



**Submission to  
The Independent Pricing and Regulatory Tribunal  
(IPART)**

**on the**

**Review of a maximum price for wholesale ethanol in  
automotive fuel blends – June 2016**

**28 July 2016**

## **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 presents this Submission to IPART on behalf of AIP's core member companies:

- BP Australia Pty Ltd
- Caltex Australia Limited
- Mobil Oil Australia Pty Ltd
- Viva Energy Australia Pty Ltd.

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## **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 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, efficient pricing of petroleum products and competitive market settings.

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>).

## KEY MESSAGES

- **The Australian Institute of Petroleum (AIP) supports market based approaches for the supply and pricing of fuel in Australia, which have delivered supply reliability and a competitive fuels market.**
- AIP does not support mandates because mandates distort the fuels market, leading to higher costs for consumers, reduced market price transparency for fuel suppliers and consumers, limits on price competition and associated marketing innovation, and failure 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 less reliable liquid fuels supplies.
- AIP believes that biofuels can have a place in the Australian fuels market where they are acceptable to consumers, available at a competitive price, reliably supplied, produced sustainably, and provide net greenhouse gas reductions.
- **AIP strongly opposes regulation of fuel prices in Australia.**
- The price of mainstream fuel in Australia is dependent on world markets with prices set as a function of supply and demand. Australian wholesale fuel prices are closely linked to international prices through Import Parity Pricing (IPP).
- The development of a well-functioning, efficient, competitive and internationally linked ethanol commodity market in Australia has been constrained through the barrier created by Federal Government excise concessions for local ethanol producers. These concessions have made importing of ethanol economically unviable which has in turn created a barrier to the simple and direct application of an IPP-type methodology to ethanol blended fuels. Australia therefore has a sub-optimal market for the supply of biofuels.
- However, AIP and member companies recognise that the Biofuels Mandate is NSW Government policy, and are therefore committed to working constructively with the Government to ensure that the costs of the policy imposed on business are minimised and that the provisions of the legislation and regulation are designed to most efficiently meet the Government's objectives.
- Any approach recommended by IPART must ensure that it is both consistent and compatible with the market based approach to the broader fuels market. AIP considers that any recommendation should support the normal efficient and competitive operation of the Australian wholesale and retail fuels market.
- **In assessing pathways to meet the Government's objectives, AIP contends that IPART must consider two key parameters in developing its recommendations:**
  - Firstly, the Government would necessarily require IPART to set a wholesale ethanol price (E100) at a level that would ensure the ongoing profitability of ethanol producers and provide for an appropriate incentive to invest and maintain reliable and competitive supply. A methodology that determined a wholesale ethanol price insufficient to at least cover costs would likely result in legal action by the producer.
  - Secondly, IPART must simultaneously set that wholesale ethanol price (E100) at a level where fuel wholesalers and then retailers are able to economically provide consumers E10 at a retail price point where they see sufficient value in the price differential between E10 and regular unleaded petrol so as to preferentially choose the ethanol option (at least up to the point of consumption required by the mandate).
- **These two parameters must be satisfied simultaneously in the recommended regulatory approach in order to successfully meet the Government's objectives. However, AIP considers that there are very significant challenges and constraints to achieving this outcome.**

