EPA's Clean Cars Standards: Solid First Steps Toward Electrification

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Introduction

Transportation is the largest source of greenhouse gas (GHG) emissions in the US. On August 5, 2021, the Environmental Protection Agency (EPA) released the proposed Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards,[1] the agency's third revision to GHG emissions standards for cars since they were first set in 2010. In this proposal, EPA seeks to make up for gains lost with the Trump-era weakening of the standards in its Safer Affordable Fuel Efficient (SAFE) Vehicles Rule and to set a path to more aggressively push the automotive industry toward electrification.

This proposal would start by shifting the industry toward meeting the Obama-era emission standards and then move to more stringent standards by 2026. EPA projects that electric vehicles (EVs) will represent 8 percent of the market share by model year 2026 (MY 2026).[2] Its proposal includes important compliance flexibilities for the new standards through MY 2026, but EPA's repeated references to a more stringent future rulemaking signal to automakers that they may not be able to rely on a large share of gasoline-powered vehicles to comply after MY 2026. In the near term, however, EPA's approach would enable the industry to work toward the ultimate goal of significant electrification while still making emissions improvements within its gasoline-powered fleet.

These new GHG standards would complement other efforts by the administration designed to incentivize the transition to EVs. For example, the same day that EPA released its proposed rule, President Biden signed the executive order (EO) on Strengthening American Leadership in Clean Cars and Trucks setting a goal that 50 percent of new cars and light-duty trucks sold in 2030 will be zero-emission vehicles.[3] This follows announcements by several companies (e.g., General Motors, Volvo, Volkswagen, Honda, Ford, Fiat, Mercedes-Benz) to reach carbon neutrality or target shifting their sales toward zero-emission vehicles. The National Highway Traffic Safety Administration (NHTSA) is also

[1] 86 Fed. Reg. 43,726 (Aug. 10, 2021).

[2] 86 Fed. Reg. at 42,731.

[3] To achieve that target, the EO directs EPA and NHTSA to consider rulemakings under the Clean Air Act and Energy Independence and Security Act of 2007, respectively, that are consistent with applicable laws and extend and establish new emission standards for light-, medium- and heavy-duty vehicles and trucks through 2030. The Order directs EPA to propose standards for NOx emissions from heavy-duty vehicles by January 2022 and issue a final rule by December 2022. For GHG emissions and NHTSA's fuel efficiency standards, the Order targets final rules by July 2024. The Order also directs EPA and NHTSA to coordinate with each other as well as the Departments of Commerce, Labor, and Energy, and recognizes the expertise and role of California directing EPA to coordinate with California and other states that are "leading the way in reducing vehicle emissions."

expected to release Corporate Average Fuel Economy (CAFE) standards in a separate rulemaking under the Energy Independence and Security Act (EISA) soon.[4] Through these related actions, the administration is making clear that it intends for automakers to achieve their commitments to decarbonize and for EPA and NHTSA to develop broader rulemakings to ensure they do.

Each of these steps are critical to the Biden administration's new target for the US to achieve a 50 to 52 percent reduction in GHG emissions from 2005 levels by 2050. Given the transportation sector's share of US emission, clear and legally durable regulatory actions to lock in deep reductions will be important for the Biden administration to establish.

In addition to creating a path toward a technology-forcing rule, EPA's proposal is designed to withstand inevitable court challenges. EPA's emphasis on technical feasibility, compliance flexibility, consistency with prior rules' underlying modeling and cost benefit analyses, and on returning to the core purpose of the Clean Air Act (CAA) will provide strong support for the rule in court.

In this analysis, we discuss the legal underpinnings of the proposal, how they differ from the Trump administration's approach in the SAFE Rule, how EPA prepares for legal challenges in its proposal, and how this rule fits into the Biden administration's broader legal and policy goals.

History of GHG vehicle emissions regulation

Under section 202(a) of the CAA, EPA has an obligation to regulate emissions of air pollutants from new vehicles once it finds that those emissions cause or contribute to air pollution it reasonably anticipates will endanger public health or welfare.[5] If first did this for GHG emissions in 2009.[6] When setting GHG standards for light-duty vehicles, EPA must consider more than simply the reduction in GHG emissions gained by the rule. Its standards must also be technically feasible, requiring the agency to consider technology effectiveness, costs to the regulated entities, and the lead time necessary to implement the technology.[7] EPA may also consider other factors (as it has done in prior rulemakings) such as the impacts on non-GHG emissions, oil conservation, and energy security; any resulting fuel savings by consumers; impacts on the auto industry; and other relevant factors such as safety, vehicle up-front and operational costs, and broader economic impacts.[8]

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[4] The Office of Information and Regulatory Affairs (OIRA) under the Office of Management and Budget completed its review of the NHTSA proposal on August 4, 2021.

