















Solutions for a Toxic-Free Tomorrow















# Concerned Scientists













November 15, 2021

Via Electronic Filing

Maine Department of Environmental Protection Attn: Members of the Board of Environmental Protection 17 State House Station Augusta, Maine 04333-0017

## RE: Joint Comments on the Proposed Advanced Clean Trucks Rule 2021

These comments on the Advanced Clean Trucks (ACT) rule are submitted on behalf of the 23 groups signed below.

Dear Members of the Board of Environmental Protection,

We appreciate the opportunity to comment on the Advanced Clean Truck ("ACT") rule proposal and thank staff for their considerable time and effort spent on the rulemaking. The ACT rule is technically feasible and cost-effective, and critical for protecting public health, addressing climate change, and developing Maine's clean energy economy. Further, adoption of the ACT rule is a foundational policy to achieve the state's statutory climate targets as articulated in the Climate Council's Maine Won't Wait, A Four-Year Plan For Climate Action report. The report identifies transportation as a crucial sector to decarbonize and rightly describes the imperative to act as Maine "won't wait" and "can't wait," and emphasizes aggressive, widespread electrification as a "key action" for doing so. The ACT rule is a transformative policy that matches the moment's urgency and will jumpstart the transition to zero-emission medium- and heavy-duty vehicles ("MHDVs") in the state.

It is imperative for Maine to adopt the ACT rule before the end of 2021. State law requires the Board, "by September 1, 2021, [to] adopt rules to ensure compliance with the" state's annual emissions levels: at least 45% below the 1990 gross annual greenhouse gas emissions level by 2030 and at least 80% below by 2050. Moreover, delaying adoption will delay benefits: compromising public health, setting back climate action, and, with the mandatory lead time requirement for manufacturers, delaying deployment of a proven, valuable technology.

To maximize the ACT rule's benefits, we strongly urge Maine to adopt complementary MHDV emission standards, including the Heavy-Duty Omnibus rule, Innovative Clean Transit rule, and Advanced Clean Fleets rule. Further, the Department of Environmental Protection ("DEP") should consider adopting the large entity reporting requirement component of the ACT rule and setting the reporting threshold at an appropriate level for Maine.

Your work on this vital rule helps demonstrate Maine's commitment to a cleaner, more equitable future. Adopting the ACT rule will accelerate the transition to zero-emission MHDVs and, in the process, drive immense benefits to Maine, including cleaner air and fewer greenhouse gas emissions, while spurring economic activity. Further, it is critical that the Board adopt this rule to ensure the state achieves its ambitious climate change targets.

### Maine must address the twin crises of air pollution and climate change

Climate change has affected Maine by shortening the winter season by an average of 2 weeks, increasing the annual temperature by 3.2 degrees Fahrenheit since 1895, and warming the Gulf of Maine faster than 99% of the world's oceans, causing it to lose its subarctic characteristics.<sup>1</sup>

The transportation sector in Maine accounts for over half of Maine's carbon dioxide equivalent ("CO2e") emissions. As of 2019, Maine had 152,116 MHDVs registered in-state, over 99 percent of which burn fossil fuels.<sup>2</sup> Reliance on fossil fuel vehicles contributes to climate change and poor air quality and creates a dependency on out-of-state fossil fuel companies.<sup>3</sup>

Fossil fuel vehicles emit large quantities of nitrogen oxide ("NOx") pollution, which contributes to the formation of both particulate matter ("PM") pollution and ozone (i.e., smog).<sup>4</sup> NOx and PM emissions are toxic and dangerous to those closest to the source of pollution; exposure to fossil fuel exhaust can lead to premature death and other devastating health impacts, including asthma and respiratory impacts,<sup>5</sup> pregnancy complications and adverse reproductive outcomes,<sup>6</sup> cardiac and vascular impairments,<sup>7</sup> and heightened cancer risk.<sup>8</sup> Finally, fossil fuel vehicles generate greenhouse

<sup>&</sup>lt;sup>1</sup> Maine Climate Council: Scientific and Technical Subcommittee. *Climate Change in Maine*. https://climatecouncil.maine.gov/maines-climate

<sup>&</sup>lt;sup>2</sup> Atlas EV Hub: *Medium and Heavy Duty Vehicle Registrations*. Accessed November 2021. https://www.atlasevhub.com/materials/medium-and-heavy-duty-vehicle-registrations-dashboard/

<sup>&</sup>lt;sup>3</sup> State of Maine, Governor's Office of Energy: *Clean Transportation*. Accessed November 2021. https://www.maine.gov/energy/initiatives/clean-transportation

<sup>&</sup>lt;sup>4</sup> EPA, Nitrogen Dioxide (NO<sub>2</sub>) Pollution, https://www.epa.gov/no2-pollution (last accessed July 28, 2021).

