

Auckland ATC Tower Replacement
Consultation

21 October 2022

Dear

Thank you for the workshop and the opportunity to submit feedback on the proposed options to replace the current Air Traffic Control (ATC) Tower at Auckland Airport.

BARNZ represents 24 airlines operating services to and within New Zealand. We work closely with IATA, who we have also invited to contribute to our feedback. Air New Zealand and IATA will be submitting independent feedback to the proposals.

Airways premise for the requirement to replace the existing ATC Tower is that it is 'due for replacement as it is reaching the end of its lease with Auckland Airport'.¹ While BARNZ does not have visibility over lease agreements between Auckland International Airport Limited (AIAL) and Airways Corporation, we appreciate that AIAL may be limiting length of lease due to construction requirements for AIAL.

Enquiries with AIAL tell us that the ATC Tower is not required to be moved for construction of the Domestic Processor. AIAL note that the site will be required between 2029 and 2035 (as triggered by demand) to build remote stands located on the eastern side of Pier A2. This is a useful timeframe for participants to understand, as it leaves a six year lead time to potential requirement.

In planning for replacement of the ATC Tower, care must be taken to design and build a solution that will serve New Zealand's international gateway for generations to come. BARNZ members are concerned to ensure solutions are growth focussed and will not limit service provision for future aviation participants.

Airways preferred option of a Hybrid Tower comes with significant cost over a Digital Tower. BARNZ members consider that Airways needs to completely scope options for a Digital Tower. The consultation materials notes that Airways consider the risks for deployment of a Digital Tower arise from the fact this would be a new approach in New Zealand, and that regulatory approval would be required. BARNZ members encourage Airways to seek to work through some of these risks, in collaboration participants and with the regulator, before

¹ Airways Corporation: Auckland Tower consultation document, September 2022, page 2

discounting the option. A Digital Tower offers significant savings in capital costs (\$63m for Digital over a Conventional Tower and \$21.1m over the Hybrid Tower) and also offers a generational opportunity future-proof ATC in New Zealand. We consider there are likely to be system benefits beyond capital costs, from business continuity cover through to workforce development benefits. Complete exploration of costs, risks, mitigations and benefits is essential.

Aviation in New Zealand is in the early stages of recovery post pandemic. AIAL currently forecasts recovery of international aviation to 60-70% of pre-Covid levels in FY23.² AIAL has commenced its price consultation with airlines for price setting event four (PSE4) and while this is yet to conclude, all participants expect substantial investment will be required to make necessary upgrades to AIAL aeronautical assets. In addition, airlines are likely to face cost increases for border agency services as prices are re-set post pandemic. The impact of these cost increases across agencies and monopoly providers will serve to increase prices for ticketing and risk reduced demand for air services.

While BARNZ members understand that each agency or entity planning capital cost and resetting pricing thinks primarily of its own requirements, BARNZ asks that Airways remain mindful of the settings of the wider aviation system it serves. BARNZ members encourage Airways to carefully consider costs and long term benefits for system participants, in the frame of the recovery of aviation in New Zealand. To this end, it is our view that careful examination of the Digital Tower option is required.

BARNZ welcomes further discussion on our responses to the consultation questions.

Kind regards

² Auckland Airport (AIA) market release 20 October 2022, NZX
<https://www.nzx.com/announcements/400864>

Question 1: Do you have any feedback on the Auckland ATC Tower replacement options outlined?

The three options presented cover an adequate range of solutions for long-term replacement of the tower at Auckland Airport. Regardless of the final solution selected, all presented options should demonstrate cost effectiveness and provide potential safety enhancements and no safety reductions.

It is not apparent from the consultation material whether the digital contingency system required for option one would be the same system used within the hybrid proposal or a separate system altogether. Further, if both the replacement tower with digital contingency, and a hybrid tower relying on a digital capability both require the same, or similar, systems as a remote digital tower will require, there are clear benefits for the digital tower, assuming there are no risks associated with this option.

The options set out for replacement of the ATC Tower do not countenance any options for extension of programme dates so that replacement of the existing ATC Tower commences later, allowing programme completion closer to 2029, when AIAL may require the space for pier development. A later project timeframe would allow for complete investigation of the Digital Tower and would also allow aviation to recover sufficiently to be better able to support capital investments required.

BARNZ members do not consider it acceptable to proceed with Airways preferred Hybrid option while planning to consider the digital solution while the project to deliver a Hybrid Tower is in flight. We refer to the comment that Airways will reconfirm whether the 'full digital solution will offer a superior solution' in July 2024.³ By this point, effort and costs will have been expended in support of the hybrid solution such that proceeding with that solution will be the heavily preferred outcome, regardless of the superiority of a Digital Tower.

Question 2: Do you have any feedback on Airways preferred approach for the replacement of the Auckland ATC Tower?

BARNZ members consider that the option for a Digital Tower should be completely explored as the preferred solution unless it is clearly demonstrated that the option is untenable due to safety or technical considerations.

As well as advances in technology, we are aware that there has been significant progress in regulatory guidance, performance standards and experience in operations for digital tower solution in multiple locations globally. Partial options are in place in London, Hong Kong and Singapore.

We recommend Airways Corporation continue to closely study guidance and precedent set by the European Union Aviation Safety Agency (EASA) Civil Air Navigation Services

³ Airways New Zealand: Auckland Tower consultation document, September 2022, page 11

Organisation (CANSO) as relates to [Indra's work at Budapest Airport](#) and the document published by the European Organization for Civil Aviation Equipment (EUROCAE) ED-240A – 'Minimum Aviation System Performance Standards (MASPS) for Remote Tower Optical Systems'.

Given the organised traffic mix and disposition in Auckland, with limited circuit traffic, a digital solution is likely to be a viable outcome for service delivery assuming all regulatory requirements are met.

In undertaking a complete examination of options for a Digital Tower, we encourage Airways to work closely with the Civil Aviation Authority. It is imperative that New Zealand's aviation regulator understand considerations for this solution from inception, so that they might have in place all necessary rules and safety guidelines under which a digital tower service delivery can operate.

Should it be clearly demonstrated the a Digital Tower is in some way unsuited to the New Zealand environment, and is not able to meet safety standards then the Hybrid Tower could be pursued.

Question 3: Do you have any feedback on the changes highlighted to the Capital Plan in 5.1?

The option for a Digital Tower provides significant savings compared to alternatives. It would seem good practice to pursue this option as preferred and then if proven unviable the lessons-learned can form part of the hybrid solution.

Finally, if work in progress is not part of the cost-base until the asset is delivered into service, can Airways please explain why are material figures are allocated to financial years prior to 2027.