§ 1900.42 Right of appeal and appeal procedures.

(a) *Right of appeal.* A right of administrative appeal exists whenever access to any requested record or any portion thereof is denied, or no records are located in response to a request. In addition, requesters may appeal denials of requests for expedited processing and fee waivers, as well as the adequacy of a search for records responsive to a request. The Agency will apprise all requesters in writing of their right to file an administrative appeal to the ARP through the Coordinator.

(b) *Requirements as to time and form.* Appeals of decisions must be received by the Coordinator within ninety (90) days of the date of the Agency's initial decision. The Agency may, for good cause and as a matter of administrative discretion, permit an additional thirty (30) days for the submission of an appeal. All appeals shall be in writing and addressed as specified in § 1900.03. All appeals must identify the documents or portions of documents at issue with specificity and may present such information, data, and argument in support as the requester may desire.

(c) *Exceptions.* No appeal shall be accepted if the requester has outstanding fees for information services at this or another Federal agency.

(d) *Receipt, recording, and tasking.* The Agency shall promptly record each request received under this part, acknowledge receipt to the requester in writing, and thereafter effect the necessary taskings to the relevant components for appropriate action.

(e) *Time for response.* The Agency shall attempt to complete action on an appeal within twenty (20) days of the date of receipt, except for appeals of denial of expedited processing, for which the Agency shall attempt to complete action within ten (10) business days of the date of receipt. The current volume of requests, however, often requires that the Agency request additional time from the requester pursuant to § 1900.33. In such event, the Agency will inform the requester of the right to judicial review.

§ 1900.43 [Reserved]

§ 1900.44 Action by appeals authority.

(a) The Coordinator, acting in the capacity of Executive Secretary of the ARP, shall place administrative appeals of FOIA requests ready for adjudication on the agenda at the next occurring meeting of that Panel. The Executive Secretary shall provide the ARP membership with a summary of the request and issues raised on appeal for the Panel's consideration, and make available to the Panel the complete administrative record of the request consisting of the request, the document(s) at issue (in redacted and full-text form), if any, and the findings and recommendations of the relevant components.

(b) The ARP shall determine whether an appeal before the Panel is meritorious. The ARP may take action when a simple majority of the total membership is present. Issues shall be decided by a majority of the members present. In all cases of a divided vote, before the decision of the ARP becomes final, any member of the ARP may by written memorandum to the Executive Secretary of the ARP, refer such matters to the CIA Chief Data Officer (CDO) for resolution. In the event of a disagreement with any decision by the CDO, Directorate or Independent Office heads may appeal to the CIA Chief Operating Officer (COO) for a final Agency decision. The final Agency decision shall reflect the vote of the ARP, unless the CDO or COO disagrees with the ARP and makes a superseding final Agency decision.

(c) Appeals of denials of requests for fee waivers or reductions and/or denial of requests for expedited processing shall go directly from the Coordinator to the Agency Release Panel for a final Agency determination.

§ 1900.45 Notification of decision and right of judicial review.

The Executive Secretary of the ARP shall promptly prepare and communicate the final Agency decision to the requester. With respect to any adverse Agency determination, that correspondence shall state the reasons for the decision, and include a notice of a right to judicial review.

Dated: June 13, 2022.

Brian C. O'Neill,

Director, Advanced Data Lifecycle Solutions.

[FR Doc. 2022–13361 Filed 6–30–22; 8:45 am]

BILLING CODE 6310–02–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 531

[NHTSA–2022–0048]

RIN 2127–AM29

Exemptions From Average Fuel Economy Standards; Passenger Automobile Average Fuel Economy Standards

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Proposed rule; proposed decision to grant exemption.

SUMMARY: This proposed decision responds to petitions filed by several low volume manufacturers requesting exemption from the generally applicable corporate average fuel economy (CAFE) standards for several model years (MYs). The low volume manufacturers and MYs are as follows: Aston Martin Lagonda Limited for MYs 2008–2023, Ferrari N.V. for MYs 2016–2018 and 2020, Koenigsegg Automotive AB for MYs 2015 and 2018–2023, McLaren Automotive for MYs 2012–2023, Mobility Ventures LLC for MYs 2014–2016, Pagani Automobili S.p.A for MYs 2014 and 2016–2023, and Spyker Automobielen B.V. for MYs 2008–2010. NHTSA proposes to exempt these manufacturers from the generally applicable CAFE standards for the model years listed and establish alternative standards for each individual manufacturer at the levels outlined below.

DATES: Comments are requested on or before August 1, 2022.

ADDRESSES: You may send comments, identified by Docket No. NHTSA–2022–0048, by any of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for sending comments.
- *Fax:* (202) 493–2251.
- *Mail:* Docket Management Facility, M–30, U.S. Department of Transportation, West Building, Ground Floor, Rm. W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Docket Management Facility, M–30, U.S. Department of Transportation, West Building, Ground Floor, Rm. W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 4 p.m. Eastern Time, Monday through Friday, except Federal holidays.

Instructions: All submissions received must include the agency name and docket number or Regulatory Information Number (RIN) for this rulemaking. All comments received will be posted without change to *http://www.regulations.gov,* including any personal information provided.

Docket: For access to the dockets to read background documents or comments received, go to *http://www.regulations.gov,* and/or: Docket Management Facility, M–30, U.S. Department of Transportation, West Building, Ground Floor, Rm. W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590. The Docket Management Facility is open between 9 a.m. and 4 p.m. Eastern Time, Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT:
Joseph Bayer, Engineer, Fuel Economy Division, Office of Rulemaking, by phone at (202) 366–9540 or by fax at (202) 493–2290 or Hannah Fish, Attorney Advisor, Vehicle Standards and Harmonization, Office of the Chief Counsel, by phone at (202) 366–2992 or by fax at (202) 366–3820.

SUPPLEMENTARY INFORMATION:

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1. Introduction

The Energy Policy and Conservation Act (EPCA) of 1975, as amended by the Energy Independence and Security Act (EISA) of 2007,[1] directs the Secretary of Transportation, and the National Highway Traffic Safety Administration (NHTSA) by delegation,[2] to prescribe corporate average fuel economy (CAFE) standards for automobiles manufactured in each model year (MY). EPCA/EISA requires NHTSA to establish CAFE standards for passenger cars and light trucks at the ''maximum feasible average fuel economy level'' that it decides manufacturers can achieve in a MY,[3] based on the agency's consideration of four factors: technological feasibility, economic practicability, the effect of other standards of the Government on fuel economy, and the need of the United States to conserve energy.[4]

Congress provided in EPCA/EISA statutory authority for NHTSA to exempt a low volume manufacturer of passenger automobiles from the industry-wide passenger car standard if NHTSA concludes that the industry-wide passenger car standard is more stringent than the maximum feasible average fuel economy level that the manufacturer can achieve, and NHTSA establishes an alternative standard for that manufacturer's fleet of passenger cars at the maximum feasible average fuel economy level that the manufacturer can achieve.[5] Under EPCA/EISA, a low volume manufacturer is one that manufactured (whether in the United States or not) fewer than 10,000 passenger automobiles in the MY two years before the MY for which the exemption is sought, and that will manufacture fewer than 10,000 passenger automobiles in the affected MY. NHTSA may set alternative fuel economy standards in three ways: (1) a separate standard for each exempted manufacturer; (2) a separate standard applicable to each class of exempted automobiles (classes based on design, size, price or other factors); or (3) a single standard for all exempted manufacturers.[6] NHTSA has historically set individual standards for each exempted manufacturer.

49 CFR part 525 contains NHTSA's regulations implementing the statutory requirements in 49 U.S.C. 32902. This part provides content and format requirements for low volume manufacturer petitions for exemption, and specifies that those petitions must be submitted to NHTSA not later than 24 months before the beginning of the affected model year, unless good cause for later submission is shown.[7] That part also outlines the NHTSA process for publishing proposed and final decisions on petitions in the **Federal Register** and for accepting public input on proposed decisions.[8] A manufacturer's final alternative standard is codified at 49 CFR part 531.

This proposed decision responds to petitions filed by Aston Martin Lagonda Limited (AML) for MYs 2008–2023, Ferrari N.V. (Ferrari) for MYs 2016–2018 and 2020, Koenigsegg Automotive AB (Koenigsegg) for MYs 2015 and 2018–2023, McLaren Automotive (McLaren) for MYs 2012–2023, Mobility Ventures LLC (Mobility Ventures) for MYs 2014–2016, Pagani Automobili S.p.A (Pagani) for MYs 2014 and 2016–2023,[9] and Spyker Automobielen B.V. (Spyker) for MYs 2008–2010. NHTSA proposes to conclude that all seven manufacturers were, and are, eligible for an alternative standard for the listed model years, that the industry-wide passenger car CAFE standard for those model years is more stringent than the maximum feasible average fuel economy level that those manufacturers could, and can, achieve, and that alternative standards should be set at the levels discussed below.

2. Evaluation of Maximum Feasible Fuel Economy Levels

NHTSA has not granted petitions for alternative standards for several low volume manufacturers for several model years, both past and imminent future. If NHTSA does not set an alternative standard for a petitioning manufacturer, that manufacturer would be subject to the industry-wide passenger car standard(s) for the model year(s) in question, and would therefore be liable for civil penalties if it was unable to comply with those standards. At this

[1] 49 U.S.C. 32902.

[2] 49 CFR 1.95.

[3] 49 U.S.C. 32902(a).

[4] 49 U.S.C. 32902(f).

[5] 49 U.S.C. 32902(d).

[6] 49 U.S.C. 32902(d)(2).

[7] 49 CFR 525.6(b). *See also* 54 FR 40689 (Oct. 3, 1989). NHTSA has identified two broad categories of situations that would establish good cause for failure to submit a timely petition: situations in which necessary supporting data for the petition were unavailable until after the due date had passed (for example, a recently incorporated manufacturer might not have adequate time to file an exemption petition 24 months prior to the model year), and second, situations in which a legitimately unexpected noncompliance occurs (for example, if a company providing a low volume manufacturer with its engines goes out of business, and the manufacturer is forced to make an unanticipated engine switch, resulting in lower than expected fuel economy). That said, each determination that good cause was or was not shown for the late filing is made on an individual basis. Manufacturers should reach out to NHTSA as expeditiously as possible if they expect they cannot submit a petition in a timely manner.

[8] 49 CFR 525.8.

[9] Pagani petitioned for alternative standards for MYs 2012–2021 but did not produce any vehicles for sale in the U.S. market in MYs 2012, 2013, and 2015.

point, any NHTSA action prescribing alternative standards for past model years is retroactive.[10]

However, NHTSA has previously granted low volume exemption petitions retroactively when the agency did not publish proposed and final determinations on those exemption petitions prior to the beginning of a model year.[11] In these previous notices, NHTSA recognized that the agency's ability to adopt retroactive rules is very limited but noted that there were compelling reasons to distinguish low volume CAFE exemptions. NHTSA reasoned that if the agency could not issue exemptions from the industry-wide CAFE standards for low volume manufacturers after the commencement of a model year, the agency would, by inaction, have ''totally eliminated the congressionally prescribed'' low volume manufacturer exemption for the manufacturers and years in question.[12] NHTSA also stated that the agency's failure to act upon timely applications for low volume exemptions from the industry-wide CAFE standard is analogous to a situation where an agency misses a statutory deadline and then must issue a rule retroactively, particularly since the manufacturers were in no way responsible for the agency's inaction. To avoid unfairly penalizing the low volume manufacturers for agency inaction that was beyond their control, NHTSA reasoned that EPCA must be construed to implicitly authorize the grant of retroactive low volume exemptions.

Since those decisions, the D.C. Circuit in *General Motors Corp.* v. *National Highway Traffic Safety Administration* stated, in dicta, that EPCA provided support for NHTSA to set retroactive alternative fuel economy standards for low volume manufacturers.[13] In considering the congressional authorization for NHTSA's ability to retroactively amend a CAFE standard for LVMs, but not full-line manufacturers,[14] the court agreed with the agency's explanation that ''granting retroactive exemptions from the generally applicable standard for low-volume manufacturers does not have the same potential for disrupting the statutory scheme as retroactively amending the standard as it applies to the rest of the industry.'' [15] The court also noted that Congress had, in EPCA and accompanying legislative history, ''[sent] out strong signals that [low volume] manufacturers are to be treated differently from the rest of the industry.'' [16] Because LVMs only account for a fraction of the total annual production of passenger automobiles, the LVMs have limited engineering staff and limited market, and each exemption applies to only one manufacturer, ''NHTSA is well within its authority to proceed on a case-by-case basis to exempt small manufacturers from the industry-wide CAFE standards, and establish an individualized CAFE for each exempted manufacturer.'' [17]

If NHTSA could not set standards for these past model years, the low volume manufacturers would be liable for civil penalties for noncompliance, and would have to either pay the penalty or buy unexpired fuel economy credits [18] from other manufacturers to make up the deficit between their fleet fuel economy and the industry-wide passenger car standard. This would be a reversal of several decades of NHTSA policy to grant appropriately submitted petitions for alternative standards,[19] [20] and with functionally no notice. A petitioning manufacturer would have had no reason to believe that NHTSA would not act in a timely fashion on its request based on prior agency practice; that is, it could not have known that it needed suddenly to drastically improve its fleet fuel economy, or alternatively, needed suddenly to pay civil penalties for failure to meet the industry-wide standard. Accordingly, NHTSA continues to believe that EPCA/EISA permits the agency to set alternative standards for past MYs. In support of this position, NHTSA has also deferred sending the required enforcement notification to the manufacturers considered in this notice for falling below the conventional passenger car standards until any outstanding petitions for the given model year have been resolved.[21]

a. Determining ''Maximum Feasible'' Under EPCA/EISA

NHTSA has determined that EPCA/EISA permits the agency to retroactively set fuel economy standards for low volume manufacturers. However, determining *how* to prescribe an alternative fuel economy standard at the maximum feasible level for past model years is a separate question.

