Submission to the Queensland Parliament Utilities, Science and Innovation Committee

on the

Liquid Fuel Supply (Ethanol and other Biofuels Mandate) Amendment Bill 2015

12 October 2015

ABOUT AIP

The Australian Institute of Petroleum (AIP) was established in 1976 as a non-profit industry association. AIP's mission is to promote and assist in the development of a sustainable, internationally competitive petroleum products industry, operating efficiently, economically and safely, and in harmony with the environment and community expectations. AIP provides a wide range of factual information and industry data to assist policy makers, analysts and the community in understanding the key market, industry and other factors influencing Australia's downstream petroleum sector.

AIP is represented on key statutory and advisory bodies including the National Oil Supplies Emergency Committee (NOSEC), the Fuel Standards Consultative Committee (FSCC), the Oil Stewardship Advisory Council (OSAC), the New South Wales Biofuels Expert Panel and the National Remediation Framework Steering Group (NFRSG). AIP sponsors or manages important industry health and environmental programs and the Australian Marine Oil Spill Centre (AMOSC) is a wholly owned subsidiary of AIP.

AIP is pleased to present this Submission to the Queensland Parliament's Utilities, Science and Innovation Committee (USIC) on behalf of its core member companies:

BP Australia Pty Ltd
Caltex Australia Limited
Mobil Oil (Australia) Pty Ltd
Viva Energy Australia Pty Ltd

About AIP Member Companies

AIP member companies operate across the liquid fuels supply chain including crude and product imports, refinery operations, fuel storage, terminal and distribution networks, marketing and retail. Underpinning this supply chain is considerable industry investment in supply infrastructure, and a requirement for significant ongoing investment in maintaining existing capacity. Over the last decade, AIP member companies have invested over $10 billion to maintain the reliability and efficiency of fuel supply meeting Australian quality standards.

AIP member companies play a very significant role in delivering the majority of bulk fuel supply to the Australian market.

- In relation to conventional petroleum fuels, AIP member companies operate all major petroleum refineries in Australia and supply around 90% of the transport fuel market.
- In relation to gaseous fuels, AIP member companies are the major suppliers of bulk LPG to the domestic market, representing around two thirds of the market.
- In relation to biofuels, AIP member companies are the largest suppliers of ethanol and biodiesel blended fuels and blended biodiesel to the Australian market.

Given this background and their significant role in the Australian fuels supply chain and broader economy, AIP member companies have a very strong interest in the supply of biofuels and the maintenance of liquid fuel supply reliability. Background information on the downstream petroleum industry is contained in the AIP publication Downstream Petroleum 2013 (http://www.aip.com.au/topics/new.htm) and the AIP submission to the Energy White Paper process (http://www.aip.com.au/topics/submissions.htm).

Contact Details

Should you have any questions in relation to this submission, or require additional information from AIP, the relevant contact details are outlined below.

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Key Messages

- The Australian Institute of Petroleum (AIP) supports market based mechanisms for the supply of fuel in Australia, which have delivered a strongly competitive fuels market with robust supply security.
    - AIP does not support mandates for any fuel because mandates distort the fuels market, potentially reduce supply security and increase costs to customers.
- AIP believes that biofuels can have a place in the Australian fuels market where they are available at a competitive price, reliably supplied, acceptable to consumers, produced sustainably, and provide net greenhouse gas reductions.
- AIP and member companies will work to comply with any biofuels mandate and suggest that biofuels policy must be designed to deliver a sustainable, competitive and commercial market in the medium to longer term for those fuels.
- Given the considerable costs that will be placed on fuel supply businesses (e.g. terminal blending infrastructure, service station conversions), AIP considers that a comprehensive Regulation Impact Statement (RIS) is essential to determine whether a biofuels mandate is the optimal method for achieving the stated aims of the biofuels policy.
    - AIP notes that a RIS has not been developed for these proposals and the Explanatory Memorandum (EM) to the Bill does not adequately consider the costs on fuel suppliers and retailers.