- **These challenges and constraints arise because the two parameters, and consequently the associated price methodology, will be heavily influenced and/or inhibited through a range of factors beyond regulatory control.**
- The scale of this IPART challenge is significant given the required increase in demand of ethanol blended fuels required to meet the 6% mandate (NSW Fair Trading reports E10 demand declining with current demand at well below 3%<sup>1</sup>).
- AIP believes that IPART's five step approach provides for an appropriate assessment framework of the relative merits of the methodologies outlined in the Issues Paper. However, we anticipate that no method will be able to deliver the desired outcomes.
- **AIP encourages IPART to develop and recommend a methodology that is market driven and reflective. To achieve this, the methodology should to the greatest extent possible, provide for:**
  - **linkages to international pricing**
  - **low barriers to market entry**
  - **market transparency**
  - **price discovery and price flexibility**
  - **low transactions costs for market operators**
  - **a transition to a well-functioning ethanol market with fully market determined prices.**
- Calculating a price based on efficient costs of producing ethanol will likely produce surety for ethanol producers, but will not enable them to respond to those circumstances where the substitute fuel (regular unleaded petrol) is a lower price than the efficient production cost of E100. Further analysis is required to determine both the likelihood and longevity of these scenarios.
- Calculating the price likely to induce enough demand to meet the mandate provides the flexibility to determine a price low enough to drive more consumer demand, but this price may be below the cost of E100 production, particularly at those times when oil prices are low.
  - If this approach were to be adopted, regular unleaded petrol should be the comparator as it is the substitutable fuel.
  - IPART is also correct to identify that there are additional costs associated with wholesaling (transporting, storing, blending infrastructure) and retailing ethanol-blended fuels. There would need to be detailed consultation with industry to more accurately assess the scale of the required changes across the terminal and retail network, a more accurate assessment of the costs and the appropriate methodology required to recover those costs.
- Calculating the price to encourage the economically efficient level of ethanol production and use adds significant complexity for little additional benefit beyond the demand methodology. The benefits cited for biofuels have been found to be very small.
- Setting the price based on international ethanol prices is consistent with market based approaches, yet the current international ethanol price is significantly greater than the price of local wholesale regular unleaded petrol. However, this does not preclude or prevent further examination and development of an approach more consistent with market based approaches. AIP encourages IPART to undertake this work.

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[http://www.fairtrading.nsw.gov.au/ftw/Businesses/Specific industries and businesses/Biofuels industry/Biofuels\\_marketplace\\_data.page?](http://www.fairtrading.nsw.gov.au/ftw/Businesses/Specific_industries_and_businesses/Biofuels_industry/Biofuels_marketplace_data.page?); accessed 28 July 2016

- The wholesale ethanol price should be set at the producer's "factory gate" as it is simple, will provide a more accurate reflection of the costs of ethanol production, provide greater scope for ensuring competitive neutrality, allow for greater competition and efficiency from the transport sector, and allow for consistency with existing wholesaler business models.
- However, there are a range of jurisdictional challenges relating to:
  - how IPART can regulate and enforce those facilities operating in non-price regulated jurisdictions (e.g. Queensland)
  - ability to supply sufficient volumes between jurisdictions given increasing mandate requirements across State boundaries
  - producer market behaviour between regulated and non-regulated jurisdictions
  - implications of where the wholesale price is set for cross border transactions.

## **INTRODUCTION**

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

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. Governments mandating the supply of a particular fuel, or the price at which it is supplied, is not a market-based approach and is therefore opposed by AIP.

Recognising that the Biofuels Mandate is the policy of the NSW Government, AIP and its members are committed to working constructively with the Government to ensure that the costs of this policy imposed on business are minimised and that the provisions of the legislation and regulation are designed in such a way as to most efficiently meet the Government's objectives and minimise market distortions.

In this context, this submission:

- outlines AIP's position on biofuels
- discusses the benefits of market based approaches
- outlines how Australian fuel prices are determined and the role of international markets
- examines the implications of price regulation on the Government's biofuels objectives, and
- assesses IPART's proposed methodology options.

## **AIP POSITION ON BIOFUELS**

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:

- acceptable to consumers
- available at a competitive price
- reliably supplied
- produced sustainably

AIP believes that any government policy support for biofuels (e.g. on environmental grounds) 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 over the medium to longer term for those fuels.

AIP believes that fuel mandates can lead to higher costs for consumers, 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. As per the key messages outlined at the start of this submission, 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.
- The inclusion of biofuels in the supply chain increases the complexity of operation and therefore the cost of supply through the need to handle a discrete new product with specific hygiene requirements to handle a bio-component, such as the threat of fungal contamination.
- 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 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 ethanol and bio-component in Australia and Federal excise and customs duty policies effectively prevent the importation of ethanol and biodiesel. In addition, the inherent fragility of the nascent biofuels supply chain 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 regular unleaded fuel.
- 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), which was not undertaken in the recent Amendments to the Biofuels Act.
  - Regional development benefits (e.g. 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.
  - However, despite 10 years of Commonwealth and State Government support in this regard, there has not been a single new plant constructed during that time.
- While biofuels mandates and targets may help to create an increase in sales of the products:
  - The difference between the 39.5 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 evidence or 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. As Government would be aware, mainstream fuels are priced according to import parity which recognises that local fuels supplied cannot be out of step with international prices, otherwise local refineries would choose to export and would not be able attract imports to this market. Conversely, there is no such price transparency or tension in the biofuels wholesale market to ensure competitively supplied components.

