



STATEMENT OF NGVAMERICA

UNITED STATES SENATE

ENERGY AND NATURAL RESOURCES COMMITTEE

Hearing to Receive Testimony on energy efficiency and alternative fuel vehicles

(S. 963, S. 1000, and S. 1001)

June 9, 2011

Introduction

NGVAmerica is pleased to offer the following written statement with regard to this hearing. NGVAmerica is a national organization dedicated to the development of a growing and sustainable market for vehicles powered by natural gas and biomethane. 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.

The purpose of the Committee's hearing on June 9, 2011 is to receive testimony concerning energy efficiency and alternative fuel provisions contained in S. 963, S. 1000, and S. 1001. Our statement addresses the alternative fuel provisions in S. 1001, Alternative Fuel Vehicles Competitiveness and Energy Security Act of 2011." In general, we appreciate the provisions contained in S. 1001, including loan guarantees for alternative fuel vehicle manufacturers, research and development grants, and other incentives like the high-occupancy vehicle exemption extension. Below we offer some general comments on the benefits of NGVs and the types of incentives we believe the Congress should offer as well as specific comments on the incentives contained in S. 1001.

Natural Gas Vehicles Should be a Part of Future Energy Legislation

Today, natural gas vehicles are uniquely positioned to help the United States achieve a number of critical policy objectives. The increased use of natural gas vehicles can reduce our dependence on foreign oil while reducing greenhouse gas emissions and urban pollution. And, equally important, increased use of natural gas vehicles will benefit the economy by stimulating demand for domestic natural gas and by lowering fuel cost to businesses, fleets and consumers that operate natural gas vehicles. Thus, energy legislation that is intended to reduce reliance on oil consumption should also seek to promote the use of natural gas vehicles. We are pleased to see that a number of the provisions contained in S. 1001, specifically includes natural gas vehicles, or

include natural gas vehicles by reference to existing definitions that incorporate natural gas powered vehicles.

The House of Representatives has already introduced HR 1380, a bill intended to promote the use of natural gas vehicles. We would urge the Committee Members to support the HR 1380 when a Senate companion is introduced. HR 1380 is discussed in greater detail below.

An Abundant and Economical Domestic Resource

Reliance on foreign oil exacts a high toll on the U.S. in terms of direct economic costs and indirect energy security costs. In the past three years (2008 – 2010), the US spent nearly \$700 billion on imported petroleum. More recently, the tab for imported oil has been much higher as oil prices have once again exceeded \$100 per barrel. In the coming decade, the EIA forecasts total expenditures for petroleum imports to top \$3.3 trillion dollars. See EIA, *2011 Annual Energy Outlook*, Table 11 (April 2011). Our reliance on oil not only affects our trade balance but makes the U.S. vulnerable to price spikes and supply disruptions. And high oil prices results in a windfall for regimes that may not be friendly to the U.S. Fortunately, the U.S. has an unprecedented opportunity to displace petroleum with domestic natural gas. 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.

The U.S. Energy Information Administration, the Potential Gas Committee and other expert bodies now estimate that we have up to a 100 years supply of natural gas. The Potential Gas Committee's 2011 bi-annual report indicates that the U.S. now has a total future supply of 2,170 trillion cubic feet of natural gas. This is 89 Tcf more than estimated in the 2009 report. As was the case with the 2009 report, the 2011 report includes the highest resource estimate in the Committee's history; PGC has now been estimating natural gas supplies for 46 years.

Increased demand for natural gas helps to keep our economy growing by supporting new jobs and economic development. In 2008, U.S. production of 20 Tcf of natural gas supported nearly 3 million jobs ("The Contributions of the Natural Gas Industry to the U.S. National And State Economies", IHS Global Insight 2009, p.1) Even a modest increase in demand for natural gas as a transportation fuel could create tens of thousands of jobs associated with producing natural gas.

