

# Joint Clean Transportation Coalition Comments on the Draft Colorado Clean Trucking Strategy



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# Executive Summary

Thank you for your work on the draft Clean Trucking Strategy (“Strategy”), and for carefully considering stakeholder input. We – a diverse coalition of public health, climate, justice, consumer, business and efficiency advocacy organizations – support the vision articulated in the draft strategy: “to support an efficient, affordable, and equitable large-scale transition of Colorado’s medium- and heavy-duty vehicle sector to zero emission technologies”. We agree that the overarching goal should be “to achieve the state’s greenhouse gas and air pollution emission reduction goals”. This target provides an important, specific, measurable benchmark to design policy around. We also agree that the vision should prioritize benefits for “communities that have historically been most impacted by medium- and heavy-duty vehicle emissions,” particularly the low-income, Black, Indigenous, Latinx, and other communities of color located near busy freight corridors.

The actions outlined in the document represent important steps toward eliminating pollution from medium- and heavy-duty vehicles, which the document correctly identifies as significant sources of both climate-changing and health-damaging pollution. At the same time, these steps will deliver complementary benefits, including improved public health, a stronger economy, new job opportunities, and a more energy-efficient and cost-effective transportation system.

Unfortunately, the Strategy contains two fundamental shortcomings that must be rectified in the final version: a lack of urgency and clear preference for spending rather than requiring action, when both tools are needed. Our comments explain the importance of reframing the Strategy and identifies several key recommendations to accelerate pollution reduction, increase environmental justice and equity, and maximize economic and environmental benefits. Specifically, our organizations request that you reframe the Strategy to:

- Shift priorities to match the urgent need to address the twin crises of air pollution and climate change in Colorado; and
- Ensure strong regulatory action and use incentive programs to help ensure the success of those regulations.

The Strategy can better align with this enhanced framing by incorporating the following changes:

- Complete adoption of the Advanced Clean Trucks (“ACT”) and Low NOx Omnibus (“Omnibus”) rules in 2022, so that the rules begin in calendar year 2025;
- Set specific, actionable targets for the amount of pollution the Strategy will reduce;
- Include the 100x40 scenario’s benefits;
- Propose additional sources of funding to encourage clean truck adoption, including a Colorado Clean Fuel Standard (“CFS”);
- Propose adoption of the Advanced Clean Fleets (“ACF”) rule in 2023, to ensure a minimum level of zero-emission vehicle (“ZEV”) adoption by fleets operating in Colorado;
- Strengthen the commitment to electrify the state’s fleet, aiming for 100 percent ZEV purchases by 2035;

- Prioritize addressing infrastructure deployment barriers;
- Set specific, measurable targets for equity and environmental justice and articulate how the state will regularly report on progress; and
- Use public resources wisely by:
  - Requiring new programs to retire the most polluting trucks on the road and replace those vehicles with ZEVs; and
  - Set guardrails on potential hydrogen vehicles and infrastructure investments, focusing only on applications where hydrogen comes from 100 percent zero-emission “green” sources and offers a true cost-benefit advantage over alternatives, while ensuring that there are robust mechanisms in place to measure, report, and mitigate leaks.

## Urgent Air Pollution and Climate Change Crises

### Air Pollution and Environmental Justice

Although medium- and heavy-duty vehicles are only 9 percent of on-road vehicles in Colorado, they have an outsized impact on air pollution, accounting for 30 and 40 percent of vehicle oxides of nitrogen (“NOx”) and particulate matter (“PM”) emissions, respectively. NOx and PM emissions are toxic and dangerous to those closest to the source of pollution. Since 2012, over three million Coloradans have lived in areas failing to meet national air quality standards.<sup>1</sup>

Exposure to fossil fuel exhaust can lead to premature death and other devastating health impacts, including asthma and respiratory diseases, pregnancy complications and adverse reproductive outcomes, cardiac and vascular impairments, and heightened cancer risk. But the widespread harms of the transportation sector are not distributed equally. Instead, harms are concentrated in lower-income communities and communities of color.

Colorado’s Clean Truck Strategy must redress past harms to communities of color and low-income communities where decades of transportation infrastructure decisions have resulted in higher levels of exposure to air pollution and resulting harm to community health.

