



Frequently Asked Questions (“FAQ”) for Executive Order No. 271

FAQs related to the Order

How does E.O. 271 relate to Governor Cooper’s other climate and clean energy initiatives?

Transitioning to medium- and heavy-duty zero-emission vehicles will grow North Carolina’s clean energy economy and create good paying jobs while reducing harmful pollution and greenhouse gases.

In July of 2020, Governor Cooper joined 18 jurisdictions across the U.S. and Canada in signing the Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Memorandum of Understanding (MOU) to reduce pollution and grow the market for medium- and heavy-duty zero-emission vehicles. The MOU established zero-emission vehicle sales goals of 30% by 2030 and 100% no later than 2050. Participating jurisdictions, including North Carolina, have engaged stakeholders to develop an [Action Plan](#) outlining near-term strategies to achieve the MOU goals including zero-emission vehicle sales requirements and market incentives.

In January 2022, Governor Cooper signed [Executive Order No. 246](#) establishing new greenhouse gas and zero-emission vehicles targets and directing the state to identify pathways to achieve those targets in a manner centers environmental justice and economic opportunity including by developing the North Carolina Clean Transportation Plan. The North Carolina Department of Transportation is working with stakeholders to develop the Plan, which be finalized in the spring of 2023 and include actionable strategies for growing the medium- and heavy-duty zero-emission vehicles market.

The Cooper Administration will utilize stakeholder feedback and recommendations developed through both the MOU Action Plan and the North Carolina Clean Transportation Plan to successfully implement Executive Order 271.

How does the Advanced Clean Trucks (ACT) program work?

The overall goal of ACT is to develop a self-sustaining zero-emission truck market by requiring vehicle manufacturers to sell zero-emission vehicles as an increasing

percentage of their annual MHD sales through 2035. ACT provides vehicle manufacturers with flexibility—through credits, trading, and other features—to comply with the sales requirements as various segments of the medium- and heavy-duty zero-emission vehicles market grow at different speeds. ACT would also not apply to off-road vehicles, such as farm equipment or construction vehicles.

What are the economic benefits of Executive Order No. 271?

Executive Order No. 271 better positions North Carolina to benefit from the global market transition zero-emission vans, buses, and trucks. By helping to ensure increased availability of zero-emission medium- and heavy-duty vehicles for businesses across the state, the Order will encourage economic development, create good-paying jobs, and maximize consumer choice for small businesses. The Order may also help to ensure increased affordability long-term for zero-emission vehicles.

What are the public health and environmental justice benefits of Executive Order No. 271?

Medium- and heavy-duty gas and diesel vehicles comprise only 3.2% of North Carolina’s registered vehicle fleet, yet emit 26% of smog-forming Nitrogen Oxide emissions, 32% of Particulate Matter, and a significant portion of other hazardous air pollutants from total on-road vehicle traffic in the state. Pollution from these gas and diesel buses and trucks can worsen asthma and other cardio-respiratory illnesses, especially in children and older adults, trigger heart attacks and strokes, and lead to other negative health impacts including premature death. Implementing the Advanced Clean Truck rule will help reduce harmful pollution and greenhouse gases and mitigate adverse health impacts, which disproportionately impact underserved communities, communities of color, and low-income communities that are more likely to be located near transportation corridors and freight hubs.

In addition to advancing the Advanced Clean Trucks rule, the Order also directs the North Carolina Department of Health and Human Services (DHHS) to increase understanding and awareness of the disproportionate health impacts of transportation-related emissions on underserved communities and people of color. Specifically, the Order directs DHHS to publish information about the health and environmental justice impacts of transportation-related pollution, include air quality data and environmental justice metrics in their Health Data Dashboard, and notify stakeholders about funding opportunities to address the disproportionate health impacts of transportation-related emissions.

Which vehicles are considered “Medium- and Heavy-Duty” under the Advanced Clean Trucks program?

The ACT program would apply to vehicles with a gross vehicle weight rating that is equal to or greater than 8,500 pounds, covering a variety of vehicles ranging from delivery vans, box trucks, and garbage trucks, to school buses, and semi tractors.

What do Zero-emission Vehicles (ZEVs) include?

Zero-emission vehicles generally include battery electric vehicles powered solely by an electric motor and battery; plug-in hybrid electric vehicles powered by a combination of an electric motor and a fossil-fueled internal combustion engine; and fuel cell electric vehicles powered by an electric motor fueled by hydrogen.

Will Executive Order 271 restrict North Carolinians' ability to buy gas and diesel vehicles?

No, ACT would help to ensure that consumers have access to newly available technologies without restricting their ability to buy traditional gas and diesel-powered vehicles. Under the program, manufacturers would be responsible for offering zero-emission vehicle sales shares of 10-13% in 2026, increasing to 40-75% in 2035, depending on vehicle size.

Is the technology ready?

The market for zero-emission buses and trucks is quickly growing as the technology matures and costs decline. ACT wouldn't go into effect in North Carolina until 2026 at the earliest, when many MHD ZEVs are expected to be more affordable to own and operate than their gas or diesel counterparts. By 2030, MHD ZEVs are expected to be more affordable to own and operate than gas or diesel vehicles for applications in all weight classes. These projections don't account for government subsidies and other policy supports, including significant funding authorized through the federal Infrastructure Investment and Jobs Act and the Inflation Reduction Act of 2022.

What is the current availability of medium- and heavy-duty zero-emission vehicles?

Automakers are increasingly investing in the production of zero-emission vehicles and committing to phasing out the production of internal combustion engine vehicles. More than 125 medium- and heavy-duty zero-emission models are currently available in North America, and this number is expected to exceed 240 models by 2023. Altogether, more than 55 manufacturers have announced plans to produce medium- and heavy-duty zero-emission vehicles in the next few years, powered both by batteries and by hydrogen fuel cells.

Many businesses are also committing to transitioning their vehicle fleets to zero-emission vehicles to remain economically competitive, save money, and achieve sustainability goals. In the growing e-commerce space companies like Amazon, IKEA, DHL, FedEx,

and UPS are among the earliest adopters of electric delivery vans and together have placed orders for more than 100,000 commercial medium-duty ZEVs that will be used for last-mile deliveries.

What funding is available to support the transition to medium- and heavy-duty zero-emission vehicles?

Federal legislation, including the 2021 Infrastructure Investment and Jobs Act and the Inflation Reduction Act of 2022 (IRA), have authorized unprecedented investment of billions of dollars in tax credits, rebates, grants, and loan programs supporting the manufacturing and adoption of medium- and heavy-duty zero-emission vehicles. These investments will reduce price, grow the market, and encourage significant demand for medium- and heavy-duty zero-emission vehicles. For example, the IRA authorized the Qualified Commercial Clean Vehicle Tax Credit of up to \$40,000 per vehicle to replace gas or diesel vehicles with a ZEV.

At the State level, the North Carolina Department of Environmental Quality is investing \$93.5 million across the state in charging infrastructure and the replacement of heavy-duty vehicles with cleaner alternatives through the Volkswagen Settlement program.

What other states have adopted an Advanced Clean Trucks Program?

California, Oregon, Washington, New York, New Jersey and Massachusetts have adopted an Advanced Clean Trucks program. These 6 states represent 20% of the nation's trucking fleet. Several other states are either considering or actively pursuing adoption of an Advanced Clean Trucks program.

With other states adopting ACT, could North Carolina be left behind if we don't adopt it?

Yes. As manufacturers work to meet ZEV sales requirements in states that have adopted ACT, these vehicles could become more scarce and costly in North Carolina. Adopting these rules keeps us ahead of the curve and helps ensure the availability of vehicles at lower prices.