



**26 November 2023**

To whom it may concern

## **RAAA Submission for the Aviation Green Paper**

The Regional Aviation Association of Australia (RAAA) welcomes the opportunity to make this submission as part of the Government's White Paper process, setting out its goals and policy priorities for aviation to the year 2050.

On net zero goals, the RAAA's members are ambitious but cautious, and are especially keen to learn how government will support the aviation industry through one of its most disruptive transitions. If we do not get this right, there is the potential to leave many organisations behind. These will be mainly from the regions, with a catastrophic flow-on effect on connectivity for regional communities. This is why proactive government support for this sector of the industry is critical for a successful transition to net zero for regional aviation.

The RAAA also welcomes a spotlight on skills for our industry—pilots, engineers, ground crew and other support personnel—and have put forward proposals to government to alleviate the critical shortages of licensed aircraft maintenance engineers (LAMEs) in particular. These are clear and present problems, not ones on the horizon, and are as important as net zero goals for our industry. We look forward to collaborating with government on attracting more engineers to the industry and ensuring a more efficient pathway for new engineers to reach their goals in a convoluted training system!

We will be holding our Convention in March 2024 and welcome government insights there, as industry will come together to discuss many of the priorities set out in the Green Paper. Only by working together will we be able to reach targets sustainably and ensure the aviation industry remains strong and healthy into the future.

Our submission follows this letter.

Best regards

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# RAAA – Aviation Green Paper response

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30 November 2023

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Cover Image: Aviation Australia  
Image above: Sharp Airlines

## Section 2: Likely future directions out to 2050

The Australian travelling public benefits from a safe and secure aviation industry. However, this safety and security can come at a greater cost to the industry at times when price sensitivities are acute.

***The government must support the industry by taking a national approach and removing some of the disproportionate costs borne by regional aviation.***

For example:

- » regional aviation is bearing the cost of enhanced regional airport security screening measures, which can cost up to \$40 per passenger, compared to less than a dollar at major capital city airports.
- » Access to examiners and inspectors in regional areas also causes cost pressures for regional aviation.

***This is why the RAAA believes that any measures to secure appropriation for our agencies and some of the security policies can be covered by domestic airfare levies.***

***These costs can also be recovered from the International Passenger Movement Charge (projected to deliver \$1.38B in 24/25), rather than these funds being redirected to consolidated revenue.***

**Noise and emission reduction can be achieved in many ways**, including adopting new technologies. However, RAAA members are increasingly concerned about airborne and ground delays at airports, with inefficiencies rife through inconsistent arrival profiles and surge capabilities following disruptions such as weather.

We are also increasingly concerned that government pressure on Airservices is causing certain flight paths to be prioritised to avoid noise over certain suburbs. In Brisbane, this new arrival resulted in an extra 14 nautical track miles, hardly a way to reduce emissions!

***Above all, flight path designs must be safe and efficient. They must also consider community sensitivities, but not to the extent that community sensitivities take priority over safety and efficiency in determining flight paths. This will be a major factor in developing final flight paths for Western Sydney Airport.***

**Our members welcome net zero with caution**. The cost of transitioning to net zero will be a bridge too far for some of our members, to the detriment of regional communities. New aircraft require extremely high capital expenditure, and many smaller organisations will simply not be able to make that investment.

***Government asset financing assistance will be crucial therefore in ensuring the transition to net zero can be achieved with minimal collateral damage.***

As with many industries, **skills shortages are affecting growth in our industry**. Pilot shortages are well documented. Of equal, and possibly greater concern is the shortage of aircraft maintenance engineers, licensed (LAMEs) and unlicensed (AMEs).

## Section 3.1: A competitive aviation sector

The RAAA supports a market-based, competitive environment. However, too many times we see smaller regional airlines commence a particular route, only to see one of the larger domestic airlines follow suit. Eventually the smaller airline cannot compete and withdraws, leaving the regional community at the mercy of the large domestic airline which can charge air fares at their will.

Take the case of Canberra-based Link Airways. Link announced new services using turbo-prop SAAB 340s from Canberra to Hobart, which had not seen a service in over 30 years. Within a few weeks Qantas announced its intention to commence the same service using Boeing 737, making it very difficult for the smaller Link to continue this route profitably.

***Is this competition working, or an example of anti-competitive behaviour? We need data to support the Government in understanding why Qantas suddenly announced a new route, data which would help the ACCC in assessing whether it is fair competition at work, or anti-competitive behaviour.***

***The RAAA opposes any move to permit regular cabotage flights.*** Sometimes there may be a need for short-term allowances, but we would not want these to become permanent arrangements. An Australian airline's inability to service a route usually comes down to whether it is commercially viable under Australian rules and employment standards. Most countries are compliant with ICAO, so hopefully will be meet safety standards, but employment standards are not uniform. Cabotage could lead to a foreign airline being able to service a route with poorly paid staff working under poor conditions, which a local airline could and would not do.

Australia already leads the world in liberalisation of its domestic aviation market, so why are we proposing to get ahead of almost every other country?

***The tyranny of distance and economies of scale will always mean that regional flights in Australia are expensive. Previous Senate hearings and inquiries have pointed to this in one way or another. A Productivity Commission Inquiry may bring new information to light, but we highly doubt it will lead to many different conclusions to previous inquiries.***

Air services to some regional and remote communities will generally need assistance from state and/or federal government to make them viable; we see this already in several states. The federal government programs for remote air services also provide that ability for aviation companies to operate on routes that otherwise would not be viable.

***The RAAA would like to see the government's Regional Aviation Access Programs continue in full or even improved/expanded.***

***We would like to also see a return of the Regional Airport Program, providing vital assistance to regional airports for safety upgrades.***

Requirements for regional airport security screening over the years has created a heavy burden of cost and resource challenges. In some cases, regional airlines or charter companies not required by legislation to be screened, are being charged screening costs.

***Support for this screening must also return, either via a direct levy on all domestic air tickets or through a return of the Regional Airport Screening Infrastructure (RASI) program for ongoing operational costs.***

## Section 3.2: Consumer protections



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The Green Paper includes questions at the end of section 3.2 and the RAAA provides answers to those questions as follows.