In Colorado and across the country, mortgage lenders in the 1930s drew red lines around communities that were often home to communities of color or immigrants, deeming them risky sites for mortgages. For example, an old map of Denver by the federal government’s Home Owners Loan Corporation labeled the Sun Valley neighborhood “a very cheap and poor area,” with an “infiltration of Mexicans;” and labeled the Elyria-Swansea neighborhood of North Denver

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<sup>1</sup> United States Environmental Protection Agency, *Nonattainment and Maintenance Are Population Tool*, <https://epa.maps.arcgis.com/apps/MapSeries/index.html?appid=7935a00e2554440a8daf6cc035b9455e>

as filled with “wage earners of the low income brackets,” and an area where “real estate men pay little attention.”<sup>2</sup>

The maps served to limit access to financing and withhold investment from low-graded areas – helping to further concentrate poverty and increase the vulnerability of the community. As a result, these areas were often where decision-makers chose to place hazardous facilities, from refineries to high-traffic highways.

The toxic legacy of redlining persists today. A recent study by researchers at the University of California, Berkeley, found that today, residents of areas that were redlined in the 1930s are exposed to higher levels of toxic air pollution today, including NOx and particulate matter<sup>3</sup> – both major pollutants that come from diesel combustion in medium- and heavy-duty trucks. Redlined neighborhoods on average experience 50 percent more pollution exposure than top-graded areas. This pollution contributes to the fact that residents of redlined areas face significant health disparities<sup>4</sup> – lower life expectancy and higher rates of pulmonary disease. Further, the Berkeley study found that even within redlined areas, people of color experienced greater levels of air pollution, “indicating that redlining was only one of the many racially discriminatory policies that impacted communities.”

NRDC has published an online interactive map that helps illustrate these persistent challenges in the Denver Metro area. It shows how I-25, I-70 and I-270 – major truck travel corridors – cut through historically redlined areas, increasing local pollution.<sup>5</sup> The group found that “the estimated 67,000 residents living within 1 mile of [the I-70 expansion project in North Denver] are 74% people of color and 44% low-income and are in the 93rd percentile statewide for diesel particulate matter and PM2.5 pollution levels”. Furthermore, the proximity of the Suncor oil refinery adds to elevated levels of local pollution.

To help correct this persistent and ongoing injustice, the Strategy must go beyond simply reducing pollution across Colorado, but also make a special and targeted effort to reduce pollution exposure for disproportionately impacted communities in areas with elevated emissions and a history of neglect, wherever they occur in the state.

The vision articulated by the draft strategy, to “prioritize clean truck and bus deployment in ways that provide direct benefits to disproportionately impacted communities and support a just

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<sup>2</sup> University of Richmond, *Mapping Inequality - Redlining in New Deal America: Denver*, <https://dsl.richmond.edu/panorama/redlining/#loc=14/39.743/-104.992&city=denver-co&area=D7&adview=full>

<sup>3</sup> Laurel Wamsley, Even many decades later, redlined areas see higher levels of air pollution, NPR (Mar. 10, 2022), <https://www.npr.org/2022/03/10/1085882933/redlining-pollution-racism>.

<sup>4</sup> Maria Godoy, In U.S. Cities, The Health Effects of Past Housing Discrimination Are Plain to See, NPR (Nov. 19, 2020), <https://www.npr.org/sections/health-shots/2020/11/19/911909187/in-u-s-cities-the-health-effects-of-past-housing-discrimination-are-plain-to-see>.

<sup>5</sup> Carter Rubin and Rabi Abonour, Which Way for Colorado’s Transportation Future?, Natural Resources Defense Council (Oct. 14, 2021), <https://www.nrdc.org/experts/carter-rubin/which-way-colorados-transportation-future>

transition for workers in the medium-and heavy-duty vehicle sector,” is on the right track. But it will take a significant effort to realize that vision. The draft strategy should be improved in several respects, discussed below, to increase its ability to improve equity and environmental justice.

## Climate Change

Climate change is an urgent crisis that demands swift, comprehensive and bold action to transform our economy to run entirely on clean energy.

Colorado is no stranger to the serious and multiplying impacts of warming that we have already incurred. In the last three months alone, Boulder County has suffered from two unseasonable wildfires, with more than 1,000 homes destroyed. The Colorado River water system, upon which much of our state depends for water supplies, is reaching historic lows, threatening serious disruption of agriculture and community sustainability across the West.

