



## Alliance for Automotive Innovation

### Comments To National Highway Traffic Safety Administration on The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022 to 2031 Passenger Car and Light Trucks; Notice of Proposed Rulemaking

Docket ID No. NHTSA-2025-0491  
RIN 2127-AM76

February 4, 2026

Alliance for Automotive Innovation (Auto Innovators)<sup>1</sup> submits these comments in response to the National Highway Traffic Safety Administration (NHTSA) proposed rule “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022 to 2031 Passenger Car and Light Trucks.”<sup>2</sup> We appreciate the opportunity to comment on the proposal.

Auto Innovators’ member companies are focused on ensuring the health and competitiveness of the auto industry in the U.S. In furtherance of this goal, we have long promoted a stable regulatory environment coordinated across the whole of government and reasonable, achievable standards that preserve consumer choice and support innovation. In addition, Auto Innovators has supported continued progress in improved fuel economy and emissions reductions. Auto Innovators has also supported standards that capture the benefits of advanced, lower-carbon liquid fuels, especially for the gasoline-powered legacy vehicles that will remain in operation for years to come.

Automakers and suppliers in the U.S. are increasingly being forced to navigate rapid and dramatic swings in vehicle emissions policy from one administration to the next. These policy changes increase costs and upset the long-term planning needed to drive an economically competitive U.S. automotive manufacturing industry. Design, development, and production cadences necessitate investments in technology and production capacity years in advance for automakers, and even earlier for suppliers who are disproportionately affected by stranded investments when regulatory standards abruptly change. Unachievable standards and severe swings in policy direction every few years put billions of dollars of capital investment at risk.

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<sup>1</sup> Auto Innovators represents the full auto industry, including the manufacturers producing most vehicles sold in the U.S., equipment suppliers, battery producers, semiconductor makers, technology companies, and autonomous vehicle developers. Our mission is to work with policymakers to realize a cleaner, safer, and smarter transportation future and to ensure a healthy and competitive auto industry that supports U.S. economic and national security. Representing over 5 percent of the country’s GDP, responsible for supporting nearly 11 million jobs, and driving \$1.5 trillion in annual economic activity, the automotive industry is the nation’s largest manufacturing sector.

<sup>2</sup> National Highway Traffic Safety Administration. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022 to 2031 Passenger Car and Light Trucks; Notice of Proposed Rulemaking. 90 *Fed. Reg.* 56438 (Dec. 5, 2025). Hereinafter “NPRM.”

Nevertheless, Auto Innovators is supportive of NHTSA’s efforts to make pragmatic revisions to previously issued Corporate Average Fuel Economy (CAFE) standards to address their economic impracticability and the improper inclusion of plug-in electric vehicles underlying them.

In so doing, NHTSA should also consider certain modifications to its proposed light truck classification requirements and to the related footprint-based fuel economy target functions. Additional lead time for vehicle classification changes is an acute need. The changes proposed by NHTSA will require significant vehicle design changes to maintain compliance with U.S. Environmental Protection Agency (EPA) emission regulations and impact CAFE compliance planning with effectively no lead time.<sup>3</sup>

In the longer term, automakers and suppliers need a stable regulatory environment with balanced, reasonably achievable standards that continue to improve fuel economy. This is the approach that will preserve consumer choice and keep the U.S. auto industry globally competitive.

## Summary Comments on the Proposal

The following summary of our comments is provided for the purposes of compliance with 49 C.F.R. § 553.21. As allowed, supplemental details and analyses are provided in appendices as indicated.

*Revisions to the previously issued standards are necessary to establish economically practicable standards.*

The previously issued CAFE standards require a rapid transition to plug-in electric vehicles (PEVs)<sup>4</sup> and cannot be met in an economically practicable manner.

NHTSA previously estimated that the model year (MY) 2024 standards would be met with a PEV market share of 15%.<sup>5</sup> In contrast, the achieved MY 2024 PEV market share was less than 10%,<sup>6</sup> including that of manufacturers that only build PEVs. S&P Global Mobility estimates that

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<sup>3</sup> Model year (MY) 2028 can begin as early as January 2, 2027. 40 C.F.R. §§ 85.2302 and 85.2304. Even if NHTSA were to issue a final rule by October 1, 2026, production of MY 2027 will have already started for many vehicle models and the launch of early MY 2028 vehicles will be only months away leaving no time to adjust vehicle designs and compliance plans.

<sup>4</sup> Plug-in electric vehicles includes battery electric vehicles and plug-in hybrid electric vehicles.

<sup>5</sup> National Highway Traffic Safety Administration. Final Regulatory Impact Analysis: CAFE Data Book Appendix I – Standard Setting Analysis. May 2024. Hereinafter “NHTSA 2024 RIA Appendix I.” I-397. Table 394 – Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC2LT002.

<sup>6</sup> National Highway Traffic Safety Administration. CAFE Compliance and Effects Modeling System. <https://www.nhtsa.gov/corporate-average-fuel-economy/cale-compliance-and-effects-modeling-system>.

MY 2024 market share of PEVs was 6.05% excluding PEV-only manufacturers, such as Tesla and Rivian.<sup>7</sup>

From a compliance perspective, fourteen of the eighteen automakers that sold conventional internal combustion engine (ICE) vehicles in MY 2024 had a combined passenger car and light truck fuel economy lower than that required.<sup>8</sup>

For MYs 2025 and later, NHTSA’s previously issued CAFE standards assumed continued growth in PEV sales, reaching almost 34% by MY 2031.<sup>9</sup> Those projections are inconsistent with the slowing growth in U.S. PEV market share (-0.2 percentage points year-over-year for 2025 through November 2025)<sup>10</sup> and a recent third-party projection for the U.S. PEV market (~25% PEV share by 2031).<sup>11</sup>

U.S. policy support for electric vehicles has also been reduced since the MYs 2024-2031 standards were issued. In the 2025 “Big Beautiful Bill,” Congress sunset Internal Revenue Code §§ 30D and 45W tax credits for PEV purchases and leases as of September 30, 2025. Eligibility for § 45X advanced manufacturing production tax credits was also tightened.

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Downloads; 2025 NPRM for Model Years 2027-2031 Passenger Cars and Light Trucks; Central & EIS Analysis; LD\_EIS.zip\output\reports-csv\technology\_utilization\_report.csv. Hereinafter “2025 NPRM EIS Technology Utilization Report.” Scenario Name = Alternative 0; Model Year = 2024; Manufacturer = Total, Reg-Class = Total, Param Type = Pen-Rate. Sum of PHEV20T, PHEV50T, PHEV20H, PHEV50H, PHEV20PS, PHEV50PS, BEV1, BEV2, BEV3, and BEV4.

<sup>7</sup> S&P Global Mobility. Model Years 2012 to 2025 Baseline Study. Dec. 15, 2025. Funded by Alliance for Automotive Innovation. Tabular data; Fleet Attributes tab; Power Source Type Production Share; Electrification Level 4 (excludes vehicles from all-BEV OEMs; includes all other vehicles/power source types from remaining OEMs).

<sup>8</sup> National Highway Traffic Safety Administration. CAFE Compliance and Effects Modeling System. <https://www.nhtsa.gov/corporate-average-fuel-economy/cale-compliance-and-effects-modeling-system>. Downloads; 2025 NPRM for Model Years 2027-2031 Passenger Cars and Light Trucks; Central & EIS Analysis; LD\_EIS.zip\output\reports-csv\compliance\_report.csv. Scenario Name = Alternative 0; Model Year = 2024; Manufacturer = all excluding Fisker, Lucid, Mullen, Rivian, Tesla, Total, and VinFast; Reg-Class = Total. Comparison of Standard to CAFE where Standard is greater than CAFE.

<sup>9</sup> NHTSA 2024 RIA Appendix I (*supra* note 5). I-397. Table 394 – Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC2LT002.

<sup>10</sup> Alliance for Automotive Innovation. Stay Connected: EV Monthly Recharge. Dec. 2025. <https://www.autosinnovate.org/posts/papers-reports/stay-connected-12-16-2025>. 1. Calendar year 2025 through Nov. 2025 compared to same period 2024.

<sup>11</sup> Benchmark Minerals Intelligence and Rho Motion. EVs and the U.S. Supply Chain – Summary. Oct. 2025. 4. Funded by Alliance for Automotive Innovation. Available to NHTSA by request to Alliance for Automotive Innovation.

Given the slowing growth of EV sales in the U.S. and reduced government policy support, the previously issued CAFE standards are simply unachievable.

Further analysis of the current and projected market for PEVs and related compliance trends is provided in Appendix I, Considerations of the Economic Practicability of Previously Issued Standards.

Some may argue that manufacturers are not required to build PEVs to meet the previously issued standards. However, standards must be both technologically feasible and economically practicable, among other considerations. Technology options other than PEVs offer lower fuel economy benefits and also take time to develop and release. Additionally, although NHTSA is prohibited from considering the fuel economy associated with alternative fuel operation of PEVs when setting standards,<sup>12</sup> it should consider that automakers and suppliers are likely to continue to invest in the globally expanding market for PEVs, splitting available investment capital and other resources across multiple technology pathways.

*Revisions to the previously issued CAFE standards are necessary to align the program with statutory requirements.*

In this rulemaking NHTSA “has not considered the imputed fuel-economy performance of PEVs or the electric operation of plug-in hybrid electric vehicles (PHEVs). This approach . . . brings the CAFE program into compliance with statutory restrictions.”<sup>13</sup>

As the agency explained in its 2025 interpretive rule, the prohibitions in section 49 U.S.C. § 32902(h) (preventing the agency from considering the fuel economy of dedicated automobiles like battery electric vehicles (BEVs); the non-gasoline operation of dual-fueled automobiles like plug-in hybrid electric vehicles (PHEVs); and the trading, transferring or availability of credits) means that “the agency cannot consider the section 32902(h) factors for any purpose and at any point in the process of setting fuel economy standards.”<sup>14</sup> This is a correct interpretation of the statute. NHTSA is also correct that in the prior two CAFE rulemakings, the agency violated the statute by including dedicated automobiles in its standard-setting analyses and that “the inclusion of dedicated vehicles in NHTSA's previous analysis impacted materially the standards that ultimately were promulgated.”<sup>15</sup> The prior rulemakings also improperly “expressly considered the fuel economy of PHEVs factoring in their operation using electricity in previous

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<sup>12</sup> 49 U.S.C. § 32902(h)(1) and (2).

<sup>13</sup> NPRM (*supra* note 2) at 56444.

<sup>14</sup> National Highway Traffic Safety Administration. Resetting the Corporate Average Fuel Economy Program; Interpretive Rule. 90 *Fed. Reg.* 24518, 24519 (Jun. 11, 2025). Hereinafter “Interpretive Rule.”

<sup>15</sup> *Id.* at 24522.

rulemakings, failing to comply faithfully with section 39202(h)(2)'s prohibition.”<sup>16</sup> Rulemaking to revise the previously issued standards is necessary to faithfully comply with the statute.

In Appendix II, Legal Considerations, we further describe our positions on this and other legal issues related to NHTSA’s proposed revisions to the previously implemented and adopted standards.

*Auto Innovators supports revising the previously issued standards.*

As noted above, revisions to the previously issued standards are necessary to establish more economically practicable standards and to align them with statutory requirements that prohibit the consideration vehicles operated on electricity. The proposed standards do so.

However, there are aspects of the proposal that should be refined, particularly related to the proposed non-passenger automobile (light truck) classification rules, the derivation of the footprint-based target functions, and the elimination of credit trading.

*NHTSA should reconsider aspects of its vehicle reclassification proposal and refine its related data analysis.*

NHTSA proposes to amend the light truck classification requirements.<sup>17</sup>

The agency’s analysis begins with an assessment that the light-duty fleet has shifted from one where vehicles classified as light trucks were 19.3% of the market in 1975 to one in which vehicles classified as light trucks were 64.7% of the market in MY 2024.<sup>18</sup> However, NHTSA fails to consider that Congress’ intent in establishing a requirement to set separate passenger and non-passenger automobile standards<sup>19</sup> was not premised on a given market share, nor does it need to be. The purpose of setting separate standards is to ensure that vehicles are regulated commensurate with their capabilities and the effect of those capabilities on fuel economy. That the fleet was 64.7% non-passenger automobiles in MY 2024 is a reflection of consumer demand for utility vehicles that are providing either greater seating, towing, cargo capacity, and/or off-highway capability that is generally not available in traditional passenger car designs, such as coupes and sedans. There is no inherent need to modify vehicle classification rules for the purposes of returning the fleet to a more 1970s classification mix. The only need is to ensure

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<sup>16</sup> *Ibid.*

<sup>17</sup> NPRM (*supra* note 2) at 56615 *et seq.*

<sup>18</sup> *Id.* at 56615.

<sup>19</sup> 49 U.S.C. § 32902(b)(1).

that the passenger automobiles and light truck standards are established according to the statutory provisions<sup>20</sup> for the vehicles classified as such.

Auto Innovators recommends several changes to the proposed vehicle classification amendments and notes a need for NHTSA to improve its data analysis as described below. Further commentary and details are provided in Appendix III, Vehicle Classification.

### Lead Time

The proposed reclassification will move a large number of vehicles from the light truck standards to the more stringent passenger car standards, not only for the CAFE program but also for certain EPA criteria and fuel evaporative emissions regulations.

For its own purposes, NHTSA assumes that a number of vehicles will be redesigned to increase the new light-duty work factor (LDWF) by up to 200 lbs. without any consideration of lead time,<sup>21</sup> and the need to redesign emission control systems is not considered at all. Also left unconsidered is the compliance planning impact of reducing the number of vehicle models in the light truck fleet, leaving fewer vehicles that will be refreshed or redesigned in the fleet in a given model year.

Auto Innovators recommends that NHTSA provide several years of lead time before any vehicle classification changes take effect to allow time for the redesign of vehicles, reassessment of compliance plans, and for EPA to consider revisions to emissions regulations in light of the reclassification.

### Off-Highway Capability Requirements

With regard to vehicles classified as light trucks based on off-highway capability, Auto Innovators recommends that NHTSA take no action at this time, deferring potential changes until a more thorough analysis of the features indicative of off-highway capability on modern vehicles can be performed.

Off-highway operation can take many forms, including operation on sand (*e.g.*, beaches and dunes), mud, snow, ice, two-track fire roads, rock crawling, and ascending or descending steep slopes. The agency expresses concern that there is a subset of vehicles classified as light trucks that meet four out of the five existing off-highway dimensional characteristics, but that generally

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<sup>20</sup> 49 U.S.C. § 32902(a).

<sup>21</sup> National Highway Traffic Safety Administration. Draft Technical Support Document: The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rules III for Model Years 2022 to 2031 Passenger Cars and Light Trucks. Dec. 2025. Hereinafter “Draft TSD.” 2-75. (“...[M]anufacturers within 200 of the 5500 LDWF threshold were assumed to have met the threshold for baseline classification purposes.”)

fail to meet the current approach angle characteristic<sup>22</sup> which was based on the designs of certain 1970s era vehicles.<sup>23</sup> As a threshold matter, it is not clear why a vehicle meeting only four of the five dimensional characteristics is a concern. When the characteristics were first established, the agency considered and rejected calls to adopt additional characteristics reasoning that vehicles which had those other features also had four of the five adopted dimensional characteristics.<sup>24</sup> Moreover, although we agree that there is a continuum of off-highway capability enabled by approach angle, NHTSA presents no direct evidence that the vehicles identified as a concern are not capable of at least some forms of off-highway operation.

Prior to making any changes to the off-highway capability criteria, it would behoove NHTSA to conduct a new analysis of the modern off-highway functional characteristics rather than relying on an analysis that is now fifty years old.

If NHTSA were to proceed with its proposal to eliminate the axle clearance characteristic without reassessing other characteristics, we believe that it would be more appropriate to classify vehicles that meet three of the remaining four characteristics as off-highway capable. Requiring all “off-highway” vehicles to meet a minimum 28 degree approach angle characteristic could require additional vehicle design changes despite the significant off-highway capability already enabled by four-wheel-drive or all-wheel-drive in combination with higher running clearance, breakover angle, and departure angle. Alternatively (and less preferably), NHTSA should consider lowering the minimum approach angle to 18-20 degrees, consistent with many vehicles currently classified under the off-highway criteria.

NHTSA also proposes a miscellaneous change within 49 C.F.R. § 523.5(b) to replace the word “calculated” with “measured.”<sup>25</sup> We suggest that NHTSA instead use “calculated or measured” in recognition that manufacturers will generally determine clearances based on vehicle design data while also aligning with NHTSA’s intent that vehicles meet claimed characteristics when physically measured. We also recommend that NHTSA acknowledge that vehicles may vary from nominal design specifications due to manufacturing tolerances and that any physical measurements should provide an acceptable range of variation for such tolerances.

In addition to its proposals, NHTSA requests comment on the comparability of all-wheel-drive systems to four-wheel-drive systems. We concur with NHTSA’s analysis that there can be substantial overlap in the functionality and fuel economy design compromises between the two.

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<sup>22</sup> NPRM (*supra* note 2) at 56617.

<sup>23</sup> National Highway Traffic Safety Administration. Automotive Fuel Economy Vehicle Classification; Proposed Rule. 41 *Fed. Reg.* 55368, 55371 (Dec. 20, 1976).

<sup>24</sup> National Highway Traffic Safety Administration. Part 523 – Vehicle Classification; Final Rule. 42 *Fed. Reg.* 38362, 38367 (Jul. 28, 1977).

<sup>25</sup> NPRM (*supra* note 2) at 56639. (Proposed text of 49 C.F.R. § 523.3(b)(2).)

The most appropriate decision is to continue to treat all-wheel-drive and four-wheel-drive drivetrains the same for the purposes of classifying vehicles as light trucks.

### Functional Performance Requirements

For light truck classification based on functional performance, NHTSA is proposing to eliminate the 49 C.F.R. § 523.5(a)(5) qualification, replacing it with a new qualification described as a “light-duty work factor” (LDWF).

For the proposed LDWF, Auto Innovators first recommends that NHTSA eliminate the payload portion of the equation based on the difference between gross vehicle weight rating (GVWR) and curb weight. The LDWF equation is significantly weighted toward towing capacity, and the payload portion of the equation does not appear to have much impact on how a vehicle would be classified based on the LDWF. Focusing entirely on the towing capacity portion of the equation would also reduce complexity of evaluating the curb weights of the multitude of vehicle content options for the purpose of the LDWF.

In combination with our recommendation to eliminate the payload portion of the LDWF, we also recommend that NHTSA replace the towing portion of the equation (currently based on gross combined weight rating (GCWR) and GVWR) with the SAE J2807 rated towing capacity.<sup>26</sup> SAE J2807 is a rigorous standard that establishes a common metric for measuring a vehicle’s towing capacity.

If NHTSA were to adopt SAE J2807 as the measure of towing capacity, we recommend that the threshold be set at 5,000 lbs. This towing capacity is approximately the point at which additional design changes that impact fuel economy must generally be made, potentially including larger cooling packages, increased engine output, larger brakes, and suspension changes. For many vehicles, a towing rating of 5,000 lbs. is more than the curb weight of the vehicle.

If NHTSA were to instead retain the difference between GCWR and GVWR as an approximation of towing capacity, NHTSA should seek the correct GCWR information from vehicle manufacturers. For the proposed rule, it appears that NHTSA estimated the term GCWR-GVWR based on published maximum towing capacities for at least a portion of the vehicles.<sup>27</sup> Maximum towing capacity and the term GCWR-GVWR are not interchangeable;

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<sup>26</sup> Some manufacturers may need lead time to fully incorporate SAE J2807 into their measurements of trailer tow ratings.

<sup>27</sup> National Highway Traffic Safety Administration. NHTSA-2025-0491-0008\_attachment\_9.xlsx. Docket ID NHTSA-2025-0491-008, Non-Passenger Analysis. Tab Existing Reg Classification, cell AM5. (Column labeled as “Max Spec Tow Capacity” with author note “Determined using GCWR minus GVWR, or direct publicly-available manufacturer-supplied towing capacities.”)

maximum towing capacity is likely to yield a higher value than GCWR-GVWR, thereby exaggerating the calculated LDWF.

Additionally, in most cases, maximum towing rating cannot be achieved in combination with maximum cargo rating because 10% or more of the trailer weight must be carried by the vehicle as tongue weight for safe and stable towing. This weight needs to be removed from the cargo rating when towing. Therefore, NHTSA's proposed calculation of LDWF actually overstates cargo capacity beyond NHTSA's intent. With corrected GCWR and GVWR data, we believe a more appropriate threshold for a LDWF based only on GCWR and GVWR would be 3,800 lbs.

The 49 C.F.R. § 523.5(a)(5)(ii) (3-row seating with stowable / foldable seating) criteria should be retained unless and until NHTSA revises its proposed approach to towing capacity or LDWF. If NHTSA makes revisions consistent with our above recommendations on functional performance requirements, Auto Innovators is neutral with regard to NHTSA's proposal to eliminate the current (a)(5)(ii) provision.

#### Proposed Definitions

**Curb weight:** NHTSA proposes to modify the definition of curb weight, which is used for vehicle classification under both the functional performance and off-highway capability criteria. The proposed definition would require manufacturers to report curb weight variations based on specific equipment installed on a vehicle, effectively expanding analysis and reporting requirements to any buildable vehicle configuration. This would result in manufacturers needing to track potentially hundreds of individual curb weights.

NHTSA should maintain the current definition of curb weight combined with its current practice requesting more specific information if and when necessary for confirmation of reported data and classifications. We also note that, if NHTSA takes our recommendation to eliminate the payload portion of the proposed LDWF, curb weight would play a less direct role in establishing vehicle classifications. At minimum, NHTSA needs to modify its proposal to provide a more reasonable approach for curb weight. NHTSA should also specify an effective date for any change to the curb weight definition so that it does not take effect immediately, impacting vehicles in mid-model year.

**Running clearance:** We suggest that NHTSA modify the definition of running clearance to explicitly exclude partially sprung weight and to exclude deformable components that return to their original position after encountering an obstacle.

**Nominal tank capacity:** NHTSA also proposes to add a definition for "nominal tank capacity" in association with its proposal to revise the curb weight definition. If NHTSA were to retain a definition of nominal tank capacity, we recommend that it adopt EPA's definition for "nominal fuel tank capacity" for consistency between the agencies. This approach will reduce burdens associated with assessing and reporting vehicles differently under separate NHTSA and EPA definitions.

### Additional Consequences

Other regulatory agencies have adopted vehicle classifications by reference to 40 CFR § 523.5 without tying them to a specific date of revision. As in NHTSA's regulations, vehicle classifications are frequently used to set an appropriate level of stringency, distinguishing between passenger cars and light trucks. For example, EPA has differing standards for carbon monoxide emissions and fuel evaporative emissions based on whether a vehicle is classified as a passenger car or light truck under NHTSA's definitions. There are also potential implications for the grouping of vehicles for emissions certification and for fuel economy labeling. Therefore, NHTSA's proposed change affects not only CAFE but other regulatory requirements. NHTSA should consider the potential for additional unintended consequences before deciding whether to proceed with its reclassification proposal or not. At minimum, NHTSA should coordinate changes with other regulatory agencies.

*NHTSA should reconsider certain technical aspects of the model year 2028 and later footprint target functions and other issues.*

Auto Innovators offers the following comments on technical considerations for the footprint target functions. Further analysis and commentary on these and other miscellaneous related issues, including the minimum domestic passenger car standards, are provided in Appendix IV, Technical and Policy Comments on the Proposed Standards.

### Upper Footprint Cutpoint for MYs 2028 and Later Light Trucks

Although the statistical analysis used by NHTSA in the development of proposed cutpoints for the footprint-based target functions is useful for identifying where the relationship between fuel economy and footprint becomes less linear,<sup>28</sup> relying on the statistical analysis alone fails to consider the underlying physics of the vehicles to which the target functions apply.

NHTSA proposes to reduce the upper footprint cutpoint for the light truck curves to 70 square feet (ft<sup>2</sup>) in MY 2028. However, there is a significant volume of pickup trucks with footprints in excess of 70 ft<sup>2</sup>. Those vehicles typically have higher fuel consumption (lower fuel economy) as a result of added towing and payload capacity. Modifying the upper cutpoint as proposed by NHTSA fails to consider and account for the design features necessary to provide that towing and payload capacity and would potentially discourage manufacturers from offering those features. We recommend an upper footprint cutpoint of 74 ft<sup>2</sup>.

### Upper Footprint Cutpoint for MYs 2028 and Later Passenger Cars

As discussed in our comments on vehicle reclassification (see above and Appendix III), it appears that NHTSA incorrectly estimated gross combined weight rating values when

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<sup>28</sup> See Draft TSD (*supra* note 21). 1-22 *et seq.*

calculating the proposed light-duty work factors. All else equal, once corrected, we believe additional vehicles currently classified as light trucks would be reclassified as passenger cars, tending to fall around or above the proposed upper footprint cutpoint for passenger cars. We recommend that NHTSA first address the LDWF—at minimum correcting its analysis but preferably taking our recommended approach—and then reevaluate the proposed upper footprint cutpoint for passenger cars. In general, we recommend that NHTSA increase the high footprint cutpoint to recognize vehicles that are efficient for their size.

#### Derivation of MY 2028 Footprint Target Functions

We note that there is a large (7% to 19%) stringency increase in footprint targets between MYs 2027 and 2028 for most of the vehicles remaining in the light truck fleet following the proposed changes in vehicle classification rules. It appears that the methodology used by NHTSA focuses on establishing a general increase in average standards despite the reclassification of many vehicles. Such an approach fails to consider that average standards shift as the fleet mix changes, but such shifts are not differences in stringency. The footprint targets for individual vehicles are what establishes the stringency of the standards. Stringency increases should be based on changes to the attribute-based functions, not on fleet averages.

Such a leap in stringency would be highly concerning if not for the proposed revisions to the previously issued standards in the model years preceding MY 2028. However, given those other proposed revisions, we do not believe any further reduction in stringency is necessary. We recommend that NHTSA review its methodology for any potential errors and to reconsider whether its approach is appropriate in the context of attribute-based standards.

*Auto Innovators recommends retention of the credit trading program.*

NHTSA proposes to eliminate the credit trading program, effective MY 2028.<sup>29</sup>

Credit trading is a useful compliance flexibility for automakers regardless of NHTSA's proposed revisions to the standards. For some automakers, like high-performance vehicle manufacturers that do not qualify as low volume manufacturers under 49 U.S.C. § 32902(d), it may be the only compliance option short of the payment of civil penalties.<sup>30</sup> For others, it may be the safety valve when unexpected changes to the market or product plans occur.

We recommend retention of the credit trading program.

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<sup>29</sup> NPRM (*supra* note 2) at 56620 *et seq.*

<sup>30</sup> Although the CAFE civil penalty is currently \$0 per 0.1 MPG per vehicle for violations of CAFE standards, Congress may choose to reestablish a penalty in the future.

If NHTSA decides to eliminate the credit trading program, we recommend that NHTSA consider the following modifications and clarifications to its proposal:

- Defer action to MY 2030, providing additional lead time.
- If eliminated in 2028, permit use of credits traded prior to MY 2028 through MY 2032, consistent with statutory allowances for use of credits up to five years after they were earned.<sup>31</sup> If eliminated in 2030, permit the use of credits traded prior to MY 2030 through MY 2034, or at least through MY 2032.
- Permit the trade of credits for three years after the program's end for the purposes of carry-back compliance prior to the program's elimination. For example, if the program is eliminated in 2028, MYs 2028-2030 credits could still be traded for application to MYs 2025-2027.

In Appendix V, Compliance Flexibilities, we discuss how NHTSA's concerns with the credit trading program are already addressed by NHTSA's other proposals or better addressed through other means. We also expand on why the credit trading program should be retained and more thoroughly describe our recommendations and reasoning for them.

*Auto Innovators supports the continuation of the air conditioning efficiency and off-cycle technology credit program under EPA's authority.*

We read the proposed rule as intending to remove extraneous text from NHTSA's regulations, but otherwise retaining air conditioning efficiency and off-cycle technology fuel consumption improvement values to the extent allowed under EPA's calculation and test procedures authority. We support this approach and note that such technologies continue to provide real-world energy saving benefits and that there is at least some degree of consumer-driven demand for most or all of the defined technologies.

*NHTSA has statutory authority to revise previously issued standards as proposed.*

As a threshold issue, NHTSA may amend previously issued standards.<sup>32</sup> The authority for such revisions is broad and not limited to future years. We agree with NHTSA's analysis that it may revise standards from prior model years, particularly for model years for which it has not yet issued final compliance determinations.

NHTSA proposes to revise previously issued standards for ten model years. Auto Innovators concurs that the five-year limitation on standard-setting does not apply to amending standards. The statute provides that NHTSA "shall . . . issue regulations under this title *prescribing* average

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<sup>31</sup> 49 U.S.C. § 32903(a)(2).

<sup>32</sup> 49 U.S.C. § 32902(c) and (g).

fuel economy standards for at least 1, but not more than 5, model years.”<sup>33</sup> Here, NHTSA is not issuing or prescribing standards, but is rather revising previously issued standards.

Nor is NHTSA limited by the now historical requirement to set standards that achieve 35 miles per gallon by 2020.<sup>34</sup> That requirement is found in a paragraph that applies to MYs 2011-2020, and NHTSA is not proposing revisions to the previously issued standards for any of those years.

NHTSA is required to provide a minimum of 18 months of lead time when setting standards.<sup>35</sup> However, when revising standards, an 18-month lead time is only required if such revision would make the standard more stringent.<sup>36</sup> In this rulemaking, NHTSA’s proposed amendments make the standards less stringent.

These issues are addressed more thoroughly in Appendix II, Legal Considerations.

*We urge NHTSA to carefully review its own rulemaking record and past litigation on CAFE standards.*

We urge NHTSA to carefully review its own rulemaking records to ensure that it is acknowledging any changes in position and thoroughly describing why the change is appropriate. Past litigation on CAFE standards should also be reviewed to the extent it pertains to positions taken and methodologies used in the current proposal.

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<sup>33</sup> 49 U.S.C. § 32902(b)(3)(B) (*emphasis added*).

<sup>34</sup> 49 U.S.C. § 32902(b)(2)(A).

<sup>35</sup> 49 U.S.C. § 32902(a).

<sup>36</sup> 49 U.S.C. § 32902(g)(2).