**1. *Should the Australian Government look to revise current consumer protection arrangements and, if so, through existing or new mechanisms?***

Australia's aviation sector is broad and diverse. Major airlines, regional carriers, charter services, and cargo transporters have distinctive operational characteristics and serve varying customer bases. These operators cater to a wide range of consumer demands and preferences. Imposing a uniform set of consumer regulations on all of them may not adequately address the specific circumstances and requirements of each sector or the needs of consumers using services in a particular sector. Regulations that are tailored to one segment of the industry may not be relevant or practical for others.

Additionally, the competitive dynamics within each sector can significantly differ. For instance, smaller regional airlines often face unique challenges and operate on very lean profit margins compared to larger carriers. This is because regional airlines typically serve less-travelled routes and smaller communities which means lower passenger volumes and higher operating costs out of regional airports.

Any evaluation of current consumer protection arrangements must therefore consider the effectiveness of the current arrangements in different sub-sectors of the Australian domestic aviation market. Any revision or new mechanism should proceed from engagement with regional operators and should consider region-specific amendments or exemptions within the broader consumer protection framework, in recognition of the unique challenges faced by regional aviation as pivotal service providers of regional connectivity.

**2. *Would an expanded remit for the Airline Customer Advocate to educate customers on their legal entitlements be useful?***

The Airline Customer Advocate facilitates the efficient resolution of complaints from customers about the airline service provided by Jetstar Airways, Qantas, Regional Express and Virgin Australia. Notwithstanding the limited application to RAAA airline members, and recognising that the current participating airlines will have a better perspective on the question, experience suggests that customers are generally well aware of their legal entitlements and no change is necessary.

**3. *Previous consultation processes have explored options to refine the passenger liability and insurance framework under the Civil Aviation (Carriers' Liability) Act 1959 – do stakeholders still consider amendments to this framework are needed?***

The Green Paper highlights the most recent 2020 legislative reforms to the *Civil Aviation (Carriers' Liability) Act 1959* (CACL Act) and notes that the framework does not require airlines to insure against third party (surface damage) risks. A potential scheme to make third party (surface damage) insurance compulsory was an issue identified for further consultation and development.

It is inevitable that aircraft in Australia, unless grounded, will be insured. This is particularly so with aircraft engaged in commercial operations. Financiers require aircraft to be insured, contracting parties insist on adequate insurance, aircraft carrying fare paying passengers are subject to the CACL Act and are required to be insured, pilots demand that the aircraft they fly will be insured and with a pilot endorsement, and owners and operators are well aware of the existential risk if they do not hold insurance for their aircraft.

The standard aviation liability insurance policy (AVN 1C) includes cover for legal liability to third parties including those who may suffer surface damage for at least five million and mostly for around twenty million.

Claims on insurance policies for surface damage have been very rare and in those rare instances the amounts payable have been well within insurance limits. Most aviation activities take place over vacant areas whereas motor vehicles, for which no compulsory property damage insurance is required, are increasingly in close proximity to other valuable assets on busy motorways and in built up areas.

Therefore, as a matter of practice, a compulsory scheme is unnecessary, particularly for RAAA members who will have insurance cover for these risks in any event.

The previous National Aviation Policy White Paper released in December 2009 confirmed that existing aviation policy settings remain appropriate for the modern legal and aviation environment whilst also identifying bespoke issues that required reform. Furthermore, it was also acknowledged at that time that “[a] sustainable and financially viable aviation industry depends on liability laws that balance the interests of airlines and victims” which is achieved domestically through the liability caps provided under the CACL Act (*National Aviation Policy – White Paper, December 2009, pages 87 and 88*). Furthermore, it was recognised that the mechanism to increase the liability cap on passenger compensation under the Act required further enhancement for passenger rights. The increase to the present level of \$925,000 demonstrates that the regime under Part IV is keeping pace with monetary values.

The RAAA consider that the liability regime for domestic aircraft operations continues to strike the right balance for industry on the one hand and the consumer on the other hand, including the periodic increases to the passenger liability cap.

Whilst the regime as a whole remains suitable for the needs of Australian aviation, the RAAA considers that the Green Paper presents a good opportunity to resolve some minor issues currently arising under the Part IV and Part IVA of the CACL Act as follows:

## ***Liability for contracting carriers / operating carriers:***

Currently under Part IV of the CACL Act, there are no rules in place to deal with those circumstances where the “*actual carrier*” is not also the “*contracting carrier*”. Under international aviation law, this was addressed in 1961 through the Guadalajara Convention 1961 which amended the Warsaw Convention. The key provisions of the Guadalajara Convention 1961 were in turn incorporated into Chapter V (Carriage by Air Performed by a Person other than the Contracting Carrier) of the Montreal Convention 1999.

The distinction between the “*actual carrier*” and the “*contracting carrier*” is relevant for Australian regional airlines given the rise of code share and interline arrangements, wet lease and ACMI lease operating models, where the airline selling the ticket may not necessarily be the airline operating the aircraft. Whilst there are protections afforded to “*servants and agents of carrier*” under section 33 of the CACL Act, this does not necessarily mean that the “*contracting carrier*” is acting in the capacity of the agent to be afforded the protections under Part IV and may give rise to some unintended consequences.

As the RAAA expects that there will be a continued rise in code share, wet lease and ACMI lease operations within Australia over the next decade, there is a need to introduce amendments to the CACL Act to ensure that the liability position of the contracting carrier vis-à-vis the operating carrier is clearly subject to Part IV of the CACL Act.

### ***4. Would policies pursued in other jurisdictions – such as a Passenger Bill of Rights or a stronger ombudsman model – deliver benefits in Australia’s aviation sector?***

The current passenger rights regime in Australia is adequate and a European or Canadian style ‘compensation for delay’ regime as raised in the Green Paper would not be appropriate. Imposing consumer protection regulations on smaller regional airlines can intensify their existing financial challenges, putting their business viability at

risk and potentially causing a loss of essential connectivity and economic benefits for remote communities. In particular, an EU Regulation 261/2004-style compensation regime would create increased passenger litigation and add to the airlines’ operating costs, which would have to be passed on to passengers. Liability for compensation payments of this type cannot be insured.