## AUSTRALIAN FUEL PRICING

AIP strongly opposes regulation of fuel prices in Australia.

AIP and its members have a long held position that a market based approach has delivered Australia a highly competitive retail fuels market that provides consumers with fuels of an assured quality, delivered reliably at a competitive price. This view has been consistently supported and reported by the Australian Competition & Consumer Commission (ACCC) showing that Australia continues to have some of the lowest retail petrol and diesel prices in the OECD.

The price of mainstream transport fuels in Australia is dependent on world markets with prices set as a function of supply and demand. Crude oil, petrol and diesel are bought and sold within their own specific trading markets. As they are different products – with their own unique physical characteristics, uses, and demand and supply factors – they are priced and traded separately. Each market is regionally based. There are linkages and transactions between regional markets to balance global demand and supply.

Price benchmarks or ‘markers’ for crude oil and petroleum products are highly transparent providing convenient indicators of what is happening with prices in specific markets. Information on changes in the prices of these markers is extensively reported on a daily basis.

There is a close relationship between international fuel prices and Australian wholesale and retail fuel prices, as verified by the ACCC. To meet Australian transport fuel demand, around 50% of petroleum products are imported, mostly from Asia and particularly Singapore. Singapore is the regional refining, distribution and trading centre and among the world’s largest. Singapore prices are the key pricing benchmarks for Australia because this represents the competitive alternative for supply to Australia. Benchmark prices are adjusted by a negotiated quality premium that reflects Australian fuel standards.

As the Singapore benchmark prices for fuel are quoted in US\$ per barrel terms, their price in Australian dollar terms also reflects movements in the US\$/A\$ exchange rate. This means that exchange rate movements can offset or magnify changes in Singapore fuel prices. The Singapore market price for fuel plus shipping costs, Australian taxes and the exchange rate — called the refined product cost — represents over 90 per cent of the retail price of fuel in Australia.

Australian wholesale fuel prices are closely linked to international prices through Import Parity Pricing (IPP). The IPP is the ‘landed cost’ of refined fuel to import terminals around Australia and includes:

- the refinery benchmark price for fuel (e.g. for petrol - MOPS95 petrol)
- the ‘quality premium’ for specific Australian fuel standards
- freight
- exchange rate
- wharfage, insurance and loss.

Terminal Gate Prices (TGPs or spot wholesale prices) typically include the IPP as well as ‘wholesaling costs’ to store and handle the fuel prior to its distribution to the domestic market. TGPs also include taxes (fuel excise and GST) and a small wholesale margin.

Wholesale price transparency in the Australian market is assisted by the regulated publication of TGPs for petrol and diesel by all AIP member companies. The ACCC has concluded that "by virtue of its transparency and the fact that it represents a fuel-only charge, TGP is a useful benchmark for analysing wholesale prices".



The ACCC has concluded that the IPP benchmark has a strong relationship with actual costs of importing fuel into Australia. ACCC analysis shows that the actual import costs paid by major fuel suppliers have closely followed the IPP over many years. With imports providing the marginal source of supply and with prices set according to IPP, the ACCC considers Australian refiners (and suppliers) have little scope to pass on costs that are out of line with international best practice.

Overall market and fuel price transparency in Australia is assisted by data published by AIP and member companies. The ACCC also formally monitors fuel prices in Australia and publishes a report annually.

AIP notes the emergence of global ethanol markets and the consequential establishment of market pricing structures and data which have occurred as a result of the adoption of aggressive biofuels/renewable fuel targets in some nations, particularly Brazil, the US and in Europe. For example, leading independent information and benchmark provider Platts began assessing ethanol in 2003 and now publishes nine daily ethanol physical price assessments in the US, one in Brazil, four in Northwest Europe and six in Asia. Such assessments may be capable of providing guidance on an appropriate transparent prevailing market driven price for ethanol supplied into the Australian wholesale fuel market consistent with the approach for conventional fuels outlined above.

