



October 26, 2018

Electronic Submittal

The Honorable Elaine L. Chao
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Andrew Wheeler
Acting Administrator
Environmental Protection Agency
1200 Pennsylvania Ave, NW
Washington, DC 20460

RE: The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks; 83 Fed. Reg. 42,986 (Aug. 24, 2018); Docket: NHTSA-2018-0067; EPA-HQ-OAR-2018-0283;

Dear Secretary Chao and Acting Administrator Wheeler:

Introduction

Natural Gas Vehicles for America (NGVAmerica), the American Gas Association (AGA), the American Public Gas Association (APGA), and the Coalition for Renewable Natural Gas (RNG Coalition) (hereinafter “joint commenters”) offer the following comments in response to the proposed “SAFE” rules in the above captioned matter concerning fuel economy and greenhouse gas standards for light duty vehicles.

NGVAmerica is dedicated to the development of a growing, profitable, and sustainable market for vehicles and carriers powered by clean, affordable and abundant natural gas or biomethane. Our 200-plus member companies produce, distribute, and market natural gas and biomethane, manufacture and service natural gas vehicles, engines, and equipment, and operate fleets powered by clean-burning gaseous fuels across North America.

AGA, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 74 million residential, commercial and industrial natural gas customers in the U.S., of which 94 percent — more than 70 million customers — receive their gas from AGA members. Today, natural gas meets more than one-fourth of the United States' energy needs.

APGA represents over 730 public gas systems across the country. Its members are retail distribution entities owned by, and accountable to, the citizens they serve. They include municipal gas distribution

systems, public utility districts, county districts, and other public agencies that own and operate natural gas distribution facilities in their communities.

The RNG Coalition is a non-profit association of companies and organizations dedicated to the advancement of RNG as a clean, green, alternative and domestic energy and fuel resource. Our membership includes companies throughout the value chain of waste feedstock conversion to transportation fuel, including producers of RNG throughout North America.

Comments

The joint commenters appreciate the fact that the above notice requests comments on providing incentives for natural gas vehicles. We support changes to the current regulatory framework to incorporate provisions that more fully account for all the environmental benefits of natural gas vehicles, give meaning to statutory provisions intended to encourage natural gas vehicles (NGVs), and incorporate meaningful incentives for manufacturers to produce NGVs.

NHTSA and EPA should use this rulemaking opportunity to expand incentives for NGVs and thereby increase the availability of NGVs in the light-duty sector, particularly for pickup trucks, work vans, and sport utility vehicles. Providing expanded incentives for NGVs will provide compliance flexibility for automakers, expand options for consumers, and deliver increased energy security and environmental benefits. Increased use of NGVs would provide numerous economic benefits by promoting job growth and trade deficit reduction. A major advantage of NGVs over other technology options is the ability to leverage “shared platforms” with the hundreds of internal combustion models offered by manufactures, providing broader market receptivity and less overall disruption among automotive producers and suppliers.

Natural Gas Vehicles Are Environmentally Sustainable, Proven Technology and Commercially Available

The U.S. market for natural gas vehicles currently consists of between 175,000 and 200,000 on-road vehicles, consuming 550 – 600 million gasoline gallon equivalents of natural gas in 2017.¹ In terms of ranking, the U.S. lags far behind many other countries in deployment of natural gas vehicles. Worldwide there are 26 million natural gas vehicles in operation, made up mostly of light duty vehicles.²

NGVs are road-tested, proven, and commercially-available today. Fuel providers stand ready to increase infrastructure in response to growing demand whether it be in the on-road light-duty and heavy-duty

¹ EIA AEO 2018 estimates total on-road natural gas fuel consumption in 2017 at approximately 654 million gasoline gallon equivalents (GGE) after converting quadrillion Btu to GGE units. Based on our own independent survey of members and fuel providers, we can confirm sales volumes of about 535 million GGE; this figure is not complete however as some retailers are unwilling to share data. This figure nevertheless likely represents fuel volumes from the major market suppliers. Based on these factors, we estimate the U.S. on-road market in 2017 probably included sale volumes of between 550 – 600 million GGE.

