

Advanced Clean Trucks (ACT) and Heavy-Duty Low NOx Omnibus (HDO) Rulemaking

All communities need and deserve clean air.

The transportation system is a major contributor to local and global air pollution. To address the climate and environmental justice crises, we must electrify medium- and heavy-duty trucks and buses immediately. The Advanced Clean Trucks (ACT) Rule and the Heavy-Duty Low NOx Omnibus (HDO) Rule give states the power to act now to protect disadvantaged communities and future generations.

Background:

For decades, the freight industry has unleashed harmful pollution into communities across the country. Forty-five million Americans are exposed to truck and bus pollution by working, living, or attending school near major roads, airports, or railroads, and there are significant differences in the way in which different racial groups are impacted by vehicular pollution. A Union of Concerned Scientists [study](#) shows that Asian-American, Black, and Latino residents in MA are disproportionately burdened with air pollution from vehicles. Respectively, they face 36, 34, and 26 percent, higher exposures when compared with their white counterparts. To move towards a future with clean air for all, we need strong regulatory standards and policies for medium and heavy-duty vehicles across the country that will reduce tailpipe pollution and promote an all-electric transportation future. The ACT and HDO rules are essential policy tools for achieving significant reductions in air pollution within the commercial transportation sector while accelerating the growth of the green economy.

National Context:

California made history in 2020 by adopting the nation's first clean truck rule, an effort led by directly impacted environmental justice communities. Federal law requires California to file a "waiver" request with the Environmental Protection Agency (EPA) so its regulations can enter effect. The waiver also authorizes other states to adopt standards for new vehicles that are identical to the California standards. Since California's ACT rule was adopted, fifteen states signed an MOU setting landmark goals for zero-emissions trucks. Under this agreement, the participating states committed to adopting policies and regulations to help make at least 30 percent of all new MHD trucks ZEVs by 2030 and are in the process of developing an Action Plan that will outline various policies and approaches to accelerate the deployment of zero-emission MHDVs. Adoption of regulatory standards such as the ACT is expected to be a top priority, and we hope this letter along with media attention will help cement that. Five of these states, including Massachusetts, New Jersey, New York, Washington, and Oregon, have also begun the process to have the ACT rule adopted in 2021.

What is the Advanced Clean Trucks (ACT) Rule?

The ACT rule is one part in a holistic approach towards electrifying medium- and heavy-duty vehicles ([Class 2b-8](#)). It requires manufacturers to sell zero tailpipe emission vehicles as an increasing percentage of their annual sales beginning in 2024, reaching 30-50% by 2030 and 40-75% by 2035, varying by vehicle type. It would also require companies and fleets to report on their operations to inform future MHD electrification strategies. By including large pickup trucks, delivery trucks and semi-trucks, the ACT rule will help transform the entire freight industry to reduce harm to our communities, especially those most burdened by air pollution.

What is the Heavy-Duty Low NOx Omnibus (HDO) Rule?

The Heavy-Duty Low NOx Omnibus Rule will comprehensively and substantially reduce toxic air pollution from fossil fuel heavy-duty vehicles. Beginning in 2024, these stricter air pollution standards--that serve to complement the ACT rule--will cut approximately 75% of NOx emissions from trucks and 90% by 2027. Additionally, new warranty and testing procedures will better reflect real-world driving.

- The new standard will help to reduce adverse health impacts and improve air quality throughout the state.
- A recent report in Washington state found that together with the ACT rule, the HDO rule will result in up to 288 avoided premature death and 242 avoided hospitalizations statewide as well as provide total statewide health benefits of approximately \$3.364 billion ([M.J. Bradley & Associates, 2021](#)). We could see similar benefits here in Massachusetts.

Massachusetts Context:

The Massachusetts Department of Environmental Protection (MassDEP) held two stakeholder meetings at the end of April, 2021 to show that they are considering adopting the ACT and HDO rules. While MassDEP has not yet released a formal timeline for the rule adoption process, we expect that a public comment period will occur in October or November with the rules formally adopted by the end of 2021.

Why We Need Zero-Emission Vehicles:

- Nearly five million people live or work close to transportation corridors where they are exposed to high levels of diesel exhaust, with much of these emissions coming from trucks.
- Heavy-duty vehicles emit 45% of the U.S. transportation sector's nitrogen oxide (NOx) pollution and 57% of its fine particulate matter (PM2.5) pollution.
- Electric trucks do not emit NOx, PM2.5, or climate pollution during vehicle operation. Gas-powered vehicles are a leading source of GHG emissions and harmful air pollution in Massachusetts. Zero-emission vehicles (ZEVs), like electric vehicles, dramatically reduce both local and lifecycle GHG emissions and other air pollutants.

- Living within just one third of a mile of a highway or close to ports, warehouse distribution centers or other freight corridors is devastating for respiratory health and can cause premature deaths.
- NOx is a precursor to smog which can cause or exacerbate numerous respiratory and other health ailments and is also associated with early death.
- The technology to do this is [available today](#) and makes sense for many classes of medium and heavy duty vehicles, with [similar if not cheaper total ownership costs](#). Rules like the ACT and HDO can ensure that we use these technologies and see these desperately needed health benefits.