However, the development of a well-functioning, efficient, competitive and internationally linked ethanol commodity market in Australia has been constrained through the barrier created by Federal Government excise concessions for local ethanol producers. This concession has made importing of ethanol economically unviable which has in turn created a barrier to the simple and direct application of IPP-type methodology to ethanol and ethanol-blended fuels.

### **PRICE REGULATION AND THE GOVERNMENT'S BIOFUELS OBJECTIVES**

AIP has consistently argued over the last ten years that in order to increase demand for E10 beyond existing levels to a level imposed by the NSW mandate, both a significant price discount to the substitute fuel, along with addressing consumer aversion arising from a fear of vehicle damage/warranty voiding (such as through the Government's proposed education campaign) would be required. However, even if both were achieved, it is highly unlikely that the volume levels required by the mandate would be achieved. This view was supported by IPART in its reports on *"Options to increase the uptake of ethanol blended petrol"*.

AIP however, did not envision that the price discount would, could or should be met through price regulation. Rather, a short to medium term incentive provided by the fuel excise concession would provide appropriate stimulus for a nascent local biofuel production industry. The excise concessions would then be scaled back leading to access to open and transparent global markets. This should in turn see the development of efficiently produced domestic supplies of ethanol supplied at competitive prices that would consequently drive consumer uptake. Such an approach would have the best opportunity to deliver a properly functioning, competitive ethanol market and supply chain. Such commodity market approaches exist throughout the world and provide the greatest consumer choice and benefit.

Unfortunately, the development of a mature, diverse and well-functioning ethanol market has not occurred. Excise concessions remain in place (albeit slowly scaling back) constraining the ability to attract competitive imported ethanol supplies that could provide greater market depth, liquidity, transparency and security of supply. Other key market drivers, including a direct link to international pricing, have therefore also not eventuated.

In that context, the NSW Government has not only maintained and expanded the requirements under its biofuels mandate, but has decided that price regulation is fundamental to delivering more competitive ethanol and E10 prices. The foundation of this view is a requirement to deliver a discount below regular unleaded petrol to a level that would drive consumer demand to meet the Government's 6% mandate.

In developing a recommendation for determining a maximum price for wholesale ethanol and/or a price methodology that ethanol suppliers must apply to determine a maximum price when selling wholesale ethanol, the Government has required IPART to give consideration to:

- protecting consumers from potential abuses in monopoly power relating to prices
- the efficient costs of supplying ethanol, and
- any other matters we consider relevant.

Furthermore, IPART must also:

*...consider the price at which ethanol would need to be sold by wholesalers for use in the production of petrol-ethanol blend for the wholesale market for ethanol and petrol-ethanol blend and the retail market for petrol-ethanol blend to be economically viable.*

These considerations essentially require IPART to determine a maximum price or price methodology that takes into account two key parameters:

- Firstly, the Government would necessarily require IPART to set a wholesale ethanol price (E100) at a level that would ensure the ongoing profitability of ethanol producers and provide for an appropriate incentive to invest and maintain reliable and competitive supply. A methodology that determined a wholesale ethanol price insufficient to at least cover costs would likely result in legal action by the producer.
- Secondly, IPART must simultaneously set that wholesale ethanol price at a level where retailers are able to economically provide consumers E10 at a retail price point where they see sufficient value in the price differential between E10 and regular unleaded petrol so as to preferentially choose the ethanol option (at least up to the point of consumption required by the mandate).

**These two parameters must be satisfied simultaneously in the recommended regulatory approach in order to successfully meet the Government's objectives. However, AIP considers that there are very significant challenges and constraints to achieving this outcome.**

These challenges and constraints arise because these parameters, and consequently the associated price methodology, will be heavily influenced and/or inhibited through a wide range of important factors beyond regulatory control, including:

- regular movement in the market price of the substitute fuel (regular unleaded petrol) which, if too low, could make the cost of supplying ethanol at the regulated price uneconomic for producers.
  - the International Energy Agency's (IEA) 2015 World Energy Outlook forecasts the oil price to remain relatively low for a number of years with the market rebalancing at \$80/bbl in 2020.
  - the IEA also believes that lower oil prices cannot be ruled out with the possibility of lower than forecast global economic growth seeing prices remaining close to \$50/bbl to the end of the decade.
  - Such low prices could potentially require wholesale ethanol price to be lower than the cost of production to be competitive with the substitute fuel
- insufficient market demand for E10, including through:
  - an evolving vehicle fleet shifting towards vehicles unable to use E10 (for example, more dieselisation of the vehicle fleet)

