

Fuel Economy and Emissions Standards for Cars and Trucks, Model Years 2017 to 2025

A critical step to reducing oil use and global warming emissions

The Obama administration made history by setting standards that will nearly double the fuel economy of new cars and light trucks by 2025.¹ The second round of fuel efficiency and global warming pollution standards for light duty vehicles, finalized in 2012 by the Environmental Protection Agency and National Highway Traffic Safety Administration, covers model years (MY) 2017 to 2025. This second round builds on the success of the MY 2012 to 2016 standards, which are already benefitting car buyers nationwide.

These standards will reduce America's oil consumption, save consumers money at the gas pump, and protect public health and the environment by curbing global warming pollution. They will also help spur investments in new automotive technology, creating jobs and helping sustain the

BOX 1.

Review of Light-duty Vehicle Fuel Economy and Global Warming Emissions Standards

Under the authority given to the National Highway Traffic Safety Administration (NHTSA) by Congress, NHTSA may not set standards for more than five years at a time. To align the NHTSA program with the global warming emissions program administered by the Environmental Protection Agency (EPA), NHTSA issued non-final, "augural" standards for MY 2022 to 2025 and laid out the framework for a process by which the federal agencies would review the standards for MY 2022 to 2025.

This "mid-term review" will examine a wide range of factors, including technology development and deployment, vehicle electrification, safety impacts, consumer acceptance, fuel prices, and employment impacts.

Through this process, EPA will determine whether standards for MY 2022 to 2025 should be strengthened, weakened, or kept the same, and NHTSA will finalize its standards for MY 2022 to 2025. This process will help shape the future of the auto industry, setting a trajectory that will not end with the current regulations in 2025 but continue towards further reductions in fuel use and emissions in 2030 and beyond.

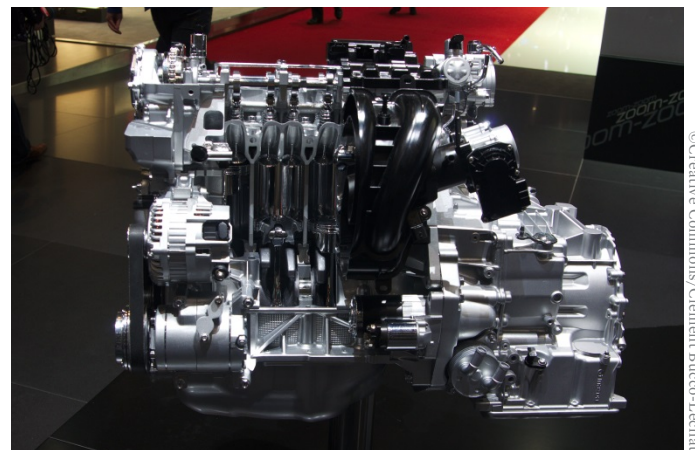
No other federal policy is delivering greater oil savings, consumer benefits, and global warming emissions reductions than these two rounds of standards.

recovery of the American auto industry.

No other federal policy is delivering greater oil savings, consumer benefits, and global warming emissions reductions than these two rounds of standards. That is why automakers, unions, consumer organizations, national security experts, environmental groups, and science-based organizations all stood in support of these standards when they were finalized.

Clean Car and Truck Standards Mean Reduced Oil Consumption, Global Warming Emissions

Nearly doubling the average fuel efficiency of new cars and light trucks is the single biggest step our nation can take to reduce oil use. Without oil-saving steps like these standards,



Vehicle standards have helped spur the development of new technologies like the Mazda SKYACTIV engine, which is up to 15 percent more efficient than the engine it replaced. The mid-term review will examine the 2022–2025 standards in the context of such developments, including looking at innovations unforeseen by regulators when the rules were finalized.

the United States would be stuck spending, economy-wide, nearly \$2 billion every day on dirtier, harder-to-reach oil. The good news is that we don't have to choose that reality. Instead, we can cut our projected oil use in half over 20 years by combining the MY 2017 to 2025 standards with other smart policies and investments in better technology (UCS 2012).