**Alliance for Automotive Innovation**

**Detailed Comment Appendices to**

**Comments To National Highway Traffic Safety Administration on The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022 to 2031 Passenger Car and Light Trucks; Notice of Proposed Rulemaking**

**Docket ID No. NHTSA-2025-0491**

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**February 4, 2026**

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### **Appendix I: Considerations of the Economic Practicability of Previously Issued Standards** 1

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We recommend that NHTSA consider addressing miscellaneous analysis and reporting burdens in this or a future rulemaking, as appropriate. ....	10

**Appendix V: Compliance Flexibilities.....1**

Credit Trading.....1

    Auto Innovators recommends retaining the credit trading program. ....1

    If NHTSA eliminates the credit trading program, it should defer implementation until MY 2030. ....2

    If NHTSA eliminates the credit trading program, it should allow traded credits to be used for compliance through MY 2032.....3

    If NHTSA eliminates the credit trading program, it should provide a phase-out period that allows continued credit trading for the purposes of credit carry-back to years preceding the program sunset. ....3

Air Conditioning Efficiency and Off-Cycle Technology Fuel Consumption Improvement Values.....3

    Auto Innovators opposes any proposal to eliminate air conditioning efficiency and off-cycle technology FCIVs from the CAFE program in a manner that is inconsistent with the calculation methodologies and FCIV provisions previously finalized by EPA. ....4

    Auto Innovators concurs that references to EPA CAFE calculations and test procedures for FCIVs are not required in NHTSA’s regulations and may be removed for clarity and consistency. ....4

## **Appendix I: Considerations of the Economic Practicability of Previously Issued Standards**

### **The U.S. Market for Electric Vehicles**

When the previously issued standards were set, the National Highway Traffic Safety Administration (NHTSA) assumed a continued and rapid technology transition to electric vehicles. These projections have not come to fruition thus far, and recent third-party projections suggest that trend will continue. Without the high imputed fuel economy of electric vehicles at or above the market share projected by NHTSA, the previously issued standards are unachievable.

Figure 1 (next page) demonstrates the large difference between U.S. plug-in electric vehicle (PEV)<sup>1</sup> market share projected by NHTSA, historical data, and the U.S. market for PEVs projected by Benchmark Minerals Intelligence (BMI) / Rho Motion. NHTSA's rulemaking projections significantly exceed both the historical data for 2024-2025 and the BMI / Rho Motion projection for later years. For model year (MY) 2024, the NHTSA-projected level of electrification is already 150% higher than the observed market share in calendar year 2024. The gap between NHTSA's projection and the BMI / Rho Motion projection grows through 2027 before declining but remaining significantly different through the scope of the current rulemaking.

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<sup>1</sup> Plug-in electric vehicles includes battery electric vehicles and plug-in hybrid electric vehicles.

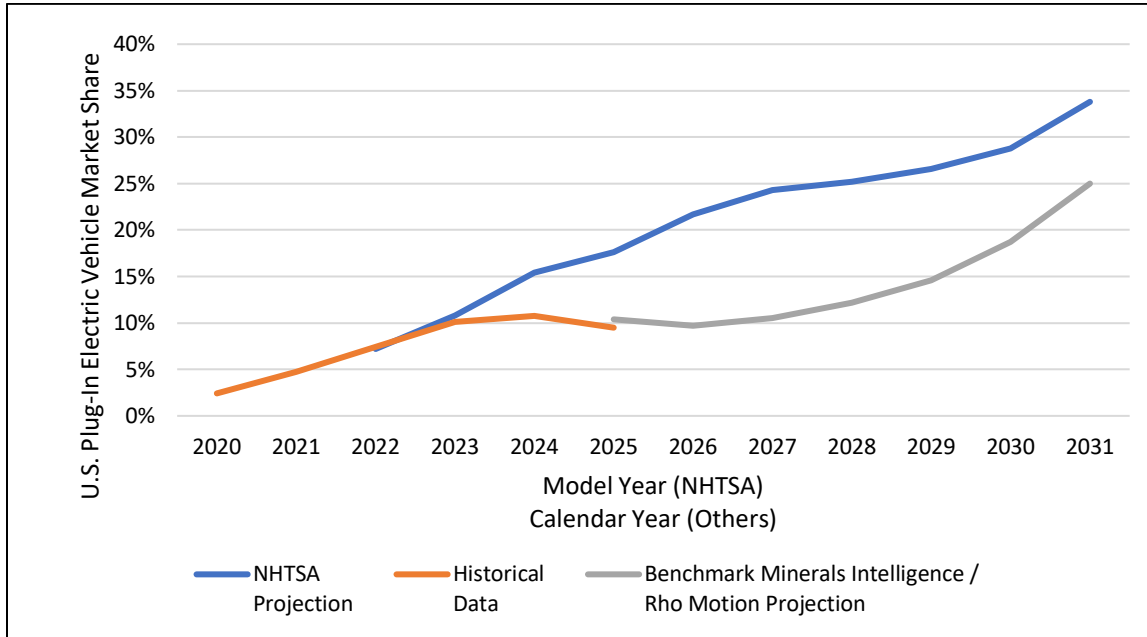


Figure 1: U.S. Plug-In Electric Vehicle Market Share (2020-2031) – Historical,<sup>2,3</sup> NHTSA 2024 Rule Projection,<sup>4</sup> and Benchmark Minerals Intelligence / Rho Motion Projection.<sup>5</sup>

## Compliance Challenges Under the Current Standards

*The rate of improvement required by the MYs 2024-2026 CAFE standards exceeds historically demonstrated rates of improvement from full-line automakers, even with electric vehicles.*

The current MYs 2024-2026 standards increase Corporate Average Fuel Economy (CAFE) stringency at a rate of 8% per year in 2024-2025 with an additional stringency increase of 10% in MY 2026.<sup>6</sup>

<sup>2</sup> Alliance for Automotive Innovation. Electric Vehicle Sales Dashboard. Dec. 8, 2025. Data compiled by Alliance for Automotive Innovation using information provided by S&P Global Mobility. <https://www.autosinnovate.org/EVDashboard> (paywall).

<sup>3</sup> Alliance for Automotive Innovation. Stay Connected: EV Monthly Recharge. Dec. 2025. <https://www.autosinnovate.org/posts/papers-reports/stay-connected-12-16-2025>. 1. Calendar year 2025 through Nov. 2025.

<sup>4</sup> National Highway Traffic Safety Administration. Final Regulatory Impact Analysis: CAFE Data Book Appendix I – Standard Setting Analysis. May 2024. I-397. Table 394 – Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC2LT002.

<sup>5</sup> Benchmark Minerals Intelligence and Rho Motion. EVs and the U.S. Supply Chain – Summary. Oct. 2025. Funded by Alliance for Automotive Innovation. 4. Available to NHTSA by request. Data used with permission.

Even with alternative fueled vehicles, the demonstrated rate of improvement by full-line automakers<sup>7</sup> remains far below the 8-10% per year improvements required by the current MYs 2024-2026 standards. From MYs 2014 to 2024, full-line automakers on average improved the fuel economy of their passenger cars and light trucks by an average 2.1% and 2.2% per year, respectively. (Table 1.)

These improvement rates were only possible due to the sale of the included electric vehicles. Given that future market growth for electric vehicles is uncertain, these rates of improvement should not be used as a basis for future standards.

Table 1: Average Annual Rate of Improvement for Full-Line Automakers, Passenger Cars and Light Trucks, Model Years 2014 to 2024.

Fleet	MY 2014 Fuel Economy (MPG) <sup>8</sup>	MY 2024 Fuel Economy (MPG)	Average Annual Improvement Rate (% per year) <sup>9</sup>
Passenger Car	35.7	44.3	2.1%
Light Truck	25.6	32.0	2.2%

*Compliance challenges are widespread in 2024, likely as a result of the high pace of stringency increases.*

Even with electric vehicles, all automakers building internal combustion engine (ICE) vehicles had at least one compliance fleet<sup>10</sup> fail to achieve its CAFE target prior to consideration of banked or traded credits. The only automakers without a non-compliant fleet were those that exclusively build plug-in electric vehicles. (Figure 2.)

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<sup>6</sup> National Highway Traffic Safety Administration. Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks; Final Rule. 87 Fed. Reg. 25710 (May 2, 2022).

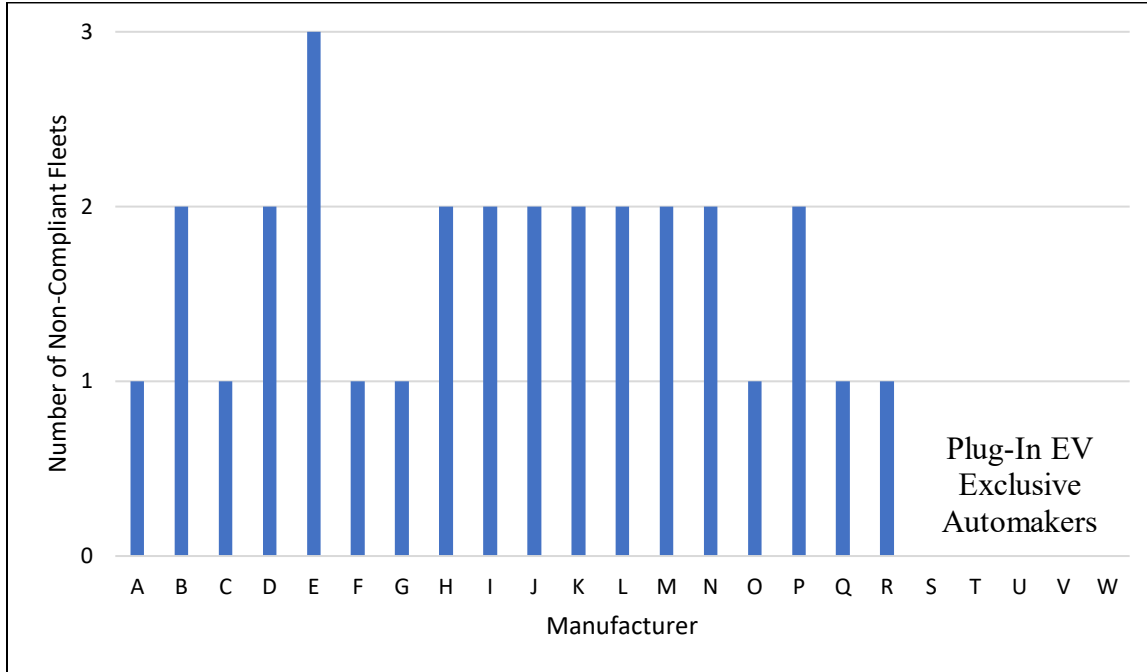
<sup>7</sup> Herein, the term “full-line automakers” is used to denote all automakers building conventional internal combustion engine vehicles, *i.e.*, excluding automakers that build only battery electric vehicles.

<sup>8</sup> S&P Global Mobility. Model Years 2012 to 2025 Baseline Study. Dec. 15, 2025. Funded by Alliance for Automotive Innovation. Tabular Data. Data reflects fleet average 2-cycle laboratory fuel economy.

<sup>9</sup> Compound average annual rate of improvement calculated based on fuel consumption (gallons per mile).

<sup>10</sup> Referring to domestic passenger car, import passenger car, and light truck compliance fleets.

Figure 2: Number of Non-Compliant Fleets by Manufacturer, MY 2024 Before Consideration of Banked or Traded Credits.<sup>11</sup>



CAFE statutes and regulations allow a limited transfer of credits between a manufacturer’s compliance fleets.<sup>12,13</sup> Therefore, it is also instructive to review compliance on a combined fleet average basis, normalizing to gallons of fuel as would be done in a credit transfer situation. Such an approach provides an optimistic view of compliance because it does not account for credit transfer caps.

In Figure 3, we show the calculated combined MY 2024 fleet average performance level in terms of gallon-equivalent credits generated (positive values, indicating over-performance to the combined target) or consumed (negative values, indicating under-performance to the combined target) for each manufacturer included in NHTSA’s analysis, excluding manufacturers that only build PEVs. Of the eighteen listed manufacturers that built ICE vehicles in MY 2024, only four earned a positive credit balance while fourteen generated deficits.

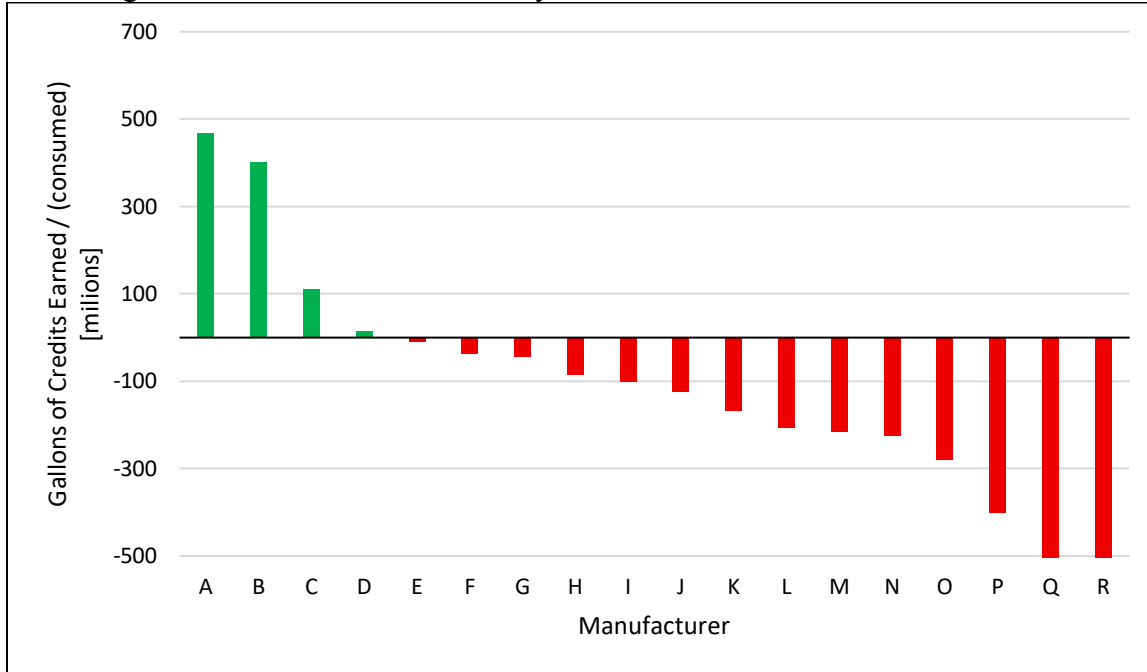
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<sup>11</sup> National Highway Traffic Safety Administration. CAFE Compliance and Effects Modeling System. <https://www.nhtsa.gov/corporate-average-fuel-economy/cale-compliance-and-effects-modeling-system>. Downloads; 2025 NPRM for Model Years 2027-20231 Passenger Cars and Light Trucks; Central & EIS Analysis; LD\_EIS.zip\output\reports-csv\compliance\_report.csv. Analysis by Auto Innovators. Comparison of “Standard” to “CAFE” for separate Reg-Class “Domestic Car”, “Imported Car”, and “Light Truck.”

<sup>12</sup> 49 U.S.C. § 32903(g).

<sup>13</sup> 49 C.F.R. part 536.

Figure 3: Total CAFE Credit Earned / (Consumed) in Gallons by Manufacturer (MY 2024), Excluding Manufacturers That Build Only PEVs.<sup>14</sup>



<sup>14</sup> National Highway Traffic Safety Administration. CAFE Compliance and Effects Modeling System. <https://www.nhtsa.gov/corporate-average-fuel-economy/cafe-compliance-and-effects-modeling-system>. Downloads; 2025 NPRM for Model Years 2027-20231 Passenger Cars and Light Trucks; Central & EIS Analysis; LD\_EIS.zip\output\reports-csv\compliance\_report.csv. Analysis by Alliance for Automotive Innovation. Comparison of “Standard” to “CAFE” converted to equivalent gallons by multiplying “Sales” with lifetime vehicle miles traveled (49 C.F.R. § 536.4(c), Table 1) and dividing by miles per gallon.

## Appendix II: Legal Considerations

### Statutory Requirements for Excluding Plug-In Electric Vehicles from NHTSA’s Standard Setting Analysis

*NHTSA may not consider the fuel economy of dedicated alternative-fueled vehicles (e.g., battery electric vehicles) or the operation of dual-fueled vehicles (e.g., plug-in hybrid electric vehicles) on alternative fuels.*

NHTSA in this rulemaking “has not considered the imputed fuel-economy performance of EVs or the electric operation of plug-in hybrid electric vehicles (PHEVs). This approach . . . brings the CAFE program into compliance with statutory restrictions.”<sup>15</sup>

NHTSA’s recent “Resetting the Corporate Average Fuel Economy Program” interpretive rule<sup>16</sup> is correct insofar as it describes the 49 U.S.C. § 32902(h)(1) and (2) statutory prohibitions on the consideration of the fuel economy of dedicated alternative-fueled vehicles<sup>17</sup> and the operation of dual-fueled vehicles on alternative fuels when setting fuel economy standards<sup>18</sup> and the ways in which NHTSA previously failed to follow those statutory requirements.

Auto Innovators previously submitted extensive comments on these issues in response to prior CAFE rulemakings, including those for MYs 2024-2026<sup>19</sup> and those for MYs 2027-2031.<sup>20</sup> We hereby incorporate by reference our previous comments regarding the 49 U.S.C. 32902(h)(1)

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<sup>15</sup> National Highway Traffic Safety Administration. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022 to 2031 Passenger Car and Light Trucks; Notice of Proposed Rulemaking. 90 *Fed. Reg.* 56438, 56444 (Dec. 5, 2025). Hereinafter “NPRM.”

<sup>16</sup> Interpretive Rule (*supra* note 14).

<sup>17</sup> 49 U.S.C. § 32902(h)(1).

<sup>18</sup> 49 U.S.C. § 32902(h)(2).

<sup>19</sup> National Highway Traffic Safety Administration. Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks; Notice of Proposed Rulemaking. 86 *Fed. Reg.* 49602 (Sep. 3, 2021).

<sup>20</sup> National Highway Traffic Safety Administration. Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027-2032 and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030-2035; Notice of Proposed Rulemaking. 88 *Fed. Reg.* 56128 (Aug. 17, 2023).

and (2) statutory prohibitions and those on NHTSA’s disregard for those prohibitions.<sup>21,22,23</sup> Copies of those previous comments are attached to our comments on this proposal for NHTSA’s convenience.

Auto Innovators also submitted an amicus brief in the matter of *Natural Resources Defense Council v. National Highway Traffic Safety Administration*, No. 22-1080 (D.C. Cir. Dec. 1, 2022) in support of the state petitioners and petitioner American Fuel & Petrochemical Manufacturers. That brief, incorporated by reference and attached for NHTSA’s convenience, explains how The Energy Policy and Conservation Act (EPCA) categorically prohibits NHTSA from considering dedicated alternative-fueled vehicles and the alternative fuel operation of dual-fueled vehicles in any part of its analysis when setting standards, and how NHTSA improperly included dedicated and dual-fueled vehicles in setting the MY 2024-2026 CAFE standards.

*The specific 49 U.S.C. § 32902(h) prohibitions supersede any general reading of other requirements for consideration.*

In the preamble to the NPRM, NHTSA discusses the interplay between the prohibitions in 49 U.S.C. §32902(h) and the requirement that NHTSA “consider” “the effect of other motor vehicle standards of the Government on fuel economy” (among other factors) in determining appropriate fuel economy standards, and correctly concludes that the latter does not limit the former.<sup>24</sup> This conclusion is supported by the “well established canon of statutory interpretation . . . that the specific governs the general.”<sup>25</sup> As the Supreme Court has explained, this cannon “is perhaps

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<sup>21</sup> Alliance for Automotive Innovation. Comments to National Highway Traffic Safety Administration Regarding Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks. Oct. 26, 2021. Available at Regulations.gov, Docket ID No. NHTSA-2021-0053-1492. See “NHTSA’s Consideration of Electric Vehicles in Standard-Setting” at 14. See also, “Appendix IV: NHTSA’s Consideration of Electric Vehicles in Standard-Setting” at 39.

<sup>22</sup> Alliance for Automotive Innovation. Comments to U.S. Department of Transportation National Highway Traffic Safety Administration: Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027-2032 and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030-2035. Oct. 16, 2023. Available at Regulations.gov, Docket ID No. NHTSA-2023-0022-60652. See “2.3 NHTSA’s proposed standards are improperly predicated on alternative fuel vehicles” at 6.

<sup>23</sup> Alliance for Automotive Innovation. Comments to U.S. Department of Transportation National Highway Traffic Safety Administration: Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027-2032 and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030-2035. Oct. 16, 2023. Attachment 0 – Appendices to Comment from Auto Innovators. Available at Regulations.gov, Docket ID No. NHTSA-2023-0022-60652. See “Appendix A: NHTSA’s proposed standards are improperly predicated on alternative fuel vehicles” at 1.

<sup>24</sup> 90 *Fed. Reg.* at 56586 and 56588-589.

<sup>25</sup> *Mittleman v. Postal Regulatory Comm’n*, 757 F.3d 300, 306 (D.C. Cir. 2014) quoting *RadLAX Gateway Hotel, LLC v. Amalgamated Bank*, 566 U.S. 639, 645 (2012).

most frequently applied to statutes in which a general permission or prohibition is contradicted by a specific prohibition or permission.”<sup>26</sup>

Here, the prohibitions set forth in 49 U.S.C. §32902(h)—which specifies how dedicated automobiles, dual-fueled automobiles and credits are to be accounted for in rulemaking—is much more specific than the general reference to “other motor vehicle standards of the Government” in 49 U.S.C. §32902(f). Consequently, even if a valid and enforceable federal or state regulation required automakers to produce and sell EVs, and even if such a regulation qualifies as an “other motor vehicle standards of the Government,” the general language of subsection (f) must give way to the more specific language in subsection (h). NHTSA cannot consider the fuel economy of battery electric vehicles (BEVs) or the electric operation of PHEVs in its standard-setting for any purpose whatsoever, as the agency concluded in the Interpretive Rule and in this NPRM.

### Energy Independence and Security Act - 35 MPG by 2020 Requirement

*49 U.S.C. § 32902(b)(2) – NHTSA may set standards that achieve a combined fuel economy average of less than 35 miles per gallon after MY 2020.*

Section 32902(b)(2)(A) of EPCA, as amended, specifies certain provisions specific to fuel economy standards for certain model years. “[F]or model years 2011 through 2020,” EPCA includes the requirement “to achieve a combined fuel economy average for model year 2020 of at least 35 miles per gallon for the total fleet of passenger and non-passenger automobiles,” with ratable increases between MYs 2011 through 2020.<sup>27</sup> Separately, EPCA provides:

For model years 2021 through 2030, the average fuel economy required to be attained by each fleet of passenger and non-passenger automobiles manufactured for sale in the United States shall be the maximum feasible average fuel economy standard for each fleet for that model year.<sup>28</sup>

By its plain language, the combined fuel economy for model years after 2020 need not achieve 35 MPG. All that is required is that fuel economy standards after MY2020 be “the maximum feasible” standards, as that term is defined in Section 32902(f). The standards may be higher or lower than 35 MPG, depending on how NHTSA weighs and balances the factors set forth in Section 32902(f).

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<sup>26</sup> *Id.*

<sup>27</sup> 49 U.S.C. § 32902(b)(2)(A) and (C).

<sup>28</sup> *Id.* § 32902(b)(2)(B).

## Authority to Revise Standards and Requirements Thereto

*NHTSA may amend standards after they have been set.*

EPCA allows NHTSA to amend standards after they have been set, as clearly outlined in two separate sections of the law. One allows that “[t]he Secretary of Transportation may prescribe regulations amending the standard under subsection (b) of this section for a model year to a level that the Secretary decides is the maximum feasible average fuel economy level for that model year.”<sup>29</sup> The other declares that “[t]he Secretary of Transportation may prescribe regulations amending an average fuel economy standard” prescribed under EPCA if the amended standard also meets EPCA’s requirements.<sup>30</sup> That flexibility also rests on a fundamental principle of administrative law: that “[a]gencies are free to change their existing policies as long as they provide a reasoned explanation for the change.”<sup>31</sup> Consequently, NHTSA has amended CAFE standards multiple times in the past, as allowed, in order to react to changing circumstances.

*NHTSA may amend standards both prospectively and retroactively*

Auto Innovators agrees that NHTSA may properly amend previously issued standards, including for those model years that have already passed but for which it has not yet issued final compliance determinations. The authority for such revisions is broad and not limited to future years.<sup>32</sup> This is especially true for this rulemaking because, as NHTSA explained in the Interpretive Rule, the rulemakings that established the existing standards for MYs 2024 through 2031 were based on a fundamentally improper reading of Section 32902(h) (*i.e.*, the improper consideration of BEVs and PHEVs). Consequently, not only is it proper for NHTSA to amend the standards for those prior model years, it is legally required to do so to align the standards with the text of EPCA.

*NHTSA is not required to provide lead time when revising standards to lower stringency.*

In this NPRM, NHTSA is proposing to amend MY 2028 and other standards to make them less stringent.

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<sup>29</sup> 49 U.S.C. § 32902(c).

<sup>30</sup> 49 U.S.C. § 32902(g)(1).

<sup>31</sup> *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2125 (2016).

<sup>32</sup> 49 U.S.C. § 32902(c) and (g). NHTSA’s interpretation of its authority to amend CAFE standards for prior model years is consistent with last year’s statutory amendment regarding civil penalties applying to MY 2022 and forward.

EPCA requires that when standards are first prescribed, a lead time of “18 months before the beginning of each model year” be given to the auto industry to allow planning for compliance. 49 U.S.C. § 32902(a). But with respect to the *amendment* of standards, EPCA directs that:

When the Secretary of Transportation prescribes an amendment under this section *that makes an average fuel economy standard more stringent*, the Secretary shall prescribe the amendment (and submit the amendment to Congress when required under subsection (c)(2) of this section) at least 18 months before the beginning of the model year to which the amendment applies.<sup>33</sup>

Therefore, per the statute, the 18-month lead time is only needed for amendments when those amendments make the standard more stringent. Consistent with the law, NHTSA states in its NPRM that “EPCA contains no lead time requirement if the amendment makes an average fuel economy standard less stringent.”<sup>34</sup>

*NHTSA may revise standards to reduce stringency for model years which have completed production, but for which NHTSA has not yet issued final compliance determinations.*

In this NPRM NHTSA (among other things) is proposing to revise standards for MYs 2022–2025, which will have completed production prior to issuance of a final rule in this rulemaking. The above-discussed provision 49 U.S.C. § 32902(g)(1) allows for the amendment of standards, and does not contain any provisions limiting those amendments to prospective model years when the amendments are making the standards less stringent. On the other hand, amendments to prospective model years that make the standards more stringent are subject to the 18-month lead time requirement discussed above, which prevents the amendment of standards after completing production for the model year. Therefore, NHTSA has authority under the statute to make standards less stringent for model years that have completed production.

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<sup>33</sup> 49 U.S.C. § 32902(g)(2) (emphasis added).

<sup>34</sup> NPRM (*supra* note 15) at 56582.

## Considerations for Setting Maximum Feasible Standards

EPCA provides that fuel economy standards “shall be the maximum feasible average fuel economy level that the Secretary decides the manufacturers can achieve in that model year.”<sup>35</sup> The term “maximum feasible,” however, is a statutory term of art, and EPCA prescribes how NHTSA is to determine what the appropriate fuel economy standard is for a given model year. EPCA states:

When deciding maximum feasible average fuel economy under this section, the Secretary of Transportation shall consider technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy.<sup>36</sup>

And, as discussed elsewhere, EPCA sets forth certain matters that NHTSA is prohibited from considering when determining “maximum feasible” fuel economy levels, such as the availability of dedicated automobiles like BEVs. NHTSA has consistently affirmed that the agency has broad *policy* discretion concerning how to weigh the factors set forth in Section 32902(f).

NHTSA has broad discretion in balancing the above factors in determining the average fuel economy level that the manufacturers can achieve. Congress “specifically delegated the process of setting... fuel economy standards with broad guidelines concerning the factors that the agency must consider.” The breadth of those guidelines, the absence of any statutorily prescribed formula for balancing the factors, the fact that the relative weight to be given to the various factors may change from rulemaking to rulemaking as the underlying facts change, and the fact that the factors may often be conflicting with respect to whether they militate toward higher or lower standards give NHTSA discretion to decide what weight to give each of the competing policies and concerns and then determine how to balance them—“as long as NHTSA's balancing does not undermine the fundamental purpose of the EPCA: Energy conservation,” and as long as that balancing reasonably accommodates “conflicting policies that were committed to the agency's care by the statute.” Thus, EPCA does not mandate that any particular number be adopted when NHTSA determines the level of CAFE standards.<sup>37</sup>

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<sup>35</sup> 49 U.S.C. § 32902(a).

<sup>36</sup> 49 U.S.C. §32902(f).

<sup>37</sup> See National Highway Traffic Safety Administration. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards. 77 Fed. Reg. 62,624, 62,670 (Oct. 15, 2012) (quoting *Center for Auto Safety v. NHTSA*, 793 F.2d 1322, 1341 (D.C. Cir. 1986) and *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1195 (9th Cir. 2008)).

Auto Innovators does not believe that the Supreme Court’s decision in *Loper Bright Enters. v. Raimondo*<sup>38</sup> limits NHTSA’s discretion to weigh the statutory factors in EPCA and reach a policy determination about “maximum feasible” fuel economy standards. Subsection (f) of EPCA is the type of statutory regime that the Supreme Court cited in *Loper Bright* as expressly granting discretion to the agency to regulate, *i.e.*, when the statute “empower[s] an agency to prescribe rules to ‘fill up the details’ of a statutory scheme,” and when the statute empowers an agency to regulate as it deems “appropriate” or “reasonable.”<sup>39</sup>

## Five-Year Limitation to Standard-Setting

*The five-year limit to standard-setting applies to new standards, not revised standards.*

NHTSA discussed its interpretation in the 2020 final rule that the statute “allows NHTSA to revisit existing standards and separately allows NHTSA to prescribe new standards ‘for at least 1, but not more than 5, model years’ when it ‘issue[s] regulations.’”<sup>40</sup> NHTSA agreed with this interpretation in its proposal to “rectify placing manufacturers in a situation where they violate unlawful standards set at beyond maximum feasible levels due to the consideration of factors prohibited explicitly from consideration . . . .”<sup>41</sup> NHTSA also asserts that the “public interest in efficiency is best served by presenting proposed amendments for all model years covered by this proposed rule in one notice” especially since “this is the first time the public will be able to provide comments on a fuel economy standards trajectory for the automotive fleet that appropriately only includes gasoline- and diesel-powered vehicles. Accordingly, NHTSA has concluded it is appropriate to present all years covered by this amendment in one action.”<sup>42</sup>

Auto Innovators does not have a concern with one rulemaking to cover amendments to fuel economy standards for MYs 2022-2026 and MYs 2027-2031. EPCA provides that NHTSA “shall . . . *issue* regulations under this title *prescribing* average fuel economy standards for at least 1, but not more than 5, model years.”<sup>43</sup> By its plain language, the five-year limitation

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<sup>38</sup> 603 U.S. 369 (2024).

