Comments of the Center for Climate and Energy Solutions on the Reconsideration of the Final Determination of the Mid-term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022-2025 Light-Duty Vehicles; Request for Comment

United States Environmental Protection Agency

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This document constitutes the comments of the Center for Climate and Energy Solutions (C2ES) on the Proposed Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation. C2ES is an independent, nonprofit, nonpartisan organization dedicated to advancing practical and effective policies and actions to address our global climate and energy challenges. As such, the views expressed here are those of C2ES along and do not necessarily reflect the views of members of the C2ES Business Environmental Leadership Council (BELC).

Context for Comments

Greenhouse Gas Emissions

Transportation accounts for more greenhouse gas (GHG) emissions than any other economic sector in the United States, and GHG emissions from the sector are rising as the miles driven by U.S. consumers increases. Light-duty vehicles produce more than 60 percent of GHG emissions within the transportation sector. Strong federal standards on light-duty vehicle fuel economy and GHG emissions are necessary to promote innovation that will lead to meeting U.S. climate goals established under the Paris agreement. C2ES applauds the collaborative approach that industry and the federal government demonstrated in developing fuel economy and GHG standards in 2012 and recommends that the EPA continue to creative incentives for innovation that reduces GHG emissions.

Competing Standards

Under Section 209 of the Clean Air Act, California shall be granted a waiver to adopt and implement its own vehicle emissions standards. California has agreed to harmonize its standards with the EPA's GHG standards and NHTSA's Corporate Average Fuel Economy standards through 2025. The California Air Resources Board affirmed California's commitment to vehicle fuel economy standards in its midterm review of vehicle standards, finding that current and projected standards are both technologically and financially feasible.

The state of California plans to preserve its right to set its own vehicle standards through its Clean Air Act authorization. Altering the accepted vehicle standards through 2025 would create a mismatched set of standards between California, the largest vehicle market in the United States, and the rest of the nation. Altering current vehicle standards would also create mismatched standards with more than a dozen other states that have adopted identical vehicle emissions standards to California's as authorized by section 177 of the Clean Air Act. These states are not required to seek authorization for adopting California's standards, thereby creating a potentially inefficient "patchwork" of competing vehicle standards across the United States.

Preference for Market-Based Policy

C2ES believes market-based policies—such as the crediting systems used in the EPA's and NHTSA's standards – are the most efficient and effective way of reducing GHG emissions and spurring clean energy development and deployment. Properly-designed market-based policies create an appropriate division of labor in addressing climate change, with the law establishing the overarching goal of reducing GHG emissions, and private industry determining how best to achieve that goal. Under market-based policies, the government neither specifies a given company's emission level nor requires the use of any given technology—both of these questions are determined by the company itself. Beyond providing an incentive for the use of best available technologies, market-based policies provide a direct financial incentive for inventors and investors to develop and deploy lower-cost, clean energy technologies, and leave the private market to determine technology winners and losers.

Economic Benefits

The flexible design that the national crediting system uses demonstrates the potential for varying solutions to reducing vehicle GHG outputs. Automakers have pursued multiple technologies, including new engine design, inclusion of lightweight materials, and advanced battery or drivetrain systems. These private firms may continue to innovate and to develop new technologies to meet agreed-upon standards through 2025, whereas reducing or delaying vehicle fuel economy or GHG goals may inhibit innovation.

Innovation will benefit the automotive industry and create new economic opportunities for American workers. New vehicle sales in the United States have grown consistently over the past seven years, set new records in 2015 and 2016. During this period, vehicle fuel economy and GHG standards required automakers to innovate and improve the efficiency of their vehicles. Commitments to innovation have had positive economic impacts—a report on clean vehicle technologies finds that vehicle standards directly support 288,000 engineering and manufacturing jobs in 1,200 plants in 48 states.

Electric Vehicle Commitments

As a consequence of the market-based innovation set forth by the EPA's and NHTSA's vehicle standards, as well as to meet California's Zero Emission Vehicle (ZEV) program, automakers have developed and introduced mass-market electric vehicles (EVs). Though the market is less than seven years old, EVs constitute one percent of new vehicle sales in the United States. Several automakers have committed to the new technology, with leading U.S. manufacturer General Motors stating that his company believes the future is "all-electric." General Motors' commitment to electrification has had immediate and positive impacts on the U.S. economy—the automaker opened a new plant in Michigan to produce its award-winning Chevy Bolt. The production of the Bolt attracted investment in a new battery and parts manufacturing plant in Michigan that will employ nearly 300 workers.

Foreign governments have also committed to electrification, proposing bans on new vehicles powered solely by gasoline and diesel. These bans may close large foreign vehicle markets to U.S. manufacturing firms that do not innovate and develop alternative drivetrains that reduce GHG emissions. EVs and gasoline-powered hybrids are qualified and creditable technologies under current vehicle GHG and fuel economy standards. Incentivizing the development of new electrified technologies would benefit automakers' ability to compete internationally while simultaneously reducing GHG emissions and criteria air pollutants in the United States.

