



Canadian Association
Propane canadienne
Association du propane

08 March, 2023

Honourable Steven Guilbeault
Minister of Environment and Climate Change Canada
200, boul. Sacre-Coeur
Gatineau, Quebec K1A0H3
Steven.guilbeault5@ec.gc.ca

Dear Honourable Minister Steven Guilbeault,

Re: Proposed Amendment to the Passenger and light duty truck GHG Regulation.
(The regulation)

The Canadian Propane Association (CPA) represents over 400 members from coast-to-coast-to-coast. Our mission is to champion propane and the propane industry in Canada, and to facilitate safety, best practices, and a favourable business environment, through advocacy, training and emergency response.

We write to you in support of a regulatory structure that promotes flexible and cost-effective compliance pathways, encourages investment in advanced technologies, and benefits to all Canadians. The proposed amendments to the regulation are a commendable effort by the federal government to advance toward Net-Zero. However, the focus of Zero Emission Vehicles (ZEVs) to include only electric and hybrid electric vehicles as “*the only available zero-emission vehicle currently available*” as was stated in the webinar about the amendments, is flawed.

The propane industry has spent, and will continue to spend, hundreds of millions of dollars on the advancement towards emission reductions such as advancements in engine technology, the creation and feasibility study of renewable Dimethyl Ether, and the creation and use of renewable propane. We continue to seek meaningful advancements towards decarbonizing our pathways and believe that there is room to support and incent many options as we work towards reducing vehicle emissions. Decarbonizing the Canadian transportation system is a monumental challenge and one that requires governments support, through incentivization and investing in breakthrough technology.

We also note that the federal government’s claim that ZEV are zero emissions is inaccurate and misleading. The fact that there are no direct emissions from a ZEV tailpipe does not mitigate the fact that there are vehicle-cycle and fuel-cycle emissions associated with electric vehicle production and the electrical grid. This exclusion of

counting full emissions hampers progress towards meaningful emission reductions. For example, in many provinces, current use of the grid for vehicle charging and other electrification projects increases emissions.¹ Propane can help lower emissions now and can continue to do so as our industry invests into renewable fuels and renewable fuel blend technology.

The CPA believes in setting challenging but achievable standards, paired with meaningful policy flexibility, this will naturally present several compliance pathways, which is an appropriate approach for creating affordable and meaningful decarbonization decisions. What follows is a regulatory analysis based on the information found under the headings of the proposed regulation.

Regulatory Analysis.

Executive Summary

Issues and Description

The light duty vehicle sales targets propose amendments that focus solely upon electric vehicles, effectively excluding other options which would become available. The description indicates the focus on ZEV would be “Decreasing emissions in all sectors, including transportation...”. This will create significantly increased demand on the electricity grid and the costs to create power generating facilities to meet that demand. Small Modular Reactors (SMR) coupled with wind, solar and additional battery provisions all tax the Canadian and global economy for the costs to build them, and the minerals required for the back-up battery power.

Much like the SMR plans, renewable fuels programs can also alleviate some of the demand for power generation, alleviate the minerals demand for batteries, and still provide power options for zero-emission capable renewable fuel blends that can power these vehicles. Renewable fuel projects create renewable propane that can be blended with renewable Dimethyl Ether. This blend can cleanly run vehicles despite their exclusion from the currently proposed language in this amendment. Reportedly, these blends can even rival hydroelectric production in a comparison of carbon emissions.²

For example, a facility in western USA is currently blending 20% RDME with renewable propane and reportedly seeing a carbon intensity of -278 g/MJ. A knock off benefit of these renewable facilities is the added ability to create bio-diesel which can help clean up medium and heavy-duty trucking, as well as provide a viable option for use in aircraft which also benefits the climate by reducing emissions in those sectors. These facilities are new, but already in use in North America and Europe.

¹Canada, (2022) *Clean Fuel Regulation Schedule 6 Para 8* Retrieved from [CEPA Registry - Canada.ca](https://www2.ec.gc.ca/cepa/registry/Canada.ca)

² Oberon Fuels (2023) Retrieved from [Low-CI LPG | Oberon Fuels](#)



As was written in the Net-Zero Advisory Body Annual Report January 2023³, *“No single entity can, on its own, permanently get Canadian society to net-zero emissions. Success depends on setting the right framework for all parts of society to move in the same direction via regulations, standards, and incentives, consistent with **credible pathways** to net-zero emissions.”* The CPA wholeheartedly agrees with this statement.

In fact, the current emissions stemming from some provinces’ electricity that is needed to charge a ZEV is double, or close to triple the carbon intensity of emissions from charging, when compared with **current** propane emissions.⁴ Electricity emissions will improve over time, but propane can reduce emissions NOW and continues to work towards renewable propane and renewable DME blends that have already shown to be lower than any of the most effective electrical grids, and will also improve over the same time periods as Canada’s electrical emissions timeline.