Australia’s vast and sparsely populated regions pose a significant challenge for regional aviation. Remote areas, often with limited infrastructure, necessitate unique flight routes and increased operational complexities. RAAA member airlines are often the only option for travellers to get to their destination, and placing increased stresses on that market, which already operates on extremely thin margins, would ultimately cost passengers more and increasingly limit their options to travel. Flight delays and cancellations in remote areas may be due to factors beyond the carrier’s control, such as weather conditions or the need for essential maintenance. Many regional airports lack the infrastructure and facilities available at major hubs, making it challenging to adhere to strict schedules and provide consistent services. Delays or disruptions caused by these constraints may not be reasonably mitigated by carriers operating in these areas. A one-size-fits-all passenger/consumer rights regime may not account for the specific challenges posed by the geographical dispersion of regional routes and infrastructure challenges.

Regional airlines contribute significantly to the local economies of the areas they serve. They provide jobs, stimulate tourism, and support local businesses and play a vital role in connecting regional and remote communities. A passenger rights regime, particularly one that does not differentiate between carriers (such as the EU Regulation) might require regional airlines to reduce their services, such as flight frequency or available routes. This can result in a loss of critical connectivity for residents, businesses, and emergency services and inconvenience for passengers in regional or remote areas who rely on these airlines for their transportation needs to major cities and services.





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Existing law provides extensive consumer rights in Australia. Passengers travelling on international tickets, which may extend to regional flights which are sold as part of the ticket, have the benefit of an international regime that provides uniformity and certainty and is accepted around the world as a fair regime to deal with the liability of carriers. Domestic carriage is subject to the regime in Part IV of the Act, which is based on the international regime and which strikes a reasonable balance between the interests of carriers and passengers. Special consumer laws for passengers and major changes to the CAACL Act are not warranted. One should be very conscious of the fact that measures to direct compensation to passengers not only lead to increased costs which ultimately must be passed on to passengers but will also result in increased legal costs and fees paid from compensation. This is not an economically sensible reallocation of resources.

## Two Regulatory Regimes for Civil Aviation Operators

Prior to the decision of the High Court in *Work Health Authority v Outback Ballooning Pty Ltd* (2019) 266 CLR 428, it had been accepted that the Commonwealth Civil Aviation Act, regulations and instruments provided a comprehensive uniform scheme for regulating the safety of air navigation which exclusively regulated the safety of civil aviation in Australia. The decision of the High Court, which arose out of an accident whilst a passenger was boarding a hot air balloon, had the effect of subjecting aviation operators to both the Commonwealth civil aviation safety regime and State and Territory occupational health and safety laws in respect of the operation of aircraft.

The Commonwealth civil aviation laws conform to a comprehensive international regime for the safety of air navigation arising from the Chicago Convention. The civil aviation laws regulate in great detail

the measures that must be adopted within the aviation industry to achieve the highest standards of safety. There should be one regime and only one regime to which operators must conform.

At the time of the High Court decision, Justice Edelman who was in dissent made the telling observation at 34 [92] - [93]:

*“Does the Civil Aviation Law contemplate that its scheme, including duties concerning aviation safety, could be fragmented by the concurrent application of a different safety regime in the States and Territories? It is plain that the answer to this question in relation to the rules of the air is “no.” The Civil Aviation Law operates exclusively to cover a subject matter that includes at least the rules of the air.”*

It is worth noting that Justice Gageler was of the view that there is a large area within which the *Civil Aviation Act* operates to the exclusion of State and Territory laws.

The current situation is unsatisfactory. Operators should not have to face the prospect of different safety regimes and should be focused on the detailed and comprehensive requirements which are subject to oversight by the Civil Aviation Safety Authority.

Safety in civil aviation has in Australia as in the rest of the world, has improved dramatically over the last fifty years, something reflected in the accident rates. This has been in part the result of technical improvements in equipment and products but it has also been the result of the development of sophisticated safety management systems and improvements in the operating systems reflected in operations manuals and expositions.

An important feature of safety management systems is the encouragement of open and frank reporting, sometimes referred to as ‘just culture’. This encourages the reporting of mistakes and errors on the basis that there will be no retribution for mistakes as opposed to reckless or intentional conduct. Just culture is to ensure that mistakes and errors come to light and

the consequences are shared within the industry so that they are not repeated.

It is internationally accepted that just culture is a critical part of safety management. It is also readily apparent that just culture plays no part of occupational health and safety laws. There is widespread concern in the aviation industry that the threat of action under occupational health and safety laws will shut down the willingness of personnel to engage in open and frank reporting. This is a matter of great concern to members of the RAAA.

Since the decision of the High Court, Parts 119 to 138 of the Civil Aviation Safety Regulations have come into force. These include detailed provisions which, depending on the category of the operator, require operators to have details plans, processes and procedures for the safe conduct of their operations. CASR 119, by way of example, makes an AOC conditional that an operator have an exposition which includes its plans, processes, procedures, programmes and systems for the safe conduct and management of its operations. Any changes to an exposition must be in accordance with the change management process and a significant change cannot be made without CASA’s approval.

These provisions demonstrate the extent to which operations are subject to safety management in the most detailed way. This is the regime which should regulate safety in civil aviation and it should be the only regime.

There should be an amendment to the *Civil Aviation Act* to make it clear that the Commonwealth civil aviation laws is to operate as the exclusive scheme in respect of the safety of civil aviation. That is not to suggest that there should be an exclusion of the common law duty of care or other similar statutory duty but rather to confirm what had previously been said by the Federal Court that ‘The safety of civil aviation is, by its very nature one that would seem to cry out for one comprehensive regulatory regime’; *Heli-Aust Pty Ltd v Cahill* (2011) 194 FCR 502 at [68].

