The sugar milling sector has been a leading producer of bioenergy in Australia for decades. In our recent submission to the ARENA Bioenergy Roadmap public consultation, ASMC outlined significant growth opportunities in the sector as well as the commercial and regulatory constraints.

ARENA, which is leading efforts on behalf of the Australian Government, is due to report by the end of 2020. It is examining how bioenergy can help to accelerate Australia’s energy transition, stimulate regional development, enhance energy security and reduce greenhouse gas emissions.

In our view, the roadmap will need clear objectives, federal and state government co-operation/alignment, strong interventions and industry buy-in to succeed.

To thrive in a competitive and cyclical global sugar market that is often distorted by subsidies sugar industry stakeholders recognise the need to offset current revenue dependence on raw sugar sales (>85%).

The industry currently commercialises ethanol derived from molasses and co-generated electricity, using bagasse.

Other opportunities, such as bio-plastics remain commercially challenged with typical market failures at play and government interventions required.

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SUGAR POLICY INSIGHTS | JULY 2020

OUTLINING SUGAR’S BIOENERGY POTENTIAL
David Rynne, Director, Policy, Economics and Trade

The Australian sugar milling sector is a leading producer of bioenergy. In the pursuit of further efficiencies, innovation and diversification, it can make a significant contribution to the nation’s ongoing energy transition and regional development objectives.

Already, Queensland sugar mills annually:
- Generate 900,000 megawatt hours (MWh) of renewable energy from bagasse (of which 0.425 million MWh is excess to internal requirements and is exported to the national grid as baseload and synchronous energy).
- Produce 60 million litres (ML) of bioethanol from molasses for motor fuel (E10) and industrial uses.

ASMC calculates that under favourable commercial and policy settings, bagasse co-generated electricity could triple from 0.9 million MWh to 2.86 million MWh and ethanol production from molasses could increase from 60 ML to 216 ML.

CO-GENERATION POTENTIAL
Numerous changes in industry practice and government policy are needed to improve viability of current supply and increase production through additional installed capacity of bagasse co-generated electricity. For example:
- A sugar industry specific renewable auction process where lowest cost (sugar industry projects) get guaranteed power prices for 20 to 30 years to underpin the investment required;
- Improved factory ‘steam on cane’ process changes to increase bagasse utilisation efficiencies, and bagasse storage facilities to aid year round generation;
- Upgraded network interconnections to sugar mills (competition for network capacity in regional Queensland is strong, especially in areas where solar farms have been established);
- Per AEMO classifications, bagasse co-generation remains a non-market,

Sugar milling companies have been resilient in recent months, as COVID-19 has posed acute examinations of its emergency preparedness and business continuity planning.

However in reality the raw sugar industry will likely come out of this pandemic with the same viability challenges we had going in – including flat-lining productivity, loss of area, and a need to further complement our reliance on raw sugar sales with diversified revenue streams.

The depressed global sugar price, currently around 12 US cents/lb, (below $A400/t) challenges the viability of even the most efficient producer. Volatile market prices have been spurred on by years of production and export subsidies in competitor countries such as India, and the collapse of the oil price, which has seen Brazil decrease its ethanol production from cane in favour of increased sugar production.

There appears little the Australian industry can do in the short term and ASMC will continue to push for justice at the World Trade Organisation (WTO) while riding out this negative cycle.

However, the need for increased focus on decreasing the industry regulatory burden and revitalising commercial arrangements is urgent, to ensure we can take advantage when the odds are again in our favour.

To mirror the dystopian Suzanne Collins trilogy, The Hunger Games, Queensland’s sugar growing and milling districts are currently in a fight for long-term survival, and wishes the “odds were ever in their favour”!

Unfortunately, that isn’t the case, but rather than competing to the death against each other, the sugar supply chain needs to align and focus on the future.

SUGAR INDUSTRY IN ITS OWN VERSION OF “THE HUNGER GAMES”
David Pietsch, CEO

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- Per AEMO classifications, bagasse co-generation remains a non-market,
non-scheduled form of generation, meaning mills do not participate in the central dispatch process; • An ability to reticulate power back to local growers or the local community through innovative ‘behind the grid’ options (either physically or virtually); and • Cogent and stable State and Federal government energy and climate policies.

**BIO-ETHANOL POTENTIAL**

Ethanol cannot compete with Mogas (gasoline) at realistic oil prices under the current market structure of excessive capacity, excise differential, parity pricing and a lack of mandate enforcement.