² The NPRM, p. 43050, refers to 10 million CNG vehicles worldwide. This appears to be a gross underestimation as NGV Global reports that there are 26 million NGVs in service world-wide and the vast majority of these vehicles are likely powered by CNG, and the remaining by LNG. See <http://www.iangv.org/current-ngv-stats/>.

vehicle markets or in the off-road marine and rail sectors. No other powertrain is as sustainable, clean, domestic, abundant, safe, reliable, affordable, adaptable, and competitive across all vehicle classes.

Natural gas is a sustainable transportation fuel because it already reduces numerous harmful pollutants and it offers the potential for significant additional emission reductions through efficiency improvements, blending or substitution with abundant sources of renewable natural gas or hydrogen (power-to-gas fuel production), and it can support not only NGVs but also fuel cell vehicles, electric vehicles, and methanol vehicles.

Market success in the U.S. is being achieved in transit buses, refuse trucks, and short-haul trucking. In refuse, new natural gas trucks account for more than 25 percent of all new orders. Given the proven commercial, technological and market receptivity in the heavy-duty sector, it is critical to expand the use of natural gas to the light-duty segment which accounts for approximately 75 percent of total on-road fuel consumption and a significant portion of automotive pollution.

In the heavy-duty segment, Waste Management (WM) has led the way in this sector, deploying more than 6,000 natural gas refuse trucks and installing 120 plus fueling stations. WM recently announced the opening of a new \$30 million renewable natural gas facility in Kentucky that will produce enough fuel to power 800 of the company's natural gas refuse trucks each year. Demand is similarly strong in transit where natural gas buses represent about 35 percent of all transit bus orders and 12,000 transit buses or nearly 20 percent of the current fleet is powered by natural gas.

In medium- and heavy-duty vehicles, NGVs offer unmatched emission reduction benefits. Today's natural gas vehicles are powered by extremely clean, low-NOx or zero-equivalent natural gas engines. Natural gas engines achieve emission reductions that are 90 percent cleaner than federal standards and 90 percent cleaner than the newest diesel vehicles without requiring complex emission control systems or use of additives. Incentives, economics, and the desire by businesses to reduce their emissions are driving this market. Today virtually all heavy-duty truck manufacturers offer natural gas vehicles. Natural gas trucks and buses offer a proven and cost-effective solution for communities desiring to offset harmful emissions. Investing in NGVs reduces more total emissions for each dollar spent than any other on-road option today.

Newer natural gas engines benefit from improvements in efficiency and engine controls that greatly limit greenhouse gas emissions. Continued improvements and advancement in internal combustion engines and truck designs hold the promise of further reducing emissions from future natural gas vehicles. The greater use of renewable natural gas is another way that NGVs are delivering significant, cost-effective reductions in greenhouse gas emissions. According to Argonne National Laboratory's GREET model, the estimated lifecycle CO₂-equivalent emission *reductions* of NGVs operating on RNG when compared to gasoline vehicles are 84% (from landfill gas) to 129% (actually *negative* lifecycle emissions when considering manure-based anaerobic digesters). The emission reductions of NGVs operating on RNG are significantly greater than the GREET-modeled lifecycle electric vehicle reductions of 55% (average U.S. mix) to 70% (in California).³

³ GREET WTW Calculator and Sample Results from GREET 1 2017, Argonne National Laboratory (2017); <https://greet.es.anl.gov/results>.

Renewable natural gas by our estimates now accounts for between 25 – 30 percent of all on-road natural gas consumption.⁴ Other national estimates put the figure at closer to 40 percent. According to the U.S. EPA RFS Program, fuel providers in 2017 supplied a total of 242.5 million ethanol gallon equivalents of renewable natural gas. This equates to approximately 162.5 million GGE of RNG. Renewable natural gas is a relatively new entrant to the transportation sector and has shown tremendous growth in just a few years. According to the EIA, renewable sources of electricity currently account for 17 percent of electricity production while zero emission electricity sources (counting nuclear) account for 37 percent of national electricity production.

