliminating sulfur oxide emissions. ATA also championed two separate EPA and National Highway Traffic Safety Administration (NHTSA) regulations in 2011 and 2016, establishing the first-ever truck engine and vehicle greenhouse gas (GHG) emission and fuel consumption standards—known as Phase 1 and 2, respectively. In total, between 2014 and 2027, the combined Phase 1 and 2 GHG standards stand to cut CO2 emissions by 1.37 billion metric tons, saving vehicle owners and operators \$220 billion in fuel costs, and reducing oil consumption by up to 2.5 billion barrels of oil over the lifetime of the vehicles sold under the program. As EPA prepares to begin its Phase 3 GHG rulemaking, trucking looks forward to working with the agency to set ambitious, but also achievable, standards.

Compliance Challenges for Interstate Trucking

Aggressive emissions reduction goals are important and necessary. However, our industry’s path forward on zero-emission vehicle development requires time for infrastructure to be built out, increased production of clean energy and alternative fuels, and the maturation of a market for next generation vehicles that are affordable for trucking companies of all sizes. Trucking is keenly aware of the costs of new requirements and their impacts on energy supplies and supply chains. Forcing unnecessary demands on the trucking industry such those formulated by the California Air Resources Board (CARB) that recently received EPA waivers for implementation under the Clean Air Act, will harm our supply chains without meaningfully accelerating the deployment of new, clean trucks nationwide.

² *U.S. Census Bureau Commodity Flow Survey*. U.S. Census Bureau, 2017.

³ *Freight Transportation Forecast 2020 to 2031*. American Trucking Associations, 2020.

⁴ *SmartWay Program Successes*, U.S. EPA, Available online at: <https://www.epa.gov/smartway/smartway-program-successes>.

⁵ *Frequently Asked Questions*, U.S. EIA, Available online at: <https://www.eia.gov/tools/faqs/faq.php?id=327&t=10>

While these challenges will be overcome in time, the large-scale substitution of battery electric vehicles will require unprecedented advancements in battery range and capacity, as well as a significant buildout of the national power grid. The path forward for trucking decarbonization requires acknowledgement of market realities that both keep supply chains moving and enable fleets like mine to affordably acquire and install infrastructure. If I want to electrify a battery or hydrogen fuel cell electric fleet, I need infrastructure that is affordable, available, and compatible with the grid, in a way that is timely, reliable, and makes sense for my operation. Unfortunately, that is not the case today.

To the point of needed investments in our power grid to support battery electric vehicles, and specifically heavy-duty trucks, the statistics on the amount of energy that will be consumed following that transition are astounding. A recent ATRI study found that electrification of the entire U.S. vehicle fleet would consume 40.3% of the current electricity demand, yet our aging grid can hardly sustain its current needs.⁶ In California, where rolling blackouts and brownouts are not uncommon, utilities would need to generate an additional 57% beyond their current output to support an electric vehicle fleet.⁷ Beyond the sheer volume of energy production required, installation of charging facilities that fit the demands on commercial trucking is equally vital. Many ATA members who try to install even modest charging infrastructure today are told by electric utilities that it will take years to extend the required service to their facilities, if at all possible.

Whereas the purchase of a car is often driven by personal preference and emotion, buying a truck is an entirely different exercise. A truck is a utilitarian device. Beyond safety, the purchasing decision is predicated on reliability (which we call “uptime”), productivity, and total cost of ownership.

In 15 minutes, a truck driver today can fill his or her truck with enough diesel to travel over 1,200 miles. For battery-electric trucks, a two-hour charge can get you 200 miles, depending on the conditions (range can degrade significantly with cold or hill conditions, or when using HVAC systems). With the advancement of DC fast chargers, this charging time could be cut in half. The next generation of chargers is expensive – roughly \$100,000 each. Even with their installation, it would still require over five hours to achieve the same range you get in 15 minutes today, assuming a truck could even carry that quantity of batteries.

