

*Jobs for  
Canadians*



***Sustainable Transportation  
- An Alternative Approach  
to Jobs and Competitiveness***

***2012 Pre-Budget Submission  
August 12<sup>th</sup>, 2011***



*Canadian Natural Gas Vehicle Alliance  
350 Sparks Street, Suite 809, Ottawa, ON, K1R 7S8*

## Introduction

The Government of Canada aims to strengthen the country's economic foundation and create the basis for sustainable growth, future prosperity, and a secure and stable future for all Canadians. In this regard, Canadians have been asked to provide input to the House of Commons Standing Committee on Finance with consideration given to four overarching objectives for Budget 2012:

- Achieving sustained economic recovery
- Creating quality sustainable jobs
- Ensuring relatively low rates of taxation
- Achieving a balanced budget

On behalf of Canada's natural gas vehicle industry, the Canadian Natural Gas Vehicle Alliance (CNGVA) appreciates the opportunity to highlight how sustainable transportation can create jobs, provide choice for businesses, communities and families, contribute to economic recovery by opening a new market for an abundant Canadian resource, and lessen the harmful environmental impact of transportation in Canada. The CNGVA is the not-for-profit national trade association that advocates for greater use of natural gas in transportation for the benefit of Canada's economy and environment.

## Executive Summary

The affordable movement of goods and people is fundamental to a robust economy. More sustainable transportation can enhance Canada's standard of living through greater economic activity, price competition on fuel, the creation of a new market for an abundant Canadian resource, and reduced environmental impact from transportation.

If 5% of new trucks and buses sold in the next ten years were natural gas, by 2021, Canada would benefit from: (a) the addition of 1,200 high quality jobs in the fuel, vehicle, and station supply chain; (b) the displacement of \$693 million in imported oil annually; (c) increased demand for Canadian natural gas worth \$170 million annually; and (d) a 1.0 megatonne reduction in carbon emissions per year contributing to the 2020 objectives.

To secure these gains, it is recommended that the *Natural Gas Use in the Canadian Transportation Sector – Deployment Roadmap* guide future market development actions in Canada. The CNGVA recommends that:

1. Natural Resources Canada partner with the natural gas vehicle industry and convene an implementation group to act on the *Roadmap's* recommendations.
2. Finance Canada partner with Canada's transportation industries to assess and define an appropriate fiscal measure that encourages sustainable transportation.

A proposed measure should diversify energy use, reduce carbon emissions, and require the use of factory-built vehicles. The measure should be performance-based, technology neutral, targeted, time-limited, and accessible.

The above recommendations can be implemented at no cost using existing in-kind federal government resources and can leverage work that has been done to date involving public and private sector stakeholders from across Canada.

## **Creating Jobs in Sustainable Transportation**

Canada is a global leader in the supply chain for natural gas, natural gas vehicle-related equipment, and natural gas refuelling stations. In addition to being the world's third largest producer of natural gas, Canada is home to four heavy truck and bus assembly facilities that manufacture factory-built natural gas vehicles. More than 20 Canadian companies produce vehicle and station equipment and offer related services. Canadian companies lead the market for heavy natural gas engines selling to 20 different North American truck and bus manufacturers. More than 90% of Canadian natural gas vehicle- and station-related production is currently exported to other markets.

Existing early stage activity can provide the foundation for establishing a new industry in Canada focused on supplying the demand for lower carbon vehicles into both domestic and global markets. In the Canadian market, for example, if 5% of new trucks and buses sold in the next ten years were natural gas, the resulting manufacture of 18,000 vehicles, an estimated 600 refuelling stations, and related installation and maintenance services would create approximately 1,200 high quality jobs in Canada.

A more robust Canadian industry could also further exploit demand in the U.S. market where past supportive measures have underpinned higher rates of adoption for natural gas. The recent announcement by a major American natural gas producer of their intent to invest up to \$1.0 billion over the next ten years to build a network of truck refuelling stations signals increasingly strong demand for natural gas trucks in the U.S. market.

## **Providing Choice for Businesses, Communities & Families**

Whether for the delivery of goods, movement of people via public transit or for personal transportation, Canadian businesses, communities, and families could benefit from having a choice of fuels. Right now, crude oil-based fuels supply 99% of energy used for transportation. There is a lack of competition in the market.

Natural gas is a cost effective alternative. Businesses or communities that operate large fleets of trucks or buses can reduce their fuel cost by more than 30%. For a fleet of highway trucks, fuel savings can exceed \$10,000 per truck per year. For a typical transit bus, fuel savings can exceed \$6,000 per bus per year. Communities can benefit as return-to-base trucks that provide services and goods can reduce their cost of service. Families can also benefit once there is a network of public refuelling stations.

Canada has some high density traffic corridors where having access to a lower cost fuel would be particularly advantageous and create fuel competition and fuel choice. The Windsor (ON) to Quebec City (QC) corridor is the fourth busiest trucking route in North America with many communities located along its length. Having natural gas available as a transportation fuel in the corridor could also extend the natural gas value proposition by providing a choice of fuel to marine and rail applications near the corridor.

Fuel choice can also lessen vulnerabilities and strengthen supply security. Canada's current reliance on imported crude oil for 50% of the energy used in transportation exposes the economy to the supply and price risks associated with a global commodity. In addition, fuel choice would provide extra security to lessen the impact of any unforeseen supply disruptions at refineries that produce crude oil-based fuels.