<sup>&</sup>lt;sup>5</sup> Stephanie Lovinsky-Desir et al., *Air pollution, urgent asthma medical visits and the modifying effect of neighborhood asthma prevalence*, 85 Pediatric Research 36 (Oct. 2018), *available at* https://doi.org/10.1038/s41390-018-0189-3; Gayan Bowatte et al., *Traffic related air pollution and development and persistence of asthma and low lung function*, 113 Env't Int'l 170 (Apr. 2018), *available at* 

https://www.sciencedirect.com/science/article/pii/S0160412017319037.

<sup>&</sup>lt;sup>6</sup> Jun Wu et al., Association Between Local Traffic-Generated Air Pollution and Preeclampsia and Preterm Delivery in the South Coast Air Basin, 117 Envtl. Health Persp. 1773 (Nov. 2009), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2801174/; Qi Yan et al., Maternal serum metabolome and traffic-related air pollution exposure in pregnancy, 130 Env't Int'l 104872 (2019), available at https://doi.org/10.1016/j.envint.2019.05.066; Li Fu et al., The associations of air pollution exposure during pregnancy with fetal growth and anthropometric measurements at birth: a systematic review and meta-analysis, 26 Envtl. Sci. and Pollution Res. 20137 (2019), available at https://doi.org/10.1007/s11356-019-05338-0.

<sup>&</sup>lt;sup>7</sup> Kimberly Berger et al., *Associations of Source-apportioned Fine Particles with Cause-specific Mortality in California*, 29 Epidemiology 639 (Sept. 2018), *available at* https://pubmed.ncbi.nlm.nih.gov/29889687/; Stacey Alexeef et al., *High-resolution mapping of traffic related air pollution with Google street view cars and incidence of cardiovascular events within neighborhoods in Oakland, CA, 17 Envtl. Health (May 2018), <i>available at* https://doi.org/10.1186/s12940-018-0382-1; J.E. Hart et al., *Ischaemic Heart Disease Mortality and Years of Work in Trucking Industry Workers*, 70 Occupational and Envtl. Med. 523 (Aug. 2013), *available at* https://pubmed.ncbi.nlm.nih.gov/22992341/.

<sup>&</sup>lt;sup>8</sup> Cal. Air Res. Bd., Cal. EPA, Supplement to the June 2010 Staff Report on Proposed Actions to Further Reduce Diesel Particulate Matter at High-Priority California Railyards (July 5, 2011), available at http://www.arb.ca.gov/railyard/commitments/suppcomceqa070511.pdf; Press Release, Int'l Agency for Res. on Cancer, Diesel Engine Exhaust Carcinogenic (June 12, 2012), available at https://www.iarc.who.int/wp-content/uploads/2018/07/pr213\_E.pdf; L. Benbrahim-Tallaa et al, Carcinogenicity of Diesel-Engine and Gasoline-Engine Exhausts and Some Nitroarenes, 13 The Lancet Oncology 663 (June 2012), available at http://doi.org/10.1016/S1470-2045(12)70280-2.

gas emissions that contribute to global climate change, which exacerbate local air quality issues through various means. Specifically, climate-driven increases in ozone are predicted to cause premature deaths, increased hospital visits, acute respiratory symptoms, lost school days, and wildfires, which are made more frequent and more severe by climate change and further increase emissions of PM and ozone precursors, resulting in additional adverse local health outcomes.<sup>9</sup>

Transportation pollution disproportionately harms low-income and Black, Indigenous, and people of color ("BIPOC") communities who often live adjacent to freight hubs like highways and ports. <sup>10</sup> The ACT rule, which accelerates the transition to clean zero-emission vehicles, will protect public health and help tackle the climate crisis by reducing emissions from one of Maine's most polluting sectors: MHDVs.