NHTSA relies heavily on the information that a low volume manufacturer submits in its petition in determining what maximum feasible fuel economy level is achievable for that manufacturer. Evaluating that information well in advance of a model year for which the petition is submitted invariably aids NHTSA in setting a LVM's alternative standard at its maximum feasible level; attempting to determine now how the agency *would have* evaluated the information included in the petition seems like an imprecise, if not also futile, exercise because the agency already knows what fuel-economy-improving technologies the LVM applied, and importantly (and irrevocably), the vehicles have already been sold. Regardless of what average fuel economy level the LVMs told the agency they could achieve in each model year, the LVMs achieved the levels they achieved, and that information is now before the agency along with the information originally submitted by the LVMs. Thus, the

[10] *See Bowen* v. *Georgetown University Hospital,* 488 U.S. 204, 208 (1988). The Supreme Court in *Bowen* v. *Georgetown University Hospital* laid the foundation for modern retroactivity jurisprudence by pronouncing that ''[r]etroactivity is not favored in the law.'' Justice Kennedy, writing for the majority, and Justice Scalia, writing in his concurrence, established the competing principles that a statute can *explicitly* authorize retroactive rulemaking where Congress conveys the power to do so *in express terms,* and a statute can *implicitly* authorize retroactive rulemaking, as in situations where an agency misses a statutory deadline to promulgate a rule, or similarly, where an agency's inaction would have eliminated a Congressionally-prescribed exemption.

[11] *See, e.g.,* 43 FR 33268 (July 31, 1978); 49 FR 11548 (March 1, 1979); 46 FR 29944 (June 4, 1981); 54 FR 40689 (October 3, 1989); 55 FR 12485 (April 4, 1990).

[12] *Supra* note 10.

[13] *General Motors Corp.* v. *National Highway Traffic Safety Admin.,* 898 F.2d 165, at 171 (1990).

[14] *Id.* at 176. The court agreed with NHTSA that it was reasonable to deny a 1987 petition and subsequent petition for reconsideration from General Motors (GM) to retroactively amend the 1984 and 1985 industry-wide CAFE standard. NHTSA had denied GM's petitions on the basis that retroactive amendment would be inconsistent with the EPCA statutory scheme. Subsequent to NHTSA's original petition denials but before *General Motors Corp.,* the Supreme Court addressed retroactive rulemaking in *Bowen,* and NHTSA added to its original argument that ''beyond the independent validity of its petition denials, any retroactive amendment of the [industry-wide] CAFE standard is barred by the *Bowen* decision.''

[15] *Id.* (citing 53 FR 15246 (April 28, 1988)).

[16] *Id.* (citing 44 FR 3710 (Jan. 18, 1979), 53 FR 15241 (April 28, 1988)).

[17] *Id.* at 177. Chief Judge Wald went on to state that, similarly, ''[e]ven assuming a general policy of granting retroactive exemptions after the model year had begun for a segment of the industry accounting for significantly less than one percent of the product, NHTSA could reasonably have a different policy for the other 99 percent.''

[18] NHTSA has deleted all MY 2012 and earlier credits which have reached their expiry date in accordance with 49 CFR 536.5(c)(2).

[19] *See supra,* note 11.

[20] Note, this is a different inquiry than whether the LVM's maximum feasible fuel economy level is the level that it petitioned for, or some other level. NHTSA can grant the petition for review then set a different standard than the manufacturer requested.

[21] If a manufacturer's vehicles in a particular compliance category have below standard fuel economy, NHTSA will provide written notification to the manufacturer that it has failed to meet a particular fleet target standard. *See* 49 CFR 536.5(d)(2).

agency will consider all currently available information in proposing maximum feasible levels for each LVM.

Accordingly, NHTSA believes the question that the agency must answer now for past model years is, given all information currently before the agency, what fuel economy levels were the maximum feasible levels that each LVM could have achieved in each model year?

For imminently future model years, the agency must answer a slightly different set of questions; that is, is the alternative standard that the manufacturer petitioned for maximum feasible, and if not, what, if any, technologically feasible and economically practicable changes would the manufacturer be able to make *in the time frame before model year production would need to commence*? A vehicle manufacturer's model year typically begins before the calendar year (*e.g.,* model year 2020 vehicles are manufactured beginning in calendar year 2019). Vehicle designs (including drivetrains, which are where many fuel economy improvements are made) are often fixed years in advance, which makes adjusting fleet fuel economy difficult without sufficient lead time. For most manufacturers, production plans are solidified at least 18 months in advance of a model year, and there is limited ability to deviate.

While EPCA/EISA does not prescribe a statutory deadline by which NHTSA *must* act on low volume exemption applications, in establishing the regulations implementing EPCA's low volume manufacturer exemption provisions, the agency required low volume manufacturers to submit petitions for exemption ''not later than 24 months before the beginning of the affected model year'' to ''facilitate the low volume manufacturers' planning to comply with the alternative standards, and to ensure that the agency's analysis of those manufacturers' maximum feasible average fuel economy would not be simply a 'rubber stamping' of the individual manufacturer's planned fuel economy, caused by insufficient leadtime for the manufacturer to make changes.'' [22] As a practical matter, the greater the difference between what NHTSA believes is the maximum feasible standard and what the manufacturer petitioned for, the more time the manufacturer likely needs to adjust product designs and plans to meet that standard.

With these considerations and questions in mind, NHTSA summarizes the methodology used to assess the petitioners' maximum feasible average fuel economy levels, and the information submitted by petitioners to assist in that assessment, below.

b. Methodology Used To Assess Maximum Feasible Average Fuel Economy Level for Petitioners

As an initial matter, all manufacturers considered in this proposed decision met the threshold statutory requirements for eligibility; that is, all manufacturers manufactured or will manufacture fewer than 10,000 vehicles in the applicable model years. Some petitions for some model years were submitted late, although the late filings were accompanied with good cause claims, per 49 CFR part 525.[23] Regardless of the sufficiency of those good cause claims, NHTSA believes that due to the significant lateness of the agency's response to these specific exemption requests, it would be inequitable at this point to deny the late petitions on grounds of untimeliness. Moving forward, NHTSA expects manufacturers to remain cognizant of the requirement that each submission must be submitted not later than 24 months before the beginning of the affected model year, unless good cause for later submission is shown. While each good cause claim is evaluated on an individual basis, NHTSA encourages manufacturers to contact the agency as early as possible if they begin to expect a petition for exemption may be delayed. Once a manufacturer is aware of its obligations regarding petitions for exemption from CAFE standards, arguing that a company is ''busy simply trying to survive as a small manufacturer'' is not enough to show good cause for late submission of an exemption petition.[24]

When proposing maximum feasible average fuel economy levels, NHTSA must consider four factors: 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. The agency's consideration of these factors in relation to low volume manufacturers differs from how the agency considers these factors for full-line manufacturers; the consideration of these factors as applied to past model years as compared to future model years necessarily differs as well.

''Technological feasibility'' refers to whether a particular method of improving fuel economy can be available for commercial application in the model year for which a standard is being established. Historically, for both low volume and full-line manufacturers, NHTSA has looked at manufacturers' use of fuel-economy improving technologies for weight reduction and aerodynamic improvements, engine improvements, and transmission improvements, among other technologies. Moving forward, NHTSA is also considering another category of technologies, off-cycle and air conditioning (A/C) efficiency improvement technologies. These technologies provide fuel economy improvements in real-world operation, but that improvement cannot be adequately captured by the 2-cycle test procedures used to demonstrate compliance with fuel economy standards. These off-cycle and A/C efficiency improvement technologies fall within the scope of technologies that manufacturers must discuss in their petitions to the agency,[25] and the manufacturer should include any anticipated benefit from those off-cycle and A/C efficiency improvement technologies in the projected fuel economy value for each vehicle configuration as required by 49 CFR 525.7(f).

Next, NHTSA considers ''economic practicability'' for petitions filed under 49 CFR part 525 as meaning the financial capability of the manufacturer to improve its average fuel economy by making technologically feasible changes to its passenger automobiles for the model years under consideration.[26] Technological feasibility and economic practicability are often conflated; whether a fuel-economy-improving technology does or will exist (technological feasibility) is a different question from what economic consequences could ensue if NHTSA effectively requires a low volume manufacturer utilize that technology, and the economic consequences of the absence of consumer demand for low volume vehicles utilizing that technology (economic practicability).

[22] *See* 41 FR 53827, 53828 (Dec. 9, 1976); 54 FR 40690 (October 3, 1989). *See also* 49 U.S.C. 32902(a), 81 FR 95491 (Dec. 28, 2016). EPCA/EISA requires that when NHTSA amends a generally applicable fuel economy standard to make it more stringent, that new standard must be promulgated ''[a]t least 18 months before the beginning of each model year.'' This is because Congress recognized the importance of notice to vehicle manufacturers to allow them the lead time necessary to adjust their product plans, designs, and compliance plans to address changes in fuel economy standards.

[23] 49 CFR 525.6 (''Each petition filed under this part must . . . Be submitted not later than 24 months before the beginning of the affected model year, unless good cause for later submission is shown.'').

[24] 56 FR 3517 (Jan. 30, 1991).

[25] 49 CFR 525.7(h)(1).

[26] *See, e.g.,* 42 FR 33533 (June 30, 1977).

As part of economic practicability, NHTSA has historically considered only those technology improvements that would be compatible with the basic design concepts of the low volume manufacturers' vehicles. For example, for vehicles exclusively designed to be used for transporting the wheelchair bound or other mobility-impaired individuals, NHTSA did not consider design changes that would impair the ability of the vehicle to perform that function;[27] for a five-passenger luxury car, NHTSA did not consider ''design changes that would make the cars unsuitable for five adult passengers with luggage or would remove items traditionally offered on luxury cars, such as air conditioning, automatic transmission, power steering, and power windows;''[28] and for ''exotic high performance cars, design changes that would remove items traditionally offered on these cars, such as reducing the displacement of their engines, were not considered.''[29] This is because ''[s]uch changes to the basic design could be economically impracticable since they might well significantly reduce the demand for these automobiles, thereby reducing sales and causing significant economic injury to the low volume manufacturer.''[30] Market demand has been part of economic practicability considerations for decades, both in the industry-wide and low-volume CAFE programs.[31]

Between different types of low volume manufacturers, different technologies may or may not be available for commercial application for certain types of vehicles because of supply chain considerations and economies of scale. NHTSA has previously recognized that low volume manufacturers lag in having the latest developments in fuel-economy-improving technology because suppliers generally provide components to small manufacturers only after supplying large manufacturers.[32] Similarly, full-line manufacturers that provide engines and transmissions to small volume manufacturers may only do so after developing those parts for use in their own vehicles. In fact, as discussed below, some manufacturers requesting alternative standards rely on full-line manufacturers to provide customized engines for their vehicles.

That said, some of the vehicles covered by this proposed decision employ some of the most advanced fuel-economy-improving technologies available in the market today, but to improve other vehicle attributes. For example, as mentioned below, NHTSA generally considers turbochargers to be an effective technology to improve vehicle fuel economy; however, a high-performance sports car manufacturer may use turbochargers to increase vehicle power. Under NHTSA's historical interpretation of economic practicability for low volume manufacturers, a low volume manufacturer would justify in its petition to the agency whether it could direct some performance improvement towards fuel economy, and if not, why not. This requirement is echoed in NHTSA's regulations governing petition information: petitioners must include a discussion of the technological means selected by the petitioner for improving the average fuel economy of its vehicles and a discussion of the alternative and additional means considered but not selected that would have enabled its vehicles to achieve a higher average fuel economy than it did.[33]

Economic practicability can also encompass considerations like the manufacturer's ability to refresh and redesign their vehicles based on the availability of technology, as discussed above, or other factors. Manufacturers use diverse strategies with respect to when, and how often, they update vehicle designs. While most vehicles have been redesigned sometime in the last five years, many vehicles have not.[34] For low volume manufacturers, that time frame can potentially be even longer given the nature of their products. Vehicles with lower annual sales volumes tend to be redesigned less frequently, giving manufacturers more time to amortize the investment needed to bring the product to market. To the extent that a manufacturer includes these economic practicability concerns in their petition for exemption, NHTSA considers this alongside the evaluation of potential technological improvements.

NHTSA also considers a low volume manufacturer's ability to improve fuel economy by changing the mix of vehicle models it sells. Where a low volume manufacturer only produces one vehicle model, there is no change that they can make to their fleet sales mix to achieve a higher fleet average fuel economy level. Where a manufacturer only produces a handful of vehicle models, there may be slightly more opportunity;[35] however, a manufacturer's ability to change its fleet mix may also be a component of its sales strategy, and a limitation of producing such a niche product. Where ''producing additional models or making some of the configurations significantly more fuel efficient is not possible since both corporate financial limitations and the unique market sector served by [the low volume manufacturer] preclude significant changes to the basic concept of'' the low volume manufacturers' vehicles, NHTSA has not previously required those types of changes.[36]

Finally, it is important to note that NHTSA has historically taken the position that its evaluation of economic practicability does not consider the ability of the low volume manufacturer to absorb any potential civil penalties.[37] This is because if NHTSA considers the ability to pay a civil penalty as part of economic practicability for an individual manufacturer, the resulting standard may be higher than the highest fuel economy level that the manufacturer could achieve. Considering the ability of a manufacturer to pay civil penalties would also not conserve any fuel, which would not appear to support EPCA's underlying purpose of energy conservation and would simply represent a transfer of money from the manufacturer to the U.S. Treasury. This is separate from EPCA/EISA's statutory prohibition on the consideration of

[27] 60 FR 31937 (June 19, 1995).

[28] 58 FR 41229 (Aug. 3, 1993).

[29] 61 FR 39429 (July 29, 1996).

[30] *See, e.g.,* 54 FR 37444 (Sep. 8, 1989); 58 FR 41229 (Aug. 3, 1993), 60 FR 31937 (June 19, 1995); 63 FR 5774 (Feb. 4, 1998).