The use of renewable natural gas is not window dressing. As the figures here indicate, RNG volumes are a real, significant, and growing portion of the total fuel used by NGVs. For a variety of reasons, we believe that RNG use will continue to expand in future years. This includes policies in states that encourage biogas production, the investments being made by WM and other refuse companies, and the fact that utilities and fuel providers are looking to expand their offerings of renewable fuel. Clean Energy, a major fuel provider of natural gas, announced that it plans to increase the supply of RNG to its retail stations and expects to sell 100 million GGE of RNG in 2018.⁵ Recent studies conducted in California, Idaho and Oregon indicate that significant quantities of RNG could be available for use.

The National Petroleum Council's *Future Transportation Fuels Study* estimated that total supply of RNG could reach 40 billion GGE in the next several decades.⁶ Another report by the American Gas Foundation has been referenced by Argonne National Laboratory to estimate that 0.74 trillion cubic feet or roughly 6 billion GGE of RNG could be readily available.⁷

EPA & NHTSA Should Adopt Incentives to Encourage Greater Use of Light Duty NGVs

Despite the many advantages of NGVs, growth in the light duty vehicle market in the U.S. has been limited. Automakers no longer offer any light duty vehicles (less than 8,500 pounds GVWR) for the U.S. market despite offering a wide selection of vehicles in Europe and elsewhere. The lack of U.S. offerings is due to several factors including recent, lower petroleum prices, lack of incentives that are readily available for other vehicles, and an unfavorable regulatory environment that, in many places, mandates electric vehicles to the exclusion of other clean technologies.

This rulemaking along with current market dynamics – growing demand for light trucks, a significant increase in the availability of low-cost domestic natural gas, and the expanded availability of renewable natural gas - makes the timing right to revisit this market. As an industry, NGV supporters ask for an opportunity to compete on cost and real-world emission benefits. We ask for a regulatory environment that does not mandate specific technology solutions to the exclusion of others. Given the enormous challenges facing the light duty sector it makes sense to encourage a variety of technological solutions

⁴ The renewable natural gas percentages are based on EPA RFS reported volumes of renewable natural gas for 2017, EIA AEO 2018 estimates of on-road natural gas fuel use and NGVAmerica's own estimate of on-road fuel volumes. Other data sets available include the *NG Annual* which includes volumes of about 390 million GGE for 2017; using this figure, RNG accounts for more than 40 percent of the volumes reported to EIA by gas utilities.

⁵ <https://www.cleanenergyfuels.com/press-room/clean-energy-bp-expand-renewable-natural-gas-supply-agreement-growing-number-fleets-asking-clean-fuel/>

⁶ https://www.npc.org/FTF_Topic_papers/22-RNG.pdf

⁷ <https://publications.anl.gov/anlpubs/2011/12/71742.pdf>

and different fuel choices. Light duty vehicles currently account for 60 percent⁸ of all transportation related greenhouse gas emissions and consume more than 8.0 million barrels of petroleum fuel per day or about 73 percent of on-road fuel⁹. Electric vehicles certainly have great promise, particularly for the lighter end of the light-duty vehicle segment (i.e., passenger cars), but they have yet to be proven as a cost-effective or even practical for all the different types of light duty vehicles that manufacturers offer and are particularly challenged with light-duty trucks (i.e., pickup trucks) that are a majority of the market.

The benefits of encouraging more light duty NGVs would be significant. Light duty NGVs achieve real environmental and climate change benefits without sacrificing passenger safety. The environmental benefits of natural gas and RNG do not require downsizing or light-weighting of vehicles to achieve emission reductions.

NGVs save money and support American workers. Natural gas is a low cost, domestically-abundant fuel with an established and growing refueling infrastructure across the country. The U.S. is now the number one producer of natural gas in the world with production in 34 states. Low-cost natural gas benefits the economies of states that derive revenue from natural gas production and benefits employment in communities that produce natural gas. More broadly, lower cost natural gas is helping consumers and businesses lower energy costs, while also strengthening the economy by providing a more diversified energy mix and increasing export opportunities.