# DEP's proposal to adopt the ACT rule is good for the environment, public health, and the economy

Climate change is causing warmer winters with decreased snowpack and changes to the melt cycle. This has a direct economic impact on Maine's agriculture and recreation, and hurts biodiversity. An analysis by the International Council on Clean Transportation found that by adopting the ACT rule, Maine could reduce MHDV tank-to-wheel NOx emissions by 20,300 short tons (13 percent reduction), PM emissions by 182 short tons (10 percent reduction), and well-to-wheel CO2e emissions by 17.17 million metric tonnes (18 percent reduction) by 2050. Maine can expect these MHDV emission reductions to result in avoided deaths, hospital visits, and sick days.

In addition to cleaning up the environment and protecting public health, the ACT rule will help drive economic growth in Maine. This is because transitioning to ZEVs will enable significant fuel and maintenance cost savings for fleets, attract large charging infrastructure investments, create high-paying jobs, and put downward pressure on electricity rates for all customers.

Although electric truck purchase prices are rapidly declining, they remain higher than most comparable diesel trucks. However, MHD ZEVs cost less to service, maintain, and fuel over the lifetime of the vehicle, providing significant long-term cost savings to Maine's fleets. Due to manufacturing efficiencies from economies of scale and decreasing battery prices, the initial purchase prices of ZEVs are expected to continue falling. Currently, batteries are the single most expensive component of an electric truck. According to Bloomberg New Energy Finance, battery

<sup>&</sup>lt;sup>9</sup> Neal Fann et al., *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* at Ch. 3 (U.S. Global Change Res. Program 2016), *available at* https://health2016.globalchange.gov/air-quality-impacts; Health and Envtl. Impacts Division, EPA, *Quantitative Health Risk Assessment for Particulate Matter* (June 2010), *available at* https://www3.epa.gov/ttn/naaqs/standards/pm/data/PM\_RA\_FINAL\_June\_2010.pdf.

<sup>&</sup>lt;sup>10</sup> Lin C, Lane KJ, Griffiths JK, Brugge D. *A new exposure metric for the cumulative effect of short-term exposure peaks of traffic-related ultrafine particles.* J Expo Sci Environ Epidemiol. 2021 Oct 19. https://pubmed.ncbi.nlm.nih.gov/34667309/.

<sup>&</sup>lt;sup>11</sup> Maine Climate Council: Scientific and Technical Subcommittee. *Climate Change in Maine*. https://climatecouncil.maine.gov/maines-climate

<sup>&</sup>lt;sup>12</sup> International Council on Clean Transportation, *Benefits of adopting California medium- and heavy-duty vehicle regulations*, https://theicct.org/benefits-ca-multi-state-reg-data.

costs have decreased by 89 percent over the past ten years and continue to drop. <sup>13</sup> Upfront vehicle costs will continue to fall as battery prices decline over the rule's implementation schedule. According to the latest total cost of ownership analysis by the California Air Resources Board ("CARB"), MHD ZEVs are projected to be cost competitive with combustion-powered vehicles over a variety of vehicle models (full analysis in Appendix A). <sup>14</sup> The analysis also found that the payback period for when ZEV cost savings exceed the higher up-front price differential, ranges from five to ten years in 2025, and just two to five years in 2030 and 2035, indicating that ZEVs are able to recoup their higher purchase prices relatively quickly. <sup>15</sup> As a result of lower total ownership costs, Maine can expect significant net fleet savings by 2050 thanks to the ACT rule.

Accelerating the transition to ZEVs will support local jobs, including in the installation and maintenance of charging infrastructure. By adopting the ACT rule in 2021, Maine can expect to attract public and private investment in charging infrastructure. For example, in New Jersey, where they recently solicited public comments on adopting the ACT rule, the Board of Public Utilities ("BPU") released a MHDV straw proposal that will unlock millions of dollars in ZEV charging infrastructure investments and fuel savings. A key justification for BPU releasing the MHDV straw proposal was the state's action to adopt the ACT rule. Maine can and should expect adopting the ACT rule to unlock additional resources and infrastructure investments.

What's more, plugging in thousands of new electric trucks and buses will spread an increasing amount of electricity demand over the largely fixed costs of the system. These savings could result in reduced utility bills with annual savings.