## Section 4: Regional and remote aviation services

Quite rightly, the Government highlights the importance of regional aviation to Australia. As the move to net zero has the greatest potential impact on regional aviation, we have taken the relevant research from aircraft manufacturer, ATR's submission to inform this section.

***RAAA members support the move to net zero, but only at a pace that can be sustained, financially and operationally.***

### Maintaining the viability of regional aviation in Australia brings benefits

- » Meeting the 'Closing the Gap' targets 1,2,8 and 14 in remote communities
- » Opening new routes and making the aviation sector more competitive
- » Developing a strong and qualified ecosystem and workforce in rural areas. The arrival of new aircraft in an airline systematically creates the opportunity for the aircraft manufacturer to invest in training, financing training/maintenance facilities and flight simulators.
- » Paves the ground for penetration of new technologies, as turboprop technology is the main platform for zero and low emissions aircraft
- » Paves the ground for SAF production in rural areas by creating demand
- » Contributes to the decarbonisation of aviation.

Three key factors impact the regional aviation sector in Australia:

- » An ageing fleet of regional aircraft
  - » State tenders based on rate prices favour the lowest bidder. This encourages the retention of an old/obsolete fleet, blocking upgrades to more efficient aircraft, which in turn is detrimental to the economic viability and decarbonisation of regional aviation.
  - » Obsolescence will cripple these fleets as vendors stop manufacturing spare parts and repairing aircraft.
  - » The trend is to replace 19 seaters with 50 seaters, and 50 seaters with 70s.
  - » The use of 100-seater jets is justified in the longer routes thanks to their range. So, we should expect most regional airlines to combine turboprops and regional jets.
- » Incentives and market-based measures are not targeting efficient regional aviation development:
  - » Higher operating costs of older aircraft (both Regional Jets & Turboprops) are leading to increased ticket fares as breakeven is more difficult to reach.
  - » Airservices Australia's Enroute Charges Payment Scheme 15,000 kg weight limit is detrimental to the implementation of a proficient commercial fleet.
  - » Security screening is exempted to aircraft up to 40 seats, reducing the scope of aircraft operable on the regional network.

### ***To transition current regional aviation in Australia to a resilient commercial platform helping:***

- » to maximise aviation's contribution to achieving net zero carbon emissions
- » to foster emerging technologies in remote and regional areas, and
- » to build a highly skilled workforce,



Image: Josh Withers | unsplash.com

***we recommend:***

***Measures opening the market to more efficient and commercially viable aircraft:***

- » Raising the weight limit of 15,000 kg in Airservices Australia Enroute Charges Payment Scheme to 23,000 kg
- » If our recommendation to utilise a domestic levy for security screening is adopted, then raise the exemption from security screening to at least 48 seats.

***Measures facilitating the renewal of the regional airlines fleet to more efficient aircraft:***

- » Creating a green finance scheme at a state level to enable acquisition or renting of the most efficient aircraft available on the market (CO<sub>2</sub>/per seat/per km).
- » Encouraging the use of such aircraft in RAAS allocation at a territory level

- » Introducing tax incentives at a state level to help regional airlines cover expensive airport fees which are an obstacle to greener aircraft and regional aviation generally.
- » Providing loan guarantees to the regional airlines so that they can have access to Australian bank financing. The cost of new aircraft will always be greater than procuring 20 to 30-year-old aircraft.

***Measures to finance SAF production and consumption:***

- » A support on CAPEX and OPEX, such as in the Inflation Reduction Act, is necessary to support the SAF value chain.
- » Encourage production projects in peripheral areas to foster regional development.
- » Airbus contributes \$USD300 million to SAF development in Australia. With the arrival of new regional aircraft this contribution can increase with the help of ATR.

## Section 5: Maximising aviation's contribution to net zero

It would be helpful to clarify what net zero means in the Australian aviation context. Does it relate only to domestic aviation emissions as reported, and exclude international aviation emissions?

***We recommend including international aviation, but clearly separating out domestic and international, and developing a good understanding of, and distinct strategies for each based on data and the types of aircraft and routes needed to achieve emissions reduction targets.***

If the focus is on domestic aviation, then the current investment focus on SAF should shift to consider the proportion of the domestic aviation market that could transition to electric and hydrogen-electric aircraft. SAF will be a precious commodity, so should this be targeted for domestic long-haul and international flights, and large aircraft where decarbonisation options are limited?

Australian aviation needs clarity and robust information on the options for decarbonisation of different types of aircraft and different route lengths, keeping abreast of developments worldwide. Most domestic aviation services could be serviced by emerging battery, hydrogen-electric and hybrid technologies. It is estimated that 50 per cent of global air travel CO<sub>2</sub> emissions come from flights under 2200 km which could be serviced by these emerging technologies (i.e. [Airbus](#), [Universal Hydrogen](#), [Stralis Aircraft](#), [ZeroAvia](#), [Dovetail](#), [magniX](#), [Hydrogen Aviation Powerlist 2023](#)).

The White Paper and any associated roadmaps or action plans should be evidence-based. They must be informed by an analysis of baseline emissions data for aviation, by sub sectors, and for the regions, to enable a 360 degree understanding of the scale of challenges. The data should identify the opportunities and target areas for reducing emissions including planning and investment for alternative technologies and fuels.

One size will not fit all, and the future will be challenging and complex, but comes with opportunities and benefits including localised energy production, economic diversification, economic efficiencies, ensuring sovereign resilience into the future, and building Australia's capability and skills.

Existing and new policy and regulatory settings should be considered to recognise and support domestic production and capability for a range of new and emerging fuels and technologies for aviation, and to help facilitate their use, to include SAF, hydrogen, electricity, and other emerging fuels.

There are benefits to recognising new and emerging fuels in the NGER scheme, where fuel is used and emissions are potentially released. It also helps monitor system changes, but it needs to recognise the different fuel qualities and emissions and should also be extended to hydrogen and other emerging fuels.

There are many different types of SAF and hydrogen, and they are far from equal, with varying degrees of emission reduction. Robust data will be needed to support industry and consumer confidence, and similarly quality standards and sustainability certification will be needed for different types of SAF, shades of hydrogen, and sources of electricity (coal versus renewable). We also need realism about cost and a pragmatic analysis of the quantity that will be available domestically, that considers exports.

