

Sugarcane Bioenergy Inquiry 2025

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27 October 2025

Mr Stephen Bennett MP
Chairman of the Primary Industries and Resources Committee
Queensland Parliament

Sent by email: PIRC@Parliament.qld.gov.au

Dear Mr Bennett,

Re: Queensland Cane Agriculture & Renewables Ltd's (QCAR) submission to the Queensland Parliamentary Inquiry into sugarcane bioenergy opportunities in Queensland

The Sugarcane industry collective of the Queensland Cane Agriculture and Renewables Limited (QCAR) and the Australian Cane Farmers Association Limited (ACFA) - (together, the Collective) welcomes the opportunity to provide this joint submission to the Inquiry following its appearance as a witness at the Committee's Public Hearing for the Inquiry held in Townsville on 10 September, 2025.

Who we represent

Our Collective grower organisations represent approximately 15% of the sugarcane farming entities and 12.5% of the total sugarcane production in Australia. QCAR, (formerly Pioneer Cane Growers Organisation Ltd) has previously made joint submissions as a member of the Burdekin District Cane Growers Ltd. QCAR has membership across all Australian sugarcane regions, with the largest membership that farms in the Burdekin, Herbert and Central regions.

The sugarcane industry's contribution to the Australian economy is well documented.¹ Australian sugarcane production is expected to grow at 2.3% with total growth estimated at \$3.8 billion, consisting of \$2.3 billion direct and \$1.5 billion in associate activity over the next 5 years.² Our Queensland sugarcane farmers provide high-quality food and fibre to Australian and overseas communities, as well as deliver stewardship of the state's natural environment. With the Queensland Government making a commitment to increasing the value of agriculture production to \$30 billion by 2030, sugarcane arguably has the greatest potential to expand its production and in turn be used to increase production in multiple bioenergy products including sugar, biofuels (Ethanol, renewable Diesel and Sustainable Aviation Fuel) and Electricity.

¹ ASMC Report

² <https://www.ibisworld.com/au/industry/sugar-manufacturing/109/#IndustryStatisticsAndTrends>

QCAR wishes to acknowledge the foresight of the PIRC to have self-referred this Inquiry, in light of the overwhelming case for the sugarcane industry to offer a platform to lead the underpinning of a world-leading, sugarcane-based, bioenergy industry. Sugarcane is a reliable, resilient, clean, green, renewable and cost-

effective energy source. It has the capability of growing and expanding to meet the growing and expanding domestic and international bioenergy needs. It has the potential to reduce carbon emissions by up to 80% compared to the fossil-based jet fuel it would replace – this reduction in emissions is certified to international standards. Sugarcane can play an integral role in securing Australia's sovereignty, a fundamental principle that underpins the autonomy and independence of our nation, ensuring its freedom to determine our destiny and protecting the interests of our people.

Challenges of a planned transition from a Sugar Industry to a Sugarcane Industry

Sugarcane farmers themselves face the urgent need to de-risk their investment in and exposure to the supply of sugarcane for sugar production. Sugarcane farmers are price takers, and should there be a permanent diminution in the sugar price or a market failure, they stand to lose their entire, often, multi-generational, family operation. Many sugarcane farmers have borrowings that will be passed on under succession plans.

The Queensland's Government's examination of and commitment to establishing a sugarcane-led bioenergy industry, in conjunction with its commitment to increasing the value of primary production output to \$30 billion by 2030 as part of its *Prosper 2050 – 25-year blueprint for Queensland primary industries*, would be a watershed moment to provide certainty to the Queensland economy and both millers and sugarcane farmers alike that the future of sugarcane farming offers an opportunity for many more generations to come.

However, the sugarcane industry faces all of the challenges listed in the Prosper 2050 blueprint including:

- Market and Geopolitical shifts, caused by increasing trade and geopolitical volatility
- Escalating biosecurity imperative caused by changing biosecurity risks, including migrating diseases, exacerbated by increasing climate variability and global trade dynamics
- New Technologies and rising costs of business puts pressure on the need for accelerated investment in emerging technologies to ensure the farming enterprise remains viable
- Regulatory settings currently do not provide certainty to either sugarcane farmers or Millers, especially the environmental protection laws imposing reef regulations which are providing barrier to existing farmers looking to expand their operations or new farmers looking to enter the sugarcane industry

- Co-existence, caused by the conflict between the limitations of natural resources such as land and water and the need to evolve business models so they are more integrated across the economy, the local communities, other industries and the environment
- Climate variability causing changes to when and where production occurs; profitability of farming and milling operations; post natural disaster recovery and infrastructure maintenance
- Workforce pressures caused by the challenges of competing to retain a stable labour base, attracting suitable, skilled and qualified, staff and young farmers
- Energy and Water the costs of which are some of the most critical costs of operating a farm and which continue to escalate

In addition, QCAR has identified additional challenges, including:

- Millers capability to significantly increase crop production through existing Milling infrastructure, especially when the ASM have stated that a recent analysis by the ASM disclosed that 7 out of the 13 Mills have been operating with costs at or above global sugar prices. QCAR supports the notion of some form of support for the Millers to upgrade infrastructure to be used in bioenergy production but only so long as the primary producers are recognized and rewarded for their supply of sugarcane and other renewable crops for processing.
- Lack of a consistent coordinated bioenergy strategy which brings together and enables the establishment of a bioenergy industry which generates electricity, fuel and other bioenergy products.
- Securing the long-term viability of sugar manufacturing in an environment where there is unfair global competition and the lack of a strategic public policy response
- The infancy of many of the bioenergy markets generating significant uncertainty and risk, especially as consistency in government policy and funding will be required initially to get these industries established.

