



AgForce Grains

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03 July 2015

Project Manager
Queensland Biofuel Mandate
PO Box 15456
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Submitted via email: biofuels@dews.qld.gov.au

Dear Department of Energy and Water Supply

RE: Towards a clean energy economy: achieving a biofuel mandate for Queensland

AgForce Queensland is the peak lobby group representing the majority of beef, sheep and wool, and grain producers in Queensland. AgForce Queensland exists to ensure the long term growth, viability, competitiveness and profitability of these industries. Our members provide high-quality food and fibre products to Australian and overseas consumers, manage more than 50% of the Queensland landscape, and contribute significantly to the social fabric of rural and remote communities.

As the grain commodity representative within AgForce Queensland, AgForce Grains provides the following submission to Queensland Government Department of Energy and Water Supply's discussion paper '*Towards a clean energy economy: achieving a biofuel mandate for Queensland*' (the Discussion Paper).

AgForce Grains has long held the view that a long held the view a domestic renewable biofuel industry would add diversity and security to the supply of fuel in addition to providing a reliable alternate market for grain grown by Queensland producers.

AgForce Grains agrees with the Queensland Government's plans to introduce an ethanol mandate through the introduction of the *Liquid Fuel Supply (Biofuel Mandate) Amendment Bill 2015*. However, as outlined in the following submission, AgForce Grains does not agree commencing with a two per cent mandate target, rather recommends the Queensland Government begin with a 5pc mandate, with incremental increases to 10pc in as many years.

AgForce Grains is also pleased to see the Queensland Government is considering a biodiesel mandate and believes a percentage should be included in the initial Bill, as consultation on this has occurred through this process and should allow an appropriate level to be determined. Analysis of the current production capacity in Queensland, and based on discussions with biodiesel manufacturers, AgForce Grains believes a biodiesel mandate starting at a minimum of 0.5pc with incremental increases to a total of 2.5pc within three years would be appropriate.

Further AgForce Grains continues to recommend a mandate must include additional support for research of suitable plant species research and other biomass sources for biofuel production and responsibilities for the Queensland Government to attract further investment in the biofuel

sector. AgForce Grains also recommends appropriate investment in research and development, particularly in energy use efficiency that include cellulose-derived biofuels, to help incentivise the expansion of the current market within Queensland.

AgForce Grains recommends a higher mandate and the development of a sustainable domestic biofuels industry for the following reasons:

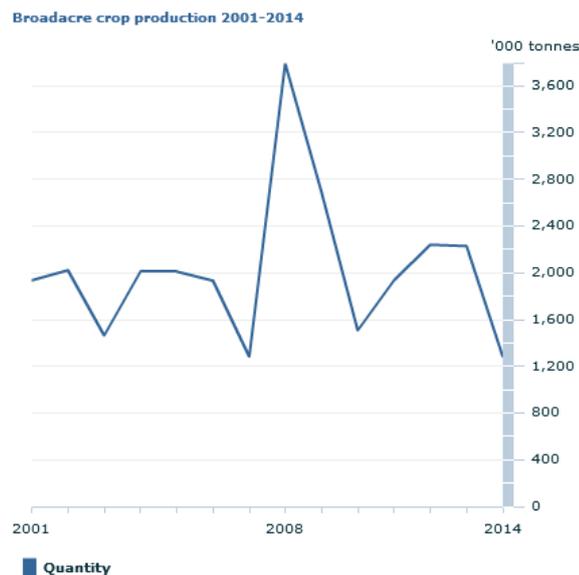
- Regional and economic development and employment
- Energy security and import replacement
- The creation of alternative domestic demand streams for grains and oilseeds
- The introduction of cleaner burning fuels, for both the vehicle and industrial sectors
- Reduction in greenhouse gas emissions
- Health and environmental benefits through the reduction in emissions.

Australia produces approximately 35-45 million tonnes of grain per year, across an area of over 20 million hectares¹ with approximately 10pc of the total being grown in Queensland².

Queensland produces two major crops per year, wheat in winter and sorghum in summer, with an array of smaller crops throughout the seasons including barley, canola, oats, chickpeas, sunflowers, maize, mungbeans, soybeans, faba beans and navy beans³. The two major crops each have an annual value to Queensland of more than \$300 million per year, and a total gross value of all grain production of \$1.2 billion⁴.

Figures 1 and 2 show the production trends in Queensland from the two major crops, sorghum and wheat. The fluctuating nature of production is due to factors including both climate and market variability.

Figure 1. Sorghum Production in Queensland from 2001 to 2014



Source: ABS, Agricultural Commodities, Australia, 2013-14

¹ <http://www.agriculture.gov.au/ag-farm-food/crops/about-crops>,

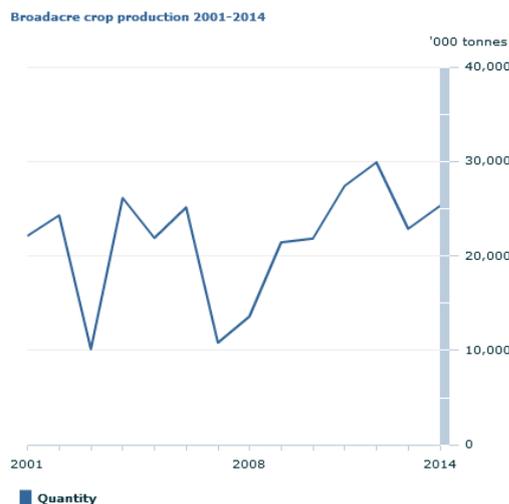
<http://www.aegic.org.au/media/news/2015/05/australian-grain-production-a-snapshot.aspx>

