



BIODIESEL

Bringing Immediate and Significant Reductions in GHG Emissions

- 1 Significant reductions to greenhouse gas (GHG) emissions in Canada can happen quickly and at little cost simply by increasing the renewable fuel content in diesel fuel.
- 2 Strengthening the existing Regulation¹ can provide immediate, low-cost, quantifiable emissions reductions. It will signal strong federal leadership and advance national progress towards a clean energy economy, while providing a stable demand signal to mobilize private investment in this sector.
- 3 The transportation sector is the second largest source of national GHG emissions, contributing 23% of Canada's total GHG emissions in 2014². The use of conventional diesel fuel for heavy duty on and off road uses will not be displaced in the near future. Instead, it will continue to fuel transport³ and heavy machinery used in primary production⁴ for some time.

To ensure that intended GHG reductions and environmental outcomes are achieved, a strengthened federal policy requires four elements:

1. **Increase the annual renewable diesel fuel content under the federal *Renewable Fuels Regulation* from 2% to 5% over five years.** (in 0.5% increments between 2016-2021) to stimulate long-term low carbon fuel demand and significantly lessen tailpipe and GHG emissions from the transportation sector.
2. **Amend the Regulation to ensure the renewable diesel used measurably reduces GHG.**
This can be achieved by requiring each litre of renewable diesel to have at least a 50% GHG reduction as compared to standard fossil fuel (using the Canadian-made, internationally respected lifecycle emission tool - GHGenius⁵). This performance threshold can easily be achieved by using Canadian crop inputs (e.g. canola, soy) and other domestic sources (e.g. fats, yellow grease). Currently the Regulation can be met with inputs that exhibit only marginal GHG emission reductions.
3. **Require proof that biodiesel inputs are sustainably produced.** The supply chain must be accountable and demonstrate that 'renewable biomass' feedstocks are sustainably produced (e.g. aligned with the U.S. Renewable Fuel Standard 2 (RFS2)).
4. **Provide timely public reporting.** For stakeholders, including government, improved compliance reporting is required (e.g. carbon intensities of fuels, volumes). Good public policy requires that regulators have accurate and timely data to assess the mandate's effectiveness in meeting policy objectives and to recommend changes for improvement. Public reporting of results will aid the marketplace in understanding investment opportunities and implementing efficient market strategies.

¹Under the 2010 Renewable Fuels Regulation, Canada has mandated that diesel fuel contain an average annual renewable fuel content of 2%.

²Environment and Climate Change Canada (2016) Canadian Environmental Sustainability Indicators: Greenhouse Gas Emissions.

⁵GHGenius is currently housed within Natural Resources Canada.

³Trucking and rail
⁴Agriculture, mining, and forestry

Biodiesel Mandates- An effective, proven policy option:



- Transmits clear and effective market signals and provides stability that will influence commercial action.
- There are no technical, operational or commercial barriers to biodiesel use and the regulatory framework is already in place, making this a good policy tool.
- A public policy tool that places the onus on the obligated parties (e.g. fuel producers and suppliers) for compliance.
- Does not require extensive use of government resources or ongoing program expenditure.



By increasing the mandate...



we will use...

reduced GHG emissions =

1 MILLION cars off the road



Modelling suggests increasing the annual renewable diesel fuel content under the federal Renewable Fuels Regulation from 2% to 5% over five years, and using canola to meet Canada's biodiesel needs, would require 3.2 million tonnes of canola seed per year, and reduce Canada's greenhouse gas emissions by 5.1 million tonnes per year. This would be the equivalent of removing 1 million cars off the road every year.

A GLOBAL LEADER IN SUSTAINABILITY- you may not know that Canadian Canola is:

- **A leader in global sustainable agricultural practices:** grounded in science and continues to become more efficient over time.
 - Widespread adoption of conservation tillage and continuous cropping
 - Responsible input use
 - Advancements in precision agriculture
- The **only Canadian crop certified as sustainable** by the International Sustainability and Carbon Certification (ISCC) system that looks at both carbon and non-carbon sustainability metrics.
- A high-quality, readily available biodiesel feedstock that has proven emission reduction qualities.

STATISTICS



Canola biodiesel is a low-carbon, renewable fuel made from crops grown by 43,000 Canadian farmers. Canola biodiesel is good for our environment, good for Canadian farms and good for the Canadian economy.



Production and use of biodiesel can reduce lifecycle greenhouse gas emissions by 90%, compared to petroleum diesel (using GHGenius).



BIODIESEL MANDATES CREATE NEW MARKET OPPORTUNITIES.

They can use domestic feedstocks, employ regional biodiesel producers and support our country's broader environmental, social and economic goals. This keeps jobs, investment and expertise in Canada.



There are 11 biodiesel plants in Canada (utilizing feedstocks such as vegetable oils and fats).



Over 90% of Canadian canola is exported (seed, oil and meal). Domestic biodiesel production can help to diversify the market, provide an outlet for off-grade seed and lessen the congestion at port.



In 2015, the equivalent of approximately 1.8 million tonnes of Canadian canola seed was used in the production of biodiesel in Canada, the U.S. and the EU.