Long-haul trucks require significantly heavier batteries (anywhere from 6,000 to 17,000 lbs.), which leads to reduced payload capacity. When trucks are less productive due to decreased payload capacity, limited mileage range, and downtime for charging, the consequence is that *more trucks and drivers are needed to move the same amount of freight*. Some of our large members running limited-scope BEV operations report the need for a 3:2 and sometimes even 2:1 ratio of battery-powered trucks relative to what their diesel trucks produce. Couple the need for more trucks with the fact that each BEV truck costs 2-3x that of today’s clean diesel truck (a roughly \$300,000 upcharge per unit) and it’s easy to see that the negative economics of BEVs would be felt severely by the trucking industry and in turn shared by shippers and consumers.

While diesel fueling stations allow for throughput of 4-5 trucks per hour, charging stations would service 2-3 trucks *per day*. Every truck parking (not fueling) spot would need a charging station, and we are woefully short of truck parking spots today.

⁶ *Charging Infrastructure Challenges for the U.S. Electric Vehicle Fleet*, American Transportation Research Institute, December 2022. Available online at: <https://truckingresearch.org/2022/12/06/charging-infrastructure-challenges-for-the-u-s-electric-vehicle-fleet/>

⁷ *Ibid.*

Ongoing fuel price volatility, and state-based regulations increasing prices at the pump, continue to cost the industry tens of billions of dollars and make it harder to upgrade equipment to new, cleaner trucks. In 2019, U.S. trucks consumed 45.6 billion gallons of fuel—of which 36.5 billion gallons were diesel.⁸ The trucking industry’s fuel bill in 2019 was \$112 billion when prices were \$3.00/gallon. However, diesel prices rose throughout 2022, reaching a high of \$5.81/gallon—90% higher than 2019 average prices. This increase resulted in an annual diesel fuel bill exceeding \$200 billion for the American trucking industry, a nearly \$100 billion yearly increase.⁹

I urge the Subcommittee to be aware of the challenges facing the small- and medium-sized trucking fleets that are the heart of our supply chains in obtaining new, clean trucks. According to statistics from the U.S. Department of Transportation (USDOT), 95.7% of private and for-hire motor carriers operate 10 or fewer trucks and 99.7% operate fewer than 100 trucks.¹⁰ According to a 2022 ATRI survey of the industry, fuel costs (22%), equipment and lease payments (15%), and repair and maintenance costs (9%) account for 46%, or nearly half of the overall operating costs for trucking companies nationwide.¹¹ Surging fuel and truck prices, as well as the deployment of new technologies that are difficult for fleets to maintain, create enormous headwinds that stymie efforts to incentivize fleets to invest in newer, cleaner equipment.

While larger fleets can take advantage of economies of scale as they invest in new equipment, thousands of smaller fleets lack that flexibility. Expensive new engine technologies, historically high diesel prices and interest rates, and the lack of infrastructure to support alternatives such as battery-electric or hydrogen fuel cell vehicles must be considered in evaluating realistic timelines for reducing emissions in freight transportation. Trucking companies support cleaner transportation technologies and fuels that protect the environment, but we are only the consumers who purchase those goods and not the manufacturers. New California requirements that mandate the purchase of specific equipment should take into account whether those trucks are available at the necessary scale to achieve regulatory goals.

Disadvantages of Patchwork State Regulations

Trucking companies traverse state lines multiple times a day, and a strong *national* emissions framework ensures the continuity of our nation’s freight networks. ATA strongly advocates for federal emissions regulations to ensure that interstate commerce continues to move. State-based regulations that impact fuel costs or mandate the deployment of particular equipment make it harder for our industry to meet the needs of their customers—your constituents. Federal standards for emissions reduction are necessary to ensure companies transporting freight interstate are not forced to become creative with how, where, and when they purchase and dispatch new equipment to remain compliant.

