Rebecca Tan
Policy Advisor: Ministry of the Environment and Climate Change
Climate Change and Environmental Policy Division
Air Policy Instruments and Programs Design Branch
77 Wellesley Street West
Floor 10: Ferguson Block
Toronto Ontario M7A2T5
Phone: (416) 325-5102

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Re: Low Carbon Transportation Fuels in Ontario: Amendments to Ethanol in Gasoline (O. Reg. 535/05) and Greener Diesel – Renewable Fuel Content Requirements for Petroleum Diesel Fuel (O. Reg. 97/14) Regulations

EBR Registry Number: 013-1929

Clean Economy Alliance Comments

The following submission provides the Clean Economy Alliance's response to the proposed amendments to Ethanol in Gasoline and Greener Diesel regulations. The Clean Economy Alliance (CEA, or the Alliance) is a group of over 100 organizations representing a broad cross-section of Ontarians that united in 2015 to urge Ontario to show leadership in addressing the crucial issue of climate change. The CEA includes prominent Ontario businesses, industry associations, labour unions, farmers' groups, health advocates, and environmental organizations. The Alliance supports the Ontario government's commitments to develop and implement a climate change strategy and action plan. We recognize that reducing pollution will bring many benefits, including cleaner air, improved public health, and more jobs and business opportunities in the clean economy.

General Comments:

The CEA is broadly supportive of increasing renewable content in fuels as a transitional tool to reduce greenhouse gas emissions from the transportation sector. Ultimately, policy steps to increase low carbon fuel content in transportation fuels should be viewed as interim measures to allow for immediate emission intensity improvements while we make the switch to lower-carbon vehicles (EVs, hydrogen), build a fully integrated transit network, and encourage active transportation methods like cycling and walking. Our ultimate goal is a larger modal shift in how we move people and goods, and any change in fuels should not hinder or delay that shift.

The proposed measures are a good start, but **there is a need for more ambitious targets and programs to drive innovation and adoption.** The biofuels industry is well-positioned to innovate and drive consumer adoption of reduced carbon intensity (CI) fuels on a larger scale, and should be given the tools to close the price gap between high-blend sustainable biofuels and conventional fuels.

Ontario could also do much more to support innovation and increased use of high-blend biofuels from waste-based sources. We applaud the inclusion of compliance values for cellulosic ethanol from solid municipal waste and other potential waste products. However we would like to see a clear preference for transportation fuels from waste products. Biofuels produced from food commodity crops can have much greater impacts on water systems, land use, and ecological habitats, particularly when increased demand for those crops results in an increase in cultivated land. Crop-based fuels also have a higher carbon intensity value compared to waste-based fuels. Waste-based fuel sources present a strong and timely opportunity to support the province's goals for waste diversion, climate change mitigation, and technological innovation.

We fully support measuring greenhouse gas emissions on a lifecycle basis, and recommend the inclusion of Indirect Land Use Changes (ILUC) in the lifecycle assessment to account for any changes to emissions resulting from changes to land use.

In addition, the proposed regulations need to consider more than just greenhouse gas emissions. Special attention should be paid to the environmental impacts of using crop-based fuels, particularly corn ethanol to meet greenhouse gas reduction targets. These impacts can include land use changes to meet demand, biodiversity losses, impacts on food prices, and nutrient pollution and algal growth from corn crops. We should note that biodiesel often makes use of crops that may otherwise not be suitable for food, which avoids compromising on the food supply and presents fewer land use impacts. For this reason, the nuances of crop use for each specific fuel should be appropriately considered.

The proposed amendments have been presented as first steps while we wait for more details on a federal Clean Fuel Standard. We support and encourage alignment with federal standards, as well as other low carbon fuel policies in climate-leading jurisdictions such as BC, Oregon and California. In waiting for these details, **we need to avoid creating a patchwork of overly prescriptive regulations which favour one fuel type over another**. Instead, we need to move towards prioritizing and incentivizing fuels based on carbon intensity, which is much more effective than regulating minimum percentages of specific fuels.

