

Submission on Commerce Commission Draft Report for its review of Auckland Airport's 2022 – 2027 price setting event

3 September 2024

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1 Introduction

The Commerce Commission (“**Commission**”) has commenced its review of Auckland Airport’s fourth price setting event, covering prices for the July 2022 – June 2027 period (“**PSE4**”). The Commission has invited submissions on its “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper” (“**Draft Report**”). In this submission, Auckland Airport:

- endorses NZ Airports’ views on the Commission’s draft findings; and
- responds to the topic areas in the Commission’s Draft Report, including providing Auckland Airport’s views on the approach to assessing its performance for each topic area.

This submission should be read alongside Auckland Airport’s price setting disclosure for PSE4 (“**PSE4 PSD**”), published on 17 August 2023 and Auckland Airport’s submissions and cross-submissions to the Commission’s Process and Issues Paper. These documents provide an overview of Auckland Airport’s pricing decision, supporting rationale, and relevant information and forecasts. This submission should also be read alongside the submission from the NZ Airports Association on the Commission’s Draft Report, which Auckland Airport is a party to and supports.

Auckland Airport confirms that this submission contains no confidential information and can be published on the Commission’s website.

2 Executive summary

Auckland Airport welcomes this section 53B review which follows the pricing decision for PSE4. These reviews play an important role in the information disclosure (“ID”) regulatory framework for airports in New Zealand.

The Draft Report considers a number of areas of Auckland Airport’s recent pricing decision and projected performance, focusing on profitability, pricing efficiency, Auckland Airport’s forecast investment plan and innovation.

In the majority of the areas reviewed, the Commission has made positive draft findings. In particular the Commission has:

1. Recognised that Auckland Airport had legitimate reasons for updating the 2016 IMs data when calculating the weighted average cost of capital (“**WACC**”) to set the target return. While we consider the Commission’s assessment requires further adjustments, Auckland Airport is encouraged by the transparency and detail of the Commission’s approach to reviewing cost of capital.
2. Recognised that Auckland Airport had a robust and well developed capital investment plan, that reflected the needs for investment, was being delivered at the appropriate time, and optimised the outcomes for consumers. In particular, we support the following draft findings:

the process and rigour Auckland Airport applied to planning and costing the investment plan was reasonable. When identifying the needs for investing in a new domestic terminal, Auckland Airport had adequate regard to the current service quality issues, asset maintenance, and capacity requirements in the long run. It considered a wide range of options.¹

there appear to be operational and financial reasons for Auckland Airport to proceed with the terminal integration program now. The enablement of an efficient contingent runway operation would not only benefit the main runway pavement renewals, but also improve the resilience of the runway operations in general. If the investment is deferred because the cost to build and associated increases in airport charges are considered too high, postponing the same investment into the future is unlikely to address this concern.²

3. Acknowledged that Auckland Airport’s decision to include a capex wash-up for PSE4 was reasonable and consistent with efficient pricing. We welcome this finding. Auckland Airport introduced this wash-up in light of the substantial capital investment plan, to balance any risk of potential higher returns in the event where Auckland Airport has not

¹ Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 4.6.1

² Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 4.109

delivered its investment to plan, with the right incentives to deliver projects efficiently and cost effectively.

4. Agrees that, as the majority of the pricing structure is unchanged from PSE3, that the finding from PSE3, which is that there are no efficiency concerns, continues to hold for PSE4.
5. Has no significant concerns about any of Auckland Airport's forecasts, including forecast asset values, demand, operational expenditure, capital expenditure and wash-up mechanisms.

We are pleased the Commission has made positive findings in a number of areas, and that it has recognised Auckland Airport's robust approach to price setting and capital investment planning for PSE4. We think these findings support the considered and reasonable approach Auckland Airport has taken.

The Commission has also identified a number of areas where its draft finding is that it either does not agree with the approach taken by Auckland Airport or requires more information to inform its assessment. These areas include cost of capital, the use of straight-line depreciation for terminal assets, the change to domestic freighter parking changes and evidence of innovation. We provide more detail on all of these issues in this submission.

Auckland Airport disagrees with the Commission's draft finding that Auckland Airport has targeted excess profits in respect of its calculation of its targeted return. The difference between the position of the Commission and Auckland Airport can largely be explained through how Auckland Airport and the Commission each treated the impacts of the pandemic when assessing the cost of capital.

