

1 August 2014

**Submission No. 7**

**11.1.18**

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The Research Director  
State Development, Infrastructure and Industry Committee  
Parliament House  
George Street  
BRISBANE QLD 4000

Dear Sir/Madam

**Re: Liquid Fuel Supply (Ethanol) Amendment Bill 2014**

The RACQ is Queensland's peak motoring body, representing the views and interests of 1.2 million members. In addition to roadside assistance and other services, the RACQ is the principal advocate for motorists on a broad range of transport issues.

The RACQ welcomes the opportunity to comment on the Liquid Fuel Supply (Ethanol) Amendment Bill 2014.

The RACQ supports the development of alternative fuels as a desirable and necessary outcome towards longer term fuel security. We have though expressed our reservations of the previous ethanol mandate proposed for Queensland. A poorly implemented ethanol mandate would eliminate or reduce the availability of regular unleaded petrol, forcing those consumers whose vehicles are not compatible with ethanol blended petrol to purchase more expensive premium unleaded petrol.

If passed, the Liquid Fuel Supply (Ethanol) Amendment Bill 2014 would require 5% of all petrol sales in Queensland to be ethanol, increasing to 10% three years after the bill passed in to law.

This proposed ethanol mandate is too high and the implementation timeframe too short.

This mandate would lead to significant financial costs to the most price sensitive Queenslanders. Motorists with older vehicles, which are more likely to not be compatible with E10, would be disproportionately affected as they are forced to purchase the more expensive premium fuel. Evidence of this can be seen in New South Wales where their ethanol mandate has led to 17% increase in the sales of premium petrol from January 2010 to present (based on sales data from the Australian Government, Bureau of Resources and Energy Economics).



After three years, it is proposed that the mandate be increased to 10%. This would require all petrol sold in Queensland to be blended with 10% ethanol. All vehicles not compatible with E10 would be forced to run on premium fuel. With 10% ethanol also in premium fuels, some vehicles would need to be scrapped or sold interstate where regular ULP remains available, or run on ethanol blended petrol risking serious damage to the vehicle.

RACQ strongly opposes the Liquid Fuel Supply (Ethanol) Amendment Bill 2014. It will add to the cost of living for many Queenslanders. If the Queensland Government considers it necessary to implement some form of ethanol mandate, RACQ has developed a policy that delivers the objectives without placing an excessive burden on motorists. This policy is attached.

We would welcome the opportunity to discuss these matters directly with the Queensland Government or the Parliamentary Inquiry.

For any further advice or information regarding this submission please feel free to contact

[Redacted contact information]

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Michael Roth'.

Michael Roth  
**Executive Manager Public Policy**

October 2013

## Ethanol-blended Fuels Policy

Ethanol-blended fuels comprise a blend of regular mineral petrol and ethanol, and have been available in Australia for more than 10 years. In 2003 the Federal Government amended the Fuel Quality Standard to require retailers to report an ethanol content of greater than 1%. The most common ethanol-blended fuel is E10, which consists of up to 10% ethanol and 90% mineral petrol. While E10 is widely available in south east Queensland (SEQ), availability is limited in regional Queensland. E10 has had a steady 10% market share in Queensland since late 2011.

Ethanol mandates are used to promote the use of ethanol-blended fuels. In Australia, only New South Wales (NSW) has an ethanol mandate.

The NSW ethanol mandate requires 6% of the total volume of all petrol sales to be ethanol. In effect this requires 60% of all petrol sales to be E10 (assuming that E10 is 10% ethanol). The practical result of this policy has removed regular unleaded petrol (ULP) from most fuel outlets in NSW, due to limitations on the number of bowsers/fuel types they can offer.

In 2006 the Queensland Government announced an ethanol mandate for Queensland. It proposed that 5% of all petrol sales be ethanol. This mandate was due to be implemented on 31 December 2010, however, it was abandoned in October 2010.