Hoesung Lee, Chair of the United Nations Intergovernmental Panel on Climate Change (“IPCC”), recently said that the world needs “immediate and more ambitious action to address climate risks. Half-measures are no-longer an option.”<sup>6</sup> “Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future,” added Hans-Otto Pörtner, IPCC Working Group II Co-Chair.<sup>7</sup>

Colorado has an important role to play. By meeting and exceeding the emissions targets set in statute by House Bill 19-1261, we can do our part to preserve a liveable future for all Coloradans, and people all across the world. Meeting these targets is not optional. Colorado must do everything in its power to reduce pollution – particularly from the transportation sector, the largest source of greenhouse gas (“GHG”) emissions in the state – and to do so at a pace that is likely to cut total emissions by at least 26% by 2025 and 50% by 2030 below 2005 levels.

The draft Clean Trucking Strategy rightfully acknowledges these goals and references the state GHG Emissions Reduction Roadmap. However, there is more that Colorado can do to accelerate pollution reduction, improve public health, and increase the likelihood that we will achieve our climate targets. Below, we recommend and discuss eight improvements to the draft strategy.

## Maximize the Strategy’s Components

The second core shortcoming of the Strategy is the state’s emphasis on incentive programs in lieu of regulations - when both are needed to ensure efficient outcomes and maximize health

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<sup>6</sup> Intergovernmental Panel on Climate Change, *Climate change: a threat to human wellbeing and health of the planet. Taking action now can secure our future* (Feb. 28, 2022), <https://www.ipcc.ch/2022/02/28/pr-wgii-ar6/>.

<sup>7</sup> *Id.*

and climate protections. Regulations to require emission reductions and zero-emission vehicle adoption are the state's most potent tools to effect wide scale change. Incentives help ensure compliance with regulations, particularly in hard to abate segments or uses, such as for small businesses or for vehicles that may not yet be economically attractive. One example is the seeming overemphasis on programs such as the \$15 million to replace 500 diesel trucks. While the objective – to get the oldest vehicles off our roads – is a good one, the strategy incorrectly prioritizes this type of action above adoption of the ACT and Omnibus rules - which, if adopted this year, will be a more certain way of starting to introduce tens of thousands of cleaner diesel vehicles and thousands of ZEVs a year early.

Additionally, the state should ensure that various sources of investment (whether the state budget, green enterprises, federal dollars, utility transportation electrification plans and other private investments) complement regulatory action, create unique value, and contribute towards a transition to zero-emission trucks and buses. In other words, the state should make a conscious effort to design programs with a well-defined niche that supplement, rather than duplicate, existing programs.

## Recommendations to Improve the Strategy

### Adopt the ACT and Omnibus Rules in 2022

The single most important tool to address medium- and heavy-duty vehicle pollution in Colorado is adopting new vehicle emission standards. These standards include the ACT rule and Omnibus rule. The Strategy rightfully identifies adopting these standards as a high-priority and yet decides to delay adoption until 2023 at the earliest. There are no valid reasons to delay adoption, and by pushing off the significant public health, environmental, and economics benefits from these rules, the Strategy fails to act on the overarching vision to “support an efficient, affordable, and equitable large-scale transition of Colorado’s medium- and heavy-duty vehicle sector to zero emission technologies” in a timely manner. Further, the Strategy labels adopting the rules as a “near-term” activity, as if setting forth this assertion makes it true. Due to federal lead-time requirements, adopting the rules in 2023 means that enforcement begins in the calendar year 2026 – hardly a near-term action. Moreover, there is no discussion on the cost to Coloradans of delaying adoption from 2022 to 2023, in terms of fewer emission reductions, health, and economic benefits from those identified in CEO’s Study.

This is a critical omission, since medium- and heavy-duty vehicles in Colorado have a long lifetime—nearly half of the state’s fleet is older than 14 years and 16 percent are older than 20 years. For the ACT rule alone, CEO’s Study estimates that Model Year 2026 requirements would result in nearly 2,000 additional ZEV Class 2b-3 trucks on the road, and hundreds of ZEV Class 4-8 vocational trucks. Delaying the ACT rule by just a few months would result in thousands of additional trucks polluting for more than a decade to come.

Delaying the Omnibus rule would similarly lock in higher-emitting trucks and corresponding health impacts. According to IHS Polk vehicle registration data, 63,479 new medium- and heavy-duty vehicles were registered in Colorado in 2020 (latest available data), and 2021 was on track for even higher sales volumes with quarter-on-quarter registration growth from the first quarter of 2021 to the second quarter of 3.7%. Even assuming sales slow to just one percent growth, between 94,000 and 163,000 new fossil fuel medium- and heavy-duty vehicles could be sold in Colorado in 2026. These vehicles could remain operational for several decades spewing elevated levels of NOx and PM due to the agencies' decision to delay rulemaking this year.

