

2024 Overview of the Trucking Industry Moving Toward a Cleaner Future

Presented by the
Colorado Motor Carriers Association
July, 2024

Trucking is Important Segment of Colorado's Economy

TRUCKING
 DRIVES THE
 ECONOMY



CAREERS

130,790 Trucking industry jobs in Colorado > **1 in 18 jobs** in the state



SMALL BUSINESS EMPHASIS

43,320 Trucking companies located in Colorado

Primarily small, locally owned businesses, these companies are served by a wide range of supporting businesses.



COMPETITIVE WAGES

Total trucking industry wages paid in Colorado in 2022 exceeded **\$7.9 billion**, with an average annual trucking industry salary of **\$60,429**.

Heavy and tractor-trailer truck drivers held **27,760** jobs in Colorado in 2022. The national average annual salary of an over-the-road truck driver is **\$69,387**.



TRANSPORTING THE ESSENTIALS

94.6% of manufactured tonnage transported by trucks in Colorado.
107,260 tons per day

79.4%

of communities in the state depend exclusively on trucks to move their goods.



* Information from Indeed.Com

\$ TRUCKING PAYS THE FREIGHT

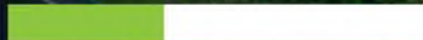


THE INDUSTRY

The trucking industry in Colorado paid approximately **\$502 million** in federal and state roadway taxes. (2019)

The industry paid **37%** of all taxes owed by Colorado motorists ...

... despite trucks representing only **6%** of vehicle miles traveled in the state.



INDIVIDUAL COMPANIES

As of January 2021, a typical five-axle tractor-semitrailer combination paid:

\$8,552 ← state highway user fees and taxes &

\$8,906 ← federal highway user fees and taxes

These taxes were over and above the typical taxes paid by businesses in Colorado.

ROADWAY USE

89,069

Miles of public roads in Colorado (2019)

Miles driven on public roads:

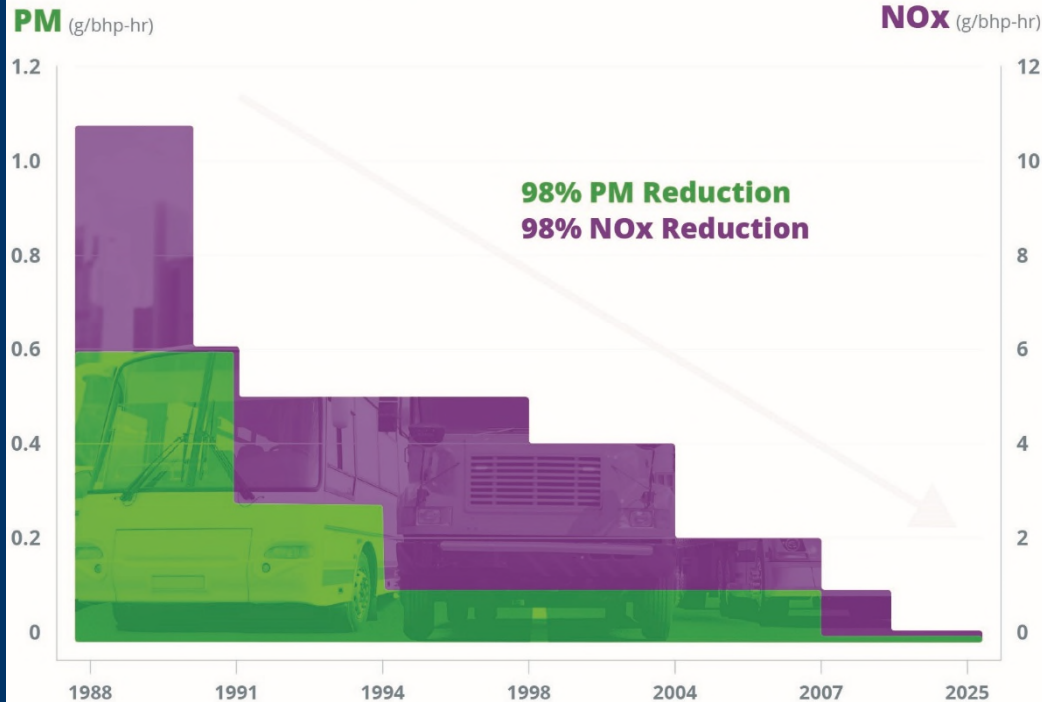
All Motorists: **54.6 billion**

Trucks: **3.4 billion**

Trucking Industry has Reduced PM and Nox Emissions in New Trucks by 98% versus 1988