Notably, Class 2b-3 ZEVs with gross vehicle weight ratings less than 14,000 pounds are eligible for the federal EV tax credit up to \$7,500.<sup>17</sup> Since the federal tax credit value declines after manufacturers sell a certain number of EVs nationwide, regulations such as the ACT rule that propel EV sales will help Maine capture a greater portion of federal tax credits.

#### Clean MHDV technology is ready today and cost effective

Currently, 30 companies offer at least one MHD ZEV for sale commercially covering every class of truck. This is expected to grow to at least 40 companies by 2025. 18 Commercial ZEV offerings today are capable of supporting the majority of truck duty cycles and rapid technological progress is

<sup>&</sup>lt;sup>13</sup> Bloomberg New Energy Finance, Battery Pack Prices Cited Below \$100/kWh for the First Time in 2020, While Market Average Sits at \$137/kWh, December 16, 2020.

https://about.bnef.com/blog/battery-pack-prices-cited-below-100-kwh-for-the-first-time-in-2020-while-market-average-sits-at-137-kwh

<sup>&</sup>lt;sup>14</sup> California Air Resources Board, *Draft Advanced Clean Fleets Total Cost of Ownership Discussion Document*, September 21, 2021. https://ww2.arb.ca.gov/sites/default/files/2021-08/210909costdoc\_ADA.pdf

<sup>&</sup>lt;sup>16</sup> State of New Jersey, Notice: Staff Straw Proposal New Jersey Electric Vehicle Infrastructure Ecosystem 2020 Straw Proposal DOCKET NO. QO20050357 - IN THE MATTER OF STRAW PROPOSAL ON ELECTRIC VEHICLE INFRASTRUCTURE BUILD OUT, May 18, 2020. https://www.nj.gov/bpu/pdf/publicnotice/Notice\_Stakeholder\_Meeting\_EV\_Straw\_Proposal\_5-18-20.pdf

<sup>&</sup>lt;sup>17</sup> Internal Revenue Service (IRS), Plug-In Electric Drive Vehicle Credit (IRC 30D), 2009. https://www.irs.gov/businesses/plug-in-electric-vehicle-credit-irc-30-and-irc-30d

<sup>&</sup>lt;sup>18</sup> D. Lowell & J. Culkin, Medium- & Heavy-Duty Vehicles Market structure, Environmental Impact, and EV Readiness, MJ Bradley & Associates, July 2021 https://www.mjbradley.com/sites/default/files/EDFMHDVEVFeasibilityReport22jul21.pdf

unlocking electrification of even the most demanding use cases.<sup>19</sup> Adopting the ACT rule will act as an accelerator to increase the supply of MHD ZEVs, achieve economies of scale from higher production volumes, lower costs, and encourage solutions to increase demand and capture significant savings.<sup>20</sup>

These findings are confirmed by a recent MJ Bradley & Associates analysis, which breaks down the entire MHDV universe into seventeen discrete market segments and evaluates the prospects for near-term electrification based on four factors central to fleet owner procurement considerations: commercial market, charging, technical feasibility, and business case. The analysis found that a majority of these segments, accounting for roughly two-thirds of the in-use MHDV fleet, score favorably on at least three out of four factors, indicating "strong potential for near-term EV uptake." Electrifying these segments in the near-term will yield considerable greenhouse gas, NOx, and PM emissions reduction benefits. Furthermore, "[v]irtually all market segments" could be "fully mature" by  $2025^{23}$  – when the ACT rule will phase in, in Maine.

The prospects for truck electrification are not merely theoretical. For example, the *Run on Less-Electric* demonstration project completed earlier this year collected operational data from real-world electric truck fleets in several applications, including delivery vans, box trucks, port terminal tractors, and heavy-duty semi-tractor-trailers. The 13 companies that participated in the demonstration project found that electric trucks not only "perform better than recent diesel" models but also did not inhibit operations due to range or refueling needs in the applications tested.<sup>24</sup> Extrapolating from these data, nearly half of the trucks in use today may be suitable for electrification now.<sup>25</sup>