For this reason, ATA has opposed state-based regulations such as those promulgated by CARB and other jurisdictions while working with federal regulators at the EPA and other agencies to craft harmonized federal alternatives. The recent decision by the EPA to grant California’s Clean Air Act waivers to enforce policies that are unworkable for the trucking industry – policies that wholly

⁸ *ATA Economics and Industry Data*. American Trucking Associations, 2022. Available online at: <https://www.trucking.org/economics-and-industry-data>

⁹ ATA Analysis based on EIA fuel pricing data. Available online at: <https://www.eia.gov/>

¹⁰ *ATA Economics and Industry Data*. American Trucking Associations, 2022. Available online at: <https://www.trucking.org/economics-and-industry-data>

¹¹ *An Analysis of the Operational Costs of Trucking: 2022 Update*. American Transportation Research Institute, August 2022.

discounted and marginalized trucking industry participation – will result in unworkable regulations and undermine long-term cooperative efforts to reduce emissions.

California has a unique set of clean air issues due to their particular topography and atmospheric conditions, and for this reason the state should not become the *de facto* template for the next national emissions standards, pollutant criteria, and zero-emissions vehicles sales and purchase requirements. Establishing standards that are not technologically sound or that set unrealistic timelines for the deployment and purchase of new zero-emission trucks will set the industry and country up for failure. Federal standards for these areas need to be technologically and economically achievable, without impeding supply chain operations or business planning for the trucking industry and those who rely on us to deliver their freight.

The Biden Administration’s multiagency *U.S. National Blueprint for Transportation Decarbonization* identifies battery electric technology as a “limited long-term opportunity” in the long-haul segment and points out better-positioned opportunities for hydrogen and sustainable liquid fuels.¹² These alternatives offer advantages in energy density, comparable refueling times with diesel fuel and, in the case of biodiesel and renewable diesel, compatibility with many current internal combustion engine configurations. Despite the aggressive timelines set out by the state of California to mandate battery electric vehicle manufacture and fleet sales, the Administration’s blueprint notes longer, more manageable timelines extending out to 2050.¹³

Allowing California to impose punitive, unachievable mandates that are guaranteed to fail will not help to accelerate deployment of technologies nationwide. State-based standards distort the market for vehicle manufacturers and complicate decisions for purchasers of new heavy-duty trucks. Earlier this year, manufacturers informed California they will not be making certain engines available in the state from 2024 to 2026 due to the state’s ill-conceived emissions standards.¹⁴ EPA should not approve standards that are unachievable or promote their spread to other states. In addition, banning the in-use operation of engines certified to federal standards by requiring California-only emission standards will significantly impact the ability of interstate fleets to manage their national operations.¹⁵

Similarly, aggressive state mandates where compliance relies more on fleets obtaining exemptions than their ability to deploy zero-emission trucks do little to advance this technology. A realistic compliance timeline is needed given the limitations surrounding the capability of zero-emission vehicles combined with the dearth of charging and fueling infrastructure. The business case for a zero-emission truck mandated in California is further impacted if a company needs to operate that vehicle in colder climates or on mountain roads where it will have significantly less range and payload.

Allowing California to proceed under a Clean Air Act waiver will also have a major impact on container cargo moving to and from ports in that state, risking further disruption in facilities that are just now recovering from historic backlogs and challenges with cargo distribution. In December of 2022, 99.87% of visits to the Port of New York/New Jersey were by diesel-powered trucks.¹⁶ At the Port of Los

¹² *The U.S. National Blueprint for Transportation Decarbonization*, page 50, U.S. Department of Transportation, January 2023.

¹³ *Ibid.*

¹⁴ California Air Resources Board, Public Meeting to Consider Proposed Delegation of Authority to the Executive Officer to Consider Proposed Amendments to Mobile Source Regulations, Board Item #23-3-3 Summary (March 23, 2023).

¹⁵ California Air Resources Board, Proposed 15-day Changes to the Proposed Regulation Order Advanced Clean Fleets Regulation High Priority and Federal Fleets Requirements, Section 2015 (r) ICE Vehicle Additions (March 23, 2023).

¹⁶ *PortTruckPass Comprehensive Report*. Port Authority of New York and New Jersey, December 2022.

