

March 28, 2019

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via email allison.deng@ontario.ca

Dear Ms. Deng,

RE: Consultation on Increasing Renewable Content in Fuels
Submissions on the Ministry of Environment, Conservation and Parks Regulatory Proposal (ERO # 013-4598)

These are the submission of the Canadian Environmental Law Association (“CELA”) regarding the Ministry of the Environment, Conservation and Parks’ (“MECP”) proposal to increase the renewable content (e.g. ethanol) in gasoline to 15% as early as 2025.¹

The transport sector produces about one-third of Ontario’s carbon emissions, more than any other sector.² As a result, energy sources that can meet the demands of current and future generations without causing unacceptable environmental and social consequences are crucial. While the blending of biofuels into gasoline may provide a short-term strategy for reducing greenhouse gas (GHG) emissions, it does not address the fundamental challenges of climate change. Reducing emissions from transportation requires a multitude of policies and a societal shift from our current dependency on internal combustion engine vehicles to public transit or electric vehicles.

Therefore, as set out below CELA recommends:

1. MECP assess the potential environmental and social effects of a shift to greater biofuel, including ethanol, content in gasoline.
2. Ontario’s biofuel mix avoid bio-based sources which are environmental destructive, particularly palm oil.

¹ Environmental Registry of Ontario, “Increasing renewable content in fuels,” (12 Feb 2019) online: <https://ero.ontario.ca/notice/013-4598>.

² Environmental Commissioner of Ontario, “Greenhouse Gas (GHG) Emissions in Ontario,” (23 Oct 2018) online: <https://eco.on.ca/blog/ghg-emissions-in-ontario/>.

3. Complementary and alternative approaches to reducing the GHGs of transport sector should be incentivized.

I. The Canadian Environmental Law Association

The Canadian Environmental Law Association (“CELA”) is a non-profit, public interest law organization established in 1970 for the purpose of using and improving existing laws to protect public health and the environment. For nearly 50 years, CELA has used legal tools, undertaken ground-breaking research and conducted public interest advocacy to increase environmental protection and the safeguarding of communities. We work towards protecting human health and our environment by actively engaging in policy planning and seeking justice for those harmed by pollution or poor environmental decision-making.

II. Recommendations on the MECP’s Proposal

A. The Government should assess the potential environmental and social effects of a shift to greater biofuel content in gasoline

MECP is proposing amendments to O Reg. 535/05: Ethanol in Gasoline and O Reg. 97/14: Greener Diesel – Renewable Fuel Content Requirements for Petroleum Diesel Fuel in order to meet its target of 15% renewable content as early as 2025.

While ethanol blended gasoline may result in lower tailpipe emissions, this reduction has been found to be marginal and potentially negated when the complete life cycle of the fuel is considered (i.e. the GHGs resulting from the production and transport of biofuel based products, such as ethanol).³ Higher acetaldehyde, ethanol, and nitrogen oxides emissions from the combustion of ethanol-gasoline blends than from gasoline have been documented, thereby contributing to increased toxicity in urban atmospheres.⁴ Ethanol blended gasoline also significantly increases both the risk and severity of soil and groundwater contamination.⁵

Increased agricultural expansion needed for ethanol production raises concerns over the environmental impacts of fertilizer and pesticide use, as well as the negative impacts of land clearing on ecosystem services including water purification, carbon sequestration, nutrient cycling, biodiversity, and recreation. The reorientation of agricultural output towards biofuel from food production also raises concerns over food security.

³ R.K. Niven, “Ethanol in gasoline: environmental impacts and sustainability review article”, (2005) 9 *Renewable and Sustainable Energy Reviews* 535 [R.K. Niven, Ethanol in gasoline].

⁴ *Supra* note 3, R.K. Niven, Ethanol in gasoline; Otto Anderson et al., “Environmental impacts connected with the use of ethanol-gasoline blends”, (Paper delivered at Conference: Alcohol fuels for transport – background, research and development, Krakow) online:

https://www.researchgate.net/publication/284725183_Environmental_impacts_connected_with_the_use_of_ethanol-gasoline_blends

⁵ *Ibid.*

Thus, the net gains and losses from long-term biomass uses, must be assessed, to ensure the sustainable use of lands. CELA recommends that the Ontario Government consider the lifecycle emissions and other environmental and health impacts of blending of biofuels into fossil fuel before proceeding with the proposed regulatory amendment.

B. Ontario’s biofuel mix must not include environmentally destructive bio-based sources, such as palm oil

Neither the regulations being amended, nor the MECP’s proposed amendments specify the origin of the bio-based content used in achieving the 2025 target. For instance, O Reg. 97/14 allows for fuel suppliers to import blended petroleum from outside of Ontario and sell it at wholesale or retail. No direction is provided which limits the source of the supply. Similarly, none of the seven enumerated standards for biofuel set out in s. 3 of the O Reg. 97/14 limit the origin of the source. As currently drafted, the regulations do not specify source nor origin of the biofuel content.

