

CANADIAN NATURAL GAS VEHICLE ALLIANCE



August 2, 2019

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 provide input into the Federal Government's 2020 pre-budget consultations.

Our recommendations highlight *Canada's Natural Gas Vehicle Opportunity* – addressing the climate emergency by using Canadian natural gas and renewable natural gas (RNG) as a vehicle fuel which transitions Canada's fleet transportation sector to the low-carbon economy. Industry partnership with governments is essential to seizing this opportunity. Reducing heavy freight transportation emissions is a significant public policy challenge. While future technology may evolve, it is important to note that currently there are no other mature alternative fuel solutions (including electric solutions) which, like natural gas:

- are available to fleets today
- are widely supported by Original Equipment Manufacturers (OEMs) and their dealer networks.

Accelerating the use of Canada's abundant and affordable natural gas resources for transportation is in the public interest. Working with Canada's medium and heavy-duty fleets, our industry has displaced higher-emitting (often imported) petroleum fuels with low-cost, cleaner-burning domestic natural gas. This has cost-effectively reduced emissions and noise pollution and improved air quality. That said, wide-scale fleet adoption of natural gas vehicles (NGVs) remains low due to barriers identified in several joint industry-government reports. To meet emissions reductions targets and grow the low-carbon economy, the federal government should demonstrate leadership and act on the recommendations found in these collaboratively-developed reports. Specifically:

- Provide funding to offset the vehicle cost premium for medium and heavy-duty NGVs
- Enable greater NGV deployment by continuing funding for new NGV refueling stations through Natural Resources Canada's Alternative Fuels Infrastructure Program
- Fund vehicle maintenance facility upgrades necessary to ensure safety
- Provide funding to increase RNG supply and end use in Canada. Currently, supply is limited and tends to migrate to U.S. markets where higher credit values are available.
- Invest in R&D technology for low-carbon transportation, including collaborative partnerships with research institutions, all levels of government and other countries. R&D focus areas should include natural gas high horsepower applications (e.g. rail and mining or other off-road sectors) and hydrogen.
- Provide financial support for enhancing natural gas marine bunkering in Canada.

We believe that public policy should be outcome focused and not pick technology winners and losers. A flexible approach preserves customer choice, competition in the marketplace and unleashes innovation. In our recommendations above we are not asking for funding support which favours NGVs and excludes other alternative fuel technologies. Rather, we are requesting that all alternative fuel programs targeted at the fleet sector include NGVs as a program option, in recognition of the multiple benefits NGVs provide.

Policy and funding which accelerates use of Canada's clean, abundant and affordable natural gas as a transportation fuel by fleets will enhance economic competitiveness, reduce emissions and further advance clean technologies.

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

Yours sincerely,

Bruce Winchester – Executive Director



Federal Pre-Budget Submission 2020

Introduction

The Canadian Natural Gas Vehicle Alliance (CNGVA) represents Canada's natural gas vehicle (NGV) industry. NGV technologies are proven, commercially available transportation solutions for fleets that reduce emissions while using lower-cost Canadian fuel. Our members include leading Canadian companies involved in manufacturing, fuel and infrastructure supply, vehicle technology, consulting, research, utilities 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.

NGV Transportation Opportunity

Reducing carbon in Canada's economy will require significant effort. The Committee's declaration of a climate emergency is noted. Spanning the previous five pre-budget consultations, CNGVA has made similar recommendations each year encouraging this Committee to implement policies in support of low-carbon technologies such as NGVs but has witnessed limited up-take in federal budgets. We and our members hope that the 2020 federal budget will support greater use of NGVs in Canada.

The challenges of reducing nearly 200 MTs of transportation emissions will be significant. The previous federal budget outlined measures aimed at reductions in personal transportation emissions but stopped short of addressing the commercial transportation sector. Transportation is a \$73 billion per year industry that employs 900,000 Canadians.¹ Almost everything that we produce, consume or export relies on the transportation industry. According to Statistics Canada, petroleum is the overwhelming source of energy for this sector, with over 85 billion litres of this fuel consumed each year, or about one quarter of total energy use in Canada.² According to Environment and Climate Change Canada's National Inventory Report, transportation is Canada's second largest source of greenhouse gas emissions – greater than one quarter of the total.³

The goods transportation sector – including for-hire passenger transportation and public transit – accounts for fewer than three million vehicles generating 14 MTs more GHG emissions than the 22 million personal transportation vehicles.⁴ Regulatory and policy uncertainty is exacerbating the challenges associated with encouraging commercial fleets to switch to lower-carbon fuels like natural gas. Displacing higher-cost and higher-emissions traditional fuels such as diesel by encouraging fleets to utilize Canada's abundant and affordable natural gas is a very significant, and largely missed, opportunity for policy makers. Unlike other alternative fuel solutions, NGV technology is mature with commercial products that have already been adopted by leading Canadian fleets.

Policy Inconsistency

In the rush to respond to challenges, policy makers should be mindful of the potential for poor outcomes when emissions reductions policies are inconsistent and unaligned. One example of note is the output-based carbon pricing regime that has shielded high emitting energy sources for use in generating electricity. In some cases, high-emitting electricity generation will be mated with policies that encourage battery electric vehicles – resulting in life cycle carbon emissions no better than traditional vehicles. This approach makes no sense.

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

² Statistics Canada, Sales of Refined Petroleum Products Table 134-0003.

³ ECCC, National Inventory Report.

⁴ Statistics Canada, Registered Vehicles by Type & ECCC, National Inventory Report.