Angeles, 93% of container moves and 95% of trucks are powered by diesel fuel with virtually all remaining movements powered by natural gas. At the beginning of this year, California prohibited the use of truck engines manufactured prior to 2010, which accounted for 13% of all container moves at the Port of Los Angeles in December.¹⁷ (The figure for New York/New Jersey is even higher at 30.48%.¹⁸)

As CARB seeks to phase out older trucks and mandate only zero-emission trucks at ports by 2035, those drayage trucking companies will have to replace their entire fleets. This mandate is unworkable for an ecosystem of carriers that tend to be small companies operating at low margins, and whose productivity is often victim to unpredictable cargo availability and other commercial complications that reduce their efficient movements to and from ports and inland facilities. These state mandates are unworkable and will drive enormous costs on the trucking industry, risking further supply chain disruption. It's worth noting that despite its intensive regulatory environment, California has one of the oldest truck fleets in the country, with 52% of its trucks not meeting the EPA 2010 emission standard¹⁹.

Federal Solutions for Interstate Emissions Reductions

Allowing states to impose unworkable mandates will not move the needle on large-scale substitution of electric, hydrogen, or alternative fuel models for diesel trucks, or on reducing emissions in the freight transportation sector. Developing achievable federal standards, making new heavy-duty trucks more affordable by repealing the federal excise tax on those vehicles, addressing the unique needs of heavy-duty trucks in the rollout of Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) programs and incentives, and allocating IIJA funding toward reducing congestion will all have tangible benefits for environmental sustainability.

Reducing the cost of new, cleaner, or alternative fuel vehicles is the first step to increasing their usage nationwide. While the IRA included purchase incentives for heavy-duty vehicles, those incentives are offset by a century-old tax established to fund our participation in World War I. The antiquated Federal Excise Tax (FET) on heavy-duty trucks and equipment adds an additional 12 percent to the cost of every new truck. To ensure the maximum impact of IRA incentives for clean vehicle purchases, and to encourage the reduction of emissions from trucking and the supply chain, the first important step is removing this onerous tax to immediately make new, clean equipment more affordable. Senators Ben Cardin and Todd Young recently introduced the Modern, Clean, and Safe Trucks Act (S. 694) to repeal this burdensome tax, and we urge the members of this Subcommittee to consider the strong merits of that legislation in the context of broader sustainability goals.

Eliminating the FET will reduce the cost of new technologies by tens of thousands of dollars and is a technology-neutral solution that allows companies to invest in not only battery-electric, but alternative fuel vehicles as well depending on the availability of infrastructure to support the specific technologies. Proposals for hydrogen infrastructure for trucks must ensure that the infrastructure is in place where that technology best fits in supply chains. Where lifecycle emissions can be reduced by deploying renewable diesel and renewable natural gas, those fuel stocks need to be available for trucking.

¹⁷ *Clean Truck Program (CTP) – Gate Move Analysis*. Port of Los Angeles, December 2022. Available online at: <https://kentico.portoflosangeles.org/getmedia/452bad8c-4e16-490f-bab6-155b061866bb/POLA-Monthly-Gate-Move-Analysis> (accessed January 19, 2023).

¹⁸ *PortTruckPass Comprehensive Report*. Port Authority of New York and New Jersey, December 2022.

¹⁹ Diesel Technology Forum, dieselforum.org

ATA supports technology-neutral efforts to incentivize the deployment of new, clean trucks. Where Congress has chosen to provide targeted incentives in this area, such as the 45W tax credit for Qualified Commercial Clean Vehicles and the 30C Alternative Fuel Vehicle Refueling Property credit, ATA will work with federal agencies to formulate guidance that will enable industry to maximize the effect of the incentives on emissions reductions.

In the case of initial guidance proposed by the Internal Revenue Service (IRS) on Qualified Commercial Clean Vehicles, ATA recommended changes to extend the credit to vehicles reaping the benefit of maturing technologies that charge vehicles through regenerative braking or solar sources. We hope that the agency will take stakeholder feedback into account as it implements provisions of the IRA. Additionally, because various tax credits and infrastructure improvements affect the underlying economics of trucking and the supply chain, we urge Congress to give the market time to adjust before considering or pursuing additional measures that may drive up the operational costs of trucking.

