



Canadian Vehicle Manufacturers' Association (CVMA)

Statement by Mark Nantais, President

**To the
Senate Standing Committee on Energy, the Environment
& Natural Resources**

Study on the effects of transitioning to a low carbon economy

Thursday, October 27, 2016 from 8:00 a.m. – 10:00 a.m.

East Block, Room 257

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Thank you Chair and Honourable Senators.

My name is Mark Nantais and I am President of the Canadian Vehicle Manufacturers' Association which for 90 years has represented the leading manufacturers who assemble vehicles here in Canada. Our members are FCA Canada Inc., Ford Motor Company of Canada, Limited and General Motors of Canada Company; together these companies are responsible for approximately 60% of Canadian auto production¹.

The auto manufacturing sector is a key driver for Canada's economy contributing significantly to our nation's manufacturing GDP, providing tens of thousands of direct (115,000) and indirect jobs (some 500,000 in total right across Canada). The auto manufacturing sector is highly integrated between Canada and the U.S. and manufacturing plants on both sides of the border are fiercely competing for capital, investment and new product mandates. More specifically, the U.S. Midwest and Southern U.S. states, are our competing jurisdictions.

I want to thank you for the invitation and opportunity to speak to you about what the auto industry is doing as an environmental leader to navigate the

¹ Polk, Aug. 2016

transition to a low carbon economy. And in doing so, address the associated issues and public policies or regulations that can facilitate or impede both industry's and consumers' ability to reduce greenhouse gas emissions.

New rapid advancements in technology, changes in consumer preferences and new entrants into the global auto sector are inspiring new automotive products, services and business models that are part of advancing connected and automated vehicles at unprecedented speed; these technologies can also potentially lead to significant improvements in road safety and further reductions in vehicle fleet GHG emissions.

In addition, the auto industry is one of the largest "Green Tech" sectors in the world, investing greater than \$200 billion in fuel efficiency and "green tech", resulting in a historically unprecedented 50% reduction in greenhouse gas emissions by 2025; some \$100 billion is being invested in electric vehicle development. Automakers are spending an average of \$1,200 for R&D per vehicle*. Improved fuel consumption and emissions targets continue to drive automaker improvements in vehicle powertrain,

light weighting, aerodynamics, electrification and other vehicle attributes.

(Source: *Center for Automotive Research 2015).

We have a remarkable track record in energy efficient manufacturing and in reducing the environmental footprint of new vehicles from inception to end of life:

Manufacturing:

Energy Intensity (MJ/\$2007 – GDP) in the auto manufacturing sector has been steadily and significantly decreasing since 1990 (source: NRCAN).

Put another way, the auto manufacturing sector has become more energy efficient and less GHG emission intensive, while having among the most productive and award winning quality plants in North America.

As a result of the industry's energy efficiency and reduction of GHG emissions , auto manufacturing contributes less than one percent of industrial GHG emissions (source: MOECC) in Ontario where it primarily resides. It is uses "Smart" manufacturing processes and highly efficient – emitting less than half of the direct and indirect GHG emissions per vehicle built when compared to European auto manufacturing (source: ACEA; CVMA).

At all levels in our society, people are making decisions to reduce the carbon footprint of their day-to-day activities, including personal transportation.

In response, the auto industry's pace of technology innovation is rapidly increasing. Vehicle technology will change more in the next five years than it has in the past 100 years.

The GHGs for the on-road fleet of light duty vehicles is a relatively small portion of the total inventory in Canada at 11% (84 Mt.) and this percentage is forecast to steadily drop as new vehicles replace the older vehicles in operation. Even greater GHG reductions could be achieved if older higher emitting vehicles (representing over 1/3 of the existing fleet) are retired on an accelerated basis and replaced with the new significantly more fuel efficient vehicles.

The very stringent Passenger Car and Light Duty Truck GHG Emission Regulations – 2017–2025 model years have been adopted on a harmonized basis with the U.S., creating a single and efficient standard on

a North American basis (including California) to the benefit of the environment and consumers.

These regulations require manufacturers to adopt a multi-technology and fuels pathway for compliance in which electric vehicles, plug-in hybrid and battery electric, will become increasingly more prominent during this period of rapid technology deployment of GHG reducing technologies.

