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GrowthEnergy.org

October 16, 2023

Ann Carlson
Acting Administrator
National Highway Traffic Safety Administration (NHTSA)
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Re: Comments of Growth Energy on Proposed Corporate Average Fuel Economy (CAFE) Standards for Passenger Cars and Light Trucks for Model Years 2027-2032 and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030-2035, Docket No. NHTSA–2023–0022

Dear Administrator Carlson:

Growth Energy is the world's largest association of biofuel producers, representing 93 biorefineries that produce 9 billion gallons annually of low-carbon renewable fuel and 115 businesses associated with the biofuel production process. Growth Energy supports NHTSA's efforts to improve fuel efficiency and reduce emissions in the transportation sector, but it has significant concerns about the Proposed Rule.

To begin with, the Proposed Rule entirely fails to consider ethanol and other biofuels, despite the significant benefits they provide in terms of both energy security and greenhouse gas (GHG) emissions reductions. That failure effectively ignores that vehicles are complex systems that consist not only of the type of engine but also on the type of fuel used, and it limits the benefits that the CAFE standards can achieve.

Worse, the Proposed Rule actively disincentivizes biofuel use by putting an unjustified and unlawful thumb on the scale in favor of electric vehicles (EVs). While the Proposed Rule purports to comply with the Energy Policy and Conservation Act's (EPCA) prohibition on considering the fuel economy of EVs, its consideration of state electric vehicle mandates and other EV incentives as part of its "baseline" does exactly what EPCA forbids. NHTSA's purported distinction—that the incremental increase in standards above the baseline is achievable with internal combustion engine (ICE)-only improvements—is meaningless in practice because increases to the baseline increase the standard in the same way. So, the Proposed Rule amounts to an EV mandate in practice, which will be even more stringent to the extent NHTSA has overestimated its baseline to any degree. And there is a reason to believe that NHTSA has significantly overestimated the baseline because it included state EV mandates that are likely to be invalidated as preempted by federal law.

In addition to violating the plain text of EPCA, the Proposed Rule’s functional EV mandate is also inconsistent with another federal statute—the Renewable Fuel Standard (RFS). The RFS, which was passed in the Energy Independence and Security Act (EISA) in 2007, calls for increasing production of ethanol and other biofuels. Together, the RFS and the exclusion of consideration of EVs in EPCA demonstrate that Congress intended to maintain a robust role of biofuels in the nation’s fuel supply. Certainly, Congress would not have passed the RFS without amending EPCA if it understood EPCA as an eventual phase-out of biofuels in favor of EVs.

To address those deficiencies, NHTSA should make the following changes in the final rule:

- Remove consideration of EVs from the assessment of a “baseline” for the 2027-2032 CAFE standards;
- Consider the GHG-reduction and energy security benefits of biofuels throughout the rule; and
- Maintain the 0.15 VCF for flex-fuel vehicles (FFVs) and add a conversion factor for mid-level ethanol blends.

I. The Proposed Rule Arbitrarily and Unlawfully Considers EVs.

The Proposed Rule violates EPCA, which specifies unequivocally that NHTSA may not “consider the fuel economy” of electric vehicles when setting fuel-economy standards. 49 U.S.C. 32902(h)(1). While the Proposed Rule purports to not be “considering” the fuel economy of EVs because it is building EV adoption into a “baseline” and then assessing the degree to which incremental improvements can be achieved by ICE engines, that does not make it lawful, for several reasons.

First, the plain text of Section 32902(h)(1) categorically prohibits NHTSA from considering EV fuel economy. There is no exception for a “baseline”—indeed, there are no exceptions at all. Considering whether EVs will be part of the anticipated increase in EV adoption—and *using that baseline to build the standards*—is inherently “considering” EVs. Practically speaking, whether NHTSA characterizes EVs as part of their baseline estimate or part of the incremental increase, they both increase the standards by the same amount.