[31] *See Center for Auto Safety* v. *NHTSA* (*CAS*), 793 F.2d 1322 (D.C. Cir. 1986) (Administrator's consideration of market demand as component of economic practicability found to be reasonable); *Public Citizen* v. *NHTSA,* 848 F.2d 256 (Congress established broad guidelines in the fuel economy statute; agency's decision to set lower standards was a reasonable accommodation of conflicting policies). *See also* 58 FR 41229 (Aug. 3, 1993) (''Consumers need not purchase what they do not want.'').

[32] *See, e.g.,* 61 FR 39429 (July 29, 1996); 61 FR 67518 (December 23, 1996); 63 FR 5774 (February 4, 1998); 64 FR 73476 (December 30, 1999); 71 FR 49407 (August 23, 2006); 73 FR 34242 (June 17, 2008).

[33] 49 CFR 525.7(h).

[34] *See, e.g.,* 83 FR 43014 (Aug. 24, 2018) (Table II–3, Summary of Sales Weighted Average Time between Engineering Redesigns, by Manufacturer, by Vehicle Technology Class).

[35] Because CAFE standards apply to a manufacturer's fleet rather than to individual vehicles, it is possible for a manufacturer's fuel economy performance to fluctuate yearly based not only on changes in the fuel economy of each of its models, but also based on changes in the production volumes of those models. There may be situations in which a manufacturer makes no changes to the fuel economy of any of its models from one year to the next, but its fleet average decreases because of changes in the production volumes of the individual vehicle models it produces. This may occur even when a manufacturer makes improvements in the fuel economy of one or more individual vehicle models from one year to the next.

[36] *See* 58 FR 41228 (Aug. 3, 1993).

[37] *See, e.g.,* 44 FR 3710 (Jan. 18, 1979).

trading, transferring, or the availability of credits when setting maximum feasible standards,[38] which the agency believes is also relevant when setting alternative standards for a low volume manufacturer at the maximum feasible level.[39] In either case, NHTSA continues to believe that imposing an unavoidable additional cost on manufacturers (whether to pay the penalty, or, since the enactment of the credit trading program in EPCA/EISA, buy credits from another manufacturer) contravenes Congress' intent to establish maximum feasible standards for a manufacturer that the manufacturer can actually achieve.

Next, NHTSA interprets ''the need of the United States to conserve energy'' as ''the consumer cost, national balance of payments, environmental, and foreign policy implications of our need for large quantities of petroleum, especially imported petroleum.'' [40] In determining the impact that establishing an alternative CAFE standard would have on the need of the United States to conserve energy, NHTSA has historically taken two approaches. Originally, if the agency determined the low volume manufacturer could not meet a higher fuel economy standard than they requested—because it was not technologically feasible or economically practicable for them to do so—NHTSA concluded that denying the exemption or setting a higher alternative standard would not lead to any fuel savings.[41] Similarly, if the manufacturer had already produced the vehicles for sale (in the case of a petition that was granted after the vehicles were built and sold), NHTSA concluded that denying the exemption or setting a higher alternative standard would not result in any fuel savings, and would relatedly have no effect on the need of the United States to conserve energy.[42] In later years the agency attempted to quantify the *de minimis* impact of granting low volume manufacturer exemption petitions for illustrative purposes, by estimating the amount of additional fuel consumed by the exempted fleet over its operating lifetime.[43]

Finally, in considering the impact of other standards of the Government on fuel economy, NHTSA has historically looked at the weight impact of its own safety standards, as well as the Environmental Protection Agency's (EPA) greenhouse gas (GHG) and criteria pollutant emissions standards. NHTSA is aware that some manufacturers included in this proposed decision have received a final determination from EPA on alternative GHG standards for past model years,[44] standards that are on average less stringent than EPA's large manufacturer standards, and invites comment on any new information on the impact of EPA's GHG standards on the manufacturer's ability to meet an alternative fuel economy standard that the agency should consider.

The following section discusses technological feasibility and economic practicability individually for each manufacturer, as each manufacturer employs technology in a different manner to achieve different objectives. For some manufacturers that have several years of unanswered petitions, with several vehicle lines, the discussion of relevant information submitted in their petitions is necessarily longer than that of a manufacturer that produces only one vehicle type, or that only has outstanding petitions for a few model years. In addition, because low volume manufacturers can petition for alternative standards for periods of three model years at a time,[45] some petitions docketed in support of this notice also include requests for alternative standards for MYs through 2024. Outstanding MY 2024 requests will be addressed in a subsequent notice.

Note also, low volume manufacturers generally submit two copies of their petition to NHTSA, one with confidential business information (CBI), and one without. CBI includes information like projected sales volumes for each vehicle, planned future technology application, and future vehicle models. The information presented below is taken from the non-CBI materials because even though some model years have passed (and some MY-specific information like actual production volumes ceases to be CBI after the model year has passed and that information becomes knowable), information may still be pertinent to future product plans or confidential sales strategy may have remained the same over time.

To assess the impact of setting alternative standards at the levels proposed herein on the need of United States to conserve energy, NHTSA presents the calculations for all manufacturers together and separately by manufacturer. Similarly, the assessment of the effect of other standards of the Government on fuel economy is presented in a single section for all manufacturers.

i. Technological Feasibility and Economic Practicability

NHTSA's regulations at 49 CFR 525.7 request that low volume manufacturers submit several pieces of information to assist NHTSA in assessing technologically feasible and economically practicable improvements for the manufacturer's fleet. This information includes a description of the technological means selected by the manufacturer for improving the average fuel economy of its automobiles to be manufactured in a model year, a chronological description of the manufacturer's past and planned efforts to implement the fuel-economy-improving technology in its fleet, a discussion of the alternative and additional means considered but not selected by the manufacturer that would have enabled its passenger automobiles to achieve a higher average fuel economy than is achievable with the means it described, and in the case of a manufacturer that plans to increase the average fuel economy of its passenger automobiles to be manufactured in either of the two model years immediately following the first affected model year, an explanation of the reasons for not making those increases in the affected model year.

As discussed above, the technologies manufacturers generally discuss in these exemption petitions include technologies for weight reduction and aerodynamic improvements, engine improvements, and transmission improvements. Manufacturers have also started using off-cycle and air conditioning (A/C) efficiency improvement technologies, which fall within the scope of technologies that manufacturers should discuss in their petitions to the agency if a manufacturer plans to apply those technologies in an affected MY.

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[38] 49 U.S.C. 32902(h).

[39] While 49 U.S.C. 32902(h) does not point directly to the exemption provision at 49 U.S.C. 32902(d), it does point to 49 U.S.C. 32902(f), which outlines the factors that NHTSA must consider when ''deciding maximum feasible average fuel economy.'' NHTSA believes that when the agency carries out the directive in 49 U.S.C. 32902(d)—to prescribe by regulation an alternative average fuel economy standard for the passenger automobiles manufactured by the exempted manufacturer that the Secretary decides is the *maximum feasible average fuel economy level* for the manufacturers to which the alternative standard applies—just as considering the manufacturer's ability to pay civil penalties would result in a higher standard than the manufacturer could actually achieve, forcing the manufacturer to buy credits would also result in a higher standard than the manufacturer could actually achieve.

[40] 42 FR 63184, 63188 (Dec. 15, 1977).

[41] *See, e.g.,* 60 FR 31937 (June 19, 1995).

[42] *See, e.g.,* 54 FR 40689 (Oct. 3, 1989).

[43] *See, e.g.,* 61 FR 46756 (Sep. 5, 1996); 71 FR 49407 (Aug. 23, 2006).

[44] 84 FR 37277 (July 31, 2019); 85 FR 39561 (July 1, 2020).

[45] 49 CFR 525.9.

(a) Aston Martin Lagonda Limited (AML) MY 2008–2023 Vehicles

Aston Martin Lagonda Limited (AML) is a sports car manufacturer whose product portfolio for the model years covered by this proposed decision include the DB9, DBS, DB11, Vantage, Virage, Rapide, and Vanquish, among others, in multiple engine and body configurations.

For all model years covered by AML's petitions for alternative standards, AML only sold vehicles with V8 or V12 engines. With respect to ongoing engine improvements, AML stated that for MYs 2018 and later it is downsizing the V12 6.0-liter engine to 5.2 liters, resulting in reduced fuel use. Other engine technologies for the V12 engine that AML stated support a reduction in fuel use include turbocharging, reduced exhaust backpressure, stop-start, cylinder deactivation, electric thermostat with coolant flow management, and electric/hydraulic power steering. For the models that use the new 4.0-liter V8 turbocharged engine, like the new DB11 V8 and Vantage models, AML stated that similar technology additions helped to realize an additional fuel economy improvement.

Starting with MY 2014, AML employed Bosch engine management systems (EMS) to realize fuel consumption improvements and CO_2 emissions reduction through use of other technology enablers such as start-stop, but due to the small size of the company the application of additional technologies will be over an extended period. According to AML's MY 2021 petition in June 2018, all vehicle models included the Bosch EMS. AML stated that the company is also investigating powerunit sourcing opportunities to increase vehicle efficiency, although there are very long lead time changes due to contractual agreements with suppliers and vehicle architecture modification requirements.

Since MY 2008, AML's transmissions incorporate six-, seven-, or eight-speed technologies, and the seven-speed transmission incorporates a lightweight, low friction design. Starting in 2014, AML began replacing the previously-used 6-speed ZF automatic transmission with an 8-speed ZF transmission in its vehicles with V12 engines. Per AML, the DB11 uses an enhanced version of the 8-speed ZF transmission coupled to a low loss higher ratio final drive to enable further downspeeding of the V12 engine, thereby enhancing its fuel economy capability. Future AML models will also use this 8-speed transmission.

Each of AML's vehicles possesses a body and chassis configuration that is small, aerodynamic,[46] and that makes extensive use of advanced lightweight materials. All major body and mechanical components of the Virage, DB9, DB11, and Vanquish models are either aluminum, magnesium alloy, or advanced lightweight composite materials, resulting in vehicles that are up to 600kg lighter than comparable in the same class of vehicles.[47]

In the late 2000s/early 2010s, AML considered using partial hydraulic/electric or full electric power assist steering (EPAS) technology that could improve fuel economy, however, it was rejected because of the scale of development needed for introduction. As mentioned above, AML's more recent vehicles include this technology. Similarly, in the early 2010s, AML considered using low friction lubricants in the V8 engines but rejected them on the basis that 10W60 oil provided the oil-film thickness retention needed to protect the lead-free main bearings at elevated engine speeds. Since that time, with the introduction of the 5.2 liter V12 engine, AML has improved engine friction by adopting advanced engine oil lubrication and is continuously investigating use of other oil formulations for the future.

AML noted in its petitions that its vehicles share underlying platforms and technologies, which impacts how fuel-economy improving technologies can be applied throughout its fleet. For example, AML introduced the ZF 8 speed automatic transmission in MY 2015 following four years of development to replace all 6-speed transmissions on V12 models apart from the DB9. AML stated that this lead time was principally driven by the need for new tooled parts and a heavily revised engine and gearbox calibration.

Next, AML stated that it is not able to manipulate its model mix. AML produces only one ''type'' of car, specifically what it characterizes as high performance/limited production. These vehicles all have what AML refers to as multi-cylinder large capacity power units, and in fact for model years that have already passed, AML has only sold vehicles with V8 or V12 power units in the U.S. market. In early petitions, AML projected that vehicles with the (relatively) more fuel efficient V8 engines would exceed sales of vehicles with the V12 engines, however, that did not happen. AML observed that the V8 and V12 vehicles appeal to different market segments and attempting to force more sales of vehicles with V8 engines was not feasible. Accordingly, when sales of the V8 models declined relative to projections, as compared to the V12 model, AML's achieved CAFE level was negatively affected. Over the model years that NHTSA considered in this proposed decision, AML projected that the balance of vehicle sales with V8 and V12 engines would vary in different model years.

AML also stated that the company is limited to making technology improvements that are compatible with the basic design concept of its vehicles, *i.e.,* high performance vehicles. AML stated in its petitions that it has taken all possible steps to maximize fuel economy within its existing vehicle range, with recent changes to engine, engine management, and transmission technology, that has resulted in incrementally improving fleet fuel economy. AML also stated that its lightweight and aerodynamic vehicle designs have shown that it has done as much as possible to improve its vehicles' fuel economy.

(b) Ferrari MY 2016–2018 and 2020 Vehicles

Ferrari N.V. (Ferrari) is a small volume manufacturer of sports cars. Ferrari's product portfolio for the model years covered by this proposed decision includes GT cars (*e.g.,* the GTC4Lusso and California T) and sports cars (like the F12 Berlinetta and LaFerrari, and 488 Spider and 488 GTB) with a mix of V8 and V12 engines, in addition to its portfolio of limited series supercars, which include the LaFerrari Aperta, the F60 America, the F12tdf, GTC4LussoT, and 812 Superfast.

With respect to powertrain technologies, Ferrari stated that it was developing new gasoline direct injection technology to target tailpipe emissions, in addition to a new turbocharged, downsized, and down-speeded V8 engine family. Ferrari also stated that it is investigating engines with higher BMEP levels to improve thermal efficiency from better combustion, with

[46] The reported aerodynamic drag coefficients for AML vehicles range from 0.33–0.34 for the early 2010s DB9, Virage, and Vantage models, to 0.37 for the MY 2020 DB11. Although current mass market vehicles have now achieved similar aerodynamic drag coefficients, for high performance vehicles desirable downforce to prevent rear end lift at high speeds and sufficient powertrain cooling needs limit further reductions.

[47] Likewise, AML stated the company has extensively used carbon fiber composite material in the vehicles' body panels. All AML models incorporate an all-alloy underbody structure that contributes only minimal weight, in addition to the bonnet and roof that are constructed from a lightweight alloy, while the front fenders, tailgate, and sills are produced from advanced composites. Aside from the vehicle body, the engine block design also decreases weight with use of aluminum material for components that are not loading points.

electric boosting to reduce turbo lag. Ferrari provided specific technology information on its MY 2015 California T grand tourer, showing that with the addition of a downsized engine and two turbochargers, the vehicle achieved an improved fuel economy value of 18.7% over the previous model while still meeting its performance objectives. The MY 2014 V12 Limited Edition LaFerrari utilized a hybrid powertrain with a 120kW electric motor and an ultra-lightweight composite body to achieve a fuel economy of 17.6 mpg.