QCAR calls on the Committee to recommend to Government that it needs to take action now to ensure the lead time to take advantage of these opportunities is kept to a minimum of 3-5 years and importantly that budget commitments are included in the 2026/27 State Budget.

QCAR has been working directly and indirectly with several organisations including Jet Zero, Sky Renewables, Energy Estate and NQBE (whose project will incorporate 2nd Generation cellulosic technology and ethanol production for a sustainable SAF

industry) and we strongly urge the Government to design a plan which offers incentives and subsidies to encourage these entrepreneurial companies to engage in the Bio-energy sector and partly de-risking such ventures.

The Queensland Government also has an opportunity to grow and develop regional communities who are already supporting a clean, green, resilient, sugarcane industry which has been established for over 130 years. These regional operations have the potential to establish circular bioeconomy opportunities, a concept that appeared in a Queensland Government's November 2015 *Queensland Biofutures 10-year roadmap* to:

- establish a regional location of an integrated biorefinery within existing agricultural industries and supply chains to build the productive capacity of our regions, which could be replicated up and down coastal cities
- identify regional strengths – infrastructure and feedstock mapping to identify competitive advantages, community engagement and promoting regional opportunities
- provide opportunities for sector development through partnerships and policy measures that support early-stage commercial projects, biofuels mandates investment attraction and the promotion of local business capabilities (through TIQ).

Such bioeconomies would have the potential to enable a community to be self-sufficient by allowing bioenergy sources produced locally (for example electricity) to be accessed by members of the local community, offering cheaper prices to farmers and other consumers and at the same time higher revenues for the manufactures of the bioenergy products which should be shared with the sugarcane farmers under their Cane Supply Agreements.

Executive summary:

The State Government has been looking at these opportunities in the sugarcane industry for over a decade but no formal commitment has been made to date.

QCAR urges the State Government to make a long overdue commitment to establish a Queensland Bioenergy Infrastructure Fund (QBIF) and use the sugarcane industry as the obvious example and pathway to address the State's energy priorities through the various bioenergy opportunities.

The Sugarcane Industry recognizes that sugarcane no longer just produces sugar but has the potential to produce food, bioenergy, including ethanol and electricity, and bio plastics, as well as recognising the clean, green and renewable nature of sugarcane that offers an unheralded opportunity for it to lead the world in bioenergy industries. For this reason, all future references to the “*sugar industry*” should be replaced with the “*sugarcane industry*”.

There is also a risk that if the sugarcane industry does not aggressively pursue this leadership role, it may well face a Kodak moment where current sugar production processes are replaced with a cheaper and a proven better quality alternative.

[Footnote – Kodak -the dominant photography company in the world with a 95% market share in the early 2000s, was approached by a company wanting to access and use the digital photography capability that a Kodak engineer had invented some 25 years earlier. Kodak with its 95% market share did not respond sufficiently to the threat posed by a competitor, being able to produce a better quality product at a cheaper price, and happily hand over the new technology. In 2012 Kodak's market share had collapsed and it had filed for bankruptcy protection].

As is always the case with new and emerging industries Government has an important role to play in providing the financial and legislative framework, including infrastructure projects that deliver economic, national security, social and environmental benefits.

Financial incentives and subsidies to grow the level and type of sugarcane production will be imperative.

QCAR continues to make its own commitment to working together with sugar Millers. It comes as no surprise that QCAR's and the ASMC's strategy is very closely aligned to that of QCAR in that the ASMC recognises that the Sugarcane industry *"has a once-in-a-generation opportunity to maximise Australia's raw sugar production and contribution to the energy transition"* by focusing on *"industry revitalisation and removing barriers to success so we diversify revenue, contribute more to Australia's energy transition and continue to support regional communities"*. QCAR was buoyed by the ASM's testimony at the Committee's initial Public Briefing on 30 April 2025, when talking about a potential shift away from sugar production to biofuel production, *"it would have to change how we incentivise each other, because at the moment the assumption is – and for a 100years that assumption has been – that we all have vested interests in the sugar price and **we bear the risks and the opportunities together**. If we switch to biofuel, particularly let's say more than 40 to 50 percent, there is a big industry discussion and we have to revisit that."*

QCAR has recently initiated discussions with a number of peak industry bodies to confirm their appetite and genuine intention to work together for the future of the sugarcane industry.