CLEAN DIESEL PROGRESS

Heavy-Duty On-Highway



Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

New technology diesel trucks reduced **126 million tonnes of CO₂** emissions since 2007



Equal to removing CO₂ emissions from **26M** passenger vehicles from the road for one year or making them **zero emission** electric vehicles



Source - July 2019 U.S. Vehicles in Operation Data (Class 3-8 vehicles, Model Year 2010 and newer) provided by IHS Markit

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Environmental and Sustainability Efforts and Actions by CMCA

- **Strong Support for Cleaner Burning Vehicles and Fuels**
 - Worked on various measures since 2000 in support of cleaning burning vehicles including incentives for low emission vehicles, alternative fuel vehicles, and incentives for deployment of EPA SmartWay technologies. Major Proponent of Clean Truck Legislation in 2014 state legislation.
- **Proponent for Reducing Diesel Emissions for Existing Fleets**
 - Developed a Best Practices Manual for Diesel Maintenance aimed at reducing on-road emissions. Conducted workshops on Best Practices for Diesel Maintenance
 - Helped Pass Legislation for Statewide Guidelines for Idling
- **Major Promoter and Supporter of EPA SmartWay Program**
 - Affiliate Partner since 2007/Multi-Year Recipient of EPA SmartWay Affiliate Award
 - Worked closely with RAQC to Add Companies/Deploying SmartWay Technology
- **Created Green Fleet /Green Shipper Awards in conjunction with RAQC**
 - Annually presented to those who have made a substantial contributions to environmental sustainability efforts.



Industry Is Adopting New Sustainable Initiatives

Unilateral adoption of efficiency and sustainability initiatives across the trucking industry

- Sustainability and carbon neutral pledges
- Adoption of alternative powered vehicles in fleets
- Off-peak hours delivery
- Alternative delivery programs such as electric bikes and urban delivery solutions
- Companies are seeking to shape customer habits by advertising “green” options for shipping to customers shopping online. If customers can select longer delivery window, bundle their shipments, or designate the same day each week for home deliveries, it may be more efficient reducing VMT and overall emissions.

Transportation Emissions Include On-Road and Off-Road

On-Road

Heavy-duty vehicles	Heavy trucks and buses: large pick-ups, delivery trucks, recreational vehicles (RVs), and semi trucks	
Light-duty vehicles	Passenger cars and light trucks: minivans, passenger vans, pickup trucks, and sport-utility vehicles	

