

Thank you for the opportunity to provide a submission to the Queensland Government's *Liquid Fuel Supply (Ethanol and Other Biofuels Mandate) Amendment Bill 2015* (hereupon referred to as "the Bill"). This submission focuses specifically on consumer advocacy.

The RACQ represents 1.2 million motoring members and seeks to maintain the viability of motor vehicle transport on their behalf. RACQ has an existing policy on ethanol-blended fuels, included with this submission. The policy's recommendations are carefully tailored to balance the competing objectives of the biofuel and retail fuel industries without creating substantial detriment to motorists throughout Queensland.

RACQ is pleased the Bill is consistent with Government's Discussion Paper and RACQ's Ethanol-blended Fuels Policy and includes measures to avoid the excessive increase in premium fuels sales caused by the NSW ethanol mandate. The RACQ welcomes the Queensland Government's support for:

- The on-going commitment to consumer choice
- The graduated implementation of the mandate
- The starting percentage of 2% ethanol of regular unleaded petrol sales
- The starting percentage of 0.5% biodiesel of diesel sales
- The review process to ensure future increments do not negatively impact consumers, and
- The commitment to an education campaign that highlights the benefits of ethanol and advises motorists whether their vehicle can use ethanol blended petrol.

The RACQ is also supportive of the objective to develop the ethanol industry to improve regional and economic diversity.

General comments about the Bill and its objectives

The starting volume of 2% of ethanol in the total sales volumes of regular unleaded petrol is an appropriate starting volume. This will provide surety of demand supporting new investment in ethanol production, while providing on-going availability of 100% mineral unleaded petrol for those motorists with non-E10 compliant vehicles. RACQ would support an increase to 3% as E10 compatibility becomes more common in the Queensland vehicle fleet

RACQ supports a starting volume of 0.5% for biodiesel, and would support eventual increases to 5% if local production is sufficient and no quality issues arise.

RACQ supports the framework for administering a biofuels mandate described in the Bill, and notes all of the key that the sales volumes prescribed in the Bill are subject to amendment by regulation.

This submission will now address specific sections of the Bill and omissions from the Bill.

Section 35A, 5b



As an interim measure RACQ suggests that retailers with quarterly sales volumes between 250,000L and 500,000L be given special consideration when applying for exemptions. This measure would be temporary and would ease the short-term financial burden on the smaller retailers. This exemption could be prescribed by regulation.

Section 35B, 3b – retail percentages

The initial percentage of 2% of ethanol in the total sales volumes of regular unleaded petrol is an appropriate starting volume. This volume balances the needs of ethanol producers without adversely affecting consumers.

An increase by regulation to a volume greater than 3% would require extensive evaluation and consultation to ensure consumers are not adversely affected.

Section 35C, 3b

The initial percentage of 0.5% of biodiesel in the total sales volumes of diesel is an appropriate starting volume, assuming there is sufficient local product available. The mandated volume of biodiesel could be increased to 5% to facilitate further biodiesel industry development.

A biodiesel mandate greater than 5% would require extensive evaluation and consultation.

RACQ supports the current Commonwealth Fuel Quality Standards allowing up to 5% biodiesel be added to a diesel blend without any additional labelling.

Section 35R

This section provides provision for sales volumes of biofuels to be published at the Department's discretion. RACQ would like this section to be amended to mandate the publication of the biofuel sales volumes. This data should be published as aggregated data, at a scale sufficient to maintain retailer anonymity.

Other sections

RACQ supports the proposed record keeping regime, the exemption regime and suspension regime.

RACQ supports the creation of a register of fuel sellers and the reporting requirements detailed in the Bill.

Omissions

The Bill does not mandate the creation of an expert panel or implementation board. RACQ believes that such oversight is required.

The Bill does not mandate an education campaign.

Increasing the volume of ethanol to be sold furthers the need for clear and transparent pricing practices. As roadside price boards remain the dominant source of fuel price information for



many motorists regulation is required to end misleading and deceptive practices, such as advertising discounted prices.

The Bill does not mandate the requirement to develop and implement an evaluation process. A clearly defined evaluation process is critical to measure the success of the mandate, and any potential adverse effects of the mandate. The requirement to develop and implement an evaluation process should be included in the Bill.

An evaluation process should include an assessment of the impact to consumers, most importantly the current and future levels of E10 compatibility in the Queensland vehicle fleet. This process should also assess industry compliance and ability to meet current and future mandates.

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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 at least 60% of all petrol sales to be E10. The practical result of this policy has removed regular unleaded petrol from many 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 agreed.

Liquid fuel legislation and regulation should consider fuel security needs as well as 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.