Summary of Recommendations to the Primary Industries and Resources Committee:

1. That in order to remove a barrier to expand sugarcane production, the regulations which came into effect on 1 June 2021, imposing a need for a Sugarcane farmer to obtain an environmental authority (permit) before starting or expanding commercial cropping (where the activity is on 5 hectares or more of land that does not have a cropping history), be reversed, either in full or in part, to encourage existing and new sugarcane growers to invest in expanded production.
2. That the State Government undertake a feasibility analysis on the establishment of a Pilot Micro Grid located in the Burdekin region.

3. That the State Government should enforce the current mandate on the use of ethanol in fuel sold, noting that if all mandate requirements were met there would be no sugar produced.
4. That the State Government determines how SAF will be regulated?
5. That the State Government to make a commitment to build infrastructure or to establish a Queensland Bioenergy Infrastructure Fund (QBIF) with an initial commitment of \$3Bn over a 10-year period and an initial budget allocation, be considered for inclusion in the 2025/26 budget.
6. That the State Government include in the 2026/27 budget funded programs in respect of the following initiatives:
 - a. first farm owner's – grants
 - b. first farm owner's – stamp duty exemptions,
 - c. fuel and energy rebates for all sugarcane farmers,
 - d. subsidised/concessional loans for all existing or new sugarcane farmers who are seeking to expand overall sugarcane production
7. That the State Government Policy recognise the sugarcane industry's potential to contribute to bioenergy industries (including electricity) and to promote and incentivise participants from sugarcane farmers, through the supply chain, to end users.
8. That the State Government make long-term commitments by way of investments in a QBIF as well as targeted subsidies, exemptions, incentives, rebates, loan guarantees, tax credits and grants which focus on R&D in the bioenergy industry, to enable uncertainty in an establishing bioenergy market to be managed.
9. That the State Government give consideration to establishing bio-precincts, including electricity micro grids, in close proximity to existing Milling sites to be used for the production of bioenergy products in large quantities. Government incentives could be offered to existing operators or new investors to acquire such infrastructure and undertake such operations.
10. That the State Government should offer incentive funding which encourages the coordination of large scale, alternate crop, production in fallow blocks or on other land acquired for the purpose of expanding agricultural production and meeting State Energy priorities including sugarcane farming, which aligns with state or national priorities, including the State Government's "biofuel priority" under the SIDF.
11. QCAR believes that the State Government should commit to, first and foremost, to expanding existing agricultural production in order to secure the nation's sovereignty but instead of being at the expense of domestic food production it should be as an export replacement.

Comments addressing the Inquiry's Terms of Reference:

1. The role and benefits of sugar cogeneration in Queensland's electricity generation mix, including existing capacity and potential for expansion.

Sugarcane can offer a reliable guaranteed baseload level of power within numerous Queensland regions throughout the whole year.

A State Government Policy decision will need to be made on what the State's energy priorities are:

- is it Energy production or is it reducing the costs of living
- is it about working toward net zero emissions targets or is it about the expansion of clean, green, renewable and efficient energy sources that benefit the environment (noting that the EPA amendments in 2021 imposed new, excessive, regulations on farmers new to sugarcane farming and those multi-generational farmers seeking to expand their family's farming operation under sugarcane.

Co-located and co-beneficial assets provide for a more efficient use of capital, in terms of greater revenue from assets employed and the potential for a reduction in the unit cost of throughput.

The establishment of micro grids, co-located nearby to the Mills in regional cities, will not only reduce the current level of transmission losses but start the process of creating circular bio-economies. The role of a circular bioeconomy which was spelt out in the former State Government's November 2015 *Queensland Biofutures 10-year roadmap* was to:

- *establish a regional location of an integrated biorefinery within existing agricultural industries and supply chains to build the productive capacity of our regions, which could be replicated up and down coastal cities*
- *identify regional strengths – infrastructure and feedstock mapping to identify competitive advantages, community engagement and promoting regional opportunities*
- *provide opportunities for sector development through partnerships and policy measures that support early stage commercial projects, bio fuels mandates investment attraction and the promotion of local business capabilities.*

Based on information provided by the ASM, the current sugarcane production has the potential to provide 300-350MW of power, but up to 835MW of

potential capacity (or 500,000 homes worth of electricity) if, and only if, new boilers, new turbines and mill electrification work is undertaken, without disrupting the current level of sugar production.

The Sugarcane Industry's peak Research body, SRA's *Research Mission 3: Diversified and Adaptable* – requires it to support the objectives of the Sugar Plus Roadmap to develop diversification opportunities; including the development of both complementary biofutures and circular bioeconomy opportunities, and sugarcane varieties and complementary farming systems to support the bioeconomy. However, there is minimal evidence of any such focus, let alone priority focus, in current variety research, analysis or recommendations on varieties. Expansion into bioenergy markets will require a fundamental reconsideration of the varieties used (for example to maximize electricity generation, a higher fibre content variety should be considered but not at the expense of scheduled sugar production priorities).