Natural gas also benefits our economy because it is a low cost energy that helps businesses grow while at the same time controlling costs. Natural gas is priced much lower than petroleum. The two fuels no longer track one another and haven't for

many years. The current contract price for natural gas (NYMEX July delivery) is \$4.629 per million Btu, which equates to a per-barrel of oil price of only \$26.85 at a time when oil is trading above \$100 a barrel. The difference in price relates to the fact that petroleum prices are set by world markets. An increase in demand in China or India leads to an increase in the cost of oil consumed here in the U.S. However, the same is not true for natural gas. The U.S. market for natural gas is currently insulated from most overseas events. Given the fact that large quantities of natural gas cannot be readily shipped from North America to other markets, the supply and demand for natural gas here in the U.S. sets the price that U.S. consumers pay. Because of the abundant supply of natural gas that exists here in the U.S., natural gas prices relative to oil prices are expected to remain much lower in the coming years. In fact, the EIA estimates that the differential between diesel fuel and natural gas for transportation could be as much as \$2 per diesel gallon equivalent in the future.

Translating Opportunity into Advantage

How should we use this natural gas? Market price signals tell us that transportation fuel and vehicles are the highest valued application of all natural gas uses. Outside the U.S., demand for natural gas vehicles is growing at a rapid pace. In the last seven years the market for NGVs has more than tripled with a compound growth rate of over 17 percent per year. In fact, NGVs are the fastest growing alternative to petroleum vehicles in the world. In 2003, there were only about 2.8 million NGVs globally. Today, there are over 13.2 million NGVs in operation worldwide. This rapid growth points to the fact that rapid scaling up of NGVs is possible. The International NGV Association forecasts that, by 2020, there will be 65 million NGVs on the world's roads. Unfortunately, the U.S. currently ranks fourteenth in the world in total number of NGVs.

Most of the new natural gas vehicles sold outside the U.S. are either conversions of light-duty gasoline vehicles or are produced by light duty OEMs, including: Ford, GM, Toyota, Honda, Nissan, Hyundai, Fiat, Volkswagen and Mercedes. Fiat alone makes 14 separate NGV models, and more than 100,000 NGVs were sold in Italy in 2009, comprising some 7% of the new vehicle market. Most U.S. manufacturers currently offer natural gas vehicles in places like Europe, South America and Asia, but only Honda currently offers a light duty OEM NGV product -- the Honda Civic GX.

For a number of reasons, including the sheer geographic size of America, the strategy of the US NGV industry has been to focus on high fuel-use fleets: trash trucks, transit buses, short-haul 18-wheelers, school buses, urban delivery vehicles, shuttles of all kinds, and taxis. Today, the U.S. only has about 120,000 NGVs. Vehicle demand

has been growing, but slowly. However, because of the large fuel use per-vehicle, the amount of natural gas used (and petroleum displaced) has been increasingly at a robust pace. NGV America estimates that, last year, natural gas vehicles used about 43 billion cubic feet of natural gas. That is the equivalent of about 320 million gallons of gasoline that was not imported. At today's fuel prices, this represents about a billion dollars not spent on foreign oil.

Fortunately, the U.S. currently leads the world in offerings of new medium- and heavy-duty NGVs. In the past several years, virtually all the major truck and bus manufacturers in the U.S. have begun offering factory-built NGVs. The impressive list of manufacturers includes: 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, Freightliner, Gillis, Workhorse Chassis, Elgin, Allianz/Johnston, Schwarz, and Tyco.

Manufacturers are betting that the U.S. will get serious about its desire to displace petroleum demand and increase the use of alternative fuels like natural gas. With proper government policies, like those proposed in S. 1001, and incentives, like those proposed in HR 1380, sales of these trucks and use of natural gas could grow substantially in the coming years. NGV America estimates that current fuel consumption of natural gas for vehicles could grow to one and a quarter *trillion* cubic feet or the equivalent of about 10 billion gallons within 15 years. At the level of fuel prices currently projected, that would lower fuel costs to businesses by up to \$20 billion a year and reduced payments for imported petroleum by more than \$40 billion per year.

NGV America believes that there could be a substantial market for natural gas vehicles in all applications. However, the most immediate opportunity for displacing petroleum and increasing the use of natural gas as transportation fuel lies with light-, medium- and heavy-duty *fleets* – especially trucks, buses and other heavier vehicles. As noted above, America currently has a large selection of medium and heavy duty vehicles available here in the U.S. This is significant since trucks are the economic lifeblood of America. Everything we buy moves by truck. Reducing the cost of trucking reduces the cost of everything, benefiting businesses and consumers alike.