The analysis and evidence presented in this submission, and in the attached expert report from Competition Economists Group ("CEG"), sets out why the two scenarios developed by the Commission do not provide reasonable reference points to assess the PSE4 post-tax target return of 8.73%. Auckland Airport's contrasting position to the Commission's scenarios include:

- a. the first scenario is not a forward-looking estimate - it does not reflect any pandemic risk - which has been demonstrated to be real and material and cannot be discounted;
- b. the second scenario attempts to provide a forward-looking estimate but has some material flaws:
 - i. it is based on inputs that contain coding errors which understate the asset beta estimate;
 - ii. it reflects material changes in approach from the established regulatory precedent of the 2016 IM which applies to this decision - some of these changes cannot be attributed to the pandemic - all of them were not available to Auckland Airport at the time of setting prices, and are subject to merits review;³ and

³ It is not clear to us how the Commission proposes to revisit any findings in its Final Report that are subsequently impacted by the errors being addressed and/or the outcome of the merits review (assuming that the Final Report is issued first).

- iii. it adopts a tax adjusted market risk premium (“**TAMRP**”) estimate of 7.0%, when the Commission considered that 7.5% (as adopted by Auckland Airport) was reasonable at the time six weeks prior to the start of the PSE4 pricing period.

Auckland Airport presents evidence and analysis setting out amendments that are required to the Commission’s current scenarios to develop what Auckland Airport considers a reasonable mid-point WACC estimate. Adoption of these proposed amendments in full (or part) would eliminate (or materially close) the 122 basis point gap between the Commission’s assessment of an appropriate mid-point cost of capital and the PSE4 target return of 8.73%.

However, in the event that there remains a gap between the Commission’s mid-point WACC, and the PSE4 target return, then the Commission should consider other factors when considering whether the mid-point WACC is reasonable. This submission sets out why reflecting the cost of asymmetric risk, Auckland Airport’s higher operating leverage, the heightened post-pandemic inflationary environment and the observed Auckland Airport asset beta (which is higher than the comparator sample) are all reasons why the Commission should consider that a target return for PSE4 above its mid-point WACC estimate is reasonable.

Accordingly, having considered the Commission’s draft findings and our own analysis, supported by our economic adviser Dr Tom Hird of CEG⁴ (as summarised above), Auckland Airport does not consider that a finding of excess profitability is justified:

As noted earlier in this Executive Summary, the Commission sought further clarity on the use of straight line depreciation and consideration of alternative depreciation approaches, questioned the effectiveness of reducing the free parking period for domestic freighters in increasing efficiency, and requested further detail on how Auckland Airport is being innovative.

Auckland Airport has included details on each of these areas in the relevant sections of the submission, with the key conclusions being:

1. Auckland Airport has considered tilted depreciation and considers that straight-line depreciation remains the most appropriate approach for PSE4. Auckland Airport considers that straight-line depreciation is appropriate for PSE4, consistent with the IMs. Given that the prices set by Auckland Airport are at or below the prices at other comparable airports, alternative approaches are not warranted.
2. The adjustment to the aircraft parking charges exemption was developed to provide incentives for domestic freighters to use the scarce airfield assets at Auckland Airport more efficiently, with efficiency being a key alternative to airfield expansion and increased infrastructure requirements. The adjustment also reduce the inequity between domestic freighters and other airfield users. Auckland Airport considers that ParcelAir does have options to use aircraft and parking facilities more efficiently, for example making use of leased hanger for parking.

⁴ On this basis, I do not consider that there is a strong case for finding AIAL is targeting an excessive level of profitability. *Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 5*

3. Auckland Airport has further developed its submissions in respect of innovation at the airport, such as the introduction of a new stormwater system which has three times the capacity of a traditional system. We consider that innovation has a broad definition, does not only cover “new to world” concepts, and that many of the processes and technologies being implemented at Auckland Airport are innovative, taking advantage of aeronautical advances both international and domestically.

Structure of the submission

In this submission, we have focussed on considering how the Commission’s findings in the Draft Report with regard to profitability (and, where relevant, views expressed through the 2023 Input Methodology (“IM”) review process) could be addressed while maintaining our objective and principled approach. We have also considered and responded to the Commission’s findings on investment, pricing structure and innovation.