[5] 42 U.S.C. § 7521(a)(1).

[6] 74 FR 66,496 (Dec. 15, 2009). The endangerment finding was issued in response to *Massachusetts v. EPA* (549 U.S. 497 (2007), which affirmed EPA's authority to regulate GHG emissions from motor vehicles.

[7] 42 U.S.C. § 7521(a)(3)(A).

[8] 42 U.S.C. § 7521(b)(1)(C) ("The Administrator may promulgate regulations under subsection (a)(1) revising any standard prescribed or previously revised under this subsection, as needed to protect public health or welfare, taking costs, energy, and safety into account. Any revised standard shall require a reduction of emissions from the

Section 202(a) standards can only take effect "after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period."[9] Considering lead-time and cost means that EPA must build in time for compliance and that the agency can incorporate mechanisms to provide compliance flexibility for automakers. In the proposal, EPA argues that feasibility and reasonableness requirements do not prevent it from enacting technology-*forcing* standards that it believes the industry can achieve in the time given to do so.[10]

EPA first set GHG emissions standards for light-duty vehicles under the CAA Section 202(a) in 2010. These standards, expressed in grams per mile of a given pollutant, limit the amount of GHGs that can be emitted by cars and light trucks. NHTSA has set fuel efficiency standards for cars and light trucks since 1975 under the Energy Policy and Conservation Act (EPCA). These efficiency standards, referred to as CAFE standards, are expressed in miles per gallon and establish an average fuel economy standard to be achieved over a fleet of vehicles produced in a given model year by auto manufacturers.

In October 2012, EPA published GHG standards for light-duty vehicles for model years 2017-2025, and NHTSA set fuel economy standards for 2017-2021 and forecast standards for 2022-2025. The standards featured an average annual increase in efficiency of about 5 percent to reach a fuel efficiency average of 46.7 miles per gallon fleetwide by 2025. In a January 2017 Final Determination, following a mid-term evaluation of the standards, EPA found that the 2022-2025 GHG standards remained appropriate and should not change.

During the Trump administration, EPA finalized two rules rolling back the Obama era actions. In the SAFE Vehicles Rule Part One: One National Program, NHTSA determined that California's GHG standards and Zero Emission Vehicle (ZEV) program were preempted under the Energy Policy & Conservation Act and withdrew California's waiver, which entitled the state to set its own vehicle greenhouse gas standards. EPA also determined that other states could not adopt California's GHG standards based on a new interpretation of section 177 of the CAA as not including GHGs. EPA and NHTSA also finalized the SAFE Vehicles Rule Part Two: Model Years 2021-2026 Passenger Cars and Light Trucks, which revised CAFE and GHG standards to increase in stringency only 1.5 percent each year, significantly lower than the 5 percent each year established by the Obama-era standards.

President Biden targeted both of these Trump administration rulemakings in a January 2021 EO, requiring NHTSA and EPA to consider publishing a proposed rule revising, suspending, or rescinding the two Trump administration final rules. The August 5th proposal revises SAFE Part Two. EPA and NHTSA are also reconsidering the SAFE Part I rule under separate processes. Earlier this summer,

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standard that was previously applicable. Any such revision under this subchapter may provide for a phase-in of the standard.").

[9] 42 U.S.C. § 7521(a)(2).

[10] See 86 Fed. Reg. at 43,752 (discussing the discretion provided EPA under section 202(a) when setting standards and the "restraints of reasonableness" applied as interpreted by the courts in various D.C. Circuit opinions).

EPA accepted comment on its reconsideration of the Trump administration's withdrawal of California's waiver for its ZEV mandate and GHG emission standards. In that notice, EPA explained that it was concerned it had not "properly evaluated and exercised its authority to reconsider a previous waiver granted to CARB [the California Air Resources Board]" in the Trump-era SAFE Part One rule and was reconsidering "whether the withdrawal was a valid and appropriate exercise of authority and consistent with judicial precedent."[11] In April, NHTSA proposed repealing the regulatory text in SAFE Part One and withdrawing the interpretative statements made by the Agency regarding the preemption of particular state GHG and ZEV mandates.

EPA's August 5th proposal to increase the GHG standard for MY 2023 by 10 percent aligns with the California Framework Agreements, in which five automakers agreed to comply with GHG emission reductions that were more stringent than the SAFE rule. EPA proposes to increase the GHG standards for MY 2024-2026 by 5 percent each year. It also includes two alternatives for comments (one more stringent option and one less stringent) and asks whether it should consider fleet average target levels for MY 2026 that are 5-10 g/mile lower than its proposed approach. The Appendix includes Tables and Figures from EPA's Proposed Rule to outline the proposed standards compared to prior rules as well as the alternatives. Comments on the proposed rule are due on September 27, 2021.