Meeting the electric infrastructure needs to support the deployment of MHD battery electric vehicles ("BEVs") is technically feasible: significant ability to integrate BEVs into the grid already exists. In fact, some studies strongly suggest that the electricity grid is already overbuilt such that it will be able to serve additional BEV load without the need for short term expansion and investment, while actually increasing grid efficiencies by maximizing this flexible load. While the increased load from MHD BEVs will more than likely eventually require additional investment in grid infrastructure, utilities, state entities and stakeholders are already planning to mitigate the need for expensive build-out of grid infrastructure through non-wires solutions, such as on-site generation and storage,

<sup>&</sup>lt;sup>19</sup> Ibid

<sup>&</sup>lt;sup>20</sup> Andrew Burke and Anisha Kumar Sinha, *Technology, Sustainability, and Marketing of Battery Electric and Hydrogen Fuel Cell Medium-Duty and Heavy-Duty Trucks and Buses in 2020-2040* (2020), UC Davis Institute of Transportation Studies, available at <a href="https://escholarship.org/uc/item/7s25d8bc#article\_main">https://escholarship.org/uc/item/7s25d8bc#article\_main</a>.

<sup>&</sup>lt;sup>21</sup> M.J. Bradley & Associates., Medium- and Heavy-Duty Vehicles: Market Structure, Environmental Impact, and EV Readiness (2021), https://www.mjbradley.com/sites/default/files/EDFMHDVEVFeasibilityReport22jul21.pdf.
<sup>22</sup> Id.

<sup>&</sup>lt;sup>23</sup> Id. at 6.

<sup>&</sup>lt;sup>24</sup> Jeff St. John, *Electric Trucks Could Handle Millions of Short-Haul Routes Across North America*, Canary Media (Sept. 23, 2021), https://www.canarymedia.com/articles/electric-vehicles/electric-trucks-could-handle-millions-of-short-haul-routes-across-north-america.
<sup>25</sup> Id.

<sup>&</sup>lt;sup>26</sup> See, e.g., US DRIVE, Summary Report on EVs at Scale and the U.S. Electric Power System, https://www.energy.gov/sites/prod/files/2019/12/f69/GITT%20ISATT%20EVs%20at%20Scale%20Grid%20Summary%20Report%20FINAL%2 0Nov2019.pdf.

efficiency, and by ensuring new load is managed and integrated to avoid exacerbating peak demand. Preparing to meet the needs of MHD BEVs is feasible and underway, and could in fact lower consumer electricity prices by increasing grid utilization.

There are many potential benefits to developing a robust electric charging network for MHD BEVs. For example, due to the large battery size and, in some cases, predictable operation schedules, MHD BEVs may be prime candidates for vehicle-to-grid applications. Vehicle-to-grid technologies can improve grid stability and reliability, help integrate more renewable energy, and in some applications, offer additional revenue streams to BEV owners. Another advantage to the infrastructure build-out is high-quality job creation.<sup>27</sup>

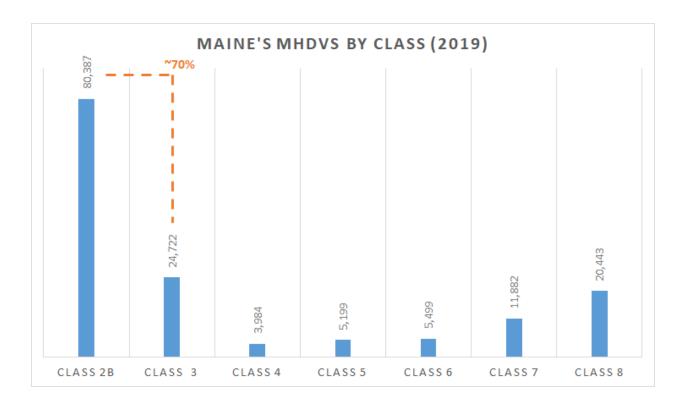
#### The ACT rule is inherently flexible and designed for an evolving market

Following the two-year lead time from adoption to implementation, the ACT rule begins with low sales requirements and gradually increases, leaving time for ZEV technology to improve, the supporting ecosystem to mature, and vehicle prices to decline. The ramp-up in sales requirements is modest: from adopting the rule in 2021 to the second year of compliance in calendar year 2025, the sales requirement only grows to 10-13% of new sales. We can expect significant advancements in range and efficiency in the intervening years, expanding suitability for a wider spectrum of ZEV uses and classes.