Through an unprecedented 3 to 5% year over year improvement requirement, 2025 model year (MY) light duty vehicles are projected to consume 50% less fuel than 2008 MY vehicles. From 2011 MY, this will result in an estimated cumulative reduction of 266 mega-tonnes (or 266 million tonnes) of carbon dioxide equivalent (CO₂) GHG emissions from the LDV fleet on a national basis.

Some regulators and advocates allude to these standards as business as usual for the industry – I can assure you that this is hardly the case given the attendant technological challenges and cost.

I should also add that heavy duty vehicles are also be stringently regulated for the 2014–2018 model years and again for 2019–2027 model years (now under development).

Vehicle Electrification:

The new light duty vehicle GHG regulations will also increase the use of alternative energy sources in vehicles, such as electric vehicles, fuel cell electric and, plug-in hybrid electric vehicles (PHEVs), compressed natural gas (CNG) and hydrogen (H₂) vehicles. Since 2011, 25 new plug-in electric vehicles have been introduced in Canada across a growing number of vehicle segments; this will increase to 29 for the 2017 model year some of which will be built in Canada.

Beyond cost, battery electric vehicle technology also has significant technical challenges with range and vehicle size that needs further development before mass consumer acceptance and adoption of these technologies is possible. Battery electric vehicles have certain limitations in Canada's cold weather and under a developing recharging infrastructure making consumers wary about their purchase – their sentiments cannot be ignored. PHEVs, on the other hand, in such conditions and circumstances,

provide a practical option during the early stage of EV market development. Ultimately, consumers must be able to make a value judgement based upon their needs to select the most cost effective vehicle choices.

Greater success in electric vehicle adoption can be achieved by proactively instituting policies that help increase the consumer demand for electric vehicles, enhancing the recharging infrastructure in the most effective locations and through public education.

Similarly, policies supporting plug-in electric vehicle consumer incentives and measures that make electric vehicle use more convenient (improved recharging infrastructure) and less costly have been found to be much more helpful at increasing consumer adoption rates.

We offer the following recommendations for industry and government collaborative action that would form a partnership approach:

- 1) Consumer education

- 2) Targeted support for the electrification of city fleets for example taxis, delivery fleets, car sharing, commercial and government fleets
- 3) Expanded HOV/EV fast lane access and free charging & parking
- 4) Enhance city and workplace EV recharging infrastructure as a priority, and fast charging installations along inter-city corridors
- 5) Maintain meaningful consumer incentives to accelerate adoption - both federally and provincially – as they have done in the U.S. federally and with State incentives.
- 6) Explore Green Tech Opportunity – R&D and testing for batteries, EV components, EV infrastructure (plug-in & hydrogen) and autonomous vehicles
- 7) Retirement program of higher GHG emitting 12 years and older vehicles

Auto manufacturing is also highly trade exposed (source: StatCan data) and very sensitive to any cost increases imposed provincially and federally. That is why the design of the pan-Canadian Framework for Climate Change is very important to the competitiveness of Canada's auto

manufacturing and ultimately the achievement of Canada's economic and environmental objectives.

What is needed is a national climate action framework that ensures the sustainability and long term competitiveness of the automotive industry. It is critical in order to maintain the Canada's current manufacturing footprint and to avoid the migration of many thousands of jobs - "carbon leakage" to other jurisdictions (which have no similar climate policy commitments). In Canada, the auto industry's competition is not east- west, but north – south.

All Canadian jurisdictions (federal government, provinces and territories), must continue to support the national implementation of advanced emission and GHG reducing technologies as the most cost effective approach to emission reductions for governments and consumers. Overlaying sub-national policies on these national regulations, which are aligned across North America, will sub-optimize the industry's ability to effectively deploy these technologies and will do so at an increased cost to consumers.

A continued harmonized regulatory approach allows for the leveraging of North American economies of scale which provide Canadians with the

greatest access to advanced vehicle technologies and their commensurate environmental benefits (reduction in vehicle GHG emissions as well as criteria emissions). These actions are consistent with the activities and objectives of the Regulatory Cooperation Council and the June 29, 2016 Leaders' Statement and Action Plan on the North American Climate, Clean Energy, and Environment Partnership.

In closing, the CVMA remains very interested in an open dialogue to address the issues presented this afternoon and to explore potential solutions.

I will look forward to responding to any questions you may have.

Thank you very much.