<sup>39</sup> *Id.* At 395. Of course, the clear delegation of discretion to weigh statutory factors found in subsection (f) stands in stark contrast to the absolute statutory prohibitions that appear in subsection (h). As discussed elsewhere in these comments, the language in subsection (h) is clear and unequivocal, and it provides that NHTSA “may not consider the fuel economy of dedicated automobiles” like EVs, full stop. NHTSA lacks the discretion to construe that provision in any manner other than its plain meaning.

<sup>40</sup> NPRM (*supra* note 15) at 56582.

<sup>41</sup> *Id.* at 56582-56583.

<sup>42</sup> *Id.* at 56583.

<sup>43</sup> 49 U.S.C. § 32902(b)(3)(B).

applies only when NHTSA “issue[s] regulations under this title prescribing” CAFE standards. It does not apply when the agency amends standards that have already been issued or prescribed.

Nonetheless, to the extent that NHTSA is concerned that a challenge could be raised that this rulemaking exceeds the requirement to limit regulatory revisions to no more than five MYs (and we do not think it could be), the agency may want to separate its rulemaking into two final rules issued simultaneously, one covering MY 2022 – 2026 standards and the other covering MY 2027 – 2031 standards. As NHTSA emphasizes, “two separate analyses were conducted for the 2022 – 2026 and 2027 – 2031 standards . . . .”<sup>44</sup> NHTSA can utilize all of its analysis and documentation and public comments in both final rules but separate the two separate analyses it conducted into two separate final rules.<sup>45</sup>

## Severability

As described above, Auto Innovators supports NHTSA’s claim of the severability of the MYs 2022-2026 proposal from the MYs 2027-2031 proposal and recommends the final rule clarify this as well as provide that the reclassification provisions are tied to the MYs 2027 – 2031 standards.

*The vehicle reclassification provisions should not be severable from the model years to which they apply.*

NHTSA proposes that various compliance and enforcement proposals are severable from other aspects of the proposal if one or more other aspects of the proposal were to be struck down.<sup>46</sup>

NHTSA indicated it conducted two separate analyses for the MY 2022 – 2026 and the MY 2027 – 2031 standards.<sup>47</sup> Thus, it should clarify in the final rule that its severability clause applies separately for MY 2022 – 2026 standards and MY 2027 – 2031 standards.

However, unlike the proposed MYs 2022-2026 and 2027-2031 standards, which could operate independently if either are struck down, the vehicle reclassifications are part and parcel to the MY 2028 and later standards as proposed. NHTSA’s proposed reclassification of many SUVs and minivans as passenger cars adds vehicles to that fleet for which the current (unrevised) standards were never designed for or evaluated with. The vehicle reclassification provisions

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<sup>44</sup> *Id.* at 56583.

<sup>45</sup> Issuing two final rules also would strengthen NHTSA’s severability position discussed elsewhere by bifurcating its proposed program reset into two separate rulemakings: the first reset to fix the deficiencies covering MY 2022 – 2026 and the second to continue implementing the reset covering MY 2027 - 2031.

<sup>46</sup> NPRM (*supra* note 15) at 56611.

<sup>47</sup> *Id.* at 56583.

should not be severable from the MY 2027 – 2031 standards (or from any other model years to which reclassification applies in a final rule).

Therefore, if revised standards for MY 2028 and later are struck down, the vehicle reclassification provisions should also be struck. The severability clause in the final rule should reflect this.

## Preemption of State Fuel Economy Regulations

NHTSA indicates it is not taking any action regarding preemption in this proposed rule because its purpose is to propose amended CAFE standards, and it is not required under EPCA or the Energy Independence and Security Act of 2007 (EISA) to make a determination on preemption.<sup>48</sup> However, to the extent federal preemption is raised, NHTSA provides that “[u]nder EPCA’s blanket preemption provision, states may not adopt or enforce regulatory requirements related to fuel economy standards. This preemption mandate holds true regardless of whether EPA has granted waivers for emissions requirements under the CAA.”<sup>49</sup> Auto Innovators agrees with NHTSA that the preemption provision in EPCA is self-executing and that no rulemaking or other action is required by the agency to give it effect.<sup>50</sup>

## Civil Penalties

NHTSA provides that per Pub. L. 119-21, civil penalties are set at \$0 starting in MY 2022 and DOT will update the CAFE civil penalties regulations to reflect the statutory amendment in the next DOT-wide annual civil penalties update rulemaking.<sup>51</sup> Updating the regulations in the near future is appreciated.

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<sup>48</sup> NPRM (*supra* note 15) at 56628.

<sup>49</sup> *Id.* at 56586.

<sup>50</sup> That said, the expert views of NHTSA concerning whether a particular state action amounts to “a law or regulation related to fuel economy standards or average fuel economy standards” may be persuasive on the matter. *See e.g.*, Average Fuel Economy Standards For Light Trucks Model Years 2008-2011, 71 *Fed. Reg.* 17,566, 17,657 (Apr. 6, 2006).

<sup>51</sup> NPRM (*supra* note 15) at 56453 (note 25); 56614 (note 512).

## Appendix III: Vehicle Classification

NHTSA proposes to modify non-passenger automobile (light truck) classification rules. By NHTSA's own estimate, a large quantity of vehicles currently classified as light trucks would be reclassified as passenger cars, flipping the U.S. fleet from its current roughly 30% passenger car / 70% light truck classification to a roughly 70% passenger car / 30% light truck classification. As a result, many vehicles currently classified as light trucks will become subject to more stringent passenger car standards.

### General Considerations for Changes to Vehicle Classification

*NHTSA should ensure that attribute-based target functions are consistent with the vehicles in each compliance category.*

NHTSA is required by statute to prescribe separate standards for passenger automobiles and non-passenger automobiles (light trucks).<sup>52</sup> Separate standards recognize that light trucks generally have lower fuel economy due to their added utility features. When vehicles are reclassified, their physical characteristics and design features do not change. Therefore, the standards must be set (or revised) to reflect the physical characteristics of the vehicles in each category and the potential for fuel economy improvements based on NHTSA's statutorily required considerations. It is essential for this and future administrations to consider the fleet composition when setting fuel economy standards.

*NHTSA should only consider changes to vehicle classification rules while also setting or revising standards.*

NHTSA should only consider changes to vehicle classifications while also setting or revising standards. For example, this proposed rule will likely result in vehicles with utility features that enable increased towing capacity or off-highway capability—which often correlate with lower fuel efficiency—moving from the non-passenger automobile fleet with numerically lower standards into the passenger automobile fleet, which has numerically higher standards. Without corresponding changes to standards, vehicle reclassification could affect manufacturers' ability to comply with the regulations. In this rulemaking, NHTSA has proposed to revise standards to a level that generally reduces concerns with the impact of vehicle reclassification, but there may be some manufacturers that are impacted more than others based on their specific fleet mix and vehicle designs.

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<sup>52</sup> 49 U.S.C. § 32902(b)(1).

*When reclassifying the fleet, NHTSA should seek to avoid unintended constraints on vehicle design and availability.*

Changes to regulatory definitions and requirements can themselves result in market distortion by constraining the availability of some vehicle features. Some features that provide additional utility can have negative effects on the vehicle's fuel economy. All-wheel drive (AWD) is one example: the additional components needed to provide AWD add weight to the vehicle and consume more fuel, leading to lower fuel economy.<sup>53</sup> Changes to vehicle classification could distort the availability of this and other features and potentially limit consumer choice.

*NHTSA should consider unintended consequences of vehicle classification changes beyond its own fuel economy requirements.*

NHTSA should consider the unintended consequences of vehicle classification changes beyond the agency's fuel economy regulations. Consider EPA's criteria emission regulations: EPA sets different cold carbon monoxide (CO) and evaporative emission requirements for passenger cars and light-duty trucks, which are defined by EPA through reference to NHTSA's part 523 classifications.<sup>54</sup> Changes to these standards that move vehicles from the non-passenger automobile class into the passenger automobile class may force manufacturers to redesign vehicles to meet a new set of more stringent emissions standards on short notice. Redesigns require significant capital investment and could lead to higher costs for customers, potentially affecting NHTSA's affordability goals.

*NHTSA should provide substantial lead time.*

Automakers and suppliers need ample lead time to ensure that vehicles in development will meet regulatory requirements when major changes occur. NHTSA is proposing to reclassify a substantial portion of the fleet. Manufacturers may need time to make design changes to ensure continued regulatory compliance. For example, when a light truck is reclassified as a passenger car, it becomes subject to the more stringent passenger car targets. What may have been a neutral vehicle for compliance purposes in the light truck fleet would need to be redesigned to remain neutral in the passenger car fleet. NHTSA should ensure that manufacturers have several years of lead time from publication of the final rule to complete such changes. Moreover, given

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<sup>53</sup> Threewitt, Cherise. "All-Wheel Drive vs. Front-Wheel Drive: Which Drivetrain is Right for You?" U.S. News (2025). <https://cars.usnews.com/cars-trucks/advice/awd-vs-fwd>. Accessed Jan. 2, 2026.

<sup>54</sup> In 40 C.F.R. § 86.1803-01, the definition of "light-duty truck" has the meaning given in 40 C.F.R. § 600.002 beginning in MY 2027. "Light truck" in 40 C.F.R. § 600.002 references the definition established in 49 C.F.R. § 523.5 and is interchangeable with "non-passenger automobile." The proposed changes to the non-passenger automobile fleet in 49 C.F.R. § 523.5 will change how a vehicle is defined for compliance with EPA regulations, significantly increasing regulatory stringency for some vehicles unless and until EPA revises its own regulations.

the impact of vehicle reclassification on EPA's criteria emission regulations, several years of lead time is warranted.

## Off-Highway Capability Characteristics

NHTSA proposes to remove the front and rear axle clearance (axle clearance) criteria from the assessment of off-highway capability. In parallel, the agency proposes to require vehicles to meet all four of the remaining four dimensional characteristics (running clearance, approach angle, breakover angle, and departure angle) to be considered capable of off-highway operation.

*Auto Innovators recommends that NHTSA take no action on this proposal and defer these changes until the agency is able to evaluate the features that enable off-highway capability on the modern fleet.*

In isolation, Auto Innovators would not oppose removing the axle clearance criteria. Almost all MY 2024 vehicles that meet the running clearance criteria also meet the axle clearance criteria, so axle clearance in and of itself does not appear to be a distinguishing feature. Its removal, however, is notable because of NHTSA's proposal to require vehicles to subsequently meet all four of the remaining high ground clearance dimensional characteristics.

NHTSA focuses its analysis on approach angle, recognizing that virtually all vehicles classified as capable of off-highway operation meet minimum running clearance, axle clearance, breakover angle, and departure angle characteristics. The agency seems to believe that approach angle is a critical characteristic because it determines an automobile's ability to traverse steep obstacles.

What NHTSA fails to consider is that off-highway operation can take many forms while still entailing similar compromises between fuel economy and capability.

As said by 4wheelparts.com, an online store for aftermarket off-highway vehicle parts,

Off-roading terrains come in all shapes and sizes. From light trails suitable for any family SUV or mid-size crossover to gnarly rock-crawling sections that only a dedicated off-roader can tackle, there's a bit of everything to suit everyone's needs and desires.

Off-roading is perhaps the most versatile recreational sport on the planet simply because of how many different terrains it encompasses and how many different vehicles can technically go off-roading.<sup>55</sup>

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<sup>55</sup> 4wheelparts.com. Types of Off Roading Terrains. <https://www.4wheelparts.com/articles/types-of-off-roading-terrains>. Accessed Jan. 2, 2026.

Not every form of off-highway operation requires all five of the high ground clearance dimensional characteristics (in addition to four-wheel-drive) to successfully operate a vehicle off-road. For example, two-tracks, beaches, dunes, mud, ice, and snow are all considered off-highway operation, but do not necessarily require the minimum approach angle identified by NHTSA as a characteristic.

NHTSA's original (and current) requirement that vehicles meet four of five high ground clearance characteristics appropriately recognizes that vehicle designs may vary yet still provide off-highway capability. In other words, not every vehicle design capable of off-highway operation was expected to look exactly like a 1970s Jeep or Bronco. Indeed, the modern fleet has evolved from the 1970s to provide a range of vehicles capable of off-highway operation across a variety of terrains. Removing an existing criterion and effectively forcing a higher approach angle may drive off-highway designs to look only like those vehicles, without necessarily providing any additional off-highway capability.

*If NHTSA chooses to proceed with off-highway capability changes, Auto Innovators recommends that off-highway capability be based on three of the four remaining dimensional characteristics or that, at minimum, NHTSA reduce the minimum approach angle.*

Recognizing that there are a variety of off-highway terrains, NHTSA should allow a vehicle to qualify as off-highway capable by meeting three of the remaining four criteria for off-highway classification—minimum running clearance, approach angle, breakover angle, and departure angle. This flexibility would give automakers the freedom to design a range of vehicles suitable for a variety of off-highway terrains that best meet market demand, without unnecessary design constraints.

If NHTSA proceeds with requiring manufacturers to meet the entirety of minimum running clearance, approach angle, breakover angle, and departure angle characteristics, the agency should consider lowering the required approach angle; Auto Innovators would recommend an approach angle in the range of 18 to 20 degrees. These approach angles are higher than that of a traditional passenger car. A lower approach angle again would recognize that off-highway driving encompasses many types of terrain, not all of which require a 28 degree approach angle. An 18 to 20 degree approach angle would again provide greater design flexibility for manufacturers to meet consumer desires and to continue improving safety while still providing off-highway capability.

*NHTSA should retain its interpretation that all-wheel-drive and four-wheel-drive meet the statute's intent.*

Auto Innovators agrees with NHTSA's assessment that there is significant overlap between four-wheel-drive (4WD) and all-wheel-drive (AWD) drivetrains. Both continue to meet the intent of the 4WD provision of the statute by providing off-highway capability. Both can incur some compromise in fuel economy, particularly in combination with other off-highway capability features. Continuing to treat them the same will allow manufacturers to provide a range of products that meet consumers' desires and needs for off-highway capabilities.

*NHTSA should allow manufacturers to provide either measured or calculated data and consider other revisions.*

NHTSA proposes changing “calculated” in the existing regulation to “measured” in the definition of the high ground clearance dimensional criteria.<sup>56</sup> We recommend that NHTSA change the language to read “measured or calculated.” “Measured” would require manufacturers to meet the criteria when the vehicle is physically measured (for example, in a NHTSA audit) while also clarifying that manufacturers may make determinations using computer models with good engineering judgment.

We also encourage NHTSA to consider adding an allowance for design tolerances or to specify that the criteria are based on nominal vehicle designs.

We further recommend that NHTSA specify that the criteria are assessed with adjustable suspensions in the manufacturer-recommended position for off-highway operation, consistent with current interpretations.

*NHTSA should exclude flexible and partially sprung components from its definition of “running clearance.”*

We recommend that NHTSA modify the definition of “running clearance” to explicitly exclude flexible components and partially sprung components. This addition would ensure that the regulations remain consistent with the agency’s present interpretations.

## Functional Capability Characteristics

NHTSA proposes to remove the functional characteristic that qualifies vehicles with at least three rows of designated seating positions that stow to create a flat, level surface as non-passenger automobiles.<sup>57</sup> In its place, the agency proposes a light-duty work factor (LDWF) to evaluate a vehicle’s combined cargo-carrying and towing performance. The proposed LDWF is a weighted sum of a vehicle’s approximated payload capacity (one-third of the sum) and a term intended to represent towing capacity (two-thirds). NHTSA should review and correct its analysis of MY 2024 LDWF values.

Auto Innovators supports an approach to classifying non-passenger automobiles that considers towing and possibly payload capacity. NHTSA correctly acknowledges the many ways in which

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<sup>56</sup> 49 C.F.R. § 523.5(b).

<sup>57</sup> 49 C.F.R. § 523.5(a)(5)(ii).

increased towing and payload capacity affect a vehicle's design considerations and which inherently affect the vehicle's fuel efficiency.<sup>58</sup>

*As currently proposed, NHTSA should not implement the LDWF equation and threshold.*

We are concerned that NHTSA's LDWF calculations use incorrect data for some vehicles resulting in a skewed threshold and an incorrect evaluation of what vehicles would become passenger cars under the proposal.

In its analysis of MY 2024 LDWF values, NHTSA calculated the "towing" portion based on maximum towing capacity.<sup>59</sup> That maximum towing capacity is either based on published maximum towing capacity or on the difference between published GCWR and GVWR.<sup>60</sup>

Published maximum towing capacity and the difference between GCWR and GVWR are not interchangeable. Maximum towing capacity is generally based on SAE J2807 for most manufacturers. The difference between GCWR and GVWR takes the maximum combined weight of the trailer and vehicle and treats the towing vehicle as if it is already carrying its maximum permissible payload, yielding a value equal to or lower than the rated towing capacity of the vehicle.

Additionally, a published maximum rated tow capacity is the highest rated towing capacity of a general vehicle model. Variants within that vehicle model may have towing capacities less than the maximum rating.

Therefore, the substitution of maximum towing rating in lieu of GCWR-GVWR yields higher estimated LDWFs for the MY 2024 fleet than manufacturers would be required to use for compliance under NHTSA's proposal. The result is an artificially higher threshold value in NHTSA's analysis and the transfer of more vehicles from the light truck to passenger car fleet than NHTSA describes and accounts for in its proposal.

Auto Innovators recommends alternative approaches to the LDWF concept below. However, if NHTSA were to retain its proposed LDWF, it should update its analysis to use actual GCWR data, not a value derived from published maximum towing capacities.

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<sup>58</sup> NPRM (*supra* note 15) at 56620.

<sup>59</sup> National Highway Traffic Safety Administration. NHTSA-2025-0491-0008\_attachment\_9.xlsx. Docket ID NHTSA-2025-0491-008, Non-Passenger Analysis. Tab Existing Reg Classification, cell AM5. (Column labeled as "Max Spec Tow Capacity" with author note "Determined using GCWR minus GVWR, or direct publicly-available manufacturer-supplied towing capacities.")

<sup>60</sup> *Id.* Author note to cell AM5.

*NHTSA should remove the payload capacity term of the LDWF, leaving a functional criterion based on towing capacity.*

NHTSA’s proposed LDWF already leans toward towing capacity, noting that increased towing capacity necessitates “more expansive design considerations” and is a “more effective means of providing cargo-transporting utility.”<sup>61</sup>

Our assessment is that, as proposed, towing capacity is the dominant factor of the LDWF. We recommend that NHTSA adopt a functional capability characteristic based solely on towing capacity or its rough surrogate of GCWR-GVWR (with corrections to NHTSA’s analysis as noted above.) Two alternatives are presented below. Our preferred approach uses SAE J2807 trailer weight rating for towing capacity.

Auto Innovators’ Preferred Approach: Use SAE J2807 as a Towing-Based Metric for Classification.

We recommend NHTSA use the trailer weight rating (TWR) as defined in SAE J2807 to classify vehicles as non-passenger automobiles based on functional characteristics for property transportation and to provide lead time for manufacturers to implement this standard if they have not already. If NHTSA pursues this approach, we recommend that the threshold be set at 5,000 lbs. TWR. This threshold represents a significant towing capability and generally requires changes to the design of an automobile which affects fuel economy to support the towing capacity. Vehicles that can tow 5,000 lbs. or more (SAE J2807) are purposely engineered for that capability. Their frames, suspensions, and powertrains are built to handle towing forces and sustained high power levels over long periods. This affects components like the transmission, axle pinion gear size and ratio, and CV joint sizes. To operate in high temperatures, the vehicle typically must have larger radiators, added engine and transmission oil coolers, and improved axle cooling.

The SAE J2807 standard is already used by many manufacturers. NHTSA even references SAE J2807 in this proposed rule,<sup>62</sup> demonstrating broad familiarity with this standard across both regulators and regulated entities. The purpose of this standard is to “establish consistent rating requirements and processes so end users (customers) can reasonably compare similar class models in terms of trailering ability.”<sup>63</sup> Using a widely accepted, common standard as the threshold would simplify vehicle classification on the basis of towing capacity. Additionally, using SAE J2807 would reduce manufacturers’ reporting burden by repurposing an existing data

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<sup>61</sup> NPRM (*supra* note 15) at 56620.

<sup>62</sup> *Id.* at 56620, note 548.

<sup>63</sup> SAE International Recommended Practice, Performance Requirements for Determining Tow-Vehicle Gross Combination Weight Rating and Trailer Weight Rating, SAE Standard J2807\_202411, Reaffirmed November 2024, Revised February 2020, Issued April 2008, [https://doi.org/10.4271/J2807\\_202411](https://doi.org/10.4271/J2807_202411), Foreword.

point many manufacturers already gather. There is also precedent for NHTSA using SAE standards in the vehicle classification regulations: NHTSA’s definition of “passenger-carrying volume” references SAE J1100.

An Alternative Approach to SAE J2807: Use the GCWR-GVWR portion of the proposed LDWF equation as a surrogate for towing capacity

If NHTSA chooses to move forward with a LDWF-style calculation for determining non-passenger automobile classification, we encourage NHTSA to simplify the formula. We propose:

$$LDWF = GCWR - GVWR$$

The difference between GCWR and GVWR offers a towing capacity-based index value that NHTSA could use to compare vehicles. Under this approach, we recommend a threshold to be all vehicles that can tow 3,800 lbs. or more. This value is lower than our recommendation if NHTSA were to use SAE J2807; the adjustment accounts for the under-representation of towing capacity in the GCWR-GVWR metric, and correction of the GCWR data.

An additional benefit of either of these approaches is the reduced reporting burden associated with eliminating curb weight from the LDWF. NHTSA’s proposed definition of curb weight would result in significant reporting burden on manufacturers without providing meaningful additional data to the agency. (Please see our comments on the proposed definition of “curb weight” below.) If NHTSA were to retain its existing definition of curb weight, Auto Innovators would still recommend that NHTSA use SAE J2807 or the simplified LDWF equation to classify vehicles as non-passenger automobiles on the basis of cargo-carrying capacity. Both of our recommendations evaluate the vehicle’s towing capacity in some form, aligning with the agency’s goals in its proposed LDWF equation and simplify the number of inputs that need to be evaluated to classify a vehicle.

*NHTSA should retain the existing definition of “curb weight.”*

We are concerned that NHTSA’s new “curb weight” definition would create excessive analysis and reporting requirements for manufacturers. NHTSA’s definition would include the “weight of all standard and all optional equipment installed on the vehicle as sold to the first retail purchaser.”<sup>64</sup> This definition could be interpreted to mean manufacturers must consider and separately report every potential curb weight for every buildable configuration for all vehicles classified as light trucks. Under this definition, automakers could be required to report curb weight separately for differences as minor as a half pound. For example, a difference of an 1/8 of a pound over four wheels could round to a one-pound difference in the proposed LDWF, or could be considered “different” for the purposes of evaluating the off-highway dimensional

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<sup>64</sup> NPRM (*supra* note 15) at 56637.

characteristics of a vehicle despite having little or no measurable impact on the fuel economy of the vehicle.

In combination with NHTSA's proposed LDWF, the proposed curb weight definition could arbitrarily classify vehicles based not on significant changes to the vehicle's cargo-carrying capacity, but on changes to minor options. For vehicles that are very close to a regulatory threshold, these types of changes could split vehicles within a single model type between the passenger and non-passenger automobile fleets.

Splitting one model type between fleets could pose significant compliance planning challenges for manufacturers. Automakers would need to track every single unique vehicle build for a given model and how each build would be classified. Manufacturers would then need to evaluate which set of fuel economy and emissions regulations apply to which unique configuration. Changes to the applicable set of emissions regulations would likely have major implications for emissions certification and ultimately lead to unnecessary regulatory burden.

NHTSA should retain the current curb weight definition and the agency's practice to request more information as needed to confirm data reported by manufacturers.

Although our preference would be for NHTSA to retain the current definition of curb weight, an alternative that could reduce analysis and reporting burden could be to allow manufacturers to submit a "worst case" curb weight for a model type. The agency could then allow manufacturers to decide if they would keep one classification based on this "worst case" or subdivide a model into multiple curb weight bins. If NHTSA were to take this approach, a lower threshold for the LDWF would be appropriate to account for the use of worst case data. We also note that although binning of vehicles might reduce separately reported vehicles, each vehicle would still need to be evaluated to determine its bin, creating significant new analysis burden.

*NHTSA should clarify the effective date of proposed definition changes.*

If NHTSA ultimately changes the current curb weight definition, the agency should also clarify the effective date of the revised definition. As proposed, the definition would go into effect 60 days following publication of the final rule, meaning that the definition would change during a model year. NHTSA should avoid mid-model year definitional changes. We recommend that NHTSA provide the same lead time for the curb weight definition as the rest of the vehicle classification changes.

*If NHTSA makes appropriate changes to LDWF, Auto Innovators would not oppose NHTSA's proposal to eliminate 49 C.F.R. § 523.5(a)(5)(ii).*

If NHTSA addresses our concerns with LDWF, Auto Innovators would be ambivalent about the elimination of § 523.5(a)(5)(ii), which allows vehicles to qualify as non-passenger automobiles

based on three rows of designated seating positions that can stow to create a flat, leveled cargo surface.<sup>65</sup>

However, if NHTSA is unable to address the LDWF in this rulemaking or needs more time to develop a solution, Auto Innovators recommends that the agency retain § 523.5(a)(5)(ii) in the meantime. NHTSA recognized that removing the three-row seating criterion alone would improperly reclassify some vehicles. The agency proposed the LDWF specifically to address vehicles with “significant functional characteristics for the transportation of property [that] would be classified as passenger automobiles unless NHTSA were to make further amendments to the criteria in section 523.5.”<sup>66</sup>

If NHTSA needs to delay implementation of the LDWF—the “further amendments” the agency mentions—for any reason, NHTSA should retain the three-row seating criterion in the interim to ensure vehicles are not improperly reclassified while the agency continues its work.

### Lead Time for Vehicle Classification Changes

*NHTSA should provide lead time for vehicle classification change because of the impact it would have on EPA emissions certification.*

NHTSA should delay the applicability of these vehicle classification changes until MY 2030 at the earliest. The proposed changes affect not just fuel economy compliance but also emissions compliance, as well as supply chain readiness. The changes NHTSA proposes will lead to vehicles currently classified as light-duty trucks in EPA regulations being reclassified as passenger automobiles. Starting in MY 2027, “light-duty truck” in EPA’s regulations refers to “an automobile that is not a passenger automobile” per 49 C.F.R. § 523.5.<sup>67</sup> If a vehicle is no longer classified as a non-passenger automobile under NHTSA regulations, that vehicle will not be able to be classified as a light-duty truck for EPA regulations.

If a vehicle is no longer classified as a light-duty truck, it would need to immediately meet EPA’s more stringent light-duty vehicle (or, passenger car) standards. Consider EPA’s evaporative emissions standards<sup>68</sup> as an example: vehicles that are in the “light-duty truck 2” evaporative averaging set currently meet a 0.400 g/test evaporative emissions standard. If that vehicle is reclassified as a passenger car, it may need to improve by 25% or more (lowering emissions by 0.100 g/test or more) for every effected vehicle certified after the NHTSA rule becomes effective. Reclassification could reshape manufacturers’ averaging sets for these

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<sup>65</sup> 49 CFR § 523.5(a)(5)(ii).

<sup>66</sup> NPRM (*supra* note 15) at 56619.

<sup>67</sup> 40 C.F.R. § 600.002, as referenced in 40 C.F.R. § 86.1803-01.

<sup>68</sup> 40 C.F.R. § 86.1813-17.

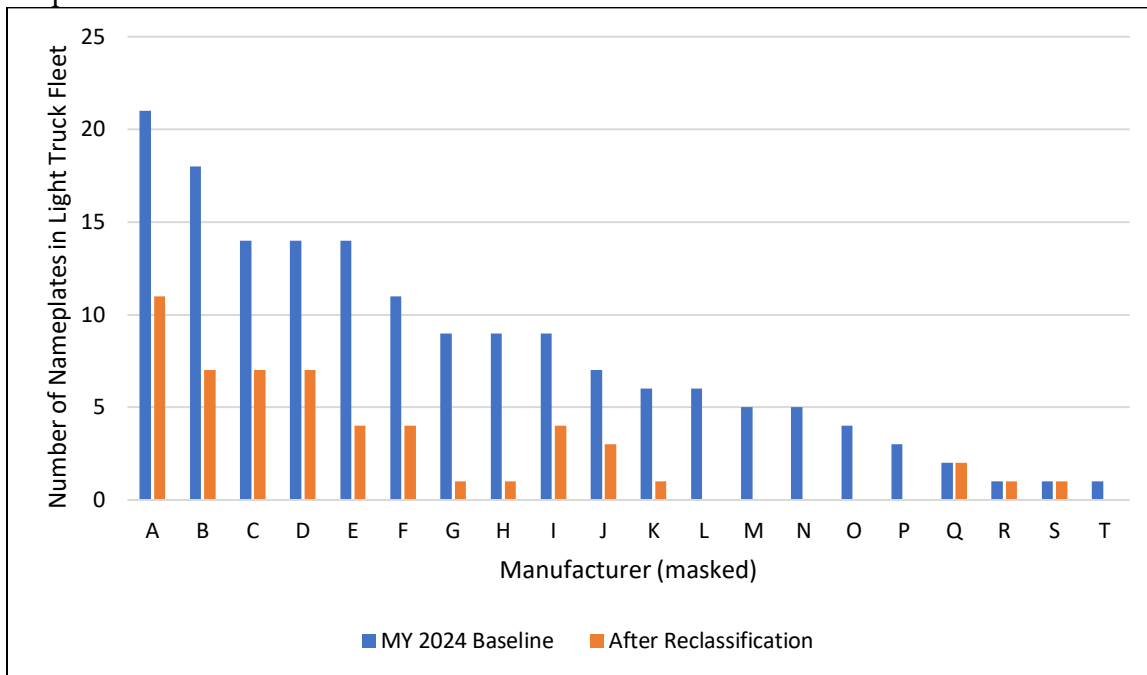
regulations. Redesigning and recertifying multiple non-passenger automobiles to meet more stringent passenger car regulations would require at least several years of effort on the part of a manufacturer.