Ferrari stated that the mix of vehicles it sells strongly affects its fleet average fuel economy, though substantial fuel economy improvements can be seen in each category of vehicles. In evaluating new vehicle technologies, Ferrari stated that it must consider maintaining the higher performance and unique driving experience of its vehicles, customer acceptance, and the impact on overall vehicle design. Additionally, manufacturing constraints may affect which new technologies Ferrari can adopt on its vehicles; Ferrari noted that moving from internal R&D to production vehicles is dependent on suppliers, and obtaining components from suppliers is more difficult for Ferrari than for larger companies, especially given the low volume of vehicles produced and the unique nature of the vehicles' design. The low volume of components required by the company may cause delays or project cancellations due to the inability of suppliers to produce components in a desired timeframe. Additionally, Ferrari stated that it had not had any assistance regarding vehicle components from Fiat or Fiat Chrysler when it was still associated with those organizations.

Ferrari stated that even with a limited model mix and the need to provide customers with superior performance, handling, and luxury, the company targeted a fuel economy improvement of 17.4% for its fleet average fuel economy for MY 2018 as compared to MY 2014. Ferrari stated that it planned to improve its fleet fuel economy in each of the model years covered by its petitions.

Ferrari also initially requested an exemption for its MY 2019 vehicles, but subsequently notified NHTSA that it produced more than 10,000 passenger automobiles globally in 2019 and therefore was not eligible for small volume manufacturer status. Accordingly, NHTSA did not consider Ferrari's original MY 2019 request in this notice.

However, Ferrari has requested an exemption for its MY 2020 vehicles, expecting sales to be below the 10,000 passenger automobiles globally. The drop in sales is anticipated due to the effects of the COVID–19 public health emergency.

(c) Koenigsegg Automotive AB MY 2015, 2018–2023 Vehicles

Koenigsegg Automotive AB (Koenigsegg) is a low volume manufacturer of high-performance vehicles. For the model years covered by this proposed decision, Koenigsegg produced the Agera model for 2015 and 2018, the Regera model for 2019–2021, the Jesko model for 2022–2023, and the Gemera model for 2023.

Koenigsegg vehicles use smaller displacement engines than many other specialty manufacturers; the company stated that where other similarly situated manufacturers often use 6 liters or larger displacement 10- or 12-cylinder engines, the Koenigsegg engine is a relatively small 5-liter V8 engine that utilizes twin turbochargers to facilitate vehicle performance. Koenigsegg also uses lightweight materials to build its vehicles; carbon fiber is used not only for the body panels, but for structural parts as well. Additionally, starting with MY 2019, the company offers only a hybrid drivetrain, consisting of a conventional combustion engine and three electric motors. That hybrid drivetrain was not introduced onto MY 2015 and MY 2018 vehicles because of budget and staff limitations.

Koenigsegg stated that it was not possible to improve its fuel economy level in MYs 2015 and 2018–2021 by shifting its fleet mix because the company only offered one vehicle configuration. Additionally, for model years 2022 and 2023, the vehicle footprints are increasing in size for the new vehicle models. Koenigsegg stated that its budget for research and development into fuel economy improving technologies is limited because of its small size. Other economic practicability concerns relevant to this proposed decision include Koenigsegg's statement that an obligation to meet higher CAFE standards than requested would ''jeopardize [its] position as a world class leader of hyper cars.''

(d) McLaren Automotive MY 2012–2023 Vehicles

McLaren Automotive is a small volume manufacturer of high-performance vehicles. The vehicles covered by McLaren's petitions include the MP4–12C, P1, 570S/570GT, and 720S, among others.

McLaren's independently-developed vehicle models began in 2011 with the McLaren MP4–12C, which utilized McLaren's independently-developed engine, the M838T. The M838T is a 3.8 liter downsized, turbocharged 8-cylinder engine that employs technologies including variable valve timing to optimize engine efficiency, secondary air injection, and electronically controlled twin thermostats. The engine also uses Nikasil-coated aluminum liners for further weight reduction. McLaren stated the valve timing on the M838T has been calibrated for best fuel economy under typical road driving speeds and loads, within the limitations of acceptable combustion stability. From optimizing the M838T prototype engine to pre-production engine valve timing, McLaren realized a 4–5% specific fuel consumption reduction. The M838T also uses friction reduction technology including reduced diameter bearing journals, the Nikasil-coated cylinder liners mentioned above, low friction piston skirt coating, superfinished finger followers, and coated valves in the valvetrain. The piston ring pack has been developed to meet oil consumption targets with minimum ring tension, and the use of a dry sump system, allows reduced churning losses in the crankcase. McLaren uses synthetic Mobil 0W/40 oil in its vehicles, and stated that the advantages to moving to bespoke oil for its vehicles is limited; however, McLaren stated that it is investigating other advanced engine oil formulations.

McLaren's P1 vehicle is powered by an upgraded version of its M838T powertrain in parallel with an electric motor, and the vehicle can operate in either hybrid or electric-only mode. The motor also allows for energy recovery through regenerative braking. Accordingly, the P1 has achieved an increase in fuel economy over the previous vehicle, the MP4–12C, while also increasing power.

The M838T engine is coupled to a 7-speed dual clutch transmission, which McLaren refers to as its ''Seamless Shift'' dual clutch gearbox (SSG), and which the company designed to respond to demand for a ''mechanical package that resulted in not only reduced weight and dynamic control for the entire vehicle, but also improved fuel consumption and CO_2 emissions.'' McLaren stated that the gear ratios have been optimized for acceptable vehicle performance while maximizing fuel economy,[48] and in the transmission's base mode, ''auto normal,'' the shift

[48] Additionally, McLaren stated that the maximum speed of the MP4–12C is achieved in 6th gear, leaving 7th gear as a true ''overdrive'' gear intended for maximum fuel efficiency.

points are optimized to provide maximum powertrain efficiency and fuel economy.[49] McLaren has explored transmission loss reductions, using hardware to significantly improve losses from the first prototype transmission and final validation prototypes. A wide default park position for the shift clutches also allows for reduced friction levels, reduced cooling flow to the clutches, contributing to efficiency at idle. Because there is some performance trade-off for this park position, the vehicle uses an adaptive strategy to detect when a higher performance level is required, returning to the low friction park position once the high-performance demand has subsided. McLaren also stated that the transmission lubricants have been optimized to provide the best compromise between fuel economy and transmission life/service intervals.

All of McLaren's vehicles utilize a lightweight carbon fiber chassis that McLaren has termed the Carbon MonoCell, with the 12C MonoCell weighing less than 175 pounds. Other mass reduction opportunities that McLaren has implemented include brakes with forged aluminum hubs, reduced exhaust path length, airflow-assisted airbrake deployment, reduced wheel weight, rear-mounted engine cooling radiators to minimize pipework and the fluid contained within, a downsized engine coupled to a lightweight transmission, halogen-free compressed wiring, and a Li-ion battery.

For aerodynamic improvements, McLaren has increased the MP4–12C down force while achieving a reduction in the coefficient of drag relative to the Mercedes SLR McLaren. Techniques used to achieve this reduction include a more efficient vehicle shape, careful control of vehicle cooling air, and extensive use of under floor guide vanes to control wheel wakes while producing downforce with little or no drag penalties.

Other commonly employed vehicle technologies that McLaren has utilized to reduce parasitic losses include an electrically powered hydraulic steering system, which provides fuel efficiency improvements over a conventional engine-driven hydraulic pump by removing the need to continually drive the pump when the pressure is not required. McLaren has also made electric load improvements by using high efficiency lamps and series/parallel fan control.

With respect to economic practicability, McLaren noted that it invested significantly in the M838T engine, and as a low volume manufacturer with relatively low sales volumes, a return on investment must come from carefully considered platform engineering and an extended lifecycle for the base powertrain. The projected trend for McLaren's market sector is continued increases in rated power; the company predicted that a sustained reduction in CO_2 (and accordingly, an increase in fuel economy) would be challenging. McLaren stated that the company continues to conduct powertrain research and development to support future emissions and CO_2 reductions. However, McLaren stated that currently, there are no other further fuel economy improvements that the company can adopt that are compatible with the basic design concept of its high-performance sports cars. Similarly, McLaren stated that the company has no opportunity to improve fuel economy by changing its model mix because all of its vehicles share a common platform, all using variants of the same power plant.

As for future fuel economy improvements, McLaren stated that moving forward, they have planned a range of other models that will allow the company to introduce new, innovative technologies designed to improve efficiency even further. McLaren in 2016 stated that the company planned to implement hybrid technology on 50% of its fleet by 2022, with a quarter of planned investment revenue slated for research and development of new technologies. In 2020, McLaren stated that the company would implement hybrid technology on 100% of its Sports Series and Super Series vehicles by 2025.

(e) Mobility Ventures MY 2014–2016 MV1

Mobility Ventures is a wholly-owned subsidiary of AM General LLC (''AM General''). AM General is a private company headquartered in South Bend, Indiana. AM General produces light tactical vehicles for the military as well as commercial vehicles, both as an original equipment manufacturer (OEM) and as a contract manufacturer.[50]

Prior to forming Mobility Ventures in late 2013, AM General contracted with the now-defunct Vehicle Production Group LLC (''VPG'') to assemble their MV–1 vehicle at AM General's Commercial Assembly Plant in Mishawaka, Indiana. The MV–1 is a vehicle specifically engineered from the ground up to address the unique requirements and limitations of wheelchair users and other people with disabilities. Production of the VPG MV–1 began in 2011 and ended in February 2013 when VPG ceased operations. In September 2013, AM General acquired the assets of VPG and formed Mobility Ventures to assume engineering, production, and distribution of the MV–1. Production of the MV–1 resumed under the Mobility Ventures brand in March 2014. Production of the MV–1 ceased in late 2015, with MY 2016 being the final model year.

In its petition, Mobility Ventures listed and described several fuel-saving technologies that it applied to its vehicles for MYs 2014–2016 including engine and transmission technologies. Mobility Ventures noted that, ''after acquiring the assets of VPG in 2013, Mobility Ventures put the MV–1 into production without modifying the vehicle from VPG's 2012 model year configuration,'' due to time constraints. For MY 2014, Mobility Ventures offered a compressed natural gas (CNG) variant of the 4.6L V8 engine which achieved a fuel economy value of 114.7 mpg, substantially higher than the 18.4 mpg achieved by the gasoline-powered variant. Starting with MY 2015, Mobility Ventures retired the 4.6L V8 engine in favor of a more efficient 3.7L V6 engine. Also for MY 2015, Mobility Ventures replaced the 4-speed transmission with a more efficient 6-speed transmission. Implementation of this downsized engine and more advanced transmission resulted in a 9.8% increase in fuel economy for the MY 2015 MV–1 as compared to the gasoline-powered MY 2014 MV–1. The MV–1 retained the MY 2015 configuration for MY 2016.

Mobility Ventures did not consider any changes for the MY 2014 MV–1 since it elected to resume MV–1 production without delay following its acquisition of VPG in late 2013. Mobility Ventures planned to offer a

[49] McLaren stated that the company has conducted extensive development work to ensure that the default shift schedule has been optimized to ensure the best possible fuel economy: ''The high levels of torque available at low engine speeds have been exploited to improve fuel economy. The engine idle speed has been reduced to 600rpm to minimise the fuel consumption when in this condition. If a very high level of performance is requested by the driver, the shift schedule will adapt to this request before returning to the low engine speed, maximum fuel economy schedule, once the driver demand is reduced to lighter load driving. This adaption will be completed after just 20 seconds of light load driving. If the driver is holding a constant speed around 50kph/30mph then this will trigger a shortcut and the adaption will be complete within just 4 seconds.''

[50] Vehicles manufactured and certified by AM General in the past, such as the road-legal variant of the Hummer, were likely not passenger automobiles or non-passenger automobiles subject to the CAFE program, and thus would not have needed to apply for exemption from CAFE standards.

CNG version of the MV–1 for MY 2015. However, CNG calibration issues arose in transitioning to the more fuel efficient 3.7L V6 engine. Mobility Ventures considered technical solutions proposed by the fuel injector manufacturer but could not justify the substantial added cost given the weak demand for the CNG version of the vehicle.

(f) Pagani Automobili S.p.A MY 2014 and 2016–2023 Vehicles

Pagani Automobili S.p.A. (Pagani), formerly Modena Design S.p.A., is an Italian corporation formed in 1991 and owned by the Pagani family. Pagani began manufacturing Pagani-brand sports cars in 1999, first producing the Zonda, then Huayra,[51] both in very low volumes. For the model years covered by Pagani's petitions, the company's product portfolio includes the Huayra (C9), Huayra BC (C9N), and Huayra Roadster (C9R). The company estimated that it had a total production capacity of no more than 50 vehicles per year, with approximately 20 of those vehicles built to U.S. specifications.

Pagani's first vehicle, the Zonda, was a high-performance sports car powered by a Mercedes-Benz 12-cylinder engine. The Huayra, the vehicle replacing the Zonda, received a new engine, the M158 engine, which was more powerful than the previous engine but also smaller, further reducing weight and increasing efficiency. Pagani stated in its MY 2015–2017 petition that the M158 engine was homologated to meet the strictest environmental regulations, which at that time were EU5 and LEV2. Additionally, despite the increase in power compared to other Mercedes-AMG V12 engines developed for Pagani, the engine has reduced CO_2 emissions and fuel consumption, ''to make the Pagani Huayra class leading amongst 12 cylinder sports cars with values that are respective of much smaller vehicles in the market.'' Pagani's MY 2018–2020 petition also stated that a new developed engine is expected for introduction in MY 2018.