Proposed Changes to S. 1001

Section 2. Definitions. The definition of alternative fuel vehicle incorporates the definition of qualified alternative fuel vehicle found in 26 USC 30B (e) (4) (e.g., dedicated alternative fueled vehicles) and section 30B (e) (5) (B) (e.g., mixed-fueled alternative fueled vehicles operating on 75% NG or more). Section 30B specifically

includes compressed natural gas and liquefied natural gas. The definition in section 2 controls key provisions elsewhere in S. 1001 (e.g., loan guarantee program). As currently written, the bill would not include incentives for bi-fuel NGVs or most dual-fuel NGVs. The NAT GAS Act (HR 1380) specifically amends section 30B to allow all bi-fuel and dual-fuel NGVs to qualify for the tax credits. For the section 136 loan guarantee program authorized under EISA 2007, the NAT GAS Act (HR 1380) would allow a bi-fuel NGV that is capable of achieving a minimum of 85 percent of its total range with compressed or liquefied natural gas, or a dual-fuel NGV that is capable of operating on a mixture of natural gas and gasoline or diesel fuel but is not capable of operating on a mixture of less than 75 percent natural gas. The provision contained in the NAT GAS Act is intended to limit the loan guarantee incentive to vehicles that will be predominately fueled with natural gas. S. 1001 should include bi-fuel and dual-fuel alternative fuels vehicles that will be predominately fueled with alternative fuel. Outside the U.S. bi-fuel vehicles are the dominate technology offered by automakers. Providing incentives for them could encourage manufacturers to offer such vehicles here and would make the use of alternative fuel vehicles far more practical for a larger portion of the consumer and fleet market. That is why the NAT GAS Act amends the tax code in section 30B to include such vehicles.

It is true that S. 1001 already allows mix-fueled vehicles but by referencing the current version of section 30B of the tax code, it would only encourage heavy-duty mixed fueled vehicles (i.e., vehicles 14,001 lbs. GVWR or greater). S. 1001 should be expanded to include the change requested here by tracking the definitions found in section 202 of HR 1380.

Section 101. Loan Guarantees Program. This section amends the U.S. Department of Energy (DOE) loan guarantee program found in 42 USC 16513(a) (EPAAct 2005, Sec. 1703) so that activities that reduce petroleum through the use of alternative fuels as defined in 26 USC 30B(e)(4) (NG is included here) also qualify. S. 1001 would amend this program to add support for activities involving the “production and distribution of alternative fuel.” The DOE program (section 16513(b)(8)) already includes production facilities for fuel efficient vehicles, including EVs and diesel fueled vehicles. However, it doesn’t specifically include alternative fueled vehicles or natural gas vehicles.

We believe that the program found in section 42 USC 16513 (b) (8) should be expanded to specifically include natural gas vehicles so that there is no doubt that they qualify. And the language in S. 1001 should be expanded specifically to include fueling infrastructure equipment for natural gas vehicles; the current wording “production and distribution of alternative fuel” sounds like it is intended for refinery-

type operations and terminal distribution networks, not fueling station equipment. If the word “dispensing” were added that probably would take care of our concern: “production, distribution or dispensing.”

Section 102. Advanced Technology Vehicle Program. S. 1001 amends the Section 136 Program found in EISA 2007 to add medium and heavy duty vehicles and certain non-road vehicles if they reduce consumption of conventional motor fuel by 25% or more. This loan guarantee program for manufacturing facilities is currently geared to retooling for fuel-efficiency improvements. If conventional fuel means gasoline or diesel then this amendment would allow for inclusion of NGVs. The amendment adds alternative fuel vehicles as defined 30B(e) so that means NGVs qualify, but only dedicated and mixed-fueled vehicles that operate at 75% or more NG.

As noted above, we think that bi-fuel and dual-fuel vehicles should qualify for this program. Since this section references the definition section in S. 1001, making the changes we have suggested for that section would take care of our concern here.

Section 105. Workforce Training. This section provides assistance for job training related to alternative fuel industry, including the manufacture and maintenance of AFVs. Authorizes \$50 million for each FY, 2012 – 2016. We propose that the bill specifically include “installation of conversions” in the list of industry jobs supported by this incentive. This would help small businesses and automotive dealerships who are involved in installing aftermarket conversion systems on existing or recently acquired vehicles.

