



Canadian Natural Gas Vehicle Alliance

August 4, 2017

The Honourable Wayne Easter MP
Chair Standing Committee on Finance
House of Commons
Ottawa, Ontario
K1A 1A0

Dear Mr. Easter,

The Canadian Natural Gas Vehicle Alliance (CNGVA) is pleased to have the opportunity to provide input into the Federal Government's 2018 pre-budget consultations. The enclosed submission outlines recommendations that support what we refer to as *Canada's Natural Gas Vehicle Opportunity* - specific areas where natural gas, renewable natural gas (RNG) and the natural gas vehicle industry, in partnership with governments, can enhance Canadian productivity, support economic competitiveness, and reduce emissions.

The federal government can support the increased use of natural gas as a transportation through the following:

- Recognize in policy statements and speeches that natural gas is a clean and affordable alternative transportation solution for municipal transit, school buses, medium and heavy duty trucks, as well as marine, off-road and rail fleets.
- Support the development and updating of a Canadian life-cycle emissions assessment tool, such as GHGenius, to ensure an accurate and predictable tool remains in place to support government policy objectives.
- Include natural gas fueling infrastructure and facility upgrades for municipal fleets and at ports as eligible costs for federal infrastructure funding through federal-provincial agreements.
- Help de-risk the upfront cost of NGV's compared to the traditional fuel equivalent by providing incentives that cover a portion of the incremental cost of natural gas bus, truck, marine or rail engines and fuel systems to encourage deployment.
- Partner with the private sector to ensure next generation natural gas vehicle technologies such as high horsepower applications, are developed and deployed in Canada.

Industry-government partnerships are critical to reducing emissions in the transportation sector, advancing clean technologies, and ensuring the economy remains competitive through the use of clean affordable natural gas.

Thank you for the opportunity to provide input and I look forward to further discussing with Committee members the recommendations detailed below.

Yours sincerely,

Bruce Winchester, Executive Director
Canadian Natural Gas Vehicle Alliance



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Canadian Natural Gas Vehicle Alliance Federal Budget Submission August 2017

Introduction

The Canadian Natural Gas Vehicle Alliance (CNGVA) represents Canada's natural gas vehicle industry. Natural gas vehicle technologies provide proven, commercially available transportation solutions that reduce emissions while using lower cost fuel. The CNGVA's membership includes leading Canadian companies involved in research, manufacturing, fuel and infrastructure supply, vehicle conversion technology and installation, consulting, and international project management. Our mission is to promote the sustainable growth of natural gas vehicles, refueling infrastructure, and renewable gaseous fuels for the benefit of Canada's economy and environment.

Canada's Transportation Sector

Transportation is a \$73 billion per year industry that employs 900,000 Canadians.¹ Almost everything that we consume or sell abroad relies on this industry. Both productivity and competitiveness can be impacted as a result of increasing costs and technological changes. Petroleum is the overwhelming source of energy for this sector, consuming over 85 billion litres in total each year, or about one quarter of total energy use in Canada. It is also the second largest source of greenhouse gas emissions.

Goods transportation – which includes passenger transportation and transit – accounts for fewer than 3 million vehicles but consumes more than half of the fuel and generates more emissions than personal transportation. What is more challenging is that unlike passenger vehicle emissions which have begun to decline, GHG emissions in the goods transportation sector continue to grow. Efforts to reduce these emissions, and the costs associated with them will have an impact on Canadian productivity and competitiveness.

Fortunately natural gas vehicles offer a cost effective solution to lower these emissions. With lower commodity costs, significantly lower emissions – up to 25 percent lower greenhouse gas emissions – clean burning natural gas is already delivering productivity and competitiveness gains. Leading marine and ferry operators in Canada are currently deploying natural gas ships in British Columbia and Quebec. Over one half of all North American refuse vehicles purchased are powered by natural gas, and a growing number of transit agencies are using natural gas busses. Despite long term benefits (lower costs and lower emissions) the on road trucking industry in particular needs information, capacity building and support.

1. What federal measures would help Canadians to be more productive?

Personal productivity is benefitting from evolving digital and information technologies. At the same time increased urbanization is also changing the pattern of personal transportation between work and home. Shifting use of personal vehicles to public transit has contributed to lower GHG emissions in this segment of transportation. Some transit agencies have seized the opportunity to consolidate greater emissions reductions by using natural gas busses. BC Transit's experience points to significant operational cost savings, and GHG emissions reductions over existing diesel technologies.² Although BC transit incurred incremental up-front costs to switch to natural gas powered busses, these were recouped in the first quarter of the

¹ Statistics Canada, System of National Accounts Table 381-0030, Energy Use in Canada & Environment and Climate Change Canada, National Inventory report.

² BC Transit, Presentation to BC Tech Summit, March 2017. Showed 6-8 % GHG reductions, Nanaimo fleet with \$20,000 in monthly savings; and Kamloops fleet with \$25,000 in monthly savings.



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lifetime of the busses, resulting in savings for transit users and the local tax base. Local transit authorities can find emissions savings, even in the context of growing ridership and fleet sizes, by deploying natural gas vehicles. Canadian productivity will continue to be enhanced with better natural gas powered public transit.