² http://www.qtlc.com.au/wp-content/uploads/2013/01/QTLC-Supply-Chain-Perspective_Grain.pdf

³ http://www.aegic.org.au/media/56045/what_grows_where_map_higher_res.pdf

⁴ http://www.qtlc.com.au/wp-content/uploads/2013/01/QTLC-Supply-Chain-Perspective_Grain.pdf

Figure 2. Wheat production in Queensland from 2001 to 2014



Source: ABS, Agricultural Commodities, Australia, 2013-14

As at May 2014 there were 6,911 grain business in Queensland, however a worrying figure indicates approximately 26pc of Queensland farm income is now coming from off-farm employment or business activities⁵. This further highlights the need for development of alternative markets leading to a steady price for grains producers and their products. Returns from farm production will in turn drive further investment in technology and equipment and provide an all-round boost for local industries.

AgForce Queensland has publicly stated its perspective on regional and economic development and employment⁶⁷. To remain profitable, producers must be able to innovate and find ongoing productivity gains, adopted effectively by industry. From AgForce's perspective regional and economic development needs to involve sustainable improvements in the conduct, growth and organisation of broadacre production in order to achieve improved quality of life for Queensland's primary producers. As such, development should be measured across a range of indicators that capture financial, social and environmental outcomes, not simply income growth or gross commodity production levels.

The policy environment

- 1. Will the changes to excise arrangements proposed by the Federal Government have an effect on the use of biofuels by consumers?**
- 2. What measures can be taken to offset any possible negative impacts by the proposed changes to excise arrangements by the Federal Government?**

As noted in the Discussion Paper, the Federal Government Ethanol Production Grants (EPG) Program is scheduled to cease on the 1 July 2015. Additionally, while the fuel excise will be lowered to zero, it will increase by 2.5 cents per litre for the next five years until it reaches 12.5

⁵ <http://www.abs.gov.au/ausstats/abs@nsf/Latestproducts/7121.0Main%20Features12013-14?opendocument&tabname=Summary&prodno=7121.0&issue=2013-14&num=&view=>

⁶ http://agriculturalcompetitiveness.dpmc.gov.au/sites/default/files/public-submissions/ip643_agforce_queensland.pdf

⁷ <http://www.agforceqld.org.au/file.php?id=2018&open=yes>

cents per litre in 2020⁸. The grants provided under the EPG, together with customs duties on imported ethanol were put in place to encourage growth of ethanol production and protection of the domestic ethanol industry against imports.

Findings from the Australian National Audit Office in relation to the Ethanol Production Grants Program indicated the following⁹:

- While the annual cost of the program has been significant, regional employment and greenhouse gas abatement benefits have been modest
- There would appear to be no net benefit for agricultural producers

AgForce would counter argue that these findings were also due to inconsistent government policy that, to date has not encouraged the ethanol industry to develop in line with production grants. Examples of policy failures include a lack of bipartisan support, a lack of interaction between State and Federal policies, and a too short timeframe for the industry development to realistically take place. Furthermore, if the policy platforms are not consistent and do not allow or encourage the expansion of the industry there will not be a net benefit flowing through to agricultural producers.

AgForce Grains is not in a position to predict the effect the changes to the excise arrangement will have on the use of biofuels by consumers. However, it can be assumed the excise arrangement changes may increase the cost of biofuels, an assumption also supported within other commentary surrounding the changes¹⁰. This in turn may reduce the take up of blended fuels due to cost.

AgForce Grains also believes the changes will have damaging impacts on the domestic ethanol industry, as the capital costs of expanding or developing an ethanol refinery is much greater than the short-term cost of importation facilities. Furthermore opportunities for the grains industry to diversify or expand their grain production may be lost.

Previous Queensland Governments have implied the Commonwealth fuel excise was a more effective support for the domestic biofuels industry than a mandate. Should the mandate be brought in it may buffer the industry in the immediate future to a degree, however policies and measures would need to be introduced that allow the domestic biofuels market to compete with large oil companies and remain profitable.

The ethanol percentage

- 3. Is a two per cent ethanol mandate appropriate?**
- 4. Should the percentage increase, and if so, over what time period should any increases occur?**
- 5. What is an appropriate mandated percentage for biodiesel?**
- 6. What timeframe would stakeholders need to prepare for and meet this requirement?**
- 7. When do you think that a mandate will no longer be necessary?**

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[http://www.aph.gov.au/About Parliament/Parliamentary Departments/Parliamentary Library/pubs/rp/BudgetReview201415/Ethanol](http://www.aph.gov.au/About%20Parliament/Parliamentary%20Departments/Parliamentary%20Library/pubs/rp/BudgetReview201415/Ethanol)