<u>Ethanol</u>

- AIP acknowledges the statement in the EM that "there are potential negative effects if the mandate is set too high or increased at a predetermined time or predetermined rate".
- While AIP considers the proposed 2% mandate measured on Regular Unleaded Petrol seems a reasonable method for implementing the mandate:
    - Under the proposed retail compliance model, it is actually not necessary to specify a percentage. As a result, AIP suggests that s.35B (b) is removed.
    - AIP member companies support the Queensland Government's intention to m*aintain consumer choice.* However, under this model, the achievement of a 2% level could be challenging given consumer reaction to ethanol being available. ACCC evidence clearly shows that when offered the choice, a significant proportion of consumers will chose a regular unleaded product without ethanol.
    - AIP strongly urges *the Qu*eensland Government to collect and analyse data on retail site numbers and volumes to assist in determining whether a 2% level is achievable and to assist in the design of any exemptions framework.
    - AIP also considers that the definition of Regular Unleaded Petrol should specifically exclude the volumes of Low Aromatic Fuel being introduced to central Queensland to combat petrol sniffing s.4(2) p.5
- The commencement date of 1 July 2016 has the potential to treat retailers inequitably as some retailers do not currently supply ethanol blends while other retailers are supplying volumes close to the 2% requirement.
    - Consequently, AIP considers that the commencement date should be extended to 1 July 2017.
- AIP supports retail site compliance as proposed in the legislation and notes again that under this compliance model it is not necessary to specify a mandate level as compliance is enforced according to whether the retailer is supplying ethanol or has an exemption.

- AIP does not support the wholesale compliance model and suggest that the wholesale requirement be removed from the proposed s.35A.
- AIP does not support the exemption threshold at 250,000 litres of all petrol supplied per quarter because the level will apply the mandate to many small retailers which will struggle to bear the costs of implementation and suggests that the level is increased to 500,000 litres per quarter by altering s.35A (5) - noting that this could be changed by regulation at a later time and once the retail data has been analysed.
- AIP notes that the sustainability criteria have not yet been developed and until these are known and understood it may limit the available supplies.
    - AIP considers that compliance with the sustainability requirements should be the responsibility of the ethanol producers and not the fuel retailers.

<u>Biodiesel</u>

- AIP does not support the setting of a mandate level for biodiesel as there is poor understanding of the market and the capabilities of existing and potential producers to supply biodiesel.
    - Moreover there are limited blending facilities in existence in Queensland and at the low volumes anticipated by the mandate it would not be economic to construct more.
    - USIC should note that so- called “splash blending” of biodiesel blends during truck loading is not an acceptable product quality control practice for AIP member companies and would not be contemplated under any circumstances.
    - Consequently, AIP suggests that s.35C 3(a) be removed.
- AIP notes the statement in the EM that the only current biodiesel producer is at Narangba with a capacity of 30ML per annum produced from used cooking oil and tallow.
- AIP understands that the current production is about 6-8ML per annum and it is not clear where the additional feedstock needed for any increase in production would be sourced.
    - The type of feedstock used could have further implications for infrastructure costs – i.e. tallow based biodiesel requires more expensive heated tanks in some locations. This reinforces the need for a RIS process.
- AIP urges USIC to closely consider that the quality of biodiesel varies with the feedstock utilised and that any additional production will more than likely require supply quality certification before it can be introduced to the supply chain.
    - The only potential alternative biodiesel supply is from Barnawartha in Victoria and the transport costs to Queensland are likely to be economically prohibitive.
    - However, the Federal Government’s excise changes from 1 July 2015 which caused the cessation of imported biodiesel supplies, raise doubts that domestic production would be available for acquitting the Queensland mandate.
- AIP strongly suggests that there is further detailed assessment of the potential for a sustainable biodiesel industry before a percentage is set in legislation.

Introduction

The Australian Institute of Petroleum (AIP) strongly supports market based approaches for the supply of fuels in Australia. A market based approach has delivered Australia a highly competitive fuel market that provides the consumer with fuels of an assured quality, delivered reliably at a reasonable price in a geographically dispersed supply chain.

Given the demonstrated benefits of a market based framework for liquid fuel supply, AIP only supports market intervention when there is demonstrated market failure that the market, or consumers, cannot efficiently resolve, and the intervention would result in a net benefit overall. In addition, any intervention policy in the fuels market must be based on sound science, rigorous economic analysis, consumer (or end buyer) support, equitable application to market participants, and transparent assessment and implementation, while minimising unintended consequences.

In assessing these impacts, it is critical that any proposed policy is subject to a comprehensive Regulation Impact Statement (RIS) process. In conducting a RIS of any Queensland Government biofuels mandate it is imperative that there is good understanding of the Queensland liquid fuels market. Data on retail site numbers, ownership and volumes is particularly important given the lack of currently available information, which needs to be considered against potential market demand (or lack of).

AIP Position on Financial Incentives for Biofuels

AIP supports the use of transparent financial incentives (excise concessions, production grants and technology and market facilitation grants) to facilitate and encourage the use of biofuels and alternative fuels in Australia provided those incentives are either:

- short-term and aimed at offsetting some of the up-front capital costs associated with bringing the fuel or the fuel use technology to the market

or

- ongoing but solely aimed at recognising significant and demonstrated environmental benefits of the fuels compared to the current environmental performance of mainstream fuels.

In this context, AIP supports the policy of successive governments of fuel excise neutrality based on the relative energy content of the individual fuels.