- consumer aversion based on an unwillingness to use E10 in their vehicles
- consumer aversion to E10 regardless of price discount, as evidenced by AIP member company research and the significant shift in consumer preference towards premium fuels once the mandate was introduced.
- competition for alternative ethanol supply to other jurisdictions who do not have wholesale ethanol price regulation
- annual reduction in the Federal Government subsidy program - excise is gradually increasing for local ethanol producers
- constrained capacity for an ethanol producer to cross subsidise ethanol production from its other operations, such as revenue derived from by-products
- increasing cost of ethanol supplies as demand increases and more expensive sources of supply are made available
- uncertainty over feedstock availability, such as through shortage of supply arising out of natural weather events, or the ability to utilise an alternative feedstock at a comparable price
- uncertainty in relation to fluctuations in feedstock prices, including driven through potential demand for alternative uses of feedstocks.

AIP anticipates that each of these uncertainties would need to align favourably with ethanol producers to ensure a sufficient price discount to regular unleaded fuel to drive consumer uptake in order to meet the mandated volume levels. Indeed, the size of the challenge is highlighted by IPART where it identifies that around three quarters of the estimated 85% of NSW vehicles that can technically use ethanol blended fuel must actually make that switch to use ethanol blended fuels. NSW Fair Trading reports E10 demand declining with current demand at well below 3%<sup>2</sup>.

### **IPART'S PROPOSED APPROACH**

AIP believes that IPART's five step approach provides for an appropriate assessment framework of the relative merits of the methods outlined for determining either a maximum price or price methodology. While we anticipate that no method will be able to deliver on the outcomes discussed above, the key issues have by and large been captured in the paper. This submission further examines these issues in the sections on each methodology below.

**AIP encourages IPART to develop and recommend a methodology that is market driven and reflective. To achieve this, the methodology should to the greatest extent possible, provide for:**

- **linkages to international pricing**
- **low barriers to market entry**
- **market transparency**
- **price discovery and price flexibility**
- **low transactions costs for market operators**
- **a transition to a well-functioning ethanol market with fully market determined prices.**

AIP also emphasizes that whichever approach IPART ultimately recommends, it must ensure that it is both consistent and compatible with the market-based approach existing in the broader fuels market. No recommendation should be forthcoming that could impact on the normal efficient and competitive operations of the Australian wholesale and retail fuels market.

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[http://www.fairtrading.nsw.gov.au/ftw/Businesses/Specific industries and businesses/Biofuels industry/Biofuels\\_marketplace\\_data.page?](http://www.fairtrading.nsw.gov.au/ftw/Businesses/Specific_industries_and_businesses/Biofuels_industry/Biofuels_marketplace_data.page?); accessed 28 July 2016

Any such recommendation would likely result in higher prices to consumers than they would otherwise be. It is also important to note that an effective exemptions regime under the Biofuels Act will be a key tool for those circumstances where ethanol is unable to be supplied at an economic price or where the methodology determines a maximum price that may not be profitable for the ethanol supplier.

### **CALCULATING PRICE BASED ON EFFICIENT COSTS OF PRODUCING ETHANOL**

Calculating efficient production costs can be an effective tool for price determination in those sectors that are natural monopolies or where there is demonstrated market failure. It is able to provide certainty to the producer for ongoing profitability, albeit at a determined rate of return sufficient to recover costs, while also providing a degree of price certainty to wholesale, and therefore retail, customers.

The ethanol market is a monopoly by virtue of the few Australian market operators (one in NSW) and the government barriers to imported ethanol. Price regulation of wholesale ethanol is being pursued as a function of government intervention in an attempt to achieve a mandated volume target above the natural level of demand. While IPART examines this approach based on its use in other sectors, most other price regulated sectors do not compete against an immediately available substitute (in this case, regular unleaded fuel), or where that substitute is also the product where the price-regulated product is the key input for blending into the final product for sale (E10). Consequently, the wholesale ethanol price must always be lower than that substitutable fuel whose prices move frequently according to market forces.