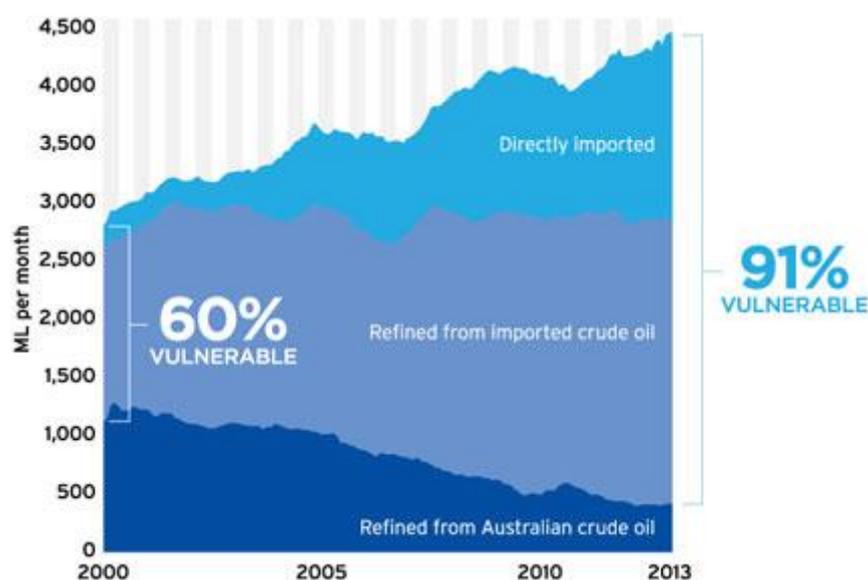
⁹ http://www.anao.gov.au/~/_media/Files/Audit%20Reports/2014%202015/Report%2018/AuditReport_2014-2015_18.pdf

¹⁰ <http://www.bdo.com.au/resources/publications/federal-budget-2014/tax-rates/fuel-excise#sthash.eVODwbXe.dpuf>

A recent inquiry into fuel stability highlighted the risks to Australia’s liquid fuel supply, with Federal Government staff unable to provide exact fuel stocks¹¹, and several submissions to the inquiry providing differing figures¹²¹³ ranging from 18 days through to a few weeks.

Australia’s reliance on imported fuels has increasingly grown over the last decade with reports that we now import 91pc of our fuel supply, up from 60pc in 2000. Figure 3, from an NRMA commissioned report¹⁴ into Australia’s fuel supply shows the breakdown of these imports over time.

Figure 3. Australia’s liquid fuel security¹⁵



The vulnerability and potential risks to Australia should this fuel supply be disrupted is recognised by the fuels industry and the Australian government¹⁶. By incorporating and strengthening a biofuels industry into a long-term fuel supply strategy, Queensland is moving towards increasing its fuel security.

Using figures derived from the Australian Petroleum Statistics for 2013-14, Table 1 shows the sales of petroleum products by state marketing area¹⁷.

¹¹ <http://www.smh.com.au/federal-politics/political-news/doubts-over-australias-fuel-security-as-bureaucrats-admit-not-knowing-reserves-20150205-1366vq.html>

¹²

[http://www.parliament.nsw.gov.au/prod/parlament/committee.nsf/0/8ec48f035b342098ca257dc7000583d7/\\$FILE/0014%20Engineers%20Australia.pdf](http://www.parliament.nsw.gov.au/prod/parlament/committee.nsf/0/8ec48f035b342098ca257dc7000583d7/$FILE/0014%20Engineers%20Australia.pdf)

¹³ <http://biofuelsassociation.com.au/wp-content/uploads/BAA-Submission-to-Senate-Inquiry-Fuel-Security-20141107.pdf>

¹⁴ <http://www.mynrma.com.au/about/australias-liquid-fuel-security.htm>

¹⁵ <http://www.mynrma.com.au/about/australias-liquid-fuel-security.htm>

¹⁶ <http://www.aip.com.au/industry/supplysecurity.htm>

¹⁷ <http://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/Pages/Australian-petroleum-statistics.aspx>

Table 1. Petroleum statistics sales 2013-14, Queensland

Automotive gasoline	Volume sold in kL	Percentage of Total Supply
Premium unleaded	436,819	11.3%
Proprietary brand	480,037	12.5%
Regular unleaded	2,582,562	67%
Ethanol-blended fuel	352,947	9.2%
Total	3,852,365	

The Biofuels Association of Australia indicated in 2012, that the production capacity of ethanol in Queensland was 140 ML¹⁸, from two ethanol plants the Dalby Bio-Refinery and the Sarina Distillery. Recently, the General Manager of the Sarina Bioethanol Plant indicated the plant was currently producing 60 ML per year, but in fact had the capacity to produce 90 ML per year¹⁹. Given this, the current capacity for ethanol production in Queensland is in fact 170 ML.

Taking into consideration the petrol sales figures in table 1 for both Regular unleaded and Ethanol-blended fuel, a 2pc mandate, volumetric of total sales equates to approximately 58.7 ML. This would be just over a third of current ethanol production capacity of Queensland.

Assuming the ethanol-blended fuel is E10, with 10pc ethanol added to the regular unleaded, the current ethanol sales as per table 1, equate to approximately 35.2 ML or as indicated in the discussion paper 1.2 pc of the total volume of sales.

AgForce Grains does not believe a 2pc mandate is sufficient.

