FUELING THE FUTURE: CANADA'S PLAN TO REDUCE GREENHOUSE GAS EMISSIONS UNDER THE *CLEAN FUEL REGULATIONS*

Posted on March 26, 2021

Categories: Insights, Publications

On March 3, 2021, the public consultation period for the federal government's proposed *Clean Fuel Regulations*[1] to be established under the *Canadian Environmental Protection Act, 1999*[2] came to an end. The Regulations are part of the federal government's commitment to reduce Canada's greenhouse gas (GHG) emissions under the Paris Agreement. The Regulations also build on the already existing federal *Renewable Fuels Regulations* and various provincial renewable fuel requirements that are equal to or higher than the current federal requirements and British Columbia's *Renewable and Low Carbon Fuel Requirements Regulation*.

The proposed regulations require liquid fuel suppliers to gradually reduce the carbon intensity of the fuels they produce and sell in Canada, leading to a sustained decrease in the carbon intensity of liquid fuels used in Canada by 2030 from the 2016 carbon intensity levels.

This bulletin provides an overview of the proposed Regulations and a brief survey of their potential impact.

Clean Fuel Requirements

The proposed Regulations require that producers, importers and distributors (i.e. suppliers) of liquid fossil fuels (such as gasoline, diesel and heavy fuel oil) reduce the carbon intensity of the fuels that they supply to Canadians. The Regulations specifically target the energy, building and transportation sectors and certain sectors, such as commercial aviation, are exempt. In addition, fuel that is produced and exported out of Canada is not captured by the Regulations.

The Regulations phase in the reduction requirements applicable to fossil fuels starting in 2022, gradually increasing until 2030.[3] To calculate the carbon intensity of fuel, the Regulations consider GHG emissions through the fuel's entire lifecycle, including extraction, refining, distribution and ultimate use. In order to meet the carbon reduction requirement, suppliers must generate (through reduction of the carbon intensity of fuel) or purchase carbon credits to ensure that the total mix of fuels they supply meets the designated carbon reduction standard. Each credit represents a lifecycle emission reduction of one tonne of CO_2e.

The Regulations also establish a credit market through which suppliers can create or purchase credits in order to come into compliance with the carbon reduction standard. Suppliers create credits by undertaking certain designated activities such as reducing the total amount of carbon in their fuels or investing in green technology. Credits can also be purchased from third parties who create credits by engaging in similar activities.

The Regulations provide three ways to create credits:

1. Undertaking projects that reduce the carbon intensity of fossil fuels in their lifecycle;
2. Supplying customers with low carbon intensity fuels; and
3. Investing in advanced vehicle technologies.

Each of these three types of credits are discussed below.

Compliance Category 1: Reduction of Carbon Intensity of Fossil Fuels

Under Compliance Category 1, suppliers can create credits by taking actions that reduce their liquid fossil fuel's carbon intensity through reducing GHG emissions in their operations. Eligible projects include, but are not limited to:

- carbon capture and storage;
- low-carbon intensity electricity integration;
- enhanced oil recovery; and
- co-processing of biocrudes in refineries and upgraders.

In order to qualify for credits, a supplier's project must be located in Canada and must result in real and incremental emission reductions when compared to a defined base level. This base level and the number of credits created by a specific project will be determined by a quantification method to be developed by a group of technical experts, scientists and industry stakeholders.

In order to qualify for credits under this category, suppliers must apply to have a project recognized and its expected impact quantified. Once recognized and depending on the nature of the project, credits may be generated for the supplier on an annual basis for up to 20 years.

Compliance Category 2: Supplying Low Carbon Fuels

Under Compliance Category 2, credits are created from the production and importation of low carbon intensity fuels in Canada. These fuels include biofuels, such as fuel derived from plants, algae or animal waste, and synthetic fuels such as those made from the CO2 captured from the atmosphere as a result of direct air capture, or syngas generated from any biomass resource that could also be employed to make other low carbon fuel products under a circular economy approach.