AIP Position on Biofuels Mandates

AIP strongly supports market based approaches for the supply of fuels, including biofuels, in Australia. AIP considers that biofuels will have a place in the Australian fuels market as long as they are:

- Available at a competitive price
- Reliably supplied
- Acceptable to consumers
- Produced sustainably

AIP believes that government policy in support of biofuels (e.g. for environmental benefits) needs to be:

- Transparent, with clear, credible and tested objectives
- Applied equitably to all industry participants
- Stable with clear timeframes for withdrawal of support
- Based on sound science
- Cognisant of other broader policy settings and commercial practice.

In principle, AIP does not support mandates requiring the use of any particular fuel as a way of increasing the demand for that fuel.

- While AIP members will work to comply with the requirements of any government imposed biofuels mandate, AIP believes any mandates for biofuels that may help to increase short-term consumer demand must be designed so that they promote and enable a sustainable, competitive and commercial market to develop in the medium to longer term for those fuels.

AIP believes that fuel mandates may lead to higher cost fuels, reduce market price transparency for fuel suppliers and consumers, limit price competition and associated marketing innovation, and fail to encourage the development of robust and reliable fuel supplies. Ultimately, fuel consumers will bear the cost of mandates through increased prices, reduced choice or more vulnerable liquid fuels supplies.

AIP believes that any government support of, or mandates for, biofuels must recognise that:

- Biofuels are generally supplied to the market at a higher price than conventional fuels if the excise exemption is taken into account.
- There is strong, ongoing, consumer resistance to using ethanol blend fuels and a proportion of the market, albeit declining, that cannot use ethanol.
- While biofuels add new sources of supply to the market and thereby increase the diversity of the fuel mix, it has not been demonstrated that this will result in more reliable fuel supplies. There are few suppliers of biofuels in Australia and Federal excise and customs duty policies effectively prevent the use of imported ethanol and biodiesel. In addition, the inherent fragility of the nascent biofuels supply chains and the lack of redundancy in the biofuels supply system mean there is a significant risk of supply disruption, particularly, given the demonstrated impact of droughts and flood on biofuels raw materials supply.
    - Any significant disruption to domestic biofuels supply imposes costs on the fuel supply chain to convert back from biofuels to RULP.
    - It is also for this reason that AIP does not support ethanol being blended into premium fuels as a disruption to ethanol supply would incur significant impact on consumers and the economy as effectively no fuel would be available until regular unleaded and premium fuels were able to be distributed into the marketplace with adequate quality and product stewardship measures.
- The benefits cited for a biofuels mandate have not been rigorously tested and it is therefore imperative that these be comprehensively assessed in a Regulation Impact Statement (RIS).
    - Regional development benefits (such as jobs and economic development benefits) have not been adequately tested and may not be the optimal use of such a significant implicit subsidy of biofuels producers by wholesalers, retailers and motorists.
    - The environmental benefits have previously been found to be minimal and should be retested under the current fuel and vehicle standards, ethanol production technologies and distance to market.
- If the carbon emissions abatement estimates for biofuels are robust then biofuels projects should be eligible for support under the Commonwealth Government's Emission Reduction Fund if they are competitive with other abatement options.
    - There is limited experience to demonstrate that an Australian national biofuels mandate will encourage the development of robust and reliable local production of biofuels on a sustainable basis.
- While biofuels mandates and targets may have helped to create an increase in consumer demand:
    - The difference between the 39 cpl excise equivalent customs duty for ethanol imports and the comparatively low rate of excise for domestically produced ethanol has made ethanol imports uncompetitive and impeded the development of a properly functioning ethanol market and supply chain.
    - There is ongoing uncertainty surrounding biofuels supply reliability.
    - There is no guarantee of effective competition involving a diverse number of ethanol producers in the wholesale biofuels markets, as this depends on the balance of supply and demand which should include imports.

Experience with the NSW ethanol and biodiesel mandates provides significant guidance on problems likely to be encountered in the implementation of such mandates, depending on their design, particularly:

- Consumer research shows there is strong opposition to ethanol from a significant proportion of motorists – AIP member companies have individually provided consumer research to the Queensland Government on a commercial-in-confidence basis that demonstrates this.
- Discontent from consumers having to pay for premium grade petrol or change service stations if regular grade petrol is not available (although we note and support the government's commitment to retain consumer choice between E10 and regular grade petrol).
- Uncertainty around the warranty conditions for passenger vehicles and commercial transport operators utilising biodiesel blends.
- Opposition from fuel distributors obliged to spend additional capital on biofuel distribution assets which in general would not meet necessary investment hurdles, which suggests that any mandate policy is critically dependant on consumer and market demand.
- Strong public opposition from independent service station owners required to convert service stations and/or to undertake premature site refurbishment in order to supply biofuels.
- Exclusion of large volume individual sites from the mandate.
- The importance of comprehensive application of a mandate applying to all retailers, not just primary wholesalers and major retailers; liability must rest with the entity that has control over the choice of fuel sold and the retail price of that fuel at a site.