A 2pc mandate would only require increasing the ethanol requirement in Queensland by 0.8pc. Not only would this fail to assist the two existing plants to operate at full capacity, it would fall well short of a number of the intended aims of the mandate, including:

- Provide confidence to existing ethanol and biodiesel producers and stimulate the orderly development of, and investment in, a sustainable biofuels industry in Queensland
- Contribute to regional growth and jobs creation
- Reduce greenhouse gas emissions from motor vehicles

AgForce Grains is of the belief that a higher mandate is required to 'kick start' the biofuels industry. With a mandate in place, it provides a level of certainty and security that encourages investment. At 2pc this will simply not occur.

In recent years the Dalby Bio-Refinery has been forced to shut temporarily due to the lack of demand for its ethanol²⁰. Should the mandate proceed at 2pc, there would be no creation of jobs, no stimulation of regional economies or communities, and it would not provide any certainty or added incentive to invest and grow the industry in Queensland.

AgForce Grains is aware the Queensland Government is proposing an initial 2pc mandate in order to ensure a smooth transition for industry and allow for a gradual increase in supply. AgForce Grains argues that starting at 5pc would maintain these objectives, which is further backed up by the ACCC's monitoring of the Australian Petroleum Industry also suggests a 5pc mandate in Queensland would be achievable, even if the NSW mandate achieved its 6pc mandate on ethanol

¹⁸ <http://www.biofuelsassociation.com.au/~biofuels/images/stories/pdf/ethanolmap.pdf>

¹⁹ <http://mobile.abc.net.au/news/2015-06-09/ethanol-plant-manager-says-state-mandate-proposal-too-low/6531036>

²⁰ <http://www.abc.net.au/news/2015-04-27/dalby-biorefinery-pleads-to-hasten-biofuels-mandate/6424718>

sales. Furthermore the ACCC believe this would be possible to achieve through existing ethanol producers, without new ethanol producers entering the market²¹.

It is for these reasons that AgForce Grains reiterates its previous recommendation to begin with a 5pc mandate, with incremental increases to 10pc in as many years.

In terms of biodiesel, the one plant currently operating in Queensland has a production capacity of 30 million litres, with expansion capabilities allowing an increase in production to 75 million litres²². Using figures derived from the Australian Petroleum Statistics for 2013-14 once again, this equates to approximately 0.5pc of the total volume of diesel sales. Diesel fuel sales in Australia are continually growing and increasing their market share of the fuel market in Queensland.

AgForce Grains once again reaffirms the recommendation to introduce a mandate starting at a minimum of 0.5pc with incremental increases to a total of 2.5pc within three years.

2014 figures showing the ethanol mandates in countries throughout the world show a large percentage regulating the use of ethanol at 5pc or higher, and many with an additional biodiesel mandate (appendix 1).

Despite being one of the largest producers and consumers of ethanol in the world, the United States continues to mandate the use of ethanol. The *Clean Air Act*, designed to control air pollution began in the 1970s, followed by the Renewable Fuel Standard (RFS) created under the *Energy Policy Act 2005*. The RFS began with a mandate for requiring transportation fuel in the US to include at least 4 billion gallons of renewable fuel in 2006, incrementally increasing through to 2022²³. In 2007 this policy was also expanded to include diesel. The US Department of Agriculture estimates that biofuels account for approximately 7.1pc of total fuel consumption in the US transport sector²⁴. Given these figures and timeframes that have been required for the market to continue to build in the United States, AgForce Grains does not believe it is possible to estimate when a mandate would no longer be required and the growth of this industry will occur over many years.

Liabile parties

8. Is the class of retailer appropriate? Should the definition be expanded to include those with less retail sites?

9. Is there an alternative method of defining the retailer? For example, should all sites that sell three or more petrol blends be included under the definition? Or should all sites that trade over a certain volume of fuel be included?

The Discussion Paper asserts that a fuel retailer would be considered major if they own or operate 10 more service stations. From this AgForce Grains presumes a retailer would then be considered small if they own or operate under 10 service stations.

Throughout the government consultation forums across Queensland, it became apparent that this was not an appropriate definition and AgForce Grains holds concerns in defining a retailer

²¹

<https://www.accc.gov.au/system/files/Monitoring%20of%20the%20Australian%20petroleum%20industry.pdf>

²² <http://www.ecotechbiodiesel.com/company>

²³ http://www.epa.gov/air/caa/pdfs/CAA_Nutshell.pdf

²⁴ <http://www.ers.usda.gov/data-products/us-bioenergy-statistics.aspx>

based on the number of sites. For example, Costco, the second largest retailer in the world²⁵ operates a single service station in Queensland. It would be highly inappropriate to define Costco as a small operator compared to a 'Mum and Dad' service station operator.

In 2010 Deloitte conducted consultations with independent service station operators and determined that the size of an operator can be defined by monthly fuel sales²⁶. According to the information gathered in these consultations a small independent service station has monthly fuel sales of approximately 100,000- 150,000 litres, compared to a large operation selling over 500,000 litres per month. AgForce Grains also held discussions with independent service stations in Queensland who anecdotally indicated a small operator would be even less than this, selling approximately 50,000 litres of fuel per month.

AgForce Grains believes that a more appropriate definition of a small retailer would be based on volume of fuel sold, rather than by number of retail sites.