<b>Projected Colorado Medium- and Heavy-Duty Vehicle Sales</b>		
<b>2020</b>	63,479	
<b>2021 (Q1)</b>	18,642	
<b>2021 (Q2)</b>	19,337	
	<b>1% Sales Growth</b>	<b>3.7% Sales Growth (2021 Q1-Q2)</b>
<b>2022</b>	80,895	91,274
<b>2023</b>	84,180	105,666
<b>2024</b>	87,598	122,326
<b>2025</b>	91,155	141,614
<b>2026</b>	94,856	163,943

Delaying adoption of these lifesaving regulations exemplifies how the Strategy lacks the urgency required by the present moment. Colorado should complete adoption of the ACT and Omnibus rules in 2022, so that the rules will go into effect for calendar year 2025 vehicles, rather than delaying until 2023 as proposed on page 23. This will pull forward the benefits of action and ensure that manufacturers have an immediate reason to begin delivering more ZEVs to Colorado. It will also ensure that new diesel vehicles sold in Colorado, beginning with calendar year 2025, will have dramatically lower emissions of smog- and soot-forming pollution – rather than allowing a full additional year of dirtier vehicles to be deployed. Acting sooner will increase the benefits for Colorado’s climate and our health, particularly in the disproportionately-impacted communities that suffer the worst impacts of diesel pollution.

## Identify the Amount of Pollution the Strategy will Reduce

The Strategy presents a vague estimate of how much emission reductions the state is aiming to achieve through measures around medium- and heavy-duty vehicles and fuels. On page 8, it says only that the strategy is one of several approaches to fill a 3.2 million metric ton (“MMT”) gap out of an overall target to reduce transportation sector emissions by 12.7 MMT. It does not specify how much of that gap will be met via the clean trucking strategy.

Further confusing matters, the E3 technical appendix assumptions and results spreadsheet accompanying the state GHG pollution reduction roadmap, in the 1261 compliance scenario, appears to model a 96 percent reduction in medium- and heavy-duty vehicle carbon emissions



in 2030 below reference (or more than 5 million metric tons of carbon dioxide equivalent), achieved primarily through the use of biofuels.<sup>8</sup> It is unclear how the state intends to use biofuels as a component of its clean trucking strategy, as there are no actions laid out in the plan which would ramp up the use of biofuels in the trucking sector. Thus, there is a significant gap in the clean trucking strategy related to quantifying how necessary reductions in medium- and heavy-duty trucking emissions will be achieved to reach the Governor’s roadmap.

Moreover, the state found that even if all the technically recoverable renewable natural gas (“RNG”) resources – the most common truck and bus biofuel – is captured, it would offset less than a quarter of on-road diesel consumption.<sup>9</sup> There are numerous reasons why reliance on natural gas fuels in the transportation sector should be avoided, but the limited supply of RNG reinforces why use of this fuel is not a viable long-term strategy.

Finally, the draft strategy omits one policy action that was listed in the state GHG pollution reduction roadmap as part of that 12.7 MMT emissions reduction wedge - the Employer Traffic Reduction Program/transportation demand management requirement. It is unclear how large of a gap the elimination of that policy created, or if the clean trucking strategy is intended to or even can make up the difference.

To help clarify these issues, the state should update the draft to provide an estimate for the emissions reductions needed from medium- and heavy-duty trucks to stay on track toward the overall 2030 target, within the context of expected results from other strategies the state plans to pursue, and include an estimate of needed policy stringency or scale to achieve the needed pollution reductions.

## Add the 100x40 Scenario’s Benefits

The Strategy briefly notes the benefits of adopting the ACT and Omnibus rules on page 14, drawing from the Colorado Energy Office’s Medium- and Heavy-Duty Vehicle Study (“CEO’s Study”) published in fall 2021. However, CEO’s Study has an additional, more ambitious scenario that shows both larger pollution reduction benefits, and larger cost savings than adopting ACT and Omnibus rules alone. This additional information should be noted in the Strategy. Specifically, the document should state that achieving 100 percent zero emission medium- and heavy-duty vehicle sales by 2040 would:

- Reduce GHG emissions from the trucking fleet by 7 percent below baseline in 2030, and 59 percent in 2050;
- Reduce NOx by 93 percent and particulate matter by 68 percent by 2050;
- Save vehicle owners more than \$8 billion through 2050 (2020 dollars); and

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<sup>8</sup> *Colorado Greenhouse Gas Pollution Reduction Roadmap* at 109 (Jan. 14, 2021), available at <https://energyoffice.colorado.gov/climate-energy/ghg-pollution-reduction-roadmap>.