Improving the fuel economy of cars and trucks saves consumers money on gas and lowers emissions to address climate change and public health concerns. Based on the proposed standards, EPA estimates that the rule would avoid 2.2 billion metric tons of CO_2 emissions through 2050[12] and result in $86 to $140 billion in net benefits through 2050, depending on the discount rate used.[13] Over the lifetime of a 2026 vehicle, EPA projects that the average per-vehicle cost of about $1,000 would be offset by fuel savings resulting in a net per-vehicle savings of about $900.[14] EPA also projects EVs will represent almost 8 percent of vehicle production in MY 2026 as a result of the proposed standards (compared to 4 percent without the standards).[15] Thus, even with the new standards over 92 percent of new light-duty sales are projected to continue to use internal combustion engines through MY 2026.

Re-balancing Costs and Benefits

EPA takes a different approach to balancing the benefits and costs of its GHG emissions standards in this rule proposal than it did during the Trump administration – placing more weight on the public health and emissions benefits. This represents a shift in policy direction as well as a return to EPA's

[11] 86 Fed. Reg. at 22,423 (Apr 28, 2021)

[12] 86 Fed. Reg. at 43,778.

[13] 86 Fed. Reg. at 42,735.

[14] 86 Fed. Reg. at 43,797.

[15] 86 Fed. Reg. at 43,775.

core mandate under the CAA. Although the Act requires EPA to consider certain factors, it does not specify how EPA should weigh those factors. As EPA indicates in its proposed rule, the Act provides the agency "considerable discretion" to assess the technical feasibility and availability of lead time to implement new technology as well as determining the "appropriate balance" among factors.[16] The new proposal's cost and technology adoption estimates are similar to those in the SAFE Rule but the agency balances the factors it considers differently.[17] In this section, we discuss some of the more significant aspects of how the agency analyzes the factors used in its analyses.

Emphasizes full health and welfare benefits over industry costs

The Trump administration emphasized costs of compliance for the industry over the public health benefits of reducing GHGs, criteria pollutants, and air toxics. EPA notes throughout the proposal that it believes it more appropriate to place "greater weight on the magnitude and benefits of reducing emissions that endanger public health and welfare" than on costs to manufacturers,[18] explicitly saying it is taking a different approach than it did in its 2020 SAFE Rule. EPA concludes that the approach taken in the SAFE Rule cuts against the purpose of the CAA,[19] saying the more stringent standards in the new proposal are based on "balancing that the Administrator believes is more consistent with Congressional intent and goals of the Clean Air Act."[20]

EPA calls the SAFE Rule "the most significant weakening of mobile source emissions standards in EPA's history," projecting that it would have resulted in increased emissions and public health impacts and net costs to society.[21] It criticizes the approach in the SAFE Rule for having "placed greatest weight on reducing the cost of compliance on the regulated industry and the upfront (but not total) cost to consumers, and placed little weight on reductions in GHGs and other pollutants, contrary to EPA's traditional approach to adopting standards under section 202."[22]

EPA estimates that auto industry per-vehicle costs to comply with the new proposal would be lower than those for the 2012 Obama-era standards and notes the agency in 2012 found those higher

[16] 86 Fed. Reg. at 43,752 ("Section 202(a) of the CAA does not specify the degree of weight to apply to each factor, and EPA accordingly has discretion in choosing an appropriate balance among factors." Citing a string of D.C. Circuit cases).

[17] 86 Fed. Reg. at 43,786.

[18] 86 Fed. Reg. at 43,729.

[19] "[T]he Administrator now notes that the purpose of adopting standards under that provision of the Clean Air Act is to address air pollution that may reasonably be anticipated to endanger public health and welfare and that reducing air pollution has traditionally been the focus of such standards." 86 Fed. Reg. at 43786.

[20] Id.

[21] 86 Fed. Reg. at 43,786.

[22] Id. (also observing "It is particularly notable that the rationale for the revision was not that the standards had turned out to be technologically infeasible or, even that they would impose unexpectedly high costs on society.").

costs reasonable even without considering fuel savings that "more than offsets these costs."[23] It also states that EPA's compliance cost estimates often overestimate the cost,[24] highlighting the conservative approach that the agency takes in making them.