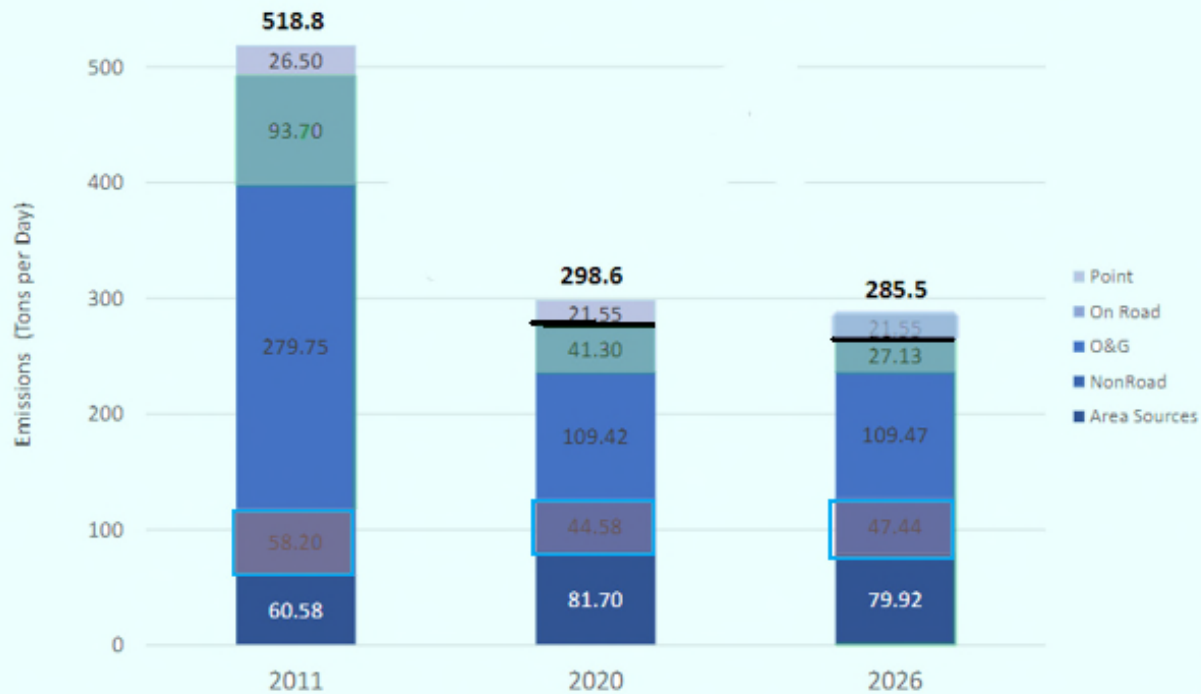
Off-Road

Nonroad CI engines and equipment	Construction and agricultural equipment: excavators, paving equipment, tractors, combines, bulldozers, and skidders	
Nonroad large SI engines and equipment	Gasoline and propane industrial equipment: forklifts, generators, airport service equipment, compressors, and ice-grooming machines	
Nonroad small SI engines and equipment	Small gasoline lawn and garden equipment: lawnmowers, leaf blowers, chain saws, and string trimmers	
Recreational engines and vehicles	Land-based recreational vehicles: snowmobiles, dirt bikes, and all-	

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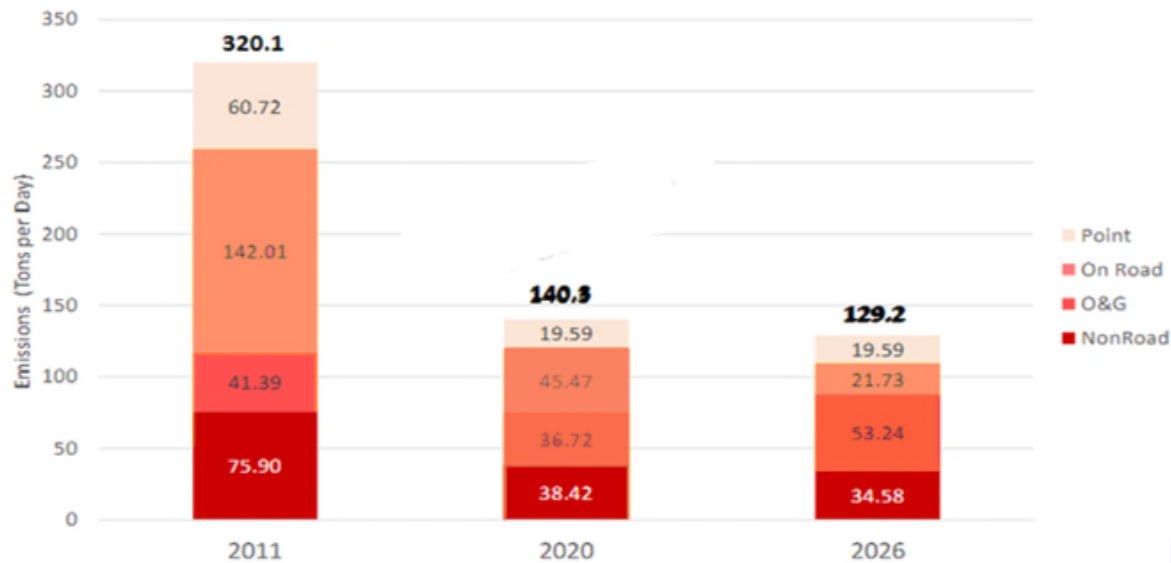
Denver Region Emission Trends for VOC