Policy and regulatory alignment are important, across government and different tiers of government. For example, renewable energy and hydrogen development and investment policy needs to recognise and plan for domestic demand from aviation. At present, aviation is often not recognised in these strategies in Australia, and the focus tends to be around fuel exports.

This needs to shift to domestic supply.

In developing a hydrogen strategy, green liquid hydrogen will be critical for the future of aviation: for direct combustion, use with fuel cells, and for producing some forms of SAF such as PtL (Power to Liquid).

The Jet Zero Council and industry representation is welcomed but the Council seems to be missing representation from those working in emerging technology and zero emission propulsion, and research and academia. ***Electric, green hydrogen and emerging propulsion technologies need to be included in the mix*** alongside and in conjunction with SAF, like the framework for the UK Jet Zero Council.

Fossil fuel subsidies (including for aviation) are increasingly questioned in a society working toward net zero. Countries are starting to reform fossil fuel subsidies, as 2022 saw worldwide subsidies skyrocket to more than USD 1 trillion<sup>1</sup>.

***We recommend a review of fossil fuel subsidies and considering the ringfencing of associated monies to invest in emerging technologies and renewable clean fuels supporting an effective net zero transition away from fossil fuels.***

Monies and investment, including consumer schemes that go into one-off offsets, could be better routed through investing in ‘insets’ and/or net zero projects; for example, R&D for emerging aircraft technologies and fuels, retrofits, and/or new aircraft that will help transform the BAU and the broader aviation sector toward net zero. Rather than paying for one-off offsets, an airline and/or its customers could invest to retrofit a plane with a hydrogen-electric powertrain that eliminates that aircraft’s fuel emissions.

We should ensure aviation (separating out domestic and international) is included and recognised in the Australian Government’s Transport and Infrastructure Net Zero Roadmap and Action Plan.

***Emission reduction targets and supporting policies should be developed separately for different transport segments.***

The iMOVE CRC [Framework for an Australian Clean Transport Strategy](#) (FACTS)<sup>2</sup> looks at decarbonising all transport sectors including aviation, and suggests some targets and a range of policies for all tiers of government, including the federal level.

***We should provide support for airports, in particular regional airports, supporting the transition to net zero, especially through infrastructure investment that will help airlines transition.***

We should capitalise on the potential opportunity for airports as emerging technology and renewable energy hubs, including hydrogen (for example, see [Christchurch Airport’s Kowhai Park](#)).

An international [Airport Carbon Accreditation Scheme](#) supports and recognises emissions reduction at airports, and many Australian airports are already engaged.

***We recommend encouraging, recognising, and supporting all airports to engage in this program.***

<sup>1</sup> <https://www.iea.org/reports/fossil-fuels-consumption-subsidies-2022>

<sup>2</sup> <https://transportfacts.org/wp-content/uploads/2022/06/FACTS-a-Framework-for-an-Australian-Clean-Transport-Strategy-2022.pdf>

## Section 6: Airport development planning processes and consultation mechanisms

### Noise and community consultation

The RAAA supports planning of new flight paths in accordance with ICAO's Balanced Approach to Aircraft Noise Management, and fully supports the implementation of Airservices Australia's draft Community Engagement Standard. We are, however, increasingly concerned about the politicising of new flight paths and the ability for community groups to 'hijack' flight path planning by making claims of 'lack of consultation' etc. The government must set the rules and then stick to them.

We recently saw the impact of this highly politicised approach to Brisbane's new runway, which has resulted in the formation of yet another community consultation forum and more concerningly, amended flight paths which have added many extra miles to flights causing extra fuel burn and an increase in emissions.

The RAAA fully supports engagement with local communities as it is essential to keep them fully informed. However, these groups are becoming more and more political. The end game for some of these groups now is not a compromise solution, but a NIMBY one—no flights at all over their neighbourhoods.

With new runways due at Melbourne Airport and at Perth, as well as the new Western Sydney Airport of course, we are very concerned that no government will hold firm on the process so that we end up with safe and efficient flight paths which meet minimum noise standards.

***The RAAA does not support curfews or movement caps.***

We must value the contribution aviation makes to our economy and breaking down Australia's tyranny of distance. Any restrictions on the free movement of goods and services will severely impact our economy.

### Land use planning

There are too many examples of aviation activity being squeezed out of federally leased airports due to the desire for those airports to provide land to non-aviation services. This is done in many ways: not permitting long leases on hangar sites, moving hangars to areas of an airport which are inconvenient to the aviation organisation (long taxi times etc). Moorabbin Airport is a prime example of what happens to aviation assets when an airport is not held to the intent of the headlease, i.e., ensuring airports are for aviation.

The RAAA is not against non-aviation assets for airports—we acknowledge they contribute to the ability for an airport to sustain the airport at expected standards. However, some airports see these non-aviation assets as a priority source of income, at the expense of aviation organisations on the field.

Using triggers for major development plans (MDPs) is a valuable tool to ensure government oversees the planned works at an airport. Unfortunately, some airports are bypassing this, by separating projects so that they stay under financial thresholds. Airports are also not being challenged on compliance with their master plans (MPs).

***The RAAA would like to see more thorough engagement with airport users, as well as reporting against the master plan. This reporting can be quarterly or half yearly but there must be an assessment of whether an airport is meeting its stated plans in its MP. This is vital when reporting against the airport's support for aviation activity.***

It may be difficult to implement, but ***the RAAA would like to see a minimum footprint of aviation facilities, especially at general aviation airports such as Moorabbin Airport.*** Sometimes a blunt tool like this will give clearer guidance to investment for both the airport and airport users.

## Section 7: General Aviation

The importance of the general aviation (GA) sector to the aviation industry cannot be understated. Traditionally, the training pool for future airline pilots and engineers, GA has endured through changing operating environments making it more difficult for businesses to survive. From personnel costs to fuel and maintenance costs, the profitability margins have been shrinking. GA is being squeezed by the GA airports looking to non-aviation assets for improving their own profit margins. In the face of these major business pressures, we are now asking them to upgrade their fleets and meet net zero targets. For some this will be unachievable, and we will see hangar doors closing.

