3 July 2015

Project Manager
Queensland biofuel mandate
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Sent via email: biofuels@dews.qld.gov.au

Dear Project Manager

Thank you for the opportunity for the Australian Sugar Milling Council to comment on the discussion paper *Towards A Clean Energy Economy: Achieving a Biofuels Mandate for Queensland*.

The Australian Sugar Milling Council (ASMC) is the peak industry organisation for raw sugar milling in Australia. The ASMC represents some 95 per cent of Australian raw sugar production. There are 24 sugar mills in Australia, owned by eight companies. These mills produce raw sugar, which is either directly exported or refined in four Australian refineries. Around 80 per cent of raw sugar is exported while most refined sugar is sold domestically. Sugar milling companies produce a variety of other final products, including ethanol, electricity, value added cattle feed, molasses, and compost.

ASMC welcomes the government proposal to implement a biofuel mandate for Queensland. Ethanol is an initial step into the world leading bio-refining industry, where ethanol is one of many fermentable products produced from sugarcane. We believe that ethanol is a critical market pathway for realising advanced manufacturing and sophisticated regional development in regional Queensland, across the industry, education and science sectors. However, the industry is also of the view that the mandate needs to be achievable and ambitious, with sufficient market certainty to ensure industry investment. This certainty is critically dependant on bipartisan policy support.

The following outlines ASMC response to the questions posed in the mandate. Should you have any further queries, please contact Sharon Denny, Senior Executive Officer [redacted]

Yours Sincerely

Dominic Nolan
Chief Executive Officer
Australian Sugar Milling Council

Responses to Discussion Paper Questions

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?*

Undoubtedly, introducing a net excise on ethanol will have an impact on the margins available to ethanol producers. However, the previous approach of net zero excise was not without critical failings, including:

- no certainty around the timing of the program, resulting in significant difficulties in investing in new or existing projects
- a circuitous path of applying the excise and subsequently reimbursing through a producer's grant meant that ethanol producers were exposed to unnecessary transactional costs (including cash flow delays)
- ethanol producers have stated that the market power of oil companies over distribution networks meant that ethanol producers failed to realise much of the excise benefit directly.
- The excise treatment had no bearing on the price taker relationship of ethanol producers to fuel distributers.

2. *What measures can be taken to offset any possible negative impacts by the proposed changes to excise arrangements by the Federal Government?*

The sugar milling sector generally shares the view that the inclining excise treatment on Australian fuel ethanol, will, at 12.5c/L from 1 July 20120, provide a sufficient gap between the cost of Australian ethanol production and imported ethanol for Australian production to be marginally profitable. However, were the difference between the customs duty on imported ethanol and excise rate of Australian ethanol to narrow, Australian produced ethanol would be unable to compete with the heavily government supported ethanol programs of countries such as Brazil and Thailand.

Therefore State Government leadership around a broader bio-refining strategy is critical to ensure the longer term value of investment is realised.

The ethanol percentage

3. *Is a two per cent ethanol mandate appropriate?*

The proposed 2% ethanol mandate is not considered appropriate by ASMC, given the current market penetration is approximately 1.25%, while existing production capacity sits at approximately 4%. At 2%, there is no incentive for new investment, and very little change to the existing status quo. It is not clear what the government would hope to achieve by commencing with a 2% ethanol mandate – but it certainly would not secure an expansion in ethanol production capacity.

4. *Should the percentage increase, and if so, over what time period should any increases occur?*

ASMC promotes the view that the percentage of ethanol needs to be ambitious to drive real and lasting investment – and ensure a legacy industry beyond the life of the mandate. Consequently, the aligned view is that a scaled, ramped target is appropriate, commencing at 4%, and over time increasing to at least 10%. Further, there should be clear increases in targets set at least two years in advance, against particular years, enabling investors to bring capacity online, in time, to meet additional demand. Scale is critical to ethanol investment, hence new capacity is "lumpy". Without clear targets signalled well in advance, investors are unable to mobilise projects in sufficient time.

Anything less than 6% is unlikely to result in new projects – with 6% likely to generate only one new project. A ramp up to 10% ethanol would provide a much stronger incentive for next generation biofuels, and increase the likelihood of a legacy industry beyond mandates. This staged approach also places Australia to move with the rest of the world into next generation biofuels.

