



30 November 2023
Department of Infrastructure, Transport
Regional Development, Communications
And the Arts
GPO Box 594
CANBERRA ACT 2601

RE: SUBMISSION TO THE AVIATION GREEN PAPER

About Townsville Enterprise

Townsville Enterprise is the peak economic development body and destination management organisation for Townsville North Queensland. We represent the five major local government areas of Townsville, Burdekin, Charters Towers, Hinchinbrook and Palm Island and aim to attract both government and private investment to the region. For over 30 years, Townsville Enterprise has played a critical role in the economic development of the region through strong political advocacy, investment attraction, tourism development and by promoting Townsville North Queensland as an attractive place to live, visit and invest. We are a not-for-profit organisation funded by over 400 members across the region both businesses and local government.

Our purpose is to secure the future of Townsville North Queensland.

Townsville Enterprise would like to thank the Department of Infrastructure, Transport, Regional Development, Communications and the Arts for the opportunity to provide feedback on the Aviation Green Paper.

Townsville Enterprise makes the following recommendations in support of the region and its members to enhance the progress of the aviation sector as an industry and service supporting regional Australians.

1. Prioritise North Queensland as the regional hub for the manufacturing and distribution of Sustainable Aviation Fuel's (SAF)
2. Introduce mandates and extend industrial development support options for the on-shoring of SAF manufacturing, and subsidies to ensure that SAF's are competitive with non-renewable fuels
3. Leverage the aviation training and fuel requirements of the Australian Defence Force to anchor investment in aviation skills training and the manufacturing of SAFs.
4. Continue to support regional airports to provide appropriate infrastructure for the growth of airline capacity and the general aviation industry and extend assistance to privately operated airports.



We hope that our response will be useful in guiding and informing the policy development for the vitally important aviation industry. Townsville Enterprise looks forward to continuing to engage with the Department in the rollout of the Aviation White Paper over the next year.

Yours sincerely,

Paul Holden

Director – Regional Development and Investment



Stimulating the Development of Sustainable Aviation Fuel Industry in Regional Queensland

Most major global airlines have committed to achieving net zero by 2050. To achieve this, a strong commitment to the development of SAF globally and in Australia is critical. Australian airlines more than most international carriers will need to establish or support investment in SAF and their associated supply chains to deliver net zero outcomes.

Australian airlines import 90% of their fuel requirements and according to the Sustainable Aviation Fuels Alliance, demand is anticipated to increase 75% out to 2050. The establishment of a sovereign SAF industry will support the aviation sector on its path to net zero but also provide a source of liquid fuel supply in the event of liquid fuel supply chain disruptions and international conflict.

As identified in the Aviation Green Paper, regional communities will play a key role in the decarbonisation of the aviation sector. Townsville Enterprise agrees with the findings outlined in this paper regarding the importance of sustainable aviation fuels as a clean, renewable energy source that can replace the demand of non-renewables fuel.

North Queensland is the ideal location for the production and distribution of SAF's. The North Queensland region produces more energy rich feedstock in the form of sugar cane, than any other region in Australia. Overall, the Burdekin and the Hinchinbrook regions produced over 11 million tonnes of sugar in 2020-21, which is exported through the Port of Townsville. The diversification of downstream value adding industries utilising Australia's cane crop will support the expansion of agricultural producing communities and catalyse the development of additional irrigation areas in North Queensland that can be supported by abundant water resources located in North Queensland's Burdekin catchment.

As established in the Aviation Green Paper, SAF provides the opportunity to decarbonise hard-to-abate emissions from the aviation industry. To ensure that this emerging industry is able to compete with non-renewable fuel alternatives, Townsville Enterprise supports further consideration of demand side intervention including mandates to support the development of the fledgeling SAF industry. These mandates would need to do more than simply mandating the uptake of SAF usage but will also need to mandate an amount of usage sourced from domestic suppliers. These mandates will need to be coupled with government support to bring forward domestic manufacturing to supply the market created. Additionally, reviewing the application of excise arrangements to SAF to encourage its uptake should be considered. The strategic environmental and sovereign security benefits offered by this industry warrants government intervention to accelerate its establishment.

Inaction poses a critical risk to Australia's aviation industry and in a rapidly evolving landscape with a clear direction towards decarbonisation, Australia is at risk of being left behind as a result of delayed action. The Government's Net Zero Roadmap & Action Plan should consider the refinement of SAF in North Queensland, due to its proximity to the renewable feedstocks and regional airports.