The focus of SRA and the ASMC are also in line with the Sugarcane Industry's Sugar Plus Industry 2040 Roadmap – Fuelling the Future of Food, Energy and Fabrication – July 2022, which stated *"Our vision is to become a vibrant, transforming industry, sustainably producing sugar and bioproducts at the heart of regional communities.. to position the industry at the heart of Australia's future bioeconomy, enabled by supportive government policy settings and new investment.....requires a strong focus on environmental benefits across the value chain.. "Implementation should not be disruptive to today's industry and is not designed to displace existing sugarcane and raw sugar production." (Pg 2)*

Recommendation(s):

1. That in order to remove a barrier to expand sugarcane primary production, the regulations which came into effect on 1 June 2021, imposing a need for a Sugarcane farmer to obtain an environmental authority (permit) before starting or expanding commercial cropping (where the activity is on 5 hectares or more of land that does not have a cropping history), be reversed either in full or in part to encourage existing and new sugarcane growers to invest in expanded production.
2. That the State Government undertake a feasibility analysis on the establishment of a Pilot Micro Grid located in the Burdekin region.

2. Market, regulatory, and infrastructure barriers to increased bioenergy production from sugar. (sugarcane)

Market Barriers:

A bioenergy market does not currently exist. Until one is established, Biofuels markets will require regulation.

Regulatory:

The absence of Government policies that ensure the protection of investors in Queensland present a regulatory barrier.

Establishing a price with Defence could result in establishing a floor price that is linked to national security rather than an industry or market.

Recommendation(s)

3. State Government should enforce the current mandate on the use of ethanol in fuel sold, noting that if all mandate requirements were met there would be no sugar produced.
4. The State Government needs to determine how SAF will be regulated?

Infrastructure:

While storage and transport infrastructure is not established, as stated in the joint DPI/DSDIP submission, the well-developed transport networks between sugarcane farms and their local Mill make the sugar Mill an ideal location for future bioeconomy initiatives.

Recommendation

5. That the State Government make a commitment to build infrastructure or to establish a QBIF with an initial commitment of \$3Bn over a 10-year period and an initial budget allocation be considered for inclusion in the 2025/26 budget.

3. Opportunities to align sugar biofuel production with national security and Defence liquid fuel needs.

Regulation is required.

State Government must first establish a ranked list of priorities, noting that the \$180.6 million *Sovereign Industry Development Fund (SIDF)* has been established under the State Government's Energy Roadmap, with Biofuels, Biomedical and Defence identified as three priority industries.

The Roadmap claims to be *"a pragmatic plan that improves the energy assets we have today, while we build what is needed for the future"*. *"It aims to deliver affordable, reliable and sustainable energy"*. Originally, it was thought that would dovetail well with the Sugarcane Inquiry. However, the first 53 pages of the Roadmap solely focussed on Coal and Gas and the primary focus regarding renewables was on Wind, Solar (Including Rooftop PV) and Pumped Hydro (PHES).

It appears the Energy Roadmap should have been called the Electricity Roadmap as that is the primary focus and there is very little focus on agriculture playing a major role in generating electricity or other bioenergy products.

However, the Roadmap failed to acknowledge or recognise the potential contribution that sugarcane bagasse and trash and tops could make if they were totally dedicated to electricity co-generation especially if funding was provided to upgrade boilers and for the electrification of the Mills, as well as improved efficiencies. In total, the ASM prefeasibility study has demonstrated the potential for increasing cogeneration capacity to 835MW which could power 500,000 homes as well as increasing electricity to the National Energy Market by up to an additional 2.1- terawatt hours.

Finally, on the last page of the Energy Plan, which is dedicated to the SIDF, there is finally a reference to how the Government wishes to "explore" (not necessarily invest in) how the biofuels industry can expand, while working closely with the agricultural sector to boost its output to \$30 billion by 2030 (one of Government's short-term, core commitments).

Also, on the last page, is a short discussion under the heading of "innovation" explaining that "Bioenergy" is a form of renewable energy generated from biomass. It states that this can include crops like sugarcane, sorghum and corn; forestry residues and agricultural byproducts such as bagasse and straw. Sugarcane is currently noted (along with batteries, diesel and other smaller sources) as contributing only 1% of all electricity produced

Applications to SIDF funding are already open and one potential applicant indicated to QCAR that there are challenges associated with accessing the funding where the project has a lead time outside the short timeframe required for the commencement of the project seeking funding, as their project like many others in the bioenergy space could take up to 3 years to be ready to commence.

So, while there are specific funding commitments made in the plan, as noted below, there appear no such funding commitments in the Plan that agriculture would be eligible to access in helping to meet this great state's energy needs.