Enacting Meaningful Policies Such as HR 1380 and S. 1001

Currently, NGVs cost more to buy than comparable gasoline or diesel powered vehicles. But they cost less to operate. The more miles a vehicle is driven each year, the faster the payback and the more likely the owners can justify the investment in NGVs. For some of the most fuel intensive fleets and vehicle applications, NGVs already are economic. However, to expand the use of NGVs and maximize NGVs’ oil displacement potential, the first-cost or incremental cost of NGVs needs to be brought down rapidly. And this will only happen with large scale production and increased economies of scale. H.R. 1380, the New Alternative Transportation to Give Americans Solutions (NAT GAS) Act of 2011 provides the means to accelerate demand for NGVs and to help manufacturers achieve economies of scale and build-out much needed fueling infrastructure. HR 1380 would provide federal incentives for the production, purchase and use of natural gas vehicles and the expansion of the NGV fueling infrastructure.

It is important to note that there is no free market when it comes to the leading transportation fuel, i.e., petroleum. It is significantly distorted by the cartel power of OPEC. All other transportation fuels and technologies are at an extra-market economic disadvantage. Nothing would please OPEC more than for Congress to assume that, left on its own, the marketplace would solve the problem of our addiction to foreign oil. Federal intervention to offset the policies of OPEC is essential.

That is why NGV America strongly supports H.R. 1380, and hopes similar legislation will be introduced in the Senate soon. There is broad bipartisan support for this bill. Although only introduced on April 6th, H.R. 1380 already has 190 bipartisan co-sponsors. As proposed, these incentives would be available for only a five year period. During that time and long thereafter, it would make NGVs the economic choice for many more fleets. This legislation would accelerate NGV use, which, in turn, would bring more NGV manufacturers into the market, increase competition and drive down the first-cost premium of NGVs.

NGVs are a here-and-now technology. This fact is highlighted by the investments and commitments by fleets already taking place in the market place in the U.S. Highlighted here are some of the growing examples of how natural gas is helping meet the needs of fleets:

- AT&T operates more than 2,400 vehicles powered by natural gas and has a goal of expanding the fleet to 8,000 by 2013;
- UPS has more than 1,100 natural gas powered vehicles, and is expanding its fleet of vehicles powered by liquefied natural gas. The company has said it would convert a much larger share of its trucking fleet to LNG if the fueling infrastructure was in place;
- The Los Angeles County Metropolitan Transportation Authority earlier this year held a retirement ceremony for its last diesel bus, and 2,221 of its buses are now running on compressed natural gas; a number of the other smaller transit agencies around the country have successfully switched their entire fleet over to using natural gas. In Washington, DC, the local transit authority operates nearly 500 natural gas transit buses, and several feeder systems (outlying counties) also operate natural gas buses.
- Ryder System Inc. is purchasing 202 heavy-duty natural gas vehicles that will be used in its Southern California network;
- Waste Management, the largest refuse company in the country, has more than 900 vehicles running on either compressed natural gas or liquefied natural gas;

- The Dallas Area Rapid Transit system recently announced it will purchase 452 natural gas powered transit buses – the largest single order of natural gas transit buses currently in place.

As these fleet examples highlight, NGVs do not need technical breakthroughs to capitalize on the potential of natural gas as a transportation fuel. What is needed most is to grow demand for these vehicles faster. Federal leadership in leading the way and providing incentives will make this happen. By providing critical incentives like S. 1001 and HR 1380, the Congress can help jumpstart that growth. While NGVs do not need technological breakthroughs to be commercial, NGVs can be further improved by, for example, integrating hybridization technology with natural gas power. Therefore, it is important that the federal government support research, development and demonstration programs, like the ones proposed in S. 1001. Federal assistance and public private partnerships can ensure that natural gas vehicles continue to improve over time, delivering increased performance and delivering increased fuel efficiency.

Conclusion

The U.S. has an unprecedented opportunity to displace petroleum with domestic natural gas. Now is the time to act to encourage the increased use of natural gas vehicles. We have an abundant supply of readily available, low-cost domestic natural gas. The fact that this fuel is domestic, low-cost, and clean means that America can achieve multiple national goals (energy security, clean air, economic security) all the while helping fleets and businesses to lower their costs, thus improving economic prosperity. Today, nearly every major truck or bus manufacturer in the U.S. is now offering factory-built NGV models. Federal policies and incentives, however, are needed to aid in the successful market penetration of these vehicles and to help accelerate their use so that the benefits of increased natural gas use can be realized.

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