*Additional lead time should be provided because of the impact of reclassification on the number of models in the light truck fleet.*

Vehicle reclassification may create compliance challenges for manufacturers with more limited product lines. If a manufacturer is left with only a few vehicle models in a compliance fleet, some or many model years may not have a scheduled vehicle redesign or refresh aligned with improvements required by the regulation, requiring constant updates to a single or limited number of models in order to comply with the regulations.

Figure 4 shows the number of light truck nameplates by manufacturer before and after the proposed reclassification. NHTSA’s proposal would greatly reduce the number of nameplates manufacturers have in their light truck fleets, creating potential challenges to improve a sufficient percentage of vehicles in each model year in general, and in MY 2028 in particular. This suggests the need for additional lead time.

Figure 4: Comparison of Number of Light Truck Nameplates by Manufacturer Before and After Proposed Reclassification.<sup>69</sup>



<sup>69</sup> Analysis by Auto Innovators based on National Highway Traffic Safety Administration data. Regulations.gov Docket ID no. NHTSA-2025-0491-008, Attachment 9.

*Additional lead time should be provided due to impacts on suppliers.*

Lead time is particularly important for automotive suppliers. Design and development for new parts and technology may begin five to seven years prior to that part appearing on the market. A lack of substantial lead time may constrain the automotive supply chain's ability to meet consumer demand for technological advancements in vehicles. Providing additional lead time offers increased regulatory stability for both suppliers and manufacturers as they plan new and innovative products to bring to the market.

### Reporting Requirements for Vehicle Classification

*NHTSA should only require reporting of data directly related to the basis for a vehicle's classification.*

We are also concerned that, as written, NHTSA will mandate a manufacturer to provide vehicle weight information (to support LDWF) and off-highway criteria regardless of which pathway is used. A vehicle with an open bed is considered a truck and there is not a regulatory reason to provide data for other pathway criteria. Data should only be provided to prove regulatory compliance.

## Appendix IV: Technical and Policy Comments on the Proposed Standards

Auto Innovators supports a reduction in the stringency of the current CAFE standards to more strongly consider economic practicability and to reflect statutory constraints. The proposed standards do so. Even so, there are certain technical and policy aspects that we believe NHTSA should consider as it develops a final rule and for future rulemakings.

### Proposed Footprint Target Function Cutpoints

*NHTSA should reconsider the proposed upper cutpoint for light trucks for the reclassified fleet, retaining the current cutpoint of 74 square feet.*

NHTSA proposes to adopt an upper cutpoint of 70 square feet (ft<sup>2</sup>) for the light truck target functions for reclassified fleets in MY 2028 and later.<sup>70</sup> NHTSA describes the use of a statistical methodology to identify a footprint where the relationship between fuel consumption and footprint diverge from a linear function and then selects a cutpoint, attempting to avoid a value that would split slight variances of a single vehicle model.<sup>71</sup>

In the case of the upper cutpoint for the reclassified light truck fleet, the methodology chosen by NHTSA does not adequately consider the design intent and physical characteristics of many of the large light-duty pickup trucks that have footprints higher than the selected cutpoint.

As can be seen in Figure 1-9 of NHTSA's Draft Technical Support Document (Draft TSD)<sup>72</sup> (replicated below), there are a number of large light trucks (likely light-duty pickup trucks) that generally fall above the ordinary least squares (OLS) regression. This causes the locally estimated scatterplot smoothing (LOESS) regression to deviate from the OLS, influencing NHTSA's selection of the cutpoint.

Auto Innovators notes that the deviation between the OLS and LOESS regressions near the proposed light truck high cutpoint appears relatively minor. Additionally, unlike differences seen elsewhere, the deviation seems related to the concentration of vehicle model types that fall above the linear OLS regression. This deviation between the OLS and LOESS regressions

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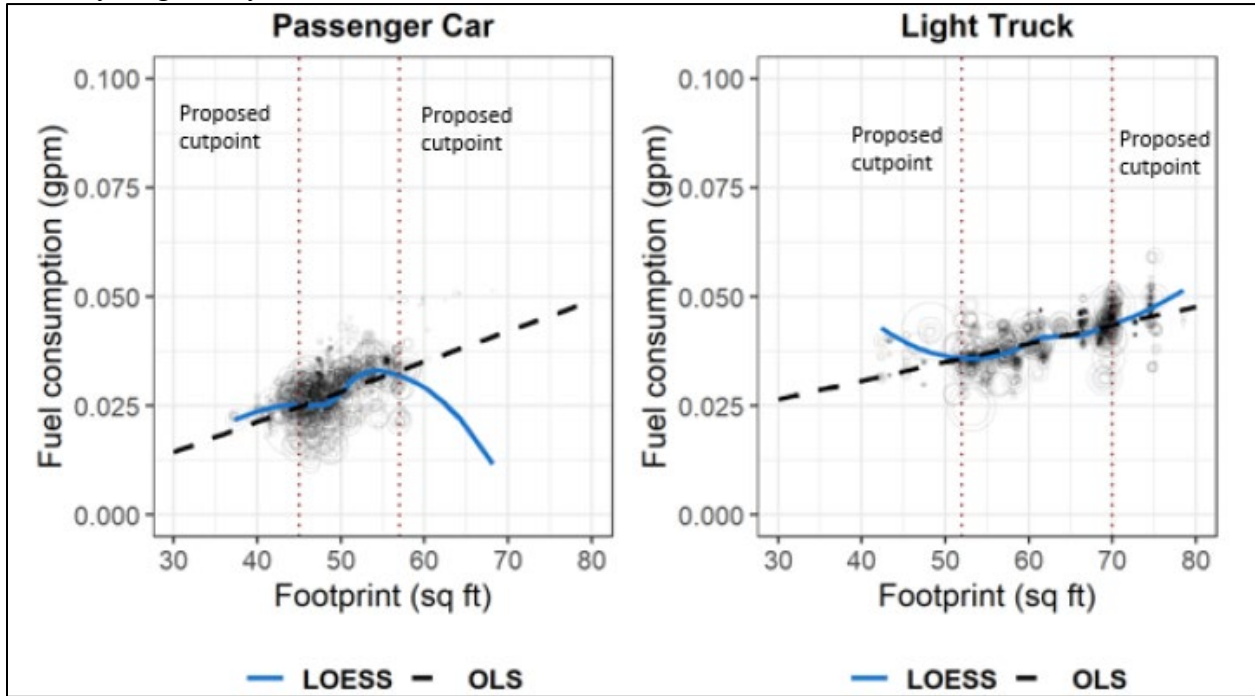
<sup>70</sup> National Highway Traffic Safety Administration. Draft Technical Support Document: The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rules III for Model Years 2022 to 2031 Passenger Cars and Light Trucks. Dec. 2025. 1-22.

<sup>71</sup> *Ibid.*

<sup>72</sup> *Id.* at 1-24.

suggests that, if anything, the slope of the function should increase above 70 ft<sup>2</sup>, or at least continue to about 74 to 75 ft<sup>2</sup> before flattening.

Figure 5: Draft TSD Figure 1-9: OLS and LOESS Curve Fits for Reclassified MY 2024 Fleet Data, by Regulatory Class



However, this is not merely a statistical issue. The fuel consumption of these vehicles is likely higher as a result of design characteristics to enable increased towing capacity, such as higher horsepower engines, larger engine cooling modules, higher axle ratios, larger brakes, and strengthened drivetrain and chassis components.

When NHTSA set the light truck upper cutpoint to 74 ft<sup>2</sup>, it recognized this very issue stating, “not to extend this cutpoint to 74 s.f. [ft<sup>2</sup>] would fail to take into consideration the challenges to improving fuel economy and CO<sub>2</sub> emissions to the levels required by this final rule for vehicles with footprints larger than 66 s.f., given their increased utility.”<sup>73</sup>

NHTSA also noted that “more stringent targets for large trucks would unduly burden full-line manufacturers active in the market for full-size pickups and other large light trucks”<sup>74</sup> and that

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<sup>73</sup> National Highway Traffic Safety Administration and U.S. Environmental Protection Agency. Joint Technical Support Document: Final Rulemaking for 2017-2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards. August 2012. 2-53.

<sup>74</sup> *Ibid.*

“[. . .] disparities in long-term regulatory requirements could lead to future market distortions undermining the economic practicability of the standards.”<sup>75</sup>

Although the level of the proposed footprint target curves is not overly concerning today, Auto Innovators is also concerned that future rulemaking may not reconsider cutpoints, renewing the concerns described above that first led the agency to increase the light truck upper cutpoint to 74 ft<sup>2</sup>. In the current proposal, NHTSA is reconsidering cutpoints as part of a broader reset of the CAFE program including vehicle reclassification. More commonly, NHTSA has simply retained existing cutpoints since the 2012 rulemaking, including in its 2020, 2022, and 2024 rules.<sup>76,77,78</sup>

For these reasons, we believe the more appropriate policy decision is to retain the 74 ft<sup>2</sup> upper cutpoint for light trucks after reclassification.

### Proposed Footprint Target Function Derivations

*NHTSA should review and potentially reconsider its approach for deriving the MY 2028 standards with vehicle reclassification.*

The overall stringency of the proposed footprint target curves is not particularly concerning to Auto Innovators from the perspective of economic practicability. However, the methodology used by NHTSA to derive MY 2028 footprint target functions appears to misalign the resulting curves from NHTSA’s intent and does not appear to consider the curves’ technical implications.

In Figure 6, we compare the light truck target functions for MYs 2027 and 2028. In the heart of the proposed targets, between 52 and 70 ft<sup>2</sup>, we note that the effective stringency increase for the remaining light trucks after reclassification is 7% to 15% in a single year.<sup>79</sup> For light trucks larger than the proposed 70 ft<sup>2</sup> cutpoint, stringency increases by up to 19.4% in a single year. (Please see our comments above regarding the proposed cutpoint.)

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<sup>75</sup> *Id.* at 2-54.

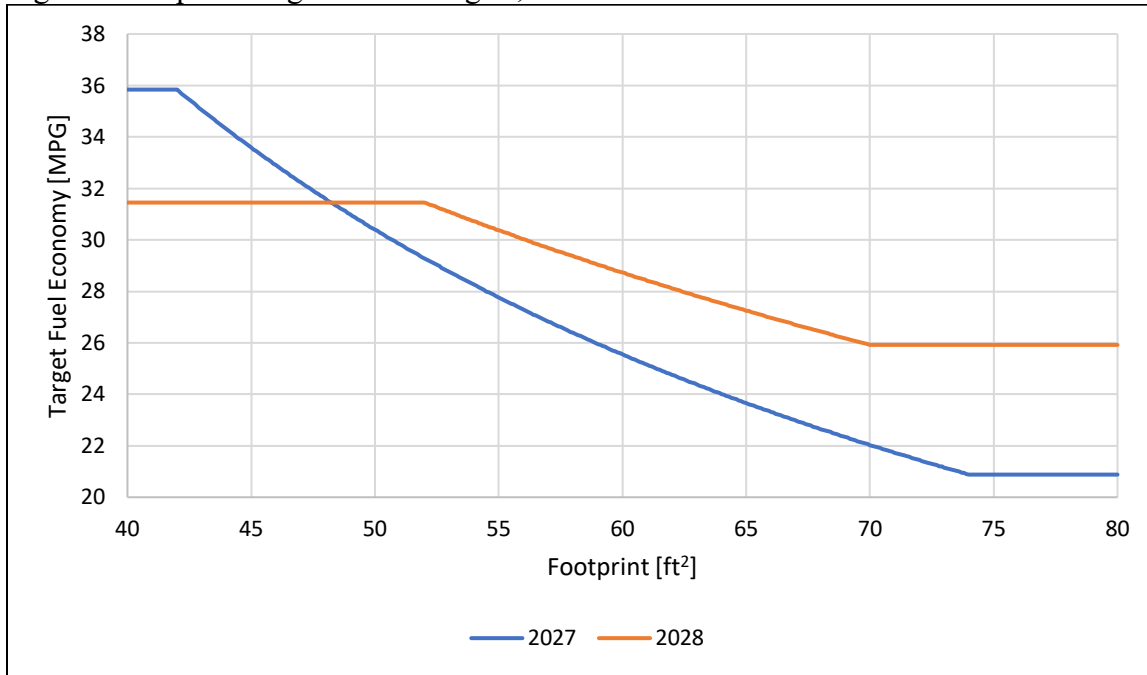
<sup>76</sup> U.S. Environmental Protection Agency and National Highway Traffic Safety Administration. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks; Final Rule. 85 *Fed. Reg.* 24174 (Apr. 30, 2020).

<sup>77</sup> National Highway Traffic Safety Administration. Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks; Final Rule. 87 *Fed. Reg.* 25710.

<sup>78</sup> National Highway Traffic Safety Administration. Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030 and Beyond; Final Rule. 89 *Fed. Reg.* 52540 (Jun. 24, 2024).

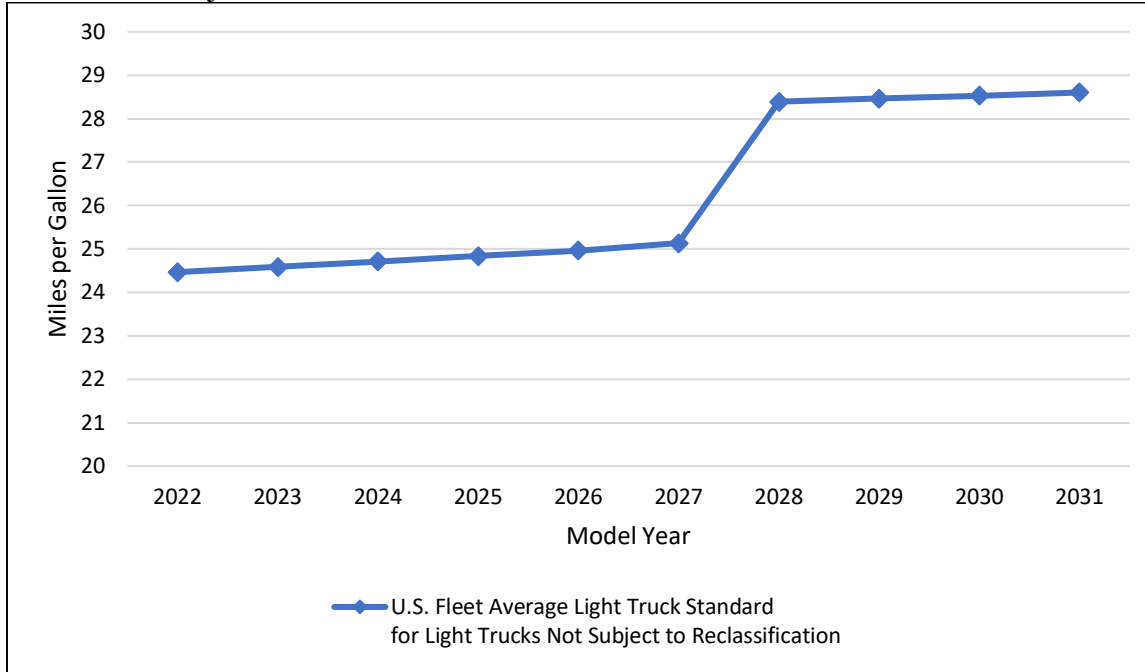
<sup>79</sup> Stringency increases calculated on the basis of fuel consumption (gallons per mile) for the individual footprint targets.

Figure 6: Proposed Light Truck Targets, MYs 2027 and 2028.



The impacts of this can be observed in the fleet average standards for light trucks. Figure 7, below, is an evaluation of the U.S. fleet average standards for the portion of the light truck fleet that (in NHTSA’s evaluation) would not be reclassified. We assess the MYs 2022-2031 targets for that exemplar fleet. In MY 2028, there is an average stringency increase of 11.5% as compared to the 0.5% per year in MYs 2023-2026, 0.7% in 2027, and 0.25% increases in MYs 2029-2031.

Figure 7: U.S. Fleet Average Light Truck Standards Under NHTSA Alternative 2 for Light Trucks Not Subject to Reclassification.<sup>80</sup>



Based on NHTSA’s discussion of its methodology in the NPRM and in other rulemaking documents, it appears that this outcome may be the result of NHTSA attempting to adjust the footprint target function such that the average fuel economy target for MY 2028 light trucks increases at a nominal percentage relative to the average fuel economy target of an earlier model year.<sup>81</sup> In other words, if reclassification results in a lower average target for light trucks, the footprint target function stringency is first increased to restore the average target value, then increased again as a stringency increase.

Such an approach fails from a technical perspective because the average target changes based on the vehicles in the fleet. That average is a combination of the individual targets for each vehicle based on the idealized relationship between vehicle footprint and fuel economy. When a large number of smaller light trucks are reclassified as passenger cars, it leaves the light truck fleet with a larger average footprint and the average target fuel economy automatically adjusts to that

<sup>80</sup> Analysis by Auto Innovators. NHTSA MY 2024 baseline fleet used to inform individual vehicle footprints, sales, and final vehicle classification for calculation of fleet average standards based on NHTSA’s proposed Alternative 2 footprint target functions.

<sup>81</sup> NPRM (*supra* note 15) at 56520 *et seq.* (E.g., “NHTSA then performed an analogous calculation using Equation III–5 to determine the predicted average standard for each regulatory class under the proposed reclassification condition... The class averages are used to generate a ratio, which is used as a scaling factor to generate the final target function coefficients in each alternative as shown in Equation III–6:”)

new fleet mix. This is a feature of attribute-based target functions. For each of the remaining vehicles, the same target stringency applies before any further modification of the footprint target function. Thus, the apparent decline in the average target does not need to be corrected for because the underlying stringency of the specific vehicle targets remains the same.

Regardless of whether or not Auto Innovator's understanding of NHTSA's methodology is correct in all aspects, NHTSA's methodology for establishing the MY 2028 footprint functions should consider the technical and physical aspects of the vehicles to which those functions apply. For example, assume a hypothetical MY 2027 USA Motors Model Z light truck has a fuel economy of 25.6 MPG and a footprint of 60 ft<sup>2</sup>. Reclassifying other light trucks has no impact on the design or resulting fuel economy of the Model Z, or its footprint-based fuel economy target. It remains a vehicle with that specific footprint and that specific fuel economy that, under NHTSA's proposal, would become subject to a new footprint target in MY 2028 that is 11% higher. Instead, the required fuel economy improvement for the Model Z (and other remaining light trucks after reclassification) should be aligned to an assessment of appropriate improvement in the context of attribute-based standards and NHTSA's required statutory considerations.

### Minimum Domestic Passenger Car Standard

*Auto Innovators supports the continued use of an offset to the Minimum Domestic Passenger Car Standard.*

Although NHTSA projects future fleets to the best of its ability, the exact makeup of a future fleet depends on the vehicles that manufacturers offer for sale and that customers choose to purchase. As consumer trends shift, so too can the average footprint of vehicles purchased. This can result in final fleet average standards differing from those originally projected, thereby impacting the intended level of minimum domestic passenger car standard (MDPCS).

Since 2020, NHTSA has calculated the MDPCS with an offset to account for shifts in vehicle designs and consumer trends.<sup>82</sup> Prior to developing and applying an offset in the MDPCS calculation, "some of the largest civil penalties for noncompliance in the history of the CAFE program [were] paid based on noncompliance with the MDPCS"<sup>83</sup> as consumers' preferences shifted toward larger passenger cars than were projected when the standards were finalized.

Given the history of the MDPCS and the potential that penalties associated with the MDPCS could discourage domestic production of automobiles in the future (if the civil penalty rate were to be increased in the future), Auto Innovators supports the continued application of an offset.

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<sup>82</sup> NPRM (*supra* note 15) at 56524.

<sup>83</sup> *Id.* at 56584.

*An MDPCS offset should be applied for MYs 2025-2026.*

NHTSA proposes to only apply an offset to MY 2027 and later MDPCS, claiming that an offset would be “inapplicable for the proposed MYs 2022-2026 standards because those standards incorporate the most up to date availability to the agency for vehicle sales volume and footprint sizes in MY 2022.”<sup>84</sup> What MY 2022 data has to do with MYs 2023-2026 is unclear.

What is clear is that NHTSA neither has final data for MY 2025 nor even preliminary data for MY 2026 yet. Thus, NHTSA cannot know with certainty what the sales volume and footprint sizes are for MYs 2025 and 2026. These model years should have an offset given that uncertainty.

*NHTSA should reconsider its proposal to revise the Minimum Domestic Passenger Car Standard offset.*

NHTSA proposes to change the MDPCS offset from 1.9% to 0.7% based on more recent data and refinements to its methodology.<sup>85</sup> However, before lowering the offset, NHTSA should consider that there are other changes in its proposal that may impact the accuracy of the projected standards.

NHTSA proposes to alter light truck classification criteria, moving large volumes of sport utility vehicles (SUVs) and minivans into the passenger car fleet. This will have a significant impact on the passenger car fleet and the MDPCS. Manufacturers will likely reassess and may revise future production plans based on these changes. Furthermore, as noted in Appendix III, NHTSA’s LDWF analysis likely fails to fully account for the impacts of its proposed classification rule changes. These reclassification impacts should be factored into the revised methodology.

Given the potential for unforeseen changes to the fleet that could result from a broad reclassification of many SUVs and other vehicles, Auto Innovators recommends that NHTSA retain the current 1.9% offset and to defer reassessment of the offset for a few years following the vehicle reclassification. If NHTSA proceeds with reassessment of the offset, we recommend the offset further reflect the uncertainties associated with the proposal, including the reclassification changes.

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<sup>84</sup> NPRM (*supra* note 15) at 56525.

<sup>85</sup> *Ibid.*

## Attribute-Based Standards

*NHTSA should exclude plug-in electric vehicles in its consideration of maximum feasible standards because their fuel economy is subject to regulatory change after standards have been set.*

By statute, NHTSA may not consider the fuel economy of vehicles operating on electricity. However, even if it could, it should not.

When considering potential standards, NHTSA evaluates technology pathways to achieve them and estimates the fuel economy of future vehicles in the U.S. fleet. Although Auto Innovators does not always agree with the estimates made, they are nevertheless based on engineering analyses of the technologies, their interactions with the vehicles in which they are projected to be installed, and their interactions with other modeled technologies. Auto Innovators supports this approach.

Notwithstanding statutory prohibitions against the consideration of fuel economy derived from the use of alternative fuels, NHTSA has the capability to model the electrical energy consumption of future vehicles based on various vehicle and technology improvements.

However, the specific fuel economy of those vehicles cannot be known with certainty. The Secretary of Energy is responsible for establishing the equivalent petroleum-based fuel economy for electric vehicles considering a number of policy and technical factors.<sup>86</sup> The Secretary is further charged with reviewing those values each year and determining and proposing necessary revisions. Thus, if NHTSA were to include PEVs in standard-setting—and we agree that it cannot due to other statutory requirements—the fuel economy of a future fleet could be vastly different than was estimated when the standards were established. For example, DOE amended the so-called “petroleum equivalency factor” (PEF) in 2024,<sup>87</sup> reducing the fuel economy of electric vehicles over several years by 65%, all else equal. Following a legal challenge, that rule was vacated, and DOE restored the preexisting PEF in 2026.<sup>88</sup> To Auto Innovators understanding, DOE is also considering additional PEF rulemaking in 2026<sup>89</sup> which would

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<sup>86</sup> 49 U.S.C. § 32904(a)(2)(B).

<sup>87</sup> U.S. Department of Energy. Petroleum-Equivalent Fuel Economy Calculation; Final Rule. 89 *Fed. Reg.* 22041 (Mar. 29, 2024).

<sup>88</sup> U.S. Department of Energy. Petroleum-Equivalent Fuel Economy Calculation; Final Rule, technical amendment. 91 *Fed. Reg.* 553 (Jan. 8, 2026).

<sup>89</sup> U.S. Office of Information and Regulatory Affairs. Spring 2025 Unified Agenda of Regulatory and Deregulatory Actions. RIN 1904-AG09.

potentially impact the model years under consideration in this rulemaking and which may not be finalized until after NHTSA completes its own rulemaking.

*Auto Innovators supports the use of footprint as the attribute.*

By statute, NHTSA must “set standards for passenger and non-passenger automobiles based on one or more vehicle attributes related to fuel economy and express each standard in the form of a mathematical function.”<sup>90</sup> NHTSA has previously used the attribute of vehicle “footprint” and proposes to do so again in this rulemaking.

Auto Innovators supports the use of footprint as the sole attribute and concurs with NHTSA’s reasons for continuing its use and not incorporating different or additional attributes. The footprint attribute remains correlated and causative to fuel economy while still allowing manufacturers to choose from a wide variety of technologies to improve fuel economy, including powertrain, tires, mass reduction, and aerodynamic improvements.

### Exclusion of Air Conditioning Efficiency and Off-Cycle Technology Fuel Consumption Improvement Values (FCIVs) from NHTSA’s Standard-Setting Analysis

*Auto Innovators supports the exclusion of FCIVs from the standard-setting analysis.*

NHTSA proposes to exclude air conditioning efficiency and off-cycle technology FCIVs from its standard-setting analysis starting with MY 2028.<sup>91</sup> NHTSA notes “technology specific incentives should not be considered when running the compliance simulation that informs its consideration of maximum feasible standards.”<sup>92</sup>

The association wholeheartedly agrees. Technology-specific incentives should not be considered in standard-setting. Including the benefits of air conditioning efficiency and off-cycle technologies in standard-setting has, in Auto Innovator’s view, historically increased the stringency of the standards, effectively requiring manufacturers to apply those technologies or take additional equivalent actions to improve fuel economy. Air conditioning efficiency and off-cycle technologies should remain a choice that manufacturers and consumers collectively make, not a requirement.

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<sup>90</sup> 49 U.S.C. § 32902(b)(3)(A).

<sup>91</sup> NPRM (*supra* note 15) at 56502.

<sup>92</sup> *Ibid.*

Auto Innovators does support the continued availability of FCIVs under EPA's calculation and test procedure authority.

## Miscellaneous Reporting and Analysis Considerations

*We recommend that NHTSA consider addressing miscellaneous analysis and reporting burdens in this or a future rulemaking, as appropriate.*

Currently, automakers must report CAFE data in two differing formats to two agencies. This approach is duplicative and adds unnecessary costs. We recommend that NHTSA coordinate with EPA on a common reporting template and format.

The current CAFE report requires that manufacturers provide NHTSA with substantial information on vehicle, engine and transmission configurations and specifications. Several are relevant to the standards and identifying classifications of the vehicle (*e.g.*, footprints, light truck attributes, etc.), but many are also not relevant and seemingly just requested for the sake of gathering data (transmission configuration, engine configurations, emission control devices, drive ratios, power/torque). Relevant information regarding vehicle specifications is included in the emission and safety certification applications that are submitted to EPA and NHTSA. We suggest that NHTSA reduce CAFE reporting information requirements to only the relevant information required for determining classifications, standards, and compliance. Data collected solely for the purposes of informing future rulemaking should be limited to that which is necessary for providing an accurate baseline fleet to enable robust modeling of potential CAFE standards.

Different tire, wheel, and suspension packages within a model type can greatly increase the complexity of reporting with no significant impact on the fleet average target or compliance. Auto Innovators recommends that NHTSA consider how slight variations of footprint might be binned with the goal of reducing reporting burdens in a manner that does not impact the intended standards or compliance.

## Appendix V: Compliance Flexibilities

### Credit Trading

NHTSA proposed to eliminate credit trading from the CAFE program, effective MY 2028 with MY 2027 being the last year in which manufacturers may use traded credits for CAFE compliance.<sup>93</sup>

*Auto Innovators recommends retaining the credit trading program.*

Credit trading is and will remain a useful compliance flexibility if retained. Furthermore, the concerns driving NHTSA's proposal to eliminate credit trading are already addressed through its other proposals. We therefore oppose the proposal to eliminate credit trading and recommend that this flexibility be retained in the CAFE program. If NHTSA decides to proceed with its proposal to eliminate credit trading, we make additional recommendations below to ensure that potential reliance interests are addressed and so that traded credits can be used commensurate with statutory credit carry-forward and carry-back provisions.

NHTSA reasons that credit trading has effectively and inappropriately subsidized the production of electric vehicles and has created market distortions that have undermined EPCA's overarching purpose.<sup>94</sup> These concerns are best addressed by setting standards that can be met by a preponderance of automakers, not just by automakers that are the best situated for compliance or that are focused on or exclusively building electric vehicles. NHTSA already proposes to do just that by eliminating its prior improper consideration of electric vehicles in standard-setting; further action to address these concerns by eliminating credit trading is not necessary. EPCA's overarching purpose is the conservation of energy, and concerns with the valuation of electric vehicles in CAFE are best addressed by the Department of Energy when considering its own statutory factors for establishing equivalent petroleum-based fuel economy values.<sup>95</sup>

The agency further reasons that credit trading will not be necessary given NHTSA's revisions to the previously issued standards.<sup>96</sup> Regardless of the stringency of standards, credit trading provides a useful compliance flexibility that allows manufacturers to remain in compliance with CAFE standards while the total oil savings required by the standards are preserved. This is true regardless of whether a manufacturer chooses to purchase credits as a compliance plan response to economically impracticable standards or whether a credit purchase is necessitated by

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<sup>93</sup> NPRM (*supra* note 15) at 56621.

<sup>94</sup> *Ibid.*

<sup>95</sup> See 49 U.S.C. § 32904(a)(2)(B)(i) through (iv).

<sup>96</sup> NPRM (*supra* note 15) at 56621.

unanticipated changes to market conditions, supply chains, product plans, or other circumstances. For some manufacturers with policies that do not permit non-compliance with CAFE standards, credit trading may be a critical safety valve that enables a lower cost compliance plan. For others, such as high-performance vehicle manufacturers that do not qualify as low volume manufacturers under 49 U.S.C. § 32902(d), credit trading may be the only means of compliance short of the payment of civil penalties.<sup>97</sup>

Additionally, NHTSA describes a concern that EV manufacturers are generating additional credit for air conditioning efficiency and off-cycle technologies that, in NHTSA's view, are not representative of real-world fuel savings.<sup>98</sup> This concern has already been addressed by EPA. The air conditioning efficiency and off-cycle technology fuel consumption improvement values (FCIVs) are a component of the Environmental Protection Agency's (EPA's) calculation methodology for CAFE compliance.<sup>99</sup> EPA's regulations limit such FCIVs to vehicles equipped with internal combustion engines, effective MY 2027,<sup>100</sup> and sunsets the off-cycle credit program over MYs 2027-2032.