The SAFE Rule emphasized the potential for increases in car accidents due to people driving more as the costs of driving decline. For the proposed standards, EPA estimates that "the risk of fatal and non-fatal injuries per distance traveled will remain virtually unchanged", though notes there could be "an increase in accidents, injuries, fatalities" as people drive more.[25] However, EPA now believes it more appropriate to focus on the risk of injury per mile traveled and emphasizes the significant health benefits from reducing emissions,[26] which it calls an "essential factor" in deciding on appropriate standards.[27]

Favors cost savings over the life of the car over up-front costs

In addition to re-balancing industry costs and public health benefits, the new proposal reassesses how it weighs costs and benefits to consumers regarding the affordability of vehicles. In the SAFE Rule, EPA focused on upfront costs of cars rather than the costs of operating the vehicle (fuel and maintenance savings over the life of the vehicle).[28] When discussing its assessment of the financial effects on a vehicle buyer in the new proposal, EPA notes it depends "on how much that person drives, as well as whether the vehicle is bought new or used."[29] In determining how to balance that assessment, the agency emphasizes operational costs over the life of the car rather than up-front costs. EPA "concludes that the proposed standards would be beneficial for consumers because the lower operating costs from significant fuel savings would offset the upfront vehicle costs."[30] It

[23] 86 Fed. Reg. at 43,785.

[24] "This decrease in estimated per-vehicle cost since the 2012 rule is not surprising—technology to achieve environmental improvements has often proved to be less costly than EPA's initial estimates." 86 Fed. Reg. at 43,785.

[25] 86 Fed. Reg. at 43,786.

[26] Id.

[27] 86 Fed. Reg. at 43,785.

[28] "EPA recognizes that in the SAFE rulemaking we placed greater weight on the upfront costs of vehicles, and little weight on total cost of ownership." Id.

[29] 86 Fed. Reg. at 43,798.

[30] 86 Fed. Reg. at 43,785. EPA explains the considerations it makes in its determinations, saying, "the effects of the standards on affordability depend on two countervailing effects: the increase in the up-front costs of the vehicles, and the decrease in operating costs. The increase in up-front costs has the potential to increase the prices of used vehicles, to make credit more difficult to obtain, and to make the least expensive new vehicles less desirable compared to used vehicles. The reduction in operating costs has the potential to mitigate or reverse all these effects. Lower operating costs on their own increase mobility .... It is possible that lower-income households may benefit more from the reduction in operating costs than the increase in up-front costs, because they own fewer

supports this re-balancing in part because it now believes the emphasis on up-front costs in the SAFE Rule placed the value most important to lower-income individuals below the cost savings valued most by higher-income buyers.[31] EPA says this emphasis reflects the environmental justice policy directives in EO 14008 and provides a more accurate "picture of total benefits to society."[32] (Below discusses additional environmental justice considerations in the proposed rule.) EPA also reiterates that regardless of the cost implications of the rule for new and used vehicle buyers that "[i]mportantly, all people receive the benefits of reduced GHG emissions, the primary focus of this rule."[33]

Modifies some inputs to account for new information, including SC-GHGs, but remains consistent with prior analysis

EPA estimates the monetized benefit of GHG reductions from its proposed rule "at $22 billion to $280 billion across a range of discount rates and values for the social cost of carbon."[34] In analyzing the costs and benefits of the proposal, it largely uses the same assessment techniques as the SAFE Rule but updates a number of the inputs to reflect more current information.[35] EPA emphasizes the similarities of its underlying analyses to those conducted for the SAFE Rule as well as to the consistency in its results with both the Obama- and Trump-era assessments. In conducting its analyses, it also selects assumptions that, at times, overestimate costs and underestimate benefits, some of which are described below, ensuring a more conservative approach to its calculations.

The agency uses the same model it used for the SAFE Rule (NHTSA's CCEMS model rather than its OMEGA model) to estimate vehicle sales impacts.[36] It reasons this approach would allow for easier

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vehicles per household, spend more on fuel than on vehicles on an annual basis, and those fuel expenditures represent a higher fraction of their household income." 86 Fed. Reg. at 43,804.

[31] 86 Fed. Reg. 43,785 ("Because lower-income households spend more on gasoline than on vehicle purchases, the effects of reduced operating costs may be especially important for these households.") *See also,* 86 Fed. Reg. at 43,803 ("lower-income households spend more on gasoline than on either new or used vehicles, and more on used vehicles than new ones, suggesting the importance of operating costs for these households.").

[32] 86 Fed. Reg. at 43,785. ("The Administrator also carefully considered the affordability impacts of these proposed standards, especially considering Executive Order 14008 and EPA's increasing focus on environmental justice and equity." "[I]n light of changes in policy priorities (including concern about accounting for benefits to lower-income households), EPA now believes in assessing the benefits of these standards it is more appropriate to consider the total fuel savings of the vehicle, over its lifetime, including those fuel savings that may accrue to later owners. Disregarding those benefits, which often accrue to lower income households, who more often purchase used cars, would provide a less accurate picture of total benefits to society.").

[33] 86 Fed. Reg. at 43,798-99.