Reporting requirements

- 10. Is this level of detail appropriate for liable entities?**
- 11. Is there any other data or information that should be requested in the quarterly reports?**
- 12. Can this information and data be used in other ways to support industry?**

The reporting requirements proposed are similar to the reporting requirements under the NSW Biofuels mandate. The level of detail required from liable entities would be dependent on the requirements under the mandate such as the definitions used within the mandate, as how and what the quarterly reports would be used for. Until these details are finalised, it is difficult to comment on whether the level of detail is sufficient.

Given the NSW Government has undertaken reporting for their biofuels mandate since their *Biofuels Act 2007* was introduced, AgForce Grains recommends the Queensland Government discuss the reporting requirements in further detail with NSW Government. These discussions may indicate what has and hasn't worked in NSW, along with what additional reporting requirements may be required for successful reporting in Queensland.

Other data that could be gathered in the reporting requirements could include:

- The number of sites the retailer operates that include both blended and non-blended fuels
- Site locations
- Pump configuration/breakdown of pumps dispensing each type of fuel at individual sites.

Set up appropriately, the reporting would be useful to various stakeholders for forward planning. Knowing the number of sites, site locations and pump configuration could assist the Queensland Government to ensure consumers are being given appropriate access to biofuels. It could also be used to track trends and growth in the industry and be utilised to identify investment opportunities for future growth or expansion of biofuels. This information could also be utilised by grain farmers to identify crop planting opportunities for forward selling options into different markets.

²⁵ <https://nrf.com/news/2015-top-250-global-powers-of-retailing>

²⁶ http://www.retail.org.au/Portals/0/Research/ARA%20Final%20Report_060810_2%20%281%29.pdf

Exemptions

13. To ensure the exemption framework is effective, what would be a reasonable timeframe for response to a request for exemption?

14. How can Government ensure that an exemption framework is not used as a way for liable parties to negate their responsibilities?

It is difficult for AgForce Grains to make comment regarding reasonable exemption response timeframes or how to ensure the exemption framework will not be used inappropriately as it has not been presented.

AgForce Grains believes the exemption reasons presented in the discussion paper may be reasonable as long as they are genuine applications for exemption. The reasons presented include:

- The fuel seller cannot get enough biofuel because of a shortage of supply
- The requirement to comply threatens the viability of the seller's business, or
- There are other extraordinary circumstances to justify granting an exemption.

The parameters and criteria surrounding the exemption framework must be well constructed in order to minimise or stop the framework being used inappropriately. There are many questions that need to be answered regarding the framework, for example:

- What is considered a shortage of supply?
- Does the shortage of supply mean a regionally based shortage or a state-wide shortage?
- Will the Minister or the government be required to make a public declaration that there is a shortage of supply prior to exemption applications being accepted?
- If it is reasonably acceptable to source biofuel from external sources will there ever be a genuine shortage of supply (i.e. if all sources have been utilised within Queensland, looking at other States/Territories, and if all States/Territories have been utilised imports of biofuels)?

Further, does the Queensland Government intend for exemptions to be temporary or permanent? If temporary, following an exemption response from the government, how long will a party remain exempt from complying with the fuel content requirements before they would need to either comply or apply for exemption once again? If permanent, how will the government ensure that a party's situation does not change, allowing them to comply with the fuel content requirements?

Whilst the exemption framework reasons appears to indicate some urgency of decision making would be required, the framework must also be developed to ensure a knee-jerk decision is not made on exemptions, and that sufficient time is given to consider the application on its merits.

Furthermore, AgForce Grains is aware the Minister for Energy and Water Supply, Mark Bailey has publicly stated the biofuels mandate may be suspended if supplies became low due to extreme weather events²⁷, which would essentially be a state-wide exemption for compliance with the fuel content requirements. The inclusion of such a provision raises similar questions to those proposed above, as well as what is considered a low enough supply or how widespread would the extreme weather event need to be to activate the suspension of the mandate?

²⁷ <https://au.news.yahoo.com/qld/a/28500584/qld-ethanol-mandate-to-be-lifted-in-crisis/>

Penalties

- 15. Are these penalties appropriate?**
16. Do they incentivise liable parties to meet their obligation?
17. If the mandate increases should the penalties change?

The Discussion Paper suggests that failure to comply with minimum content requirements, reporting arrangements, record keeping and submission of information may result in penalties. At the current rate of \$113.85 per penalty unit it is proposed that fines could range between \$22,770- \$227,700 per quarter.

Many studies have been undertaken as to the effectiveness of penalties and whether they incentivise liable parties to meet their obligations, with some suggesting that such methods can lead to minimalist approaches to compliance²⁸. It is important for the Queensland Government to understand the reasons for non-compliance in order to fully assess the appropriateness, incentive to comply, and whether an increase in penalties is required. Unfortunately this information would not be available until after a mandate has been introduced and in operation. Despite this, enforcement through penalties may provide a critical pathway to achieve objectives of certain regulation for governing bodies, so must be included.

Any penalty provisions must also include an appropriate education program regarding legislative requirements, particularly for smaller or independent operators who may not have equivalent resources or expertise available to ensure compliance. A Queensland Government compliance report undertaken in 2012 on fuel retailers and their compliance with the then newly introduced *Work Health and Safety Act 2011*, illustrates this need. The report found that compliance issues were generally from the lack of knowledge and/or understanding of the regulatory requirements, especially where there was a lack of large, established corporate systems²⁹.