There has been no detailed consideration of whether an ethanol mandate will actually achieve the broader aims for the biofuels manufacturing industry that has been cited as the main objective of the policy which is to stimulate the development of, and investment in, a sustainable Queensland biofuels industry. In this context, it is important that a coherent strategy is enunciated for biofuels manufacturing and that the role of any ethanol mandate is clearly identified. For example, it has not been considered whether a mandate is the optimal method for supporting advanced biofuels manufacturing or whether a superior policy proposition could be direct subsidy and/or support for technological innovation to underpin the development of second generation biofuels.

In this respect, AIP notes that all ethanol supply to meet the proposed ethanol mandate for the foreseeable future would be sourced from first generation biofuels and it is not clear how the support of first generation biofuels will underpin the development of second and third generation producers, or whether it could actually impede the development of technologically advanced producers.

Ethanol Mandate

Regulated parties – lessons from the NSW experience

AIP member companies currently supply ethanol blends in Queensland and are designated volume sellers under the NSW mandate. ACCC has identified that the main causes of the lack of ethanol penetration in the market are due to adverse consumer confidence and in NSW the large percentage of retailers exempt from the mandate.

According to the latest ACCC public reporting on the petrol market (December 2014):

"Since its introduction in October 2007 the NSW mandate has had a significant impact on competition and consumers:

- it has affected the competitive dynamic among retailers by reducing the availability of RULP from many retail sites
- it has reduced consumer choice—some motorists who cannot, or choose not to, use E10 in their vehicles have, because of the reduced availability of RULP, decided to use PULP
    - This is reflected in the fact that between 2007−08 and 2013−14 sales of PULP in NSW increased by 124 per cent, whereas in the rest of Australia the increase over the same period was only 26 per cent.
- since PULP retails at a higher price than RULP, it has meant that these motorists have been paying significantly higher prices than if they had continued to purchase RULP.
    - In 2013−14 average PULP 95 prices in Sydney were 11.6 cents per litre (cpl) higher than RULP prices."

The point of liability for compliance with any mandate can significantly impact on its effectiveness. For example, if the liability is imposed on fuel suppliers, those suppliers may or may not have control over the operation of supplied retail sites, even those bearing their brand, and the right to influence or dictate whether to supply biofuel blends at particular service stations and they do not have control over the price at which the fuel is sold to consumers.

In NSW, the level of the mandate (6 per cent) and the compliance point (bulk fuel sellers and major retailers) was set with a regulated requirement to remove Regular Unleaded Petrol (RULP) from sale in NSW. The logic underlying this decision was that it was not necessary to regulate smaller retailers because they would have no choice but to offer ethanol blends as it would be the only fuel available from fuel wholesalers. The net result was that the eventual decision not to remove RULP left the majority of the retail market with no ethanol compliance obligation.

Major retailers who had converted to E10 only sites in anticipation of the removal of RULP experienced a significant loss of volume as consumers sought retail sites selling RULP. These retailers have now been progressively forced to reintroduce RULP back into these sites to counteract the loss of volume and competitive disadvantage they faced. The overall effect has been a reduction in overall ethanol penetration from about 4 percent in late 2012 (when RULP was scheduled to be removed) declining to below 2.8 per cent in 2015 and this downward trend appears to be continuing.

The NSW experience provides some valuable lessons for setting the compliance point and mandate level in Queensland. The stated intention of the Queensland Government to maintain consumer choice between RULP and E10 suggests that the coverage of the mandate and maintaining competitive neutrality are key considerations in maximising the penetration of ethanol blends.

In the case of AIP member companies, there are a variety of business models which in the main do not generally entail control of an individual site. While there is a proportion of company owned and company operated (COCO) sites, these tend to represent less than 15% of total sites (depending on the chain).

The majority of AIP member branded sites are linked to supermarket chains or branded independents that have a fuel supply contract with AIP member companies but are operated by independent owners. All the operational decisions regarding that site, such as product selection, pricing and convenience store retailing are generally decisions for the site operator. Moreover, the Commonwealth Government's Oilcode regulations (mandated under the Competition and Consumer Act) prevent a supplier from dictating to the fuel re-seller the operation of the site, including specifically, the choice of products. These operators range from single site to generally three sites.

The independent service station sector has a variety of operating models including single site operators, franchises and company owned. AIP estimates that, including the AIP member company branded independent sector, independent service station operators could account for about 60% of the service station numbers in Queensland.

