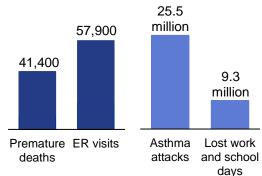


EPA Vehicle Standards Will Reduce Harmful Pollution and Save Thousands of Lives

Updated March 2024

On April 12, 2023, the Environmental Protection Agency (EPA) proposed more protective air pollution and greenhouse gas emissions standards for light-, medium-, and heavy-duty vehicles for model years (MYs) 2027 through 2032. The two rules are both expected to be finalized in March 2024. The rules, when finalized, will significantly reduce harmful air and climate pollution. In its proposed rules, EPA projected the emission reductions the new performance-based standards will deliver. We have used those values along with health incidences-per-ton analysis to understand the magnitude of health and illness reduction benefits the rules will likely deliver. Collectively, we estimate these rules would avoid 41,400 premature deaths, 63,600 emergency room visits, 25.5 million asthma attacks, and 9.3 million lost work and school days.

Estimated Cumulative Illness Reductions Due to Proposed EPA Vehicle Standards (2027-2055)



VEHICLES POLLUTION BURDENS FRONTLINE COMMUNITIES DISPROPORTIONATELY

The health burden from car, truck, and bus pollution is substantial, causing thousands of premature deaths each year and adverse health impacts from infants to older adults. Those who live closest to our nation's roads and highways, ports, distribution centers, freight depots, and other sources of vehicle pollution face the greatest harms. EDF worked with researchers to study diesel truck and bus pollution in Atlanta and New York, measuring the disproportionate impacts from our transportation system that communities of color and low-income communities experience. More protective EPA standards will produce

significant health benefits and are a vital step to reducing the pollution that significantly burdens frontline communities.

POLLUTION BENEFITS OF VEHICLE EMISSIONS STANDARDS

The two clean vehicle standards will dramatically reduce harmful air pollution. Collectively, EPA projects between 2027 and 2055 the proposals would reduce:

- 260,000 tons of fine particulate matter (PM_{2.5})
- 2.1 million tons of nitrogen oxides (NOx)
- 12,000 tons of sulfur dioxide (SO₂)
- 3.9 million tons of volatile organic compounds (VOCs)

Between 2027 and 2055, EPA projects these two standards will also reduce climate pollution by nearly 10 billion metric tons (CO2), including 7.3 billion metric tons from EPA's light- and medium- duty proposal and 1.8 billion metric tons from EPA's heavy-duty proposal. For context, that is roughly two times the annual greenhouse gases the U.S. emits each year from all sources.

HEALTH BENEFITS OF VEHICLE EMISSIONS STANDARDS

To quantify the health benefits from the two proposed EPA standards, we looked at projected changes in primary PM_{2.5}, PM_{2.5} precursor (NOx and SO₂), and ozone precursor (NOx and VOC) emissions. Consistent with EPA methods, EDF used the cumulative changes for vehicle tailpipe, refinery, and electricity generating unit emissions and multiplied the emission changes with the sector specific 2040 national incidence-per-ton factors for each health outcome (e.g., premature mortality). This resulted in changes in health outcomes for each emission source for each rule. The EPA methodology includes a high and low value. Presented here is the high value.

Using this methodology, we estimate that, collectively the two rules would prevent:

- 41,400 premature deaths
- 63,600 hospital and ER visits
- 25.5 million asthma attacks
- 9.3 million lost workdays and school absences