AgForce Grains also believes that an audit report or review following the introduction of a mandate in Queensland would need to be undertaken before considering an increase of penalties to determine if there is a more appropriate method of ensuring legislative compliance. Whilst AgForce Grains does not consider the suggested two-year time frame sufficient for a biofuels industry to develop prior to a Queensland Productivity Commission, particularly if higher mandate levels are not initially introduced. The effectiveness and appropriateness of penalties could certainly be reviewed at this time.

Expert Panel/Implementation Board

- 18. Should Queensland have an expert panel or implementation board? If so, which sectors should be represented?**
19. How can the panel discharge their responsibilities appropriately and facilitate the required mandate being met?

The Discussion Paper indicates the NSW Minister responsible for the biofuels mandate is assisted by an expert panel that provides advice on exemptions or suspension of the minimum biofuels requirements. The Discussion Paper goes on to propose the Queensland Government may consult with a single stakeholder prior to making a decision.

²⁸ <http://www.sciencedirect.com/science/article/pii/S030691920600090X>

²⁹ https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0003/82920/service-station-compliance-report.pdf

AgForce Grains is concerned that the Queensland Government would consider a single stakeholder sufficient. Given a biofuels mandate has the capacity to benefit and impact a vast variety of industries and groups and decisions made regarding the biofuels industry in Queensland have the potential to become contentious, it is vital that an expert panel or implementation board is engaged. An appropriate expert panel has the ability to provide credible options and courses of action in order to achieve the best possible results.

The list of interested stakeholders within the Discussion Paper forms a good basis of members for an expert panel.

Protecting the environment

- 20. Are these sustainability principles appropriate?**
- 21. Should more stringent environmental measures be applied to the biofuel sector?**
- 22. What other environmental risks must be considered in relation to an expanded biofuels industry?**
- 23. How should they be enforced?**

The Intergovernmental Panel on Climate Change recently noted, with a high degree of confidence that it will be challenging to reduce global transport greenhouse gas (GHG) emissions given the continued growth in passenger and freight activity³⁰. The IPCC not only recommended strong policies relating to carbon reduction for the transport sector, they assert that biofuels have GHG emissions that are usually 30 to 90pc lower than those for petrol or diesel fuels. Further, a French life cycle assessment applied to first generation biofuels also concluded all biofuels pathways present less emitting balances than fossil fuels³¹. With a vast majority between 20 and 45g CO₂ equivalent per megajoule as opposed to 90g and 91g respectively for petrol and diesel.

AgForce Grains notes the example provided within the discussion paper related to deforestation and subsequent palm oil plantations in South East Asia and South America. AgForce Grains is supportive of the development of a domestic biofuels mandate, creating local job opportunities and value added opportunities for Queensland grain growers. As AgForce Grains understands, the Queensland Government is aiming to develop a mandate that limits international imports of biofuels and as such will greatly decrease the likelihood of European-equivalent flow-on effects such as these.

AgForce Grains also notes the suggested draft sustainability principles in the discussion paper:

1. Biofuel production in Queensland must not negatively impact biodiversity, ecosystems and areas of high conservation value.
2. The production and use of biofuels must result in a net reduction of greenhouse gas emissions compared with conventional fossil fuels.
3. Biofuel production must involve:
 - Sustainable use of surface and groundwater resources
 - Maintenance of soil quality and minimisation of soil degradation
 - Avoiding negative impacts on water quality due to nutrient and sediment run-off.

AgForce Grains is not opposed to the draft sustainability principles applying to the production of biofuels. However, AgForce Grains believes there are mechanisms already in place to protect and sustainably use surface and groundwater resources, soil quality, and water quality within farming

³⁰ http://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_chapter8.pdf

³¹ http://www.ademe.fr/sites/default/files/assets/documents/70548_final_report_lca_1st-generation-biofuels_france.pdf

practices in Queensland. These regulate not only existing cropping enterprises and practices, but also additional growth in the sector.

In Queensland, with relation to agriculture this includes, but is not limited to:

- The *Water Act 2000*
- The *Sustainable Planning Act 2009*
- The *Vegetation Management Act 1999*
- The *Nature Conservation Act 1992*

There are also numerous federal regulations that apply to farming in Queensland.

Additionally, despite farm practices being heavily regulated to ensure environmental safeguards are in place, a large proportion of grain farmers carry out their practices in line with the Grains Best Management (BMP) Practice principles. The Grains BMP is a voluntary, industry led program assisting growers to identify improved practices and incorporate these into their businesses. Growers involved in the program assess their current practices against industry standards in five key areas:

- Crop nutrition and soil fertility management
- Property design and layout
- Pesticide application
- Making best use of rainfall
- Integrated pest management.

AgForce Grains does not believe more stringent environmental measures are currently required for farmers producing grains to feed into the biofuels market.

That being said, explicit reporting mechanisms would need to be in place to ensure any foreign sourced grain or biofuels met the same stringent standards applied to Queensland grain. Therefore, a biofuels mandate should preference ethanol or biodiesel sourced from Queensland and Australian suppliers over foreign imports.