Given these experiences and the observations about the Queensland market, AIP acknowledges the statement in the EM that "there are potential negative effects if the mandate is set too high or increased at a predetermined time or predetermined rate". Consequently, AIP considers the proposed 2% mandate measured on Regular Unleaded Petrol is a reasonable method for implementing the mandate, although AIP considers that, as explained in the following section, that under a retail compliance model setting an ethanol percentage is not necessary.

Retail Compliance

AIP has advocated in NSW, and now in Queensland, that understanding site control is critical to understanding the options for, and feasibility of, a biofuels mandate. Consequently, AIP considers that liability under any mandate should fall on the party who has the right to dictate the site's fuel offering on the forecourt and the price at which those fuels are sold. AIP considers the retailer has the greatest ability to influence the customer's perception of ethanol blends as a fuel of choice, through the provision of information, competitive pricing and positioning in relation to other fuels and maintaining sound fuel hygiene practices (water testing, etc.). It is expected that liable parties will then source an appropriate amount of ethanol blend fuel from wholesalers, who will in turn seek it from ethanol blenders and ethanol producers, to enable them to comply with their obligations.

The key point to recognise in retail site compliance is that the setting of any mandate level becomes irrelevant because compliance is administered on whether the retail site makes the fuel available or the retailer has an exemption from supply. Consequently, AIP and member companies consider that the desired level of ethanol should be expressed as a target. Under the proposed retail compliance model it is not necessary to specify a percentage and AIP suggests that s.35B(b) is removed.

In supporting retail site compliance AIP does not consider that the option for wholesale compliance is necessary and AIP does not support wholesale compliance model and suggest that the wholesale requirement be removed from the proposed s.35A.

Achieving a 2% mandate

AIP further considers that the achievement of a 2% level could be challenging. Given the Queensland Government's intention to maintain consumer choice, there is no reliable information on the ability to convert retail sites to E10 supply and the extent of any exemptions that may be approved by the Government.

The costs for conversion of retail sites and wholesale facilities are likely to be significant.

In NSW, the experience of the conversion to E10 has demonstrated that a significant cost of the mandate has been the conversion of retail sites, both from the physical infrastructure expenditure but also the loss of volume from business disruption costs and loss of market share if competitors do not

move to convert to ethanol blends at the same time. Experience also shows that these costs are highly variable across the industry and are a function of the condition of the existing infrastructure and method of introduction of ethanol blends within a competitive catchment.

A 'standard' retail site conversion involves cleaning, drying and integrity testing of the tanks. Changes are also required to pumps, pump labelling, price boards and other signage. There may also be considerable work required to modify fuel delivery points, dip and fill markers and marketing material to explain the change to customers.

A 'standard' conversion to ethanol blends would require tank cleaning and the installation of filtration in the pump system. The filtration system is required to ensure that fuel is not contaminated by particulates while the mobilisation process settles down. Successive Federal and State Governments have recognised the tank conversion costs as being a substantive issue and have provided grants to assist in offsetting the costs. The current industry estimate of a 'standard' conversion is $25k per site for a metropolitan site and $45k for a non-metropolitan site.

AIP considers this to be a bare minimum estimate of the potential cost of an industry wide conversion. As indicated there are also business disruption costs where the conversion requires the site to be closed for up to three days which can be a significant burden for sites and a significant inconvenience to customers – some of whom may never return to the site. Moreover, if there is a choice of regular grade petrol in the competitive catchment, AIP has observed with the current mandate in NSW that there is a significant ongoing loss in volume as customers choose to purchase at locations where they can find a regular petrol product without ethanol or a site with a greater number of regular grade petrol bowsers and therefore potentially shorter queuing times. This represents a substantial cost to the business with the potential to undermine the viability of the site. These costs have not been quantified by AIP as they are generally site specific but should be forensically examined in any subsequent RIS.

For many sites the 'standard' conversion process and costs do not apply. Much of the Queensland infrastructure is aged and in rural and regional areas there is a large prevalence of single-skinned steel tanks. These tanks will operate normally with regular petrol but are particularly susceptible to the introduction of ethanol blends because of the water miscibility of the E10 product. It is likely that there would be a requirement for tank replacement but it is difficult to estimate the extent of the work that would be required. If work were required it can be assumed that it would be at least $500,000 per site in infrastructure costs. The extent of these costs has the potential to threaten the viability of these sites and needs to be a key consideration in any RIS assessment.

The wholesale costs are also significant and require the installation of in-line blending facilities at terminals located in the major centres in Queensland. AIP and member companies consider that significant expenditure would be required to upgrade the terminal facilities, notably gantry facilities, E100 tankage and firefighting equipment.