- 2.4 billion – CopperString - including 2 billion over next 4 years and 400 million 25/26
- 1.6 billion Electricity Maintenance Guarantee over 5 years investment in state-owned coal, hydro and gas assets
- 400 million Queensland Energy Investment Fund – energy supply and firming projects
- 400 million investment in renewables – solar, hydro and batteries
- Cost saving of 26 billion by running coal assets to technical life V accelerated closure schedule
- 225 million - CopperString – Flinders Substation – Eastern Link - connect to NEM
- 200 million - North West Energy Fund
- \$10 million to catalyse further investment into community batteries
- Net zero by 2050 remains a govt target

If the Queensland Government is serious about the SIDF, it must then consider what mechanism it needs to establish where a medium to long-term commitment can be made for the development of the Bioenergy industry in Queensland.

QCAR for example, through the \$3 billion QBIF, proposes that either the SIDF's name be changed to the QBIF or alternatively a specific purpose fund be established with the name of Queensland Bioenergy Infrastructure Fund with a direct focus on front-facing agriculture as the driver to achieve the objectives of the QBIF through the Biofuels, Biomedical and Defence priority industries.

Lastly, it needs to consider what incentives it would need to provide to encourage both infrastructure upgrades and renewals and expansion of land under sugarcane to spur on the development not only of bioenergy industries but increased agricultural production generally to assist the State Government in meeting its stretch target of reaching 30 billion in agricultural output by 2030.

Drawn from domestic and overseas examples of how Governments have established and scaled up investment in the Bioenergy industries, there are a number of ways, in addition to capital infrastructure funding, the State Government can commit to this process of enabling sugarcane to become the platform to lead the underpinning of a world-leading, sugarcane-based, bioenergy industry.

Grants could be made available to encourage new entrants into the sugarcane industry. The grants should be appropriately weighted against the first home buyers grants. With a reduced pool of applicants and viable startup farm sizes the grants could be around \$75,000-\$150,000. With the average age of existing sugarcane farmers into the high 50s and many of whom do not have family

succession arrangements in place, these grants offer an invaluable opportunity for new and younger participants into the sugarcane industry.

The above grants could also be assisted by the inclusion of state Stamp Duty relief through an exemption as is currently being offered to first home owners in Queensland.

The costs of operating a sugarcane farming enterprise are exponentially increasing. Some of the largest farming costs include electricity and water, especially in the Burdekin. There is an opportunity to offer electricity and water rebates for existing growers to increase their land under sugarcane and for new growers to acquire land for sugarcane production purposes. The rebates can easily be linked to usage and production output as measured by the sugarcane mills or water and electricity distributors.

To assist with the acquisition of farming enterprises used in the production of sugarcane and other renewable crops grown on the sugarcane land that can be used in bioenergy production, eligible borrowers should be able to access subsidised or concessional loans with Government guarantee backing for the deposit and principal sums.

Recommendations

6. That the State Government include in the 2026/27 budget funded programs in respect of the following initiatives:
 1. first farm owner's grants,
 2. stamp duty exemptions,
 3. fuel and energy rebates,
 4. subsidised/concessional loans.

4. Policy and funding mechanisms to de-risk investment in cogeneration and biofuels by manufacturers and growers, including examples of successful policy implementation from overseas and other industries.

Regulation is required to encourage and facilitate investment and reduce risk and uncertainty. This should apply equally to both manufacturers and sugarcane farmers as both parts of the supply chain will be in need of upgrades to existing infrastructure.

While there is no need to amend the current sugarcane payment formula, or marketing choice or the Federal Sugar Code of Conduct, in a world where competition existed (unlike the sugarcane industry where Millers have a regional monopoly), there would be a re-negotiation of the Cane Supply Agreement to

include a reference to bioenergy products and an appropriate revenue sharing arrangement to recognise and protect the contribution being made by sugarcane farmers as an integral part of the supply chain in the bioenergy production line.

QCAR has also been invited onto a Government industry consultation group which it is hoped will inform Policy refinement or otherwise evaluate the outcomes of research and modelling.

Brazilian Proálcool (known as the National Alcohol Program) was officially implemented on November 14th 1975 and the first phase (1975-1979) was characterized by blending mandate and subsidies, involving the entire ethanol production chain and consumption. At that moment, the ethanol production was totally based on molasses (sugar industry). In 1992, the ethanol production reached over 12.7 billion litres, against 0.6 billion litres produced in 1975. (An historical analysis of the Proálcool can be found in the following [paper](#)). The evolution of ethanol production in Brazil can be directly related to Government policies, investment, subsidies and mandates.

Canada is an example of how despite the various provinces benefitting from large scale renewable energy projects with hydroelectric schemes across Canada initially delivering electricity at low cost, poor policy has seen the cost of electricity increase over 150% in the last couple of years resulting in people living in “energy poverty”. The other big shadow hanging over Canada is Ottawa’s “Clean Electricity Regulations,” which mandate that by 2050, 100 per cent of Canada’s electricity must come from clean energy sources.

Recommendation(s)

7. That the State Government Policy recognise the sugarcane industry’s potential to contribute to bioenergy industries (including electricity) and to promote and incentivise participants from sugarcane farmers, through the supply chain, to end users.