SAF Proponent: Jet Zero

Jet Zero is an Australian bioenergy company established to produce SAF's. In 2023, it was announced that Jet Zero entered into an agreement with The Qantas Group and Airbus aiming to accelerate the establishment of the SAF industry in Australia. The company has identified the opportunity in North Queensland to establish a new SAF refinery in the region, with the prevalence of the sugar industries and the connection to existing infrastructure such as the port access and rail.

Emerging SAF Opportunity: RegenAqua

Pacific Biotechnologies Australia (Pacific Bio) have developed a commercial wastewater treatment plant in North Queensland (RegenAqua), with the project benefits extended to protection of the Great Barrier Reef and supporting the circular economy. Additionally, research undertaken by the company has found that the river grass grown from RegenAqua is an ideal input into high energy biofuels. When RegenAqua is adopted at scale, large amounts of carbon river grass are grown and harvested. Pacific Bio in collaboration with Australian and international universities has shown that it can be converted to bio crude using Hydrothermal Liquefaction and from there in biofuels like SAF.

Renewable Energy and Hydrogen Hub

North West Queensland is also benefitting from significant investment into renewable energy projects along the corridor between Townsville and Mount Isa. North West Queensland has some of the highest grade wind and solar resourced on Australia's eastern seaboard, with an estimated capacity of 33GW of renewable energy. The announcement of the Queensland Government's plan to purchase and own the CopperString project has attracted even more interest into the region. The high-voltage transmission line will unlock renewable energy projects in the region and provide connection to the National Electricity Market (NEM).

Access to world-class wind and solar resources has allowed North Queensland to emerge as a national hydrogen hub, with Townsville Enterprise leading the proponent working group, North Queensland Hydrogen Consortium (NQH2). The consortium includes all of the major hydrogen proponents in the region. Edify Energy is an Australian-based company looking to establish the first 17.5MW Siemens Energy electrolyser with 21MW solar PV integrated behind the meter to produce renewable hydrogen for domestic industrial and transport application. The project is the first stage of a planned 1GW green hydrogen production facility.



Recommendation 1.: Prioritise North Queensland as the regional hub for the manufacturing and distribution of Sustainable Aviation Fuel's (SAF).

Recommendation 2: Introduce mandates and extend industrial development support options for the on-shoring of SAF manufacturing, and subsidies to ensure that SAF's are competitive with non-renewable fuels

Leveraging Strong Aviation Skills and SAF outcomes through the Australian Defence Force

North Queensland is uniquely positioned on the doorstep of the Southwest Pacific as Australia's natural theatre gateway for engagement, training and possible military operations in this vitally important region. Townsville North Queensland supports a comprehensive range of capability including air, land and maritime bases, advanced training ranges, port, logistics and the industry necessary for mobilisation, preparation, projection and sustainment of Australian or coalition forces.

The North Queensland region has received significant investment into the Defence industry, deploying new brigades to the region with commitments to upgrading existing infrastructure. The Defence industry is integral to the North Queensland economy as the largest industry contributor to Gross Regional Product (GRP).

In response to the Defence Strategic Review, the Army's armoured heavy vehicle fleet will be relocated from Adelaide to Townsville and its new Boeing Apache Attack Helicopter platform will be located in Townsville.

The presence of this fleet, coupled with the Army's desire to establish an Army Aviation Centre of Excellence in Townsville presents dual opportunities for Government to support the industry, both in the training of future workforces for both defence aviation and the sector more broadly as well as in the uptake of SAF.

Boeing Defence Australia will work closely with the ADF to stand up a skilled workforce to support and maintain the Apache Helicopter Platform for the ADF. This will require significant investment in establishing training infrastructure and a pipeline of skilled workers who can be attracted to the industry because of diversified career pathways. The opportunity to leverage the ADF's requirement for skilled engineers and pilots to grow out a workforce training infrastructure for the domestic aviation industry in Townsville should be further explored by the Federal Department of Transport with the ADF.

Additionally, support for the development of a domestic SAF industry could be accelerated through the uptake of SAF by the ADF's aviation infrastructure. The recent Defence Strategic Review highlighted that Australia's defence capability was vulnerable to fuel supply disruptions and recommended further investment in more domestic supply, distribution and storage. There is a clear strategic opportunity for



the ADF to work collaboratively on the development and production of various SAF specifications to develop a secure sovereign fuel supply for military aircraft.