In recent years, the Federal Government has undertaken a range of reviews of Australia's liquid fuel security and broader energy needs for the future. Unfortunately no clear outcomes were progressed. With the election of the Liberal and National Coalition in September 2013, an opportunity exists for a national process to address Australia's fuel security needs, while also considering energy affordability, regional development, environmental impacts and other policy objectives relevant to the long term sustainability of our transport, agriculture and manufacturing sectors.

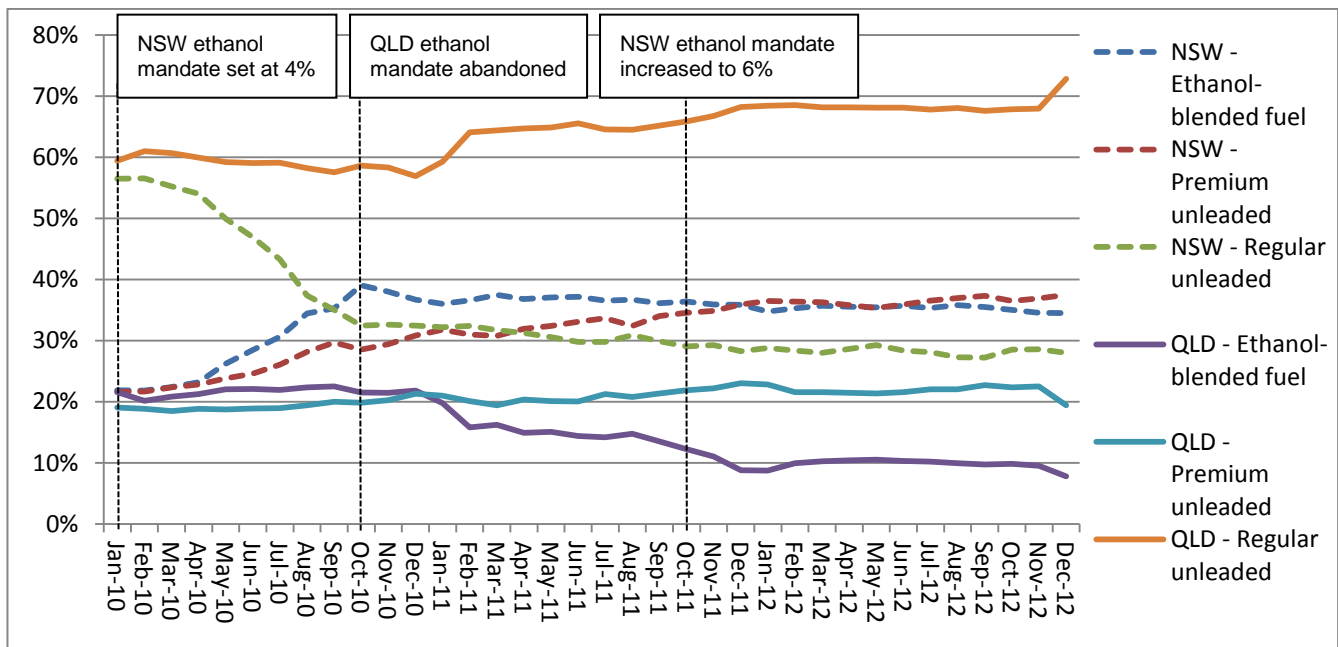
As an island nation with consistent vehicle design regulations across the country, most objectives related to ethanol and fuel security will be consistent across the country. A national policy approach is thus preferred over state-based legislation that has potential to increase vehicle or fuel industry costs or result in perverse consequences.

## Ethanol Sales in Queensland and NSW

The chart below shows the volume of E10, regular ULP and premium ULP sold in Queensland and NSW, as a percentage of all petrol sales volumes in both states<sup>1</sup>.

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<sup>1</sup> Source: Department of Resources, Energy and Tourism (Federal), *Australian Petroleum Statistics*, January 2010 to December 2012, <http://www.bree.gov.au/publications/aps/index.html>



In January 2010, sales of E10, regular ULP and premium ULP in Queensland and NSW were very similar.

