

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## Canada

**Post:** Ottawa

## Ontario Proposes Amendments to Ethanol Regulations

**Report Categories:**

Biofuels

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**Report Highlights:**

Ontario proposed to increase the ethanol blend mandate from five to ten percent and require that the ethanol emit significantly fewer greenhouse gas emissions than petroleum gasoline. The changes are proposed to take effect in 2020. A public comment period is open through January 23, 2018.

## Summary

On November 29th, 2017, Ontario's Ministry of the Environment and Climate Change published a [proposal](#) on its intent to amend the [Ethanol in Gasoline regulation](#) (O. Reg. 535/05). The proposed amendments would:

1. Require gasoline suppliers to maintain an average of at least ten percent ethanol in regular grade gasoline starting in 2020.
2. Require ethanol used for compliance to emit significantly fewer (e.g. 35 percent) greenhouse gas (GHG) emissions on a lifecycle basis than petroleum gasoline starting in 2020.
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.
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.
5. Require that a professional engineer certify that primary data used in the carbon intensity calculations are reasonable and the calculations are correct.

Ontario also proposed an amendment to the [Greener Diesel regulation](#) (O. Reg. 97/14) under the Environmental Protection Act, R.S.O. 1990, c.E.19.:

1. 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.

Interested stakeholders may provide comments to the government of Ontario by January 23, 2018. Comments may be submitted [online](#) or directly to the point of contact listed below.

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## Background

Ontario's [Ethanol in Gasoline](#) regulation came into effect in 2007 and requires, on average, a minimum of five percent renewable content in gasoline. The Greener Diesel regulation requires a four percent blend of low-carbon biofuels in diesel. As stated in a January 2017 [discussion paper](#), "more recent policies, such as [Ontario's Greener Diesel regulation](#), are designed not only to require renewable

alternatives to petroleum, but to assess emissions performance across the fuel’s full well-to-wheel lifecycle, from extraction to processing, distribution and end-use combustion.” Ontario first proposed increasing ethanol blending requirements in the January 2017 discussion paper. Stakeholder comments on that proposal are [available online](#).

Recently proposed amendments are intended to work with the anticipated federal Clean Fuels Standard (currently under development) and to support [Ontario’s Climate Change Action Plan](#). Ontario’s reduction targets include a 15 percent reduction from 1990 emissions levels by 2020, 37 percent by 2030 and 80 percent by 2050. According to provincial data reporting, Ontario met its 2014 target of six percent below 1990 levels.

### **Ten Percent Blend**

The province has proposed a requirement that gasoline suppliers maintain an average of at least ten percent ethanol in regular grade gasoline (88 octane or less), by volume per calendar year starting in 2020. While the current provincial ethanol blend requirement in the [Ethanol in Gasoline](#) regulation is five percent, most fuel in the province is blended at around 7 to 7.5 percent. The increase to ten percent would support some growth in blending and increase sales opportunities for domestic and imported ethanol. Ontario is the largest fuel consuming province in Canada.

### **Thirty-Five Percent Fewer GHG Emissions than Gasoline**

The proposal would require that ethanol used for compliance emit significantly fewer GHG emissions on a lifecycle basis than petroleum gasoline starting in 2020 and has proposed 35 percent for discussion; however, Ontario has invited other proposals. The requirement is proposed to be a minimum average per plant, meaning that some ethanol marketed could be lower than a 35 percent reduction if higher GHG-reduction level fuels are marketed to offset the lower reduction-level fuels. The petroleum gasoline emissions would be calculated as the average of the total petroleum gasoline pool. Using GHGenius version 4.03, Canadian ethanol (most of which is corn based) reduces GHGs by 62 percent compared to gasoline, according to [RICanada](#). A 2017 [study](#) finds that GHG emissions associated with corn-based ethanol in the United States are about 43 percent lower than the 2005 gasoline baseline when using the Greenhouse gases, Regulated Emissions and Energy in Transportation (GREET) model.

### **Incentive/Multiplier Expansion**

Ontario is proposing to expand the existing incentive/multiplier for advanced renewable fuel technologies to include emerging fuel technologies (renewable gasoline and biocrude among them). In recognition of cellulosic ethanol’s additional lifecycle GHG emission reduction benefits, one liter of cellulosic ethanol counts for 2.5 times its volume when it is sold to refiners (e.g. one liter of cellulosic ethanol is equivalent to 2.5 liters of ethanol produced from non-cellulosic feedstocks for compliance purposes). The objective is for better-performing fuels to be rewarded. The current Ethanol in Gasoline compliance multiplier approach is consistent with a review of scientific literature and with the United States Energy Policy Act of 2005, which used a multiplier of 2.5 for cellulosic ethanol.

### **Compliance Values**

The province of Ontario is proposing including a compliance value (i.e., multiplier for compliance purposes) for renewable gasoline and biocrude, to be informed by consultations. According to industry, consultations are planned for January 2018.

### **Modelling Choice**

Ontario is considering whether to calculate the lifecycle GHG performance of a fuel in carbon intensity (CI) using GHGenius version 4.03a (a subsequent version of the model) or the GREET model, according to a local source. According to that same local source, the Canadian federal government is also considering adopting the GREET model.

### **Data Calculation Certification**

Ontario has proposed that a professional engineer certify that primary data used in the carbon intensity calculations are reasonable and the calculations are correct. This proposal could improve transparency of calculations by incorporating an objective third-party.