Manufacturers have faced, and may continue to face, extreme swings in CAFE policy regardless of rules proposed by NHTSA in this rulemaking. Auto Innovators would prefer that NHTSA continue the credit trading program rather than needing to propose a new program in the future if it reconsiders its position. Maintaining the credit trading program will ensure it remains available as a safety valve in a timely manner regardless of manufacturer or policy circumstances.

*If NHTSA eliminates the credit trading program, it should defer implementation until MY 2030.*

Notwithstanding our preference to retain the credit trading program, if NHTSA were to proceed with its proposal, we recommend that it defer action to MY 2030. This would provide approximately three years of lead time from when a rule might be issued for manufacturers to make any necessary adjustments to compliance plans.

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<sup>97</sup> Although the CAFE civil penalty is currently \$0 per 0.1 MPG per vehicle for violations of CAFE standards, Congress may choose to reestablish a penalty in the future.

<sup>98</sup> NPRM (*supra* note 15) at 56620.

<sup>99</sup> See 40 C.F.R. § 600.510-12(c)(1)(ii) and (c)(3)(i) through (ii). (Requiring the inclusion of air conditioning and off-cycle technology fuel consumption improvement values in CAFE calculations and establishing their value based on air conditioning efficiency and off-cycle technology greenhouse gas credits established in 40 CFR part 86.)

<sup>100</sup> See 40 C.F.R. § 86.1868-12 preamble (“Starting in model year 2027, manufacturers may generate credits [for air conditioning efficiency technologies] only for vehicles propelled by internal combustion engines.”) See also 40 C.F.R. § 86.1869-12 preamble. (“Manufacturers may no longer generate [off-cycle technology] credits under this section starting in model year 2027 for vehicles deemed to have zero tailpipe emissions [. . .]”)

*If NHTSA eliminates the credit trading program, it should allow traded credits to be used for compliance through MY 2032.*

Under NHTSA’s proposal, credits could be traded through MY 2027. By statute, credits may be used for compliance up to five years after they are earned.<sup>101</sup> For consistency with the statute, we recommend that, if NHTSA eliminates credit trading after MY 2027, that it allows the use of traded credits through MY 2032.

If NHTSA were to still eliminate credit trading but take our recommendation to defer action to MY 2030, traded credits would preferably be useable through MY 2034 based on the 5-year statutory credit life described above. However, an acceptable alternative to Auto Innovators would limit the use of credits traded prior to MY 2030 to compliance through MY 2032.

*If NHTSA eliminates the credit trading program, it should provide a phase-out period that allows continued credit trading for the purposes of credit carry-back to years preceding the program sunset.*

By statute, credits may be used to satisfy a compliance deficit up to three years prior.<sup>102</sup> If NHTSA eliminates the credit trading program, it should allow credits to be traded after the year of elimination for the purposes of compliance in years preceding the elimination. For example, if the credit trading program is generally ended in MY 2028, MYs 2028-2030 credits should still be tradeable for compliance use in MYs 2025-2027. Similarly, if the credit trading program is generally ended in MY 2030, MYs 2030-2032 credits should be tradeable for compliance use in MYs 2027-2029.

## Air Conditioning Efficiency and Off-Cycle Technology Fuel Consumption Improvement Values

NHTSA proposes to eliminate air conditioning efficiency and off-cycle technology fuel consumption improvement values (FCIVs) from its standard setting analysis with MY 2028 and later.<sup>103</sup> NHTSA is also proposing to make technical amendments to remove references to EPA’s regulations regarding FCIVs from 49 C.F.R. §§ 531.6 and 533.6 “because such references are unnecessary and create a potential for confusion.”<sup>104</sup>

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<sup>101</sup> 49 U.S.C. § 32903(a)(2).

<sup>102</sup> 49 U.S.C. § 32903(a)(1).

<sup>103</sup> NPRM (*supra* note 15) at 56621.

<sup>104</sup> *Ibid.*

*Auto Innovators opposes any proposal to eliminate air conditioning efficiency and off-cycle technology FCIVs from the CAFE program in a manner that is inconsistent with the calculation methodologies and FCIV provisions previously finalized by EPA.*

Without directly describing a specific proposal or proposing specific regulatory amendments, NHTSA alludes to removing FCIVs. For example, NHTSA states that it “is proposing to remove consideration of AC efficiency and OC fuel consumption improvement values (FCIVs) from its standard-setting analysis starting with MY 2028, which is the first year in which a removal of FCIVs could go into effect.”<sup>105</sup> (Emphasis added.) Also, “the industry-average required and achieved values presented below reflect the end of manufacturers’ ability to claim AC and FCIV adjustments, beginning in MY 2028[...].”<sup>106</sup>

Auto Innovators supports the continuation of air conditioning efficiency and off-cycle technology FCIVs in general. These technologies provide real-world fuel economy benefits and, despite any claims to the contrary, have at least some consumer demand related to such benefits.

*Auto Innovators concurs that references to EPA CAFE calculations and test procedures for FCIVs are not required in NHTSA’s regulations and may be removed for clarity and consistency.*

NHTSA proposes to remove references to FCIVs from its own regulations as a technical amendment because the references are unnecessary and create a potential for confusion.<sup>107</sup>

The FCIVs were established by EPA under its Energy Policy and Conservation Act (EPCA) authority.<sup>108</sup> Therefore, additional references and descriptions by NHTSA in its own regulations are not necessary. Auto Innovators concurs that they may be removed for clarity and consistency as long as fuel economy is calculated pursuant to testing and calculation procedures prescribed by EPA.

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<sup>105</sup> NPRM (*supra* note 15) at 56444.

<sup>106</sup> *Id.* at 56447.

<sup>107</sup> *Id.* at 56621.

<sup>108</sup> U.S. Environmental Protection Agency and National Highway Traffic Safety Administration. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards; Final Rule. 77 *Fed. Reg.* 62624, 63125 (Oct. 15, 2012).

**Attachment 1**

**Excerpts from Alliance for Automotive Innovation Comments to NHTSA  
Re: Proposed Corporate Average Fuel Economy Standards for Model Years 2024-2026  
Passenger Cars and Light Trucks**

**Docket ID No. NHTSA-2021-0053-1492**

## **NHTSA’s Consideration of Electric Vehicles in Standard-Setting**

Auto Innovators discusses NHTSA’s various considerations of electric vehicles in standard-setting in Appendix IV. The following is a brief summary.

### Inclusion of Electric Vehicles in the Evaluation of Maximum Feasible Standards

NHTSA’s proposed standards improperly consider sales and compliance benefits of electric vehicles in ways prohibited under the Energy Policy and Conservation Act (“EPCA”) of 1975, as amended by the Energy Independence and Security Act (“EISA”) of 2007.<sup>13</sup> Despite the prohibitions of 49 U.S.C. § 32902(h)(1) and (2), NHTSA considers California’s zero-emission vehicle mandate (“ZEV Mandate”)<sup>14</sup> in its baseline regulatory scenario, simulates manufacturer compliance with the proposed standards by adding additional EVs beyond even those required by the ZEV Mandate, and includes the alternative fuel benefits of dedicated and dual fueled vehicles in fleet fuel economy estimates. Auto Innovators recommends that NHTSA revise its approach to omit EVs in its standard-setting technical analysis and thereby from its consideration of maximum feasible standards. Doing so would likely yield regulations that appropriately incentivize EV technology as intended by Congress, and would help address harmonization issues with the proposed EPA GHG regulations as discussed above.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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<sup>13</sup> Codified as Chapter 329, Title 49 U.S. Code.

<sup>14</sup> 13 C.C.R. § 1962.2.

[REDACTED]

## Appendix IV: NHTSA's Consideration of Electric Vehicles in Standard-Setting

### NHTSA Has Improperly Considered Electric Vehicles in its Standard-Setting

In establishing its proposed alternative of a nominal eight percent increase in the annual stringency of fleetwide MY 2024-2026 CAFE standards (“Alternative 2”), it appears that NHTSA has improperly considered EVs in its standard-setting. The preamble to the CAFE NPRM indicates that NHTSA has included BEVs in the “baseline” used in selecting Alternative 2,<sup>62</sup> and the CAFE Model analysis for standard-setting both includes the alternative fuel benefits of EVs and adds EV sales in response to increasingly stringent standard alternatives. EV sales during the years covered by the regulations were modeled in the analysis supporting the standards. NHTSA’s doing so violates important restrictions in the Energy Policy & Conservation Act, as amended by the Energy Independence and Security Act. We therefore request that NHTSA redo its standard-setting analyses to omit EVs and their benefits from the baseline and from its modeling. Auto Innovators believes that a standard-setting properly constructed in this way will yield regulations that appropriately incentivize EV technology, as intended by Congress.

### EPCA Prohibits NHTSA From Considering BEVs in its Determination of Maximum Feasible Fuel Economy Standards

EPCA requires NHTSA to “prescribe by regulation average fuel economy standards for automobiles manufactured by a manufacturer in that model year,”<sup>63</sup> and in doing so the agency “shall consider technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy.”<sup>64</sup> EPCA, however, includes an important express limitation on what NHTSA may, and may not, take into account in determining what the “maximum feasible” fuel economy standard is:

In carrying out subsections (c), (f), and (g) of this section, the Secretary of Transportation—

- (1) may not consider the fuel economy of dedicated automobiles;
- (2) shall consider dual fueled automobiles to be operated only on gasoline or diesel fuel; and

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<sup>62</sup> See, e.g., CAFE NPRM (*supra* note 2) at 49602, 49622, 49640, and 49793.

<sup>63</sup> 49 U.S.C. § 32902(a).

<sup>64</sup> 49 U.S.C. § 32902(f).

(3) may not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under section 32903.<sup>65</sup>

The term “dedicated automobile” is defined in EPCA as “an automobile that operates only on alternative fuel,”<sup>66</sup> and electricity is one such alternative fuel.<sup>67</sup> Similarly, the term “dual fueled automobile means “an automobile that – (A) is capable of operating on alternative fuel... and on gasoline or diesel fuel...”<sup>68</sup> Therefore, in promulgating fuel economy standards under EPCA, NHTSA is prohibited from “consider[ing]” the fuel economy of BEVs. Also, for dual fueled automobiles such as PHEVs, NHTSA is required to only consider their operation on gasoline or diesel fuel.

The statutory and legislative history of this provision demonstrates that its intent was to incentivize manufacturers to produce and sell dedicated and dual fueled alternative fuel vehicles by allowing them to be included in a manufacturer’s compliance fleet while not being included in the standard-setting; the intended result is that automakers producing and selling such vehicles will have an easier time complying with the standards. This exclusion first appeared in the Alternative Motor Fuels Act of 1988 (“AMFA”), Pub. L. No. 100-494, but it was limited to methanol, which at the time was the dominant form of alternative fuel. The statute amended Section 502(e) of EPCA to provide that in determining maximum feasible fuel economy, “the Secretary shall not consider the fuel economy of alcohol powered automobiles or natural gas powered automobiles ...” Pub. L. No. 100-494, § 6, 102 Stat. 2441, 2452 (1988). Representative John Dingell explained the intent of the amendment as follows:

We ... intend that the Secretary [of Transportation] shall not take into account the extent to which manufacturers have produced alternative fueled vehicles whenever the Secretary decides whether to amend the CAFE standard for cars or light trucks. ... *A provision is included in the legislation to ensure that the incentives provided by this bill are not erased by the Secretary’s setting the CAFE standard for cars or trucks at a level that assumes a certain penetration of alternative fueled vehicles.* ... It is intended that this examination [of maximum feasible fuel economy] will be conducted without regard to the penetration of alternative fuel vehicles in any manufacturer’s fleet, in order to ensure that manufacturers taking advantage of the incentives offered by this bill do not find DOT including those incentive increases in the manufacturer’s “maximum fuel economy capability.”<sup>69</sup>

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<sup>65</sup> 49 U.S.C. § 32902(h).

<sup>66</sup> 49 U.S.C. § 32901(a)(8).

<sup>67</sup> 49 U.S.C. § 32901(a)(1)(J).

<sup>68</sup> 49 U.S.C. § 32901(a)(9).

<sup>69</sup> 134 Cong. Rec. H8091 (daily ed. Sept. 23, 1988) (*emphasis* added).

This exclusion was subsequently expanded to include electric vehicles in the Energy Policy Act of 1992.<sup>70</sup> Again, the legislative history shows that Congress intended for the statute to incentivize investments in alternative fueled by excluding them from the calculation of a “maximum feasible” fuel economy standard given the uncertainties in the market:

The widespread use for motor vehicles of fuels other than gasoline—such as methanol, ethanol, other alcohols, natural gas ... and electricity—faces several problems. The current market price of gasoline is lower than the current market price of most alternative fuels. There must be major investments in new production plants for alternative fuels and in networks of stations for alternative fuels. There must also be major investments in new cars or engines or converting existing vehicles.<sup>71</sup>

NHTSA has consistently interpreted the exclusions currently found in 49 U.S.C. § 32902(h) as preventing the agency from accounting for BEVs in its standard-setting, either as part of the baseline or as part of the modeling that supports the final standards. For instance, during the Obama Administration, when setting MY 2011 CAFE standards, NHTSA explained the dedicated-automobile exclusion as follows:

49 U.S.C. § 32902(h) expressly prohibits NHTSA from considering the fuel economy of “dedicated” automobiles in setting CAFE standards. Dedicated automobiles are those that operate only on an alternative fuel, like all-electric or natural gas vehicles. Dedicated vehicles often achieve higher mile per gallon (or equivalent) ratings than regular gasoline vehicles, so this prohibition prevents NHTSA from raising CAFE standards by averaging these vehicles into our determination of a manufacturer’s maximum feasible fuel economy level.<sup>72</sup>

NHTSA has also applied Section 32902(h) to its consideration of the “baseline” fleet. Another portion of Section 32902(h) prohibits NHTSA from considering the trading, transferring, or availability of credits under section 32903—the same as NHTSA is prohibited from considering BEVs.<sup>73</sup> In applying that constraint, NHTSA explained in its Light Truck Final Rule for MYs 2008-2011 that the statute “prohibits us” from taking account of the credits available for the sale of flex-fueled vehicles “in determining the maximum feasible fuel

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<sup>70</sup> See Pub. L. No. 102-486, § 403, 106 Stat. 2776, 2876 (amending EPCA section 502(e) to provide that “[f]or purposes of this section, the Secretary shall not consider the fuel economy of dedicated automobiles.”).

<sup>71</sup> 5 H.R. Rep. No. 102-474, at 34 (1992). The current text of the dedicated-automobile exclusion, see *supra* p. 2, is a product of Pub. L. No. 103-272 (1994), which transferred EPCA from title 15 to title 49 “without substantive change.” H.R. Rep. No. 103-130, at 1 (1994).

<sup>72</sup> 74 Fed. Reg. 14196, 14387 (Mar. 30, 2009) (footnote omitted).

<sup>73</sup> 49 U.S.C. § 32902(h)(3).

economy standard. ***Accordingly, the baseline projection cannot reflect those credits.***<sup>74</sup> Up until now, NHTSA’s practice has been faithful to the text and the intent of the exclusions in Section 32902(h) by excluding BEVs and the other prohibited considerations from its baseline and its analyses setting fuel economy standards.

### NHTSA Has Improperly Considered Sales of BEVs and PHEVs in its Determination of Maximum Feasible Fuel Economy Standards

In the current rulemaking, NHTSA has considered EVs in two ways that conflict with the text and intent of EPCA and that are inconsistent with past practice.

First, the NPRM makes it clear that NHTSA is accounting for BEVs in what it calls its “baseline” or “No-Action alternative” and in other action alternatives for its standard-setting analysis.<sup>75</sup> NHTSA also explains how EVs are included in all regulatory alternatives in its Technical Support Document (“TSD”).<sup>76</sup> The TSD goes on to explain how NHTSA built ZEV Mandate compliance into its modeling by “converting vehicles that have been identified as potential ZEV candidates into battery-electric vehicles (BEVs) at the first redesign opportunity, so that a manufacturer’s fleet meets calculated ZEV credit requirements.”<sup>77</sup> It is therefore clear that NHTSA’s compliance modeling, which undergirds its entire standard-setting analysis, considers the fuel economy of BEVs the agency projects will be produced and sold to comply with the ZEV Mandate.

The extent to which BEVs and PHEVs are included in the analysis of the baseline fleet (Alternative 0) and in the other alternatives considered in the proposal is demonstrated in Figures IV-1 and IV-2. In the NHTSA standard-setting analysis, BEV market share grows from less than two percent in MY 2020 to almost five percent by MY 2026 in the baseline fleet (Alternative 0). In Alternative 2, the proposed standards, BEV market share increases to over six percent by 2026. Despite their exclusion from NHTSA’s evaluation of ZEV Mandate compliance, PHEV market share grows from less than one percent in MY 2020 to almost two

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<sup>74</sup> 71 Fed. Reg. 17566, 17582 (Apr. 6, 2006) (citing 49 U.S.C. § 32902(h)) (*emphasis* added), remanded on other grounds by *Center for Biological Diversity v. NHTSA*, 538 F.3d 1172, (9th Cir. 2008).

<sup>75</sup> See 86 Fed. Reg. at 49793 (“NHTSA has considered and accounted for California’s ZEV mandate (and its adoption by the other [sic] Section 177 states) in developing the baseline for this proposal.”); *id.* at 49622 (“NHTSA believes that it is reasonable to include ZEV in the baseline for this proposal regardless of whether California receives a waiver of preemption under the Clean Air Act (CAA) ...”); *id.* at 49749 (“As the baseline against which the Action Alternatives are measured, the No-Action Alternative also includes several other actions that NHTSA believes will occur in the absence of further regulatory action... NHTSA has included California’s ZEV mandate as part of the No-Action Alternative.”)

<sup>76</sup> See *CAFE TSD* (*supra* note 18) at 39. (“All of the regulatory alternatives considered here also include NHTSA’s estimates of ways each manufacturer could introduce new PHEVs and BEVs in response to ZEV mandates.”)

<sup>77</sup> *Id.* at 104. See also *id.* at 109 (“Third, we assume that manufacturers will meet their ZEV credit requirements in 2025 though the production of battery electric vehicles (BEVs).”)

percent in MY 2026 under Alternative 0 and to about seven percent under Alternative 2. The combined BEV and PHEV market share grows from a little over two percent in MY 2020 to over six percent and 14 percent in MY 2026 for Alternatives 0 and 2, respectively (Figure IV-3).

NHTSA has also considered the alternative fuel operation of dual fueled vehicles (specifically plug-in hybrids) in violation of Section 32902(h)(2). The Vehicles Report output file makes it clear that the compliance fuel economy used by the model (the “FE Compliance” field) includes the alternative fuel portion of vehicle operation for PHEVs. For the purposes of the standard-setting analysis, NHTSA should only consider the fuel economy of a PHEV when operating on conventional fuel. For example, the technology effectiveness database could include one value reflective of gasoline-powered hybrid operation, and another value, not used for standard-setting, that reflects combined gasoline and off-board electricity-powered operation.

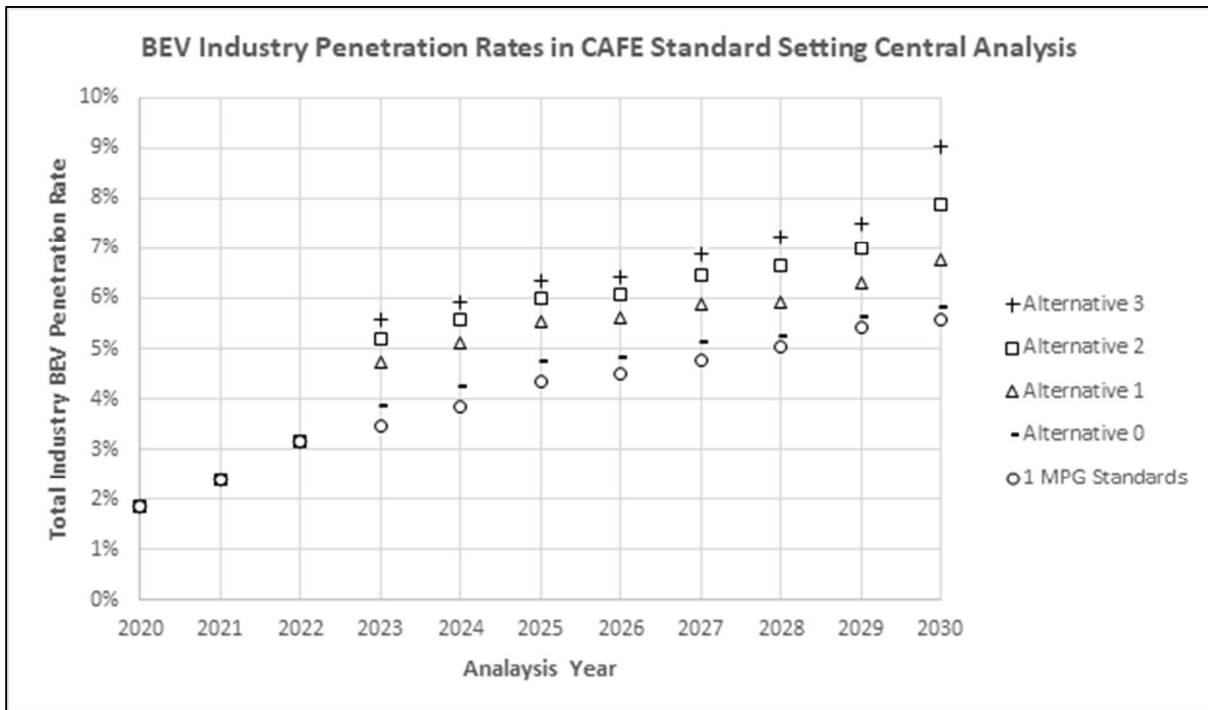


Figure IV-1: BEV Industry Penetration Rates in CAFE Standard-Setting Central Analysis

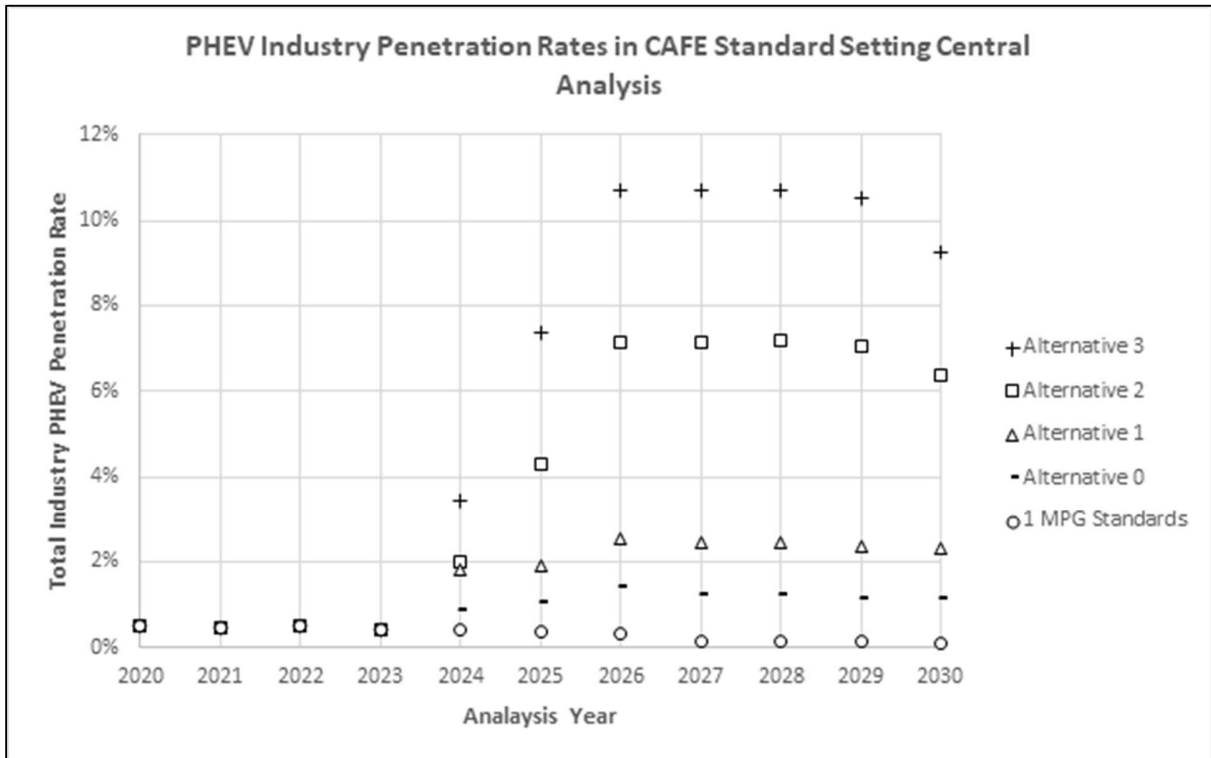
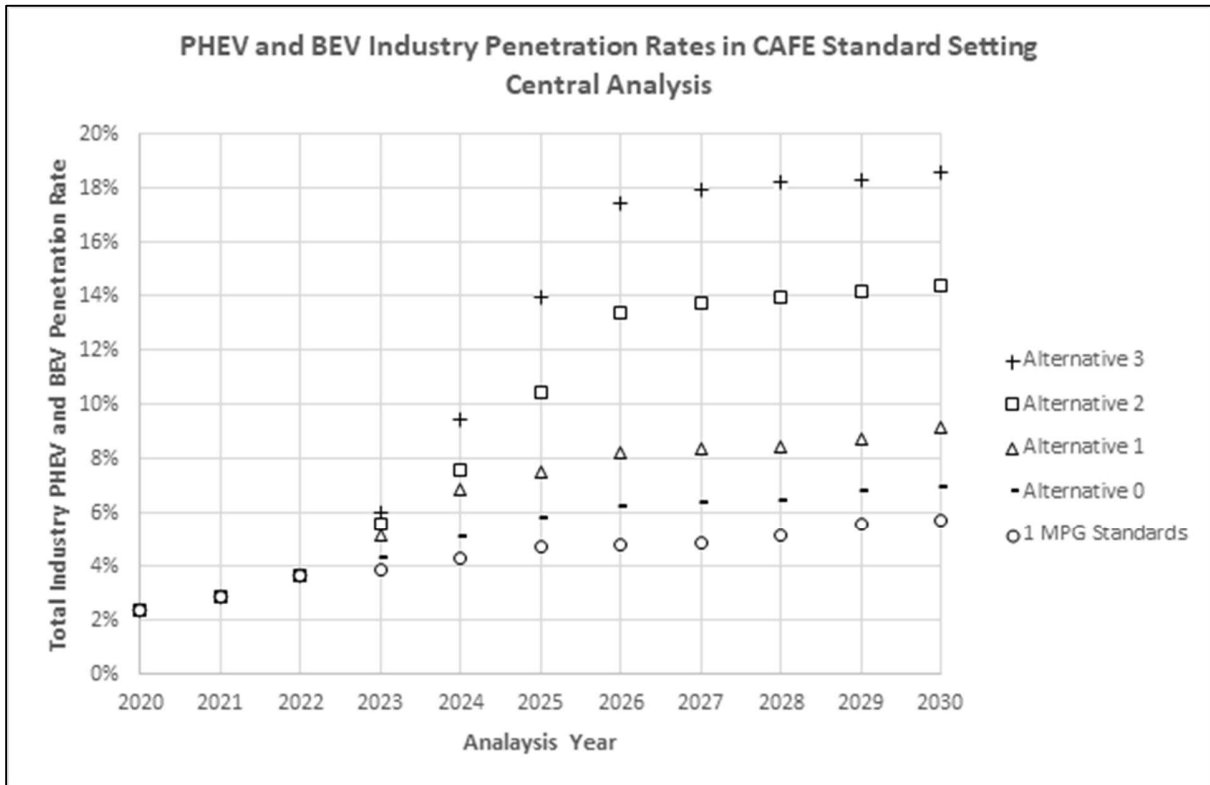


Figure IV-2: PHEV Industry Penetration Rates in CAFE Standard-Setting Central Analysis



**Figure IV-3: Combined PHEV and BEV Industry Penetration Rates in CAFE Standard-Setting Central Analysis**

It is therefore clear that the penetration of EVs in the light vehicle market *and their fuel economy* are important factors in the agency’s standard-setting here. NHTSA’s proposed determination that the steep fuel economy curves set forth in Alternative 2 are technologically feasible and economically practicable is based on (a) the high penetration of EVs in the light-duty fleet during the covered years (MYs 2024-2026) to account for the ZEV mandate, and (b) the high imputed fuel economy values attributed to those EVs. If, hypothetically, EVs were to have fuel economy values of (say) 15 mpg, then it would be impossible to support the current proposal.

NHTSA appears to be relying, in part, on the “other motor vehicle standards of the government” prong of 49 U.S.C. § 32902(f) to justify its consideration of BEVs in its standard-setting.<sup>78</sup> This justification is unavailing for two separate and independent reasons.

First, it violates the well-established canon of statutory construction *generalia specialibus non derogant*—that is: if there is a conflict between a general provision and a

<sup>78</sup> See, CAFE NPRM (*supra* note 2) at 49639 (“[W]hen considering other standards that may affect fuel economy compliance pathways, DOT includes projected zero emissions vehicles (ZEV) that would be required for manufacturers to meet standards in California and Section 177 States, per the waiver granted under the Clean Air Act.”).

specific provision in a statute, the specific provision prevails.<sup>79</sup> This is especially true where “the two are interrelated and closely positioned, both in fact being parts of [the same statutory scheme].”<sup>80</sup> Here, there is specific and express prohibition against NHTSA considering dedicated alternative fuel vehicles and the operation of dual-fueled vehicles on alternative fuels in its standard-setting, and those prohibitions trump the more general provision requiring NHTSA to consider other motor vehicle standards of the government.