For example, the European Union has recently imposed a requirement on all member states to legislate by 2017 for a 10% biofuel mandate that applies unilaterally to the transport sector, but limits the use of food crops in biofuel production to 7%, encouraging a greater focus on 'waste' feedstocks. In this context, with a high enough mandate, Queensland Government would be in the position to drive next generation biofuels in Australia – and the contingent bio-manufacturing industry sector.

5. *What is an appropriate mandated percentage for biodiesel?*

Although the sugar industry is not currently proposing to produce biodiesel, it is a product that could potentially be produced at a bio-refinery. Should the technology become viable, then mandating a percentage of biodiesel would provide further security to the bio-refinery investment.

6. *What timeframe would stakeholders need to prepare for and meet this requirement?*

While a two year period is potentially sufficient to develop and construct a molasses-based ethanol plant, this does not account for the additional time required to overcome red tape. It is the view of ASMC that the Queensland Government would need to develop a streamlined approach to the approvals process if it wanted to ensure "just in time" investment in the sector to meet new targets (see response to Q.4 re "lumpy" new capacity).

7. *When do you think that a mandate will no longer be necessary?*

The question of when a mandate stops being necessary is directly relevant to the contingent of policies under-pinning it – and Queensland Government's measure of successful policy implementation.

The Queensland Government wishes to meet its core objectives of:

- Providing certainty to the biofuel industry so that it can invest, innovate, grow and create jobs; and
- Advance Queensland by developing the knowledge based economy of the future.

In this policy environment, the mandate needs to be part of a multifaceted, ambitious policy continuum. If the ambition is to generate a real transition of the Queensland vehicle fleet into biofuels and renewable energy, then policy measures that counteract the deeply entrenched fossil fuel subsidies throughout the economy are necessary to ensure that a mandate generates lasting change, beyond the life of the supporting policy. Policy consideration around biofuel compatible vehicles (e.g. importing of flex fuel vehicles), and alternative markets for biofuels, outside of the oligopoly fuel distribution system, are potential areas for consideration.

It is worth noting however, that the Renewable Energy Target (RET), throughout its development, has set a 20 year policy mechanism as a minimum, enabling recovery on investment. Considering that ethanol plants require a higher level of investment, anything less than 20 years is unlikely to provide sufficient investor confidence.

Liable parties

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

The current definition of retailer has the potential to exclude a significant number of service stations, particularly where a major distributor operates a majority of its stations through franchise arrangements. Therefore the burden is disproportionately borne across the fuel industry, with the potential to create tension and disharmony about the roll out of ethanol. However this approach would also impact on the servicing of the mandate, particularly if the absolute volume of ethanol mandated is reduced as a result.

Further, the current definition of liable party means that there is a high risk that regional Queensland will continue to be denied access to E10. As has been revealed throughout the Queensland Government's consultation, E10 penetration is relatively low in region Queensland.

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 purpose of the mandate is to facilitate market transformation. Therefore the final model of fuel retailer should not result in significant exclusions, but rather create a pathway for whole of market participation over time, matching the increasing ethanol mandate. Given that all petroleum fuelled vehicles entering Australia are, at a minimum, E20 compliant, the mandate needs to not only recognise a time when E10 should be a minimum fuel standard in Queensland, but actively endorse a pathway.

Reporting requirements

10. Is this level of detail appropriate for liable entities?

At this time, the reporting requirements appear reasonable. However, the regulation around reporting requirements should include the option to revisit compelled information should anomalies in particular reporting occur, or where insufficient transparency is found. However, ASMC is of the view that all reporting should be streamlined, minimised – and where appropriate, leverage existing reporting tools. For example, in the case of fuel distributors, much of the required information should already be captured in their national greenhouse and energy reporting (NGERs) obligations.

11. Is there any other data or information that should be requested in the quarterly reports?

This question is more likely to be relevant following a year of data collection under the mandate.

12. Can this information and data be used in other ways to support industry?

This data can and should be used to provide public accountability. In particular, given the public views emerging during consultation that oil companies are unlikely to be supportive of ethanol blended fuel, publishing biofuel blend data in relation to the oil majors, and enabling individual fuel stations to display/promote their own performance against the mandate would provide an opportunity for individual retailers to position themselves in a clean energy environment.