Pagani stated in its MY 2012–2014 petition that the Huayra makes extensive use of lightweight materials, including carbon fiber in the chassis and panels, and chromoly steel space frames. Pagani stated in its MY 2015–2017 petition that the central monocoque on the Huayra had been updated to an entirely new design made from carbontitanium, and structural and non-structural weight reduction strategies like integrating all ventilation air ducts into the monocoque's structure contributed to the vehicle's weight of 1,350 kg (2976.24 lbs), making the Huayra ''the lightest sports car in its class.'' Pagani stated that the Huayra design optimizes aerodynamics to achieve a coefficient of drag value of 0.35, which also allows for greater efficiency. Finally, the Huayra employs low rolling resistance Pirelli P Zero tires to reduce CO_2 emissions and fuel consumption.

Pagani stated that the unique nature of the company's product line does not lend itself to high fuel economy values, and accordingly there are no additional fuel economy improvements that it could adopt that are compatible with the basic design concept of a traditional sports car. Similarly, Pagani stated that it cannot improve its fuel economy by changing its model mix because it only sells one vehicle model in the United States, which uses the Mercedes-Benz engine. Because Pagani does not produce its own engine, the company stated that it is constrained in making additional improvements to the vehicle powertrain. Beyond the technologies described above, Pagani stated that there are no further fuel economy improvements for the company to adopt that are compatible with the basic design concept of its vehicles.

(g) Spyker Automobielen B.V. MY 2008–2010 Vehicles

Spyker Automobiles produces limited-production sports cars, built to individual order.[52] The vehicles covered by Spyker's MY 2008–2010 petition include different variants of its C8 vehicle.[53]

Spyker's vehicle uses a LEV V8 powertrain from the Audi A8 coupled with a Bosch ME–7 engine management system. Spyker stated that this 4.2 L Audi V8 engine is the most advanced engine available to a small vehicle manufacturer seeking an engine from an outside source. Spyker stated that its vehicles are both lightweight and aerodynamic; the chassis is made of aluminum and the vehicle in total weighs in at 1346 kg (2967 pounds). The coefficient of drag of the vehicle is 0.41 with the roof off, and 0.38 with the roof on.

Spyker stated that the high-performance nature of its product line generally does not lend itself to high fuel economy values, and the company is not able to manipulate model mix because the company was created to sell limited numbers of high-performance automobiles. Accordingly, Spyker stated that there is no room for CAFE changes based on marketing actions. Spyker also stated that it has no opportunity to improve fuel economy by changing its model mix because it would only export three high performance models to the United States in MYs 2008–2010, all using the Audi V8 or V12 engines. Spyker also stated the company had invested millions of dollars (at the time of the MY 2008–2010 petition) in design, development, homologation, and the start of production, and the company is financially constrained in making additional fuel economy improvements because of the large investment in start-up and producing new models. In sum, Spyker stated that producing more fuel-efficient models or making existing configurations significantly more fuel efficient is not possible.

ii. The Need of the United States To Conserve Energy

Many of the manufacturers considered in this notice noted that they were not unmindful of energy issues facing the United States today, including both energy conservation and climate change. Several manufacturers noted however, that the extremely low sales volumes of their vehicles, coupled with the fact that, in the case of many high-performance sports cars, they are ''almost exclusively used as a second or third car (and hence infrequently),'' [54] meant that these vehicles had a ''virtually immeasurable'' effect on U.S. energy consumption.[55] As discussed further below, some manufacturers also submitted additional data estimates on how many miles their vehicles are driven per year, or estimates of how much fuel their fleet of vehicles is estimated to consume over time, and the agency confirmed these estimates with an independent evaluation of vehicle miles travelled (VMT) data performed for this notice.

As mentioned above, when independently evaluating the impact that establishing an alternative CAFE

[51] The corresponding model numbers for vehicles covered by this petition are C8 and C9. As of the date that Pagani submitted its MY 2012–2014 petition, the C9 had not yet been named Huayra.

[52] At the time that the entity that produced Spyker vehicles petitioned NHTSA for alternative standards, that entity was Spyker Automobielen B.V. That entity is now Spyker N.V., however it does not seem that Spyker has produced vehicles for sale in the U.S. market from the time of the 2008–2010 petition.

[53] At the time of its petition, Spyker was also planning to produce a Super Sport Utility Vehicle (SSUV) and mentioned that vehicle in their petition. However, 49 U.S.C. 32902(d) limits the applicability of an exemption to passenger automobiles produced by the manufacturer requesting the exemption.

[54] *See, e.g.,* McLaren CAFE Exemption Petition for MYs 2021–2023.

[55] *Id.*

standard would have on the need of the United States to conserve energy, NHTSA has historically taken two approaches. For several years, the agency categorically concluded that if it had already determined that it would not be technologically feasible or economically practicable for the low volume manufacturer to achieve a higher fuel economy standard than requested, denying the exemption or setting a higher alternative standard would not have had any effect on the need of the United States to conserve energy.[56] In later years the agency attempted to quantify that *de minimis* impact for illustrative purposes, by estimating the amount of additional fuel consumed by the exempted fleet over their operating lifetime.[57]

In brief, the estimated amount of additional fuel consumed by the exempted fleet over its operating lifetime is a function of the difference between the manufacturer's actual CAFE standard and their requested alternative standard multiplied by the manufacturer's estimated U.S. production volume, multiplied then by an estimate of the total miles these vehicles could travel as an active part of the fleet.[58] The resulting difference is then divided by the average number of gallons that the total U.S. automotive fleet uses.[59] The final value shows the fleet's additional gallons of fuel use as a percentage of total U.S. automotive fuel use.

Unique to the analysis for this proposed action is that for model years that have already passed, for which NHTSA has final verified fuel economy values from EPA or final data submitted to EPA by manufacturers, those values are used instead of the proposed alternative standard. In a majority of cases, the manufacturers achieved a higher fleet fuel economy value than they requested for a given model year.

Additionally, because projected U.S. production volumes for some fleets are still CBI at this time, or because NHTSA does not have final production data from EPA for some completed model years, NHTSA averaged each manufacturers' latest three years of verified production data to present estimates of potential future fuel use for those model years. NHTSA considered assuming that every manufacturer would produce the maximum 10,000 vehicles in MYs 2019 and later, or that each manufacturer would produce 5,000 vehicles in MYs 2019 and later, although these assumptions were not supported by historical data. NHTSA seeks comment on this approach, in addition to any alternative assumptions that the agency should employ in estimating the amount of additional fuel consumed by a fleet granted an alternative CAFE standard. Note again, these projections are only used to estimate the *potential* future fuel use of a manufacturer's fleet; a fleet's actual fuel use is dependent factors like an individual vehicle owner's driving patterns. As discussed below, many of the vehicles considered in this notice are driven infrequently, if at all.

For the quantitative estimate presented today, NHTSA also developed new assumptions about low volume vehicle lifetime mileage that more accurately captures how *some* low volume vehicles are driven.[60] For reference, the Federal Highway Administration's (FHWA) 2017 National Household Travel Survey (NHTS) best available estimate for average miles driven per vehicle is 11,128 miles per year for the category of vehicle that includes automobiles, cars, and station wagons.[61] NHTSA's new calculated yearly VMT for high performance vehicles is 2,543 miles per year. Note, as discussed below, that NHTSA used the FHWA's 2017 NHTS best available VMT estimate for cars for Mobility Ventures' fleet, as the agency does not believe that the driving patterns of mobility vehicles are accurately represented by the data used to calculate an average yearly VMT value for high performance vehicles. The agency seeks comment on this approach, in addition to any other data or information on the driving patterns and mileage schedules of vehicles used to transport wheelchair bound or otherwise mobility impaired individuals.

To estimate an average yearly VMT schedule for high performance vehicles, NHTSA consulted an IHS/Polk dataset that includes more than 74 million unique odometer readings across 16 model years (2000–2015). NHTSA used over 10,000 odometer readings from vehicles produced by Aston Martin, Ferrari, and McLaren from MY 2000 to MY 2014. Specifically, NHTSA used the average odometer reading for vehicles of each manufacturer, model, and model year, and the average age of the vehicle in calendar year 2014 (when the majority of odometer readings occurred). NHTSA then divided the average odometer reading by the average age for each vehicle to arrive at an estimate of average miles traveled per year of use. Averaging all the unique make, model, and model years for which there is data (approximately 200 unique combinations), resulted in an average usage of 2,543 miles per year.

Although this is a relatively small sample that only considers manufacturers for which there is readily-available data, it more closely tracks what low volume manufacturers (specifically in this case of what could be considered high performance vehicles) claim the impacts of their vehicles would be on overall fuel use. For example, AML's MY 2019 petition (and other manufacturers have shared similar sentiments) stated that their vehicles' impact on energy consumption is *de minimis,* ''not only because of the tiny volume of cars, but also because the vehicles tend to be used very infrequently (as a second or third car) and therefore have a very low VMT (vehicle miles travelled) value per annum.'' Similarly, Pagani stated that, in fact, ''[s]ome customers choose to not drive the cars at all and view the cars as investments to be stored for future sale. Most others will choose to drive the car sparingly as a weekend trophy car.'' More recently, in its MY 2022 petition, AML stated that ''AMLs current understanding is that VMT [for its vehicles] is in the order of 2500 miles per annum.''

We seek comment on this new approach, in addition to any other data or information on yearly VMT for vehicles that would generally qualify under NHTSA's low volume manufacturer provision. If commenters believe that a higher VMT assumption would be appropriate for making this calculation, it would be most helpful to the agency for commenters to provide specific data or citations underlying that belief, ideally data that could be made public. Additionally, as mentioned above, NHTSA did not believe that it was appropriate to use the calculated value for high performance vehicles for the Mobility Ventures fleet, as odometer

[56] *See, e.g.,* 54 FR 40689 (Oct. 3, 1989).

[57] *See, e.g.,* 61 FR 46756 (Sep. 5, 1996), 71 FR 49407 (Aug. 23, 2006).

[58] NHTSA estimated the lifetime miles for vehicle classes as part of the SAFE Final Rule analysis. *See* SAFE Final Rule ''paramters_ref.xlsx'' file, available for download at *https://www.nhtsa.gov/corporate-average-fuel-economy/compliance-and-effects-modeling-system.*

[59] U.S. Energy Information Administration Monthly Energy Review March 2020, Table 3.7c Petroleum Consumption: Transportation and Electric Power Sectors, available at *https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf.*

[60] Historically, low volume manufacturer petitions for exemption from CAFE standards have covered luxury vehicles, exotic high-performance vehicles, and vehicles exclusively designed to be used for transporting the wheelchair bound or other mobility-impaired individuals.

[61] *See* Developing a Best Estimate of Annual Vehicle Mileage for 2017 NHTS Vehicles, *available at https://nhts.ornl.gov/assets/2017BESTMILE_Documentation.pdf.*

readings from high performance sports cars would likely not be representative of the average usage of mobility vehicles. NHTSA seeks comment on any data or information that would help to inform the agency's yearly VMT schedule for these vehicles.

NHTSA estimates that the additional fuel consumed by the LVM fleets at the proposed alternative standards level is as follows:

TABLE 1—ESTIMATED ADDITIONAL LIFETIME FUEL CONSUMPTION

Manufacturer	Additional lifetime fuel consumption (gallons)	Percentage of total U.S. motor vehicle fuel consumption over lifetime[62] (%)
Aston Martin MY 2008–2023	17,752,742	0.000838
Ferrari MY 2016–2018 and 2020	7,668,471	0.000362
Koenigsegg MY 2015, 2018–2023	58,029	0.00000274
McLaren MY 2012–2023	7,845,563	0.000370
Mobility Ventures MY 2014–2016	6,186,748	0.000292
Pagani MY 2014, 2016–2023	200,428	0.00000946
Spyker MY 2008–2010	57,469	0.000002712
Total	39,769,449	0. 001877

iii. The Effect of Other Standards of the Federal Government on Fuel Economy

NHTSA has determined that ''other motor vehicle standards of the Government'' that affect fuel economy include its own safety standards as well as EPA's emissions standards, which include criteria pollutant and now greenhouse gas ((GHG), which include CO_2, N_2O, CH_4, and hydrofluorocarbons) emissions standards. While NHTSA regulates fuel economy and EPA regulates GHGs, and has done so sometimes in joint rules, differences in the agencies' statutory authorities make it so that each agency is required to make an independent judgment about the level of standards that is appropriate.[63]

This is the first time that NHTSA has had the opportunity to consider EPA's small volume manufacturer GHG standards in the context of CAFE low volume petitions for exemption. Just as there are differences in the agencies' statutory directives that require programmatic differences between the fuel economy and greenhouse gas emissions light-duty vehicle programs, differences exist between each agency's low or small volume manufacturer exemption program. EPA's small volume manufacturer regulations, finalized in 2012,[64] defined the process for exemptions from GHG standards[65] differently from the NHTSA program by expanding applicability to light trucks, and lowering the eligibility requirements to only 5,000 vehicles produced in the United States.[66] For NHTSA's program, both the 10,000 vehicle worldwide production limit on eligibility and sole applicability to passenger cars were terms prescribed by Congress in the 1970s.[67]

Three manufacturers considered in this notice (Aston Martin, Ferrari, and McLaren) recently received an alternative low volume standard under the EPA small volume program for vehicles manufactured in MYs 2017–2021.[68] For the first four model years of the program, MYs 2017–2020, EPA proposed and adopted the alternative standards requested by the manufacturers. For MY 2021, EPA finalized MY 2021 standards for McLaren reflecting 3 percent year-over-year reductions from a MY 2017 baseline year.[69]

NHTSA must set alternative standards at the maximum feasible average fuel economy level for the manufacturer to which the alternative standard applies.[70] This means that, as discussed further below, NHTSA believes that the agency cannot set alternative standards for a manufacturer for past model years at the level that the manufacturer requested, if that level is lower than the fuel economy level than the manufacturer actually achieved. In fact, it is frequently the case that the manufacturers achieved a higher fuel economy value than they requested. NHTSA believes that, accordingly, the requested fuel economy value is not the *maximum feasible* fuel economy level that the manufacturer could have achieved in that model year, and is proposing to set standards at the fuel economy values that manufacturers achieved for past MYs.

