Submission No. 002 11.1.18 30 July 2014

## Consolidated Bio Diesel Pty Ltd 181 Potassium St, Narangba, Qld 4504

# Submission

Prepared for;
State Development, Infrastructure and Industry
Committee
Re
Liquid Fuel Supply (Ethanol) Amendment Bill 2014
Ву
Consolidated Biodiesel T/A Ecotech Biodiesel



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## **Executive Summary**

Australia and particularly Queensland is economically vulnerable to inconsistent supply and large price variations in transport liquid fuels. The global trend to combat this process is through next generation fuels via a renewable energy pathway, utilising local feedstock in abundance and readily available through the current logistical framework.

In Queensland these feedstocks are sugarcane and tallow from the meat industry. To this end, our Research Institutions in conjunction with Queensland Industry have been researching these options, understanding that the final goal of producing renewable liquid fuels will be realised through the development of these new technologies.

The Queensland Government can support these agriculturally based industries by mandating small but incremental volumes, with the aim of producing a vibrant biofuel industry to enhance Queensland's traditional agricultural sector.

## **Global Trend of Ethanol Supply and Distribution**

Many countries have either implemented or are actively formulating policy framework to develop bioenergy sectors. They are seeking ways to lessen the adverse impact of higher oil prices on national economies, as well as mitigate climate change and greenhouse gas emissions through initiatives such as the Kyoto Protocol, EU Biofuels Directive and the US Oxygenated Fuels Program.

Global ethanol production is dominated by three major producers, the U.S., Brazil, and the EU, who together account for 87 percent of global production <sup>1</sup>. Global ethanol production was estimated at 93.2 billion liters in 2010, more than double 2005 output and a threefold increase over the past decade.

A recent FAO study concludes that "integration of food and energy production may be one of the best ways to improve national food and energy security and simultaneously reduce poverty in a climate smart way" <sup>2</sup> And, the expected increase in Biofuel production will be over 50%, while the expansion for agricultural products will be slower than in the last decade. <sup>3</sup>

<sup>&</sup>lt;sup>1</sup> OECD-FAO Agricultural Outlook 2011-2020, Chapter 3

<sup>&</sup>lt;sup>2</sup> Bogdanski, Anne, Olivier Dubois, Craig Jamieson, and Ranier Krell. Making Integrated Food-Energy Systems Work for People and Climate. FAO. 2010

<sup>&</sup>lt;sup>3</sup> OECD -FAO Agricultural Outlook, 2014, Executive Summary.



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## **Economic Development due to Ethanol Expansion**

Contrary to commonly held beliefs, the evidence now shows that there has been no detrimental effects from uptake of Biofuel programs in least developed countries and the emerging super economies of China, India, Russia and Brazil. In addition to this, the effect of Biofuel programs in developed nations has;

- Substantially decreased the terms of trade when a country is energy import dependant. <sup>5</sup>
- 2. Reduces the susceptibility of agricultural markets to energy volatility. <sup>6</sup>
- 3. On farm incomes increase when supported by Biofuel mandates. <sup>7</sup>
- 4. Leads to an increase in cereal prices and a decrease in the price of protein rich by-products. This has a total effect of a marginal expansion in animal/meat production.
- 5. Increases the adoption of technology in the farm sector with benefits flowing to the food, feed, and fuel consumers.<sup>9</sup>

## **Environmental Benefits and Issues of Indirect Land Use Change (ILUC)**

The environmental benefits of an oxygenated fuel are well established and conclusive. The net advantage of biofuel production to greenhouse gas emissions are positive, though vary extensively dependant on the feedstock and method of production. Queensland is in a unique position to significantly expand biomass production to incorporate 1<sup>st</sup> and 2<sup>nd</sup> generation biofuels as highlighted by this recent study by CSIRO. <sup>10</sup> Queensland in particular is not restricted by ILUC issues faced by Europe and Asia, and stands in a unique position to supply sustainable environmentally beneficial biofuels. This does not only equate to Ethanol, but also to other oxygenated fuels such as Biodiesel, and eventually 2<sup>nd</sup> generation renewable diesels and paraffin.

## **Fats and Oils Industry in Queensland**

Queensland is the largest producer of processed fats and oils in Australia with over 220 Million litres produced in South East Queensland. The majority of this product is from rendering Animal products produced in Queensland. Currently, over 90% of this product is exported overseas to Biofuel and Chemical manufacturers in Asia, with much of this product destined for the USA.

<sup>9</sup> European Review of Agricultural Econ. 39 (1) 115-136

<sup>&</sup>lt;sup>4</sup> Locke, A. and Henley, G. (2014) 'A review of the literature on biofuels and food security at a local level: assessing the state of evidence'. London: Overseas Development Institute (http://www.odi.org.uk/biofuels-litreview).

<sup>&</sup>lt;sup>5</sup> Amer. J. Agr. Econ. 93(5): 1235-1256

<sup>&</sup>lt;sup>6</sup> European Review of Agricultural Economics 39 (1) 137 – 156.

<sup>&</sup>lt;sup>7</sup> Review of Agricultural Economics, 30 (4): 623-641

<sup>&</sup>lt;sup>8</sup> Ibid 6

<sup>&</sup>lt;sup>10</sup> GCB Bioenergy (2014), doi: 10.1111/gcbb.12159

<sup>&</sup>lt;sup>11</sup> Private Communication, Graincorp, Pinkenba, Qld.



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If a mandate was introduced into Queensland which incorporated Biodiesel and Ethanol, a lot of this material could be processed and value added in Australia, creating jobs and fuel security for Queensland and Australia.

# **US Green Fleet, Brisbane Bio- port, and Second Generation Biofuel Opportunities**

The University of Queensland, QUT, James Cook University and the CSIRO currently have active research into conventional and advanced biofuels to facilitate the arrival of the US Green Fleet, and the Bio Port Initiatives announced by Virgin, the Brisbane Airport Corporation, and SkyNRG.

All of these projects present a massive opportunity for Queensland to become an active participant in the fuel security and subsequent technological advances this industry could provide.

## Recommendations

- 1. Implement a small (1-2%) but incremental mandate for oxygenated biofuels (Ethanol and Biodiesel) to support the agricultural Industry in Queensland.
- 2. As a stepwise approach to a mandate, direct all Queensland Government procurement departments to initiate biofuel blended fuel to be mandatory in all future fuel tenders.
- 3. Allocate resources from the State Development Infrastructure and Planning,to enhance the linkages between Research, Industry and Agriculture sectors.

#### **Ecotech Biodiesel**

Ecotech Biodiesel has been established in Queensland since 2006, and remains the only commercial Biodiesel producer in Queensland. Ecotech Biodiesel has a 30 Million litre pa facility with the ability to expand to 75 million litres pa. The plant is currently running below capacity due to the historical treatment by the Commonwealth Government which effectively subsidised cheaper imported biodiesel. Biodiesel consumption in Queensland has been growing steadily over this time, however the Industry and Agricultural sectors of the Queensland economy have seen little benefit from this growth.