Sugarcane Bioenergy Inquiry 2025

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3 October 2025

Mr Stephen Bennett MP
Chair
Primary Industries and Resources Committee
Member for Burnett
Parliament House
BRISBANE QLD 4000

PIRC@parliament.qld.gov.au

Dear Mr Bennett

RE: Inquiry into sugarcane bioenergy opportunities in Queensland

Mackay Regional Council welcomes the opportunity to make a submission to the Queensland Parliament's Primary Industries and Resources Committee inquiry into sugarcane bioenergy opportunities. Mackay Regional Council strongly supports the Inquiry's objective to explore the benefits of sugar cogeneration and identify opportunities to increase bioenergy production from sugar.

The Mackay Region is one of Australia's leading sugar regions and already a key resource in bioenergy production. Mackay and Queensland have a unique opportunity to lead in sugarcane-based bioenergy, leveraging its established sugar industry and regional infrastructure. Developing this sector will deliver renewable energy, advanced biofuels and new revenue streams for growers, while supporting jobs and new industry opportunities.

With targeted policy, finance and infrastructure settings, sugarcane by-products can deliver scalable, dispatchable cogeneration and advanced liquid fuels, and the Mackay Region is ready to play an integral role in supporting Queensland's energy reliability, regional jobs and export potential.

This vision is entrenched in Mackay's new Economic Development Strategy 2025–2030 (EDS). The EDS identifies biofutures as a flagship growth opportunity, leveraging our world-leading sugar industry and abundant biomass to catalyse new value chains in renewable power and advanced bio-based fuels and products.

Mackay Regional Council submits that:

(1) The Mackay Region's sugar cane industry and infrastructure network provide a strong platform for cogeneration and advanced biofuels.
(2) Clear and focused strategic alignment in Mackay and the Greater Whitsunday region is already established to support the expansion and diversification of its bioenergy industry.
(3) Strategic land use plans are in place to capture investment in biofutures and supporting services.
(4) Realising opportunities requires enabling infrastructure and policy settings that reduce investment risk and accelerate private capital into precincts already identified for these uses.

(1) Mackay's sugar economy and energy opportunity

Mackay's cane production, milling assets and transport logistics provide a strong platform for cogeneration and advanced biofuels.

Racecourse Mill, operated by Mackay Sugar, is one of three major sugar mills servicing the Mackay region and forms part of the largest raw sugar milling company in Australia. The mill produces 400,000 tons of refined sugar annually. The mill hosts a 38 MW bagasse-fuelled cogeneration plant, providing over a third of Mackay's electricity. The plant uses by-products from sugarcane processing to produce renewable electricity and process heat. This facility not only powers mill operations but also exports surplus electricity to the grid, contributing to Queensland's renewable energy mix.

The region is home to critical enabling infrastructure such as QUT's Mackay Renewable Biocommodities Pilot Plant, which provides a nationally significant platform for research, development and scale-up of bio-based technologies. This facility supports pre-commercial trials for advanced biofuels, biochemicals and bioproducts, bridging the gap between laboratory innovation and industrial deployment. Its presence in Mackay strengthens the region's credentials as a biofutures hub by offering local industry and investors access to cutting-edge expertise, pilot-scale processing and collaborative opportunities with universities and technology developers. When combined with existing sugar milling assets, cogeneration capacity at Racecourse Mill and the planned activation of the Mackay State Development Area (SDA), the pilot plant positions the Greater Whitsunday region to accelerate the commercialisation of biomanufacturing projects and attract new investment into Queensland's emerging bioeconomy.

Wilmar's Sarina BioEthanol distillery currently produces around 60 million litres of ethanol each year, making it one of the largest biofuel facilities in Queensland. The plant converts molasses, a by-product of sugar milling, into renewable ethanol for domestic fuel blending

and industrial applications. With targeted investment and supportive policy settings, the Sarina facility has the potential to significantly increase output, positioning it as a key contributor to Queensland's energy security strategy. Expansion could enable the production of advanced biofuels for Defence and emergency fuel reserves. Leveraging existing logistics infrastructure and proximity to the Mackay SDA, the distillery is well placed to integrate with broader biofutures initiatives and accelerate the transition to a low-carbon fuel supply chain.