## Contributing to Economic Recovery

The use of natural gas in transportation would open up a new market for an abundant Canadian resource. Sales of natural gas for transportation could contribute to Canada's economic recovery by: (a) displacing imported oil and improving Canada's balance of payments; (b) creating new demand that helps to offset declining export sales; and (c) triggering economic activity across Canada in support of natural gas production.

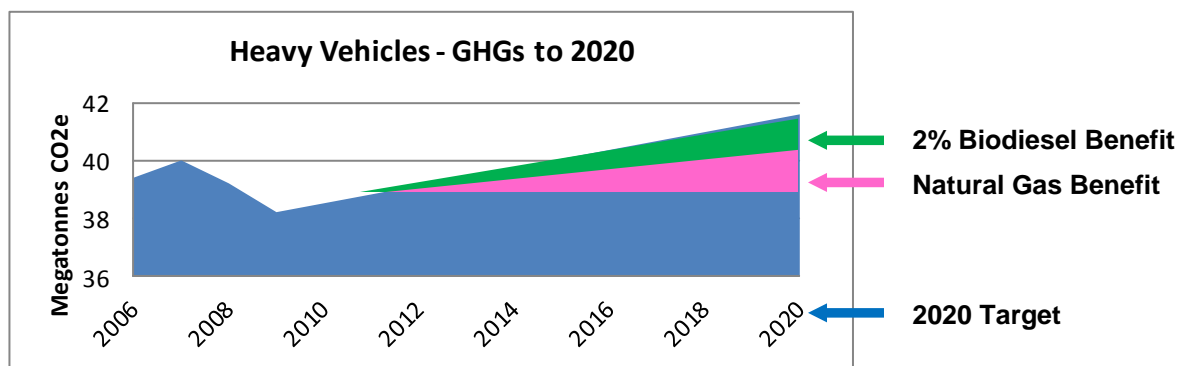
Based on the earlier example of 5% of new truck and buses sold in the next ten years being natural gas, natural gas demand would increase by 40.8 billion cubic feet (Bcf) annually by 2021. This represents less than 1.5% of current Canadian natural gas consumption, but it would displace 1.2 billion litres of diesel fuel produced from an estimated \$693 million in imported oil. This amount of energy equals six times the amount of energy currently produced in Canada for the 2% biodiesel requirement.

Opening up the transportation market to natural gas would help to grow demand and, in turn, offset declining natural gas sales into the U.S. market. Canadian gas exports have decreased 20% (540 Bcf) since 2006 due to increases in American natural gas production and slower rates of economic growth. The estimated current value of 40.8 Bcf worth of natural gas that could be used annually in transportation is \$170 million.

Increased Canadian natural gas production to meet new demand also triggers economic activity across Canada. Every billion cubic feet of natural gas produced generates an estimated \$ 17.0 million in direct and indirect economic benefits across Canada.

## Reducing Environmental Impact

Natural gas vehicle use can help Canada achieve its 2020 carbon reduction goals. Current projections suggest a 4.0 megatonne (Mt) shortfall by 2020 for heavy vehicles, one of Canada's fastest growing sources of carbon. If 5% of new trucks and buses were natural gas, the annual carbon benefit would be an estimated 1.0 megatonne by 2020. Natural gas use would complement existing measures to reduce carbon emissions.



Canadian communities will also benefit from reduced noise levels. Ten natural gas garbage trucks emit the same amount of noise as a single diesel garbage truck. There is no risk of soil contamination with natural gas. Human health is protected as there are no harmful evaporative emissions during refuelling. Communities can use renewable natural gas produced from waste sources such as landfills and wastewater treatment plants to produce near zero emission renewable natural gas in for use in vehicle fleets.

## Recommendations

Increased natural gas for transportation can create jobs, provide choice for businesses, communities and families, contribute to economic recovery by opening a new market for an abundant Canadian resource, and lessen the harmful environmental impact of transportation in Canada. To secure these gains, it is recommended that the *Natural Gas Use in the Canadian Transportation Sector – Deployment Roadmap* be used to guide future actions. In particular, the CNGVA recommends that:

1. Natural Resources Canada partner with the natural gas vehicle industry and convene an implementation group to act on the *Roadmap's* recommendations.
2. Finance Canada partner with Canada's transportation industries to assess and define an appropriate fiscal measure that encourages sustainable transportation.

A proposed measure should diversify energy use, reduce carbon emissions, and require the use of factory-built vehicles. The measure should be performance-based, technology neutral, targeted, time-limited, and accessible.

The above recommendations can be implemented at no cost using existing in-kind federal government resources and can leverage work that has been done to date involving public and private sector stakeholders.

## Next Steps

In addition to partnering with the federal government, the CNGVA and its members are involved in discussions with five provinces, each of whom have actively expressed their interest in the economic and environmental benefits of natural gas heavy vehicles.

The natural gas vehicle industry is also working with Canadian businesses and communities to implement heavy vehicle projects that showcase the economic and environmental benefits of natural gas as a sustainable transportation fuel. Key early adopter project launches with an estimated \$20 million incremental private sector investment to date include:

- **Robert Trucking** – 180 LNG trucks operating between QC and ON;
- **Vedder Transport** – 50 LNG trucks operating in BC;
- **Waste Management** – 40 CNG refuse trucks operating in BC.

These early launch projects will be used to build market confidence, increase service and supply chain capacity, identify implementation needs, reach out to businesses and communities, and verify benefits including increased economic activity, creating fuel choice in transportation, and opening up a new market for an abundant and affordable Canadian resource.