Exemptions

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

While ASMC is not in a position to comment on an appropriate timeframe for response to a request for exemption, there equally needs to be assurance within the regulation that the timeframe for an exemption doesn't compromise the investigation to ensure that an exemption is necessary. Exemptions have played a significant role in undermining the New South Wales Mandate.

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

Queensland Government needs to ensure that exemptions are granted under exceptional circumstances only, based on immediate participation in the mandate. The more complex the exemption scheme becomes, the greater incentive for liable parties to find loopholes to avoid participation. A shortage of ethanol brought on by force majeure events could and should be managed outside of the exemption framework.

An alternative framework to exemptions could be to operate a "cap and trade" scheme. This would have the benefit of maximising retailer participation under the mandate, and provide greater flexibility for smaller retailers with limited forecourt options. Whether based on emissions limiting, or driving higher fuel quality standards, a cap and trade scheme would also enable simpler government intervention when managing force majeure impacts on ethanol supply.

Penalties (Questions 15-17)

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 penalties proposed in the consultation paper, while potentially relevant to reporting requirements and information provision, do not address failure to meet mandated volumes equitably. A non-compliant retailer will attract the same penalty, whether they are a few litres below their mandated requirement, or fully non-compliant. Adjusting the penalty for non-compliance to be applied per litre of shortfall would provide greater incentive to comply. These penalties should be indexed and annually adjusted, similar to other schemes in Australia (such as the RET), with the potential to waive or adjust the value to zero where there is an ethanol shortfall.

Expert Panel/Implementation Board (Questions 18-19)

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?*

There are sufficient models of a range of different schemes in Australia, demonstrating the use of expert panels and implementation boards, each with its own pros and cons. ASMC is agnostic on the mechanism, provided that it delivers timely, considered and cost effective decision making, and reflects consideration of the full range of stakeholder concerns. The Climate Change Authority has demonstrated particular effectiveness as an expert panel; however, it is worth noting that this is likely a reflection of the calibre of experts appointed.

Protecting the environment (Questions 20-23)

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?*

ASMC supports the sustainability principles outlined in the document, in so far as meeting these arrangements are consistent with existing environmental expectations of the sugar industry, and do not become unduly onerous or in conflict with current requirements.

Ethanol production in the sugar industry is from an existing by-product, molasses. Hence the current regulation (including the voluntary Smartcane BMP) covers the core principles. In this context, introducing further regulation specifically for sugarcane contributing molasses to ethanol production would become onerous and heavy handed. In addition, the Smartcane BMP program is developing cross compatibility with the internationally accredited Bonsucro[1] program – a set of sustainability standards that cover the supply chain for sugar, molasses and ethanol, and is used extensively by countries supplying ethanol to the European Union under the biofuels mandate.

Therefore, the sugar industry would have an expectation that any proposed sustainability certification of ethanol production, from sugar cane, leverage existing work with the international Bonsucro standard, and rely on existing environmental policy and regulation delivery mechanisms to meet these objectives, rather than create new processes that potentially duplicate or overlap existing requirements. Similar internationally accredited programs exist for other biofuel feedstocks, ranging from grain through to palm oil.

As such, any enforcement should be delivered through the current environmental compliance mechanisms, and in the case of international sustainability standards, an approach similar to that adopted by the European Union[2] be considered – i.e. recognition and accreditation of voluntary schemes that have transparent, rigorous and independent auditing at the cost of the company, rather than government. Companies undertake the independent auditing to maintain their accreditation (including capacity to generate tradeable certificates), the results of which are made available to government.

Maintaining consumer choice (Questions 24-27)

24. What are the issues that need to be addressed if consumer choice is maintained?

To date, the arguments around consumer choice have typically focused on ensuring that consumers are not compelled to buy ethanol blended fuel – but its not really clear why, given that at least 85% of the existing fleet are compatible with ethanol. In contrast, between 2000 and 2002, the Federal Government[3] mandatorily phased out leaded fuel, as part of introducing the *National Fuel Quality Standards Act 2000*. There remained at the time a significant proportion of leaded fuel vehicles, which were progressively phased out (with exception by ministerial approval only for racing vehicles on a case by case basis).