The most likely avenue for GA to meet net zero will be via electric aircraft; however, the capital outlay for these aircraft will be considerable, and their endurance limitations make them untenable in the very near future. Support for the capital outlay in asset financing or even tax write-offs is essential.

***The RAAA believes the three main areas where government can support GA and improve its chances of survival are:***

- » Ensure airports provide lease opportunities at appropriate costs.
- » Ensure CASA **acts** on their sector risk profiles and reduces red tape for GA.
- » Provide funding assistance (or other financial incentives) to modernise fleets to meet net zero targets.

Unless these three areas are acted on, GA will struggle to survive as it is. Flight training will be limited to major airline or university schools and recreational flying will be limited solely to RAAus aircraft.



Image: Aviair



## Section 8: Fit-for-purpose agencies and regulations

### Role of government and agencies

The RAAA believes the structure of government agencies is appropriate. Aviation policy in terms of safety and security should be developed collaboratively between all relevant areas of government, for example aviation security. There is a tendency for Home Affairs to develop security policy as a fait accompli, with little or no compromise once policy has been formed. Although we have seen some improvement in this in recent times, we are still left with the legacy of regional security screening burdens which are hugely costly and resource intensive.

### Safety regulation

We have seen a vast improvement with engagement with CASA over the last few years. However, this does not always translate into action, and we still see, too often, examples of heavy-handed regulation or oversight by CASA.

CASA handled the transition to the new flight operations regulations well, realising their own resource restrictions as well as industry's inability to transition within certain times. The extensions in times have been well received and we thank CASA for that.

However, CASA still burdens itself with unnecessary regulation. With the move to new flight operations regulations, aviation companies must have more and more 'systems' in place to manage safe operations. Industry believes this is a sensible approach; however, again we see CASA not allowing industry to fully utilise outcomes-based regulations and systems in managing changes, and still requiring permissions/approvals for too many items under an old prescriptive mindset.

***Industry realises that safety is a mutual obligation between the regulator and industry. CASA should adopt a trust-and-verify approach, with harsher penalties handed out to those who do not meet their end of the bargain.***

***The RAAA also supports international alignment.*** This improves our standing in relation to bilateral agreements, in turn providing greater opportunities for export.

### Airspace regulation and management

The RAAA agrees with the Green Paper comments about new technology leading to more efficient flight route management. However, this potential efficiency is negated if noise management to avoid certain suburbs at the arrival airport dictates extra track miles for arrival routes. Any introduction of movement caps and curfews will also negate gains made by technological advancements.

There is also a need to fix the 'human' element where we find local ATC having varying attitudes on the movement of light aircraft, or even on how quickly they wish to recover from disruption. There needs to be closer attention to how ATC manages areas, by having more oversight of ATC decision making. Industry needs answers where refusal has been given for a certain clearance, or delays given, without obvious rationale.

### Agency funding and security costs

We have grouped comments for the remainder of this section as we believe the answer is the same, having a safe and secure (regional) aviation industry is a national benefit. Cost structures in place today are disproportionate for regional aviation and have been highlighted in many previous reviews and inquiries.

***To assist with ongoing funding for our agencies and for security policies we believe there are two clear opportunities:***

- » *The RAAA has stated before that the Passenger Movement Charge (forecast to be \$1.38B in 24/25) funds must return to the aviation sector rather than be directed to consolidated revenue.*
- » *A surcharge on every domestic ticket sold should be applied to cover the costs of maintaining a safe and secure aviation industry.*

## Section 9: Emerging Aviation technology



Image: Concept aircraft | Stralis Aircraft

The green paper focuses almost exclusively on emerging technologies in terms of drones, eVTOL and advanced aerial mobility (AAM).

***One would expect to see more recognition of the opportunities and developments for fixed-wing aircraft, in terms of new aircraft designs and new powertrain technologies.***

- » Not only are electric and hydrogen-electric propulsion and fixed-wing aircraft zero emission, but they will also be quieter than combustion engine aircraft. Transitioning to these new cleaner and quieter technologies will not only assist in decarbonisation but will help to manage aircraft noise better.

***The hydrogen aircraft timeframe should be revisited.***

- » It is currently framed as a future 2050 proposition, a timeline which does not seem to recognise what is currently happening with national and international investments in electric and hydrogen-electric fixed wing aviation technologies and hydrogen production (i.e. [Airbus](#), [Universal Hydrogen](#), [Stralis Aircraft](#), [ZeroAvia](#), [Dovetail](#), [magniX](#), [Hydrogen Aviation Powerlist 2023](#)).
- » It also fails to recognise the need for a considerable lead in time, planning and investment for infrastructure development and ecosystem preparedness and deployment.

Government investment and funds are currently limited for industry players working on emerging aviation (fixed wing) and propulsion technology working towards net zero outcomes. **Industry R&D, early design and prototypes, experimental stages and certification, need more support**, and not just through academic and research funding which can limit and stifle progress and timeliness.

- » **The industry needs access to Australian and state government funding and support, and more broadly non-dilutive funding to facilitate a strong investment environment for emerging technology R&D and manufacturing.**
- » Investors actively encourage a move to the U.S. to enable access to further non-dilutive funding sources and access to markets and a regulatory environment that is being developed to support roll out.

Regional and remote airlines and aviation services are well suited to new and emerging powertrain and aviation technologies.

- » Emerging aviation technologies could help address the 'decline in the number of passenger flights to smaller regional locations' that has been attributed to a trend towards the use of larger aircraft, because the efficiency of larger aircraft will be challenged with the emergence of electric and hydrogen-electric fixed wing aircraft over a wide range of route lengths (current projections up to 3000km and 80 passengers).
- » Existing fleet and aircraft can be retrofitted with hydrogen-electric and electric powertrains, helping to manage and prevent stranded assets.