5. The R&D agenda to underpin a world leading sugar-led bioenergy industry.

Sugar Research Australia’s - Research Mission 3 – Diversified and Adaptable - *Support the objectives of the Sugar Plus Roadmap to develop diversification opportunities.*

RESEARCH MISSION 3

Diversified and Adaptable



Support the objectives of the Sugar Plus Roadmap to develop diversification opportunities.

- 3.1 Developing complementary biofutures and circular economy opportunities
- 3.2 Developing varieties and complementary farming systems to support the bioeconomy

While there is the desire, SRA is waiting for a clear direction from the sugarcane industry and where and when to direct its biofuels research focus. This is evidenced by SRA's expenditure of \$0.4M, essentially a series of webinars, on this Research Mission as reported in the 2023-24 Annual Report.

However, at the varietal selection level in each region and across the state, the Millers are having a significant input into the varieties grown in the industry which are primarily skewed toward high sugar varieties, required for sugar production, rather than the high fibre varieties preferred in bioenergy (v biofuel as energy includes electricity generation) production. Plant breeding strategies remain focussed on sugar production.

QCAR recognises as an impediment, should the State Government simply look to SRA to re-allocate the compulsory federal sugarcane industry levy paid to SRA, which includes a 50% contribution from the Millers who may stand to gain/lose with the Sugarcane Industry diversifying into other products and industries. The success of any diversification will be dependent upon clear Government policy and a commitment to a scaled-up investment in regional infrastructure projects.

QCAR wishes to emphasises the importance of increasing sugarcane production, consistent with the State Government's commitment to increasing the value of agricultural production and to expand into the new bioenergy industries and products and not seek to redistribute existing sugarcane production.

The Committee is requested to note the dire warning of the Australian Sugar Manufacturers, that a Business As Usual approach is no longer the recommended course of action

Recommendation

8. Through long-term commitments of the State Government by way of investments in a QBIF as well as targeted subsidies, exemptions, incentives, rebates, loan guarantees, tax credits and grants which focus on R&D in the bioenergy industry, uncertainty in an establishing market can be managed.

6. Strategic land use and regional development considerations affecting cane growing and sugar manufacturing capacity.

Further expansion of the industry is needed generally. Currently, the focus would need to be on co-location in the same region as an existing mill but longer-term there is an opportunity for expansion into new areas especially if new water supplies emerge in north and western Queensland (ie Bowen, Richmond, Emerald, etc). Local Government or State Government action to re-zone properties within a set radius of a Mill would not work in light of the close proximity of Mills to cities.

However, there is an opportunity to establish bio-precincts, including electricity micro grids, in close proximity to existing Milling sites for the production of bioenergy products in large quantities. Government incentives could be offered to invest in such infrastructure and operations.

There is potential for bioenergy farms to be established in rural and remote areas of Queensland for sugarcane. The United Kingdom has 226 biomass plants generating 1,583.7 MW of renewable power and contributing significantly to the country's bioenergy, using wood and agricultural waste pallets.

Recommendation

9. That the Government give consideration to establishing bio-precincts, including electricity micro grids, in close proximity to existing Milling sites to be used for the production of bioenergy products in large quantities. Government incentives could be offered to invest existing operators or new investors to acquire such infrastructure and undertake such operations.

7. Benefits for growers in diversification opportunities.

Sugarcane farmers are no stranger to diversification. As price takers (as compared to price setters) in the sugarcane industry, Sugarcane farmers have needed to diversify what happens on their fallow land to restore productivity to the land, take advantage of an alternate cash or non-cash crop and in so doing significantly reduce the soil and nutrient runoff and thereby the need to replace such nutrient, as part of their commitment to the environment. However, there is no coordination of whether an alternate crop is grown, and if so then which alternate crops should be grown at scale within a region or beyond. Those decisions are solely determined by the farm owner/operator. The opportunity for a sugarcane farmer to consider growing an alternate crop which aligns with state or national priorities, including the State Government's "biofuel priority" under the SIDF, with the offer of a premium, increased viability, increased

environmental protections and sustainability, could be an attractive proposition to a sugarcane farmer.

While it is an opportunity for farmers to expand their businesses, if the return is viable, there can be little mistake that, to place all of your eggs in one or more new baskets in untried markets with unsettled prices and largely unknown costs, represents a risk that could far outweigh the benefits of committing your family's wellbeing away from sugar production.

For sugarcane farmers to be able to explore and hopefully financially gain from not having all your eggs in the one basket, being sugar production, and instead being able to invest a proportion of your production capability toward a bioenergy product, such as electricity generation or ethanol, would be of great benefit.

We echo the sentiments of several submissions already made to the PIRC declaring a strong desire, if not a demand, for any investors applying for infrastructure funding, to be able to demonstrate how sugarcane farmers will be an upfront recipient of the benefits of any bio-energy by-products produced, on a Better Off Overall Test basis.