[34] 86 Fed. Reg. at 43,785.

[35] The changes made to the CCEMS model inputs from those used for the SAFE rule analysis are listed in Table 30 at 86 Fed. Reg. at 43769.

[36] 86 Fed. Reg. at 43,768.

comparison to the 2020 rule and make it easier to understand how the updates it made impact the outcomes. EPA's assessments reach similar conclusions regarding technical feasibility, lead time, and compliance in the proposal as those in for the SAFE Rule.

Input changes include updating the PM 2.5 cost factors, lowering the rebound effect to 10 percent from 20 percent, changing the congestion cost information used, and incorporating the 2021 interim social cost of GHGs and including methane and N_2O as well as CO_2 in its assessment, among others. For example, in reassessing its approach to congestion costs, the agency says it believes the approach used under the SAFE Rule overestimated costs from congestion by not taking into account changes in average speeds and roadway designs.[37] For that reason, the proposal returns to the approach it took in prior rulemakings.

The proposal explains that EPA did not update inputs where it believed doing so would not make a meaningful difference in the output. For example, EPA continues to use MY 2017 as the baseline fleet rather than update it to MY 2019 and uses the same EV battery prices explaining that using its updated assessments of lower prices would have had minimal impact on the overall cost estimates (EPA does, however, indicate it may change course in the final rule).[38] EPA argues that these decisions lean in favor of overestimating some costs, providing for a more conservative estimate of net benefits.

Where EPA did update its inputs, it says it largely did so "because of the way they value the effects of emissions on public health."[39] One of the most significant changes made to that effect is its use of the interim values for the Social Cost of GHGs (SC-GHGs) published in February 2021. The interim SC-GHGs accounts for global impacts, rather than just domestic. EPA uses the cost of carbon, methane, and N_2O in its analysis but does not quantify emissions reductions of HFCs through the air conditioning credits program.[40] Acknowledging that the 2021 SC-GHGs most likely *under*-estimate damages from GHG emissions, EPA finds their inclusion useful but requests comment on its approach to quantifying the benefits of GHG emissions reductions.[41] EPA estimates net benefits

[37] 86 Fed. Reg. at 43,793 ("EPA now finds that scaling the marginal per-mile congestion costs by the change in VMT per lane-mile on U.S. highways from 1997 to 2017 does not account for changes in average speeds and improved road design, and may have the potential to over-estimate costs. We are continuing to use the FHWA congestion estimates without scaling, consistent with the SAFE NPRM and

prior EPA rulemakings, and adjusting to measure in 2018 dollars.").

[38] 86 Fed. Reg. at 43,769-70.

[39] 86 Fed. Reg. at 43,770.

[40] 86 Fed. Reg. at 43,789.

[41] EPA notes that the interim SC-GHG under-estimate damages because "the models used to produce them do not include all of the important physical, ecological, and economic impacts of climate change recognized in the climate-change literature and that several model input assumptions are outdated." It also highlights that a comprehensive update is expected in January 2022. 86 Fed. Reg. at 43789.

across a range of discount rates,[42] finding "the total benefits of the proposed program far exceed the costs and would result in a net present value of benefits that ranges between $17-330 billion, depending on which SC-GHG and discount rate is assumed."[43]

As one of the first rules likely to be finalized using the new interim SC-GHGs, we expect to see court challenges. Some Republican attorneys general have challenged the 2021 SC-GHGs in an effort to prevent their incorporation into rulemaking cost-benefit analyses.[44] While EPA asks for comment on how to approach this topic, it is proposing to use a wide range of discount rates, which may help head off legal challenges as the analysis projects benefits regardless of the discount rate.

Maintains compliance flexibility to ensure feasibility

The agency continues to emphasize technical feasibility and reasonable costs as important (and required) factors and, as we mentioned above, highlights the consistency of its findings in analyses conducted during the Obama and Trump administrations. EPA notes its estimations of the costs for manufacturers to meet standards have been relatively consistent since the Obama-era rules. However, it makes different determinations about the feasibility of more stringent standards and makes changes to some compliance mechanisms.

EPA rests heavily on the idea that it is not forcing the industry to adopt undeveloped technologies to comply with this rule, but instead more widely adopt existing ones.[45] The agency says its feasibility conclusion is partially based on its determination that significant adoption of EVs are not necessary to meet the standards for MY 2023-2026.[46] EPA also says that the fact that a number of automakers voluntarily agreed in the California Framework Agreement to more stringent standards than the SAFE Rule was a "key consideration" for their approach to the new rule.[47]

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[42] Discount rates reflect the significance of future costs and benefits compared to their value today--a higher discount rate assumes that future effects are less significant than present effects while a lower discount rate assumes both are significant.

[43] 86 Fed. Reg. at 43,796.