While unique use cases that are harder to electrify, such as snowplows, may persist, the vast majority of Maine's truck fleet is suitable for transitioning to zero-emission vehicles over the rule's lifetime, and the ACT rule accounts for these exceptions. To put this into perspective, here's the breakdown of Maine's current (as of 2019) MHDV fleet:

<sup>27</sup> E2, ACORE, CELI, *bw Research Partnership, Clean Jobs, Better Jobs: An examination of clean energy job wages and benefits* (Oct. 2020), https://e2.org/wp-content/uploads/2020/10/Clean-Jobs-Better-Jobs.-October-2020.-E2-ACORE-CELI.pdf.

6



Roughly 70 percent of Maine's MHDV fleet are Class 2b-3 vehicles.<sup>28</sup> Numerous studies have compared the total costs of ownership (TCO) of BEV and fossil fuel medium- and heavy-duty vehicles, and while estimates vary, the overwhelming consensus is that Class 2b-3 BEV vehicles are already at or very near TCO parity with their fossil fuel counterparts.<sup>29</sup> In fact, this segment is often referenced as the most cost-effective electrification opportunity in the near term.<sup>30</sup>

Further, the ACT rule employs a credit mechanism system to incentivize voluntary early action and permits a high degree of compliance flexibility. For example, the ACT rule allows zero-emission credit trading between manufacturers and between most truck classes, accounting for vehicle size, enabling manufacturers to shift credits from truck segments ripe for electrification to those that are less suitable.

The ACT rule can also accommodate potential fluctuations in vehicle sales from year-to-year. The rule does this by basing manufacturers' ZEV credit requirements on average truck sales data from the previous three years. In that way, peaks or troughs in purchases due to economic or regulatory forces are smoothed and have minimal impact on the overall trajectory of ZEV sales. For example, 2021 has

<sup>&</sup>lt;sup>28</sup> Atlas EV Hub: *Medium and Heavy Duty Vehicle Registrations*. Accessed November 2021. https://www.atlasevhub.com/materials/medium-and-heavy-duty-vehicle-registrations-dashboard/

<sup>&</sup>lt;sup>29</sup> Goldman School of Public Policy, University of California Berkeley, 2035 The Report, Transportation, Plummeting Costs and Dramatic Improvements in Batteries can Accelerate our Clean Transportation Future, April 2021. Available at: <a href="https://www.2035report.com/transportation/">https://www.2035report.com/transportation/</a>; Chad Hunter et al, Spatial and Temporal Analysis of the Total Cost of Ownership for Class 8 Tractors and Class 4 Parcel Delivery Trucks, National Renewable Energy Laboratory, September 2021. Available at: <a href="https://www.nrel.gov/docs/fy21osti/71796.pdf">https://www.nrel.gov/docs/fy21osti/71796.pdf</a>; ICF International, Comparison of Medium- and Heavy-Duty Technologies in California, December 2019. Available at: <a href="https://caletc.com/assets/files/ICF-Truck-Report\_Final\_December-2019.pdf">https://caletc.com/assets/files/ICF-Truck-Report\_Final\_December-2019.pdf</a>

<sup>&</sup>lt;sup>30</sup> Jimmy O'Dea, Ready for Work, Now Is the Time for Heavy-Duty Electric Vehicles, December 2019. Available at: <a href="https://www.ucsusa.org/sites/default/files/2019-12/ReadyforWorkFullReport.pdf">https://www.ucsusa.org/sites/default/files/2019-12/ReadyforWorkFullReport.pdf</a>

seen an unprecedented level of supply chain bottlenecks causing vehicles of all types to experience manufacturing delays. If supply chain issues persist, the ACT rule, because of its built-in flexibility, will factor in production delays and lower manufacturer sales requirements until production levels return to normal

#### Fleets stand to benefit and are unlikely to relocate

There are significant benefits inherent in more stringent standards.<sup>31</sup> When reviewing market growth in response to 2007 and 2010 federal engine standards, there was smooth growth in vehicle demand prior to, and during implementation of, the 2014 Phase 1 fuel efficiency and emissions standards. Indeed, the purchase of MY 2014 vehicles was *higher* than any year since 2005.<sup>32</sup> This demonstrates that strict standards do not dampen adoption of cleaner vehicles and fuel cost savings are an important component of making the economic case for the transition.