Recommendation

10. The State Government should offer incentive funding which encourages the coordination of large scale, alternate crop, production in fallow blocks or on other land acquired for the purpose of expanding agricultural production and meeting State Energy priorities including sugarcane farming, which aligns with state or national priorities, including the State Government's "biofuel priority" under the SIDF.

8. Consideration of food versus fuel.

Australia does not have energy security in transport fuels, including for the ADF. It is understood that Fuel supplies, which come from Singapore, are often run down to below a couple of months supply, leaving our country exposed when the supply chain breaks down. Sugarcane offers an increased, reliable, alternate, domestic supply for diesel and SAF which significantly reduces the risk to our nation's sovereignty.

Any expansion into other geographic regions, for biofuel, would assist national fuel security. If that competes with or substitutes another crop or industry, QCAR envisages that as an export replacement and not a negative impact on domestic food security.

Recommendation

11. QCAR believes that the State Government should commit to, first and foremost, to expanding existing agricultural production in order to secure the nation's sovereignty but instead of being at the expense of domestic food production it should be as an export replacement.

Australian Sugar Producers Recommendations

QCAR wishes to acknowledge and support a number of the recommendations made by the Australian Sugar Manufacturers but on the proviso that Sugarcane Farmers or more generally, Agricultural suppliers, are mandatorily consulted about, and a fair price determined for the supply of, product that is used to generate bioproducts. The Miller or potential investor, to access Government funding must be able to demonstrate that "in good faith", negotiations have taken place and a consensus decision reached. The process may require the development of an industry-wide formula and maintained through negotiation, or if required, arbitration, not too dissimilar to the Cane Payment formula negotiated in a Cane Supply Agreement or a Molasses Gain Sharing Deed, both of which involve the supply of sugarcane to a Mill.

QCAR is willing to engage with other potential new investors and build on existing relationships with existing as part of a proposed mandatory negotiation process and ability to demonstrate such consultation and negotiation as a requirement to gain access to funding, subsidies or concessions from the State Government.

ASM's recommendations supported by QCAR with provisos as shown, are:

1. To ensure that there is a shovel ready pipeline of sugar biofuels, biogas and bioenergy projects are available when demand side policies are implemented, the ASM seeks Federal and Queensland *government funding towards feasibility and final investment decision studies*. (\$9 million in total funding by Queensland Government).

Proviso

QCAR supports this recommendation, on the proviso that the funding is available through the QBIF or the SIDF whether or not it is renamed as the QBIF

2. To ensure that Queensland gets its rightful share of Federal Government funding on industry policy and low carbon liquid fuels, we recommend *strategic enabling investments in shovel ready sugar industry projects* that have the capability to secure federal and private investments - (\$20 million funding from the Queensland Government).

Proviso

QCAR supports this recommendation for this strategic enabling funding for sugarcane industry projects, on the proviso that the funding is available through the QBIF or the SIDF whether or not it is renamed as the QBIF

3. *Funding a pre-feasibility for a sugar biofuel supply chain with the Australian Defence Force (ADF)* in Queensland, potentially creating a cost effective and reliable fuels supply chain for the ADF (\$1 million funding from the Queensland Government).

Proviso

QCAR supports this recommendation, on the proviso that sugarcane farming representative organisations, including QCAR, are involved in the pre-feasibility process.

4. Co-investing with industry and Federal Government towards *an R&D capability for advanced sugar manufacturing*. (total 24 million)(\$6 million funding from Queensland Government)

Proviso

QCAR supports this recommendation, on the proviso that the purpose of the funding is not limited to “advanced sugar manufacturing” and instead is broadened to include an R&D capability for bioproducts, with an initial focus on bioenergy.

5. Queensland and Federal governments *include cane rail infrastructure in national disaster recovery support*, to help maintain a network that will be central to feedstock aggregation.

Proviso

QCAR supports this recommendation along with the ASM's call for the establishment of a Cane Rail Fund, on the proviso that the Fund is established and jointly funded through State and Federal Government to ensure the existing cane railway footprint is not only retained but expanded to provide for: increased sugarcane production; the supply of other bioenergy feedstock; as well as opening up access to the rail network as proposed by the ASM

6. Queensland Government advocate with industry for *a national biofuels drop-in mandate* with requirements for a portion of the mandate to be filled with local feedstocks and a strong weighting in preference of feedstocks with the lowest carbon intensity profile (no cost to Queensland Government).
7. Assist with *access to finance* for sugar manufacturers with a cooperative structure.
8. Noting the significant benefits of cogeneration, explore opportunities for *offtake agreements with sugar manufacturers*, with either fixed or floor pricing, that mitigates exposure to negative market prices.
9. Delivery of these policy reforms as part of a *sugar industry diversification strategy*, similar to the National and Queensland timber industry strategies.

Proposal for a Queensland Bioenergy Infrastructure Fund

Overview

The Qld Government is committed to establishing Bio-energy industries

Currently, the Government's Primary Industries and Resources Committee has initiated an *Inquiry into Sugarcane Bioenergy Opportunities in Queensland*

Its Terms of Reference include:

4. Policy and Funding Mechanisms to de-risk investment in cogeneration and biofuels by manufacturers and growers, including examples of successful policy implementation from overseas and other industries.