The economic benefits of NGVs could be tremendous for the light-duty sector. Natural gas currently retails for about 60 cents less per gallon equivalent than gasoline and even more per diesel gallon. EIA's 2018 *Annual Energy Outlook* projects that natural gas will continue to be priced competitively with diesel and gasoline in the future. EIA projects a discount of 80 – 85 cents per gallon for natural gas compared to diesel fuel in the next several years and an even greater price differential in the long term. In terms of cost, NGVs are expected to be priced comparable to hybrid and diesel vehicles when produced in high volumes.¹⁰ The European market offers some indication of how mass produced NGVs would be priced in the U.S. Volkswagen is the leading seller of NGVs in Europe and offers 16 different vehicle options under its various brands. VW has set a goal of selling 1 million NGVs in Germany by 2025. The Golf currently is its top selling natural gas vehicle and retails for about the same as its diesel counterpart and about \$4,000 more than the gasoline version.

Light-duty trucks and sport utility vehicles now account for 68 percent of all light-duty vehicles sold to consumers and businesses. Meaningful reductions in petroleum consumption and vehicle emissions require practical, economic and viable solutions for this critical portion of the light duty sector. Consumers purchase these vehicles because they provide the utility and functionality that families and businesses desire. Ensuring the continued viability of this key market segment is therefore important. Natural gas is well suited to this market segment because of its power, performance, and operational range benefits.

Rules currently in place neither fully account for all the environmental benefits of natural gas vehicles nor provide sufficient incentive for manufacturers to produce natural gas vehicles. Even more, the current regulatory framework does not provide credits for renewable natural gas (RNG) now being used

⁸ <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100USI5.PDF?Dockey=P100USI5.PDF>

⁹ Transportation Energy Data Book (Edition 36), Table 1.14 (<https://cta.ornl.gov/data/index.shtml>)

¹⁰ NPC Report estimated that cost of mass produced NGVs would range from \$2,500 - \$3,500 per vehicle.

by many NGVs, and it imposes regulatory constraints for NGVs that are not required for other alternative vehicle technologies, creating a very real and unfair impediment for consumers to transition to natural gas.

The joint commenters recommend that the proposed rule include the following regulatory changes: 1) amend the calculations for GHG emissions to provide the same level of incentive as is provided for fuel economy; 2) amend the current driving range provisions to remove the 2:1 range requirement and the drive-to-empty requirement for NGVs and put in place driving range requirements that are no more burdensome than those in place for electric vehicles; 3) provide sales multiplier credits for dedicated and dual-fuel NGVs on par with those adopted for EVs and FCVs; 4) provide emission credits for automakers that produce gaseous-prep vehicles; and, 5) amend the current advanced vehicle credits for light duty trucks by removing the market penetration requirements. Each of these items is described in further detail in the attachment below.

Incentives are needed to provide a more level playing field with other technologies and encourage automakers to produce NGVs. Providing incentives for NGVs will help offset initial development costs and overcome higher upfront costs.

The use of renewable natural gas in the transportation sector since 2012 is an important development that should factor into this rulemaking and decisions concerning providing greater incentives for NGVs. Renewable natural gas in most cases is carbon neutral and often is carbon negative. This relatively new development and its use in NGVs and the potential for much greater use of RNG justifies encouraging automakers to increase the supply of NGVs.

NHTSA and EPA previously supported extending aggressive incentives to electric vehicles to commercialize these technologies and help them reach a reasonable threshold in the marketplace – NGVs should be afforded the same level of support and incentive.

Conclusion

In finalizing regulations in this rulemaking, NHTSA and EPA should strive to honor consumer choice, ensure flexibility for automakers in meeting aggressive environmental targets, and preserve the “One National Program” regulatory structure. The changes we seek promote all three vital outcomes.

The joint commenters appreciate the opportunity to contribute to this rulemaking and to work with NHTSA and EPA to develop incentives that expand the production and use of cleaner-burning, domestically-fueled natural gas vehicles.