Therefore, improving the viability of current supply and achieving an increase in production from molasses would require a number of significant government interventions, including:

- Model legislation that enacts a national minimum biofuels mandate of at least 5%;
- Facilitation of an ethanol market price that is independent of the Mogas 95 price;
- Consideration of a requirement to have a minimum amount of ethanol in every litre of premium and unleaded petrol (PULP & ULP) sold and for the price for the ethanol to become a ‘below the line’ cost component of the fuel; and

- Securing active co-operation from motor organisations and peak bodies to promote the value and benefits of E10 to motorists, media, the motor trade and repairers.

Read ASMC’s full submission here: https://asmc.com.au/policy-advocacy/submissions/

**WATER IRRIGATION PRICE RESET NEEDED**

The Queensland Government’s recent decision to freeze irrigation water prices for 12 months provides an opportunity for a comprehensive review of a system that has been failing the sugar industry.

Two thirds of the State’s sugarcane production is dependent on irrigation, but a decade of high water prices has contributed to flat-lining cane and sugar productivity.

ASMC calculations highlight that, on a constant consumption basis, the recommendations put to government from the Queensland Competition Authority (QCA) would have increased canegrower costs to around $79 million in 2023/24 compared to the approximate $39 million growers were paying back in 2006/7.

ASMC’s recently published analysis* outlined the social, economic and environmental benefits of improved water pricing scenarios across cane region water supply schemes.

The analysis showed clearly that a price cut could deliver a much needed economic boost to Queensland’s coastal communities.

A move to more affordable water prices such as a tariff rate 25% lower than the levels recommended by QCA – could deliver up to $220 million in additional industry and other local outputs, improve cane growing and sugar mill sustainability, lower the government’s stranded water asset risk and deliver environmental gains.

Sugar milling companies will work with Government, irrigation and other representative groups, and growers over the next 12 months to develop a new water pricing approach.


Tripling ethanol production could mean annual estimated greenhouse gas savings of 1,948,702 tonnes CO₂-e

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EU-27 in Focus

The European Union (EU) is the world’s largest sugar beet producer. It has transformed* its domestic sugar regime over the last 15 years, in part because Australia and other sugar-producing nations successfully demonstrated inconsistencies between the EU’s sugar export support measures and their World Trade Organisation (WTO) entitlements. An EU-Australia Free Trade Agreement (FTA) is currently under negotiation. Significantly improved market access will be needed if the EU is to become an attractive destination for Australian raw sugar.

SUGAR MARKET

EU member states produce approximately 17 million tonnes (mt) of beet sugar. Raw cane sugar import volumes have ranged from a high 1.6 million tonnes (mt) in 2016/17, to 1 mt in 2017/18 and 1.3 mt in 2018/19. Cane sugar refineries currently import raw sugar under negotiated zero tariff Free Trade Agreements and other agreements with higher cost, least-developed countries. Refiners have voiced a preference for lower cost, duty-free raw sugar from suppliers like Australia. However, Australian raw sugar remains subject to a €98 EUR/tonne CXL duty. With a commercially insignificant annual WTO tariff rate quota of 9,925 tonnes per annum (now halved), local marketers have not considered this market closely. To send more high-quality, sustainably produced Australian sugar would require the right commercial and policy settings. The recently negotiated EU-Mercosur deal, where 180,000 tonnes of zero duty access was given to South American countries, provides a useful benchmark for Australia.

EU SUGAR REFORM*

The 2004 WTO ruling triggered policy reforms and market liberalisation. The removal of production quotas in 2017 stimulated a surge in domestic beet sugar production and exports almost tripled.

At a glance

- 446 million population in EU-27 member states
- 24.8 kg/capita average sugar consumption - lowest Hungary (16kg) to highest Germany (37kg)
- >50% world’s total sugar beet crop = largest beet producer (mainly France, Germany and Poland)
- 3rd largest sugar producer after India & Brazil
- Raw cane sugar imported to sugar refineries in Bulgaria, Croatia, Denmark, Finland, France, Italy, Portugal, Romania & Spain (+ pre-Brexit UK).

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About ASMC

The Australian Sugar Milling Council represents Australia’s raw sugar manufacturers and exporters. Our members manufacture 90% and collectively market over 50% of Australia’s raw sugar. Our aim is to be a leading voice for change to create opportunities for a more profitable and sustainable Australian sugar industry.