2011, 2020, 2026 Emissions Trends - VOC



Denver Region Emission Trends for NOx

2011, 2020, 2026 Emissions Trends - NOx



Trucking Industry in Colorado is Moving Toward ZEV but will take Time

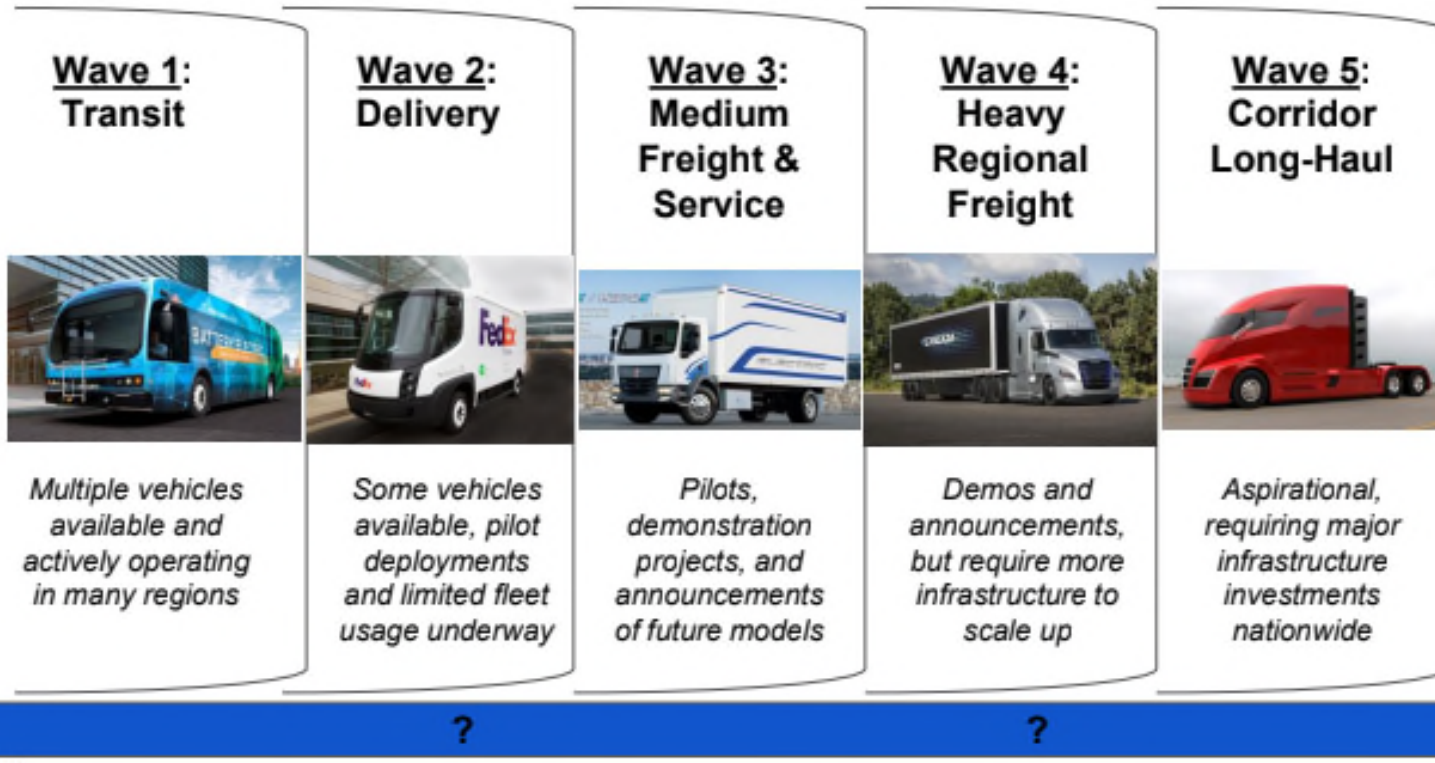
- Sysco Foods – Acquiring EV trucks for local delivery in Denver
- UPS – currently operates 350 trucks in state powered by RNG (recovered methane). Also looking to acquire EV local delivery trucks in Denver and Glenwood Springs
- Republic Waste – acquiring EV waste trucks to service Louisville
- Waste Management – more than 80% of fleet powered by RNG
- Mile Hi Foods – Purchased EV hostler tractors
- Pepsi – Purchasing 10 EV tractors
- FedEx – Looking to deploy EV delivery trucks in near future in Denver Area
- Amazon – utilizing a number of EV delivery vans today in state