[44] One federal district court disfavored the Trump administration's approach to calculating the benefits of GHG emissions reductions in rulemakings, finding fault when the Trump administration discarded the social cost of methane developed during the Obama administration.

[45] 86 Fed. Reg. at 43,781 ("the technologies needed to meet the proposed standards are already widely available and in use on vehicles—there is no need for development of new technologies for the time frame of these proposed standards.")

[46] 86 Fed. Reg. at 43,782 ("It is important to note that our conclusion that the proposed program is technologically feasible is based in part on a projection that the standards will be met largely with the kinds of advanced gasoline vehicle technologies already in place in vehicles within today's fleet and does not rely on a significant penetration of electric vehicles into the fleet during the 2023–2026 model years.")

[47] Id.

Its projected technology penetration rates are similar to those in the SAFE Rule, but the agency now disagrees with the SAFE Rule's determination that the "the projected level of advanced technologies was 'too high from a consumer-choice perspective.'"[48] Rather, it believes "automakers are capable of deploying a wide range of advanced technologies across the entire vehicle fleet, and that consumers remain interested and willing to purchase vehicles with advanced technologies," pointing to the significant developments in car offering over the last ten years in support of this conclusion.[49] EPA projects 8 percent EV penetration in MY 2026, but also points out that this may be a low projection for what automakers will achieve given recent public announcements about fleet transition.[50]

EPA does adjust the compliance flexibility tools automakers can rely on as they incorporate more advanced technologies into their models. Automakers receive incentive multipliers for certain low emissions vehicles and credits for emissions reductions that they can apply to their fleet average, across years (both forward and back), and sell and trade between companies in order to comply.[51] EPA argues that the use of such credits signal that the program's flexibilities work as designed, allowing automakers to choose different compliance strategies.[52] This observation departs from the concern in the SAFE Rule that a declining credit balance could indicate future compliance difficulties. As a result of its shift in approach, EPA proposes to extend some of these incentives for additional years and reinstate others (such as the full-size pickup incentives) that the SAFE Rule removed.[53] EPA supports the use of multiplier incentives by explaining their purpose is to encourage and accelerate the development of zero- and near-zero emissions vehicles, helping move the industry towards transition.

Noting that it can take five years for new designs to reach the market, EPA expects automakers have not yet adjusted their plans to the SAFE Rule, continuing to work under plans they developed in response to the more stringent 2012 Obama-era standards.[54] However, to the extent that

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[48] Id.

[49] 86. Fed. Reg. at 43,782-83.

[50] 86 Fed. Reg. at 43,783 ("Our updated analysis projects that about 8 percent of vehicles meeting the

MY 2026 proposed standards would be EV/PHEVs (See Section III.B.3). Given manufacturers' public announcements about their ambitious plans to transition fleets to electrified vehicles, we believe it is possible that an even higher percentage of the industry-wide fleet could be electrified during the time

period of our proposed model year 2023–2026 standards.").

[51] 86 Fed. Reg. at 43,756.

[52] 86 Fed. Reg. at 43,784.

[53] 86 Fed. Reg. at 43,757. (Explaining the extension of the multiplier incentives and outlining them in Table 25; also noting it will not continue the incentive for natural gas vehicles, noting these incentives were not used and they are not appropriate for a program designed to encourage adoption of zero emissions vehicles).

[54] 86. Fed. Reg. at 43,782.

manufacturers must make changes to transition to the new standards from either the SAFE Rule or the California Framework Agreement standards, EPA emphasizes that it is providing additional flexibility for them to do so by starting with a three year period of less stringent standards than the Obama-era ones and extending the years some incentives can be used.[55]

Expect more detailed environmental justice analysis in future rules

Consistent with President Biden's EO related to environmental justice,[56] the proposal assesses the potential for "disproportionately high and adverse health or environmental impacts of regulatory actions on minority populations, low-income populations, tribes, and/or indigenous peoples."[57] EPA outlines the questions that are important for the agency to consider to assess such impacts and research on the distributional impacts of GHG and non-GHG emissions across communities, but notes that it lacks the air quality information to quantify the distribution of impacts that could result from the proposed standards.

EPA includes a qualitative discussion of the affordability and equity impacts of its proposal. Consistent with the 2016 Midterm Evaluation, EPA considers four questions: "how the standards affect lower-income households; how the standards affect the used vehicle market; how the standards affect access to credit; and how the standards affect the low-priced vehicle segment."[58] Through that evaluation, the proposal explains that the increase for up-front cost of the vehicle has the potential to increase the price of used vehicles, make credit harder to obtain, and make the least expensive *new* vehicle "less desirable compared to used vehicles."[59] However, EPA states that the decrease in operating costs has the potential to reverse each of those effects if lower-income households benefit more from the reduction in operating costs compared to the increase in up-front purchase costs.

