



Parkland
FUEL CORPORATION



Low Carbon Fuel Policy

Parkland Refinery Public Meeting

November 20, 2019



Lower Carbon Fuels

- Policies aim to reduce GHG emissions in support of climate change mitigation goals
- Relevant policies either increase prices to reduce GHGs by lowering consumption (carbon tax) or by lowering **carbon intensity** of fuels
- Low Carbon policy changes both transportation options and the composition of liquid fuels
- For B.C. , the most impactful policies are:
 - Renewable and Low Carbon Fuel Requirement Regulation
 - Federal Clean Fuel Standard
- Overarching policy drivers are CleanBC and the Paris Accord



What is Carbon Intensity ?

- Different fuels emit different amounts of carbon dioxide (CO₂) in relation to the energy they produce when burned. (EIA)
- **Carbon intensity** is the measure of greenhouse gas (GHG) emissions associated with producing and consuming a transportation **fuel**, measured in grams of **carbon** dioxide equivalent (gCO₂e/MJ). (BC MEMPR)
- Low carbon fuel policies seek to reduce GHG emissions by lowering the carbon intensity of fuels

Pounds of CO₂ emitted per million British thermal units (Btu)

| | |
|-----------------------------|-------|
| Coal (anthracite) | 228.6 |
| Coal (bituminous) | 205.7 |
| Coal (lignite) | 215.4 |
| Coal (subbituminous) | 214.3 |
| Diesel fuel and heating oil | 161.3 |
| Gasoline (without ethanol) | 157.2 |
| Propane | 139.0 |
| Natural gas | 117.0 |

EIA



BC Renewable and Low Carbon Fuel Requirement Regulation (RLCFRR)

- Also referred to as BC LCFS
- Policy goals
 - Reduce British Columbia's reliance on non-renewable fuels
 - Help reduce the environmental impact of transportation fuels
 - Contribute to a new low-carbon economy
- <https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/transportation-energies/renewable-low-carbon-fuels>



RLCFRR (2 Parts)

Part 2 of the Act

- Fuel suppliers must ensure that they have a minimum renewable fuel content of five percent (5%) for gasoline and four percent (4%) for diesel, on a provincial annual average basis

Part 3

- Fuel suppliers must progressively decrease the **average carbon intensity** of their fuels to achieve a 10% reduction in 2020 relative to 2010.
- New CleanBC targets are an additional 10% between 2020 and 2030.

Current blending levels to meet Part 3 are higher than Part 2 mandates.



cleanBC

our nature. our power. **our future.**

Reducing Pollution. Powering Our Future.

CleanBC helps us use more clean and renewable energy in how we get around, heat our homes, and fuel our industry — setting us on the path to a cleaner, brighter future.

Better Buildings

Helping you conserve energy and making your home healthier and more comfortable.



Reducing Emissions From Waste

Diverting waste from landfills and reducing polluting emissions.



Cleaner Transportation

Making electric cars more affordable, investing in charging stations, and shifting to renewable fuels.



Clean Energy Jobs

Making B.C. cleaner will create good jobs that support families and sustain our communities.



Reducing Pollution From Industry

Making B.C. industries the cleanest in the world by using clean energy to power our industrial economy.





Compliance Pathways

- Supply more low carbon fuels
 - Blending renewables (ethanol, biodiesel, renewable diesel)
 - Produce lower carbon fuels (including refinery improvements)
 - Electric vehicles
- Acquire credits through a Part 3 Agreement
- Trade credits with other suppliers

Obligated parties will choose some combination or all of these pathways



Federal Clean Fuel Standard (CFS)

- Similar in practice to BC LCFR
- 30 million tons of annual GHG reductions by 2030
- Incentives innovation and adoption of clean technologies and the development and use of low-carbon fuels throughout the economy.
- The federal government sees CFS as complementary to other climate policies. “These policies work in concert to reduce emissions across the economy”
- **Early 2020: Proposed regulations for the liquid fuel class of the Clean Fuel Standard published in *Canada Gazette, Part I*, followed by consultations on the proposal. Final regulations planned for early 2021.**
- **January 1, 2022: Liquid fuel class regulations come into force.**



Renewable Fuels Mandates

Provincial Mandates