EPA's final rule also stated that in determining GHG standards for some manufacturers in MY 2021, EPA considered that those standards can be met ''through the use of credits, including air conditioning and off-cycle credits, and the use of program flexibilities including credit carry-forward and credit carry-back within the lead time available.''[71] As discussed above, NHTSA does not consider the availability of credits when prescribing a maximum feasible average fuel economy standard under the low volume CAFE exemption program. In addition, in NHTSA's program, the

[62] *See* U.S. Energy Information Administration Monthly Energy Review March 2020, Table 3.7c Petroleum Consumption: Transportation and Electric Power Sectors, *available at https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf.* This includes an average estimate of 8.9 million barrels/day of motor gasoline consumed by vehicles in the United States.

[63] *See* 85 FR 24174, 25137 (April 30, 2020).

[64] 77 FR 62624, 62789 (Oct. 15, 2012).

[65] 77 FR 62624, 62789 (Oct. 15, 2012).

[66] To be eligible for alternative standards established under the EPA program, the manufacturer's average sales for the three most recent consecutive model years must remain below 5,000. If a manufacturer's average sales for the three most recent consecutive model years exceeds 4999, the manufacturer will no longer be eligible for exemption and must meet applicable emission standards starting with the model year. See 40 CFR 86.1818–12(g)(1). In contrast, as discussed above, 49 U.S.C. 32902(d)(1) makes clear the exemption applies to manufacturers that manufacture *worldwide* fewer than 10,000 passenger automobiles in the model year 2 years before the model year for which the application is made, and in the applicable model year. In addition, 49 U.S.C. 32902(d)(1)(B) makes clear the exemption and alternative standard only applies to passenger automobiles.

[67] 42 FR 38374 (July 28, 1977).

[68] 85 FR 39561 (July 1, 2020).

[69] 85 FR 39561, 39563 (July 1, 2020).

[70] 49 U.S.C. 32902(d).

[71] 84 FR 37281 (July 31, 2019).

additional fuel economy benefit from air conditioning and off-cycle technology is added to a vehicle's fuel economy value, and is not a ''credit'' that can be traded or transferred. Accordingly, as discussed above, a manufacturer that plans to use air conditioning and off-cycle technology should include any anticipated benefit from those technologies in the projected fuel economy value for each vehicle configuration as required by 49 CFR 525.7(f).

The following table shows differences between EPA's final small volume standards (g/mile) [72] and NHTSA's proposed alternative standards (mpg).

TABLE 2—EPA AND NHTSA LVM STANDARD COMPARISON

Model year	Manufacturer	EPA LVM STD (g/mi)	EPA LVM STD equivalent (gal/mi)	EPA LVM STD equivalent (mpg)	NHTSA LVM STD (mpg)
2017	Aston Martin	431	0.048497806	20.6	21.4
	Ferrari	421	0.047372567	21.1	21.5
	McLaren	372	0.041858895	23.9	24.3
2018	Aston Martin	396	0.044559469	22.4	22.9
	Ferrari	408	0.045909756	21.8	21.6
	McLaren	372	0.041858895	23.9	23.3
2019	Aston Martin	380	0.042759086	23.4	22.4
	Ferrari	395	0.044446945	22.5	
	McLaren	368	0.041408799	24.1	22.5
2020	Aston Martin	374	0.042083943	23.8	22.6
	Ferrari	386	0.04343423	23.0	21.1
	McLaren	360	0.040508608	24.7	22.5
2021	Aston Martin	376	0.042308991	23.6	24.9
	Ferrari	377	0.042421515	23.6	
	McLaren	334	0.037582986	26.6	21.5

NHTSA invites comment on any new information on the impact of EPA's GHG standards on a manufacturer's ability to meet an alternative fuel economy standard that the agency should consider.

In regards to the impact of vehicle safety standards on CAFE values, AML stated that Federal Motor Vehicle Safety Standard (FMVSS) No. 214, Side Impact Protection, FMVSS No. 216, Roof Crush Resistance, FMVSS No. 226, Occupant Ejection Mitigation, and FMVSS No. 301, Fuel System Integrity, could have potential adverse impacts on its vehicles' achieved fuel economy levels, requiring increased mass to body and frame structures. Additionally, AML stated that it must consider the Pedestrian Protection requirements as proposed in the UN ECE Global Technical Regulation (GTR) No. 9 due to economies of scale. GTR No. 9 would require increased deformation resistance to body and frame structures, which translate into additional weight.[73]

Ferrari stated that FMVSS No. 216, Roof Crush Resistance, FMVSS No. 226, Occupant Ejection Mitigation, and FMVSS No. 214, Side Impact Protection, affect vehicle weight and aerodynamics, and other aspects of vehicle design. Ferrari also stated that they face challenges regarding compliance with the EPA and California Tier 3 tailpipe and evaporative emissions standards.

Koenigsegg stated that the Federal motor vehicle standards regarding outside rear view mirrors have a significant effect on fuel economy, and that if outside rear view mirrors are replaced by camera systems, fuel economy will improve significantly.

McLaren cited FMVSS No. 214, Side Impact Protection, FMVSS No. 216, Roof Crush Resistance, and FMVSS No. 301, Fuel System Integrity, as safety standards that have impacts on McLaren's achievable fuel economy. McLaren also stated that crashworthiness standards generally tend to decrease fuel economy, since they can preclude, in some instances, the use of lighter-weight components. McLaren additionally cited EPA's Tier 3 emissions rule as a requirement that would demand resources (both financial and personnel) and a balancing of priorities for the company to comply with all government standards.

Mobility Ventures did not identify any other motor vehicle standards that affect the fuel economy achieved or achievable by the MV–1.

Pagani stated that the company's small size limits the amount of resources it can apply to comply with both the mandatory safety and emissions standards and fuel economy requirements (citing NHTSA's proposed and final decisions for Spyker's MY 2006 and 2007 exemption request).[74] Similarly, Pagani cited NHTSA's proposed decision for DeTomaso Automobiles' MY 2000 and 2001 vehicles for the proposition that crashworthiness standards can generally tend to reduce achievable CAFE,[75] since they preclude, in some instances, the use of lighter weight components. Pagani stated that other safety standards that would demand the company's resources, and that could have weight and fuel economy consequences, include upgraded FMVSS No. 301, Fuel System Integrity requirements, upgraded FMVSS No. 214, Side Impact Protection, and upgraded FMVSS No. 216 Roof Crush Resistance.

Spyker stated in its petition for MYs 2008–2010 that California's emissions standards will apply to the company in MY 2006, and the Tier 2–LEV II exhaust standards are applicable in 2007. Accordingly, the company's limited engineering resources would have to be expended to comply with those more stringent standards. With respect to safety, Spyker stated that crash-worthiness standards tend to reduce achievable CAFE because they preclude, in some instances, the use of lighter-

[72] 85 FR 39561, 39564 (July 1, 2020), Table 4—Summary of Standards and Per-Manufacturer GHG Reductions (g/mile).

[73] To the extent that GTR No. 9 adds additional weight and AML has modified its entire fleet of production vehicles based on economies of scale to meet that standard, NHTSA understands that is factored into AML's assessment of the maximum feasible fuel economy level that its fleet could achieve.

[74] 71 FR 49407 (Aug. 23, 2006), 72 FR 28619 (May 22, 2007).

[75] 64 FR 73476 (Dec. 30, 1999).

weight components. Spyker also stated that smaller companies with limited resources must give priority to compliance with safety standards. Spyker had until June 2008 to develop FMVSS No. 208, Occupant Crash Protection compliant advanced air bags (under a NHTSA temporary exemption), which the company stated would add additional weight, and Spyker stated that FMVSS No. 301, Fuel System Integrity would also demand additional resources.

To determine the additional weight that federal motor vehicle safety standards would have on these vehicles, to determine the impact of the standards on fuel economy, NHTSA used published estimates from the MYs 2017–2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards Final Regulatory Impact Analysis (FRIA).[76] Table IV–3a in the FRIA shows estimated weight increases for each FMVSS that would become effective between MY 2008 and MY 2018 for passenger vehicles and light trucks, comparing MY 2025 to the MY 2008 baseline fleet.[77] The passenger car values are reproduced below.

TABLE 3—MY 2017–MY 2025 FRIA, TABLE IV–3a WEIGHT ADDITIONS DUE TO FINAL RULES OR POTENTIAL NHTSA REGULATIONS

Standard No.	Title	Added weight (pounds) passenger cars
126	Electronic Stability Control Systems	2.12
206	Door Locks and Door Retention Components	0.00
214[78]	Side Impact Protection	12.43
216[79]	Roof Crush Resistance	11.65
226[80]	Occupant Ejection Mitigation	2.00
301[81]	Fuel System Integrity	1.11
Pedestrian Protection		Not quantified
Total		32.31

As NHTSA stated in the FRIA, these weight estimates, which are based on cost and weight tear-down studies of a few vehicles, cannot possibly cover all the variations in a manufacturer's fleet. Rather, these represent rough averages of potential per-vehicle weights that could be incurred. This is even truer for the vehicles considered in this petition, which, as discussed above, use a high proportion of advanced lightweight materials like carbon fiber reinforced plastics. That said, for purposes of this analysis, NHTSA believes that these weight values are reasonable to use to consider potential impacts on vehicle weight, as the agency does not now have updated weight estimates or estimates specifically for the specialized vehicle types considered in this proposed decision. Additionally, because of the lateness of the agency's response to these petitions, much of the projected weight difference may already be included on manufacturers' vehicles. It is possible that these values might overestimate any potential future weight impacts that may compete with manufacturers' ability to reduce weight to better achieve fuel economy improvements. The agency seeks comment on the methodology used, in addition to any specific information (including tear-down studies, etc.) that could better inform this analysis.

Based on the agency's weight-versus-fuel-economy algorithms as applied in the 2012–2016 CAFE FRIA,[82] a 3–4-pound increase in weight is projected to reduce fuel economy by 0.01 mpg. A manufacturer that had to comply with all additional FMVSS that NHTSA considered in the 2017–2025 final rule would add 32.31 pounds to a passenger car in MY 2025 versus a baseline 2008 passenger car, for an approximate fuel economy penalty of 0.09 mpg. Based on these estimates, NHTSA believes that it is reasonable to conclude that the small increase in weight from the FMVSSs would have negligible effects on any LVM fleet considered in this proposed decision.

As to the impact that criteria pollutant emissions standards would have on a LVM's maximum feasible fuel economy level, EPA stated in its final rule establishing Tier 3 motor vehicle emissions and fuel standards that they ''do not expect the Tier 3 vehicle standards to result in any discernible changes in vehicle . . . fuel economy. Emissions of the pollutants that are controlled by the Tier 3 program—NMOG, NO_X, and PM—are not a function of the amount of fuel consumed, since manufacturers need to design their catalytic emission control systems to reduce these emissions regardless of their engine-out levels.''[83] Moreover, EPA established special flexibility provisions for small businesses subject to the Tier 3 standards, which include small volume manufacturers (SVMs) that sell less than 5,000 vehicles per year in the United States.[84] In the Tier 3 final rule, EPA stated that the agency ''have found no fundamental reason why, given sufficient lead time, all manufacturers, regardless of company size and vehicle characteristics, will not be able to meet the Tier 3 standards,'' but also established an optional alternative phase-in schedule for SVMs and non-SVM small businesses to meet the standards.[85] Given these findings, NHTSA believes that it is reasonable to conclude that criteria pollutant emissions standards would have a negligible effect on any low volume

[76] Final Regulatory Impact Analysis, Corporate Average Fuel Economy for MY 2017–MY 2025 Passenger Cars and Light Trucks, Table IV–3a (August 2012).

[77] *Id.* at 119. Note, in the MY 2017–2025 Light-Duty CAFE and GHG Rule, the agencies analyzed two baseline fleets, a 2008 baseline fleet and a 2010 baseline fleet. The difference in total added weight for passenger cars between the two fleets is 5.13 pounds (32.31 added pounds for the 2008 fleet and 27.18 added pounds for the 2010 fleet). NHTSA believes that the 5.13 pound difference between the two estimates is trivial; however, the agency decided to use the more conservative 2008 fleet estimates for this analysis.

[78] 49 CFR 571.214.

[79] 49 CFR 571.215.

[80] 49 CFR 571.226.

[81] 49 CFR 571.301.

[82] Final Regulatory Impact Analysis, Corporate Average Fuel Economy for MYs 2012–2016 Passenger Cars and Light Trucks, Table IV–5 (March 2010).

[83] 79 FR 23446 (April 28, 2014).

[84] 79 FR 23534 (April 28, 2014).

[85] *Id.*

manufacturer's maximum feasible fuel economy level.

3. Proposed Maximum Feasible Average Fuel Economy for Exempted Manufacturers

With these considerations taken together, NHTSA proposes to set alternative average fuel economy standards for these seven manufacturers for each model year at the following levels: NHTSA has received final fuel economy data from EPA for MYs 2008–2017 for all LVMs that have outstanding petitions for those years, and is proposing to use those final EPA values for those years. For MY 2018, NHTSA has some final EPA values for petitioning manufacturers' fleets, but not all; where NHTSA has a final EPA value for a manufacturer, NHTSA proposes to set the manufacturer's alternative standard at that level. Where NHTSA does not have a verified final EPA value for a manufacturer, NHTSA proposes to set the manufacturer's alternative standard at the level submitted by manufacturers in their non-final fuel economy reports to the agencies. NHTSA believes that all manufacturers covered by this proposed decision submitted information sufficient for the agency to conclude that their achieved fuel economy levels for past model years were the maximum feasible fuel economy levels that they could have achieved for those model years.