We support stringent fuels standards that progressively require carbon to be removed from fuels, and recommend that Ontario move away from step-change regulatory signals to a longer-term plan with increasing stringency over time.

<u>Comments by Regulation</u>

1. **Require gasoline suppliers to maintain an average of at least 10% ethanol in regular grade gasoline (88 octane or less), by volume per calendar year starting in 2020**

We support this increase as a transitional measure while waiting on implementation of a more robust low carbon fuel standard. However, we caution that this step must go hand in hand with a commitment to consider the potential environmental impacts of increased ethanol production as mentioned above,

and a commitment to prioritizing fuels based on carbon intensity in a future low carbon fuel standard. For this reason, we recommend applying minimums to 'renewable fuel content' rather than ethanol alone.

A 10% ethanol minimum would be both achievable for producers and compatible with conventional vehicles. As this would require little to no change in current infrastructure, it makes sense as a quick stopgap measure to reduce greenhouse gas emissions from transportation. However, we caution against viewing this step as anything more than a temporary solution. The focus must remain on creating a renewable fuels standard based on carbon intensity.

We also encourage Ontario to include a mechanism for rewarding lower CI fuels. And we urge Ontario to reconsider using a prescriptive definition of regular grade gasoline, and specify instead that gasoline for regular use meet the 10% requirement and only fuels for high performance vehicles, off road vehicles and marine use be exempt from the 10% requirement.

It would be helpful to have more information on potential greenhouse gas emissions reductions resulting from different volume levels (i.e. E10 vs E15), in order to better evaluate the benefits of at 10% minimum.

2. **Require ethanol used for compliance to emit significantly fewer (e.g. 35%) greenhouse gas (GHG) emissions on a lifecycle basis than petroleum gasoline starting in 2020.**

This should be a very achievable backstop for most current ethanol producers, and could potentially be made more ambitious over time. We recommend further incentivizing the use of cleaner ethanols with lower carbon intensity than this 35% threshold by creating a mechanism to value lower CI fuels over higher CI fuels. Ontario could use the 35% figure as a reference value that all ethanol used for compliance would need to meet, but allow for fuel producers to demonstrate and be rewarded for using even lower carbon intensity fuels.

We applaud Ontario's commitment to calculating carbon intensity on a lifecycle basis, and strongly advocate for this to remain a priority.

3. **Expand the existing incentive/multiplier for advanced renewable fuel technology to emerging technologies, including renewable gasoline and biocrude and include a compliance value for renewable gasoline and biocrude, to be informed by consultations.**

We support extending support for emerging technologies, but highlight the need for this expansion to be informed by consultations. There is concern that this system may not work as planned for ethanol due to its current cost being lower than gasoline.

We applaud the inclusion of biogenic portion of solid municipal waste – with a potential ban on organics disposal in Ontario landfills in the future, with the right support this could be a great opportunity to create a fully closed loop system and redirect organic waste into biofuels production and achieve GHG emissions reductions, rather than allowing organic waste to create GHG emissions sitting in a landfill.

We would suggest basing multipliers or other incentive mechanisms on CI rather than fuel type in order to keep these regulations technology agnostic, and incentivize production of the lowest possible CI fuels.

This would also make it easier in future to add new fuels to MOECC tables as they are invented and produced, and create custom compliance values as needed based on measured carbon intensity.

4. **Calculate the lifecycle GHG performance of a fuel in carbon intensity (CI) using GHGenius version 4.03a, or a subsequent model adopted by the Director.**

We support measures to harmonize measurements and data with other leading jurisdictions. We also strongly urge ILUC to be included in the GHG performance calculations per above.