Government supported, subsidised or underwritten remote air services and routes, would lend themselves well as test and experimental flight routes and systems for new and emerging aviation and propulsion technologies, as support is already available to run these routes.

**We recommend integrating criteria and opportunities into future service agreements, not only to help test and develop infrastructure and capability, but also to activate the transition.**

Research is needed to:

- » examine the national and regional opportunities of different emerging aviation propulsion and aircraft technologies (fixed wing) for Australia's domestic aviation market, broken down by different aviation sub-sectors and aircraft/route types.
- » to understand potential and projected green hydrogen availability and potential nationally and in the regions. Electric, hydrogen electric, hydrogen direct combustion and hybrid powertrain technologies and emerging new aircraft (fixed wing) deserve their own section and attention.

**Governments and industry will need to work together to develop community and consumer awareness and education around emerging aviation technologies, including the use of new fuels such as hydrogen in aviation.**

***Infrastructure and investment will be needed to facilitate emerging technologies using new fuels such as green hydrogen:***

- » Infrastructure to secure cost-effective green hydrogen supply and liquefaction for domestic aviation use and storage and distribution at airports across Australia (commencing with those engaged in active experimental trials).
- » Australian liquid hydrogen transportation, storage, and refuelling solutions developed within Australia.
- » Determining requirements, responsibilities and operational procedures for the transport, storage, and handling of liquid hydrogen on, in and around the airport, including safety, incident and emergency response capabilities and competencies.
- » Subsidy or assistance to help facilitate the shift between conventional and hydrogen-electric aircraft technology when it is initially deployed in Australia from 2026, and airlines are retrofitting or replacing aircraft.
- » Research to examine hydrogen production, use, and cost projections for aviation including infrastructure requirements across Australia from 2024 to 2044.

Regional concerns around access to new fuels such as hydrogen and concerns around the associated costs can be addressed and present opportunities for airports. These are also existing concerns with current fuels with regards to access and price.

- » The smaller the airport, the harder it will be to set up and generate green electricity or hydrogen, but there are many advantages and there will still be mobile distribution and re-fuellers for new fuels like hydrogen, so infrastructure at airports is not essential.

Government support and investment in hydrogen and regional airports, should facilitate smaller scale green hydrogen generation systems that can be trialled and tested at rural and remote airports where these aircraft are planning to be deployed.

- » *We recommend the Australian Government's Regional Airport programs and the Regional Investment Framework incorporate renewable energy and green hydrogen generation aligned with net zero and emerging electric, hydrogen, hybrid, and other aviation technologies.*
- » *Regional development agencies should support and develop airports and their role in decarbonisation, renewable energy, green hydrogen production and broader transport innovation and transition. Airports are also great locations for access and logistics centres.*

The regional opportunities presented for Australian domestic hydrogen and renewable energy and fuel production include fuel security and sovereign capability, mitigation of supply disruptions, diversification of fuels and sources, decreased dependence on imported fuel, local options for production and decarbonisation, jobs, and economic development for Australia's regions, supporting Australia's plan to become a renewable energy superpower.

Emerging fixed-wing hydrogen-electric aircraft (such as Stralis SA1) would improve competition by lowering the barrier to entry for new airlines by reducing the purchase price (per seat) for an aircraft with an operating cost closer to that of a single-aisle.

- » It would also support more point-to-point routes, through lower operating costs, and major airports may become less of a bottleneck. Can the government support the creation of new routes and open access between regional airports to incentivise moving traffic away from 'slot-constrained airports'?



Image: Aviation Australia

***We need to develop new higher education courses/programs to meet the need of emerging technologies in aviation, including electric and hydrogen-electric fixed wing aircraft.***

- » These should include development of micro-credential and short courses, and additional modules or components of existing courses and qualifications to meet the requirements for the new technologies and fuels such as hydrogen.
- » We need to facilitate Australian institutions to learn from and build partnerships with those leading internationally on training and skills, such as Cranfield University's 'Hydrogen Safety in Aviation' immersive training programme for practitioners<sup>3</sup>. Hydrogen (gas and liquid) safety and handling, training, and skills development will be needed across the aviation ecosystem alongside procedures for airports, pilots, maintenance mechanics and ground handling personnel.

<sup>3</sup> <https://www.cranfield.ac.uk/-/media/files/brochure/hydrogen-safety-in-aviation.ashx>

***CASA capability needs to be developed to support and work alongside emerging technology developers, learning from international examples and experiences and working closely with the FAA and EASA.***

The process of experimental flight testing and working towards STC provides a great learning and capability development opportunity for the whole aviation ecosystem, but CASA will need to be sufficiently resourced to provide the necessary support in a timely manner. CASA and associated compliance policies and regulations will need to consider and incorporate emerging technologies such as hydrogen-electric aircraft. Currently it would be easier for emerging technologies to go to the US or Europe, and that situation must change to secure and maintain Australian-grown capability.

## Section 10: Future industry workforce

The RAAA has raised in numerous forums the critical shortages of skilled aviation workers, in particular pilots and licensed aircraft maintenance engineers (LAMEs) and non-licensed aircraft maintenance engineers (AMEs). The skills shortage is at crisis point. Regional aviation suffers as it is treated as a training ground for larger domestic and international airlines. RAAA members do not see a natural movement of skilled workers as a major issue; however, the pace at which it is occurring is leaving regional aviation companies out of pocket for their large investment in training.

Regional and GA companies are losing newly trained pilots to the major airlines and are left footing the bill. The pilot bond agreements, as allowed by Fair Work Australia, are constantly being challenged by the pilot union, the AFAP. Small regional airlines simply do not have the wherewithal to fund lengthy and costly legal battles. Unfortunately, the pilot award is unclear, leaving a loophole which the pilot union is exploiting. When the pilot bond was allowed by the FWC, it also determined that the bond could only capture 50 per cent of the training amount. This has been very frustrating for our companies who take on pilots, train them at huge costs (anywhere from around \$15,000 up to \$90,000), only to lose them when a new opportunity arises, sometimes within 6 months. This is not viable for small companies, which need greater return for the costs that they incur training an inexperienced pilot.