CC:

Bill Wehrum, U.S. EPA
Mandy Gunasekara, U.S. EPA
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Recommended Changes to Support Natural Gas Vehicle Product Offerings, Expand Consumer Choice of Clean Alternative Fuel Vehicles, and Provide A Level Playing Field

1) Align the Fuel Economy and Greenhouse Gas Credit Provisions for NGVs

The current fuel economy provisions contain a 0.15 factor for dedicated and dual-fuel alternative fuel vehicles to reward them for reducing petroleum use. This factor greatly enhances the fuel economy credits earned by NGVs and other alternative fuel vehicles because of their displacement of petroleum. The Alternative Motor Fuels Act of 1988 (AMFA) (codified at 49 USC 32901 – 32905) included this incentive to encourage alternative fuel use, displace petroleum and reduce greenhouse gas emissions. At the time, there were no statutory greenhouse gas emission standards, so the incentive focused only on fuel economy credits. AMFA uses a factor of 0.15 for energy use because gasoline only accounts for 0.15 of the energy consumed by vehicles using E85 or M85. Extending this same incentive to natural gas vehicles ensured that they also received a strong fuel economy credit relative to gasoline vehicles. The credit is more than warranted however since natural gas vehicles are capable of operating at 100 percent natural gas without any need for gasoline; though providing a credit for 100 percent displacement would be difficult, certainly a higher fuel economy credit is justified based on petroleum reductions.

The AMFA fuel economy credits are potentially valuable but have been significantly offset or even nullified by the existence of greenhouse gas emission standards that offer no matching incentive for NGVs. Electric vehicles are not faced with this problem since they receive significant fuel economy and greenhouse gas credits, the latter predicated on having zero tailpipe emissions. The fuel economy credits for electric vehicles like those provided to NGVs are based on statutory provisions but the greenhouse gas credits are based on administrative discretion intended to encourage the development of electric vehicles. In treating electric vehicles as zero emission vehicles, the EPA has acknowledged that electric vehicles are not truly zero emission vehicles because they have upstream emissions related to electricity production. EPA, however, agreed to ignore these emissions until 2025 to provide a regulatory incentive for electric vehicles to advance in the market place. The regulatory treatment ensures that automakers receive the maximum credit for producing them to encourage their further advancement and address market impediments to their introduction. The regulatory flexibility afforded to electric vehicles greatly benefits automakers and the advancement of electric vehicles, but it also creates an unlevel playing field with other technologies like NGVs.

To address this inequity, the joint commenters request that EPA apply the 0.15 factor when calculating fuel economy and greenhouse gas emission credits for natural gas vehicles. To provide regulatory certainty it is requested that this incentive be available until 2025 or until a manufacturer sells 200,000 (or 300,000 in some cases) natural gas vehicles; these figures replicate production numbers used for the electric vehicle incentives. The incentive for NGVs should be extended or increased if incentives for electric vehicles and other advanced technologies vehicles are accordingly modified in this rulemaking.

Providing the 0.15 factor for both programs will preserve the AMFA intent to encourage the production of natural gas vehicles to address petroleum reductions and greenhouse gas emissions and will align the two programs more closely, thereby providing enhanced flexibility and certainty for automakers. It also will ensure that consumers have expanded access to vehicles that operate on a higher level of domestic, non-petroleum motor fuel and that produce lower levels of pollution. In support of providing these

credits, we point to the fact that renewable natural gas is not a future promise but rather already accounts for 25 – 30 percent of all on-road natural gas fuel consumption. Operating an NGV on 100 percent RNG results in reductions that conservatively approximates the reductions represented by using an emission factor of 0.15 (i.e., 84 percent reduction with landfill gas). While overall use of RNG currently is not at 100 percent, levels have increased significantly in recent years and this trend is expected to continue as more renewable natural gas projects come on-line and supply increases. Based on current RNG use, NGVs today consume a greater amount of renewable fuel than electric vehicles and should be rewarded accordingly. According to EIA, renewable electricity today makes up 17 percent of all electricity.