Each terminal would most likely require additional tankage or increase the frequency of E100 deliveries (or a combination of both). The costs of the additional traffic movements have not been estimated but AIP notes that there may be considerable increases in congestion and associated safety risks in areas that are already subject to significant traffic congestion. Depending on the trade-off between tank building and truck movements there could be the need for at least two additional tanks at each terminal. In the case of joint terminals, there may be requirements for additional tanks for each bulk seller.

There is also a question regarding the feasibility of constructing additional tankage on sites that are close to full utilisation and any Regulation Impact Statement (RIS) would need to examine this factor in detail. The assessment is also complicated because the tanks would ideally be located underground because of the flammability of E100. Assuming that such tankage could be accommodated at the site it

is estimated that each bulk seller would be required to invest at least $2million to construct each additional tank.

While inland depots are becoming a declining feature of the petroleum supply chain there are still a significant number of depots supplying rural and regional areas. A substantial number of these facilities are operated by independent chains and AIP has no information on the costs of these operators. If the mandate required that E10 were supplied to these depots there would be a requirement for the construction of additional tanks to hold the required number of products. The costs would depend on the volume of the tanks but would be at least $250,000 per tank and the overall costs across the industry would be dependent on the requirements of the mandate.

AIP strongly urges the Queensland Government to collect and analyse data on retail site numbers and volumes to assist in determining whether a 2% level is achievable and to assist in the design of any exemptions framework.

Commencement Date

The conversion of the liquid fuel supply chain requires significant investment to construct storage and blending facilities at terminals and depots as well as conversion/up-grade of retail sites. There are lead time, contractor availability and logistics issues which must be addressed in this conversion process. There may also be cases where it is uneconomic to convert smaller terminals in regional areas to ethanol supply.

Despite the progressive investment in storage, distribution and retail infrastructure to support biofuels, there are significant numbers of service stations that are unsuitable to supply ethanol blends because of tankage suitability. A large proportion (possibly as high as 50%) are independently owned service stations which in many cases will require tank replacement. The significant capital costs involved in these upgrades and changes would affect the ongoing financial viability of these service stations. There is also a limited contractor workforce to undertake the necessary conversion processes, which may limit the ability of the industry to be compliant by 1 July 2016.

An alternative to site refurbishment is to provide broad ranging exemptions to these site owners, but this will undermine the objectives of any mandate, and has been found to lead to unintended but significant reductions in volumes of biofuels sold at nearby complying service stations. This creates a fundamental inequity for service station owners where sites that are not required to invest capital to convert to biofuels because of an exemption also see an increase in sales volume of conventional fuels. The commencement date of 1 July 2016 also has the potential to treat retailers inequitably as some retailers do not currently supply ethanol blends while other retailers are supplying volumes close to the 2% limit.

Thresholds for eligibility for any exemptions must be transparent so that the associated compliance regime can also be transparent. Experience has shown that this can lead to ongoing competitive disadvantages for market participants without creating any incentives (or penalties) for ethanol producers to enhance the reliability or price-competitiveness of ethanol supplies. Exemption criteria may include site tankage issues, site competitiveness, interstate supply, other supply chain issues (e.g. uneconomic supply), site volume, supply availability.

Although there is a domestic overcapacity of ethanol supply, given the limited number of supply sources disruptions to supplies may occur as a result of floods and adverse growing conditions in different parts of the country. This uncertainty around ethanol supply is further exacerbated by the absence of competitively priced alternative supplies through imports from other countries due to the excise/grants/customs duty settings.

Consequently, AIP considers that the commencement date should be extended to 1 July 2017.

Low aromatic fuel (LAF)

LAF is a RULP substitute that has a low aromatic content (the psychoactive component of fuel) which is designed to help reduce the devastating effects of petrol sniffing. An E10LAF is not possible due to the following issues:

Smell
E10 fuel has an inherently more pleasant odour than unblended petrol. Sugar cane derived ethanol has a sweet odour with distinct molasses overtones. The odour of this blended fuel will be much more attractive and smell comparatively sweet compared to the much less odour associated with LAF .

AIP and member companies have no direct knowledge of the impact on ‘sniffability’ / enjoyability from substance abuse. The neurological impact of an ethanol blended fuel on substance abusers will need to

be commented on by the Federal Department of the Prime Minister and Cabinet (PM&C) health advisors.