It should also be noted that "the pre-buy in response to 2007 criteria pollutant standards [was found] to be approximately symmetric, short-lived, and small in volume relative to previous estimates" <sup>33</sup> - indicating that fears of mass purchases of more polluting vehicles before implementation of a standard may not come to fruition. The bottom line is that, rather than seeing fleets buy dirtier, ostensibly cheaper vehicles in a panic, there is clear evidence that no meaningful adjustment in market purchasing occurs as a result of these standards – fleets recognize the cost savings over time of cleaner vehicles and do not seem inclined to ignore those benefits to reap the marginally lower purchase price of more polluting vehicles while they still can.

# Maine should adopt the ACT rule in 2021 and consider complementary regulations

To achieve Maine's bold decarbonization targets, and to avoid missing compliance years and delaying the rules' sweeping benefits, it is imperative that the Board adopt the ACT rule this year. While some of the rules' opponents have raised misleading and/or misinformed reasons for delay, a previously submitted letter to the Northeast States for Coordinated Air Use Management refutes those unsupported arguments (letter included in Appendix B). Additionally, as mentioned above, we strongly urge Maine to adopt complementary MHDV emission standards, such as the Heavy-Duty Omnibus, Innovative Clean Transit, and Advanced Clean Fleets rules as soon as possible. We also encourage DEP to explore adopting the ACT rule's large entity reporting requirement. The reporting requirement will help:

• Identify areas with high rates of freight traffic and, consequently, diesel pollution, allowing Maine to target clean transportation policies to the communities that need relief most;

<sup>&</sup>lt;sup>31</sup> Katherine Rittenhouse and Matthew Zaragoza-Watkins, Strategic Response to Environmental Regulation: Evidence from U.S. Heavy-Duty Vehicle Air Pollution Regulations, MIT CEEPR Working Paper, (2016).

<sup>&</sup>lt;sup>32</sup> Heavy Duty Trucking, Healthy Demand Overall for Trucks in September, Heavy Duty Trucking (Oct. 3, 2014), http://www.truckinginfo.com/channel/fleet-management/news/story/2014/10/healthy-demand-overall-for-trucks-in-september.aspx?ref=relrecommended.

<sup>&</sup>lt;sup>33</sup> Katherine Rittenhouse and Matthew Zaragoza-Watkins, Strategic Response to Environmental Regulation: Evidence from U.S. Heavy-Duty Vehicle Air Pollution Regulations at 33, MIT CEEPR Working Paper, (2016).

- Shed light on exploitative labor practices, such as misclassifying drivers as independent contractors. Misclassification is rampant in the trucking industry, particularly in the drayage segment. These trucks are among the oldest and dirtiest vehicles on the road and are excellent for zero-emission technology given their short-haul, idling, and stop-and-go operations. Due to misclassification, many drivers lack financial resources to upgrade their equipment to reduce diesel pollution or buy a zero-emission truck. The DEP will need the most granular information possible to direct funding and regulations towards entities that control fleets to make sure they comply with emissions reductions and electrification goals rather than shifting the responsibility to drivers who often do not have the resources to comply. Adopting the rule could turn a historically polluting industry into a source of high quality, green jobs in trucking, manufacturing, and charging infrastructure installation; and
- Help utilities make better informed electric utility investments today to install the charging infrastructure necessary to support MHD ZEVs. It will also enhance utility distribution system planning efforts that are vital in the transition to clean vehicles as a well-designed grid can lower bills for all customers by avoiding expensive system upgrades.

Lastly, we support the Department of Environmental Protection's decision to limit early crediting to model year 2024. Early crediting does not incentivize the switch to ZEVs and mainly captures purchases that would have already taken place. Offering credits earlier than 2024 would weaken the rule's stringency and as a result, its benefits. Offering one year of early crediting is consistent with what other Section 177 states are considering, notably New Jersey.

#### Conclusion

Thank you for your diligent work on this critical rulemaking. We strongly support adoption of the ACT rule in 2021. This rule will help Maine achieve its statutory climate targets while reducing health-harming air pollution. We also look forward to supporting future rulemakings, including adoption of California's Heavy-Duty Omnibus rule and Innovative Clean Transit rule. Together, these rules represent significant progress toward a clean energy economy.

Sincerely,

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