Investment into propane decarbonization could be compromised by the current ZEV regulation’s narrow focus that excludes other advancements in the fight against climate change. The government should focus on overall emissions reductions and the pathways to most effectively – and affordably – reduce emissions in our transportation sector.

Rationale

The 2030 Emission Reduction Plan reducing national GHG emissions by 40-45% below 2005 by 2030 and achieving net zero by 2050 is a valuable initiative. However, excluding certain vehicles and energy sources by focusing on tailpipe emissions and not on actual emissions from production and use detracts from the overall goal. Until such time as all provincial energy grids have been upgraded to be zero emission, alternative fuels in their current intensity remain a viable reduction strategy, not to mention the reductions that will be realized through renewable options already in production worldwide, as evidenced by renewable propane and rDME already available in the U.S. and Europe.

Renewable fuels must continue to be a part of the emissions reduction goal for the transportation sector, as these sources will immediately lower emissions while the electrical upgrades, and renewables upgrades work to be improved. Continued inclusion of renewable fuel vehicles will also provide reliable and affordable options for rural and remote locations. Propane and propane blends have proven to function very well in the colder climates of the north and provide added security that the

³ Canada (2023) *First annual report to the Minister of Environment and Climate Change Compete and succeed in a net-zero future*, –

<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050/advisory-body/first-annual-report-to-minister.html>

⁴ Canada, *Clean Fuel Regulation Schedule 6 Para 8* (2022) Retrieved from [CEPA Registry - Canada.ca](https://www.cepa.ca/CEPA-Registry-Canada.ca)



vehicle will function, and cover some of the longer distances required in remote areas, a factor that electric vehicles continue to struggle with.

Renewable propane is not the only renewable option. Hydrogen blending, renewable diesel, and hydrogen engine advances for example would also be excluded with the current verbiage found in the regulation. Innovations are happening every day, from propane/hydrogen engines, renewable blends, and advances in engine technology such as the advancements from Cummins engines with multiple types of fuel applications.⁵

Cost Benefit statement

The regulation indicates estimates of \$24.5 billion of charger costs, and a savings of \$33.9 billion in net energy costs. While these estimates would be beneficial, the CPA would encourage the government to consider the benefits of allowing for alternative fuels to become a part of the regulation, with much of the infrastructure already in place, and with a significantly cheaper vehicle cost.

Propane can immediately reduce transportation emissions when converting from diesel or gasoline, and allows for an affordable alternative option for consumers. Affordability is a key component in the energy transformation discussion - policy and regulatory decisions have long-term impacts on consumers and should allow for a pace and scale that best fits with the general public and spending profiles.

Regulatory Impact Analysis Statement

Background, ZEV Incentives

The ZEV incentive portion of the regulation indicates a TC-led program provides purchase incentives of up to \$5000 for eligible light duty vehicles. That same incentive could in many cases cover the full amount of the added cost of equipment changes to purchase an alternative fuel vehicle, like propane and renewable propane. This would make climate emissions reductions affordable without the requirement for the consumer to pay significantly more for the ZEV purchase, plus the charging station acquisition and installation costs.

The CPA would be supportive of a regulatory structure that promotes flexible and cost-effective decarbonization pathways, encourages and incents investment into advanced technologies, and includes propane as part of an alternative fuel pathway to ensure affordable options for all consumers.

Table 1: ZEV Sales targets by model year

The CPA proposes that the table have an added target path that includes any alternative fueled vehicle sales targets that reduce emissions and that demonstrate a planned reduction path toward continued decreases in carbon intensity. This would

⁵ Cummins (2023) *Sustainability, Plus Performance*, Retrieved from [New Power | Cummins Inc.](#)



allow for renewable fuel blends, and any fuel advancements, such as hydrogen, the opportunity to continue their support of the ongoing work to reduce harmful emissions.

An additional caveat could be similar to the PHEV premise, and have the requirement for the alternative fuel vehicle sales to reach zero emissions by 2040. Then, similar to PHEV, they would no longer be viable for sale after 2040 unless the alternative fuel reaches the zero-emission target. Not zero tailpipe emissions, but overall emissions from the vehicle use, and include emissions reductions from the processes involved in the creation of the renewable product much like the emissions that should be included in the electric charging involved with the use of a ZEV.

Conclusion statement

The CPA again is encouraged by federal government's efforts to reduce transportation emissions and we believe propane is part of the decarbonization strategy. We strongly encourage the inclusion of all vehicle options that provide for a zero-emission strategy and can perform equally as well as ZEV, while maintaining affordability to the consumer.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Shannon Watt', with a stylized flourish at the end.

Shannon Watt

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