Given the lack of data, EPA does not reach a firm conclusion on this balance but requests comment on the types of environmental justice effects that are important to consider as well as how such effects could be quantified. EPA is also working with RTI International to better understand the implications of more expensive vehicles, including new EVs, causing households to hold onto their used vehicles longer.[60] EPA explains the importance of transportation equity by noting that "[a]ccess to transportation improves the ability of people, including those with low income, to pursue jobs,

[55] Id.

[56] For more information on how the Biden administration is incorporating environmental justice into its work, visit our Environmental Justice Tracker.

[57] 86 Fed. Reg. at 43,799.

[58] 86 Fed. Reg. at 43,803.

[59] 86 Fed. Reg. at 43,804.

[60] Id.

education, health care, and necessities of daily life such as food and housing."[61] However, it recognizes that ownership costs of vehicles are only one piece of transportation access and mobility concerns.

For future rulemakings, EPA suggests that it will consider the impact of more significant shifts to EVs and the resulting emission reductions, including non-GHGs, from the transportation sector and the implications for electric sector emissions. While this proposal initiates consideration of environmental justice impacts, as EPA undertakes future rulemakings consistent with the August 5th EO aimed at more significant EV deployment, EPA will need additional data and analysis to fully assess the implications.

EPA prepares for legal challenges in its proposal

Environmental regulations are inevitably challenged in court once finalized – either for being too stringent or not stringent enough, and often for both. While the CAA provides the agency significant discretion to weigh the relevant factors when establishing emission standards, EPA needs to avoid a court decision that these more stringent standards are arbitrary and capricious as compared to the SAFE Rule. To defend the standards, EPA will look to establish a robust technical record demonstrating they are reasonable and consistent with the statutory text and Congressional intent.

The proposal outlines EPA's assumptions and discusses how its technical evaluations are consistent with past rulemakings as well as its rationale for any changes. In several instances, EPA states that even using the technical assumptions from the Trump administration would support the proposed new standards.[62] To further develop the record, EPA requests comment on these technical assumptions and provides a detailed discussion on its analyses to support its new reasoning.[63] We expect EPA will continue to build this record by incorporating and responding to comments received on the proposal, including information on how the regulated industry can achieve these standards in the timeframe required.

Where EPA's legal analysis differs from the SAFE rule, it grounds its analysis on its statutory purpose of the CAA, including section 202. EPA argues that in light of the Act, the agency is placing more weight on the emission reductions that are projected to result from the new standards and the impacts to public health and welfare. Thus, EPA implies that the SAFE rule's prioritization of costs of compliance for the industry and upfront costs of new vehicles was not consistent with the Act. While

[61] 86 Fed. Reg. at 43,803.

[62] See, e.g., 86 Fed. Reg. at 43,786 ("EPA concludes that the Administrator's current approach to considering the relevant factors would fully support the proposed standards even if they were based solely on the technical record and conclusions that were used to set standards in the final SAFE rule").

[63] *See, e.g.,* 86 Fed. Reg. at 43,769 (requesting comment "on the input changes noted below, as well as on whether there are other input choices that EPA should consider making for the final rule. In offering comments on the modeling inputs, EPA encourages stakeholders to provide technical support for any suggestions in changes to modeling inputs.")

the proposal details the agency's consideration of each of the statutory factors, including cost, consistent with prior rulemakings, it notes that the new standards are based on returning to the approach EPA has traditionally used under section 202 – placing greater weight on reducing emissions.

Preparing for future, more stringent standards, and greater EV deployment

EPA is working to develop standards for this rule that are technically sound, achievable, and based on a legally justified record. However, President Biden, EPA, and NHTSA, through the soon-to-be-released fuel economy standards, are taking steps to make clear that this rule is just the first step. The ultimate goal is significant electrification for the transportation sector. Although President Biden's August 5th Clean Cars Executive Order does not bind EPA or NHTSA to require a certain level of EVs sales, it sets strong expectations that this proposed rule, even once finalized, is only the initial step for the transportation sector. EPA states in its proposal that it intends to move forward with more stringent standards, saying it "believes that we will need to achieve far deeper GHG reductions from the light-duty sector in future years beyond the compliance timeframe for the proposed standards, which is why we will be initiating a rulemaking in the near future to establish more stringent standards after model year 2026."[64]

The proposed compliance flexibility mechanisms will enable the industry to benefit from achieving deeper emission reductions sooner, which could also help establish the record for a future rulemaking. Additionally, the proposal would create a regulatory framework including enforcement mechanisms to ensure the auto manufacturers remain on track to meet their voluntary corporate goals.