Issues

An ethanol mandate will have both benefits and negative consequences for different stakeholders.

Evidence from NSW suggests that a mandate will lead to an increase in the use of premium unleaded petrol (PULP), unnecessarily increasing costs for motorists. E10 is currently widely available in metropolitan areas of Queensland and there is an established and stable market. The lower energy content of E10 compared to regular unleaded petrol (RULP) and modest price difference makes E10 less cost effective than RULP. A substantial, but diminishing, proportion of the Queensland car fleet cannot use E10.

E10 use provides environmental benefits in improving urban air quality. Other environmental benefits depend on the feedstock and production processes. Increased use of ethanol supports regional development and regional jobs. Locally produced ethanol improves Australia's energy security by reducing dependency on imported oil and refined fuels



Ethanol Sales in Queensland and NSW

Chart 1 (overleaf) shows the volume of ethanol blended petrol (EBP), RULP and PULP sold in Queensland and NSW, as a percentage of all petrol sales volumes in both states¹.

Until January 2010, sales of E10, RULP and PULP in Queensland and NSW were very similar. The NSW ethanol mandate had been in place for two and half years and had just been increased from 2% to 4%. In Queensland retailers were gearing up for the imposition of a 5% mandate on 31 December 2010. The Queensland Ethanol Conversion Initiative had already provided substantial financial support for retailers to prepare tanks, bowsers, signage and other equipment in preparation for the mandate.

During 2010 the NSW ethanol mandate caused a dramatic increase in E10 sales and a comparable drop in RULP sales. However, the most significant effect has been the increase in the sales of PULP. In January 2010 PULP accounted for 21.6% of all petrol sold in NSW, but this had increased to 30.9% by December 2010. Sales of PULP continued to increase throughout 2011 and 2012. In January 2015, PULP accounted for 44.0% of all petrol sales in NSW and was the largest selling petrol grade.

The NSW ethanol mandate has achieved only a 3% ethanol volume share despite the current legislation prescribing a 6% ethanol volume share. Fuel companies in NSW receive on-going Ministerial exemptions for failing to meet the prescribed mandate.

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 RULP increased by 10%, capturing most of the lost E10 volumes.

In October 2010, 16% of retailers in SEQ did not sell RULP, only offering E10 and PULP. At that time, the average price of E10 was 2.8 cents per litre lower than RULP 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 RULP) had diminished to 2.4 cents per litre. Since then E10 sales remained relatively stable, with E10 accounting for 10.1% of sales volumes in January 2015 with the price difference (compared to RULP) falling slightly to 2.3 cents per litre.

Ethanol Demand and Supply

E10 has been reasonably widely available in Queensland since 2005. After the proposed and subsequently withdrawn ethanol mandate, the market for E10 in Queensland has stabilised at about 10% of total sales.