An alternative approach would be to establish incentives that are based on the well-to-wheel benefits of NGVs and other vehicles including electric vehicles. Such a program is not without its complexities, but it would be more fair and equitable and ensure that the regulations fully consider the real-world impact of different technologies. Such a program could evaluate upstream energy production and emissions and consider different fuel inputs to evaluate how changes in fuel supply and energy production are impacting real-world emissions. Using the AFLEET Model produced by Argonne National Laboratory to compare gasoline, electric and natural gas cars reveals that the well-to-wheel emission results, using national average emissions, for each fuel *without factoring any benefit for renewable natural gas* indicates that the electric vehicle greenhouse gas emissions are only 31 percent lower than the emissions for an NGV. Including emissions associated with vehicle production, an electric vehicle produces 19 percent less total greenhouse gas emissions than the NGV. However, the EV for purposes of compliance with the greenhouse gas standards is given a GHG credit or incentive that is worth 0 g/mi or a 100% reduction of the standard. Given these results, it is fair to question why electric vehicles are provided such a large credit relative to NGVs. To provide true parity for NGVs and electric vehicles, it could be argued either requires establishing incentives that include well-to-wheel emissions or provide NGVs with the same 0 g/mi incentive as offered to electric vehicles.

2) Extend the Use of the 0.15 Factor for Dual Fuel Vehicles

In addition to the changes recommended above to align the fuel economy and greenhouse gas programs, we also support the proposal to extend and make permanent the use of the fuel economy factor of 0.15 for dual-fuel vehicles. By statute, the factor is made permanent for dedicated vehicles and NHTSA has proposed making it permanent for dual-fuel vehicles. We support this decision since the continued existence and viability of dual-fuel NGVs is critical to consumer acceptance. The sale of dual-fuel vehicles, especially to consumers, is also a key factor in supporting further development of public CNG fueling infrastructure since the market for NGVs and the demand for natural gas is expected to grow faster if dual-fuel vehicles are offered by manufacturers.

3) Amend the Driving Range and Drive to Empty Requirement for Dual-Fuel NGVs

EPA should remove the requirements that dual-fuel NGVs have a driving range on natural gas that is two times the driving range on gasoline or diesel fuel. This requirement is wholly impractical as it requires automakers to install significantly larger and more expensive natural gas fuel systems on dual-fuel vehicles, or alternatively requires automobile manufacturers to reduce the size of gasoline fuel systems installed on dual-fuel NGVs, to access the utility factors available to vehicles. This latter requirement imposes significant costs as it requires the design and manufacturer of smaller gasoline tanks that currently do not exist and changes in the assembly production of base gasoline vehicles to fit vehicles with unique gasoline tanks. This will impair the consumer appeal of NGVs by needlessly increasing costs.

EPA also should remove the requirement that gasoline is used only when the natural gas tank is effectively empty, except when limited use of gasoline may be required to initiate combustion (the so called “drive-to-empty” restriction). This requirement intrudes upon automakers decisions regarding how to best optimize performance and operation of natural gas vehicles.

EPA rules do not impose similar requirements on plug-in hybrid electric vehicles. Manufacturers of plug-in hybrid vehicles can use utility factors that are based on the driving range of the vehicle when operating on electricity. The use of the utility factors for electric vehicles is not predicated on any restriction or requirements related to range when operating on petroleum. The same should be true for natural gas vehicles – the use of utility factors should only be based on the range of the vehicle when operating on natural gas and should not account for its range when operating on petroleum. EPA and NHTSA also are urged to do away with the minimum driving range (i.e. 150 miles) requirement for natural gas vehicles that is currently required by statute but set to expire. The 150 level may not always be practical or necessary to the commercialization of natural gas vehicles. Automakers are best positioned to determine the optimum driving range for different vehicles and should not be constrained by a specific figure. Electric vehicles are not subject to a similar requirement.

4) Provides Stronger Sales Multiplier Credits for Production of Natural Gas vehicles

Automakers require powerful regulatory incentives to support the production and sales of new advanced technology vehicles including NGVs. NGVs, both dedicated and dual-fuel, should be provided with the same vehicle production multiplier credits as have previously been, and continue to be, provided to EVs and FCVs. Given that the expected and likely range capabilities of NGVs will generally exceed EV ranges (including natural gas dual-fuel vehicles that significantly outperform the range capabilities of PHEVs which justifiably enjoy a lower multiplier as compared to EVs), the vehicle production multipliers that are used for EVs should be applied to NGVs, including dual fuel NGVs. Specifically, dedicated and dual-fuel NGVs (or all covered advanced technology vehicles) should receive a base multiplier of 2.0 (or any such higher multiplier afforded to EVs/FCVs) for at least model years 2019 through 2021 and the same multipliers afforded to EVs/FCVs thereafter through 2025.

