



## Biofuels Legislation and Regulations in NZ

### Brief history and current status of Liquid Biofuels in New Zealand (current at 25 May 2009)

- **3 October 2011** - the Engine Fuel Specifications Regulations 2011 were officially approved on 3 October 2011 and will be coming into effect on 1 December 2011. The new regulations are available on the [New Zealand Legislation website](#). Further information on the review and decisions that culminated in these updated Engine Fuel Specifications Regulations is available on the [Ministry of Economic Development's website](#)
- **19 May 2009** - The New Zealand Government announced the introduction of the [Biodiesel Grant Scheme](#). Further details about the Scheme are available [here](#).
- **17 December 2008** - The Biofuel Sales Obligation and associated regulations were [repealed](#).
- **17 December 2008** - Energy and Resources Minister Gerry Brownlee indicates the likely introduction of **tax breaks** on fuels coming from **proven sustainable sources**. More [here](#).
- **11 December 2008** - Energy and Resources Minister Gerry Brownlee [tabled in Parliament a Bill](#) to repeal the obligation placed on oil companies to sell a certain proportion of biofuel. More [here](#).
- **19 November 2008** - New National Government is formed. National Government indicates its intention to repeal the previous Government's policies on biofuels.
- **1 October 2008** - The [Biofuel Sales Obligation](#) commenced under the then Labour Government.
- **3 September 2008** - The Legislation to bring into force the Biofuel Sales Obligation, the Biofuel Bill, was passed through Parliament.

### Government Roles in Liquid Biofuels

The key Government Ministries involved in the regulation of liquid biofuels in New Zealand are:

- The Ministry of Economic Development (MED);
- The Energy Efficiency and Conservation Authority (EECA); and
- The Ministry of Transport (MoT).

Other Government Departments /Ministries with a minor role in biofuels are the Ministry of Consumer Affairs and Customs and Excise as outlined below.

- Other Government Departments /Ministries with a minor role in biofuels are the **Ministry of Consumer Affairs** and **Customs and Excise** as outlined below.
- **Ministry of Economic Development (MED)** – Biofuels are governed under MED who administer funds for commercialisation of biofuels, fuel standards, legislation, and standards for sustainability. MED more here
- **Energy Efficiency and Conservation Authority** – The Energy Efficiency and Conservation Authority (EECA) promotes sustainable energy by changing the way New Zealanders think about, and use energy. EECA works to raise community awareness of energy efficiency and renewable energy issues and provides businesses and individuals with the tools to make changes. EECA develops programmes to meet the needs of specific markets, often working in partnership with other organisations. As part of its Renewable Energy Programme EECA promotes activities on bioenergy generally and including biofuels in order to encourage uptake. EECA produces a considerable range of information and resources relating to biofuels, their production and use. Further details about EECA’s activities are available [here](#).
- **Ministry of Transport (MoT)** - The Ministry of Transport’s Environment group has principal responsibility to provide leadership in the management of the environmental and public health impacts of transport as part of the development of a sustainable transport system. MoT’s roles are limited to encouraging demand for biofuels in transport fleets, and with fuel or road tax issues to the extent that they affect biofuels. The Ministry of Transport also present a number of useful consultancy reports, policy details and ‘Question’s and Answers’ on biofuels. For further details about MoT’s activities in relation to biofuels and information available [here](#). Information on the policy decisions behind the Biofuels Sales Obligation can be found [here](#).
- **Ministry of Consumer Affairs (MoCA)** – The Ministry of Consumer Affairs test the quality of all transport fuels under the Fuel Quality Monitoring Scheme. (Further details under [Testing and Certification](#) and [Fuel Quality Specifications](#)).
- **Customs and Excise** – A license for the manufacture of biofuels must be granted by Custom’s and Excise (further details under [Manufacturing Regulations](#)).