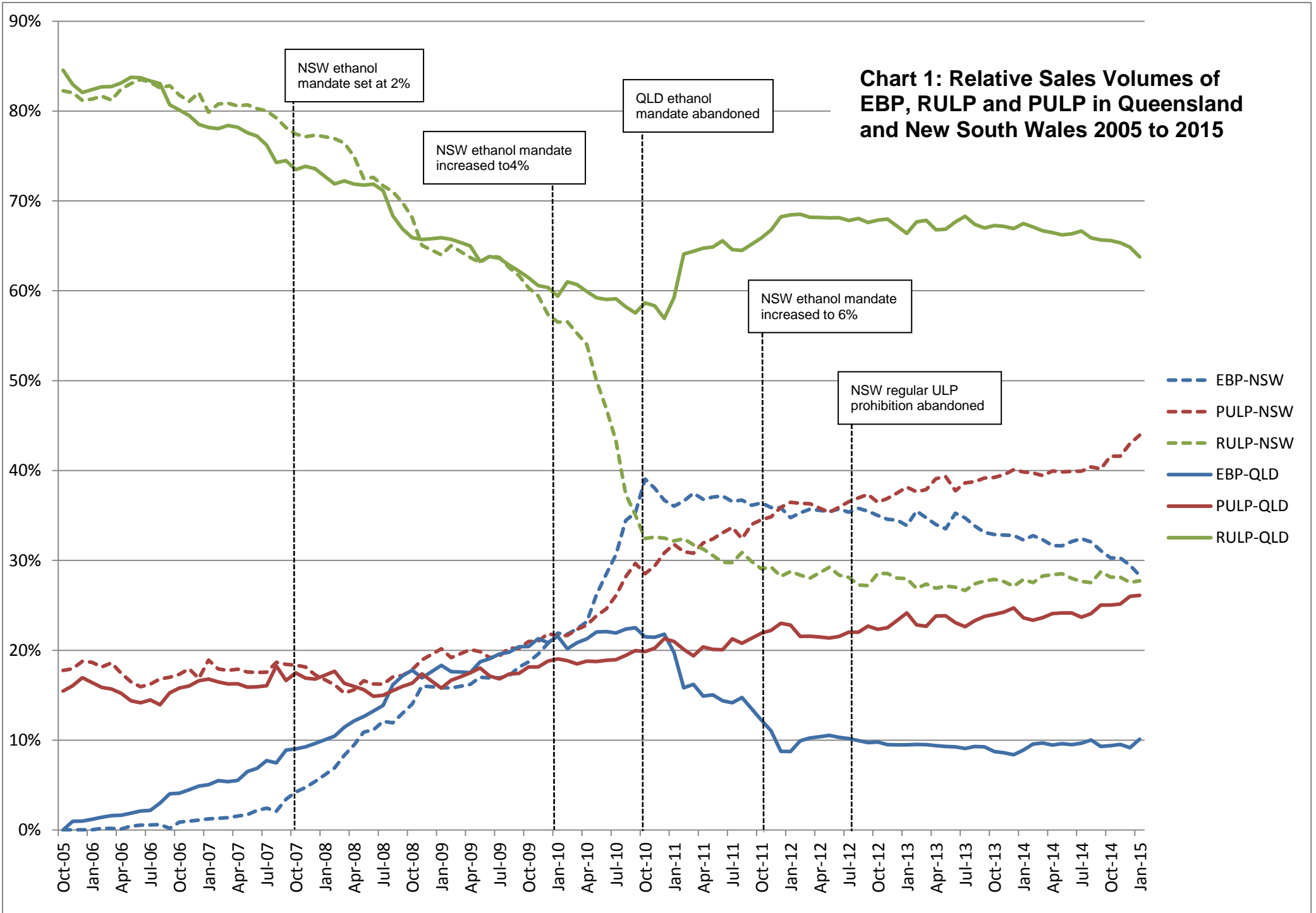
While it could be argued that demand for ethanol in NSW has limited the availability of ethanol for sale in Queensland, this does not appear to be the case. E10 is available at a substantial proportion of fuel retailers in SEQ and motorists who want to use E10 have access to it.

Financial Disincentives for using E10

In Brisbane in January 2015 the price of E10 was 2.3 cpl less than RULP. While E10 appears a cheaper fuel option, cars use about 3% more E10 compared to RULP. 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 RULP before it became more economical to buy.

¹ Source: Office of the Chief Economist, Department of Industry and Science (Federal), *Australian Petroleum Statistics*, 2010 to 2015, www.industry.gov.au/industry/Office-of-the-Chief-Economist and Department of Resources, Energy and Tourism (Federal), *Australian Petroleum Statistics*, 2005 to 2009.

Chart 1: Relative Sales Volumes of EBP, RULP and PULP in Queensland and New South Wales 2005 to 2015





As the NSW mandate demonstrated, when the choice to buy RULP is removed many motorists will buy the more expensive PULP 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 PULP 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, PULP is 11cpl dearer than RULP.

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 Queensland² in 2011, commissioned by the Biofuels Association of Australia and supported by RACQ, calculated that in 2015 15% 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 a maximum estimate calculated from a table of absolute numbers of vehicles, presented in the UQ research, and includes vehicles designs to run on PULP.

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

Ethanol blended petrol provides environmental benefits. Increased use will lead to improvements in urban air quality. However, other environmental benefits depend on the feedstock and production processes. There are likely to be limited 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 produced from grain. Ethanol produced from sugar cane juice or molasses appears to have greater environmental benefit and less impact on food prices.

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

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



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 farmers, processors and the wider regional economy.

Locally produced ethanol improves Australia's energy security by reducing dependency on imported oil and refined fuels. This is especially important considering the recent closure of the Shell and Caltex refineries in Sydney and the BP refinery in Brisbane.

Supporting Ethanol Production

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

Any mandate should 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 purchase the more expensive PULP.

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

In light of regional development benefits of increased ethanol production, the potential air quality benefits and other possible environmental and energy security benefits, RACQ believes that a limited mandate would be acceptable. RACQ would support a target of 2% ethanol sales by volume in 2016, increasing to 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

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.

An ethanol mandate in Queensland would be successful in increasing the volume of ethanol sold. To minimise the negative consequences and increased costs for motorists it should be limited to 2% in 2016 and 3% by 2020.

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.

Any mandate would require an education campaign about the benefits of using ethanol blended petrol as well as when it is inappropriate to use these fuels.

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