



Regulatory Framework for the Biofuel Industry in Canada

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Biofuels: Legal and Policy Dimensions

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Focus of the presentation

- **Biofuels as additives to transportation fuels**
- **i.e. gasoline and diesel fuel**

Overview

- **Regulation of Biofuel Facilities**
- **Storage of Biofuels**
- **Amendments to the *Canadian Environment Protection Act***
- **Renewable Fuel Standards Regulations – Provincial and Federal**
- **Fuel Blending Standards and the Canadian General Standards Board**
- **Uncertainty around Carbon Policies**

Regulatory Requirements for Biofuel Production Facilities

- **Potential Requirements:**
 - Approvals
 - Assessments
 - Zoning
- **Provincial and municipal requirements**
- **Requirements differ by province**
- **Some provinces have regulations specific to the industry**

Nuisance

- **Noise, odour, dust causing:**
 - Loss of enjoyment
 - Material discomfort
- **Can result in:**
 - Complaints
 - Abatement orders
 - Lawsuits or class actions

Regulatory Requirements for Biofuel Production Facilities

- **Alberta**

- Require

- Permits and approvals under *Environmental Protection and Enhancement Act*

- Industrial development permit from Energy Resources Conservation Board

- Compliance with the *Code of Practice for Energy Recovery*

- May require an environmental assessment

- May require approval under *Water Act* if project alters or impacts a water body

Regulatory Requirements for Biofuel Production Facilities

- **Ontario**
 - Require
 - Certificate of Approval for discharge into air and water
 - Likely do not require an environmental assessment

Regulatory Requirements for Biofuel Production Facilities

- **Manitoba**
 - Biofuels specifically identified as a Class 1 Development
 - Require
 - Environmental Assessment
 - License under *Environmental Act*
 - License under *Biofuels Act*

Regulatory Requirements for Biofuel Production Facilities

- **Federal Environmental Assessment**
 - Required where funding or approval is obtained from a federal ministry or agency
- **Environment Canada is undertaking an investigation into biofuel production facilities**
 - Examining negative effects on environment
 - Will examine facilities based on feedstock, process, scale
 - Results to be compared to traditional hydrocarbon based fuels
 - Was to be completed March 31, 2010

Regulatory Requirements for Biofuel Production Facilities

- **Municipal Controls**
 - Facilities need rezoning which politicizes at the local level
 - Failure to comply with municipal bylaws prohibiting or regulating noise, odor and dust can result in:
 - Prosecution
 - Public nuisance action
 - GEA exemption does not apply for biofuel production facilities

Storage of Biofuels

- **Regulated at Federal and Provincial level**
- **Regulations require storage tanks meet standards developed by third parties**
 - ULC – Underwriters Laboratories of Canada
 - API – American Petroleum Industry
- **Federal Requirements:**
 - Applies to storage tanks on federal or aboriginal lands
 - Owned or operated by federal departments or agencies
 - Operated in connection with port authorities
 - Tanks must comply with ULC standards

Storage of Biofuels

- **Alberta Requirements**

- Must conform with either ULC or API standards
- Exemptions – tanks used for:
 - Agricultural purposes
 - An integral part of a manufacturing process
 - Upstream petroleum or natural gas industries

- **Ontario Requirements**

- Must conform with either ULC or API standards
- Advisory from Technical Standards & Safety Authority:
 - Majority of tanks currently installed are compatible with ethanol blended gasoline
 - All steel tanks and all fiberglass reinforced plastic (FRP) tanks manufactured since 1986 are approved
 - FRP tanks manufactured before 1979 cannot be used with ethanol blended fuels
 - FRP tanks manufactured between 1979-1986 may not be approved for ethanol blended fuels – consult manufacturer
 - Steel tanks – lining may not be approved for ethanol blended gasoline - contact manufacturer

Amendments to the *Canadian Environmental Protection Act*

- **Bill C-33**
 - Given Royal Assent on June 26, 2008
 - Creates amendments to the *Canadian Environmental Protection Act*
 - Requires Parliamentary committee to review environmental and economic aspects of biofuel production every two years starting in 2010
 - Government can create regulations on:
 - Blending fuels
 - Record keeping
 - Reporting production and sale
 - Negative effects of biofuels
 - Can regulate biofuel facilities based on feedstock type and production capacity

Renewable Fuel Standard Regulations

- **Federal Renewable Fuel Standard (RFS) will require:**
 - 5% renewable content in gasoline by 2010
 - 2% renewable content in diesel fuel and heating oil by 2011, subject to technical feasibility
- **Draft regulations published in Canada Gazette on April 10, 2010**
- **The 60 day period for public comments ended on June 9, 2010**
- **To come into force in stages, with the compliance period for 5% renewable content in gasoline set to begin on September 1, 2010**

Renewable Fuel Standard Regulations

- **Draft regulations state:**
 - Renewable fuel content based on total annual volume of gasoline, diesel fuel and heating oil produced or imported
 - Reporting requirements for primary supplier
 - Reports due February 15th of each year

Definition of Primary Supplier Under the Draft Regulations

- **Primary supplier:**
 - (a) in respect of gasoline, diesel fuel or heating distillate oil that is produced at a production facility, a person who owns, leases, operates, controls, supervises or manages the production facility; and
 - (b) in respect of gasoline, diesel fuel or heating distillate oil that is imported, the importer