Water / phase separation

All ethanol blended fuels are sensitive to contact with water. E10 blended fuels can absorb up to 0.6% v/v water if it is evenly mixed into the fuel. Any more than 0.6% and a situation called 'phase separation' occurs where nearly all the ethanol in the mixture separates out into a readily separated bottom layer. Water coming into contact with E10 fuel, even when well below this key trigger level, tends not to be mixed evenly so acts as a trigger for pools of ethanol to form on tank bottoms. Unless there is daily water monitoring or tank gauging to detect the layer of ethanol forming then there will be adverse impacts on customers when nearly neat ethanol is delivered into their vehicles. The remote fuel supply locations like the council managed facilities will have trouble managing phase separation. For LAF, any adverse experience caused by phase separated ethanol could lead to fuel rumours about poor performance and set back uptake of the fuel.

Ability to separate fuel to drink ethanol

There is a possibility of substance abusers learning how to induce phase separation of ethanol from blended fuels in uncontrolled circumstances and then drinking the petrol contaminated ethanol/water mix. Note the ethanol separated would be heavily contaminated with fuel and would result in health issues beyond those caused by alcohol abuse. The lack of general availability of E10 blends in these remote locations has prevented experimentation in this direction but a general presence of E10 will at some point result in knowledge on how to separate the ethanol getting out to the general petrol sniffing population and introduce a new variation of alcohol abuse.

Outboard Motor/Marine Application

E10 blends can't be used for marine applications. Any exposure to water will cause phase separation and equipment failure. Many small communities only have one petrol source so converting it to an E10 (LAF or not) will result in them being unable to fuel their boats. This is a general issue not just related to the suggestion of providing an LAF E10.

Seals, hoses and polymers

AIP considers there would be a significant step change increase in the risk of a fuel leak in an E10 LAF blend above that already imposed by the low aromatic content of the fuel. Addition of ethanol to LAF does pose a significant risk to fuel system components. The low aromatic content of the fuel as it is already stresses polymer components by removing aromatic molecules that act to keep polymers soft and pliable. This leaves the polymer components solely reliant on the plasticizers incorporated into the components at manufacture.

The industry has observed a limited number of seal failures on change over at retail sites when LAF is introduced. Any addition of 10 % ethanol to the fuel will further reduce aromatics levels and increase stresses on these components. Further to this impact, the ethanol will increase the solvency of the fuel matrix which will increase the mobilisation of plasticizers out of polymer components and result in premature failure of some types of materials. This would be relatively rapid on contact with the fuel and could be observed in days to weeks in some cases. Fuel leaks would have a significant risk of a vehicle fire.

For these reasons, AIP and member companies would oppose any proposal to introduce a LAF E10 as the industry could not test enough types of equipment to give sufficient assurance that the engines wouldn't fail due to compatibility issues between the fuel and non metallic engine components. LAF already pushes this boundary because of its low aromatic content. Reducing it further and making it a better solvent will be setting the fuel up for wide spread failures and loss of faith.

As a result of these significant issues outlined, AIP considers that the definition of Regular Unleaded Petrol should specifically exclude the volumes of Low Aromatic Fuel introduced to central Queensland to combat petrol sniffing s.4(2) p.5.

AIP would also encourage Queensland Government contacting members of the Petrol Sniffing Prevention Programme (PM&C) to discuss the issues listed above.

Exemption level

AIP does not support the exemption threshold at 250,000 litres per quarter because the level will include many small retailers and suggests that the level is increased to 500,000 litres per quarter by altering s.35A(5) noting this could be changed by regulation at a later time and once the retail data has been analysed.

Setting the compliance burden at a low level will require significant numbers of small retailers to assess their suitability for the supply of ethanol blends and this could impose costs on them that may not be justified and may threaten the sites viability.

Sustainability Criteria

Adoption of sustainability criteria for biofuels production and supply requires close consideration as there are currently no clearly accepted frameworks for determining or setting these criteria, nor for measurement and compliance regimes. AIP considers that the requirement for sustainability is an issue for the biofuels producer and should be determined by the Queensland Government.

AIP notes that the sustainability criteria have not yet been developed and until these are known and understood it may limit the available supplies. AIP considers that compliance with the sustainability requirements should be the responsibility of the ethanol producers and not the fuel retailers.

AIP and member companies are willing to work with Government to set workable sustainability criteria.

Addressing consumer demand

The continued availability of RULP will mean many consumers (market research indicates 20-30% of consumers) who can safely use ethanol blends will choose to use RULP because of negative perceptions of ethanol blends. Recent consumer survey work by the Australasian Convenience and Petroleum Markets Association (ACAPMA) indicates that the proportion of consumers who will not purchase ethanol is significantly higher at over 50% of consumers. In effect, the NSW mandate forced these consumers to either purchase a biofuels product they may not understand or to “trade-up” to Premium Unleaded Petrol (PULP), a higher cost conventional and well known fuel.

Market research by AIP member companies continues to demonstrate that there is ongoing consumer resistance to the use of ethanol blends despite them being available in the market for almost a decade in NSW. Additional effort needs to be invested by Government (as they are a trusted information source for consumers) in the education of consumers and other stakeholders particularly around the potential environmental and vehicle operability aspects of ethanol blend fuels.