Comments Specific to EPA Requests

Endangerment findings

The EPA has requested comments on the applicability of section 202(a) of the Clean Air Act, which states that the EPA Administrator shall regulate air pollution from motor vehicles that may be reasonably anticipated to endanger public health or welfare. The endangerment finding signed by the EPA in December 2009 recognizes carbon dioxide and other GHGs as a threat to public health and the welfare of future generations. As the EPA declares on its website, the endangerment finding is linked to the development of GHG emissions standards. Because GHG emissions are harmful to human health and wellbeing, a finding that the EPA upheld in 2010, strong federal GHG and fuel economy standards are needed to protect current and future generations.

Considerations of Cost and Time

The second phase of federal vehicle standards, covering the years 2017-2025, were established in 2012. Companies agreed to standards that allowed for at least a decade of lead time to develop and promote the adoption of new vehicle technologies that would meet the standards set for vehicle model years 2022-2025. The innovations that automakers have developed have been successfully implemented into vehicles—the EPA's Technical Analysis Report found that automakers had over-complied with fuel economy and GHG regulations through 2016 while also selling a record number of vehicles, meaning that consumers had readily adopted new technologies that improve fuel economy and reduce GHG emissions. The TAR also found that projected costs of compliance for model years 2022-2025 would be lower than initially expected in 2025. The California Air Resources Board concurred in its findings, and even argued that compliance costs would be lower than the EPA's estimates when additional advanced technologies are included in estimates.

Flexibilities

To help automakers meet vehicle standards, and to help promote innovation in a wide array of GHG reduction technologies, federal vehicle standards offer several flexibilities. Earning and banking credits earned from 2012-2016, when automakers over-complied with standards, can be applied to later model years to help ease concerns new credit generation in later years. The standards also allow for credits earned for improvements to air conditioning and for off-cycle credits that make use of new technologies that are not yet recognized or measured by testing. These flexibilities allow automakers to continue to innovate and meet agreed-upon GHG and fuel economy standards.

Though alternative fuel vehicle development is not required under the EPA's or NHTSA's standards, automakers are rewarded with credit multipliers for GHG emissions reductions. Compressed natural gas vehicles, hydrogen fuel cell vehicles, plug-in hybrid electric vehicles, and all-

electric vehicles are eligible for credit multipliers worth up to two vehicles. As automakers commit to producing EVs at large scale, these multipliers will help manufacturers meet their GHG emissions compliance targets under federal standards. Though NHTSA does not offer multipliers for alternative fuel vehicles, the estimated fuel economy for these vehicles is set at a high level that will also aid automakers to meet their vehicle fuel economy targets.

Consumer Behavior

U.S. fuel economy and greenhouse gas standards exist because individual drivers tend to value savings from fuel economy much less than society as a whole, which leads to more oil consumption than would occur if societal benefits were taken into account. The benefits to society of higher fuel economy include, but are not limited to, reduced impacts on global climate, improved energy security, and overall consumer savings. But those benefits are not top of mind when a consumer buys a car.

Demonstrating the impacts of the Rebound Effect, the drop in oil prices since the middle of 2014 has coincided with consumers driving greater distances and not prioritizing improvements in fuel economy. Automakers have expressed concern that consumers will not spend more money on advanced vehicle technologies, yet consumers have spent more money on fuel and vehicles that could have been saved. Consumers have shown that they will spend more money irrationally on vehicles and fuel, so the impacts of technology costs on vehicle purchasing choice may not be clear. EPA estimates that new technologies in a model year 2025 vehicle will carry an average of $910 in incremental costs, but also estimates that these vehicles will save consumers more than $1,600 over their lifetimes.

This development demonstrates two critical lessons:

1. Strong federal vehicle fuel economy and GHG standards are necessary to help improve the rationality of consumer choices while improving environmental outcomes; and
2. Consumers opted to spend more money on vehicles and fuel, calling into question concerns about consumer spending on new vehicle technologies.

Statement by C2ES President and Former Acting Director of EPA, Bob Perciasepe

Federal fuel economy standards are improving air quality, reducing U.S. reliance on oil imports, and saving drivers money.

Working together, industry and the government crafted a roadmap for fuel economy standards through 2025. Automakers have been meeting the standards, with stronger and lighter materials, hybrid-electric drivetrains, alternative fuels, and other technological innovations. These innovations have occurred at the same time automobile sales in the U.S. have reached record highs and employment is increasing in high technology vehicles. As other nations seek greater fuel efficiency, U.S. automakers should not risk losing their growing competitive global advantage.

Moving to re-evaluate standards for model years 2022-2025 should demonstrate that the technological innovation achieved by the auto industry can continue to advance, providing ample basis for strong standards.

It would be a mistake to use the re-evaluation to remove incentives for advancing innovation. It would also be a mistake to inhibit state and local innovation.

States should continue to lead if they desire to, and we should not harm states' rights to choose cleaner air and innovative vehicle markets.

The administration should also look to partner with local and state governments to improve transportation systems, helping us reduce the miles we all drive every day. With local action and federal action combined, a more comprehensive approach can continue to reduce emissions, reduce oil imports and save money for every driver.

References

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C2ES Perciasepe Statement