



Statement of

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On Behalf of NGV America

Before the

**U.S. Environmental Protection Agency & National Highway Traffic Safety
Administration**

**Cambridge, Massachusetts
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**Notice of Proposed Rulemaking Concerning Greenhouse Gas Emissions
Standards and Fuel Efficiency Standards for Medium and Heavy-Duty
Engines and Vehicles**

Introduction

NGVAmerica is a national organization dedicated to the development of a growing and sustainable market for vehicles powered by natural gas, biomethane and natural gas-derived hydrogen. NGVAmerica represents more than 130 member companies, including: vehicle manufacturers; natural gas vehicle (NGV) component manufacturers; natural gas distribution, transmission, and production companies; natural gas development organizations; environmental and non-profit advocacy organizations; state and local government agencies; and fleet operators.

NGVAmerica appreciates the opportunity to provide this statement to EPA and NHTSA. Let me begin my remarks by indicating that our organization and members are still reviewing the proposal. Thus, the remarks provided here are based on our preliminary review of the proposal. We expect to submit more detailed and complete comments at a later time.

Based on our initial review, we are disappointed that the proposed rules do not contemplate a larger role for natural gas vehicles as part of an overall plan to reduce petroleum consumption and greenhouse gas emissions. The agencies have described the new national program as being “designed to address the urgent and closely intertwined challenges of dependence on oil, energy security, and global climate change.” Natural gas powered vehicles deliver on all of these objectives and currently deliver greater oil displacement, and larger greenhouse gas reductions than those contemplated in the proposed rules. Using natural gas also provides significant economic advantages for the U.S. because natural gas is an abundant domestic fuel that is economically priced.

However, as currently written, it appears that very little thought was given to the significant domestic supply of natural gas, or the ready availability of medium and heavy duty natural gas vehicles.

Today I want to briefly touch on the three key factors highlighted in the notice issued by the agencies – dependence on oil, energy security, and climate change – and discuss some of the factors we believe should be reflected in the final regulations.

Dependence on Oil

The use of natural gas vehicles give us an immediate ability to displace up to 100 percent of the petroleum that otherwise would be used by a given vehicle application. Natural gas engines are either dedicated, meaning they only use natural gas, or they are dual-fueled, meaning they use a mixture of diesel and natural gas with diesel fuel injected to enable ignition in compression ignition engines. In the case of dedicated

vehicles, these vehicles rely on natural gas for 100 percent of the energy consumed. In the case of dual-fuel vehicles, these vehicles rely on natural gas for about 90 percent of the energy consumed with diesel fuel making up the remaining energy. In terms of reducing petroleum use, the proposed regulations require only an average per-vehicle reduction of 15 percent for diesel fueled vehicles and 10 percent for gasoline vehicles. Thus, natural gas vehicles already far exceed the petroleum reduction potential presented by the proposed regulations.

Energy Security

Increasing the use of natural gas as a transportation fuel is one of the best ways the U.S. can address the issue of energy security. In the past several years, a wealth of new data has been developed demonstrating that the U.S. has an abundant supply of readily available, economically priced, natural gas. Domestic natural gas currently supplies about 87 percent of natural gas demand in the U.S. Most of the remaining natural gas is supplied by Canada or North American sources. Only about 3 percent is imported from outside the continent. In the past decade, natural gas reserves in the U.S. actually have been increasing, not declining. EIA reports that U.S. gas reserves grew from 177 trillion cubic feet in 2000 to 245 trillion cubic feet in 2008. Estimates from the Colorado School of Mines' Potential Gas Committee, the Energy Information Administration, MIT, etc., indicate that domestic supplies are sufficient to meet demand for more than 100 years. As recently as several years ago, this estimate was 65 years.

Because natural gas is an abundant domestic fuel, we can increase its use without increasing dependence on foreign sources of energy, without increasing imports of oil, and without sending billions in much needed capital overseas.