That inconsistency with the statutory text is exacerbated because the Proposed Rule makes a number of speculative assumptions about anticipated EV adoption in its baseline. To the extent any of those assumptions are an overestimate, the baseline will become an even more stringent requirement for EV adoption. Indeed, it is very likely that NHTSA’s baseline assumption is an overestimate because it includes the anticipated impacts of state electric vehicle mandates that are likely to be found to be preempted by federal law. EPCA prohibits states from adopting any “law or regulation related to fuel economy standards or average fuel economy standards for automobiles,” 49 U.S.C. § 32919(a), and courts have found analogous state laws incentivizing hybrid taxi use to be sufficiently “related to” fuel economy that they are preempted. *See, e.g., Metropolitan Taxicab Bd. of Trade v. City of New York*, 615 F.3d 152,

157 (2d Cir. 2010). State EV mandates also necessarily conflict with the federal RFS, which was intended to promote increasing use of biofuels.

Second, factoring EV usage into the CAFE standards in such a way that they are effectively an EV mandate is itself inconsistent with the RFS. The central goal of the RFS is “increase the production of clean, renewable fuels.” Pub. L. No. 110–140 (110th Cong. 2007). That goal, when read in context with EPCA’s prohibition on considering EV adoption, demonstrates a consistent interest of Congress in preserving a diverse supply of fuel sources, including a role for liquid fuels (and biofuels in particular).

It is telling that EISA—the statute that established the RFS—was passed decades after EPCA. *See id.* Given Congress’s strong interest in promoting renewable fuel growth through the RFS, it would have made no sense for it to leave unamended a law on the books that was understood to be something that would eventually phase out biofuels in favor of EVs. Indeed, Congress amended other portions of EPCA in EISA, clarifying that NHTSA cannot consider existing stockpiles of credits from over-compliance when setting volumes. Congress’s decision to not to make other modifications demonstrates that it understood EPCA just as its text dictates: a statute that plainly does not allow NHTSA to factor in EV adoption to its standards in any way.

II. The Proposed Rule Fails to Consider the Benefits of Biofuels.

In setting the CAFE Standards, NHTSA is directed by EPCA to consider, among other factors, “the need of the United States to conserve energy.” 49 U.S.C. 32902(f). Increasing the nation’s use of biofuels meets that goal, by both providing another source of fuel that reduces our demand for petroleum and by reducing GHG and other emissions.

To begin with, ethanol and other biofuels significantly enhance energy security because of their flexibility—they can be used in existing ICE vehicles and fueled at existing gas stations. Consumers and operators of fleets around the country therefore have the ability to use more biofuels. To the extent that some upgrades are necessary to facilitate storage and fueling with higher blends, the marginal cost of doing so is minimal and there are federal funds available through the U.S. Department of Agriculture’s Higher Blends Infrastructure Incentive Program (HBIIP). In contrast, it is not as simple to convert to EV technology. Doing so at scale requires massive investments in both charging infrastructure and the electric power sufficient to support massive new electricity demand. Developing sufficient charging infrastructure can be difficult in rural areas and in locations where there are competing land uses. And developing additional electric power faces multiple challenges—the country will need significantly more electric capacity and, for EVs to have their intended GHG reduction benefits, that additional electric generation will need to be relatively low-carbon.

Ethanol’s benefits in reducing both GHG and other emissions are also significant. A recent meta-analysis by Harvard researchers that accounted for all aspects of the lifecycle emissions of corn ethanol concluded that ethanol reduces GHG emissions by **46 percent**

compared to gasoline.¹ Recent developments in the biofuels industry, such as the increasing use of carbon capture and storage and clean power sources at biofuel production facilities, are helping to drive lifecycle emissions from biofuels even lower and approaching net-zero.² Ethanol also boosts octane in fuel without the harmful impacts of alternative octane-boosting fuel additives such as aromatics.³ Decreasing aromatics in fuel has direct impacts on tailpipe emissions, with higher-ethanol fuels resulting in lower emissions of black carbon (BC), particle number (PN), benzene, toluene, ethylbenzene, m/p-xylene and o-xylene (BTEX), and olefins.⁴

But despite those benefits, the proposed rule barely mentions E85, ethanol, or any biofuels. It certainly does not assess whether NHTSA could or should do more to incentivize fuels that promote EPCA's statutory objectives. As discussed further below, NHTSA could take additional steps to promote ethanol use by expanding VCF for mid-level ethanol blends. And, at a minimum, NHTSA had an obligation to consider the negative impact of its Proposed Rule on biofuels, given that its treatment of EVs would have the effect of mandating EV usage and shrinking the market for biofuels. Its failure to meet that obligation renders the Proposed Rule's analysis arbitrary.