<sup>9</sup> Colorado Energy Office, *Renewable Natural Gas (RNG) in Transportation: Colorado Market Study* (Jun. 30, 2019), <https://static1.squarespace.com/static/53a09c47e4b050b5ad5bf4f5/t/5db8b105583bec29713a93c3/1572385042658/CEO+-+RNG+IN+TRANSPORTATION+-+COLORADO+MARKET+STUDY+2019+-+FINAL+%282%29.pdf>.

- Deliver over \$26 billion in net benefits to society through 2050 (2020 dollars).

This information provides important justification for why the state should pursue additional actions to accelerate the transition to zero-emission medium- and heavy-duty vehicles.

## Propose Additional Funding Sources to Encourage Clean Truck Deployment, Including a CFS

The state should design and propose for adoption a Colorado CFS as a source of additional funding to encourage clean truck deployment. This type of policy would provide a long-term, durable source of funding to support every part of Colorado's Strategy. Moreover, this policy delivers progress funded by producers of polluting fuels, rather than by average taxpayers. Holding oil companies accountable for climate change is the right thing to do.

This performance-based policy should reward clean transportation efforts in proportion to the climate benefits they deliver. Specifically, the policy should establish a declining carbon intensity standard for transportation fuels, measured in carbon dioxide equivalents per unit of energy delivered. Fuel providers should be required to reduce their overall carbon intensity to meet the standard, or to purchase credits from clean fuel or clean transportation providers – including electric transportation. The policy should operate through private transactions between credit holders and fuel providers that need credits – generating support for clean fuels at no cost to the government or to taxpayers, without affecting the state budget under TABOR, and without depleting limited funds in the new clean transportation enterprises.

Further, the policy should include strong measures to promote equity and environmental justice – for example, requirements that utilities should invest added revenue earned as a result of the sale of clean fuel credits back into equity- and justice-focused programs targeted to benefit members of disproportionately impacted communities. Policy design for such a fuel standard should be formulated with impacted communities to ensure their needs and recommendations are incorporated - and these communities should also be involved in implementation to ensure equity. Indeed, support from many organizations that are signatories to this letter would be contingent on the participation and support of impacted communities.

The state GHG roadmap considered a CFS, but ultimately rejected it, saying, “the modeling indicated that, at least for the first decade, the bulk of emissions reductions would come through replacement of gasoline and diesel fuel with conventional biofuels. The state has not had a comprehensive analysis or public process examining the tradeoffs involved with large scale use of conventional biofuels, so it is premature to move forward with a CFS.... thus we are not recommending that a CFS be part of the near term action agenda for the state but instead should be further evaluated.”

Colorado should further re-evaluate this policy as part of the Strategy. We believe that it will be an increasingly important tool to accelerate progress toward electrification and increase progress toward Colorado's climate goals. Electricity is already one of the lowest-emitting

sources of transportation energy given both the high-efficiency of electric powertrains and the increasing progress of Colorado's electricity supply toward low-carbon sources of energy. A recent analysis from the International Council on Clean Transportation found that "electric vehicles will become one of the most cost-effective ways of decarbonizing the transport fuels mix by mid-decade" and "the growing share of EV charging within a LCFS can crowd out more expensive sources of carbon reductions."<sup>10</sup> In 2019, electric vehicles in California generated more than \$500 million in clean fuel credits, according to the Union of Concerned Scientists.<sup>11</sup>

After reconsidering this policy, we believe that Colorado should design and propose a CFS for adoption, including any design elements necessary to address the concerns articulated in the GHG roadmap. This should be a medium-term action, ideally proposed for adoption in 2023.

Additionally, the state should investigate other potential financing support policies. For example, the state should commit to investigating the feasibility of something like a Pay as You Save program for fleets, funded by a private bank, a state green bank, or possibly a utility; where the fleet would pay off the cost of the zero emission vehicle over time using operational savings. (Clean Energy Works developed this idea, explored in detail in this linked paper by the Global Innovation Lab for Climate Finance.<sup>12</sup>)

## Propose Adoption of the ACF Rule

The Strategy on page 23 says, "by the end of 2023, CDPHE, CEO, and CDOT will investigate options to ensure clean truck adoption by state, county, municipal and other public fleets and large private fleets, in alignment with the Advanced Clean Truck rule where technically feasible, and will report findings. This may include fleet rules, MOUs with fleets, or other approaches."