Initially, the NSW ethanol mandate caused a dramatic increase in E10 sales and a comparable drop in regular ULP sales. However, the most significant effect of the NSW ethanol mandate has been the increase in the sales of premium ULP. In January 2010 premium ULP accounted for 21.6% of all petrol sold in NSW, but this had increased to 30.9% by December 2010. Sales of premium continued to increase throughout 2011 and 2012. At the end of 2012, premium ULP accounted for 37.5% of all petrol sales in NSW and was the single largest selling petrol grade.

In Queensland, E10 sales remained steady at just above 20% of total volume until the end of 2010, when the Queensland Government announced it was abandoning the proposed 5% ethanol mandate. Sales of E10 began to fall and by the beginning of 2012, E10 accounted for 10% of sales in Queensland. From early 2011, sales of regular ULP increased by 10% and sales of premium ULP increased slightly, but remained close to 20% of total sales.

In October 2010, 16% of retailers in SEQ did not sell regular ULP, only offering E10 and premium ULP. At that time, the average price of E10 was 2.8 cents per litre lower than regular ULP in Brisbane and E10 accounted for 21.5% of all petrol sales. By December 2012, E10 accounted for 7.8% of petrol sales in Queensland and the price difference (compared to regular ULP) had diminished to 2.4 cents per litre.

## Ethanol Demand and Supply

E10 has been available in Queensland for at least 10 years. After the proposed and subsequently withdrawn ethanol mandate, the market for E10 in Queensland appears to have stabilised at about 10% of total sales.

While it could be argued that demand for ethanol in NSW has limited the availability of ethanol for sale in Queensland, this does not appear to be the case. E10 is available at a substantial proportion of fuel retailers in SEQ and motorists who want to use E10 have access to it.

## Financial Disincentives for using E10

In Brisbane in December 2012 the price of E10 was 2.4 cpl less than regular ULP. While E10 appears a cheaper fuel option, cars use about 3% more E10 compared to regular ULP. For most



cars, the cost of increased fuel consumption will be greater than the savings from buying E10. At current prices, E10 would need to be 4.5cpl cheaper than regular ULP before it became more economical to buy.

As the NSW mandate demonstrated, when the choice to buy regular ULP is removed many motorists will buy the more expensive premium ULP rather than E10. While some people will have no choice as this is the only non-ethanol blended fuel and their vehicle is not E10 compatible, others may be buying premium ULP simply because they are unsure whether their vehicle will be damaged by ethanol blended fuels. Any future ethanol policy must address this information gap. In Brisbane, premium ULP is 10cpl dearer than regular ULP.

## E10-Compatible Vehicles

While the majority of petrol vehicles in the Australian fleet can use E10 fuel, a proportion cannot. As older vehicles are retired from the fleet, the proportion of vehicles that cannot use E10 will fall.

Research undertaken by the University of Queensland<sup>2</sup> in 2011, commissioned by the Biofuels Association of Australia and supported by RACQ, calculated that in 2013 19% of vehicles in Australia would not be E10 compatible. This was predicted to reduce to 7% by 2020. The table below displays the predicted percentage of E10-compatible petrol vehicles. This percentage data is calculated from a table of absolute numbers of vehicles, presented in the UQ research.

Year	Percentage of E10 Compatible Vehicles	Percentage of E10 Non-compatible Vehicles
2009	69.8%	30.2%
2010	72.8%	27.2%
2011	75.7%	24.3%
2012	78.4%	21.6%
2013	80.9%	19.1%
2014	83.2%	16.8%
2015	85.3%	14.7%
2016	87.2%	12.8%
2017	89.0%	11.0%
2018	90.5%	9.5%
2019	91.9%	8.1%
2020	93.1%	6.9%

## Benefits of Increased Ethanol Use

The benefits of increased ethanol use as a motor vehicle fuel are dependent upon the production process. While there are some improvements in urban air quality, there are limited environmental benefits from ethanol production if the ethanol is produced from a feedstock that requires significant energy in processing or if the feedstock is a food source alternative. Evidence exists that using potential foodstuffs to produce ethanol increases the price of food, especially when ethanol is

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<sup>2</sup> Wilson A, Bolton N, Thomas S and Dargush P, (2011), *The E10 compatibility of the Australian fleet*, UQ SMART.



produced from grain. This is a lesser issue when ethanol is produced from sugar cane juice or molasses.