As happens in India, the RAAA would like to see the larger airlines cover the outstanding balance of the pilot bond if they recruit within the bond timeframes. The government can also assist regional airlines to develop MOUs on pilot recruitment with the larger domestic airlines, to ensure regional airlines have adequate resources. If the current recruitment rate continues, regional airlines will be unable to sustain their fleets, and of more concern, safety will be compromised by the need to recruit more inexperienced pilots.

***The RAAA would therefore like a review of the pilot bond agreement: removal of the 50 per cent limit allowed to be recouped, as well as firmer guidelines on what is covered and what is not. The pilot award also needs to be revisited; for example, the rostering requirements still refer to outdated CASA rule sets.***

Through necessity, our organisations are trying to meet their staffing needs through recruitment of overseas workers, despite the process often being very cumbersome and incredibly costly. We have seen overseas workers brought to this country at great cost to an organisation, only to see them depart to another organisation soon after.

***The RAAA is therefore calling on the government to include a minimum period of 2 years on a sponsored visa for foreign workers. At the very least, if a worker wishes to move on, the cost of sponsorship and other immigration costs must be able to be passed on to any new employer within that 2-year period.***

The critical shortages of licensed aircraft maintenance engineers (LAMEs) and non-licensed aircraft maintenance engineers (AMEs) was raised most notably in the RAAA's paper in October last year titled, [Aircraft maintenance engineer shortage—crisis and opportunities](#). This paper also outlined several short-, medium- and long-term solutions to the problem over the next decade to ensure the future workforce direction meets industry needs.

## LAME Licences awarded



2006/2007  
- 2015/2016  
**297**

av.licences/yr

### Compared to

2016/2017  
- 2020/2021  
**135**



av.licences/yr

Source: CASA annual reports

Paramount to this is an adequately resourced aircraft maintenance workforce, covering commercial operations, general aviation and the Defence sector.

*The first recommendation was for regulatory change to aircraft engineering licensing requirements.*

- » CASA has responded to feedback from industry regarding making licence requirements more readily achievable for new entrants and foreign licence holders. In collaboration with an established technical working group (TWG), progress has accelerated in recent months, with optimism growing that changes to regulations may be in place by the end of 2023.
- » CASA has shown a definite shift in willingness to seek feedback, collaborate and proactively initiate change. This trend has been welcomed by industry and shows a progressive regulator with an understanding of the pressure currently being experienced by operators nationally.

*The next critical change is to create theory training modules commensurate with the learning style of current and future generations - gone are the days of rote learning.*

- » Mitigating the challenge of the current exam model would assist apprentices to pass theory examinations without compromising the underpinning academic knowledge requirements. This could be achieved by:
  - » Interpreting CASR Part 66 to permit individual module subject exams to be held after each subject rather than waiting for the completion of the entire module (which can take several years)
  - » Allowing students who fail an exam by up to 10 per cent more than the current pass mark be able to re-sit the exam as early as the next day as opposed to waiting for 90 days, and
- » Permitting open book examinations.

## An apprenticeship incentive system and support for maintenance repair organisations (MROs)

Current aircraft maintenance skills shortages need an all-of-industry perspective.

The only way forward is to 'train our own' LAMEs and AMEs. At best, it will take an emerging LAME two years under the proposed modular licencing pathway to attain a basic aircraft engineer licence and around five years for a person wishing to attain an aircraft engineer licence without exclusions.

Many organisations have exhibited increased apprenticeship recruitment activity over the last 12 months, but more needs to be done, especially by large organisations who have had very limited apprentice programs, if at all, since 2011.

One of the key limitations to employing an apprentice is having a workforce that is adequately resourced to oversee each trainee's development. For this reason, recruitment needs to be proportionate with supervision capability.

*A potential framework to implement this approach would be to incentivise apprenticeship employment based on the number of LAMEs within the workplace. For example, if an agreed ratio was one apprentice for every two LAMEs in an MRO, an easily trackable incentive system could be established, encouraging employers to recruit to their full potential.*

For organisations holding government related maintenance contracts and employing over an agreed workforce threshold, for example greater than 10 LAMEs, apprenticeship numbers could be published and publicly available. While difficult to mandate, organisations employing apprentices should be favoured in any government tender process.

***The RAAA urges the government to ensure that government tender contracts (particularly Defence-related contracts) require onboarding of apprentices.***

Too often, we see mainly Defence contractors receiving huge financial contracts, then siphoning experienced engineers from the aviation industry to support their program. Such government intervention requiring the inclusion of apprentices would contribute significantly to increasing the number of aircraft maintenance engineering apprentices.

Another key limitation to employing an apprentice is that despite CASR Parts 66 and 147 being introduced in 2011, most MROs, supervising LAMEs and emerging apprentices do not understand the many pathways to become an AME or LAME.

***To support the traditional apprentice employment numbers (and therefore sufficient numbers to support attrition and industry growth), it is critical that a '101 plain English' pathway guide is provided to all stakeholders so that they understand how to navigate the perceived complexities and in turn engage apprentices*** (noting that CASA has initiated written text around this; however, it is not yet published).

## **Incentive system for industry – training provider collaboration & future training**

Maintenance training organisations and registered training organisations draw from the same talent pool as maintenance operators. To develop the next generation of LAMEs and AMEs, industry and training providers need to work more closely together to ensure a high-quality learning environment can be consistently achieved.

***Government support to enable this initiative would certainly increase the success of this concept.***

Currently the States and Territories control apprentice training and funding which contributes to the disparity in training delivery. This is also another contributing factor to MROs not engaging apprentices. This was recommended in 2015's 'The Future of Aircraft Maintenance in Australia' report. The burgeoning uncrewed, electric aircraft, and advanced air mobility sectors make 'an innovation oriented aircraft maintenance workforce' more critical than ever.

***We support the establishment of a National Aerospace Aviation Training Academy to conduct training for both civilian and defence apprentices under a national model, therefore providing consistency in training and funding.***





**Serving regional aviation, and through it,  
the people and businesses of regional Australia**



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