## Standards and Quality - Key Regulations

Biodiesel	Bioethanol
Specification – yes Licence required to produce? - yes	Specification – yes Licence required to produce? - yes
<b>Fuel Quality Specifications</b>	
<p><b>Fuel Quality Specifications</b> - Petrol, diesel, ethanol, biodiesel and biofuel blend quality in New Zealand is governed by a set of regulations designed to protect consumers and the environment. These are the Engine Fuel Specifications Regulation. The 2008 regulations were updated on 3 October 2011 and come into effect on 1 December 2011. The new regulations are now referred to as the <b>Engine Fuel Specifications Regulations 2011</b>. The original Engine Fuel Spec Regulations 2008 replaced the Petroleum Product Specifications Regulations 2002 on the 1st of July 2008. See <a href="#">Testing and Certification</a> for enforcement of the Regulations. They are enforced by MED and the Ministry of Consumer Affairs.</p> <p>Further information on the review of the 2008 Fuel Specification Regulations and the decisions that culminated in the updated Engine Fuel Specification Regulations 2011 is available <a href="#">here</a>.</p>	
<p><a href="#">10 - Biodiesel component of diesel/ biodiesel blends sold by retail sale</a></p> <p><a href="#">16 -Requirements relating to biodiesel sold by non-retail sale</a></p>	<p><a href="#">8 - Ethanol component of petrol/ethanol blends sold by retail sale</a></p> <p><a href="#">14 -Requirements relating to petrol/ ethanol blends sold by non-retail sale</a></p>
<b>Manufacturing Regulations</b>	
<p><b>Biodiesel Manufacture and Ethanol Manufacture – Licence required from Customs and Excise</b></p> <p>Biodiesel was included as a fuel in Schedule 3 of the Customs and Excise Act1996 on 1 October 2008 and consequently areas where biodiesel is now manufactured are required to be licensed by Customs. Biodiesel is currently excise rated “Free” and is subject to the Petroleum and Engine Fuels Monitoring Levy (0.045 cents per litre).</p> <p>Ethanol used as a fuel is excise-free provided an application is made to the Chief Executive of <a href="#">Customs</a> and approval granted by him. Otherwise, ethanol attracts a substantial excise charge per litre of alcohol due to its potential use as a drinkable spirit. The exemption to the requirements to be a Customs controlled area for personal use of ethanol only extends to drinkable spirits, not to the use of ethanol as fuel.</p> <p>Anyone making biodiesel or bioethanol must make an application to be granted a licence as a Customs controlled area. See the <a href="#">Customs website</a> or call 0800 428 786 for more information.</p>	

### Safety Issues

Some chemicals used to manufacture biodiesel are flammable and require the use of specialised electrical equipment to maintain safety in the presence of flammable materials.

Most electrical equipment in biodiesel manufacturing plant will require installation and inspection by appropriately qualified electrical workers. Such electrical equipment should be accompanied by documentation confirming its safety and suitability for use in New Zealand, and include safety instructions for its operation and maintenance. It is critical that these instructions are followed.

Likewise, naked flames must be avoided in the vicinity of biodiesel manufacturing plant.

For further information on electrical or gas safety, contact the Energy Safety Service on telephone number 0508 377 4636. You can also visit the [Energy Safety web site](#).

## ASTM Standards - Blends (Biodiesel and bioethanol)

### Bioethanol blend specifications

- ASTM D 5798: Standard Specification for Fuel Ethanol (Ed75-Ed85) for Automotive Spark-Ignition Engines** - This specification covers a fuel blend, nominally 75 to 85 volume % denatured fuel ethanol (Ed75-Ed85) and 25 to 15 additional volume % hydrocarbons for use in ground vehicles with automotive spark-ignition engines. Fuel ethanol (Ed75-Ed85) shall conform to the performance requirements prescribed. Fuel ethanol (Ed75-Ed85) shall be visually free of sediment and suspended matter. The hydrocarbon/aliphatic ether blend content, vapour pressure, acidity, pH requirements, gum content, inorganic chloride, water requirements, copper requirements, and sulphur requirements shall be tested to meet the requirements prescribed.
- ASTM D 4806: Standard Specification for Denatured Fuel Ethanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel** - This specification covers nominally anhydrous denatured fuel ethanol intended for blending with unleaded or leaded gasolines for use as a spark-ignition automotive engine fuel. Denatured fuel ethanol shall conform to the specified performance requirements for the following: ethanol content, methanol, solvent-washed gum, water content, denaturant content, inorganic chloride content, copper content, acidity, pHe, sulfur content, sulfate content, appearance, and specific gravity. The only denaturants used for fuel ethanol shall be natural gasoline, gasoline components, or unleaded gasoline at the minimum concentration prescribed. Prohibited denaturants include methanol which does not meet the specified requirement, pyrroles, turpentine, ketones, and tars (high-molecular weight pyrolysis products or non fossil vegetable matter). Sampling, containers and sample handling techniques, and the test methods for determining conformance to the specified requirements are given.

## Biodiesel blend specifications (ASTM October 2008)

- **ASTM D6751-08:** Revised to include the requirements of a cold soak filterability test that controls minor compounds and provides a more accurate reading of how the fuel will perform in cold weather conditions.
- **ASTM D975-08a:** Specification for Diesel Fuel Oils (on- and off-road applications) - revised to allow for up to 5% biodiesel content. This allows B5 blends to be treated the same as conventional diesel for testing purposes. Now listed as **ASTM D975-09**.
- **ASTM D396-08b:** Specification for Fuel Oils (home heating and boiler applications) - revised to allow for up to 5% biodiesel content. Like D975, this revision allows B5 blends to be treated the same as conventional fuel oil for testing purposes. Now listed as **ASTM D396-09**.
- **ASTM D7467-09:** Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20) - a newly created Standard governing the properties of blends containing between 6 and 20% biodiesel for on- and off-road applications.