The submission is structured as follows:

- a. **Chapter 1: Introduction**
- b. **Chapter 2: Executive summary** – summary of key responses
- c. **Chapter 3: Cost of capital** - we summarise our updated thinking with regard to the profitability assessment, focusing on the Commission’s evidential concerns relating to equity beta and TAMRP. We consider a third scenario as well as asymmetric risk and Auckland Airport specific risk, which form a more accurate estimate of an appropriate target return.
 - i. *Appendix A: Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper, Competition Economists Group (“CEG”)*
- d. **Chapter 4: Expected profitability** – we consider that our approach is consistent with the long-term benefit of consumers, and that our conduct shows we seek to earn an appropriate economic return over time. We agree with the Commission’s findings on operational expenditure, demand forecasts and the revenue wash-up. We also provide additional context as to why straight-line depreciation is the appropriate choice for PSE4.
- e. **Chapter 5: Investment** - we support the Commission’s findings with regard to capital expenditure (capex) and timing and the appropriateness of the capex washup. We respond to the additional information provided on the Arup design and provide the additional detail requested by the Commission on the capacity benefits of the Domestic Jet Terminal.
- f. **Chapter 6: Pricing structure** - we agree with the Commission’s draft findings that the pricing structure is largely unchanged and therefore remains reasonable. We provide additional information on the stand capacity constraints we are looking to manage through the change to domestic freighter parking charges and the options we see available to ParcelAir to improve the efficiency of their operations and reduce demand for scarce parking resources at Auckland Airport.

- g. **Chapter 7: Innovation** – we consider a broad definition of innovation and seek clarity from the Commission on its approach to assessing innovation going forward. We also provide more developed submissions on how innovation is being applied at Auckland Airport.

3 Cost of capital

Auckland Airport has provided the Commission with extensive detail on how the cost of capital was set as part of the PSE4 pricing decision, including the following detail:

Setting the target return for PSE4 needed to ensure that the incentives to invest in the infrastructure required at Auckland were maintained, while ensuring that targeted profitability remained appropriate. The intention was to find the right balance, so that the overall the purpose of Part 4 continued to be promoted. Auckland Airport considered that the most appropriate way to do this was to ensure that the cost of capital was informed by the most up to date and recent information, in a way that was consistent with the regulatory precedent that had been set in the 2016 IMs where it was appropriate to do so.⁵

This process resulted in a targeted return on priced aeronautical activities of 8.73% post-tax, by re-estimating the WACC inputs in-line with the 2016 IM, as it was clear that the estimates in the 2016 IM were now out of date and did not reflect the risk of pandemics to airports. The Draft Report acknowledges that Auckland Airport had genuine reasons for updating these estimates:

We understand why Auckland Airport has updated the equity beta estimate in the 2016 IMs. The equity beta is normally a relatively stable estimate over time and the estimate made at the IM review would be expected to be applicable for the period of the IMs. However, the COVID-19 pandemic has had a disruptive effect on airports which may have caused the equity beta estimate in the 2016 IMs to be out of date. We therefore accept that Auckland Airport had legitimate reasons for departing from using the 2016 IMs for their calculation of the equity beta.⁶

However, the Commission considered the approach adopted by Auckland Airport over-compensated for pandemic risk, and assessed the reasonableness of Auckland Airport's target return against two scenarios developed as, in its view, reasonable reference points.

This submission does not seek to re-explain Auckland Airport's reasons for the PSE4 target return, but rather focuses on these scenarios, and sets out evidence and analysis that indicates that these scenarios, as they currently stand, do not provide a reasonable basis to assess the target return for assessing PSE4.

The analysis shows that the first scenario is not forward looking, in that it does not reflect pandemic risk, and continues to apply a downwards adjustment related to aeronautical risk which has now been disproven through the international and domestic response to the Covid-19 pandemic.

⁵ Auckland Airport, "Submission on Commerce Commission Process and Issues Paper for its review of Auckland Airport's 2022 - 2027 price setting event", (January 2024), p. 4-5

⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.46

The second scenario is based on the 2023 IM which is subject to a merits review process and includes coding errors that have resulted in the WACC being under-stated.⁷ The 2023 IM also materially departs from the regulatory precedent of the 2016 IMs which apply to this pricing decision – importantly not all of these changes are for reasons that are related to the pandemic. The Draft 2023 IM was released after Auckland Airport set its target return for PSE4. Changes in that draft that were unrelated to the pandemic, could not have been predicted by Auckland Airport. Further, the second scenario adopts a lower TAMRP than the Commission considered reasonable prior to the start of the PSE4 pricing period.