Mackay's proximity to Defence supply chains and North Queensland ports creates a timely pathway for renewable diesel and Sustainable Aviation Fuel pilots. The SDA provides the long-term industrial footprint to cluster cogeneration, advanced biofuels and bio-products manufacturing. Council's EDS appropriately prioritises activation of the Racecourse and Rosella industry precincts via enabling-infrastructure planning and investor-readiness. Aligning the staged SDA upgrades with transmission and transport projects further reduces risk, supports jobs and localises supply chains.

(2) Strategic Alignment

Mackay's new EDS identifies biomanufacturing and biofutures as a core growth platform. The Mackay SDA is highlighted as a transformative opportunity for biomanufacturing and renewables, with activation of the Racecourse Mill and Rosella precincts central to investment attraction. Planning for infrastructure investment and funding pathways is needed to ensure these sites are investor-ready. The opportunities identified in the EDS can be harvested through the 4 priorities identified: Advocacy and Leadership, Enabled Economic Environment, Workforce Development, and Precincts and Property.

The Greater Whitsunday Biomanufacturing Blueprint 1.0 (the Blueprint) sets a region-wide pathway to grow a modern biomanufacturing ecosystem across the Mackay Isaac Whitsunday (MIW) area. It leverages abundant sugarcane feedstocks, existing milling and cogeneration assets and nationally significant road, rail and port logistics. This aims to attract investment in bioenergy, advanced biofuels and bio-based chemicals.

In Mackay, the Blueprint aligns with the activation of the Mackay SDA to co-locate bioenergy producers with downstream processors, using Racecourse's cogeneration platform and adjacent industrial land to reduce integration costs, accelerate decarbonisation, and scale regional jobs and exports.

(3) Strategic Land Use Plans

The Mackay State Development Area (SDA) was declared in 2024. This sets aside 137Ha of land next to the Racecourse Mill and 770Ha of land at Rosella to support diversification of the regional economy and new industries that add value to sugar cane production, especially to support the establishment of industries critical to the global shift to net zero, such as biomanufacturing, renewable energy and sustainable aviation fuel. The Mackay SDA provides a long-term, investment-ready industrial footprint across two precincts:

- Racecourse - near-term activation leveraging the adjacent mill, cogeneration and existing utilities; and
- Rosella - medium to long-term growth subject to enabling infrastructure.

The SDA is designed to cluster biofutures, renewables and advanced manufacturing alongside established sugar and Mining Equipment, Technology and Services (METS) sector strengths, with coordinated land-use and infrastructure planning led by the Office of the Coordinator General. Priority actions include a staged infrastructure plan, including water, wastewater, energy capacity and road access, and aligned funding pathways to derisk early movers, integrate with regional logistics and transmission upgrades, and accelerate jobs and private capital into the region. Co-location of the mill and the SDA allows clustering of generation, process heat users and bio-manufacturing, improving project viability.

In addition, council has identified industry investigation areas in its planning scheme to provide additional land for future industrial development. These areas require detailed infrastructure investigations and investment in trunk infrastructure to facilitate private investment and ongoing industry growth.

(4) Enabling infrastructure and policy settings

Realising opportunities requires enabling infrastructure and policy settings that reduce investment risk and accelerate private capital into precincts already identified for these uses. To ensure the successful development of the Mackay SDA, it is essential to implement a comprehensive and phased infrastructure delivery plan. This plan should sequence trunk water, wastewater, energy capacity and road access. Without this sequencing, precinct-level infrastructure gaps in the SDA and adjacent industry areas elevate delivery risk and deter early movers.

In summary, funding for the planning and delivery of trunk infrastructure is essential to activate the Mackay SDA and surrounding industry precincts. A staged delivery plan coordinated advocacy and strategic alignment of energy and transport initiatives will not only reduce connection and logistics risks but also strengthen the region's capacity for biofutures investment and industrial growth. By taking these steps, Mackay can unlock new opportunities in renewable energy and advanced bio-manufacturing, fostering resilient communities and sustainable economic progress.

Yours sincerely,

Gerard Carlyon
Chief Executive Officer