For MYs 2019–2023, the proposed alternative standards take into consideration both CBI and non-CBI information submitted to the agency, including the manufacturer's requested alternative standard and predicted achieved fleet fuel economy value (if that value differed from the requested alternative standard). In addition, the alternative standards proposed today reflect NHTSA's belief that even though the manufacturers considered in this notice may have less capability to improve their fleet fuel economy than full-line manufacturers for the reasons listed above, manufacturers should aim to at least hold their fleet fuel economy constant, if not improve it year over year. Congress granted NHTSA the ability to provide an exemption to low volume manufacturers in part because it believed that the need of the nation would not be adversely affected by allowing the limited exemption;[86] however, as discussed further in the draft environmental assessment below, transportation fuel consumption is expected to remain a major source of U.S. energy use through at least mid-decade. NHTSA believes that the proposed fuel economy levels presented below appropriately balance the CAFE exemption program with EPCA's directive to conserve energy, and that standards that do not backslide year over year for imminently future model years are therefore maximum feasible for the manufacturers petitioning the agency for alternative standards.

Considering the unique circumstances of this proposed decision, we also note that in accordance with 49 CFR 525.11—*Termination of exemption; amendment of alternative average fuel economy standard,* the agency may also initiate another rulemaking either on its own motion or on petition by an interested person to terminate an exemption granted under this part or to amend an alternative average fuel economy standard. While that may seem premature to mention at this point, as the agency has not yet issued final standards, NHTSA must set standards for a petitioning low volume manufacturer at the maximum feasible level. If additional data indicate that a manufacturer's achieved CAFE level differs significantly from the levels proposed in this notice or finalized, NHTSA will consider all options available to the agency to ensure that each manufacturer's alternative standard is the maximum feasible standard that the manufacturer can achieve. In addition, as discussed above, NHTSA will consider any additional information submitted by commenters, manufacturers (if additional information is available), or EPA (if additional final fuel economy data becomes available) that is submitted during the pendency of the comment period associated with this notice.

Accordingly, NHTSA believes that the proposed alternative standards presented below are maximum feasible for these manufacturers for these model years, consistent with the purpose of EPCA/EISA.

TABLE 4—PROPOSED ALTERNATIVE STANDARDS FOR MYS 2008–2023

	Aston Martin	Ferrari	Koenigsegg	McLaren	Mobility Ventures	Pagani	Spyker
2008	19.0						19.6
2009	18.6						19.6
2010	19.2						20.7
2011	19.1						
2012	19.2			23.2			
2013	20.1			24.0			
2014	19.7			23.8	19.6	15.6	
2015	19.8		16.7	22.9	20.1		
2016	20.2	21.7		23.2	20.1	15.6	
2017	21.4	21.5		24.3		15.6	
2018	22.9	21.6	16.7	23.3		15.6	
2019	22.4		16.6	22.5		15.5	
2020	22.6	21.1	16.6	22.5		15.5	
2021	24.9		16.6	21.5		15.5	
2022	24.9		16.9	24.6		15.5	
2023	24.9		16.9	25.7		15.5	

These alternative standards are being proposed only for Aston Martin Lagonda Limited for MYs 2008–2023, Ferrari N.V. for MYs 2016–2018 and MY 2020, Koenigsegg Automotive AB for MYs 2015 and 2018–2023, McLaren Automotive for MYs 2012–2023, Mobility Ventures LLC for MYs 2014–2016, Pagani Automobili S.p.A for MYs

[86] *See, e.g.,* 44 FR at 3711 (Jan. 18, 1979) (''The agency believes that the language in section 502(c) specifying that this agency may exempt low volume manufacturers indicates that Congress intended this agency to apply a test of whether granting an exemption would be generally consistent with the purposes of the Act. The main purpose of the Act is conserving energy.'').

2014 and 2016–2023, and Spyker Automobielen B.V. for MYs 2008–2010, and not for low volume manufacturers generally or for a class of automobiles of exempted manufacturers.

NHTSA is also proposing to correct the reference to alternative fuel economy standards in 49 CFR 531.5(a), as paragraph (f) does not exist.

NHTSA seeks comment on the analysis that led to this proposed decision.

4. Regulatory Impact Analyses

a. Regulatory Evaluation

NHTSA has considered the potential impacts of this action under Executive Order (E.O.) 12866 and the Department of Transportation's regulatory policies and procedures and has concluded that those orders do not apply, because this action is not an agency statement of general applicability and future affect. This decision is not generally applicable, because the agency has proposed to set alternative average fuel economy standards for each individual manufacturer.

b. Regulatory Flexibility Determination

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of proposed rulemaking, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.,* small businesses, small organizations, and small governmental jurisdictions) unless the head of an agency certifies the proposal will not have a significant economic impact on a substantial number of small entities. The Small Business Administration's regulations at 13 CFR part 121 define a small business, in part, as a business entity ''which operates primarily within the United States.'' (13 CFR 121.105(a)). SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a proposal will not have a significant economic impact on a substantial number of small entities.

I certify this proposed decision would not have a significant impact on a substantial number of small entities. This proposed decision exempts low volume manufacturers from the generally applicable passenger car CAFE standards and proposes to set alternative standards for those low volume manufacturers at maximum feasible levels.

c. National Environmental Policy Act

The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4347) requires Federal agencies consider the environmental impacts of proposed major Federal actions significantly affecting the quality of the human environment, as well as the impacts of alternatives to the proposed action.[87] The Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR parts 1500–1508) direct Federal agencies to prepare an environmental assessment for a proposed action that is not likely to have significant effects or when the significance of the effects is unknown.[88] The environmental assessment must ''briefly discuss the purpose and need for the proposed action, alternatives[], and the environmental impacts of the proposed action and alternatives, and include a listing of agencies and persons consulted.''[89] This section serves as the National Highway Traffic Safety Administration's (NHTSA) Draft Environmental Assessment (Draft EA). NHTSA invites public comments on the contents and tentative conclusions of this Draft EA.

1. Purpose and Need for Action

In accordance with the Energy Policy and Conservation Act (EPCA) of 1975, as amended by the Energy Independence and Security Act (EISA) of 2007, and the procedures at 49 CFR part 525, the purpose of this proposal is to set alternative corporate average fuel economy (CAFE) standards for low volume manufacturers that have petitioned the agency for an alternative standard at the maximum feasible fuel economy level that NHTSA believes each manufacturer can achieve in each model year. While the purpose of setting industry-wide fuel economy standards under EPCA/EISA is, among other things, energy conservation, Congress granted NHTSA the ability to provide an exemption to low volume manufacturers in part because it believed that the need of the United States to conserve energy would not be adversely affected by allowing the limited exemption.[90] If NHTSA did not grant alternative standards for low volume manufacturers, they would have to meet the industry-wide passenger car standard in each applicable model year, which, in most if not all cases, is more stringent than the maximum feasible fuel economy level that NHTSA believes these low volume manufacturers can achieve.

When determining the maximum feasible fuel economy levels that manufacturers can achieve in each model year, EPCA/EISA requires that NHTSA consider four factors: 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. NHTSA relies on information in each low volume manufacturer's petition for exemption, which are discussed in more detail in the preamble above, to propose alternative average fuel economy standards at the maximum feasible level for each manufacturer. However, the unique nature of this action requires NHTSA to set maximum feasible standards for model years that have already passed. NHTSA's proposed action and range of alternatives considered below reflects these statutory and practical considerations.

2. Proposed Action and Alternatives

For this action NHTSA has considered a No Action Alternative and two alternatives. The No Action Alternative assumes that in the absence of NHTSA action on their petitions, manufacturers would meet their footprint-based CAFE standard for MYs 2013–2023.[91] One action alternative proposes to set alternative standards at the levels that the manufacturers requested for model years that NHTSA does not have final fuel economy data (the ''as-requested'' alternative); and the preferred alternative proposes to set standards at the levels detailed in the preamble above. NHTSA did not consider an alternative that proposed to set an alternative standard for a model year at a lower level than the manufacturer achieved in past model years (*i.e.,* in some cases for past model years what the manufacturer requested) because that would not have been the maximum feasible fuel economy level that the manufacturer could have achieved.

[87] 42 U.S.C. 4332(2)(C).

[88] 40 CFR 1501.5(a).

[89] 40 CFR 1501.5(c)(2).

[90] *See, e.g.,* 44 FR at 3711 (Jan. 18, 1979).

[91] As discussed above, NHTSA has expired MY 2012 and earlier fuel economy credits in accordance with 49 CFR 536.5(c)(2), meaning that low volume manufacturers that built vehicles in MYs 2008–2012 cannot now buy fuel economy credits from manufacturers that exceeded their CAFE standard in those years to offset the CAFE values of the low volume vehicles produced in those years. As a simplifying assumption, because there can be no difference between the fuel used in MYs 2008–2012 under the No Action Alternative baseline and action scenarios, fuel use in those years was not considered.

3. Affected Environment

Broadly, NHTSA actions regulating motor vehicle fuel economy could have a range of environmental impacts, including to energy use, air quality, climate change, resource extraction and use, and to environmental justice communities, among others. Every time NHTSA sets industry-wide CAFE standards, the agency examines the environmental impact of the proposed standards and a range of alternatives on these resources in an environmental impact statement (EIS). The EIS uses estimates of fuel consumption that would result if the agency adopted different levels of fuel economy standards to quantitatively estimate the impacts to energy use, air quality, and greenhouse gas emissions and climate change. NHTSA also qualitatively discusses the lesser impacts to other resource areas, including land use and development, hazardous materials and regulated waste, historical and cultural resources, noise, and environmental justice. NHTSA's recent Final Supplemental Environmental Impact Statement (Final SEIS) for the notice of proposed rulemaking (NPRM) for MY 2024–2026 passenger car and light truck fuel economy standards (hereinafter ''Final SEIS'') provides the most up-to-date estimates of the impact of different levels of fuel economy standards on these resource areas and discussion of the environmental impacts. The Final SEIS discussions of environmental impacts resulting from changes in fuel use from motor vehicles is incorporated by reference here,[92] as discussed further below.

Transportation fuel accounts for a large portion of total U.S. energy consumption and energy imports and has a significant impact on the functioning of the energy sector as a whole. Although U.S. energy efficiency has been increasing and the U.S. share of global energy consumption has been declining in recent decades, total U.S. energy consumption has been increasing over that same period. Until a decade ago, most of this increase came not from increased domestic energy production but from the increase in imports, largely for use in the transportation sector. U.S. net petroleum imports are expected to result primarily from fuel consumption by light-duty and heavy-duty vehicles, with the transportation sector expected to account for 76.9 percent of total U.S. petroleum consumption by 2050. This means that the transportation sector will continue to be the largest consumer of U.S. petroleum and the second-largest consumer of total U.S. energy, after the industrial sector. Please refer to Chapter 3 of the Final SEIS (Energy) for a comprehensive discussion of transportation sector energy impacts, including discussions of how the passenger car and light truck vehicle sector affects overall energy use in the United States and how improvements in the fuel economy of vehicles and increasing energy production together affect U.S. energy security by reducing the overall U.S. trade deficit and the macroeconomic vulnerability of the United States to foreign oil supply disruptions.

Next, several human activities related to motor vehicles cause gases and particles to be emitted into the atmosphere, including driving cars and trucks; extracting, refining, and transporting crude oil; burning coal, natural gas, and other fossil fuels; and manufacturing chemicals and other products from raw materials as well as other industrial and agricultural operations. Emissions of vehicle-related sources of air pollutants, including criteria pollutants and mobile source air toxics (MSATs), from both upstream fuel extraction processes and vehicle tailpipes impact air quality.[93] In addition to causing adverse environmental impacts, air pollution from upstream and downstream sources causes emissions-related health conditions like increased asthma incidences, work-loss days, and even premature mortality.

To reduce air pollution levels, the Environmental Protection Agency (EPA) (and some state agencies, like the California Air Resources Board) established regulatory programs to control sources of emissions from transportation. The regulatory programs that cover the vehicles subject to proposed alternative CAFE standards in this notice include EPA's Tier 2 and Tier 3 vehicle emissions and gasoline standards, which prescribe reductions in vehicle tailpipe emissions as well as limits for the sulfur content in gasoline. As discussed further in Chapter 4 of NHTSA's Final SEIS (Air Quality), since the 1970s aggregate emissions traditionally associated with vehicles have decreased substantially even as vehicle miles traveled (VMT) increased by approximately 173 percent from 1970 to 2014, and additional growth in VMT will have a smaller impact on emissions because of these stricter EPA standards for vehicle tailpipe emissions and fuels.[94]

Chapter 4 of the Final SEIS also discusses how air pollutant emissions increase the risk of adverse health impacts, particularly for populations that live, work, or go to school near high-traffic roadways or that are exposed to high-traffic; the human health and environmental effects of criteria pollutants and MSATs; the relevant regulatory programs that control air pollutant emissions from vehicles and gasoline; and trends in travel and emissions from highway vehicles. Chapter 4 estimates the impact of emissions of criteria pollutants and MSATs from passenger cars and light trucks that would result from different levels of increases in CAFE standards for the U.S. light duty vehicle fleet. Please refer to that Chapter for a comprehensive discussion of those impacts.

Finally, as discussed further in Chapter 5 of the Final SEIS (Greenhouse Gas Emissions and Climate Change), the carbon dioxide and other greenhouse gasses emitted from the tailpipes of vehicles driven in the United States have global impacts. Chapter 5 of the Final SEIS provides a comprehensive survey of panel-reviewed synthesis and assessment reports from the Intergovernmental Panel on Climate Change (IPCC) and U.S. Global Climate Change Research Program (GCRP), supplemented with past reports from the U.S. Climate Change Science Program (CCSP), the National Research Council, the Arctic Council, and EPA's *Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act* (EPA 2009), which relied heavily on past major international or national scientific assessment reports, to provide decisionmakers and the public with information about climate change's potential impacts on health, society, and the environment. Increases in greenhouse gas emissions, in particular from human activities like burning fossil fuels,[95] leads to changes in global

[92] 40 CFR 1501.12.