The second round of fuel efficiency standards alone will cut oil consumption by nearly 1.5 million barrels per day—about 23 billion gallons of gasoline annually—by 2030. When combined with the first round of standards, Americans will see total oil savings in 2030 of 2.4 million barrels per day, which is roughly equal to the current imports from the Persian Gulf and Venezuela combined.

Clean Car and Truck Standards Mean Serious Savings for Consumers

Making our cars and trucks go farther on a gallon of gasoline is a powerful way to save Americans millions of dollars every day. With these standards, consumers will keep more money in their pockets instead of spending it on gas, even after accounting for the cost of fuel-saving technology. In fact, since most consumers finance the purchase of their new vehicle, they will save money from the moment they drive off the lot, with fuel savings that will be greater than the increase in their monthly loan payments.



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Even with low gas prices, consumers stand to save at the pump. A new car buyer will save about \$6,000 over the lifetime of a new 2025 vehicle.

The MY 2017 to 2025 standards will save consumers about \$50 billion in 2030. Adding the in the first round of standards brings the savings to nearly \$130 billion in that year alone. When compared to a typical vehicle on the road today, a new car buyer will save about \$6,000 over the lifetime of a new 2025 vehicle, even after paying for the more fuel-efficient technology.²

Clean Car and Truck Standards Mean Jobs for American Workers

The MY 2017 to 2025 standards will result in more jobs for Americans, both in the automotive sector and throughout the economy.

Investments in technology to meet the new standards will create jobs in the auto-manufacturing sector as companies hire more workers to design and build more efficient vehicles. As Americans spend less money on gasoline, they will spend more in other, more productive, parts of the economy, generating new jobs in the service, sales, and manufacturing sectors.

Analysis shows that these standards will create an estimated 650,000 jobs (full-time equivalent) throughout the U.S. economy by 2030, including 50,000 in light-duty vehicle manufacturing (parts and vehicle assembly).³

Clean Car and Truck Standards Mean Cleaner Air and a Healthier Environment

For every gallon of gasoline saved as a result of the standards, approximately 24 pounds of global warming emissions are avoided. Drilling, refining, and distributing gasoline account for nearly 5 pounds of global warming emissions per gallon of gasoline, and burning gasoline during vehicle operation produces another 19 pounds of emissions per gallon.

The MY 2017 to 2025 standards alone would reduce global warming emissions by 280 million metric tons in 2030. Combined with the first round of standards, that means 470 million metric tons of avoided emissions, equivalent to shutting down 136 typical coal-fired power plants for an entire year.

Union of Concerned Scientists

FIND THE FULLY REFERENCED VERSION ONLINE: www.ucsusa.org/midtermreview

The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with citizens across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

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ENDNOTES

- 1 The actual Corporate Average Fuel Economy (CAFE) standard is expected to be about 49.6 miles per gallon in 2025, with the remaining 5 miles per gallon-equivalent reached through improvements to in-car air conditioners (better efficiency, reduced leaks, and the use of refrigerants with a lower impact on the climate). Because CAFE compliance tests do not reflect real-world driving, the average on-road fuel economy for new cars and light trucks is expected to be about 36.6 mpg by 2025, up from 21.7 mpg for the average vehicle on the road today (EIA 2016).
- 2 Fuel savings calculation based on the following assumptions: base vehicle fuel efficiency of 28.4 miles per gallon on government tests (approximately 22.6 mpg on-road), with lifetime mileage of approximately 205,000 miles; efficient 2025 vehicle with an average on-road fuel economy of 36.6 mpg (UCS 2011); projected fuel prices according to the Energy Information Administration (2015); future fuel costs and savings discounted at an annual rate of 4.5 percent, consistent with the average annual rate of return of the Dow Jones Industrial Average between 1992 and 2012; and a 10 percent rebound effect for mileage under increased fuel efficiency.
- 3 Jobs created estimated by using updated calculations of vehicle expenditures and fuel savings, extrapolating macroeconomic analysis (Ceres 2011, ACEEE and BGA 2012) using multipliers. The sector-specific value for automotive sector jobs is taken directly from BGA 2012, likely representing an underestimate.

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