Second, NHTSA’s reliance on that section of EPCA would thwart Congress’s intent in expanding the alternative fuel exclusion in Section 502(e) to cover EVs. The Energy Policy Act of 1992 was enacted against the backdrop of California’s promulgation of ZEV regulations. Congress amended EPCA to include BEVs (among other “dedicated automobiles”) in order to prevent NHTSA from including compliance with those regulations in its standard-setting calculations—precisely what NHTSA purports to do here. Congress did so because then—as today—electric vehicles faced significant market uncertainty.<sup>81</sup>

NHTSA also inappropriately allows the CAFE Model standard-setting analysis to add BEVs and PHEVs in response to the No-Action and action alternatives considered. Although the CAFE Model is constrained from applying BEV or FCEV technology in the specific standard-setting years (other than that added to the baseline in response to the ZEV Mandate, as discussed above), PHEV technology does not appear so constrained.<sup>82,83</sup> Moreover, as a result of the CAFE Model’s multiyear planning feature, under which technology can be added in advance of standard-setting years in response to the following years’ simulated standards,

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<sup>79</sup> See *RadLAX Gateway Hotel, LLC v. Amalgamated Bank*, 566 U.S. 639, 645 (2012) (“it is a commonplace of statutory construction that the specific governs the general.”).

<sup>80</sup> *HCSC-Laundry v. United States*, 450 U.S. 1, 6 (1981) (per curiam).

<sup>81</sup> See H.R. Rep. No. 102-217, pt. 1, at 12 (1991) (“[T]he American public must be sold not only on the environmental value of EV’s, but also on their practical transport, safety and economic value. . . . Other barriers above and beyond technology and cost considerations that will affect the commercialization of electric vehicles include the lack of a current infrastructure . . .”).

<sup>82</sup> *Draft CAFE Model Documentation*, National Highway Traffic Safety Administration (Aug. 2021) at 33. (“Each regulatory scenario definition includes a Standard Setting Year field, which specifies whether new standards are being set during a given year. Technologies that convert a vehicle to a battery-electric or a fuel-cell vehicle (e.g., BEV200 or FCV) will be further restricted from application during these “standard setting” years. If, however, the vehicle in question is designated as a “ZEV Candidate” by the user in the market data inputs, this restriction will not apply.”)

<sup>83</sup> In itself, model selection of PHEVs is not a violation of 49 U.S.C. § 32902(h)(2). However, if the electric portion of their operation is included in their consideration, NHTSA would be in violation of the statute. This appears to be the case. The Vehicles Report output file indicates the compliance fuel economy used by the model for various vehicles (“FE Compliance,” column AH). In the Central Analysis standard-setting reference case (output file folder M000000\_P0000000\_S000000\_T00000\_3), Alternative 2 (the proposal) has compliance fuel economy for PHEVs equal to the harmonic average of their projected fuel economy on gasoline and that on electricity, an alternative fuel.

significant additional BEVs are added in model year 2023 (Figure IV-1) and additional PHEVs are added during the standard-setting years (Figure IV-2), with their electrical portion of operation considered in their compliance fuel economy, as noted above. NHTSA describes, “Changes are shown to occur in MY 2023 even though NHTSA is not explicitly proposing to regulate that model year because NHTSA anticipates that manufacturers could make changes as early as that model year to affect future compliance position (*i.e.*, multi-year planning).”<sup>84</sup> In the same vein, the multiyear planning function also allows the addition of technology after the standard-setting years, “as some manufacturers and products ‘catch up’ to the standards.”<sup>85</sup> Notwithstanding our concerns with including the ZEV mandate in the baseline (Alternative 0), additional EV volume added in response to the simulated standards (and considering the portion of operation on electricity) is another clear violation of 49 U.S.C. § 32902(h) whether the EVs are added in advance of or after the standard-setting years.

In order to be faithful to both the text and the intent of Section 32902(h), NHTSA must completely exclude the sale of BEVs and the electric portion of the operation of PHEVs from its standard-setting analyses, unless and until Congress modifies the prohibitions against their inclusion in setting maximum feasible standards.

[REDACTED]

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<sup>84</sup> CAFE NPRM (*supra* note 2) at 49757.

<sup>85</sup> *Id.* at 49620.

[REDACTED]

**Attachment 2**

**Excerpts from Alliance for Automotive Innovation Comments to NHTSA  
Re: Proposed Corporate Average Fuel Economy Standards for Model Years 2027-2031  
Passenger Cars and Light Trucks**

**Docket ID No. NHTSA-2023-0022-60652**

[REDACTED]

2.3 NHTSA’s proposed standards are improperly predicated on alternative fuel vehicles.

Despite clear prohibitions,<sup>24</sup> NHTSA improperly includes the fuel economy of BEVs, a type of dedicated alternative fuel vehicle, in its consideration of CAFE standards. It does so under the guise of including them in its baseline assessment (i.e., a view of what NHTSA projects would happen absent further regulation) through a variety of pathways. However, the law makes no such exception.

The inclusion of BEVs increases the modeled achieved fuel economy of the passenger car and light truck fleets by up to 17.1 miles per gallon (“MPG”) and 7.9 MPG, respectively in the timeframe of the Proposed Rule.<sup>25</sup> Including BEVs in the baseline assumes market feasibility and adoption levels that NHTSA has not properly analyzed in reaching this conclusion. Without these dedicated alternative fuel vehicles, the proposed standards clearly exceed technological feasibility.

While we respect NHTSA’s desire to reflect electric vehicles in its analysis, NHTSA cannot simply ignore or bypass clear direction from Congress.

Please see Appendix A for more details.

[REDACTED]

[REDACTED]

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[REDACTED]

<sup>24</sup> 49 U.S.C. § 32902(h)(1).

<sup>25</sup> Auto Innovators assessment based on data found in NHTSA’s central rulemaking analysis Vehicles Report model output file. (Comparison of sales-weighted average 2-cycle compliance fuel economy with and without battery electric vehicles.)

[REDACTED]

## Appendix A: NHTSA's proposed standards are improperly predicated on alternative fuel vehicles

### ***NHTSA's statutes prohibit consideration of dedicated alternative fuel vehicles in determining the maximum feasible standards.***

As in the previous rulemaking setting Corporate Average Fuel Economy (“CAFE”) standards for MY 2024-2026, the National Highway Traffic Safety Administration (“NHTSA”) includes in its baseline analysis for this Proposed Rule<sup>1</sup> battery electric vehicles carried forward from MY 2026 and additional battery electric vehicles (“BEVs”) that it predicts automakers will build and sell in response to California’s zero-emission vehicle (“ZEV”) Mandate.<sup>2</sup> NHTSA has concluded that it is proper for the agency to do so despite the prohibition in 49 U.S.C. §32902(h) that it “may not consider the fuel economy” of battery-electric vehicles in determining maximum feasible fuel economy under Section 32902(f), because, in NHTSA’s view, that section only prohibits the agency from considering incremental BEVs as a compliance option in response to the standards.<sup>3</sup> In the Proposed Rule, NHTSA notes that it “is aware of challenges to this approach in *Natural Resources Defense Council v. NHTSA*, No. 22–1080 (D.C. Cir.),” (“*NRDC v. NHTSA*”), and that its “analysis will account for any judgment in that case that may be final before the issuance of the final rule.”<sup>4</sup> While we appreciate NHTSA’s recognition that should the D.C. Circuit disagree with its approach, that would have a significant impact on this rulemaking, we were disappointed not to see any analysis in this rulemaking of what the standards would be should the agency exclude BEVs altogether in its baseline analysis.

That said, the Alliance for Automotive Innovation (“Auto Innovators”) reiterates here the position it took in the prior rulemaking and in the amicus brief the Association submitted in *NRDC v. NHTSA*, which we incorporate by reference in these comments. To summarize, it is improper for NHTSA to consider the fuel economy of *any* BEVs in its standard-setting—whether those BEVs are in response to the standards or those BEVs are included in the baseline analysis. The prohibition against the consideration of the

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<sup>1</sup> National Highway Traffic Safety Administration, Notice of Proposed Rulemaking: Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027-2032 and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030-2035, 88 *Fed. Reg.* 56128 (Aug. 17, 2023), hereinafter “NPRM”.

<sup>2</sup> 13 C.C.R. §§ 1962, 1962.1, 1962.2, and 1962.4.

<sup>3</sup> See NPRM (*supra* note 1) at 56319.

<sup>4</sup> *Id.*

fuel economy of BEVs set forth in Section 32902(h) is categorical and includes no exceptions. The statute provides:

In carrying out subsections (c) [amending CAFE standards], (f) [determining maximum feasible average fuel economy standards], and (g) [promulgating other amendments] of this section, the Secretary of Transportation—

(1) may not consider the fuel economy of dedicated automobiles;

(2) shall consider dual fueled automobiles to be operated only on gasoline or diesel fuel; and

(3) may not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under section 32903.<sup>5</sup>

Notably, the statute does not state that NHTSA may consider the fuel economy of BEVs so long as it refrains from doing so as a compliance option, as NHTSA would read the statute. It says that the agency “may not consider the fuel economy of dedicated automobiles” for any purpose whatsoever. NHTSA seeks to include BEVs to mandate a transformation of the industry. Congress has not authorized such a mandate; NHTSA has overstepped its authority.

At the Oral Argument for *NRDC v. NHTSA*, held on September 14, 2023, NHTSA’s counsel claimed that including the electric-drive portion of a plug-in hybrid electric vehicle (“PHEV”), a type of dual fueled vehicle, in its standard-setting analysis and adding more BEVs after the compliance years might be wrong, but was a harmless error. However, as noted in the rebuttal, there is a concern that these errors and other errors, alone or in combination, are not harmless and warrant remand and vacatur.

In the NPRM, NHTSA suggests that it is required to consider BEVs in the baseline in order to satisfy its obligations in Office of Management and Budget (“OMB”) Circular A–4, which directs agencies to develop analytical baselines regarding the state of the world in the absence of the regulatory action being evaluated.<sup>6</sup> But an OMB Circular does not trump a clear statutory requirement such as 49 U.S.C. §32902(h)(1).<sup>7</sup>

NHTSA’s construction of 32902(h)(1) is also belied by its application of subsection (h)(2) concerning dual fueled automobiles. That prohibition is also categorical, and it parallels subsection (h)(1): “in carrying out subsections (c), (f), and (g) of this section,” NHTSA

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<sup>5</sup> 49 U.S.C. §32902(h).

<sup>6</sup> *Id.*

<sup>7</sup> See *Chevron, U.S.A. v. Nat. Res. Def. Council*, 467 U.S. 837, 843 n.9 (1984) (“[Courts] must reject administrative constructions which are contrary to clear congressional intent.”).

“shall consider dual fueled automobiles to be operated only on gasoline or diesel fuel.”<sup>8</sup> In contrast to its construction of subsection (h)(1), NHTSA does *not* craft an exception onto subsection (h)(2) for PHEVs in the baseline. In other words, NHTSA excluded the electric portion of *all* PHEVs in the rulemaking years—both PHEVs for compliance purposes and the PHEVs in the baseline.<sup>9</sup> NHTSA’s application of subsection (h)(2) to all of the PHEVs in the model is correct. The agency has offered no explanation for why it is construing subsection (h)(1) differently than subsection (h)(2); there is none. Subsection (h)(1) also applies to all vehicles in the compliance years, and there is no basis to differentiate between BEVs in the baseline and incremental BEVs to comply with the standards. NHTSA’s treatment of PHEVs also contradicts its argument that it would be improper to create an “artificial baseline that pretends that dedicated alternative fueled vehicles do not exist.”<sup>10</sup> After all, that is precisely what NHTSA has done with respect to PHEVs: it created an “artificial baseline that pretends that” PHEVs operate only on gasoline, and it did so because that is what 49 U.S.C. §32902(h)(2) requires it to do.

***NHTSA includes dedicated alternative fuel vehicles in its analysis.***

NHTSA has included dedicated alternative fuel vehicles, specifically BEVs, in its analysis, both before and during standard-setting years.

NHTSA’s inclusion of alternative fuel vehicles in analysis years prior to standard-setting years is important and meaningful because those years establish a level of fuel economy upon which subsequent standards are built. If alternative fuel vehicles were not included in projections leading up to the standard-setting years, the achieved fuel economy would potentially be lower, which could result in NHTSA finding lower maximum feasible standards in the standard-setting years.

Inclusion of alternative fuel vehicles in the standard-setting years clearly has impacts on NHTSA’s determination of maximum feasible standards given that such vehicles

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<sup>8</sup> 49 U.S.C. § 32902(h)(2).

<sup>9</sup> See, e.g., NPRM (*supra* note 1) at 56201. (“Unlike other technologies in the analysis, including other electrification technologies, Congress placed specific limitations on how we consider the fuel economy of PHEVs and BEVs when setting CAFE standards. We implement these restrictions in the CAFE Model by using fuel economy values that assume ‘charge sustaining’ (gasoline-only) PHEV operation, and by restricting technologies that convert a vehicle to a BEV or a FCEV from being applied during ‘standard-setting’ years.”) See also National Highway Traffic Safety Administration, Draft Technical Support Document: Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030 and Beyond (Jul. 2023), hereinafter “DTSD” at 1-6. (“For the current analysis of the CAFE LD fleet, NHTSA allowed application of PHEVs while disallowing application of BEVs and FCVs during the standard setting years”).

<sup>10</sup> NPRM (*supra* note 1) at 56319.

generally have much higher fuel economy than internal combustion engine (“ICE”) vehicles, which likely has led to NHTSA proposing higher standards.

Alternative fuel vehicles are included through several pathways in NHTSA’s baseline assessment, which forms the foundation for the action alternatives it is considering. These include alternative fuel vehicles that NHTSA projects will be necessary for compliance with California’s ZEV Mandate, additional alternative fuel vehicles to the extent that they are more cost-effective than other options in meeting the U.S. Environmental Protection Agency’s (“EPA’s”) greenhouse gas (“GHG”) and NHTSA’s CAFE regulations through model year (“MY”) 2026, and any alternative fuel vehicles that NHTSA’s modeling determines would achieve fuel savings equal or better to their incremental costs within 30 months of purchase.<sup>11</sup>

NHTSA projects a significant number of BEVs in both the passenger car and light truck fleets in its rulemaking analysis (Figure 1). Passenger car BEV share exceeds 30% in MY 2026 and grows to over 40% by MY 2032. Light truck BEV share exceeds 15% in MY 2026 and grows to over 25% by MY 2032.

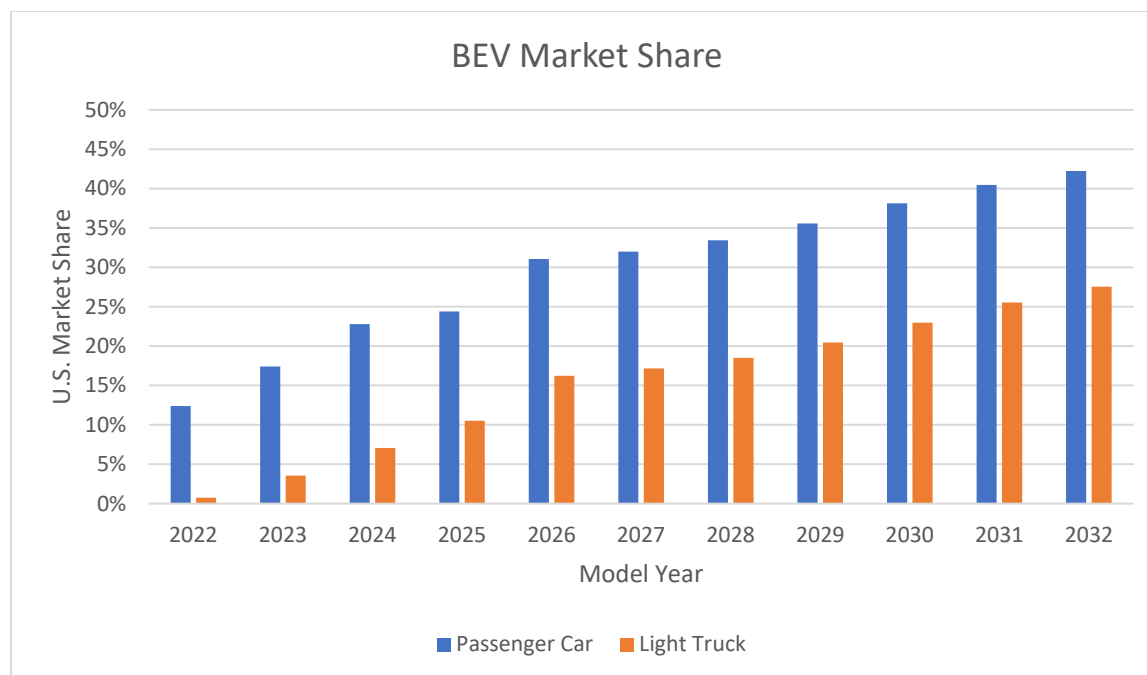


Figure 1: Projected market share of BEVs in NHTSA’s rulemaking central analysis for the proposed standards, MYs 2022-2032.<sup>12</sup>

<sup>11</sup> DTSD (*supra* note 9) at 1-25.

<sup>12</sup> NHTSA, rulemaking central analysis Technology Utilization Report output file, scenario 2.00%/Y Pc And 4.00%/Y Lt During 2027-2032, sum of BEV1, BEV2, BEV3, and BEV4 technology penetration rate.

Finally, NHTSA also models additional BEVs in model years after 2032. While these later BEVs would not contribute to the baseline or achieved fuel economy under the proposed standards, they do add additional costs and benefits to the regulatory impact analysis. Therefore, to whatever extent NHTSA considers the benefit / cost analysis in support of its determination of maximum feasible standards, NHTSA also considers alternative fuel vehicles in its determination.

***The inclusion of dedicated alternative fuel vehicles has a material impact on the estimated achieved CAFE.***

In NHTSA's rulemaking analysis, these BEVs have high average fuel economy (Figure 2). In MYs 2022-2026 BEVs classified as passenger cars have an average fuel economy near or over 400 miles per gallon ("MPG"). Light truck BEVs have fuel economies near or exceeding 300 MPG in MYs 2022-2026. In MY 2027 and later, average BEV fuel economies drop to near 100 MPG as a result of NHTSA's use of a lower Department of Energy ("DOE") -proposed petroleum equivalency factor for BEVs. However, as described below, a BEV fuel economy of 100 MPG still far exceeds that of non-alternative fuel vehicles.

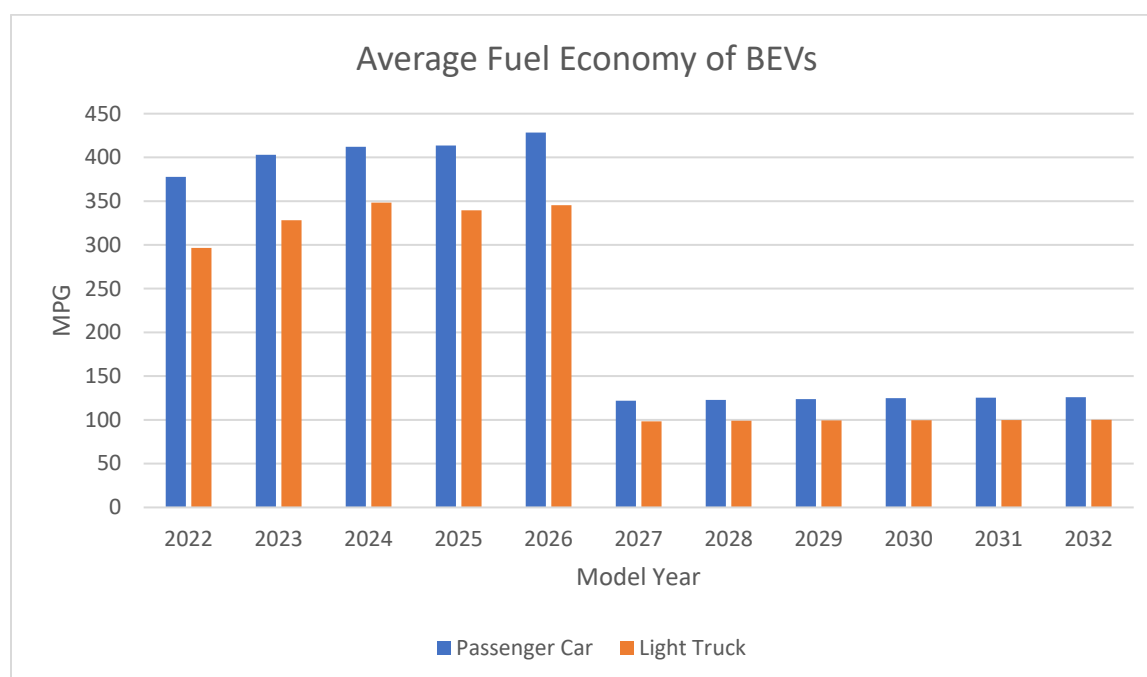


Figure 2: NHTSA-projected sales-weighted average fuel economy of BEVs in the rulemaking central analysis for the proposed standards, MYs 2022-2032.<sup>13</sup>

<sup>13</sup> NHTSA, rulemaking central analysis Vehicles Report output file, scenario 2.00%/Y Pc And 4.00%/Y Lt During 2027-2032, sales-weighted harmonic average of FE Compliance for battery electric vehicles.

Non- alternative fuel vehicles have much lower average fuel economies in NHTSA's analysis (Figure 3). Passenger cars never exceed 50 MPG on average through MY 2032. Light trucks never exceed 40 MPG on average through MY 2032.

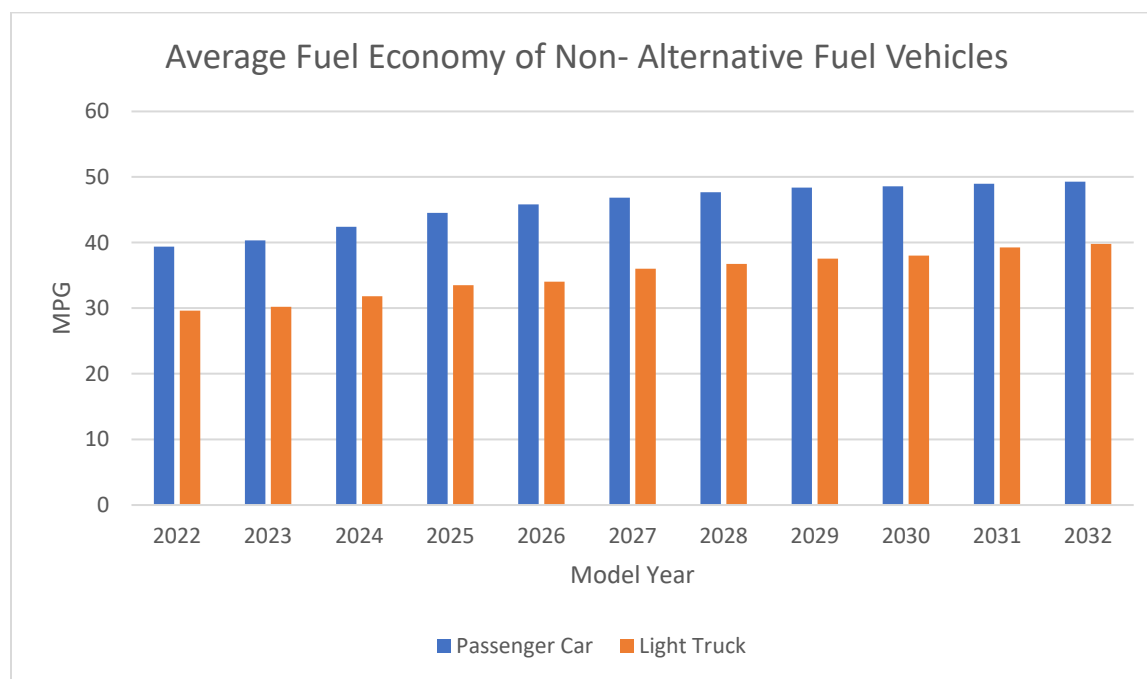


Figure 3: NHTSA-projected sales-weighted average fuel economy of non- alternative fuel vehicles in the rulemaking central analysis for the proposed standards, MYs 2022-2032.<sup>14</sup>

The inclusion of BEVs in NHTSA's rulemaking analysis makes a significant difference in the projected fuel economy of the passenger car and light truck fleets (Figures 4 and 5). For passenger cars, alternative fuel vehicles increase the projected fuel economy of the fleet by 11.5 MPG in MY 2027, growing to 17.1 MPG in MY 2032. For light trucks, alternative fuel vehicles increase the projected fuel economy of the fleet by 4.4 MPG in MY 2027, growing to 7.9 MPG in MY 2032.

<sup>14</sup> NHTSA, rulemaking central analysis Vehicles Report output file, scenario 2.00%/Y Pc And 4.00%/Y Lt During 2027-2032, sales-weighted harmonic average of FE Compliance for vehicles other than EVs.

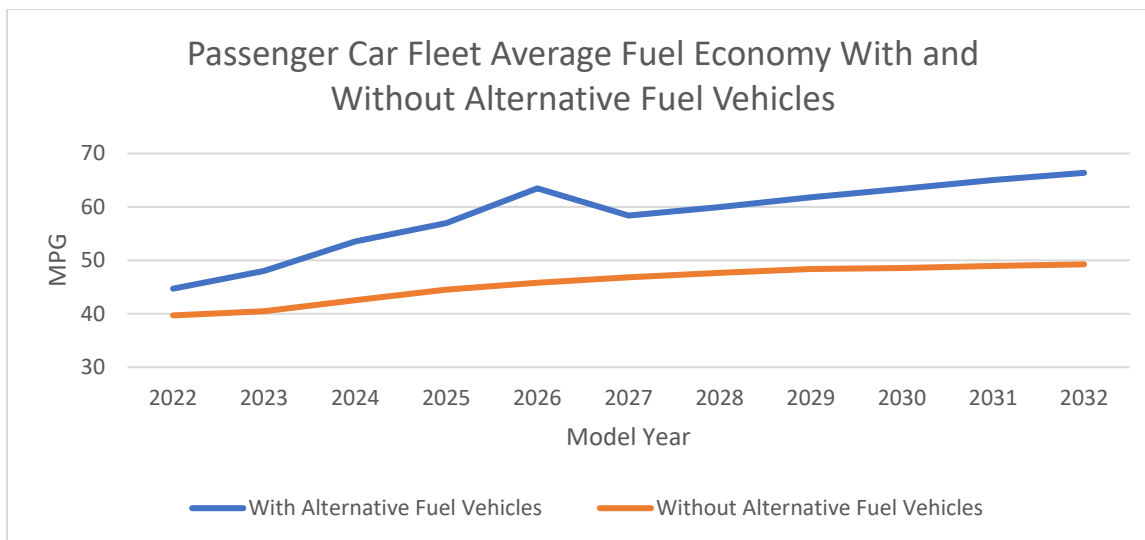


Figure 4: NHTSA-projected sales-weighted average fuel economy of the passenger car fleet with and without alternative fuel vehicles, MYs 2022-2032.<sup>15</sup>

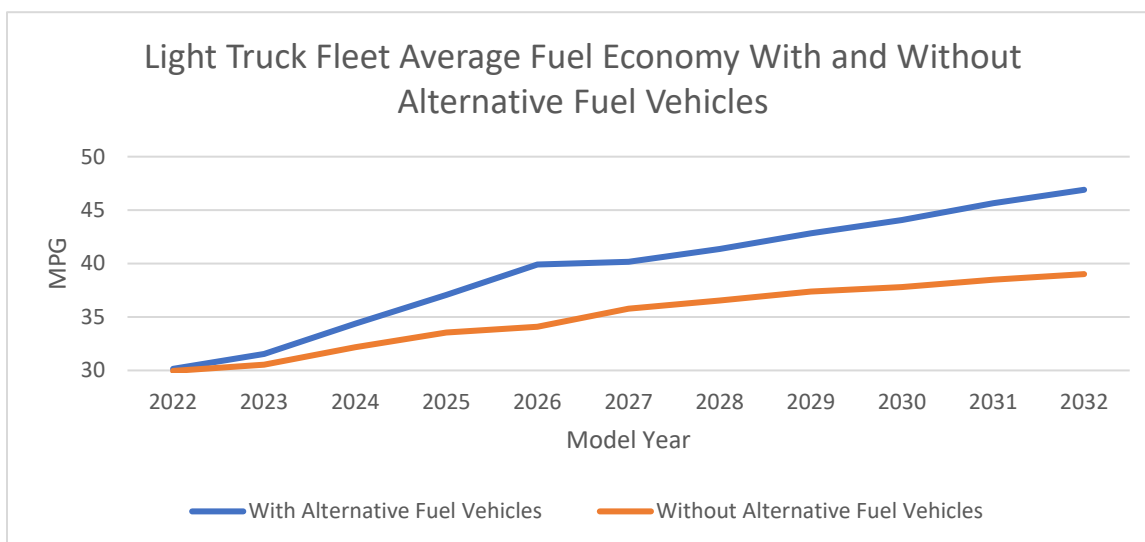


Figure 5: NHTSA-projected sales-weighted average fuel economy of the passenger car fleet with and without alternative fuel vehicles, MYs 2022-2032.<sup>16</sup>

<sup>15</sup> NHTSA, rulemaking central analysis Vehicles Report output file, scenario 2.00%/Y Pc And 4.00%/Y Lt During 2027-2032, sales-weighted harmonic average of FE Compliance for passenger car vehicles grouped as alternative fuel (including BEVs and FCVs) and non- alternative fuel (including PHEVs given NHTSA's exclusion of electric operation of PHEVs in MYs 2027-2032).

<sup>16</sup> NHTSA, rulemaking central analysis Vehicles Report output file, scenario 2.00%/Y Pc And 4.00%/Y Lt During 2027-2032, sales-weighted harmonic average of FE Compliance for light truck vehicles grouped as alternative fuel (including BEVs and FCVs) and non- alternative fuel (including PHEVs given NHTSA's exclusion of electric operation of PHEVs in MYs 2027-2032).

***Without dedicated alternative fuel vehicles, NHTSA's proposed standards exceed technological feasibility for numerous manufacturers and a significant portion of the fleet.***

To better understand the impacts of BEVs (alternative fuel vehicles) on projected compliance to the proposed standards and other alternatives, Auto Innovators ran an additional sensitivity case that minimized BEVs in the analysis and that prevented civil penalty payment unless no other option was available. The following changes were made to the input files to enable this:

- Model runtime settings (See Attachment 4 - Summary\_NoEV\_NoFine.txt.)
  - Consistent with rulemaking central analysis settings
- Market data input file (See Attachment 5 - market\_data\_LD\_NoEV\_NoFine.xlsx.)
  - MY 2022 sales volume for all BEVs set to "1" (minimize existing BEV impacts)
  - Penalty payment preference set to "No" for all manufacturers (force technology to greatest extent within other model constraints)
- Parameters input file (See Attachment 6- parameters\_ref.xlsx.)
  - No changes
- Scenarios input file (See Attachment 7 - scenarios\_LD\_NoEV.xlsx.)
  - Set standard-setting flag to "True" for MYs 2023-2032 (prevent credit carry-forward/trade/transfer)
  - Set dual fuel option to "0" for MYs 2023-2032 (ignore PHEV electric operation)
- Technologies input file (See Attachment 8 - technologies\_NoEV.xlsx.)
  - Set BEV and FCV penetration caps to 0% (prevent addition of new BEV variants)

The results for both passenger car and light truck fleets demonstrate the technological challenges of meeting the proposed standards without the alternative fuel vehicles that NHTSA is prohibited from considering (Tables 1 and 2). Over a third of passenger cars are in fleets that do not meet the proposed standard in MYs 2027-2032. For light trucks almost a third of production is in fleets that do not meet standards in MY 2027. In MY 2028, over three quarters of vehicles are in fleets that do not meet the proposed standard, and in MY 2029 and later nine out of every ten vehicles are in a fleet that does not meet the proposed standard without BEVs.