Therefore, the origin of bio-based fuel content must be expressly considered so that Ontario’s biofuel mix avoids bio-based sources which are environmentally destructive. While biofuel in the United States is primarily ethanol produced from corn,⁷ biofuel in the European Union is primarily produced from vegetable oils or fats, including palm oil. The EU recently announced an act which would remove palm oil from its biofuel mix because its harvesting causes excessive deforestation,⁸ the destruction of wetlands, peatlands (which resultantly release GHGs) and destroys the habitat of several endangered species including orangutans, Sumatran rhinos, and Sumatran tigers.⁹

It is necessary that Ontario take preventative actions to ensure that crops which are environmental destructive are not relied upon in its mixture of renewable bio-based fuel content. As the proposal is silent on second-generation or advanced biofuels, we also recommend the province prioritize biofuel sources from new technologies for producing ethanol from cellulose (i.e. woody, fibrous

⁶ ICTSD Programme on Agricultural Trade and Sustainable Development, “US Trade Policies on Biofuels and Sustainable Development,” (June 2009), p vi [Biofuels and Sustainable Development]

⁷ Biofuels and Sustainable Development p 2.

⁸ Philip Blenkinsop, “EU singles out palm oil for removal from transport fuel” (13 March 2019) Reuters online: <https://www.reuters.com/article/us-eu-biofuels/eu-singles-out-palm-oil-for-removal-from-transport-fuel-idUSKBN1QU1G9>

⁹ Chris Packham, “Palm oil producers are wiping out orangutans – despite multinationals’ promises” (10 May 2018) The Guardian online: <https://www.theguardian.com/commentisfree/2018/may/10/palm-oil-orangutans-multinationals-promises-deforestation>; Paul Tullis, “How the world got hooked on palm oil” (19 Feb 2019) The Guardian online: <https://www.theguardian.com/news/2019/feb/19/palm-oil-ingredient-biscuits-shampoo-environmental>

plants) as opposed to grain-based ethanol, as well as biofuels that improve land currently considered unsuitable for agriculture, such as municipal waste streams.¹⁰

Given the significant, adverse effects of certain bio-based fuel sources, CELA strongly recommends MECP limit bio-based components to domestic, Canadian sources.¹¹ As such, the insidious impacts of bio-based content must be expressly assessed and certain types of bio-based content, such as biofuels containing palm oil expressly prohibited from Ontario's biofuel content.

C. Incentivize complementary and alternative approaches to reducing GHGs of transport sector

CELA encourages MECP to encourage and incentivize other policies which can complement carbon reduction policies in the transport sector. MECP's biofuel proposal cannot be considered in isolation of other activities by the province which have undermined our ability to reduce emissions.

Therefore, to meet the province's proposed Environment Plan's goal of reducing GHG emissions, we encourage MECP to incentivize innovation for developing and commercializing alternatives, such as electric vehicles and accompanying infrastructure. Complementary policies which facilitate our transition away from petroleum-based transportation must be supported by the government.¹²

We encourage the government to revisit and restore measures in the transport sector that would complement Ontario's efforts on climate change. For example, we encourage the restoration of the electric vehicle charges at Metrolinx parking lots¹³, and the pursuit of other efforts to move to a decarbonized transportation sector. *We must ensure that in seeking to meet the 2025 target, biofuel policies do not discourage alternatives and complementary energy and transport policies.*

¹⁰ *Supra* note 3, R.K. Niven, Ethanol in gasoline; UC Berkeley News, "Ethanol can replace gasoline with significant energy savings, comparable impact on greenhouse gases" (26 January 2006) online: https://www.berkeley.edu/news/media/releases/2006/01/26_ethanol.shtml

¹¹ According to s 1(1) of the O Reg. 97/14 "Bio-based content" means any material that is derived from biological matter that is available on either a renewable or recurring basis.

¹² See for instance Canada's Ecofiscal Commission, "Course Correction – It's Time to Rethink Canadian Biofuel Policies," (October 2016) p 36.

¹³ CBC News, "Metrolinx removes electric vehicle chargers from GO station parking lots" (10 Jan 2019) online: <https://www.cbc.ca/news/canada/toronto/metrolinx-ev-charging-stations-1.4972890>

III. Conclusion

On the surface, increasing the content of renewable fuels in transport fuels is a laudable goal. However, it is necessary to assess the 2025 target in light of long-term ecological and social effects resulting from biofuel use; ensure bio-based content are not sourced from environmentally detrimental activities; and, recognize that alternative and complementary measures are necessary to reduce the GHGs of the transport sector.

Thank you for the opportunity to comment on the proposed regulatory amendments.

Yours truly,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION



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