Sugar Policy Insights

This year's ASMC Industry Safety award winners

April 2023 Edition: What's inside?

FROM RACHELE SHEARD, OUR CEO

Looking back and planning forward

In our first Sugar Policy Insights for 2023, we reflect on 2022, recap our key successes both operationally and in the policy arena and look forward to 2023.

Following our recent ASMC Board meeting, I wanted to share our priorities for 2023 and beyond to further strengthen the milling sector and broader sugar industry.

2022 operational developments

Sugar mills crushed 32.6 million tonnes of cane and manufactured approximately 4 million tonnes of raw sugar. Unfortunately, in some regions abnormally wet weather extended the harvest season. We're glad to report that worker fatigue was well managed and the crush was completed safely.

We know that the majority of this sugar has been exported with some notable changes to our export profile occurring. For example, Japan has returned as the industry's #1 destination, followed by South Korea and Indonesia. Of note, is that our exports to New Zealand and Vietnam increased significantly in 2022 from relatively low levels.

Assisted by a range of factors including high global oil and fertiliser prices, increased consumption growth, lower than anticipated exports from India and Thailand, a sharply downgraded EU crop and softening Australian Dollar, we estimate that average spot raw sugar prices between the start of the 2022 season to today was approximately A$609/t. At this price level the Australian industry is enjoying a welcome return to profitability.

The 2022 crush was also impacted by a unique set of operating conditions:

- **The Ukrainian War and a spike in 2022 input costs.** Diesel prices reached a QLD average of (A$) 192c/l which was 54% higher than the 2004 to 2021 average of 124.6c/l.

  Further, urea prices reached an Australian average of A$1,004/t which was 179% higher than the 2004 and 2021 average of $A359/t. Fortunately, these amplified urea prices have reduced back to closer to the long-term average range in recent months. We do anticipate the high coal, gas and electricity prices to flow into our 2023-24 regulated tariffs.

- **Extreme wet weather.** Rainfall in all but the Wet Tropics region was well above average during the crush period with record falls recorded in some districts. With the industry's well recognised 'Achilles heel' being our inability to harvest sugarcane in wet field conditions, high levels of lost crushing time were experienced at mills through the Herbert/Burdekin, Central and Southern regions.
- **Labour shortages.** A labour survey of ASMC members indicated that during the crush, the milling sector had around 300 vacant positions at the peak which translates to an approximate 10% vacancy rate. This shortage of labour also impacted farming and harvest operations throughout the industry.

2022 Government Policy Developments

2022 was also a busy year from a policy perspective with federal and state governments pursuing numerous reforms.

The 2022 Federal election saw a change in Government and a focus on energy reform, power prices, incentives for renewables, visa programs, support for value-add manufacturing and trade reform.

Energy reforms of relevance included:

- Allocation of $20 billion for transmission to connect renewables to the grid. The milling sector has aspirations to expand its co-generation capacity and will require improved transmission;
- A tightening of the CO_2-e emissions baselines under the Safeguard Mechanism. Whilst there are no mills with a CO_2-e profile of greater than 100,000 tonnes per annum and none are currently caught in the scheme we continue to monitor developments closely;
- The introduction of $12/GJ gas price caps and $125/t coal price caps for coal used in the generation of electricity. A number of mills consume coal for steam that is converted to electricity and we continue to engage on the applicability of the policy to milling; and
- The development of policies such as the proposed Capacity Investment Scheme that will incentivise synchronous generators to stay connected to maintain grid reliability and security. ASMC members' goal is to ensure that co-generation becomes eligible under these proposals.

The milling sector is pursuing a number of strategies to attract and retain workers including sourcing workers abroad. However, the visa application processes are complicated and lengthy and we await the findings of the current review into migration visas for solutions.

On the trade front, the Australian and UK Governments reached an agreement on the Australia-UK Free Trade Agreement which when implemented will see tariffs on sugar eliminated with a duty-free quota of 80,000 tonnes in year one rising in equal installments to 220,000 at year eight when free trade will occur. Positively, FTA discussions with the EU continued.