III. NHTSA Should Maintain the Existing VCF for Flex-Fuel Vehicles and Expand it to Mid-Level Blends.

Under NHTSA's current regulations, FFVs are assigned a volumetric conversion factor ("VCF") of 0.15. 40 C.F.R. 600.510-12(c)(2)(v). Nothing in the Proposed Rule indicates that NHTSA is considering changing those regulations, but it has asked for comment about whether to do so in the past. NHTSA should continue to maintain the 0.15 VCF for FFVs because it is consistent with 49 U.S.C. 32905(a)'s command that "a gallon of a liquid alternative fuel used to operate a dedicated automobile is deemed to contain .15 gallon of fuel" and in accordance with EPCA's goals of reducing petroleum usage, enhancing energy security, and reducing emissions. See, e.g., 49 U.S.C. 32902(f) (noting "the need of the United States to conserve energy"). Without the VCF there is no other mechanism in the CAFE standards to distinguish between engines that are designed for use with significant proportions of biofuels and other ICE engines, which are most commonly operated with blends of 90-percent petroleum fuel and 10 percent ethanol. Because higher blends of ethanol have more of the benefits that EPCA was designed to achieve, it is imperative to maintain an incentive in the CAFE standards to produce FFVs.

Indeed, there is significant capacity for expanded use of FFVs in the country because additional FFVs can be scaled up quickly and manufactured in a cost-effective manner. But the benefits of FFVs will not be realized without appropriate incentives. Thus, the continued

¹ Scully, et. al., *Carbon intensity of corn ethanol in the United States: state of the science* 16 Environ. Res. Lett. 043001 (2021).

² Growth Energy, *Putting Carbon to Work: Biorefineries' Critical Contributions to Net-Zero*, <https://growthenergy.org/wp-content/uploads/2022/06/GROW-22019-Issue-Brief-Carbon-Capture-2022-06-22-R8.pdf>.

³ Kazemiparkouhi et al., *Comprehensive US database and model for ethanol blend effects on regulated tailpipe emissions*. 812 Science of The Total Environment 151426, (Mar. 2022).

⁴ MacIntosh, et al., *Response to Proposed Renewable Fuel Standard (RFS) Program Standards for 2023–2025*, Environmental Health & Engineering (Feb. 10, 2023).

presence of the VCF in the CAFE standards—combined with appropriate treatment of FFVs under EPA’s vehicle GHG standards and adequate volumes under the RFS—are needed.

In addition, NHTSA should develop and implement a VCF for mid-level ethanol blends. Growth Energy has been a leader in advocating for the need for higher octane, mid-level ethanol blends, first submitting a proposal for a 100 RON, E30 fuel nearly a decade ago. Greater use of mid-level ethanol blends would reduce emissions and enhance energy security by ensuring that a greater portion of the gasoline supply consists of ethanol, while simultaneously allowing automakers to optimize engines to improve efficiency by making engines smaller and increasing the use of turbocharging.⁵ While a higher octane standard is one way to incentivize mid-level blends, NHTSA also has the capacity to do so through a mid-level blend VCF.

Implementing a mid-level blend VCF would be straightforward—NHTSA could assign the VCF based on the petroleum portion of the fuels on which a manufacturer’s engines are designed to operate. So, for example, an engine optimized for use with E30 could be assigned a VCF of .70. A mid-level blend VCF is therefore a simple way to achieve a win-win outcome—furthering the goals of EPCA by both by incentivizing more ethanol use and by facilitating more efficient engines.

IV. Conclusion

The Proposed Rule unlawfully creates an effective mandate for EV adoption and fails to adequately consider the benefits of biofuels. To address those issues, NHTSA should modify the final rule to: (1) remove consideration of EVs from the assessment of a “baseline” for the 2027-2032 CAFE standards; (2) consider the GHG-reduction and energy security benefits of biofuels throughout the rule; and (3) Maintain the 0.15 VCF for FFVs and add a conversion factor for mid-level ethanol blends.

Sincerely,



Chris Bliley
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Growth Energy

⁵ See, e.g., Oak Ridge National Laboratory, *Summary of High-Octane, Mid-Level Ethanol Blends Study* (July 2016), available at <https://info.ornl.gov/sites/publications/Files/Pub61169.pdf>.