Given the previous examples of lower emissions and environmental advantages from biofuels as opposed to non-renewable petrol and diesel, and the Queensland Government's desire to move to renewable energy as evidenced by the 50pc renewable electricity by 2030 target there may also be an avenue to direct sustainability concerns and requirements to non-blended petrol?

Maintaining consumer choice

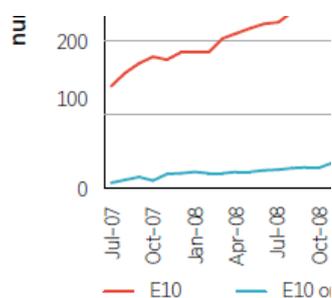
- 24. What are the issues that need to be addressed if consumer choice is maintained?**
- 25. Will choice of fuel increase costs to retailers or consumers?**
- 26. Would a targeted education campaign on the actual benefits and disadvantages of biofuels/E10 contribute to informed consumer choice?**
- 27. What are the key messages that must be included in any education campaign for biofuels? Who is the primary audience and what is the most appropriate mechanism to target them?**

The Queensland Government Department of Transport and Main Roads registration report, current as at 30 June 2014 indicates there are approximately 2.6 million cars registered in Queensland³². This figure is not separated to show the percentage of petrol and diesel engines. The Discussion Paper indicates that of those vehicles there are approximately 375,000 vehicles in

³² <http://www.tmr.qld.gov.au/Safety/Transport-and-road-statistics/Registration-statistics.aspx>

Queensland that are incompatible with E10 fuel. Due to this assertion AgForce Grains understands the need to maintain a level of consumer choice when purchasing fuel.

However, AgForce Grains would also argue that consumer choice also extends to being able to choose biofuels over non-blended fuel. Retail market access has long been considered a factor restricting the use of biofuels in Queensland. Unfortunately, in Queensland the number of retail sites offering ethanol blended fuels has decreased. The 2013 ACCC report on the Australian Petroleum Industry³³ showed a steep decline in the number of retail sites offering E10. This is illustrated by the following graph showing the number retail sites in Brisbane between July 2007 and October 2013.



Source: ACCC Monitoring of the Australian Petroleum Industry

Put simply, if a product is not widely available, it is unlikely to become a consumer choice.

Additionally, for consumers there appears to be a high degree of mistrust and misinformation surrounding the use of biofuels in vehicles. In 2002, it was reported³⁴ that a large number of NSW fuel retailers were selling petrol with blends of 20pc ethanol. There was pushback from a number of industries at the time, including car makers, and motoring and consumer organisations insisting the higher blend of ethanol caused corrosion and perishing of engine parts. Despite levels of ethanol additives now not exceeding 10pc of fuel content these rumours of ethanol damaging engines still continue and consumer confidence is still reported as a major barrier to the industry³⁵. A simple internet search on using ethanol in your vehicle brings up as many websites advising against its use as there are those advocating for it. Consumers, faced with making a decision on relative uncertainties will make the safe choice and choose unblended fuel, or if unavailable, premium fuel at a higher cost. Interestingly, in the United States, numerous sources indicate that all vehicle manufacturers that sell vehicles in the United States cover the use of E10 under warranty³⁶. It is vital that this information is included in any targeted education campaign.

³³

<https://www.accc.gov.au/system/files/Monitoring%20of%20the%20Australian%20petroleum%20industry.pdf>

³⁴ <http://www.smh.com.au/articles/2002/12/10/1039379836106.html>

³⁵ http://biomassproducer.com.au/wp-content/uploads/2013/11/BiofuelsinAustralia_CSIRO.pdf

³⁶ <http://web.extension.illinois.edu/ethanol/vehicles.cfm>

In terms of fuel costs to consumers, anecdotal information from ethanol manufacturer Manildra Group indicates the discounted price on ethanol that has been consistently applied to their product has not been reflected at pump prices for NSW consumers. Adding biofuels to the available fuel choices for consumers at large retail sites may increase the cost of fuels initially, if that retailer is not presently selling biofuels, to cover costs of pump changes. However, the savings made by fuel distributors and retailers through the blending of petrol with the lower cost biofuel should not be underestimated and could be used to buffer these costs impacts on retailers and to ensure the impact to consumers is minimal.

A targeted education campaign on the actual benefits and disadvantages of biofuels is vital to the introduction and success of a biofuels mandate. It is also vital that consistent messages are distributed and utilised by all relevant stakeholders. These stakeholders have been partly identified in the Discussion Paper within the Expert Panel/Implementation Board section:

- A Queensland Government Agency
- Another State and/or the Commonwealth Government
- The motor vehicles industry
- The fuel industry
- The ethanol industry
- The biodiesel industry
- The feedstock/agricultural industry
- Researchers
- Consumers.

The Queensland Government is not starting from ground zero in terms of consumer education and great efforts will be required to overcome the consumer trust issues as part of an education campaign. It was also highlighted at a recent industry forum that there are sectors, with direct access to consumers working against the use of biofuels. These include mechanics with no knowledge of the use of biofuels, banks instructing consumers not to use alternative fuels as part of vehicle lease plans, as well as car retailers. These groups will need to be specifically targeted to ensure they are appropriately educated. Additionally other trusted advisors to consumers include motoring service providers (such as RACQ and NRMA), console operators at retail outlets, Industry Association of Mechanical Engineers and TAFEs, and family and friends.