5. **Require that a professional engineer certify that primary data used in the carbon intensity calculations are reasonable and the calculations are correct.**

We echo the need for third party verification in order to ensure accuracy. We are open to the possibility that other qualified persons may also be well suited to this verification or parts thereof.

Amendments to Greener Diesel – Renewable Fuel Content Requirements for Petroleum Diesel Fuel (O. Reg. 97/14) under the Environmental Protection Act, R.S.O. 1990, c.E.19:

1. **Amend the regulation to create an incentive for emerging renewable fuel technologies, such as biocrude, by allowing it as a compliance option and assigning a compliance value, to be informed by stakeholder consultation.**

The ministry is also exploring options to support biofuel production and innovation through a Blenders Support Program (BSP) including potential funding of up to $155 million for fuel refiners to make infrastructure upgrades to support the long-term use of biocrude and other program opportunities for further GHG reductions from fuels in the transportation sector.

Biodiesel boasts significant benefits over regular diesel: it's generally 92% less carbon intensive than regular diesel, and offers a major reduction in air contaminants, meaning significant health benefits over regular diesel. Therefore, we are broadly supportive of initiatives to incentivize greener diesel alternatives and narrow the price gap between biodiesel and regular diesel.

However, special concern needs to be taken to ensure that palm oil isn't used to make renewable diesel. Palm oil causes considerable environmental damage, and its use as or incorporation into fuels should be prohibited.

Although we support funding for innovation to support biofuel production, we caution against any funding which will put larger refineries at an advantage over other market players. Funding should be reserved for "fuel distributors for high-blend sustainable biofuels" as outlined in the Climate Change Action Plan, and should not be directed to subsidize production of fuel with low renewable content. We

suggest using this funding to incentivize renewable fuels which go above and beyond current standards. Since biocrude is at an early stage of development, we also suggest scoping the benefits of biocrude infrastructure support in terms of cost/tonne of greenhouse gas reduction, or starting with funding pilots to better determine cost/tonne.

Questions

Blending Requirements

2. How can the adoption of emerging clean fuel technologies be encouraged? Are there further measures to support compliance flexibility?

As mentioned above**,** we would like to see more funding and support for the creation of transportation fuels from waste products**.** The Climate Change Action Plan promises a program to pilot waste and agricultural methane as a fuel source – using methane obtained from agricultural materials or food wastes for transportation purposes, with funding for commercial-scale demonstration projects. OMAFRA has proposed an Agrifood Renewable Natural Gas for Transportation Demonstration Program, and we recommend implementing a similar program to create biofuels for more conventional combustion engines as soon as possible.

Lifecycle GHG Emissions

3. What should be considered in assessing lifecycle GHG performance and recognizing and assigning environmental performance values of biofuels?

The federal clean fuel standard regulations propose "using a lifecycle approach to set carbon intensity values and requirements, accounting for the amount of greenhouse gases emitted to produce a unit of energy. This lifecycle approach will assess GHG emissions from all stages in a product's life, from cradle to grave (that is, from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling where applicable)."

We recommend harmonizing the definition with existing standards as much as possible to allow for consistency. We also recommend ensuring that emissions from indirect land-use impacts (ILUCs) are considered in this process, and that environmental performance values take into account the full ecological impacts of each fuel type. Ontario should mirror California and Oregon and include indirect land-use changes (ILUC) in the upcoming Renewable Fuel Standard. We also support accounting for ILUCs in conventional fossil fuels so as not to disadvantage renewable fuel providers.

CLEAN ECONOMY ALLIANCE

Contact Information

Thank you for your consideration in reviewing the CEA's comments. The CEA looks forward to continuing to work with the Province on the proposed regulations and related climate change strategy.

If you have any questions or require any clarification on the contents of this submission, please contact:

Sarah Buchanan
Program Manager, Clean Economy
116 Spadina Ave, Suite 300 Toronto, ON M5V 2K6
Phone: 416-323-9521 X. 244
Email: sbuchanan@environmentaldefence.ca