This methodology is unable to nimbly respond to or address those circumstances where the efficient production cost for ethanol is higher than the cost of the substitute (as noted above, oil prices are forecast to remain low towards the end of the decade). This situation is further complicated when the effective maximum price essentially needs to be fixed below the substitute cost, yet the net cost of production varies widely between different feedstocks (molasses, wheat, sorghum) as outlined in Table 4.1, or feedstock prices may also move up or down according to market prices which would impact the production cost model substantially. IPART also notes that there are circumstances where low cost waste material could be used, but sufficient supply may be limited.

AIP is not in a position to determine whether the production costs in Table 4.1 are an accurate assessment of existing or new production facilities and their feedstocks, and by extension, cannot determine whether the efficient production cost will always be low enough to cover those circumstances where regular unleaded fuel is low for extended periods. What is clear is that this approach is likely only to meet one of the key policy objectives outlined above, that of ensuring producer profitability (assuming there is sufficient consumer demand).

It is not clear how facilities producing in jurisdictions without price regulation would be assessed, treated or impacted.

We therefore encourage IPART to undertake a full preliminary assessment of this approach seeking actual data from producers in order to determine whether such an approach is sustainable over the longer term (in a variety of oil price environments) and also provide further guidance on how the price would be applied in practice to the market place.

## **CALCULATING PRICE LIKELY TO INDUCE ENOUGH DEMAND TO MEET MANDATE**

A product price build approach that could potentially determine a price in which wholesale ethanol would need to be supplied in order to meet the demand required by the mandate has merit on the basis that it offers relative simplicity and industry is well familiar with 'price build' approaches. It has the benefit of providing for a greater degree of transparency than one which uses commercially sensitive data not publicly available such as that required to determine the efficient production price. Furthermore, the wholesale ethanol price could theoretically be ramped down further if the price discount to regular unleaded petrol were not delivering a sufficient uptick in demand to meet the mandate.

In practice however, this methodology when applied to wholesale ethanol price regulation is likely to produce an inverse outcome of the efficient cost methodology, namely that it can build-in whatever price IPART deems appropriate to drive customer demand for ethanol blended fuel (thereby assumedly meeting the mandate), but it cannot guarantee that ethanol could be produced and supplied at an economic rate (thereby potentially putting the producer at risk of failure).

As discussed previously, AIP is unable to assess what the efficient cost of production is for various feedstocks. However, we are concerned that the example outlined in section 5.5 of the paper (based on a retail price of 124.4cpl, which is broadly consistent with the current market price) suggests that the wholesale price of ethanol would need to be equivalent to 49cpl of ethanol, yet table 4.1 suggests net costs of production ranging from 62cpl to 94cpl.

Ultimately, the greatest uncertainty with this model arises from establishing exactly what the wholesale ethanol price needs to be to meet the required demand and therefore what the impact on producers might be. The report highlights this challenge, positing a range of at least 3.2% below the regular unleaded price simply to address the energy differential between E10 and regular unleaded, up to 15cpl to entice those who have chosen to move to premium fuel products rather than use E10. It is likely that the discount will need to be reasonably high given the number of vehicles required to use the fuel to meet the mandate (75% of the 85% of vehicles that can technically use it).

IPART is also correct to identify that there are additional costs associated with wholesaling and retailing ethanol-blended fuels. From a wholesale point of view, significant costs can be incurred at terminals due to requirements for specialised ethanol storage tanks due to ethanol's affinity to water. Blending infrastructure is also required, as well as upgrades to firefighting equipment. There may also be broader terminal configuration implications as well as differing maintenance considerations and requirements. Similarly, service stations may require significant alterations to the site through the need to install or modify storage tanks along with potential changes to pump/nozzle configuration and replacement of filters.

The required changes to infrastructure come at significant cost and these costs would need to be recovered which should also be reflected in the price build. As noted by IPART in the Issues Paper, retail infrastructure costs alone could average around \$200,000 per site while the cost for wholesalers could be around \$500,000 per terminal (AIP believes the estimate figure for wholesalers is on the low side). There would need to be detailed consultation with industry to more accurately assess the scale of the required changes across the network, a more accurate assessment of the costs and the appropriate methodology required to recover those costs.