At the same time, President Biden made clear in his announcement of the Clean Cars Executive Order, and EPA highlights in its proposal, that success will also require action by Congress, states, and the auto industry to continue to make progress and invest in the infrastructure needed to support EVs and deep electrification.

As part of the "whole of government approach" by the Biden administration, we expect continued focus on mechanisms and policy tools to drive investment in electrification. We expect agencies beyond EPA and NHTSA to look for opportunities to drive emission reductions, protect public health, secure consumer savings, and advance environmental justice as it relates to the electrification of the transportation sector.

Visit our Biden-Harris Climate & Environmental Agenda Tracker to learn more about the current administration's actions to implement new policy goals, rebuild agency capacity, and address the deregulatory legacy of the Trump administration.

[64] 86 Fed. Reg. at 43,785.

Appendix

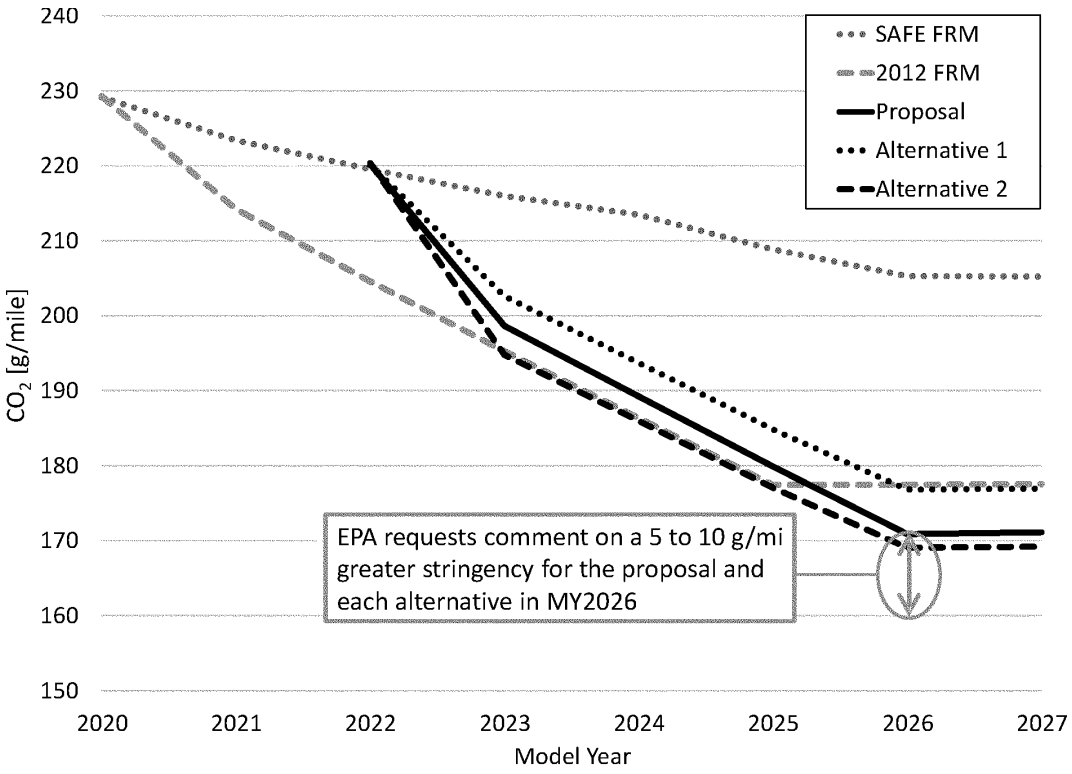
Table 1

Model Year	Projected Targets			
	EPA Proposed Rule	2012 Obama Administration Rule	Trump Administration SAFE Rule	California Framework (assuming *all* auto manufacturers meet the standards)
2021	223	214	223	214
2022	220	205	220	206
2023	199	195	216	199
2024	189	186	214	191
2025	180	177	209	184
2026	171*	177	205	177

Source: Table 1 is based on EPA's Proposed Rule Table 29 (86 Fed. Reg. 42,767) and compares the projected fleet average (in CO_2 grams/mile) for the proposed standards, the 2012 Obama administration's rule, the SAFE Rule, and the California framework agreement with the five auto manufacturers

* This projected fleet average for 2026 does not reflect the more stringent level for which EPA is requesting comment (i.e., 5-10 g/mile more stringent).

Figure 1



Source: EPA's Proposed Rule Figure 8 (86 Fed. Reg. 43,767), which illustrates the comparison of the projected fleet average (in CO_2 grams/mile) for the proposed standards, the 2012 Obama administration's rule, the SAFE Rule, and the California framework agreement as well as the two Alternative and the more stringent level for MY 2026 on which EPA is requesting comment.