The number of credits created under this category for low carbon fuels will depend on the amount supplied to the Canadian market. In order to qualify under this category, a low carbon fuel supplier must obtain an approved carbon intensity value for each low carbon fuel that is produced or imported. Suppliers will be able to obtain a carbon intensity value either by relying on default carbon intensities set out in Schedule 5 of the proposed Regulations or by undertaking a Fuel Lifecycle Assessment to calculate facility-specific values.

A Fuel Lifecycle Assessment is an analysis based on a modelling tool being prepared by the government. Once operational, the tool will allow for suppliers to calculate the carbon intensity of fossil fuels and related operations based on a variety of input data. In order to qualify for a Fuel Lifecycle Assessment, suppliers will generally be required to produce 24 months of data for the facility in question.

Compliance Category 3: Investment in Advanced Vehicle Technologies

Under Compliance Category 3, credits are created when end-users of fuel change or retrofit their vehicles to be powered by another fuel or energy source such as electricity or biofuel. These vehicles may include on-road light and heavy weight vehicles as well as off-road vehicles and electric trains. While this category does not directly lower the carbon intensity of fossil fuel, the intent of the Regulations is that traditional fossil fuels will over time be displaced by greener options such as natural gas and propane.

Credits may also be created by owners and operators of fueling facilities that supply low carbon fuels for transportation purposes, producers and importers of low carbon fuels for transportation purposes, owners and operators of hydrogen fueling stations and network operators for charging of electric vehicles.

Expected Impact

Extraction, processing and combustion of fossil fuels are the single largest contributor to Canada's GHG emissions. The *Clean Fuel Regulations* thus aim to reduce the overall carbon intensity of fossil fuels while driving investment in low carbon fuel alternatives. The federal government's hope is that these Regulations will lead to a sustained interest and investment in green technology and a permanent shift away from fossil fuels. Indirectly, the *Clean Fuel Regulations* will also benefit certain segments of some industries, such as Canadian farming, as demand is expected to increase for fuels made from canola oil and other crops.

In order to achieve its goal, the *Clean Fuel Regulations* on the other hand will increase production costs for suppliers and as a result increase the price of liquid fuel for consumers. At the same time, the credit system is intended to off-set the price of production of low-carbon energy alternatives, in turn increasing the demand for these fuels while decreasing the overall demand for fossil fuels.

Due to concerns from stakeholders over the impact of COVID-19 on their ability to comply with the proposed Regulations, the government held consultation sessions in June 2020 to discuss the schedule for the carbon reduction standard. As a result, the original schedule to reduce the stringency of compliance in the early years of the program has been revised and will be ramped up at a higher rate in later years. At the same time, however, it was announced that the 2030 target for GHG reduction will be increased.[4]

It remains to be fully seen how suppliers and the Canadian public responded to the *Clean Fuel Regulations* during the consultation process and whether any further revisions to the Regulations will be made as a result.

A final version of the *Clean Fuel Regulations* is expected to be tabled in late 2021 with the Regulations coming into force in 2022.

[1] [ps2id id='1' target=''/]Canada Gazette, Part I, Volume 154, Number 51, *Clean Fuel Regulations* (published December 19, 2020).
[2] [ps2id id='2' target=''/]*Canadian Environmental Protection Act*, 1999, S.C. 1999, c. 33 (last accessed March 12, 2021).
[3] [ps2id id='3' target=''/]Presumably, the Regulations will be updated or replaced with requirements applicable post-2030.
[4] [ps2id id='4' target=''/]Government of Canada, *Clean Fuel Standard: proposed regulatory approach*, (last accessed March 12, 2021).

by Holly Sherlock, Talia Gordner, Julia Loney and Ralph Cuervo-Lorens

A Cautionary Note

The foregoing provides only an overview and does not constitute legal advice. Readers are cautioned against making any decisions based on this material alone. Rather, specific legal advice should be obtained.