While the number of unsuitable vehicles will reduce over time as the national vehicle fleet is replaced, there will still be significant numbers of vehicles which cannot use ethanol blends, estimated at 13.7% in NSW in 2013 (11.5% if motorcycles are not included). In addition, some applications such as marine and small engines are generally not able to use ethanol blends. These vehicles and applications will require the ongoing availability of conventional petrol for many years. This could be achieved through continuing to provide a conventional PULP even if most or all regular grade becomes ethanol blends by regulation or through market actions.

AIP member companies welcome the proposals for a public information campaign to assist in addressing the lack of demand by consumers provided this is funded and the content provided by government. We note that given the likely limited amount of funding available it is imperative that the information strategy is very clear about the targets of the campaign and has measurable outcomes. For example, AIP member company market research has indicated that there is a substantial proportion of consumers who are strongly opposed to the utilisation of ethanol under any circumstances and therefore targeting this group is unlikely to yield a substantial increase in ethanol sales. Moreover, we consider it is critically important that any marketing messages are absolutely credible and are delivered by an independent party.

Consequently, AIP and member companies are willing to contribute marketing information to facilitate the design and delivery of such a program. We consider that a working group could be formed under Departmental auspices to draw in company expertise and provide recommendations for the design and delivery of the program. We further consider that the design of any promotion program should not be finalised until the market research contributions of each market participant are fully analysed and the target audience is firmly identified.

Biodiesel Mandate

There are considerable uncertainties surrounding the supply and use of biodiesel in Queensland. The availability and quality of biodiesel supplies, the availability of blending facilities and the lack of consistent advice from vehicle manufacturers are considerable uncertainties that suggest that it is premature to consider the implementation of a mandate at this time.

The Explanatory Memorandum notes that there is one biodiesel producer in Queensland at Narangba with a nameplate production capacity of 30 ML per annum utilising a feedstock of waste cooking oil and tallow. However, AIP understands that the current production from that facility is between 6-8 ML per annum. Furthermore, it is not clear how much additional biodiesel will be available from that facility, the feedstock to be utilised, the supply conditions or the price. AIP member company supply departments are seeking further information from the producer on these key questions.

USIC should clearly appreciate that the properties of biodiesel will vary with different feedstocks utilised. Some AIP member companies in the past have certified the production from that facility but it is not clear that these certification procedures would be equally applicable to any expanded production from the facility if it used a different feedstock. A key consideration for supply would be that the cold flow properties of biodiesel produced from tallow and supply in southern locations could require heated tanks.

There have been reported volumes for sale from other locations in Australia, such as Barnawartha in Victoria. However, there is also pressure from the NSW Government biofuels mandate to increase biodiesel penetration and it is not clear that this volume will be available for supply to Queensland. In addition the transport costs for transport from Victoria are likely to be prohibitive.

There are no available biodiesel volumes from imported sources because of the changes to Federal Government excise arrangements that apply full mineral diesel excise to imported biodiesel from 1 July 2015.

These observations suggest that there is a poor understanding by the Queensland Government of the biodiesel supply capability to fulfil any mandate proposal.

In addition to availability of supply, there is limited availability of blending facilities in Queensland to deliver the fuel to the customer. AIP member company fuel quality procedures require that biodiesel is blended by “in line blending” which delivers accurate doses of biodiesel into the mineral diesel to assure

complete mixing and accurate volume levels. The costs for installing these facilities have not been assessed given the lack of information about available supplies, although it is anticipated that it is significant (in the order of $3-5 million per terminal) and should be thoroughly assessed in a RIS. AIP understand that the current practice of supplying biodiesel blends is “splash blending” which involves blending biodiesel in the delivery truck. AIP member companies consider this method of blending cannot assure adequate product quality safeguards and would not be contemplated under any circumstances.

While assurance of quality and sustainability of biodiesel production is progressively being addressed by biodiesel producers and suppliers, biodiesel quality and availability are still expected to constrain the ability of biodiesel producers and fuel suppliers to meet mandated levels of supply.

Additionally, the requirement to seek a waiver of national fuel quality standards for cetane and density specifications for biodiesel adds time, complexity, cost and administrative burden in the supply of biodiesel. While the fuel standards framework (which allows up to 5 per cent in diesel and 20 per cent in commercial applications) is being revised to facilitate market development of biodiesel blends, more consistent advice and endorsement is needed from automobile, truck and heavy vehicle manufacturers on the suitability of biodiesel for use in vehicles.

Consequently, AIP strongly suggests that there is further detailed assessment of the potential for a biodiesel industry before a percentage is set in legislation.