This investigation should be moved up to 2022, during or before California's anticipated adoption of its own ACF rule. The purpose of the investigation should be to prepare Colorado to adopt the entire ACF rule as soon as possible, ideally no later than 2023. To do so, Colorado may need to, for example, create a vehicle registry for certain regional-haul operations.

A key challenge to cleaning up truck pollution is driver misclassification. This business practice is rampant throughout the goods movement industry and occurs when companies misclassify

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<sup>10</sup> Casey Kelly and Nikita Pavlenko, Assessing the potential for low-carbon fuel standards as a mode of electric vehicle support - Working Paper 2020-29, International Council on Clean Transportation (Dec. 2020), <https://theicct.org/sites/default/files/publications/LCFS-and-EVs-dec2020.pdf>.

<sup>11</sup> Jeremy Martin, California's Low Carbon Fuel Standard Accelerating Transportation Electrification, Union of Concerned Scientists (Dec. 3, 2020), <https://blog.ucsusa.org/jeremy-martin/californias-low-carbon-fuel-standard-accelerating-transportation-electrification/>.

<sup>12</sup> Global Innovation Lab for Climate Finance, Pay as You Save for Clean Transport - Instrument Analysis (Sep. 2018), [https://www.climatefinancelab.org/wp-content/uploads/2018/02/PAYS-for-Clean-Transport\\_Instrument-Analysis.pdf](https://www.climatefinancelab.org/wp-content/uploads/2018/02/PAYS-for-Clean-Transport_Instrument-Analysis.pdf)

drivers as independent contractors to avoid providing employee benefits and security.<sup>13</sup> These drivers, who often come from low-income communities and communities of color, through exploitative labor and financial practices, are often treated like indentured servants and lack the financial means to purchase new, cleaner technology vehicles. In adopting new emission standards, the state must ensure the costs of cleaner technologies do not fall on drivers, and include strong worker protections to avoid driver misclassification, such as making the controlling entity the regulated party responsible for compliance.

## Commit State Fleets to 100% ZEV Purchases by 2035

On page 17, the Strategy states that Colorado will “establish a goal and accompanying transition plan for state owned fleets to achieve 100% zero-emission MHD fleet vehicle purchases where technically feasible and able to meet safety and mission critical operations needs by no later than 2040.” However, many voluntary fleet purchase and manufacturer sales commitments already meet or exceed 100% zero-emission purchase/sales by 2040. For example, several of the largest medium- and heavy-duty vehicle manufacturers in Europe announced plans for all new sales to be zero-emission by 2040.<sup>14</sup> Leading by examples means being ahead of the market rather than following. To avoid a business as usual target, this should be changed to no-later than 2035, and to at least match the stringency of the executive order issued by President Biden in December, which instructs federal agencies to achieve “100 percent zero-emission vehicle acquisitions by 2035.”<sup>15</sup>

## Prioritize Addressing Infrastructure Deployment Barriers

On page 21, the Strategy states that “CEO, CDOT and CDPHE will work with charging providers, utilities, fleets, and local permitting authorities to understand and address real and perceived barriers to permitting for infrastructure” and gives this action medium-term priority. We believe this should be changed to a near term priority. There are companies and organizations deploying or planning to deploy ZEV trucks and charging infrastructure now, from Amazon to Rivian to Sysco to EcoCycle. The state and utilities should connect with these early movers now to maximize the value of any learnings coming from their experience. Further, within a year the state should develop an action plan for deploying medium- and heavy-duty ZEV infrastructure in collaboration with all relevant agencies, utilities, fleets, environmental justice organizations, labor, environmental stakeholders, and the business community. The action plan should articulate a cost-effective transition that prioritizes environmental justice communities, aids small

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<sup>13</sup> Carol Zabin and Sam Appel, Truck Driver Misclassification: Climate, Labor, and Environmental Justice Impacts, UC Berkeley Labor Center (Aug. 22, 2019), <https://laborcenter.berkeley.edu/truck-driver-misclassification/>.

<sup>14</sup> European Automobile Manufacturers Association and Potsdam Institute for Climate Impact Research, Joint Statement: The Transition to Zero-Emission Road Freight Transport (Dec. 2020), <https://www.acea.auto/files/acea-pik-joint-statement-the-transition-to-zero-emission-road-freight-trans.pdf>.