A second example can be found in the last federal budget – which declares a 2040 phase out of non-electric propulsion for all vehicles in Canada. The freight sector does not currently have the option of commercially available battery or hydrogen electric propulsion, so the phase-out proposed is predicated on technology that is not presently available. NGVs, on the other hand, are commercially available and if fueled by RNG, the emissions outcomes are at least equivalent to the outcomes from battery or hydrogen electric vehicles using clean electricity. If the policy objective is to de-carbonize transportation, supporting the market transition is welcome – limiting or prejudging future technologies is not. Government may cause fleets to postpone taking action today while waiting for new technology to mature in an undefined future.

The federal approach to GHG emissions requires policy consistency. In response to today's challenges, the Natural Gas Use for Transportation roadmap 2.0 should be acted upon.

Roadmap

Our industry worked collaboratively with the Government of Canada and provincial governments to produce a roadmap for greater use of NGVs. An updated version, *Natural Gas Vehicle Use in the Medium and Heavy-Duty Vehicle Transportation Sector*, was released in June of this year⁵. The report reflects industry experience in working with Canadian fleets. Members are encouraged to review this report which noted the following:

- The use of natural gas as a transportation fuel can offer significant emissions reduction benefits – reduced NO_x, SO_x, and particulate matter – and up to 25 per cent GHG emissions reduction potential depending on the vehicle and fueling system being used. The emergence of renewable natural gas (RNG) provides added emissions reductions.
- Significant use of natural gas as a fuel by refuse (garbage), transit and trucking firms, as well as marine carriers, illustrates the Canadian market's readiness for this technology which provides both cost and emissions savings.
- Abundant supply of geological natural gas points to continued price stability. The growing supply of RNG provides significant additional life cycle emissions reductions potential.
- Extensive Original Equipment Manufacturer (OEM) engine offerings for the on-road market, as well as a growing number of specialty off-road and marine engines, are now being used by Canadian fleets.
- More industry and government support is needed to help fleets make the switch to natural gas.

Recommendations:

- Provide funding to offset the vehicle cost premium for medium and heavy-duty NGVs
- Enable greater NGV deployment by continuing funding for new NGV refueling stations through Natural Resources Canada's Alternative Fuels Infrastructure Program
- Fund vehicle maintenance facility upgrades necessary to ensure safety
- Provide funding to increase RNG supply and end use in Canada. Currently, supply is limited and tends to migrate to U.S. markets where higher credit values are available.
- Invest in R&D technology for low-carbon transportation, including collaborative partnerships with research institutions, all levels of government and other countries. R&D focus areas should include natural gas high horsepower applications (e.g. rail and mining or other off-road sectors) and hydrogen.
- Provide financial support for enhancing natural gas marine bunkering in Canada.

Canada's NGV industry is willing and able to work with governments and fleets in finding GHG emissions reductions today. In addition to the Roadmap, other actions should also be considered.

⁵ CNGVA & NRCan, Natural Gas Use in the Medium and Heavy Duty Transportation Sector (https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oe/pdf/transportation/alternative-fuels/resources/pdf/NRCan_NGRoadmap_e_WEB.pdf)



Goods Shipping

Canada's transportation and goods shipment sector has the potential to lead the world in GHG emissions reductions. In addition to the roadmap, our industry also worked with Transport Canada to produce two studies on the use of liquefied natural gas (LNG) in the marine sector as a path to domestic reductions.⁶ Adopting the recommendations in these two reports is also advised. Canada should take a leadership role in the International Marine Organization in supporting greater use of LNG as a marine fuel. Finally, supporting investment in LNG marine bunkering in Canada for the benefit of domestic and international shippers will demonstrate leadership, as well as make a significant contribution to lowering global sector emissions.

Marine Studies Recommendations:

- Providing up-front funding for marine fleets to de-risk investment and defray a portion of incremental costs associated with the purchase of marine NGVs;
- Providing funding to assist in the development of key refueling infrastructure at ports and rail depots. Deploying a critical mass of NGV refueling and bunkering locations is critical to encourage more fleet operators to switch; and
- Providing project funding for required facility upgrades, training and standards development for market participants in Canada's marine and rail sectors.

Public Transit Funding

Transit agencies in British Columbia, Alberta and Ontario are already reducing GHG emissions with NGV buses. BC Transit's natural gas bus experience reflects significant operational cost savings and GHG emissions reductions over traditional diesel technologies.⁷

Recommendation:

- Renegotiating federal-provincial infrastructure and transit agreements to increase funding for NGVs, natural gas fueling stations and maintenance facility upgrades to enable municipal fleets to achieve emissions reductions now.

Conclusion - Unlocking Opportunity

Meeting the challenges posed by the climate emergency and supporting a low-carbon economy cannot be accomplished without greater use of NGVs in Canada. Once again, Canada's NGV industry encourages the federal government to implement recommendations already provided in the NGV Roadmap and LNG for Marine studies. The time to act is now!

⁶CNGVA & Transport Canada LNG a Marine Fuel for Canada's West Coast, Great Lakes and East Coast (Volumes I & II) (<http://cngva.org/wp-content/uploads/2017/12/LNG-Great-Lakes-and-East-Coast-Report-June-2017-ENGLISH.pdf>) &

(<http://cngva.org/wp-content/uploads/2017/12/04-2014-Liquefied-Natural-Gas-A-Marine-Fuel-for-Canadas-West-Coast-EN.pdf>)

⁷BC 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.