New ethanol production processes have potential to improve the environmental benefits for instance by using virgin sugar cane crops. The whole crop is processed by fermenting the raw sugar cane to produce ethanol and burning the bagasse (the fibrous material that remains after the distilling process is completed) to produce the electricity required for production.

Ethanol production supports regional development by providing another revenue stream for regional economies. Locally produced ethanol also reduces Australia's dependency on imported oil and refined fuels. This is especially important considering the imminent closure of the two oil refineries in Sydney, NSW, and the possible closure of the refinery in Geelong, Victoria.

## Supporting Ethanol Production

Any move by the Queensland Government to support the ethanol industry through a mandate must avoid the problems caused by the NSW ethanol mandate.

Any mandate must be combined with an education campaign that provides information to motorists about the risks and benefits of ethanol. By providing quality information, motorists whose vehicles are able to use ethanol will be less likely to choose to purchase the more expensive premium ULP.

Government policy must not limit choice for motorists or increase their fuel bills. Any "displacement" or removal of regular ULP pumps from a large number of retail outlets would produce exactly these outcomes, based on the NSW experience.

The RACQ would support a target of 2% ethanol sales by volume in 2016 and 3% in 2020 because these can be achieved without negative impacts for motorists. The NSW mandate is too high: it has increased the cost of motoring through higher fuel bills, while failing to sustain an increase in the use of E10.

The Queensland Government should consider supporting ethanol use through government procurement initiatives. The government should purchase E10-compatible vehicles for their fleet and encourage drivers to use E10 wherever it is available. The government should also investigate, research and develop opportunities to support regional ethanol production and advanced ethanol production methods.

In the long-term, the fuels that drive our vehicles could be dramatically different from those we use today. The government should not constrain options by trying to pick the winners with legislation that promotes any one fuel. Australia needs an integrated national fuel policy that promotes fuel security and encourages the uptake of affordable and sustainably produced fuels.

## Conclusions

An ethanol mandate in Queensland would be successful in increasing the volume of ethanol sold.

The NSW ethanol mandate has achieved only a 3.5% ethanol volume share despite the legislation prescribing a 6% ethanol volume share. The resulting on-going requirement for Ministerial exceptions for all retail fuel suppliers in NSW is not a desirable or sustainable outcome. Effectively, the fuel companies have not been able to reach the targeted 6% volume outcome. The NSW ethanol mandate has contributed to a 16% increase in the volume of premium ULP sold, increasing fuel costs for motorists.

A Queensland ethanol mandate would have similar negative impacts on motorists, unless it is limited to 2% by 2016 and 3% by 2020 and the public are educated to encourage ethanol uptake where appropriate. At these levels, most fuel retailers would ensure that both E10 and regular ULP are available for motorists. Any higher mandate would increase the fuel cost for motorists due to a lack of comparative competition with ULP, or be forcing motorists to purchase premium grade fuels. The timing would also ensure that only a small percentage of Queenslanders would be driving vehicles which should not use E10.



A national policy approach should consider ethanol in the context of all transport sector objectives, including fuel security, affordability and sustainability, as well as regional development and environmental impacts. The Queensland Government should only progress a mandate if there is a failure at the national level to implement a reasonable alternative fuel policy.

Government support for the ethanol industry should encourage E10 consumption and support ethanol production, rather than removing the opportunity for motorists to purchase regular ULP.

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