At the state level, the Queensland Government announced the Queensland Energy & Jobs Plan. This included the allocation of $4 million to pursue bio-energy projects as well as support for a review of the state planning framework for renewable energy development. The ASMC is currently developing an application to the $4 million fund and we look forward to the planning review to ensure prime agricultural land remains protected from the proposed Renewable Energy Zones.

2023 operational priorities

We know that the extended 2022 season and prospect of another strong cane crop will shorten the 2023 maintenance period. In response, sugar mills throughout the State have already commenced shift work and are seeking to bolster the numbers of trade-skilled employees in their workforce with overseas sourced tradespeople.

2023 advocacy priorities

Consistent with the milling sector's priorities of increasing sugar revenues, diversifying revenues and increasing cane supply, our seven priorities for 2023 are:

1. Understanding current and likely future labour and skills shortages and implement strategies;
2. Stabilise and eventually increase the amount of land under cane;
3. Increase cane yields;
4. Develop a sustainability framework for the industry including understanding least cost carbon abatement pathways;
5. Identification of bio-energy investment pathways with a focus on co-generation and bio-fuels;
6. Improved regulatory and policy environments for investment; and
7. Improved trade policy settings.

Consistent with the Sugar Plus 2040 Vision and Roadmap we look forward to progressing these initiatives with stakeholders.

Readers may also be interested in our Federal Pre-Budget submission (2023-24) which seeks a commitment of support from the Australian government in the forthcoming Federal Budget to a variety of measures.

FROM DAVID RYNNE, DIRECTOR, POLICY, ECONOMICS AND TRADE

Why the interest in Sustainable Aviation Fuel?

ASMC tasked L.E.K Consulting to assess the commercial potential of five energy diversification opportunities for the industry.

The five energy diversification opportunities were:

1. More cogeneration power;
2. More bio-fuel;
3. Bagasse pelletisation (for export);
4. Bio-methane; and
5. Green hydrogen.

Utilising the latest available information and data, L.E.K found that cogeneration, bio-methane and bio-ethanol (as sustainable aviation fuel) have the strongest commercial potential.

ASMC has previously published a summary of the report's key findings and that can be found on our website.

Drawing on a range of information sources, we take a deeper dive as to why more bio-fuels (as SAF) represents an emerging opportunity.

SAF is the blanket term used to describe aviation fuel developed from sources other than fossil fuels. SAF fuels have a 80% lower carbon footprint then conventional aviation fuel.

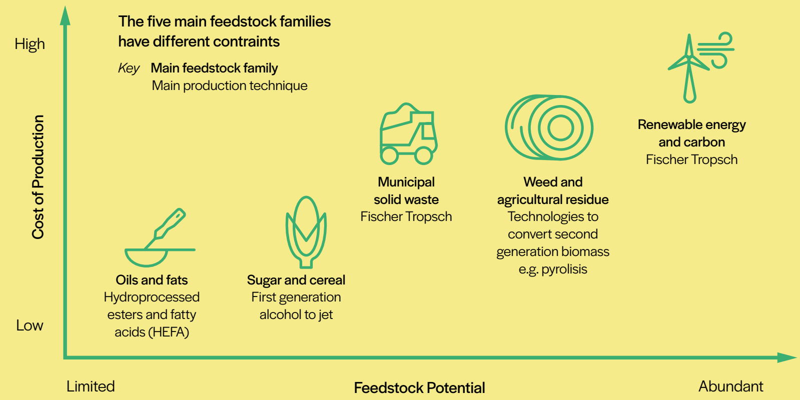
1. Strong demand

The aviation industry has committed to reducing carbon emissions by 50% of 2005 levels by 2050 and some airlines as ambitious as net-zero.
The International Energy Agency recently calculated that by 2040, 19% of the aviation industry's fuel consumption would need to be SAF in order to achieve the 50% target. In Australian terms this equates to 1,800 ML's of annual demand by 2040 (by comparison there is currently 440 ML of Australian ethanol capacity).