Recommendation:

Include natural gas fueling infrastructure and facility upgrades for municipal fleets and at ports as eligible costs for federal infrastructure funding through federal-provincial agreements.

Enhancing municipal efficiencies

With a growing number of contract and municipal refuse collection vehicles already using natural gas, broadening adoption in this segment will enhance existing investments. Municipal and utility fleets should explore greater use of natural gas in their light duty trucks, utility vehicles and encourage maintenance contractors to do the same through procurement and other contracting opportunities. These decisions do not rest with the federal government but they are often co-funded through federal-provincial infrastructure agreements. Federal leadership, including a consistent policy approach on emissions reductions technologies can go a long way to encouraging both municipalities and contractors to use clean technologies such as natural gas.

Recommendation:

Recognize in policy statements and speeches that natural gas is a clean and affordable alternative transportation solution for municipal transit and school bus, medium and heavy duty trucks, as well as marine, off-road and rail fleets.

Encouraging renewable natural gas

Experience with natural gas transit vehicles and renewable natural gas (RNG) in California points to a viable pathway for additional emissions reductions and in some instance net zero emissions reductions. The California Air Resources Board, one of the most rigorous environmental agencies in the world, has certified the Cummins Westport near zero natural gas engine using RNG, as equivalent to a battery powered electric bus. It is worth noting that California's energy mix is similar to Canada's with an electricity GHG emissions intensity of 160 G per kWh. RNG is an organic based form of natural gas that can be produced from a variety of waste streams, including municipal solid waste and waste water treatment. At present much of this waste is not used productively. Using what are unavoidable waste streams to power vehicles is perhaps the ultimate example of enhanced productivity for Canadians. While the opportunity for cities is evident, other rural waste sources from agriculture and forestry can also be used to generate RNG.

The natural gas distribution industry, through the Canadian Gas Association has made recommendations that will help to encourage the supply of RNG in Canada. These include measures that would match provincial initiatives, directly support deployment and technology, and indirectly support deployment through tax measures.



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2. What federal measures would help Canadian businesses to be more productive and competitive?

As was noted, transportation has a direct impact on productivity and competitiveness. Delivering goods, passengers and even collecting and using waste can be enhanced through the use of cleaner and more affordable natural gas. Some segments of the industry are already benefiting from these advantages. Overarching policy proposals such as the clean fuel standard and national carbon dioxide pricing can play a significant and positive role in rewarding early adopters and in encouraging broader use of natural gas vehicles. This will only occur if these policy initiatives are properly developed and nurtured. To assist in this regard, the House of Commons Standing Committee on Finance should seek to outline key principles related to productivity and competitiveness that will be necessary components of all federal emission reductions policies.

The on road transportation industry requires assistance for early adopters, including facility and fleet service providers operating in this industry. Confronted with a myriad of federal and provincial emissions policies and programs, this industry needs a clear signal and a funding push that outlines natural gas as a key component of their future. Infrastructure funding announced in the last two federal budgets is a good start, but this industry needs today's risks mitigated. Policy instruments in the proposed clean fuel standard may eventually resolve this tension, while revenues from carbon dioxide pricing must be reinvested in emission reduction activities, but there is work to be done now. With no other viable low emissions technologies available, this industry needs early support to de-risk fuel switching to natural gas included in the 2018 budget – without this future competitiveness is at risk, while our greenhouse gas emissions will continue to increase.

Canada's marine transportation sector is leading in the deployment of natural gas vehicles. Three ferry operators and one shipping firm are currently using natural gas as a fuel. Within this \$1.6 billion segment of the transportation industry there are approximately 200 Canadian registered vessels. Additional support and leadership through infrastructure programs announced in the 2017 Budget will go a long way to consolidate gains in this sector. A recent joint industry study found that energy savings could be between 25 and 50 percent with a switch to natural gas in Canada's marine sector. In the marine sector, the federal and provincial governments should consider opportunities for ferries, Coast Guard and other government vessels to use natural gas.

Rail and other heavy duty off road vehicles can also benefit from the use of natural gas as a fuel. General Electric offers a natural gas locomotive that is being used by a rail company in Florida. The Canadian rail industry should be encouraged to redouble its use of natural gas for locomotives. Similarly, leading mining companies in Canada are using natural gas for heavy duty haul applications. This too should be encouraged as new and better engine technologies should be developed in Canada. There are significant operational cost savings as well as emissions reductions that will enhance productivity. Rail and related off road development opportunities are where natural gas transportation, as a clean technology opportunity, can nurture opportunities and jobs in this key economic sector.

Recommendations:

Help de-risk the upfront cost of NGV's compared to the traditional fuel equivalent by providing incentives that cover a portion of the incremental cost of natural gas bus, truck, marine or rail engines and fuel systems to encourage deployment.

Support the development and updating of a Canadian life-cycle emissions assessment tool, such as GHGenius, to ensure an accurate and predictable tool remains in place to support government policy objectives.

Partner with the private sector to ensure next generation natural gas vehicle technologies such as high horsepower applications, are developed and deployed in Canada.