Renewable Fuel Standard Regulations

- **Draft regulations state:**
 - “renewable fuel” = a liquid fuel produced from one or more renewable feedstocks
 - “renewable fuel feedstock” =
 - Wheat grain, soy grain, grain other than wheat and soy, cellulosic material derived from lingo-cellulosic or hemi-cellulosic matter, starch, oilseeds, sugarcane, sugar beets, sugar components, potatoes, tobacco, vegetable oils, algae, other vegetable or plant materials including biomass, animal or fish material, animal solid waste material, municipal solid waste material
 - Biodiesel is also defined as a renewable fuel
 - A differential weighting system by fuel type will not be created
 - Differential weighting could be used in the future

Renewable Fuel Standard Regulations

- **Draft regulations:**
 - Create credit trading system
 - One trading unit = one litre of renewable fuel in a batch of gasoline, diesel fuel, or heating oil
 - Credits not granted where renewable fuel > 86% for gasoline or >80% for other petroleum fuels
 - Some excess credits may be carried forward
 - The trading period begins at the commencement of each compliance period and ends three months after the compliance period has concluded

Renewable Fuel Standard Regulations

- **Draft regulations state:**
 - RFS will not apply to:
 - Companies importing or producing <math>< 400\text{m}^3</math> of fuel per year
 - Exports
 - Competition vehicles
 - Aviation
 - Scientific research
 - Military combat equipment
 - Feedstocks in the production of chemicals
 - Newfoundland and Labrador, the Yukon, Northwest Territories, Nunavut, parts of Northern Quebec
 - Gasoline in transit through Canada

Renewable Fuel Standard: Provincial Actions

- **Ontario**
 - Minimum 5% ethanol in gasoline
- **British Columbia**
 - Minimum 5% renewable content in gasoline and diesel fuel
 - Renewable content = ethanol for gasoline, biodiesel for diesel fuel or other substance prescribed by regulation
- **Manitoba**
 - Minimum 8.5% ethanol in gasoline
 - Minimum 1% maximum 5% biodiesel
- **Saskatchewan**
 - Minimum 7.5% ethanol in gasoline
- **Alberta**
 - 5% ethanol in gasoline
 - 2% renewable content in diesel
 - Renewable fuels must have 25% fewer lifecycle greenhouse gas emissions
 - To come into force November, 2010

Renewable Fuel Standard: Provincial Actions Cont.

- **Quebec**
 - Target of 5% renewable fuel in 2012 based on cellulosic
 - No plan to put in place a regulation to this effect

Fuel Blending Standards and the Canadian General Standards Board

- **CGSB Standard for Oxygenated Unleaded Automotive Gasoline Containing Ethanol**
 - Limits ethanol content of gasoline to 10% by volume
 - Standard has been adopted in regulations by some provinces (British Columbia, Ontario)
 - British Columbia – current proposal to remove provision referencing this standard
 - Manitoba – references CGSB standard, but leaves room for other standards
 - Not adopted in federal RFS consultation regulations
 - CGSB currently drafting standard for E50-E85 – gasoline that would contain 50 to 85% ethanol

Fuel Blending Standards and the Canadian General Standards Board

- **Canadian General Standards Board (CGSB)**
 - Federal organization, component of the Department of Public Works and Government Services
 - Develops standards and conformity assessments for government, industry and consumers
 - Mission: “provide standards development and conformity assessment services, including programs for certification of products and services, registration of quality and environmental management systems, and related services”
 - Essentially a business that creates standards for clients

Fuel Blending Standards and the Canadian General Standards Board

- **Canadian General Standards Board (CGSB)**
 - Standards are not governmental standards, not legally binding
 - Standards can be legally enforceable where they are incorporated into laws or regulations

Uncertainty Around Carbon Policies

- **Canada**
 - Draft programs developed by federal and provincial governments
 - Alberta – functioning carbon cap and trade program
 - Federal government will wait for US actions
- **US – Bills**
 - Kerry-Lieberman Bill aka *The American Power Act* - Seen as a compromise between the Waxman-Markey bill and Obama's energy proposals
 - A cap-and-trade system would be imposed only on major emitters, about 7,500 actors in total
 - Bill would implement a "hard price collar" to bind carbon prices

Uncertainty Around Carbon Policies

- **US – EPA**

- National program to reduce GHG emissions from vehicles
- Renewable Fuel Standard – revised RFS-2 to take effect on July 1, 2010 but volume requirements cover the entire year beginning January 1, 2010
 - Specific standards for cellulosic biofuel, biomass-based diesel, and advanced biofuel
 - GHG emission thresholds to qualify under RFS
 - Applies to domestic and foreign producers and importers
- Research program announced to assess environmental and health impacts of biofuels based on feedstock type
- RFS currently being challenged by separate lawsuits from environmental groups and the petroleum industry

Conclusions

- **Biofuels regulations and standards in flux**
- **As further research is performed new standards and regulations may be created**
- **Further use of lifecycle analysis to determine environmental and health implications**
- **New regulations and standards will likely be feedstock and/or technology specific**



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