5) Amend the Full-Sized Pickup Truck Credits

NGVs are the proven, practical clean fuel alternative for light trucks and, specifically, pickup trucks. The current regulations recognize the emission reduction challenges faced by full-sized pickups by providing advanced technology credits for emission-reducing technologies deployed in this critical segment. NGVs can deliver improvements above and beyond the level targeted by this incentive.

However, the requirement that vehicle technologies account for 10 percent or more of a manufacturers’ full-sized pickup truck production to qualify for the enhanced fuel economy or greenhouse gas credits presents a significant barrier to the development of emerging technologies. Including this high bar ensures that the vehicles will not qualify for the incentive and ensures that the incentive itself will play no role in the initial introduction of these vehicles. This is because initially sales numbers for new vehicle types will be small and any increases are likely to be gradual over time. It, therefore, is requested that the market penetration requirements be removed for natural gas vehicles.

6) Provide Incentives for Gaseous-Prep Vehicles

Under existing EPA and NHTSA regulations there is no incentive for an automaker to sell vehicles equipped to be converted to operate on natural gas (so-called “gaseous-prep vehicles”) even though selling such vehicles often result in the increased availability of alternative fuel vehicles. Today, most alternative fuel conversions are performed on newly manufactured gaseous-prep vehicles or vehicles that have been equipped by the original equipment manufacturers with hardened valves, valve seats, pistons and piston rings. As an example, most of Ford’s commercial truck line-up is available as gaseous-prep and many such vehicles are converted to natural gas or propane by qualified vehicle manufacturers. This step, producing an assembly-line gaseous-prep vehicle, and sharing diagnostic information is critical to ensuring that aftermarket conversions perform well in-use and do not degrade the vehicle’s emission control equipment. Given the complexity of today’s automobiles, it is virtually impossible to legally convert new vehicles without this level of cooperation.

Providing a regulatory incentive for automakers to sell these vehicles would expand the availability of gaseous-prep vehicles and increase consumer choice for alternative fuel vehicles. EPA, therefore, should provide a credit for selling such vehicles if the automaker can verify that vehicles were subsequently upfitted or converted using an EPA certified alternative fuel system. Given the significant cost associated with certifying vehicles and installing natural gas tanks, there is very little likelihood that such an incentive would be abused by automakers. As with credits for original equipment manufactured vehicles, the utility factor for these vehicles would be based on the range of the vehicle when operating on natural gas. In this way, vehicles with larger range would earn more credit and vehicles with reduced range would earn less credit.

EPA should not be concerned that such a program will lead to another “flex-fuel” debacle, i.e., the production of vehicles solely for the purposes of generating credits. Flex-fuel vehicles included relatively little additional hardware costs and certification costs were minimal compared to certifying gasoline-only vehicles. In the case of natural gas vehicles, the two fuels are very different and certification and hard-ware costs though comparative to diesel and hybrid vehicles are not insignificant. Thus, there is little chance for abuse.

7) Finalize Incentives and Regulatory Flexibility Separate from More Controversial Issues

The joint commenters urge NHTSA and EPA to finalize the above-requested changes as soon as possible. Implementing these changes now is essential to give automakers the regulatory information they need to make natural gas technology choices for 2021-2026 model years. These changes are not controversial and will benefit automakers, consumers and the economy. Since these provisions are incentives, we also request that they take effect immediately or as soon as is administratively feasible.

Given the contentious nature of some of the other provisions in this rulemaking, we request that EPA and NHTSA include a severability clause along the following lines:

If any section, paragraph, sentence, clause, phrase, or word of this regulation or any other part hereof is invalidated, stayed or enjoined for any reason, the remainder of said regulation shall not be affected thereby and shall remain in full force and effect.