*Table 1: Passenger car performance to the proposed standards without BEVs, maximizing technology application. Excludes Karma, Lucid, and Tesla. Data based on analysis of Compliance Report output file from Auto Innovators model run described above.*

Model Year	Number of Passenger Car Fleets That Do Not Meet Standard	Percent of Production in Fleets That Do Not Meet Standard
2027	15	36%
2028	14	33%
2029	15	36%
2030	15	36%
2031	14	40%
2032	17	48%

*Table 2: Light truck performance to the proposed standards without BEVs, maximizing technology application. Excludes Karma, Lucid, and Tesla. Data based on analysis of Compliance Report output file from Auto Innovators model run described above.*

Model Year	Number of Light Truck Fleets That Do Not Meet Standard	Percent of Production in Fleets That Do Not Meet Standard
2027	8	32%
2028	11	76%
2029	14	91%
2030	14	91%
2031	13	91%
2032	14	92%

[Redacted text block]

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**Attachment 3**

**Brief of the Alliance for Automotive Innovation  
As Amicus Curiae in Support of the State Petitioners and Petitioner American Fuel &  
Petrochemical Manufacturers**

**United State Court of Appeals for the District of Columbia Circuit**

**Natural Resources Defense Council**

**v.**

**National Highway Traffic Administration, et al.**

**USCA Case #22-1080**

ORAL ARGUMENT NOT YET SCHEDULED  
No. 22-1080 (and consolidated cases)

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

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NATURAL RESOURCES DEFENSE COUNCIL,

*Petitioner,*

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, *ET AL.*,

*Respondents.*

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On Petition for Review of a Final Rule of the  
National Highway Traffic Safety Administration

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**BRIEF OF THE ALLIANCE FOR AUTOMOTIVE INNOVATION  
AS *AMICUS CURIAE* IN SUPPORT OF THE  
STATE PETITIONERS AND PETITIONER AMERICAN FUEL &  
PETROCHEMICAL MANUFACTURERS**

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## **CORPORATE DISCLOSURE STATEMENT**

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rules 15(c)(6) and 26.1, the Alliance for Automotive Innovation certifies that it is a not-for-profit trade association of motor vehicle manufacturers, original equipment suppliers, and technology and other automotive-related companies. The Alliance for Automotive Innovation operates for the purpose of promoting the general commercial, professional, legislative, and other common interests of its members. The Alliance for Automotive Innovation does not have any outstanding shares or debt securities in the hands of the public, nor does it have a parent company. No publicly held company has a 10 percent or greater ownership interest in the Alliance for Automotive Innovation.

**CERTIFICATE REGARDING SEPARATE AMICUS BRIEF**

Pursuant to D.C. Circuit Rule 29(d), the Alliance for Automotive Innovation certifies that a separate amicus brief is necessary to provide its unique perspective on the fuel economy standards promulgated by the National Highway Traffic Safety Administration. Members of *amicus curie* will be subject to the rule under review, and *amicus curie* is particularly well-suited to provide the Court with important context on the rule subject to the petition for review.

**CERTIFICATE AS TO PARTIES,  
RULINGS UNDER REVIEW, AND RELATED CASES**

Pursuant to D.C. Circuit Rules 26.1 and 28(a)(1), *amicus curiae* Alliance for Automotive Innovation certifies as follows:

**A. Parties**

On July 1, 2022, this Court entered an order consolidating case number 22-1080 with case numbers 22-1144 and 22-1145. Petitioners in No. 22-1144 are the State of Texas, the State of Arkansas, the State of Indiana, the Commonwealth of Kentucky, the State of Louisiana, the State of Mississippi, the State of Montana, the State of Nebraska, the State of Ohio, the State of South Carolina, and the State of Utah. Petitioner in No. 22-1145 is American Fuel & Petrochemical Manufacturers. Petitioner in No. 22-1080 is the Natural Resources Defense Council.

Respondents in No. 22-1144 are the National Highway Traffic Safety Administration (“NHTSA”), acting NHTSA Administrator Ann Carlson,<sup>1</sup> the United States Department of Transportation, and Secretary of Transportation Pete Buttigieg. Respondent in No. 22-1145 is NHTSA. Respondents in No. 22-1080 are NHTSA, acting NHTSA Administrator Carlson, and Secretary Buttigieg.

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<sup>1</sup> Upon the departure of Steven Cliff, Ann Carlson assumed the role of acting NHTSA administrator in September 2022. Under Federal Rule of Appellate Procedure 43(c)(2), Carlson is automatically substituted as a party in place of Cliff.

Intervenors in Nos. 22-1144 and 22-1145 are the City and County of Denver, the City of Los Angeles, the City of New York, the City of San Francisco, the Commonwealth of Massachusetts, the Commonwealth of Pennsylvania, the District of Columbia, the Environmental Defense Fund, the Environmental Law and Policy Center, the National Coalition for Advanced Transportation, the Natural Resources Defense Council, Public Citizen, the Sierra Club, the State of California, the State of Colorado, the State of Connecticut, the State of Delaware, the State of Hawaii, the State of Illinois, the State of Maine, the State of Maryland, the State of Michigan, the State of Minnesota, the State of Nevada, the State of New Jersey, the State of New Mexico, the State of New York, the State of North Carolina, the State of Oregon, the State of Vermont, the State of Washington, the State of Wisconsin, the Union of Concerned Scientists, and the Zero Emission Transportation Association. Intervenors in No. 22-1080 are the Clean Fuels Development Coalition; Diamond Alternative Energy, LLC; ICM, Inc.; the Illinois Corn Growers Association; the Kansas Corn Growers Association; the Kentucky Corn Growers Association; the Michigan Corn Growers Association; the Missouri Corn Growers Association; the Texas Corn Producers Association; the Minnesota Soybean Growers Association; Valero Renewable Fuels Co., LLC; and the Wisconsin Corn Growers Association.

The California Business Roundtable and the California Manufacturers & Technology Association filed an *amicus* brief in support of Petitioner American Fuel & Petrochemical Manufacturers and State Petitioners in Nos. 22-1144 and 22-1145.

### **B. Ruling Under Review**

Petitioners seek review of NHTSA's final rule amending model year 2024–2026 fuel-economy standards. *See* Corporate Average Fuel Economy Standards for Model Years 2024–2026 Passenger Cars and Light Trucks, 87 Fed. Reg. 25710 (May 2, 2022).

### **C. Related Cases**

The consolidated cases in this Court challenge the rule under review: *National Resources Defense Council v. NHTSA*, No. 22-1080; *Texas v. NHTSA*, No. 22-1144; and *American Fuel & Petrochemical Manufacturers v. NHTSA*, No. 22-1145.

Seven consolidated cases in this Court challenge a related rule promulgated by the Environmental Protection Agency: *Texas v. EPA*, No. 22-1031; *Competitive Enterprise Institute v. EPA*, No. 22-1032; *Illinois Soybean Ass'n. v. EPA*, No. 22-1033; *American Fuel & Petrochemical Manufacturers v. EPA*, No. 22-1034; *Arizona v. EPA*, No. 22-1035; *Clean Fuels Development Coalition v. EPA*, No. 22-1036; and *Energy Marketers of America v. EPA*, No. 22-1038.

/s/ David Fotouhi

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**GLOSSARY OF ABBREVIATIONS**

CAFE	Corporate Average Fuel Economy
DOE	Department of Energy
EPA	Environmental Protection Agency
EPCA	Energy Policy and Conservation Act of 1975
GHG	Greenhouse Gas
MY	Model Year
NHTSA	National Highway Traffic Safety Administration
OMB	Office of Management and Budget

## **STATUTES AND REGULATIONS**

All applicable statutes and regulations are contained in the Brief of Petitioner American Fuel & Petrochemical Manufacturers and State Petitioners and the Brief of Petitioner Natural Resources Defense Council.

**RULE 29 STATEMENT OF IDENTITY, INTEREST,  
AUTHORITY, AUTHORSHIP, AND FINANCIAL CONTRIBUTION**

The Alliance for Automotive Innovation (“Auto Innovators”) is the singular, authoritative, and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, Auto Innovators represents the manufacturers producing nearly 98 percent of cars and light trucks sold in the United States. Its members also include original equipment suppliers, technology, and other automotive-related companies and trade associations. The organization is involved in regulatory and policy matters impacting the light-duty vehicle market across the country. Auto Innovators has an interest in the litigation because its members are directly regulated by the Corporate Average Fuel Economy (“CAFE”) standards at issue here, *see* Corporate Average Fuel Economy Standards for Model Years 2024–2026 Passenger Cars and Light Trucks, 87 Fed. Reg. 25,710 (May 2, 2022) (the “CAFE Rule”), and the association can therefore offer a unique and important perspective to the Court.

The primary interest Auto Innovators’ members seek to preserve in this litigation is a regulatory program that provides significant reductions in motor vehicle greenhouse gas (“GHG”) emissions and improvement in fuel economy in a manner that helps smooth and incentivize the industry’s transition to electric

vehicles.<sup>1</sup> Automakers have announced significant goals in decarbonization, and, in support of these goals, have plans to invest an estimated \$1.2 trillion globally by 2030 to develop and build new electric vehicles. *See* Paul Lienert, *Automakers to Double Spending on EVs, Batteries to \$1.2 Trillion by 2030*, Reuters (Oct. 25, 2022).<sup>2</sup> This transformative shift in the industry will require complementary efforts from both the public and private sectors—efforts like investing in electric vehicle charging and hydrogen fueling infrastructure, developing secure and reliable supply chains for the necessary materials for electric vehicle batteries, ensuring the resiliency of the electric grid to power electric vehicles, and creating consumer incentives that account for the fact that these vehicles are currently more expensive to acquire than their gasoline-powered counterparts.

This case and the parallel proceedings in *Texas v. EPA* (Case No. 22-1031) involve an important measure to support electric vehicles: a regulatory framework that supports investments in the development and production of these vehicles while ensuring continued improvements in motor vehicle fuel economy and GHG emissions. On December 30, 2021, the United States Environmental Protection Agency (“EPA”) finalized revised standards that will reduce GHG emissions from

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<sup>1</sup> Electric vehicles include battery-electric vehicles, plug-in hybrid electric vehicles, and hydrogen fuel cell vehicles.

<sup>2</sup> Available at <https://www.reuters.com/technology/exclusive-automakers-double-spending-evs-batteries-12-trillion-by-2030-2022-10-21/>.

light duty vehicles by 28 percent between the 2023 model year (“MY”) and MY2026, which would be an unprecedented achievement. *See* Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards, 86 Fed. Reg. 74,434, 74,447 (Dec. 30, 2021) (the “GHG Rule”). After those standards were challenged, Auto Innovators intervened on the side of EPA to “support maintaining the GHG Rule in its current form,” including the “critically important flexibilities that allow manufacturers to use a range of approaches to reduce air pollution while also adopting new technologies including electric vehicle technology.” *See* Mot. to Intervene by Alliance for Automotive Innovation (ECF No. 1941280). While EPA has promulgated challenging standards, Auto Innovators supports the agency in *Texas v. EPA* because EPA has designed a regulatory framework that incentivizes electric vehicles, encourages overall fleet performance improvements, and is in line with the agency’s authority. Auto Innovators’ merits brief in support of EPA is due to be filed on February 28, 2023.

Auto Innovators seeks to file an *amicus curiae* brief in this challenge in support of the petitioners to explain to the Court that, in contrast to EPA’s rulemaking, the fuel economy standards at issue here exceed the authority of the National Highway Traffic Safety Administration (“NHTSA”) by accounting for considerations that are expressly prohibited by the governing statute, the Energy Policy and Conservation Act (“EPCA”), as amended, 49 U.S.C. §§ 32901, *et seq.* In

doing so, NHTSA contravened the intent of Congress by eliminating an important incentive to reduce petroleum consumption through the sale of alternative fuel vehicles.

Auto Innovators' *amicus* brief should not be viewed as contradicting our members' commitment to decarbonization and the transition to electric vehicles. To the contrary, our support of the EPA standards demonstrates that commitment. Moreover, finding in favor of the petitioners in this action will have no adverse environmental impact because the carbon emissions at issue are already regulated by EPA's GHG standards. A remand will, however, set the foundation for a more workable and sustainable CAFE program that is true to the statute and aligned with the auto industry's transition to electric vehicles.

Auto Innovators is authorized to file this brief pursuant to Circuit Rule 29(b), as all parties have consented to this *amicus* participation. No counsel for a party authored Auto Innovators' brief in whole or in part; no party or party's counsel contributed money to fund preparing or submitting the brief; and no person other than the *amicus curiae*, its members, or its counsel contributed money to fund preparing or submitting the brief.

## **SUMMARY OF ARGUMENT**

The CAFE Rule violates a provision in EPCA that was added by Congress to provide a regulatory incentive for automakers to produce and sell alternative fuel vehicles. EPCA provides that when NHTSA amends fuel economy standards and determines the “maximum feasible fuel economy” for a given model year, it “may not consider the fuel economy” of battery-electric vehicles, and it “shall consider” plug-in hybrids to be “operated only on gasoline.” 49 U.S.C. § 32902(h). These prohibitions are clear, broad, and categorical. They include no exceptions. According to the statute, the extent to which automakers are selling alternative fuel vehicles—whether according to their own market plans or to comply with separate regulations mandating their sale—cannot be considered in setting fuel economy standards.

NHTSA violated this prohibition because future automaker plans and requirements to sell increasing volumes of battery-electric vehicles and plug-in hybrids were foundational to the agency’s analysis of what the maximum feasible fuel economy levels would be for the compliance years—MY2024-2026.<sup>3</sup> First, the agency assumed that automakers will comply with regulations promulgated by the California Air Resources Board requiring increased sales of electric vehicles (the

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<sup>3</sup> NHTSA violated EPCA also with respect to fuel-cell vehicles; but, as explained below, that violation had a much less significant impact on the rulemaking. This brief therefore focuses on NHTSA’s treatment of battery-electric vehicles and plug-in hybrids.

“Zero-Emission Vehicle Mandate”), and that assumption formed part of the baseline for the “No-Action Alternative” and for all of the regulatory alternatives considered in the rulemaking. NHTSA’s modeling analyses show that the high fuel economy of these vehicles and their increased sales volumes were indispensable to the agency’s conclusion that the aggressive standards for MY2024-2026 are feasible. Second, although NHTSA purported to exclude the sale of incremental battery-electric vehicles beyond the baseline *during* MY2024-2026 as a compliance option, the modeling analyses included incremental battery-electric vehicles *before and after the compliance years* in direct response to the stringent standards. Finally, NHTSA’s assessment of anticipated automaker compliance for MY2024-2026 failed to exclude the electric-drive operation of plug-in hybrids, thereby improperly inflating their fuel economy in the compliance modeling. Each of these actions by NHTSA in its determination of maximum feasible fuel economy violated 49 U.S.C. § 32902(h) and erased a significant and deliberate incentive under the statute.

## INTRODUCTION

### **I. Summary of Current Rulemaking**

The rulemaking at issue here is one of two actions by the current Administration to amend a rule adopted by the prior Administration called “The Safer Affordable Fuel-Efficient (‘SAFE’) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks,” 85 Fed. Reg. 24,174 (Apr. 30, 2020) (the “SAFE

Rule”). The SAFE Rule was promulgated jointly by EPA (which is responsible for establishing emission standards for new motor vehicles under the Clean Air Act section 202(a), 42 U.S.C. § 7521(a)) and NHTSA (which is responsible for establishing motor vehicle fuel economy standards under EPCA). In contrast to prior rulemakings, EPA and NHTSA in the instant case promulgated rules separately and on different timetables. EPA finalized its revised GHG emission standards on December 30, 2021. In a separate proceeding, NHTSA finalized its revised CAFE standards on May 2, 2022.

## **II. Auto Innovators’ Intervention in Support of EPA’s GHG Standards**

The GHG Rule has been touted as “the most ambitious vehicle emissions standards for greenhouse gas emissions ever established for the light-duty vehicle sector in the United States.” See EPA News Release, *EPA Finalizes Greenhouse Gas Standards for Passenger Vehicles, Paving Way for a Zero-Emissions Future* (Dec. 20, 2021), <https://bit.ly/3wJFsTD>. By MY2026, the GHG Rule is expected to decrease fleet-wide GHG emissions by more than 28 percent when compared to MY2022.<sup>4</sup>

The Clean Air Act is a flexible statute, and it grants EPA relatively broad discretion concerning the regulations it promulgates to reduce emissions from new

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<sup>4</sup> A vehicle manufacturer’s compliance with the GHG Rule in a given model year is based on the sales-weighted average GHG emissions of the entire fleet of new vehicles that it produces and sells in the model year.

motor vehicles. In this and in past rulemakings, EPA has correctly recognized that increased sales of vehicles that run on alternative fuel, such as electricity or hydrogen, go a long way in reducing carbon emissions. For this reason, regulations under Section 202 of the Clean Air Act have long included regulatory incentives for such vehicles—for example, “multipliers,” which allow an alternative-fuel vehicle to be counted more than once in an automaker’s fleet for compliance purposes. *See, e.g., 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards*, 77 Fed. Reg. 62,624, 62,628 (Oct. 15, 2012) (“In order to provide temporary regulatory incentives to promote the penetration of certain ‘game changing’ advanced vehicle technologies into the light duty vehicle fleet, EPA is finalizing, as proposed, an incentive multiplier for CO<sub>2</sub> emissions compliance purposes for [electric vehicles] sold in MYs 2017 through 2021.”)

Consistent with the Clean Air Act and its past practice, EPA maintained some credit provisions for certain electric vehicles in the GHG Rule. These aspects of the GHG Rule are integral to achieving EPA’s goal of reducing vehicle GHG emissions through the increased sale of electric vehicles. Auto Innovators intervened in support of the GHG Rule because, although meeting the standards will be extremely challenging for the industry, the GHG Rule and its flexibilities for electric vehicles fall within the scope of EPA’s statutory authority and are consistent with the goal of

reducing carbon emissions from new vehicles through increased electrification—a goal that Auto Innovators’ members share with the Administration.

### **III. NHTSA’s Final Fuel Economy Standards for Model Years 2024-2026 at Issue Here**

The CAFE Rule will require increases of fuel economy at a rate of 8 percent year-over-year for MY2024 and MY2025, and 10 percent for MY2026. By MY2026, the standards will require an industry fleet-wide average of roughly 49 miles per gallon for cars and light trucks, combined. *See* 87 Fed. Reg. at 25,710. NHTSA assessed various alternatives in its rulemaking analyses. “Alternative 0” is the “No-Action Alternative” and is based on the preexisting standards set by the SAFE Rule. NHTSA then examined four other scenarios—Alternatives 1, 2, 2.5, and 3—and compared those to Alternative 0 for cost-benefit analyses. *Id.* at 25,725 n.14. Each of these five Alternatives begins with the 2020 model year and then simultaneously:

(1) Simulates compliance with:

- a. the applicable CAFE standards,
- b. the GHG Rule,
- c. the “Framework Agreement” certain automakers entered into with California concerning future GHG obligations, and
- d. California’s Zero-Emission Vehicle Mandate; and

(2) Adds further fuel economy improvements if sufficiently cost-effective for buyers.

See NHTSA, Technical Support Document: Final Rulemaking for Model Years 2024-2026 Light-Duty Vehicle Corporate Average Fuel Economy Standards 67 (Mar. 2022). Based on these analyses, NHTSA settled on Alternative 2.5. 87 Fed. Reg. at 25,721.

## **ARGUMENT**

### **I. EPCA Prohibits NHTSA from Considering the Fuel Economy of Electric Vehicles in Setting CAFE Standards**

EPCA requires NHTSA to determine the “maximum feasible average fuel economy level” for a given model year, *see* 49 U.S.C. § 32902(c), (f),<sup>5</sup> but it outlines a number of factors that NHTSA both must consider and must not consider in setting the standards. One important limitation on NHTSA’s rulemaking authority concerns vehicles that run on alternative fuels such as electricity. The statute provides:

In carrying out subsections (c) [amending CAFE standards], (f) [determining maximum feasible average fuel economy standards], and (g) [promulgating other amendments] of this section, the Secretary of Transportation—

(1) may not consider the fuel economy of dedicated automobiles;

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<sup>5</sup> “Maximum feasible fuel economy” is a legislative term of art and is determined by balancing four statutory criteria: “technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy.” 49 U.S.C. § 32902(f).

(2) shall consider dual fueled automobiles to be operated only on gasoline or diesel fuel; and

(3) may not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under section 32903

49 U.S.C. § 32902(h).

This brief addresses the first two of these prohibitions. Subsection (1) relates to “dedicated automobiles.” A “[d]edicated automobile” is defined as “an automobile that operates only on alternative fuel.” 49 U.S.C. § 32901(a)(8). “Alternative fuel” is defined to include electricity. *Id.* § 32901(a)(1)(J). A battery-electric vehicle is therefore a “dedicated automobile” within the meaning of EPCA, and NHTSA is therefore expressly prohibited from considering the fuel economy of battery-electric vehicles in determining the maximum feasible average fuel economy level or in amending CAFE standards. *See id.* § 32902(h).

Subsection (2) relates to “dual fueled automobiles.” A “[d]ual fueled automobile” is defined as an automobile that “is capable of operating on alternative fuel and on gasoline,” and (for a passenger automobile) that meets or exceeds the “minimum driving range” established by NHTSA regulation. 49 U.S.C. § 32901(a)(9). The current “minimum driving range” for a passenger automobile is 7.5 miles on its nominal storage capacity of electricity when operated on the EPA urban test cycle and 10.2 miles when operated on the EPA highway test cycle. *See* 49 C.F.R. § 538.5(b). Most plug-in hybrids sold today qualify as dual fuel vehicles.

Therefore, in setting fuel economy standards, NHTSA cannot consider the electric-drive operation of these plug-in hybrids and must assume that they run only on gasoline.

## **II. Congress Included These Prohibitions as a Statutory Incentive to Produce and Sell Alternative Fuel Vehicles**

The prohibitions set forth in 49 U.S.C. § 32902(h)(1) and (2) serve an important policy goal identified by Congress—namely, to provide a statutory incentive for the research, development, and sale of alternative fuel vehicles like electric vehicles. It accomplishes this by allowing alternative fuel vehicles to be counted for compliance purposes but prohibiting NHTSA from including them in standard setting. For instance, 49 U.S.C. § 32904(a)(2) sets forth a requirement that NHTSA determine the fuel economy of electric vehicles based on equivalent petroleum-based fuel economy values determined by the Department of Energy according to certain statutory criteria. Another provision in EPCA, 49 U.S.C. § 32905 (entitled “Manufacturing incentives for alternative fuel automobiles”), includes additional provisions designed to enhance the imputed fuel economy of alternative fuel vehicles. Based on these criteria, electric vehicles are attributed fuel

economy values greatly in excess of their gasoline-powered counterparts,<sup>6</sup> and thus can play an important role in an automaker's compliance. At the same time, however, EPCA prohibits NHTSA from considering the fuel economy of battery-electric vehicles and the electric-drive operation of plug-in hybrids in setting CAFE standards. *See supra* Argument § I.

This framework is the result of a deliberate policy choice by Congress. This exclusion first appeared in the Alternative Motor Fuels Act of 1988, Pub. L. No. 100-494, 102 Stat. 2441 (1988), but was limited to methanol, as it was the predominant alternative fuel at the time. The statute amended Section 502(e) of EPCA to provide that, in determining maximum feasible fuel economy, “the Secretary shall not consider the fuel economy of alcohol powered automobiles or natural gas-powered automobiles.” *Id.* at 2452. The bill's main sponsor, Representative John Dingell, explained the intent of the amendment as follows:

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<sup>6</sup> For instance, the 2020 Chevrolet Bolt EV has a combined label fuel economy value of 118 miles-per-gallon equivalent, while Chevrolet's highest-fuel-economy gasoline-powered car, the Spark, is rated at 33 miles per gallon. *See* U.S. Dep't of Energy, Office of Energy Efficiency & Renewable Energy, *Compare Side-by-Side*, [bit.ly/3FaqTMH](https://bit.ly/3FaqTMH). Note, however, that for CAFE compliance purposes, the 2020 Bolt is rated at 408.9 miles-per-gallon equivalent and the Spark at 45.4 miles per gallon. *See* NHTSA Central Analysis, Output, Reports, Vehicle Report, *available at* [bit.ly/3UbpE3T](https://bit.ly/3UbpE3T) (the “CAFE Modeling File”).

We ... intend that the Secretary [of Transportation] shall not take into account the extent to which manufacturers have produced alternative fueled vehicles whenever the Secretary decides whether to amend the CAFE standard for cars or light trucks . . . . *A provision is included in the legislation to ensure that the incentives provided by this bill are not erased by the Secretary's setting the CAFE standard for cars or trucks at a level that assumes a certain penetration of alternative fueled vehicles.*

134 Cong. Rec. H8089-02 (daily ed. Sept. 23, 1988) (emphasis added). As NHTSA later explained, Congress sought to ensure that “incentive[s] [were] not subsumed within higher CAFE standards.” *See* Automotive Fuel Economy Manufacturing Incentives for Alternative Fueled Vehicles, 69 Fed. Reg. 7,689, 7,699 (Feb. 19, 2004).

This exclusion was subsequently expanded to include electric vehicles in the Energy Policy Act of 1992. *See* Pub. L. No. 102-486, § 403, 106 Stat. 2,776, 2,876 (1992). In the Conference Report on the 1992 Act, Congress supported this amendment by pointing to the “major investments [needed] in new production plants for alternative fuels and in networks of stations for alternative fuels,” as well as “in new cars or engines or converting existing vehicles.” H.R. Rep. No. 102-474(V), at 34 (1992). In the face of these market uncertainties, Congress intended to encourage investments in alternative fuel vehicles like electric vehicles by excluding them from the calculation of a maximum feasible fuel economy.

This framework is very different from EPA's. Under the Clean Air Act, EPA has the discretion to account for increased sales of electric vehicles and to craft its

regulatory program to provide the appropriate incentive for these vehicles. EPCA, in contrast, is more proscriptive, and it expressly directs NHTSA in how it should treat alternative fuel vehicles in its rulemaking. Congress designed EPCA to provide an enticement for the development of these vehicles, not to act as a prod.

### **III. NHTSA Violated EPCA by Considering the Fuel Economy of Battery-Electric Vehicles and the Electric Drive Operation of Plug-In Hybrids in Setting the MY2024-2026 CAFE Standards**

In light of the clear and categorical prohibition in 49 U.S.C. § 32902(h), the fundamental question presented here is simple: in amending the CAFE standards and determining maximum feasible fuel economy, did NHTSA “consider the fuel economy” of battery-electric vehicles and the electric-drive operation of plug-in hybrids? A careful review of the record demonstrates that NHTSA did so—in violation of the statute—and that these violations were an indispensable element of the standards that NHTSA adopted in the CAFE Rule.

#### **A. NHTSA Improperly Considered the Fuel Economy of Battery-Electric Vehicles**

NHTSA considered the fuel economy of battery-electric vehicles in determining the maximum feasible fuel economy levels in two ways. First, NHTSA included automakers’ MY2020 battery-electric vehicle volumes (which remain in the fleet for every subsequent model year) *and* the additional battery-electric vehicles that are necessary to comply with California’s Zero-Emission Vehicle Mandate in the baseline for the “No-Action Alternative” and for all other

Alternatives considered. Second, incremental battery-electric vehicles over and above the baseline were added to automakers' fleets in the years immediately preceding and following the compliance years (MY2024-2026) in response to the standards. Each of these considerations of battery-electric vehicles and their fuel economy in the standard setting amounted to independent violations of EPCA.<sup>7</sup>

### **1. NHTSA Considered the Fuel Economy of Battery-Electric Vehicles in the CAFE Rule's Baseline**

As part of its determination of maximum feasible fuel economy levels for the compliance years, NHTSA determined a "baseline" that informs the "No-Action alternative" (i.e., a demonstration of what would happen if NHTSA made no changes to its fuel economy standards, *see* 40 C.F.R. § 1502.14(c)), and informs all of the action alternatives NHTSA assessed in its standard-setting analysis. This baseline is integral to NHTSA's determination of maximum feasible fuel economy and is included as an underlying assumption in each of the analyzed action alternatives, including Alternative 2.5, which was selected as maximum feasible. Any significant change to the baseline would result in a different determination of maximum feasible fuel economy for the compliance years, and accordingly, any improper assumptions contained in NHTSA's baseline would render any results of the same equally erroneous.

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<sup>7</sup> NHTSA also included existing 2020 sales of fuel-cell vehicles in the baseline, but they played a *de minimus* role in the rulemaking and are not addressed in this brief.

In determining the baseline, NHTSA began with an assessment of battery-electric vehicle sales in MY2020. *See* 87 Fed. Reg. at 25,810. NHTSA then assumed that, going forward, automakers would comply with California's Zero-Emission Vehicle Mandate, which requires automakers to achieve certain sales percentages of electric vehicles in each model year, and which has been adopted by a number of other states under Section 177 of the Clean Air Act (42 U.S.C. § 7507).<sup>8</sup> *See* 87 Fed. Reg. at 25,744. NHTSA then added the incremental battery-electric vehicle sales in response to the California Zero-Emission Vehicle Mandate to the 2020 battery-electric vehicle sales. Those battery-electric vehicles, *and the fuel economy of those vehicles*, are included in the baseline NHTSA used to determine maximum feasible fuel economy levels for MY2024-2026.