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[1] Bonsucro objectives - http://bonsucro.com/site/ (accessed 2 July 2015).
[2] Memo: European Union accreditation of multiple sustainability schemes - http://europa.eu/rapid/press-release_MEMO-11-522_en.htm?locale=en (accessed 2 July 2015)
[3] National Phase Out of Leaded Petrol - http://www.environment.gov.au/node/13512 (accessed 2 July 2015)

Ethanol blended fuel is a cleaner fuel than conventional unleaded petroleum – and provides a lower cost pathway for oil refineries to boost octane content and meet increasingly tightened fuel standards.

Until the recent consultation sessions for the biofuels mandate, there has been little or no recognition, that many parts of regional Queensland have little or no access to E10. However, the 2003 E10 trial in far north Queensland[4] clearly demonstrated regional support for ethanol blended fuel. If there continues to be a focus on maintaining the choice of status quo, it will come at the cost of choice in regional Queensland.

The key issues to address around consumer choice is to first understand where the resistance to change is:

- average consumer, mechanics, vehicle sales; education dispelling the myths
- retailers; understanding the potential infrastructure costs, and whether there are green funding mechanisms that might be available to assist, or the potential for a transition period.
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25. *Will choice of fuel increase costs to retailers or consumers?*

Whether or not choice of fuel will increase costs to retailers or consumers will largely depend on fuel distribution companies.

26. *Would a targeted education campaign on the actual benefits and disadvantages of biofuels/E10 contribute to informed consumer choice?*

A targeted education campaign will be critical to ensuring a successful role out of the ethanol mandate. However, it is not sufficient for government to provide a pros/cons analysis – it needs to actively endorse its mandate. Further, Anything less than total government commitment will leave Queenslanders questioning the purpose of the policy.

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?*

There have been extensive studies undertaken throughout the European Union (EU) to understand community perceptions and attitudes towards biofuels – which are directly translatable to Queensland's mandate.

The diverse country membership of the EU, means that take up of biofuels has varied widely, with a succession of polarising issues that have resulted in significant policy development around "sustainable biofuels". In addition to the general resistance to change, issues have included "food for fuel" (2007-2012), "land use change" (2010-2014) and "social sustainability" (2008-2014). Throughout this continuum of issues, it is clear

[4] E10 trial in Far North Queensland - http://www.northqueenslandregister.com.au/news/agriculture/general/news/e10-hits-mareeba/28398.aspx (accessed 2 July 2015)

that one campaign focused on the broad and general consumer is unlikely to be effective. As proposed by Liesbeth Van De Velde et al[5] in a Belgium study (2012), consumers with concerns are likely to fall into four groups:

- The vehicle performance oriented consumer;
- The society oriented consumer (environmental, odour, production origin);
- The security oriented consumer (energy independence, job creation); and
- The convenience oriented consumer (availability, price).

Each of these groups is requires very different information, potentially delivered in different formats by a range of specialists, appropriate to the consumer orientation. For example, a motor racing personality is more likely to appeal to the vehicle performance oriented consumer, an approach exercised by the Queensland Government in the lead up to the previously proposed mandate.

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?*

For the most part, ASMC has very little comment to add in relation to consumer protection, other than to highlight that consumer protection is critical to the success of the mandate, and that we would hope the Queensland Government ensures it has sufficient regulatory powers to ensure that it can and does challenge fuel companies to pass the benefits through to fuel retailers and subsequently consumers.

It would be disappointing if decisions around the ethanol mandate were considered a direct trade-off of cost to consumers versus creation of regional jobs. The incremental health and environment benefits, coupled with the broader objective of building a new knowledge sector into the Queensland economy that continues to return value to the state, in the form of jobs, intellectual property (IP), technology, capability, new products and sophisticated regional development should all form part of any 'balanced' assessment.

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?*

N/A

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[5] Liesbeth Van de Velde[a,], Wim Verbeke[a], Michael Popp[b], Jeroen Buysse[a], Guido Van Huylenbroeck[a] . 2012. *Perceived importance of fuel characteristics and its match with consumer beliefs about biofuels in Belgium.* http://www.sciencedirect.com/science/article/pii/S0301421509002596

33. *What mechanisms, if any, should be put in place to avoid distorting the drought feeding market next time drought conditions persist in Queensland?*

Strategic, effective farm managers plan for drought through their risk management strategies. In the case of using molasses to supplement feed during drought, these farms invest ahead of time in molasses storage tanks onsite, and recognising the long term storage potential of molasses (years), fill them.