<sup>15</sup> Executive Order on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability (Dec. 08, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/12/08/executive-order-on-catalyzing-clean-energy-industries-and-jobs-through-federal-sustainability/>.

businesses that may not have sufficient capital or technical knowledge, maximizes the use of renewable energy used to power these vehicles, and proactively find ways to successfully integrate trucks and buses into the grid.

## Set Specific, Measurable Equity and Environmental Justice Targets

Under goals and objectives, the Strategy states that “the state will work with its partners and will leverage CDPHE, CEO, CDOT, and CDLE equity resources to prioritize clean truck and bus deployment in ways that provide direct benefits to disproportionately impacted communities and support a just transition for workers in the medium- and heavy-duty vehicle sector.”

The state should make this goal more specific and measurable. Further, the state should commit to tracking and reporting on progress over time. For example, the Biden Administration Executive Order 14008 sets a goal of delivering 40 percent of the overall benefits of federal investments on clean energy and climate to disadvantaged communities.<sup>16</sup> Further, it asks federal agencies to track performance toward that goal through an Environmental Justice Scorecard. The administration published [interim guidance](#) on what types of benefits should be considered and instructed agencies to develop methodologies for how benefits for disproportionately impacted communities should be measured.<sup>17</sup> Many of the covered investments are similar to offerings contemplated in the clean trucking strategy, including, but not limited to:

- Reduction of GHG emissions and local air pollutants
- Increased energy efficiency programs and resources
- Deployment of clean energy technologies
- Reduction of exposure to harmful transportation-related emissions
- Access to clean, high-frequency transportation
- Access to affordable electric vehicles, charging stations, and purchase programs
- Increased bicycle and walking paths
- Increased participation in good job training programs that target participation from disadvantaged communities

The US Department of Transportation has begun implementing the order, with progress updates.<sup>18</sup>

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<sup>16</sup> Fact Sheet: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government (Jan. 27, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/>

<sup>17</sup> Executive Office of the President, Office of Management and Budget, Memorandum for the Heads of Departments and Agencies (Jul. 20, 2021), <https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf>

<sup>18</sup> U.S. Department of Transportation, Justice40 Initiative, <https://www.transportation.gov/equity-Justice40>.

As part of the Strategy, Colorado should advance a similar effort. The state should set a specific target for equity and environmental justice – such as a goal that 40 percent of the benefits of the Strategy actions flow directly to disproportionately impacted communities, as defined by House Bill 21-1266; or to individual households based on demographic criteria where appropriate. In determining what benefits to measure and how to measure them, the state should work with the Environmental Justice Task Force created by HB21-1266 and directly consult representatives of disproportionately impacted communities.

The state should then define actions to reach that goal, such as reserving a specific amount of grant funding or support for projects that reduce particulate pollution emitted within disproportionately impacted communities, and/or by setting enhanced incentive levels for such projects. When targeting specific fleets or vehicles for extra support, the state should consider not just where the vehicles are based, but where they operate. For example, on page 18 of the draft strategy, the action aimed at working with the new Enterprises to “focus on fleets located in disproportionately impacted communities,” should expand to fleets with substantial operations in disproportionately impacted communities - since the vehicles produce pollution while operating.

Finally, the state should publish an Environmental Justice scorecard and report progress on key metrics – at minimum including pollution exposures – on a regular basis.

## Use Public Resources Wisely

Public funding for clean transportation is not unlimited. The state should consciously aim to invest in programs and strategies that deliver the most progress toward climate, public health, justice and economic goals. There are several areas in the draft clean trucking strategy that should be stronger in this regard.

## Replace Old, Polluting Vehicles with ZEVs

On page 19, the Strategy states that “state agencies will support the Governor’s proposed 2022 budget that includes \$15 million for incentives to retire and replace 300-500 of the oldest diesel trucks on the road.”

The administration should direct this funding toward replacing polluting vehicles with zero-emission versions, following the logic of Governor Polis’ Executive Order B 2019-002.<sup>19</sup> This order directed state agencies to focus all remaining dollars from the \$70 million Volkswagen Settlement on “supporting electrification of transportation, including transit buses, school buses and trucks. If any additional funds are received due to settlement of other similar emissions lawsuits, CDPHE shall propose that these funds be allocated to help consumers take advantage of ZEVs in Colorado.”