Global Climate Change

Natural gas when used as a transportation fuel has an inherent advantage over gasoline and diesel fuel because its chemical makeup includes less carbon for each atom of hydrogen delivered – one carbon molecule for each four molecules of hydrogen – the lowest ratio of any fuel available today except for hydrogen. Extensive analysis of the full fuel cycle benefits of different fuels show that natural gas today already delivers about a 15 – 30 percent reduction in greenhouse gas emission reductions compared to diesel and gasoline. The proposal issued by EPA and NHTSA calls for a per-vehicle reduction of 17 percent for diesel vehicles and 12 percent for gasoline vehicles when fully implemented. Therefore, natural gas vehicles already meet or exceed the greenhouse gas reductions contemplated in the proposed regulations. Moreover, most of the engine improvements and all of the vehicle modifications that the agencies discussed in the context of diesel or gasoline vehicles are equally applicable to natural gas vehicles, so with these technological advances,

natural gas vehicles will continue to enjoy superior greenhouse gas emission performance compared to their petroleum counterparts.

Availability of Natural Gas Vehicles

There are now more than 12 million NGVs in-use worldwide. I wish I could say that all of these vehicles are in operation in the U.S. or that the majority of them are in operation in the U.S. The fact is that only a small percentage of this market is in the U.S. The market for natural gas vehicles outside the U.S. is growing at a tremendous pace, doubling in just the past several years. In the U.S., there are only about a 100,000 – 125,000 NGVs in operation. Perhaps this was what the agencies were thinking about when they left natural gas vehicles out of virtually the entire discussion of the proposed regulations. The agencies certainly were not focused on the significant number of OEM products available here in the U.S., which leads the world in medium and heavy-duty vehicle offerings of NGVs. Engines currently are available from Cummins (Cummins-Westport), Doosan, Emission Solutions, Navistar and Westport Innovations. Ford Motor Company also is shipping gaseous-prepped engines in its E350 and 450 vans, making it possible for certified conversion systems to be used in these vehicles. Truck and bus manufacturers currently offering factory-made natural gas vehicles include: Kenworth, International/ESI, Peterbilt, Mack, American LaFrance/Condor, Crane Carrier, AutoCAD Truck, Capacity, Thomas Built Bus, Blue Bird Bus, Optima, NABI, El Dorado, New Flyer, Daimler/Orion, Gillig, Workhorse Chassis, Elgin, Allianz/Johnston, Schwarz, and Tyco. Freightliner has announced that virtually all of the vehicles it manufactures will soon be available in a natural gas option.

I am sure that I have left some manufacturers off of my list. The point is to highlight the breadth of this product line-up. The fact is that natural gas vehicles are available today in a large selection of medium and heavy-duty vehicles.

EPA & NHTSA Proposal – What do we want?

As I indicated earlier, this statement is based on our preliminary review of the proposal. Based on this initial review, we believe the final regulations should include the following features:

- ∞ Recognize that today natural gas vehicles can provide significant displacement of petroleum and reductions of greenhouse gas emissions;
- ∞ Recognize that emission standards and fuel economy regulations which are vehicle-based do not account for upstream emissions or energy benefits and impacts;
- ∞ Provide greenhouse gas emission credits for natural gas vehicles based on the fact that these vehicles deliver superior full-fuel cycle reductions of greenhouse gas emissions compared to petroleum fueled vehicles;
- ∞ Provide fuel economy credits for natural gas vehicles based on the fact that natural gas vehicles already reduce petroleum by more than seven times the fuel efficiency improvements called for in the proposed regulations;
- ∞ Ensure that the vehicle-based standards do not impose uneconomic requirements for fuels like natural gas which already provide substantial greenhouse gas emission reductions and petroleum reductions.

To elaborate on this last point, we believe it would be a mistake to require technologies that already provide larger overall reductions of greenhouse gas emission and petroleum reductions to meet the same vehicle-based performance requirements as proposed for gasoline and diesel powered vehicles. Doing so, without giving credit for upstream reductions and without giving consideration to the additional costs, could discourage future use of such vehicles.

Conclusion

Thank you for the opportunity to provide this statement. We hope that the information we have provided gives the agencies reason to pause and reconsider the positive role that natural gas vehicles can play in contributing to the petroleum displacement, energy security and climate change objectives outlined in the proposal. We look forward to providing additional information on the benefits of natural gas vehicles and to offering more specific recommendations on the types of incentives that we believe would be effective in helping to accelerate the introduction of natural gas vehicles and other promising vehicle technologies.

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