This proposal outlines a Policy and Funding Mechanism to de-risk investment in cogeneration and biofuels by manufacturers and growers as part of the Energy priorities of the State Government.

The Federal Government's Northern Australia Infrastructure Facility (NAIF) has been used as a guide to propose the establishment of a Queensland Bio-energy Infrastructure Fund. (QBIF)

NAIF	QBIF
Purpose Federal Government's flagship financing agency in northern Australia dedicated to delivering economic and social growth	Purpose Queensland Government's flagship financing agency in Queensland dedicated to leading the establishment and further development of various bioenergy industries through infrastructure projects which deliver economic, national security and environmental benefits to Queenslanders, Queensland, Australia.
Benefits - to provide financing support to businesses by funding and encouraging private-sector investment into projects that will facilitate sustainable economic growth.	Benefits - Opportunity to lead the world in bioenergy industries through renewable feedstocks - Opportunity to assist with key supply chain vulnerabilities - Opportunity to protect and preserve sovereign security - De-risk eligible bioenergy projects

	- Encourage foreign investment - Require the sharing of value-adding processes and products with primary producers and agricultural suppliers
Sector beneficiaries - Ag and Water - Energy (renewables Generation) - Financing Partnerships - Resources - o Critical Minerals - o Fertilisers - o Other - Social Infrastructure - Transport and Logistics	Sector beneficiaries - Bioenergy industries (renewables) - o Electricity (Sugarcane, Hydro, Wind, Solar?) - o Ethanol - o Diesel - o SAF
Stakeholder engagement groups - Indigenous	Stakeholder engagement groups - Primary producers (including Sugarcane farmers) - Other Suppliers
Mandatory criteria 1. The proposed project involves construction or enhancement of Northern Australia economic infrastructure 2. The proposed project will be of public benefit 3. The project is located in, or will have a significant benefit for, Northern Australia 4. The loan will be able to be repaid, or refinanced 5. Indigenous engagement strategy 6. If an Alternative Financing Mechanism is provided in the form of equity or equity-like investment, this will generate a return to Government.	Mandatory criteria 1. The proposed project involves construction or enhancement of Queensland economic infrastructure to drive the attainment of the Government's Energy Plan's objectives 2. The proposed project will be of public benefit and have as a primary focus, addressing State and National bioenergy Policy priorities such as costs of living and defence sovereignty 3. The bioenergy project is located in, or will have a significant benefit for, Queensland and its regional communities 4. The loan will be able to be repaid, or refinanced 5. Primary Producer/Supplier engagement/participation strategy to ensure there is

	appropriate financial reward and/or equity participation built in upfront 6. If an Alternative Financing Mechanism is provided in the form of equity or equity-like investment, this will generate a return to the State Government.
Characteristics of NAIF funding Minimum investment size for NAIF debt The minimum investment is \$10 million Financing mechanisms Loans are the default financing mechanism considered for all funding applications. However, NAIF may consider using alternative financing mechanisms (for example, a guarantee) where it may be more appropriate for a specific project, or where it is necessary to encourage private sector participation in financing a project. NAIF does not, and cannot under the Act, provide equity or grant funding to a project. Equity finance, subject to a cap of \$50 million per investment and a minimum investment size of \$5 million; NAIF can invest in non-controlling equity stakes.	Characteristics of QBIF funding Minimum investment size for QBIF Debt The minimum investment is \$10 million Financing mechanisms Loans are the default financing mechanism considered for all funding applications. However, QBIF may consider using alternative financing mechanisms (for example, a guarantee) where it may be more appropriate for a specific project, or where it is necessary to encourage private sector participation in financing a project. QBIF does not provide equity or grant funding to a project. Equity finance, subject to a cap of \$100 million per investment and a minimum investment size of \$5 million; NAIF can invest in non-controlling equity stakes.

Interest rates and concessions The interest rate and payback period for NAIF's loans is determined on an individual basis for each project. However, NAIF does have the ability to provide concessions on the basis that: • such concessions are limited to the minimum necessary for a project to proceed; and • any interest rate or other concession that NAIF may offer cannot be below the combined cost of the Commonwealth Government's borrowing and administration costs. Security and risk profile The type of security required for a project is determined on a project-specific basis.	Interest rates and concessions The interest rate and payback period for QBIF's loans is determined on an individual basis for each project. However, QBIF does have the ability to provide concessions on the basis that: • such concessions are limited to the minimum necessary for a project to proceed; and • any interest rate or other concession that QBIF may offer cannot be below the combined cost of the State Government's borrowing and administration costs. Security and risk profile The type of security required for a project is determined on a project-specific basis.
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Chairman

Queensland Cane Agriculture and Renewables Ltd



Chairman

Australian Cane Farmers Association Ltd