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<sup>19</sup> Office of Governor Jared Polis, *Executive Order B-2019-002, Supporting a Transition to Zero Emission Vehicles* (Jan. 17, 2019), [https://www.colorado.gov/governor/sites/default/files/inline-files/b\\_2019-002\\_supporting\\_a\\_transition\\_to\\_zero\\_emissions\\_vehicles.pdf](https://www.colorado.gov/governor/sites/default/files/inline-files/b_2019-002_supporting_a_transition_to_zero_emissions_vehicles.pdf).

The order justifies this step, saying:

*There are compelling reasons to make a large-scale transition toward zero emission vehicles (ZEVs), including electric vehicles, in Colorado. Transportation is a major contributor to air pollution and one of the two primary sources of ozone precursors, which combine under the influence of sunlight to create harmful ozone pollution, contributing to continuing violations of health-based federal pollution standards in much of the Front Range. Children and adults with asthma and other chronic health conditions like heart disease and lung disease are particularly sensitive to ozone pollution. [...]*

*Electrifying our cars, buses, trucks, and other vehicles will have enormous benefits in cleaner air, improved public health, and less greenhouse gas pollution. There will also be broad economic benefits. Consumers will save money on operations by avoiding fuel costs. Moreover, accelerating the deployment of new, clean technology will encourage industry, throughout the supply chain, to further innovate and support cutting-edge jobs for Coloradans, doing everything from manufacturing batteries to building the infrastructure that supports electrification. [...]*

*there is far more to be done. In order to achieve the goals set by the state, achieve our climate targets, and reap the billions of dollars in economic benefits, we will need to accelerate transportation electrification.*

The logic behind this executive order is, if anything, more compelling today. Just as would be done with any additional pollution settlement money, new dollars should enable the transformation of the trucking sector to zero-emission technology. Investing in electric trucks offers the greatest benefits and provides important lessons learned for a large scale future transition.

## Add Guardrails to Potential Hydrogen Vehicle or Infrastructure Investments

The Strategy contemplates investments in hydrogen vehicles and fueling infrastructure. However, it states that “Additional planning is needed to identify the right quantity and mix of technologies, charging speeds, use cases, and locations for this infrastructure.” We agree that additional planning is needed, and recommend that the state set up a stakeholder engagement process with a diverse set of stakeholders to better understand and evaluate the host of economic and environmental considerations that should be resolved before moving forward with hydrogen as a component of the Strategy. These considerations include assessing the cost/benefits of hydrogen powered vehicles as compared to battery electric vehicles, certifying that hydrogen is being sourced from 100 percent emission free energy and feedstocks, evaluating hydrogen production’s impact on water sources, ensuring leakages in hydrogen transportation systems are being adequately addressed, and addressing other concerns raised by the stakeholder community.

# Conclusion

In sum, signatories to these comments believe that the following steps should be taken to strengthen the Strategy:

- Complete adoption of the Advanced Clean Trucks (“ACT”) and Low NOx Omnibus (“Omnibus”) rules in 2022, so that the rules begin in calendar year 2025;
- Set specific, actionable targets for the amount of pollution the Strategy will reduce;
- Include the 100x40 scenario’s benefits;
- Propose additional sources of funding to encourage clean truck adoption, including a Colorado Clean Fuel Standard (“CFS”);
- Propose adoption of the Advanced Clean Fleets (“ACF”) rule in 2023, to ensure a minimum level of zero-emission vehicle (“ZEV”) adoption by fleets operating in Colorado;
- Strengthen the commitment to electrify the state’s fleet, aiming for 100 percent ZEV purchases by 2035;
- Prioritize addressing infrastructure deployment barriers;
- Set specific, measurable targets for equity and environmental justice and articulate how the state will regularly report on progress; and
- Use public resources wisely by:
  - Requiring new programs to retire the most polluting trucks on the road focus on replacing those vehicles with ZEVs; and
  - Set guardrails on potential hydrogen vehicles and infrastructure investments, focusing only on applications where hydrogen comes from 100 percent zero-emission “green” sources and offers a true cost-benefit advantage over alternatives, while ensuring that there are robust mechanisms in place to measure, report, and mitigate leaks.

Signatories thank the Air Pollution Control Division, the Energy Office, and Department of Transportation for the opportunity to comment on the Strategy and look forward to continued engagement.

Colorado Sierra Club  
Colorado Working Families Party  
Conservation Colorado  
CoPIRG  
Environmental Entrepreneurs (E2)  
Electrification Coalition  
Environmental Defense Fund  
GreenLatinos  
Mi Familia Vota  
Natural Resources Defense Council  
Southwest Energy Efficiency Project  
Western Resource Advocates  
Womxn from the Mountain