The agency's modeling files show how NHTSA considered the fuel economy of battery-electric vehicles in the baseline and how the baseline is indispensable to its standard setting. NHTSA analyzed potential CAFE standards based on the outputs of the CAFE Compliance and Effects Modeling System (the "CAFE Model"). The outputs of the CAFE Model include the "Vehicles Report," which "[c]ontains disaggregate vehicle-level summary of compliance model results, providing a

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<sup>8</sup> The California Air Resources Board just adopted amendments to its Zero-Emission Vehicle program that requires each automaker's zero-emission vehicle sales to increase each year, from 35 percent in MY2026 eventually to 100 percent in MY2035. *See* Cal. Code Regs. tit. 13 § 1964.4(c)(1)(B).

detailed view of the final state of each vehicle examined by the model, for each model year and scenario analyzed.” *See* NHTSA, CAFE Model Documentation 219 (Apr. 2022). One of the fields in the Vehicles Report is “FE Compliance,” which is a “[v]ehicle’s overall fuel economy rating in a specific model year, taking into account the effect of technology additions made by the modeling system, adjusted for improvements in air conditioning and off-cycle credits . . . . This value is used for compliance purposes.” *Id.* at 256. The outputs of the CAFE Model are available online and are part of the administrative record.<sup>9</sup> For this discussion, we present modelling data for Alternative 2.5 (the Alternative selected as the final standards); there is similar data for Alternatives 0 (the “No-Action Alternative”), 1, 2, and 3 in the administrative record. In MY2024 (the first compliance year), the model includes 293 battery-electric vehicles, and the minimum fuel economy of those battery-electric vehicles is 165.7 miles per gallon,<sup>10</sup> the maximum is 529.8 miles per

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<sup>9</sup> *See* CAFE Modeling File, *supra* note 6.

<sup>10</sup> The fuel economy ratings of electric vehicles are determined using a “petroleum equivalency factor” established by the Department of Energy based on factors specified in 49 U.S.C. § 32904(a)(2)(B). *See also* 87 Fed. Reg. at 25,985. DOE is currently considering a petition that seeks a significant reduction in the petroleum equivalency factor, which would significantly reduce the imputed fuel economy of an electric vehicle. Because the consideration of BEVs in the CAFE Rule is based on the current petroleum equivalency factor, any change to it would materially affect manufacturers’ ability to comply with the fuel economy standard.

gallon,<sup>11</sup> and the projected sales-weighted average fuel economy of those battery-electric vehicles is 370.1 miles per gallon.<sup>12</sup> There are similar data in the model for all years impacted by the rulemaking. By way of a demonstrative, below is a screenshot of the model output files referenced above showing the relevant fields for some of the battery-electric vehicle models and variations of those models from BMW:<sup>13</sup>

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<sup>11</sup> See CAFE Modeling File, *supra* note 6, at Central Analysis.zip\Central Analysis\output\ref\reports-csv\vehicles\_report.csv, Scenario Name = Alternative 2.5, “Powertrain” = BEV, “FE Compliance” field.

<sup>12</sup> Calculated by Auto Innovators from the “FE Compliance” and “Sales” fields in the file referenced, *supra* note 6.

<sup>13</sup> CAFE Modeling File, *supra* note 6, at Central Analysis\Output\ref\reports-csv\vehicle\_reports. Non-pertinent rows and columns were hidden for ease of viewing, and the red circle was added to direct the Court’s attention to the relevant data.

	A	B	C	D	E	K	AH	BO	CJ	CK	CL
1	Scenario	Scenario Name	Model Year	Manufacturer	Veh Code	Powertrain	FE Compliance	Sales			
460284	4	Alternative 2.5	2024	BMW	4104072	BEV	273.9	130			
460285	4	Alternative 2.5	2024	BMW	4104073	BEV	273.9	128			
460292	4	Alternative 2.5	2024	BMW	4105003	BEV	412.2	3284			
460295	4	Alternative 2.5	2024	BMW	4105006	BEV	413.1	3758			
460296	4	Alternative 2.5	2024	BMW	4105007	BEV	299.2	522			
460297	4	Alternative 2.5	2024	BMW	4105008	BEV	299.2	467			
460298	4	Alternative 2.5	2024	BMW	4105009	BEV	299.2	751			
460299	4	Alternative 2.5	2024	BMW	4105010	BEV	277	244			
460300	4	Alternative 2.5	2024	BMW	4105011	BEV	277	24			
460301	4	Alternative 2.5	2024	BMW	4105012	BEV	277	379			
460303	4	Alternative 2.5	2024	BMW	4105014	BEV	440.4	690			
460306	4	Alternative 2.5	2024	BMW	4105017	BEV	435.1	54			
460310	4	Alternative 2.5	2024	BMW	4105021	BEV	324.7	2202			
460311	4	Alternative 2.5	2024	BMW	4105022	BEV	324.7	947			
460312	4	Alternative 2.5	2024	BMW	4105023	BEV	324.7	144			
460313	4	Alternative 2.5	2024	BMW	4105024	BEV	273.2	807			
460314	4	Alternative 2.5	2024	BMW	4105025	BEV	273.2	87			
460315	4	Alternative 2.5	2024	BMW	4105026	BEV	273.2	1171			
460386	4	Alternative 2.5	2024	BMW	4120010	BEV	299.8	940			

The column headed “FE Compliance” is the fuel economy of the battery-electric vehicles used by NHTSA for compliance purposes in the CAFE Model. By way of example, the model variation assigned “Vehicle Code” 4105003 has an imputed fuel economy of 412.2 miles per gallon and projected sales of 3,284 units in MY2024.

These battery-electric vehicles and their fuel economy values were included in NHTSA’s baseline fleet for all of the Alternatives, and the baseline was a foundational pillar upon which NHTSA based its determination of maximum feasible fuel economy. Put differently, any significant change in the baseline—for instance, if the baseline included *zero* battery-electric vehicles in MY2024-2026—would necessarily result in a different determination of maximum feasible fuel

economy for the compliance years. Therefore, because NHTSA considered the fuel economy of battery-electric vehicles in the baseline, and because the baseline is foundational to NHTSA's determination of maximum feasible fuel economy, it necessarily follows that NHTSA considered the fuel economy of battery-electric vehicles for its determination of maximum feasible fuel economy for MY2024-2026.

In response to comments that identified this legal flaw, NHTSA argued that it is appropriate to consider the fuel economy of battery-electric vehicles in the baseline so long as it “withhold[s] [battery-electric vehicle] technology as a model option during the rulemaking timeframe [i.e., MY2024-2026],” and that in doing so, the agency “give[s] meaningful effect to the 49 U.S.C. § 32902(h) prohibition.” 87 Fed. Reg. at 25,899. NHTSA's justification fails for two reasons.

First, it reads the absolute prohibition in § 32902(h) too narrowly. The statute does not contain an exception allowing NHTSA to consider the fuel economy of battery-electric vehicles in the baseline fleet. To the contrary, the prohibition is categorical: “In carrying out subsections (c) [and] (f)—i.e., amending fuel economy standards and determining maximum feasible average fuel economy—NHTSA “may not consider the fuel economy of dedicated automobiles” for any purpose

whatsoever.<sup>14</sup> The statutory prohibition is unambiguous, so NHTSA had no discretion to “give meaningful effect” to the prohibition in 49 U.S.C. § 32902(h)(1) by flouting that prohibition when determining the baseline. But even if there were some ambiguity in the statute on this point (and there is not), it is cleared up by the legislative history quoted above. The prohibition found in 49 U.S.C. § 32902(h)(1) is intended to prevent NHTSA from “setting the CAFE standard for cars or trucks at a level that assumes a certain penetration of alternative fueled vehicles,” and thereby erasing the compliance incentive provided under the statute. *See supra* Argument § II. But that is precisely what NHTSA did here.<sup>15</sup> While it may seem counterintuitive that NHTSA must ignore battery-electric vehicles in the real-world fleet, that is what the statute commands, and the legislative history explains why.

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<sup>14</sup> NHTSA further argued that “including state [Zero-Emission Vehicle] mandates in the regulatory baseline for this final rule is consistent with guidance in OMB Circular A–4 directing agencies to develop analytical baselines that are as accurate as possible regarding the state of the world in the absence of the regulatory action being evaluated.” 87 Fed. Reg. at 25,744. But an OMB Circular does not trump a clear statutory requirement such as 49 U.S.C. § 32902(h)(1). *See Chevron U.S.A. v. Nat. Res. Def. Council*, 467 U.S. 837, 843 n.9 (1984) (“[Courts] must reject administrative constructions which are contrary to clear congressional intent.”).

<sup>15</sup> NHTSA similarly tried to excuse its inclusion of battery-electric vehicles by pointing out that “[t]he baseline is not itself the decision on what standards are maximum feasible.” 87 Fed. Reg. at 25,899. This again reads the prohibition too narrowly. The agency violates Section 32902(h)(1) if it “considers the fuel economy” of battery-electric vehicles in its determination of maximum feasible fuel economy. Because setting the baseline is key part of this decision, and because the fuel economy of battery-electric vehicles were a key part of the baseline, it follows that NHTSA violated Section 32902(h)(1).

Second, NHTSA admitted in the preamble that the industry’s ability to achieve the aggressive standards for MY2024-2026 rests on the assumption that its baseline—that is, automaker compliance with California’s Zero-Emission Vehicle Mandate—will actually come to pass. In response to a comment that automakers will have to produce *more* battery-electric vehicles in order to comply with the CAFE rule, NHTSA stated that the “standards are maximum feasible without electrification *beyond what is already expected in the baseline.*” 87 Fed. Reg. at 25,996 (emphasis added). The logical converse is that if automakers fail to achieve those battery-electric vehicle sales volumes in the baseline, then it may not be possible to meet the standards’ requirements.<sup>16</sup>

## **2. NHTSA Added Battery-Electric Vehicle Sales in the Years Preceding and Following the Compliance Years in Response to the Standards**

NHTSA’s standard-setting analyses also project that automakers will sell incremental battery-electric vehicles over the baseline in MY2023—the model year immediately preceding the first year covered by the standards—in order to comply with the standards in MY2024-2026. As NHTSA explained in the preamble:

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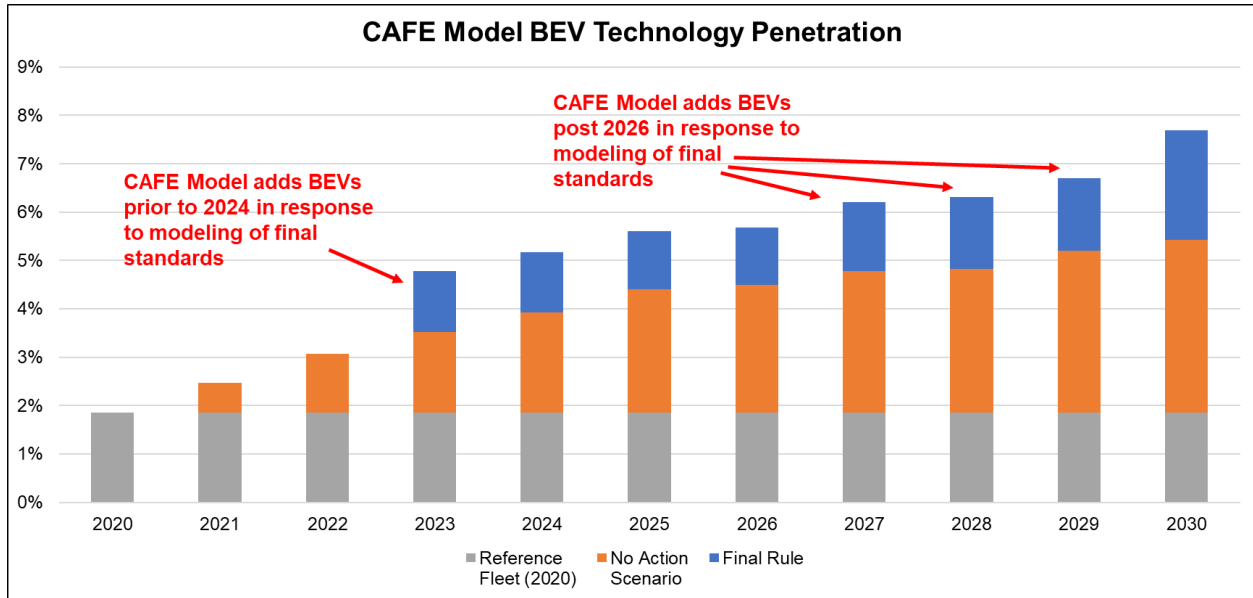
<sup>16</sup> It is worth noting that California has often needed to relax its Zero-Emission Vehicle requirements, recognizing that its regulations were overly ambitious. For example, in 1998 and again in 2001, the California Air Resources Board amended the regulation to allow automakers to meet the requirements using sales of certain conventional gas-powered vehicles through 2017. *See* California Air Resources Board, *Zero-Emission Vehicle Program*, [bit.ly/3OPz8Rr](https://bit.ly/3OPz8Rr).

“Changes are shown to occur in MY2023 even though NHTSA is not explicitly proposing to regulate that model year because NHTSA anticipates that manufacturers could potentially make changes as early as that model year to affect future compliance positions (i.e., multi-year planning) for the model years being regulated.” 87 Fed. Reg at 25,916. This results in more battery-electric vehicles being added to the fleet in MY2023, and these vehicles are then carried forward into the standard-setting years for compliance purposes.

The impact of this choice can be observed in the model’s technology selection (Cafe Modeling File, Technology Utilization Report) output file. The battery-electric vehicle technology utilization in Alternative 0 (the “No-Action Alternative”) is 3.5 percent in MY2023. In the analysis reflecting Alternative 2.5 (the final standards adopted by NHTSA), MY2023 has a battery-electric vehicle technology utilization of 4.8 percent. In other words, the model adds additional battery-electric vehicles in MY2023 in response to the modeled final standards, and those additional battery-electric vehicles are used for compliance purposes in the standard-setting years.

Additionally, NHTSA’s analyses add battery-electric vehicles to the fleet *after* the compliance years—that is, between MY2027-2029. According to the preamble: “Effects of standards on the fleet out to MY2029 are considered to account for years the regulation covers, and years of potential carry back credit use.” *See* 87 Fed. Reg. at 25,782 n.185. Thus, NHTSA’s model assumes increased battery-electric vehicle

sales after MY2026 on account of the standards, and that automakers will use them for compliance in MY2024 through MY2026. The impacts of these considerations on compliance with the standards are shown in the following graph:<sup>17</sup>



This is yet another example of NHTSA’s unsupported and counter-textual reading of Section 32902(h)(1). The agency “interprets 32902(h) as not prohibiting application by the CAFE Model of vehicles such as electric vehicles in model years outside the rulemaking time frame, for example in MYs 2027 and beyond in this analysis, because those years are not the ones for which we are currently determining CAFE standards.” 87 Fed. Reg. at 25,995; *see also id.* at 25,899 (arguing that NHTSA complied with Section 32902(h)(1) “by not allowing the CAFE Model to rely on [battery-electric vehicle] (or other dedicated alternative

<sup>17</sup> Data from CAFE Modeling File, *supra* note 6, at Central Analysis.zip\Central Analysis\output\ref\reports csv\technology\_utilization\_report.csv.

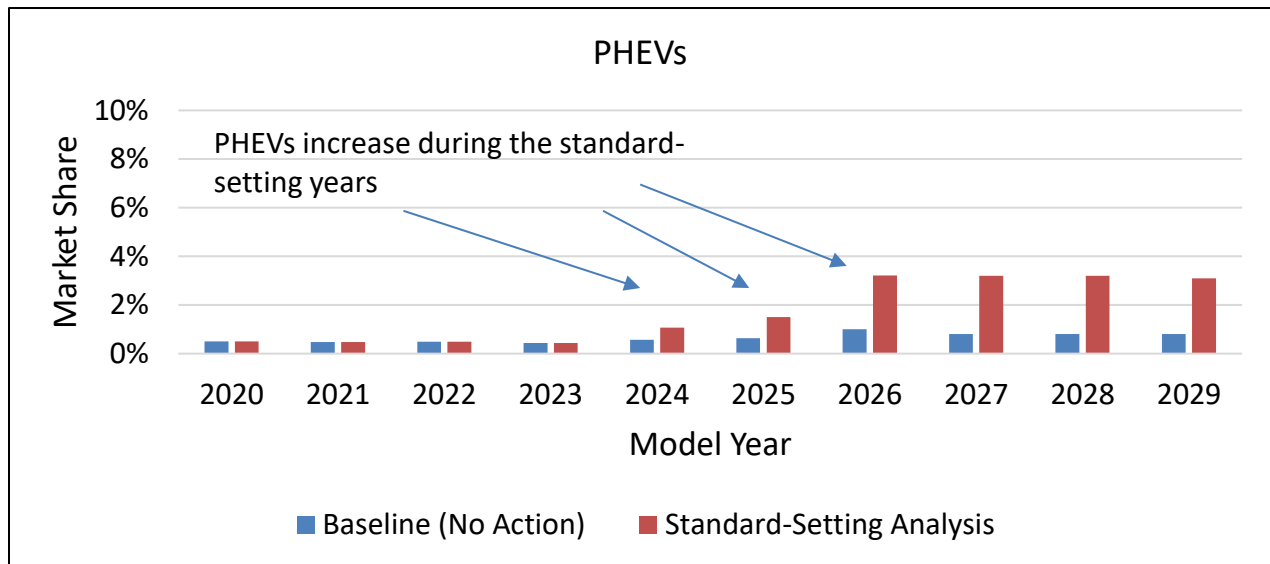
fuel) technology during the rulemaking time frame”). NHTSA offers no authority whatsoever for the proposition that—despite the clear prohibition to the contrary—it *can* consider the fuel economy of battery-electric vehicles so long as it does so outside of the rulemaking period. No such exception can be found in the statute.

**B. NHTSA Failed to Consider Plug-In Hybrids as Operating Only on Gasoline, As Required Under EPCA**

NHTSA committed a further violation of EPCA through its failure to exclude the electric-drive operation of plug-in hybrids in its standard-setting analyses. The CAFE Model utilized by NHTSA to demonstrate the feasibility of the final standards included the electric-drive portion of plug-in hybrids in MY2024-2026. NHTSA admitted as much in the preamble: “For MYs 2024-2026, the CAFE Model estimates that a significant penetration of strong hybrids and plug-in hybrids is required to meet the analyzed alternatives.” 87 Fed. Reg. at 25,808. This is an important admission because, absent its electric-only operation, a plug-in hybrid’s fuel economy would not differ substantially from a conventional gas-powered vehicle. Thus, NHTSA concedes that the electric operation is needed to meet the standards.

NHTSA’s failure to consider plug-in hybrids as being “operated only on gasoline” is apparent in the model settings used for the rulemaking analysis. The model has a setting for dual-fueled vehicles such as plug-in hybrids called “Multi-Fuel.” In the scenario input file for the standard-setting analysis, NHTSA set the

“Multi-Fuel” setting to a value of “1,”<sup>18</sup> which means “for Gasoline/Electricity vehicles [plug-in hybrids], both fuel economy values are considered.” See CAFE Model Documentation at 213. In other words, the model assumes that plug-in hybrids are running on both gasoline and electricity, and this assumption supports the determination of maximum feasible fuel economy. Consequently, the model anticipates a significant increase in the number of plug-in hybrids sold in response to the standards, as shown in the following graph:<sup>19</sup>



This increase is because of the high fuel economy of plug-in hybrids, which comes from their electric drive system. Hence, NHTSA has failed to assume that plug-in

<sup>18</sup> See CAFE Modeling File, *supra* note 6, at Central Analysis\input\scenarios\_ref.

<sup>19</sup> Data from CAFE Modeling File, *supra* note 6, at Central Analysis\output\ref\reports-csv\technology\_utilization\_report.csv.

hybrids operate only on gasoline in determining maximum feasible fuel economy, in violation of 49 U.S.C. § 32902(h)(2).

In its response to comments, NHTSA does not deny that it included the electric-drive portion of plug-in hybrids, but instead “consider[ed] the full calculated fuel economy of dual-fueled vehicles” in its standard setting. 87 Fed. Reg. at 25,996. It justified doing so by pointing out that it has “held [that] interpretation since the 2012 final rule.” *Id.* Of course, past violations of a statute by an executive agency do not give the agency license to continue violating the statute. Although courts typically defer to longstanding agency interpretations, “a reviewing court should not defer to an agency position which is contrary to an intent of Congress expressed in unambiguous terms.” *Estate of Cowart v. Nicklos Drilling Co.*, 505 U.S. 469, 476 (1992); *see also Brown v. Gardner*, 513 U.S. 115, 122 (1994) (age of an agency regulation “is no antidote to clear inconsistency with a statute”).

**C. NHTSA’s Inclusion of Battery-Electric Vehicles and Plug-In Hybrids in Its Standard Setting Has a Significant Impact on CAFE Performance**

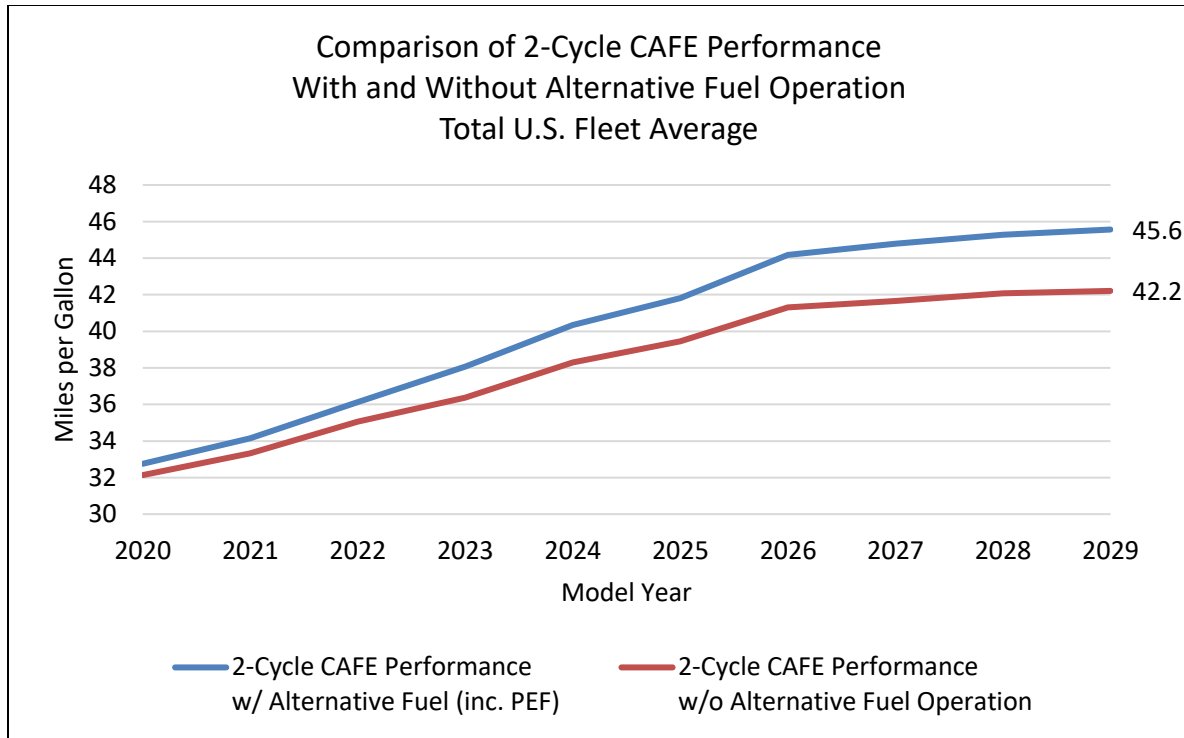
NHTSA attempts to excuse its violations of the statute by arguing that each of them individually would not have had a significant impact on the outcome of the rulemaking in terms of the cost of compliance. *See, e.g.*, 87 Fed. Reg. at 25,996 (claiming that even if NHTSA had excluded the electric-drive portion of plug-in hybrids, “per-vehicle costs are estimated to drop from \$1,087 to \$1,072” and “results

in MY2029 would be extremely close to results in the main standard-setting analysis”). However, Auto Innovators’ analyses show that correcting for all of the identified violations does in fact have a significant impact on the fuel economy performance of the compliance fleet.

Using the “Vehicles Report” output file for Alternative 2.5 (the final standards), Auto Innovators calculated what the industry production-weighted average fleet fuel economy performance would have been without the fuel economy of battery-electric vehicles and the electric-drive portion of plug-in hybrids, both of which were improperly considered by NHTSA. This was accomplished by assuming zero sales of battery-electric vehicles, and by replacing the combined fuel economy values for plug-in hybrids with their fuel economy assuming only the gasoline-powered operation. Correcting for these errors results in a 3.4 miles-per-gallon difference in fuel economy, as shown in the following graph:<sup>20</sup>

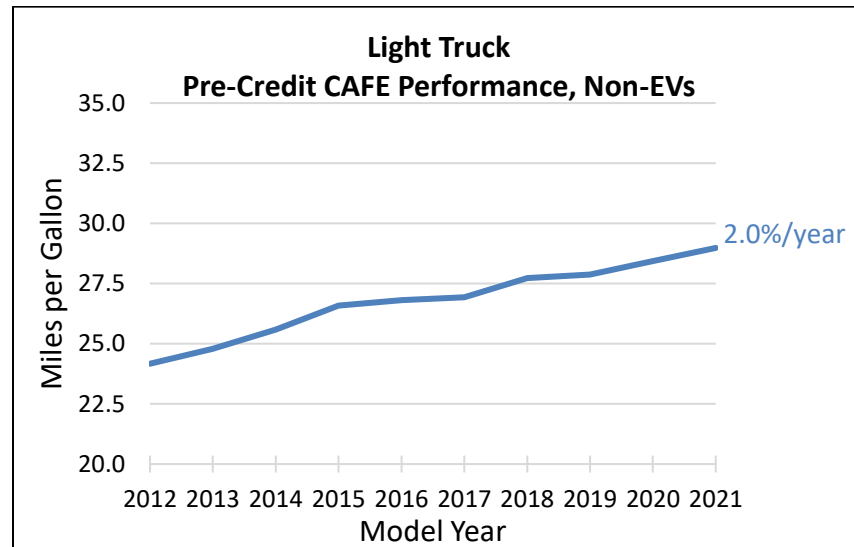
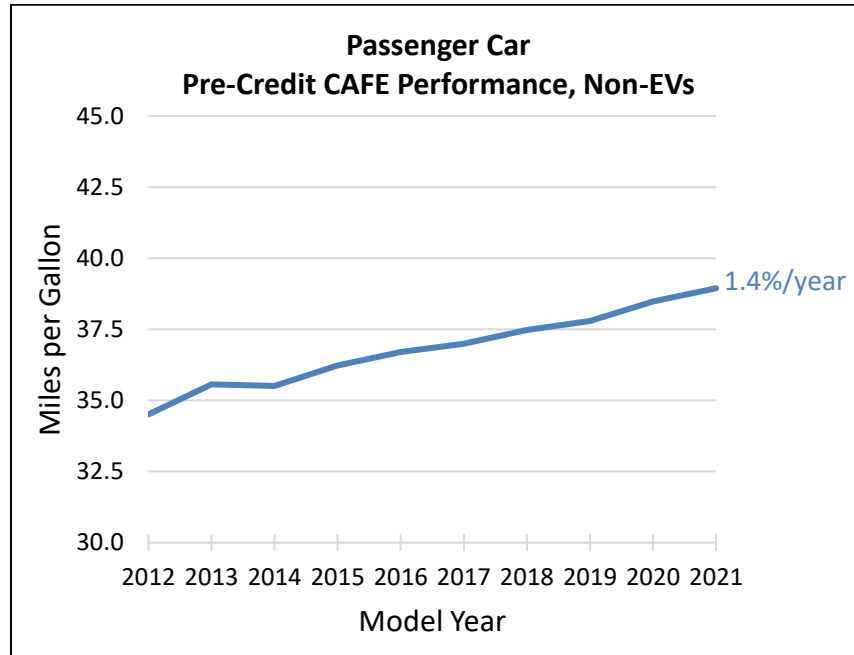
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<sup>20</sup> Data from CAFE Modeling File, *supra* note 6, at Central Analysis.zip\Central Analysis\output\ref\reports-csv\vehicles\_report.csv.



Finally, and most intuitively, the stringency of the CAFE Rule—which requires unprecedented fuel economy improvements of 8 percent in MY2024 and MY2025, and 10 percent in MY2026—demonstrates that the fuel economy of battery-electric vehicles and the electric-drive portion of plug-in hybrids were a critical component of NHTSA’s determination of maximum feasible fuel economy levels. Internal combustion engines alone do not improve their efficiency at such a rapid pace. For example, between MY2012 and 2021, the fuel economy performance of non-electric vehicle passenger cars improved on average by 1.4 percent per year,

and the fuel economy performance of non-electric vehicle light trucks improved on average by 2 percent per year, as shown on the following graphs:<sup>21</sup>



<sup>21</sup> See IHS Markit, Model Years 2012 to 2021 Baseline Study (2021).

NHTSA has determined that the steep fuel economy improvements required in the CAFE Rule are technologically feasible and economically practicable only because of (a) the high penetration of battery-electric vehicles and plug-in hybrids in the light duty fleet before, during, and after the standard-setting years, and (b) the high fuel economy values attributed to those vehicles. If, hypothetically, battery-electric vehicles were to have an imputed fuel economy values of (say) 30 miles per gallon, then it would not have been possible for NHTSA to have supported the CAFE Rule.

### **CONCLUSION**

For the foregoing reasons, this Court should find that NHTSA violated EPCA by considering the fuel economy of battery-electric vehicles and by failing to consider plug-in hybrids as being operated only on gasoline when determining maximum feasible fuel economy and amending the CAFE standards for MY2024-2026, and should vacate the CAFE Rule.

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Respectfully submitted,

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**CERTIFICATE OF COMPLIANCE**

Pursuant to Federal Rule of Appellate Procedure 32(g)(1), the undersigned certifies that this brief complies with the applicable typeface, type style, and type-volume limitations. This brief was prepared using a proportionally spaced type (Times New Roman, 14 point). Exclusive of the portions exempted by Federal Rule of Appellate Procedure 32(f) and D.C. Circuit Rule 32(e)(1), this brief contains 6,473 words. This certificate was prepared in reliance on the word-count function of the word-processing system used to prepare this brief.

/s/ David Fotouhi \_\_\_\_\_

**CERTIFICATE OF SERVICE**

I certify that on this 1st day of December 2022, I caused a true and correct copy of the foregoing brief to be served via electronic mail upon all counsel of record by operation of the Court's ECF system.

/s/ David Fotouhi