The airline and fuel industries have advised that they will jointly pursue four key technologies to decarbonise aviation energy supply:

1. **Sustainable aviation fuels.** The main SAF feedstock and technology 'families' are as follows– and each have their own constraints and position on the cost curve (refer Chart 1):
   - i. Least cost is HEFA using oils and fats but feedstock supply is very low;
   - ii. Second least expensive is Alcohol-to-Jet using sugar and cereals
   - iii. Next least expensive is Fischer-Tropsch using municipal waste
   - iv. Second highest cost is pyrolysis using wood and agricultural residues
   - v. Highest cost is Fischer-Tropsch using renewable energy and carbon (i.e eFuels).
2. Battery stored **electricity** from renewable sources like wind and solar or low carbon sources such as gas with carbon capture and storage.
3. **Hydrogen transported as** compressed gas, liquid or converted to ammonia (combusted or used in fuel cells). Produced from electrolysis or natural gas with CCS.
4. **eFuels** which are liquid or gaseous fuels produced from renewable electricity (via hydrogen) and CO2 from air, a biomass source or sustainable source such as cement.

Chart 1: The five main SAF feedstock families (with costs of production and feedstock availability)



Source: BP presentation Avalon Air Show, 2023

2. Technology alignment

Whilst there are four technology pathways, SAF is likely to be the main pathway for long and medium flights out to 2050. Significantly, it is estimated that these flights represent around 68% of total fuel consumption and CO2-e emissions.

3. The need for Government support

As SAF costs will be 3-5 times more expensive than conventional aviation fuel, it will be necessary to create both demand and supply drivers. Ideally these would come in the way of:

- Ongoing voluntary commitments by the airlines to de-carbonise, and
- Government interventions that create demand certainty, then supply expansion occurs which then leads to a lowering of costs through greater demand.

Expert opinion is that Australia's current policy settings are unlikely to incentivise the commercialisation of SAF. For example, whilst there is a SAF methodology under the Emissions Reduction Fund which provides a hypothetical way of monetising emissions reductions from SAF usage, the available carbon incentive is unlikely to be sufficient to cover the cost difference between SAF and conventional fuels.

Furthermore, the Safeguard Mechanism may also be ineffective to incentivise the airlines to consume SAF as a carbon price of more than $300 per tonne would be required to bridge the gap between conventional jet fuel and SAF – much higher than the $75 carbon cap recently announced as part of the mechanism.

For SAF, numerous government programs have been developed overseas including Low Carbon Fuel Standards and advisory councils. This is wholly consistent with the experience in Australia and overseas with ethanol. Government mandates are required to stimulate demand and supply responses.

The Australian government has commenced discussions with industry on the role and purpose of a Jet Zero Council. Once established it is hoped that this group will lead discussions on the appropriate mix of interventions – both state and federal – to kickstart the Australian SAF industry.

FROM JIM CRANE

Addressing Industry safety

ASMC has organised and hosted an industry safety conference since the year 2000.

This year's event in Townsville was again well supported by sugar mills from throughout the State along with representatives from associated industry organisations including Sugar Terminals Limited, Queensland Sugar Limited, Sugar Research Institute and Sugar Research Australia.

Important guest delegates at the conference included regulators from Workplace Health and Safety Queensland and a delegate from WorkCover along with commercial sponsor representatives from long-time industry partners, Blackwoods, Consolidated Plastics Engineering Products and UVEX Australia.

The theme for this year's conference was Leadership and Innovation – underpinning safety in the workplace. Keynote speakers included Queensland's mental health ambassador, champion swimmer, Hayley Lewis, AFL Legend, Kevin Sheedy and decorated ex-Blackhawk helicopter pilot, Kevin Humphreys. The external speakers supported some outstanding mill-based personnel discussing safety-related workplace case studies from across the industry. The preparedness of sugar milling companies to highlight safety innovation and learnings at the ASMC conferences from their workplaces has been a key contributor to a significant improvement in the safety performance of sugar mills over the past two decades.

Pictured top right: Kevin Sheedy.
Picture bottom right: Rachele Sheard, Hayley Lewis & Carissa Mansfield, Mackay Sugar & ASMC Director.

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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.