[93] In the motor vehicle context, emissions from fuel extraction, refining, and transportation are generally referred to as upstream emissions, while emissions from the tailpipe of the vehicle that result from the vehicle being driven are generally referred to as downstream emissions. Decreases in upstream emissions could result from decreases in gasoline consumption, and therefore lower volumes of fuel production and distribution, while decreases in downstream emissions generally occur because of on-vehicle pollution controls like catalytic converter systems or because the vehicle is being driven less, and therefore emits fewer emissions from the tailpipe.

[94] Final SEIS, at 4–13.

[95] While greenhouse gas emissions and the corresponding processes that affect the aforementioned climate parameters are highly complex and variable, an increasing number of studies conclude that anthropogenic greenhouse gas

Continued

average surface temperature, precipitation, ice cover, sea level, cloud cover, sea surface temperatures and currents, and other climate conditions.

Chapter 5 of the Final SEIS explains how NHTSA estimated the levels of greenhouse gas emissions that would result from different levels of CAFE standards, and how the agency modeled certain climate parameters including global concentrations of CO_2, sea level rise, global mean surface temperature, and ocean pH. At the levels of estimated fuel use resulting from different levels of industry-wide CAFE standards for model years 2024–2026, NHTSA estimated the following global impacts (presented as a range between the no action alternative, which is an approximately 1.5 percent year over year increase in the industry-wide light duty CAFE standards, and the most stringent action alternative, which is an approximately 10 percent year over year increase in the industry-wide light duty CAFE standards).[96]

TABLE 5—CAFE MY 2024–2026 FINAL SEIS ESTIMATES OF CLIMATE IMPACTS

CO_2 concentration (ppm)			Global mean surface temperature increase (°C)			Sea-level rise (cm)			Ocean pH		
2040	2060	2100	2040	2060	2100	2040	2060	2100	2040	2060	2100
478.92–479.04	565.10–565.44	788.33–789.11	1.287–1.287	2.006–2.008	3.481–3.484	22.87–22.87	36.55–36.56	76.22–76.28	8.4100–8.4099	8.3478–8.3476	8.2180–8.2176

Although actions related to motor vehicle fuel economy have local, national, and global effect, it is difficult to assess the area of effect for *this* action because—unlike the industry-wide EIS that assigns nationwide impacts based in part on population[97]—NHTSA does not know where the vehicles considered in this action are sold and driven. Therefore, as discussed further below, NHTSA made several simplifying assumptions for purposes of estimating the environmental impacts of the proposed action and alternatives.

The following subsection presents the estimated impacts of this action on fuel use for each alternative and the associated estimated downstream greenhouse gas emissions impacts based on estimated fuel use. NHTSA did not conduct independent climate or air quality modeling for this action because, as discussed further below, the agency believes that it is reasonable to infer from the amount of estimated fuel used under each alternative that none of the alternatives considered in this notice would result in appreciable environmental impacts, and this information would not result in any new meaningful information for decisionmakers and the public. To read a comprehensive discussion of the resource areas summarized above, or the other resource areas considered when setting industry-wide CAFE standards, please see the Final SEIS.

4. Environmental Consequences

Like the estimates of fuel consumption that would result if NHTSA set industry-wide CAFE standards at different levels, NHTSA's fuel consumption estimates calculated for this action provide a starting point to estimate a relative potential range of environmental impacts.

To estimate the amount of additional fuel consumed by the exempted fleet over its operating lifetime,[98] NHTSA calculated the difference between the low volume manufacturer's footprint-based standard for MY 2013 forward (*i.e.,* the estimated fuel used under the no-action alternative, for model years for which fuel economy credits are available) and their proposed alternative standard (or achieved fleet fuel economy for model years that have already passed). NHTSA multiplied this difference by the manufacturer's estimated U.S. production volume,[99] and then by an estimated total miles that these vehicles could travel as an active part of the fleet (*i.e.,* the vehicles' estimated yearly VMT).[100] The resulting estimates of additional lifetime fuel consumption for all manufacturers and model years considered in this action compared to the no-action alternative are shown below.

TABLE 6—ESTIMATED ADDITIONAL LIFETIME FUEL CONSUMPTION

	No action	Preferred alternative	As requested
Total Gallons	48,873,908	88,643,357	88,997,267
Difference from the No Action Alternative	....	39,769,449	40,123,359

To put this in perspective, NHTSA looked at the average amount of fuel consumed by an average passenger car subject to the industry-wide passenger car CAFE standard over its useful life, in this case a MY 2017 Toyota Camry. The estimated total gallons of fuel used if standards are set at the levels proposed in this action are roughly equivalent to the fuel used by approximately 8,534 MY 2017 Toyota Camrys. In other words, setting alternative standards at the levels proposed in this notice for the 15 model years covered by this notice would have the energy effect of a one-time addition of 171 MY 2017 Toyota Camrys per U.S. state. Compared to the pre-pandemic peak of approximately 17 million vehicles sold in the United States in a model year, the vehicles considered in

emissions are affecting the global climate in detectable and quantifiable ways.

[96] Reproduced from Final SEIS Table 5.4.2–2, at 5–42. Note that the numbers in Table 5.4.2–2 were rounded for presentation purposes, and as a result, the reductions might not reflect the exact difference of the values in all cases. See the Final SEIS at 5–42 for additional notes about these values.

[97] Moreover, this is unlike a typical NEPA action such as a pipeline route, forest management plan, etc. that considers a site-specific proposal and site-specific alternatives.

[98] Approximately 15 years, based on the estimated passenger sedan life as calculated in the latest industry-wide CAFE rulemaking action.

[99] As discussed in the preamble, where NHTSA did not have final production data for a manufacturer, in particular where estimated production data is still confidential, the agency averaged the last three years of a manufacturers' actual production data.

[100] As discussed in the preamble, NHTSA estimated that a high-performance vehicle would travel 2,543 miles per year, while a mobility van would travel 11,128 miles per year.

this notice that cover fifteen model years contribute only a small amount to total U.S. transportation fuel use.

As with the impacts to energy use, NHTSA expects that the proposed action would have a relatively minimal impact on air quality, and accordingly, air quality related health effects, based on the relative percentage of fuel used by the vehicles considered in this action compared to total light-duty vehicle fuel use. As discussed in Chapter 4 of NHTSA's Final SEIS, nationwide criteria pollutant emissions from vehicle tailpipes are projected to decrease over time, even as VMT increases, due to increasingly stringent EPA regulation of criteria pollutant emissions and reductions in emissions from fuel production. NHTSA does not expect that trend to change based on the levels of fuel use projected for this action. In addition, some of the increases in criteria pollutant emissions projected in the Final SEIS are due to increases in upstream emissions from power plants from increased electric vehicle use. The vehicles considered in this action run primarily on gasoline; none of the vehicles with electrified powertrains draw energy from the electric grid. The same projected trends exist for toxic air pollutants; emissions are projected to decrease through 2050 based on increasingly stringent EPA regulations and reductions in emissions from fuel production, despite growth in total VMT. NHTSA does not expect that any of these trends would change based on the minor increases in fuel use projected from this action.

To estimate the approximate effect that this action would have on greenhouse gas emissions, NHTSA first used EPA's Greenhouse Gas Equivalencies Calculator to convert the estimated additional gallons of gasoline that would be used under the alternatives to metric tons of carbon dioxide equivalent emissions.[101] Over the lifetime of all model year vehicles considered in this notice (15 model years' worth of vehicles that each last approximately 15 years), for the fuel use considered in this action, the following additional carbon dioxide equivalent emissions are expected to result: 285,193 metric tons of carbon dioxide equivalent emissions under the ''as-requested'' alternative, and 282,047 metric tons of carbon dioxide equivalent emissions at the preferred alternative levels. To put this in perspective, NHTSA referenced EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2019 report, which estimated that the U.S. passenger car and light truck vehicle fleet emits a little over a thousand million metric tons of carbon dioxide equivalent emissions per year (averaged over 2017, 2018, and 2019).[102] Over the useful life of a vehicle considered in this action, the vehicles considered in this action are estimated to produce an estimated increase in carbon dioxide equivalent emissions of 0.00169% and 0.00167% (for the as-requested and preferred alternative levels, respectively) of total light duty vehicle carbon dioxide equivalent emissions over what the vehicles would have produced had they met their footprint-based standard.

NHTSA did not perform independent climate modeling for this proposal because the agency believes that is reasonable to infer that if relatively small—but not trivial—climate impacts would result from large-scale changes in fuel use from changes in the industry-wide passenger car and light truck standards, as shown in the table of estimated atmospheric CO_2 concentrations, global mean surface temperature increases, sea-level rise, and ocean pH above, estimating the impacts of the no action alternative and alternatives presented in this notice would not present any additional meaningful information for decisionmakers and the public.

Some potential impacts of the proposed action could be mitigated through other means; as discussed above, EPA also sets alternative carbon dioxide emissions standards for some of the low volume manufacturers considered in this notice. Unlike the structure of EPCA/EISA, which allows civil penalty payment for each 0.1 of a mile a gallon by which the manufacturer falls short of the applicable average fuel economy standard,[103] manufacturers must be in compliance with EPA regulations promulgated under the Clean Air Act to sell their vehicles. To the extent that EPA sets higher alternative standards for model year 2022 and 2023 vehicles, some of the estimated impacts could be mitigated. Next, the estimates of fuel use presented here are dependent on several assumptions, one being how many miles these vehicles are driven. The vehicles covered by this proposed exemption represent an extremely small fraction of overall motor vehicle sales and on-road VMT; most of the vehicles considered in this notice are estimated to drive a quarter of the mileage of the average passenger car. If these vehicles were or are driven less than NHTSA estimated, fuel use, air quality impacts, and greenhouse gas emissions would be reduced accordingly. However, to the extent that some of the vehicles considered in this action have already been built and sold, the impacts of those vehicles achieving a lower fuel economy level than their footprint-based standard represent an unavoidable adverse impact.

Both alternatives considered in this Draft EA result in increased fuel use compared to the no-action alternative; however, the preferred alternative does result in marginally less estimated fuel use than the ''as requested'' alternative. NHTSA does not believe that establishing alternative CAFE standards at the preferred alternative levels would contribute appreciably to any of the environmental impacts considered in this Draft EA. NHTSA seeks comment on this analysis and whether there are any environmental impacts that the agency has not considered that are relevant to a reasoned choice by the decisionmaker.

5. Agencies and Persons Consulted

NHTSA coordinated with EPA to seek their feedback on this Draft EA, and EPA had no comments or suggested changes.

6. Conclusion

NHTSA has reviewed the information presented in this Draft EA and concludes that the proposed action would have minimal impacts on the quality of the human environment. Based on the information in this Draft EA and assuming no additional information or changed circumstances, NHTSA expects to issue a Finding of No Significant Impact (FONSI). Such a finding will be made only after careful review of all public comments received. A Final EA and a FONSI, if appropriate, will be issued as part of the final rule.

Proposed Regulatory Text

List of Subjects in 49 CFR Part 531

Energy conservation, Gasoline, Imports, Motor vehicles.

In consideration of the foregoing, 49 CFR part 531 is proposed to be amended as follows:

[101] U.S. EPA Greenhouse Gas Equivalencies Calculator, *https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.* EPA specifies that estimates from this calculator are approximate and should not be used for emission inventories or formal carbon emissions analysis. NHTSA used these estimates as part of its determination that a formal carbon emissions analysis is not required for this action.

[102] U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2019, at Table 2–13, available at *https://www.epa.gov/sites/default/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf?VersionId=wEy8wQuGrWS8Ef_hSLXHy1kYwKs4.ZaU.*

[103] 49 U.S.C. 32912(b).

PART 531—PASSENGER AUTOMOBILE AVERAGE FUEL ECONOMY STANDARDS

■ 1. The authority citation for part 531 is revised to read as follows:

Authority: 49 U.S.C. 32902, delegation of authority at 49 CFR 1.95.

■ 2. Amend § 531.5 by

■ a. Removing from paragraph (a) the term ''paragraph (f)'' and add in its place ''paragraph (e)'' ;

■ b. Revising paragraphs (e)(4) and (15); and

■ c. Adding paragraphs (e)(16) through (20).

The revisions and additions read as follows:

§ 531.5 Fuel economy standards.

* * * * *

(e) * * *

(4) Aston Martin Lagonda Limited Average Fuel Economy Standard

Model year	(Miles per gallon)
2008	19.0
2009	18.6
2010	19.2
2011	19.1
2012	19.2
2013	20.1
2014	19.7
2015	19.8
2016	20.2
2017	21.4
2018	22.9
2019	22.4
2020	22.6
2021	24.9
2022	24.9
2023	24.9

* * * * *

(15) Spyker Automobielen B.V.

Model year	(Miles per gallon)
2008	19.6
2009	19.6
2010	20.7

(16) Ferrari

Model year	(Miles per gallon)
2016	21.7
2017	21.5
2018	21.6
2020	21.1

(17) Koenigsegg

Model year	(Miles per gallon)
2015	16.7
2018	16.7
2019	16.6
2020	16.6
2021	16.6
2022	16.9
2023	16.9

(18) McLaren

Model year	(Miles per gallon)
2012	23.2
2013	24.0
2014	23.8
2015	22.9
2016	23.2
2017	24.3
2018	23.3
2019	22.5
2020	22.5
2021	21.5
2022	24.6
2023	25.7

(19) Mobility Ventures

Model year	(Miles per gallon)
2014	19.6
2015	20.1
2016	20.1

(20) Pagani

Model year	(Miles per gallon)
2014	15.6
2016	15.6
2017	15.6
2018	15.6
2019	15.5
2020	15.5
2021	15.5
2022	15.5
2023	15.5

* * * * *

Issued under authority delegated in 49 CFR 1.95.

Steven S. Cliff,

Administrator.

[FR Doc. 2022–12618 Filed 6–30–22; 8:45 am]

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