AIP is strongly of the view that should this approach be pursued, regular unleaded petrol should be the relevant comparator given it is the substitutable fuel. A price build based on premium unleaded petrol will not provide the discount required to drive sufficient demand to meet the mandate.

## **CALCULATING THE PRICE TO ENCOURAGE THE ECONOMICALLY EFFICIENT LEVEL OF ETHANOL PRODUCTION AND USE**

As IPART notes, in theory there is a price that will encourage the economically efficient level of ethanol production and consumption, where the production and use has the greatest net benefit to society. However, this approach when applied to wholesale ethanol price regulation is likely to provide for a more complicated methodology but with similar outcomes to that outlined in the “Induce Demand” section discussed above.

The fundamental difference with this approach is the attempt to quantify and cost the externalities relating to greenhouse gases and purported health related impacts associated with air pollution. While this is a highly contested space, AIP contends that the benefits cited for biofuels have not been rigorously tested, and where they have, the benefits have been found to be very small, evidenced by the small environmental benefits outlined in the Issues Paper. Similarly, from a greenhouse gas point of view, if the purported 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. Yet despite 10 years of Commonwealth and State Government support, there has not been a single new plant constructed during that time.

Other benefits cited, including regional development benefits, have also been found wanting. For example, cited job creation figures in NSW have needed to be significantly revised downward by a factor of 10 from original estimates.

In short, significant research and analysis would need to be conducted in order to justify the additional complexity associated with this approach and to demonstrate the additional benefits are appropriately substantial. AIP therefore opposes this methodology at this time.

## **SETTING THE WHOLESALE PRICE BASED ON INTERNATIONAL ETHANOL PRICES**

As outlined above, AIP supports market based approaches and strongly opposes regulation of fuel prices. In principle therefore, AIP would support a pricing methodology based on appropriate market price and structures, in this case, likely to be an international ethanol benchmark price or IPP equivalent.

We do however note IPART’s observation that the international ethanol price including excise is likely to be significantly higher than the regular unleaded petrol price, an outcome that would be at odds with the Government’s objectives. This does not however preclude or prevent the development of a system that as far as practicable exhibits many of the market structures and principles underpinning efficient global commodity markets (including the fuels market).

As such, we would encourage IPART to examine and develop further options that could at least link to international markets.

## **WHERE THE WHOLESALE PRICE IS SET AND JURISDICTIONAL ISSUES**

While there is merit in seeking to set the price at the “wholesaler’s terminal” (such as providing a degree of price certainty to all fuel wholesalers), the producer “factory gate” approach is more consistent with existing market based approaches. It is likely to deliver a more accurate reflection of the costs of ethanol production and similarly simplify the maximum pricing methodology by removing uncertainties relating to transport costs. Furthermore, the factory gate approach has greater scope for ensuring competitive neutrality between production facility locations. It would also allow for appropriate competition and efficiencies to be delivered through contract negotiations with the transport sector and/or provide greater flexibility for fuel wholesalers to fit within their existing business models.

However, such an approach may not be able to deal with interjurisdictional sales where there is not price regulation. Indeed, broad questions remain as to how IPART can regulate and enforce those facilities operating in non-regulated jurisdictions. Supply will be required beyond the existing NSW incumbent’s current capacity if the 6% mandate is to be met. Similarly, how does IPART propose to treat wholesale ethanol sold across the border into Queensland given demand may increase in that State due to its mandate.

## **HOW OFTEN SHOULD THE WHOLESALE PRICE OF ETHANOL MOVE**

The required frequency of movement in the wholesale ethanol price will be influenced and determined by IPART’s preferred model. For example, the regulated price based on the methodology for the efficient costs of producing ethanol would likely be required to change less frequently than a model linked to international price movements (which would, by definition, be required to change very frequently). While stable prices would provide greater certainty for ethanol producers, market based prices inherently reflect the supply and demand for fuel at a particular time, and are therefore much less likely to produce unintended regulatory outcomes from market movements. Market based pricing could also more adequately respond to the parameter which requires E10 fuel to be sold at a discount to regular unleaded fuel. Establishing from the outset a methodology that provides for regular price movements would also ultimately allow for an easier transition to a well-functioning ethanol market with fully market determined prices.