Fleet Challenges for ZEV Implementation in Medium and Heavy- Duty Trucks

- **Lack of Infrastructure** - Very large power demand - Requires .75 to 1 MW to Charge EV Tractor – 1 MW = 350 homes. Plus takes 6 hours to charge
- **Cost** – EV and Hydrogen Tractors Cost two to three times that of a new diesel
- **Range** – EV tractors have maximum range of 300 miles
- **Weight** – EV tractors weigh 6K more than diesel – less freight capacity needing more trucks to move same amount of freight
- **Availability** – Uncertain timeframe for delivery of EV tractors – Colo. buyers have not yet received Teslas purchased in 2020
- **Resale Value** – Questions as to value in secondary market
- **Other** – Weather, Service Staff

Zero Emission Vehicle Phase-In

ZEVs are likely to be adopted in multiple “waves”, but we need to prepare our policies and investments now in order to maximize the benefits in future years.

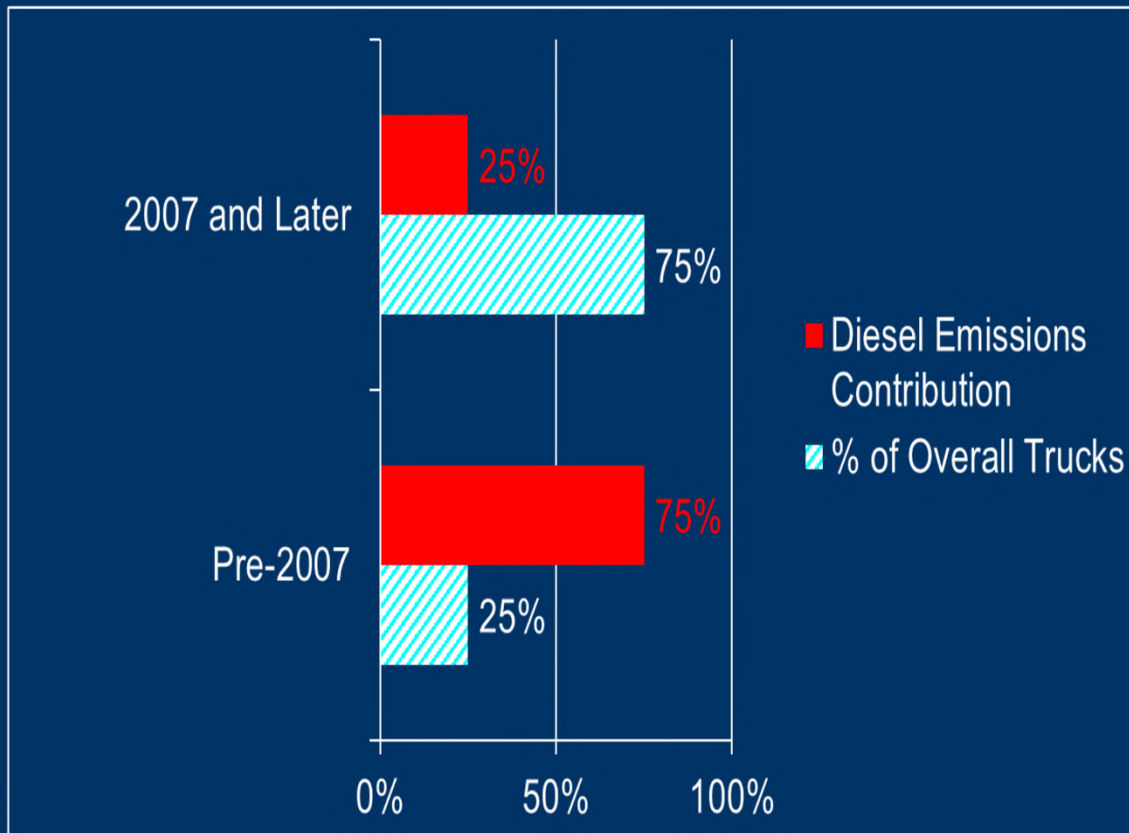


Short Term Strategies are Critical in Reducing Emissions NOW

Possible Legislative and Policy Initiatives

- ❖ Scrappage/Replacement Program for Older Diesels owned by Small Operators
- ❖ Improve Monitoring and Enhance Penalties for Diesel Emission Compliance
- ❖ Provision of Incentives for Near ZEV Technologies such as Renewable Natural Gas
- ❖ Have State Government Take Lead in Phasing out Pre-2010 Trucks in Their Fleets and on State Projects
- ❖ Provide incentives to Contractors and trucking subcontractors working on publicly-funded construction projects in non-attainment areas to operate 2010 or newer model trucks

Where does Greatest Problem Lie for On-Highway Diesel Emissions? Older Diesel Trucks



There are 273,968 MD/HD vehicles (Class 2b through 8) that are 2010 and older in Colorado. Of that number approximately 50,000 of those are larger trucks that are Class 5 through 8 which are 16,001 pounds and greater (larger delivery trucks, vocational trucks, straight trucks, truck tractors etc.).