Auckland Airport considers it is unreasonable to assess the PSE4 target return against a scenario that reflects material changes in approach that are not in response to the pandemic, or adopts other methods which depart from what the Commission considered to be reasonable at the start of the pricing period. Auckland Airport applied the Commission’s methods in place at the time it set prices.

We request that the Commission consider and respond to the evidence presented in this submission, and develop a more appropriate estimate of the mid-point WACC to assess the PSE4 pricing decision. We demonstrate below why we consider this estimate should be forward-looking to reflect pandemic risk, correct the coding errors embedded in the 2023 IM asset beta, maintain the 2016 IM sampling methodology (as changes in the 2023 IM are unrelated to the pandemic), and apply the TAMRP of 7.5% which the Commission considered to be reasonable at the start of the PSE4 pricing period. We submit that it is appropriate for the Commission to consider and assess each of these issues separately when considering the appropriate mid-point WACC.

In the event that, after having considered this evidence, there remains a gap between the Commission’s mid-point WACC and the PSE4 target return, we request the Commission consider other reasons that could explain the difference. We provide evidence why compensation for asymmetric risk, Auckland Airport’s operating leverage, the heightened post-pandemic inflationary environment and the observed Auckland Airport asset beta, are all reasons why a target return above the mid-point WACC estimate should be considered reasonable.

Auckland Airport submits on these issues related to the cost of capital, supported by an expert analysis and accompanying report by CEG: *Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper*, which we attach to this submission and submit to this review.

Scenario 1: 2016 IM inputs as prescribed, TAMRP from 2020 fibre IMs

The Draft Report describes “**Scenario 1**” as the following:

⁷ It is unclear to Auckland Airport how the Commission proposes to revisit any findings in the Final Report that are based on the 2023 IM if the 2023 IM is subsequently changed to address the errors or following the merits review. In addition to all of the reasons explained in this submission as to why the 2023 IM is substantively an inappropriate benchmark to assess Auckland Airport’s PSE4 WACC, if it is relied on the Final Report, it will create regulatory uncertainty.

The first scenario is consistent with the 2016 IMs except that it uses a higher value for the TAMRP. The WACC parameters are the same as those used by Christchurch Airport but with a risk-free rate and debt premium as at 1 July 2022. This alternative estimate of the WACC is 7.28%, based on an equity beta of 0.74, leverage of 19% and a TAMRP of 7.5%.⁸

Auckland Airport agrees with the input parameters for risk free rate, debt premium, and TAMRP, which align to the inputs adopted in the PSE4 pricing decision.

As set out below, the equity beta and leverage assumptions adopted in Scenario 1 are inconsistent with the Commission's stated view that equity beta should be a forward-looking estimate of the pricing period in question. Accordingly, based on the Commission's own reasoning Scenario 1 does not provide a valid reference point for assessing Auckland Airport's cost of capital, and it should be set aside by the Commission in its final report. Further explanation of these views is outlined below.

Risk-free rate and average debt premium

The Draft Report reaches the following conclusion on risk-free rate and average debt premium:

Our draft conclusion is that it is reasonable for Auckland Airport to use 1 July 2022 as the date for setting the risk-free rate and average debt premium. This approach is consistent with evidence that 1 July 2022 was agreed to by Air NZ and BARNZ in Auckland Airport's correspondence with substantial customers as part of the agreement to defer the price setting. It is also similar to the approach taken for Wellington Airport's PSE4 where prices were set retrospectively.⁹

Auckland Airport supports this draft finding. The risk-free rate and average debt premium were set based on market data up until the start of the PSE4 pricing period, and in-line with the approach specified in the price freeze proposal for the first year of PSE4, that was supported by Air New Zealand and BARNZ at the time.

Equity beta

In Scenario 1 equity beta is the only WACC input parameter that deviates from the input parameters adopted by Auckland Airport.