In North Queensland, there is a clear alignment between the establishment of the Boeing Apache Platform and the potential for supporting the development of an SAF that could be used to power this platform in future. The benefits to the ADF but also allied Defence Forces that use this platform can spark an entirely new industry in North Queensland.

Australian Singapore Military Training Initiative

The Australian Singapore Military Training Initiative (ASMTI) will build defence capability in the North Queensland Region and aims to enhance the bilateral relationship between the ADF and the Singapore Armed Forces. The ASMTI training locations will include the existing Shoalwater Bay Training Area and a new training area, which is currently under construction near Greenvale in the Charters Towers region.

At full maturity ASMTI will see up to 14,000 Singapore Armed Forces personnel conducting unilateral training for up to 18 weeks. Importantly, the ASMTI presents both an inbound aviation development opportunity for North Queensland as well as additional demand for military grade SAF uptake given Singapore Armed Force's use of the Boeing Apache helicopter platform.

Recommendation 3: Leverage the aviation training and fuel requirements of the Australian Defence Force and its international alliances to anchor investment in aviation skills training and the manufacturing of SAFs.

Support for Regional and North Queensland International Aviation Opportunities

The ASMTI project will generate increased demand for the establishment of direct international flights between Townsville and Singapore to support VFR travel (visiting family and relatives) for those Singaporean personnel stationed in Australia. Additionally, business travel will also rise as a result of the ancillary services associated with the ASMTI project.

The ASMTI and the increase in inbound and outbound travel demand between Townsville and Singapore can stimulate the opportunity for direct flights between the two cities. Currently Townsville Airport has international airport status, however there are no commercial international routes operating from the airport. This is a critical growth opportunity for the attraction of international leisure and business visitation to the Townsville North Queensland region.

Townsville is the commercial hub for Northern Australia, and with \$28 billion in committed projects in the pipeline over the coming decade, we are expecting significant growth in business travel to the



region. Townsville has several international companies with either offices or projects based in the region, which will continue to drive demand for international routes to the region's key markets.

North Queensland's connection to South-East Asia also extends through the education sector, with James Cook University's only international campus located in Singapore.

Townsville is also the home of Queensland's largest Zinc refinery, Sun Metals. The parent company of Sun Metals is Korea Zinc, the largest zinc, lead and silver producer in the world. Sun Metals is an important contributor to the North Queensland economy, and their investment has resulted in a strong connection between Korea and Townsville's business community.

Additionally, Australian energy company Bravus Mining & Resources also operates out of North Queensland, with their office located in Townsville and the Carmichael Project located in the Galilee Basin. Bravus is part of the global Adani Group which has entrenched relations between North Queensland and India.

Townsville North Queensland is also emerging as a hub for the processing and export of critical minerals, and the gateway for the nationally significant North West Minerals Province. Strong interest has been expressed from both Korean and Japanese market in off-take agreements and investment into upcoming critical minerals projects.

In 2023, Townsville Enterprise conducted an Aviation Survey through its membership base to identify trends in business travel. Responses for international travel demonstrated that the most popular destination was Singapore (55%), and a further 25% claimed they travelled to Singapore once a quarter. Other common international markets included USA (28%) and New Zealand (24%).

Government Support Programs for Regional Airports

Airports support domestic and international passenger movement and provide connection to communities, people and markets that deliver significant economic benefits to the region through increased trade and tourism. In addition to the economic benefits, airports also have an important social impact on the communities in which they operate, facilitating improved health, education and liveability outcomes.

The significant distance between Australia's capital cities and regional centres as well as lack of other transport options (high-speed rail) have resulted in the need for affordable and reliable air travel.

A major challenge for regional airports is the financial feasibility of managing and operating aerodrome infrastructure without the support of government funding.

The Department has recognised the importance of regional airports, and Townsville Enterprise commends their decision to continue to finance a range of assistance programs for regional airports.



It's imperative that the Department extend their assistance programs to private airports. The only way to maintain viability of Australia's crucial air network and future-proof regional Australia is through additional government funding assistance programs for regional airports that support a thriving general aviation sector and provide important infrastructure that supports increased airline and route capacity.

Recommendation 6: Continue to support regional airports to provide appropriate infrastructure for the growth of airline capacity and the general aviation industry and extend assistance to privately operated airports.



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