Understanding the reasons behind consumers not using alternative fuels will help inform the government on the key messages that must be included in an education campaign.

Ensuring consumer protection

28. What options could we employ to protect consumers?

29. How can we ensure that fuel companies pass the benefits of ethanol through to consumers?

30. What is an appropriate method for estimating a 'reasonable' ethanol price?

31. What is an appropriate balance between costs to consumers and the creation of regional jobs?

In order to develop a suitable consumer protection framework AgForce Grains believes a number of factors need to be included. Included in this is a consumers' ability to understand and navigate the choices available to them. This ability is assisted through appropriate and ready access to information and a well-developed education campaign as previously discussed. Government

assurances also need to be put in place, that ethanol products will be readily available, allowing for true consumer choice.

Consumers also need confidence that retailers are offering products to required standards, and if not met these are detected and addressed early. Consumer protection also must provide an avenue to hear and resolve any disputes in a timely manner by an authority with power, able to require resolution and enforce outcomes. This could be a responsibility of the previously discussed expert panel, together with the Queensland Government.

The Queensland Government cannot force fuel companies to pass on the economic benefits of ethanol to consumers, and it is unlikely this information would be readily available given the commercial sensitivity of such data. However, anecdotal information received by AgForce Grains indicates that the consumer switching point for fuel purchases is four cents per litre. Given this it may be appropriate to assume that a reasonable price for biofuels would be maintained at, at least, four cents per litre lower than unblended fuels. If such a measure was able to be put in place within a mandate, it would mean that price fluctuations could occur in line with increasing or decreasing fuel prices.

Set up appropriately with strong policies in place, including bipartisan support to ensure ongoing growth and development occurs over an appropriate timeframe rather than one government term will increase investment and market security. This will drive regional development, leading to a creation of jobs. With fuel supplies readily available and consumers well educated, fuel purchases of ethanol blended fuels would simply be an exchange of one product for another. Set up appropriately, the market will balance itself and would not require the trade-off of one for the other.

Securing food supplies

- 32. Will an effective ‘floor’ in grain prices, as a result of a mandate, signal to grain growers an opportunity to increase production and investment on-farm?**
- 33. What mechanisms, if any, should be put in place to avoid distorting the drought feeding market next time drought conditions persist in Queensland?**

Since 2000 profitability in the grains industry has reportedly been declining³⁷. Purchase patterns for domestic feed grain industries has typically been inconsistent and has historically contributed to the volatility of production. The lack of clear market signals from feedstock end users is regarded as a significant limitation for grain growers³⁸ and this concern of feed grain security has somewhat driven the push from Queensland farmers for alternative markets for their grain. AgForce Grains has long supported the development of a Queensland ethanol industry to assist in a more sustainable average price for grain production. In order for Queensland grain growers to continue to grow and innovate they require investment on-farm.

Moreover, if the feed grain industries do not provide clear market signals prior to grain planting there is potential for a consistent market to specify grain requirements in advance, such as that which may develop with the introduction of an ethanol mandate. The introduction of an ethanol

³⁷

www.grdc.com.au/2FDdownloads.ashx%3Fq%3D%2F~%2Fmedia%2F888B431B512943E6895FC53BDECDFAE8.docx&ei=qjuRVeShJsW0mwXJ7ITIDg&usg=AFQjCNH8ChINLN093QGeIZFtAFhrhGBpA&bvm=bv.96783405.d.dGY

³⁸

http://www.sfmca.com.au/info_centre/documents/303/JCS00002%20Feed%20Grain%20Report%202008.pdf

mandate would introduce a new level of forward contracting and coverage of supply risk that would lead to a base price, or 'floor' in grain prices and stability for grain growers in Queensland.

Similarly, there is large potential for similar outcomes for the oilseed market from the implementation of a biodiesel mandate. A 2013 Queensland Government pre-feasibility study³⁹ into the commercial viability of a multi-crop oilseed processing facility in Central Queensland found positive results for a number of scenarios. The report highlighted the capacity for the region to grow up to 70,000 tonnes of oilseed per year. Based on these figures, the profitability and financial analysis showed an option for a crushing plant with a 64,000 tonne capacity, as well as an additional option to include a full oil refining facility with a 12,000 tonne capacity had positive investment return outcomes. The pre-feasibility study also showed a positive economic return for growers, with the potential for an oilseed processing facility to feed into biodiesel production in Central Queensland.

Drought and natural disasters represent a significant and largely uncontrollable risk to productivity gains and come at great personal and social cost to rural communities. Drought not only impacts the feeding industry, but the grains industry also. Typically, as drought conditions intensify, feed grain demand either declines due to unviable grain prices, or grain surplus from other Australian states is utilised. The reverse is also true when other states are impacted by drought and require Queensland grain.

Should you have any further questions or require more information, please don't hesitate to contact myself, or AgForce Grains Policy Director, Tamara Badenoch in the Brisbane office 07

[REDACTED]

Yours sincerely



Wayne Newton
AgForce Grains President

³⁹ <http://www.chdc.com.au/media/2013/03/130606-Final-Oilseed-Processing-Project-Report.pdf>