However, as more recently demonstrated by both Queensland ethanol distilleries, each are capable of producing an alternative high value stock feed from processing bi-products. Part of the education campaign around and ethanol mandate needs to highlight that ethanol production can expand the feed options for livestock.

Any form of intervention needs to be based on better education or facilitation of farm risk management, rather than pitting opposing farming activities against each other.

Bio-manufacturing – a new approach

34. *What is the role of the Government in attracting a new bio-manufacturing industry in Queensland? Are there specific policy mechanisms or actions that will attract investment and development?*

The Queensland Government will be instrumental in attracting a bio-manufacturing industry to Queensland. While facilitation of relationships, and opportunity identification are critical roles for government, the critical step changes required for a new, knowledge based industry will be heavily dependant on intersecting, industry attracting policies.

For example, the Silicon Valley (San Fransisco Bay, California), accounting for one third of all of the United States venture capital investment, emerged in the 1980s. This scene followed a convergence of skilled research base at the local universities, an abundance of venture capital, and a healthy stream of defence spending. In contrast, Singapore have emerged as the world's third highest technology innovation hub in just a five year period, as a result of the government providing innovation targeted tax breaks and subsidies, including matching early venture capital fundraising 1-1, and providing office floor space for as little as $1.50 per month. Sweden became the second largest technology hub in the world over a 15 year period, by investing heavily in technology infrastructure, which subsequently supported a digital economy, that has, in turn, underpinned technology interruption through entrepreneurial endeavour.

In each of these examples, the government of the day has recognised their regional strengths, and subsequently created an attractive policy environment that facilitates the location or relocation of technology start up companies. The development of such policies in Queensland must, however, be bipartisan supported.

35. *What additional actions can the Queensland Government take to increase the likelihood of project opportunities becoming operational projects?*

There are some basic infrastructure needs that accompany the establishment of biorefinieries. Discussions between the sugar industry and technology companies have typically stalled at the lack of gas availability. Queensland Government intervention to create opportunities for local use of the resource, or alternative gas collection would have a significant impact on advanced manufacturing in regional Queensland.

36. *Development of the biofuel industry, specifically ethanol, has struggled from a lack of long-term certainty and a problematic history. How do stakeholders including the Government provide the long-term certainty necessary for the development of, and investment in, bio-manufacturing?*

Again, the Queensland Government has the potential to demonstrate ambitious policy that goes beyond an ethanol mandate.

Consider the recent bioplastic announcement by an international company. Coca Cola has pledged (under Bonsucro) to sustainably source 100% of its key ingredients by 2020, and recently released its 100% sugarcane sourced bioplastic bottle[6]. Coca Cola has stated that it intends to move all of its products into 100% bioplastic by 2020. Currently, neither the Queensland or Australian sugar industry provide these bottles. However, the Queensland Government could consider a pilot partnership with Coca Cola (Australia), which could subsequently kick start guaranteed demand for a new biorefinery product. If initially successful, the Queensland Government could consider phasing in a policy around bioplastic packaging, ensuring an ongoing market for investment, while delivering significant environmental benefits.

37. *What regional centres could become hubs for bio-refinery investment/development in Queensland?*

There is potential for every sugar growing region in Queensland to become a biorefinery hub – and each milling company member of ASMC has previously investigated the development of a biorefinery, either through molasses or cellulosic feedstock. The key restriction to date has been market potential.

38. *How could Queensland science support the development of the industry? How should it build on previous research (including the involvement of key end users)?*

Queensland science has a pivotal role to play in the development of the industry. Aside from ongoing key research, there is extraordinary potential for the science community to exercise existing and develop new international technology relationships, without having to own or develop all the intellectual property. The hydrogen community in Australia has demonstrated a niche research market, providing highly specialised componentry research that feeds into several different fuel cell designs. A similar approach could be beneficial for Queensland science, to rapidly add value to the knowledge and expertise available through our universities.

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[6] http://www.businessinsider.com.au/coke-made-a-soda-bottle-from-sugar-cane-2015-6

However, at this point in time, there may be significant work and collaboration that is being undertaken by the universities, and industry remains relatively unaware. Some direct showcasing of Queensland capability in this space would be of direct benefit to feedstock industries.