The availability and price-competitiveness of low-carbon and renewable fuels is also an important area where additional Congressional action could help reduce emissions from trucking. While the IRA increased the tax credit for Sustainable Aviation Fuel (SAF) up to \$1.75 per gallon, the credits for renewable diesel remain at \$1.00 per gallon. As a result, feedstocks for this valuable emissions-reduction tool for trucking are likely to be cannibalized for aviation. Restoring parity for tax credits for renewable diesel – and increasing the tax credit for renewable natural gas, which is used by some trucking companies and is currently eligible for a \$0.50 per gallon tax credit – can have immediate and sustainable environmental benefits.

As technologies for clean vehicles mature and the infrastructure buildout continues for electric and alternative fueled passenger and commercial vehicles, the greatest near-term reduction in emissions must come from dedicating infrastructure funding towards congestion mitigation. Reducing idling hours and time wasted in stop-and-go traffic on our nation’s highway bottlenecks will make more efficient use of every gallon of fuel burned, as well as benefit our nation’s truck drivers and highway safety. Congress should ensure that highway funding is directed to new²⁰ construction that targets those chokepoints.

Highway congestion adds nearly \$75 billion to the cost of freight transportation each year.²¹ In 2016, truck drivers sat in traffic for nearly 1.2 billion hours, equivalent to more than 425,000 drivers sitting idle for a year.²² This caused the trucking industry to consume an additional 6.87 billion gallons of fuel in 2016, representing approximately 13% of the industry’s total fuel consumption, and resulting in 67.3 million metric tons of excess carbon dioxide (CO₂) emissions.²³

Congestion serves as a brake on economic growth and job creation nationwide. A first-world economy cannot survive a developing-world infrastructure system. As such, the federal government has an obligation to ensure that necessary resources are available to address this self-imposed and completely solvable situation. ATA encourages USDOT to prioritize the discretionary program resources made

²⁰ “After Capito, Graves Pledge to Formally Challenge Federal Highways Memo, FHWA Issues Substantially Revised Replacement,” U.S. Senate Committee on Environment & Public Works, Press Release, 24 February 2023, Available online at: <https://www.epw.senate.gov/public/index.cfm/2023/2/after-capito-pledge-to-formally-challenge-federal-highways-memo-fhwa-issues-substantially-revised-replacement>.

²¹ *Cost of Congestion to the Trucking Industry: 2018 Update*. American Transportation Research Institute, Oct. 2018.

²² *Ibid.*

²³ *Fixing the 12% Case Study: Atlanta, GA*. American Transportation Research Institute, Feb. 2019.

available by the IJJA to address major freight bottlenecks. Furthermore, given the importance of the National Highway System—and especially the Interstate System—to the supply chain, a greater share of federal investment should be directed toward the maintenance and improvement of these highways, which serve as key freight corridors.

Finally, I encourage the U.S. Government to use its purchasing power to encourage fleets that move freight for government agencies to purchase the ultra-low emission vehicles currently on the market and embrace EPA SmartWay's best practices. 47% of Class 8 trucks currently operating nationwide are model year 2010 or older and send far more emissions into the air than today's clean vehicles. The path to long-haul heavy truck electrification depends on technology and infrastructure advancements that will take years to develop. Meanwhile, we can make significant progress in reducing emissions offering a market-oriented "carrot" for implementing best practices for sustainability and deployment of new, clean trucks.

In Conclusion

Thank you for the opportunity to testify before you today on the progress being made by the trucking industry to reduce emissions in recent decades. I am grateful for the opportunity to share my company's unique sustainability success story and welcome the chance to discuss workable solutions to the environmental challenges we face.

On behalf of the American Trucking Associations and the 7.65 million people in trucking-related jobs who power our nation's supply chains and keep the wheels of the economy turning, we look forward to working with the Subcommittee and Congressional leaders to support legislation that will help us meet ambitious energy and emissions goals. Thank you.