Overview of Pre-2010 Medium and Heavy Duty Trucks in Colorado

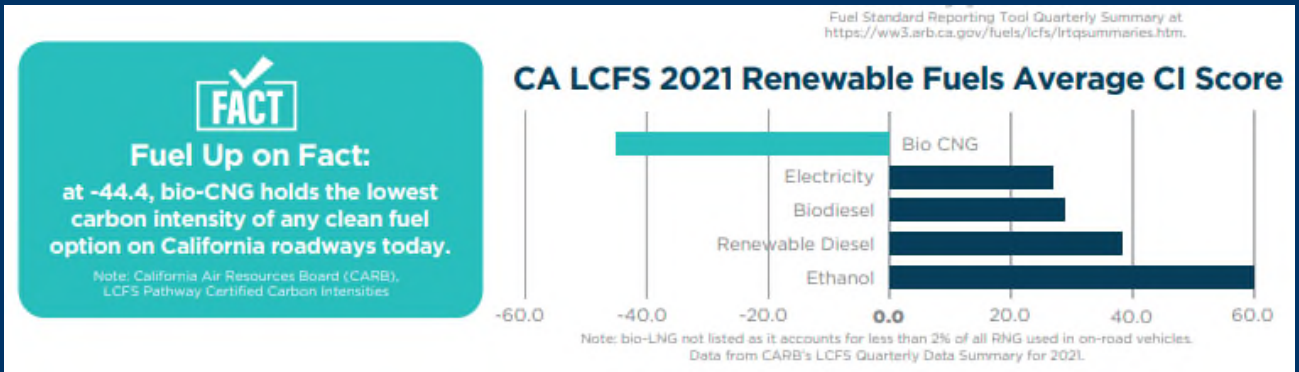
- Primarily owned by smaller companies, many of whom may be MBEs/DBEs
- Many are second or third owner vehicles
- Many of these older vehicles are based in or are proximate to disadvantaged areas
- Large percentage of these vehicles are in construction sector and many deliver materials for state and local construction projects
- In many cases companies/owners may not be in a financial position to purchase a new truck - also makes it difficult to maintain them adequately
- Operate on an irregular route basis – wherever the work is – anywhere in state or surrounding states - destinations can change weekly

Proposed Legislative Concept on Eliminating Highest Emitting Vehicles

Two Prong Approach

- Create Older Diesel Scrappage/Replacement Grant Program – Pre-2010 Medium and Heavy Duty Trucks
- Assess Increased Diesel Fee on High Emitting Trucks that are Pre-2010 to Fund Grant Program

Renewable Natural Gas is Critical Part of Solution in Reducing Emissions in Short Term



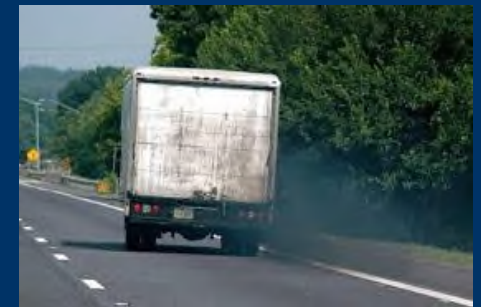
BENEFITS OF TRANSITIONING FROM DIESEL TO RNG

<p>8,000 fewer gallons of fuel</p> <p>14 metric tons of GHG emissions reduced for every diesel-powered truck replaced with RNG</p>	<p>97% reduction in NOx emissions</p> <p>94% reduction in particulate matter</p> <p>80% reduction in CO₂e emissions</p>
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Improve Diesel Monitoring and Compliance

- Need to Improve Monitoring and Compliance with Gross Emitters including:
 - Diesel Roadside Emission Testing
 - Increased Penalties for Gross Emitters and Increased Amount toward Repairs
 - Ensure that Trucks Working on State and Local Government Projects meet Emission Standards



Questions ?

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