This scenario adopts an equity beta of 0.74, based on an asset beta of 0.60, and leverage of 19%.¹⁰ These are the inputs as prescribed in the 2016 IM, i.e. they were measured during the 2016 IM Review, and reflect estimates based on backward looking data over the previous 10 years to 2006. Accordingly, this estimate of equity beta does not take account of any pandemic risk (or any other more recent systemic risk factors impacting airports).

⁸ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph, 2.78

⁹ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.38

¹⁰ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), table 2.2

Further, the asset beta estimate reflects a downward adjustment of 0.05 applied in the 2016 IM to reflect an assumption that aeronautical activities were lower risk than non-aeronautical activities. However, the adjustment applied in the 2016 IMs (and 2010 IMs) had not been based on supporting empirical analysis. Subsequent analysis justifying the removal of this adjustment was considered by the Commission in the 2023 IM Review, with the adjustment now discontinued.¹¹ This same analysis was also presented as part of the consultation for the PSE4 pricing decision. The removal of the downward adjustment is not a product of changing circumstances or updated data. Rather, it was removed because it has never been justified. It follows that, regardless of when it was determined, an asset beta that incorporates a downward adjustment should not be used to assess PSE4 pricing.

For these two key reasons, the 2016 IM asset beta cannot be considered to be up to date, or a forward-looking estimate of airport asset betas at the start of the PSE4 pricing period. Accordingly, the use of this input parameter is in direct conflict with the Commission's own stated purpose of equity beta:

While the method Auckland Airport has used is the method we previously used to calculate equity beta, the purpose of the equity beta is not to provide compensation for historical events. Instead, the equity beta is a forward-looking estimate of the relative risk from holding an airport company in a diversified portfolio of investments compared to holding the market share index. The equity beta that should be applied to the WACC for PSE4 is the market's view of the equity beta over the PSE4 period.¹²

Rationale for Scenario 1

The Commission outlined its rationale behind the inputs adopted for Scenario 1, citing that it reflected the approach adopted by Christchurch Airport:

Our first scenario follows the approach adopted by Christchurch Airport, which chose not to revise the equity beta and leverage from the values in the 2016 IMs. This is a reasonable option for determining the equity beta and leverage because it was the approach used by a peer airport in New Zealand and applied to the same price period.¹³

The choices made by Christchurch Airport to not update the 2016 IM input parameters must be put into the context of the time. As Christchurch did not delay its price reset during the pandemic, it set its prices during a period where international airports were still experiencing the full impacts of closed borders and lock downs, a time where airports had limited resources. The exercise undertaken by Auckland Airport to refresh the 2016 IM estimates was substantial, and in

¹¹ Commerce Commission, "Cost of capital topic paper Part 4 Input Methodologies Review 2023 – Final decision" (December 2023), paragraphs 4.107-4.108

¹² Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.48

¹³ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.69

retrospect would have been far more difficult to achieve without the delay of the pricing consultation process by one year. In its price setting disclosures, Christchurch acknowledged that the 2016 IM asset beta estimate was not capturing all the appropriate risks:

Despite reservations as to whether it properly captures all risks that apply to airports, CIAL has applied the estimated asset beta as set out in the IMs.¹⁴

Further, the importance of the equity beta estimates for the respective airports differ due to their vastly differing capital investment plans. Auckland Airport has a substantial but reasonable capital investment plan of \$5.7 billion of priced aeronautical assets (\$6.7 billion total regulated assets) over 10 years, whereas Christchurch has planned \$311 million of investment over the same time horizon. The materially higher levels of capital due to be deployed by Auckland Airport relative to Christchurch was a key reason why Auckland Airport was required to spend considerable time and effort to ensure the pricing WACC was reasonable for Auckland Airport's specific and unique circumstances.

In this context, Auckland Airport does not consider that simply because an approach has been adopted by Christchurch Airport justifies that approach as a relevant reference point for a review of Auckland Airport. Rather, any assessment, including the development of benchmark scenarios for the cost of capital, should be based on its own merits and account for airport-specific circumstances. Such an approach is consistent with the Commission's profitability assessment framework.

The Commission also stated Scenario 1 was in line with its standard expectation to adopt IM parameters as prescribed:

It is also the option that is consistent with our standard expectation that the equity beta and leverage estimates that were made at an IM review would be applicable for the period of the IMs.¹⁵

Auckland Airport's submission is that to adopt 2016 IM parameters unchanged does not constitute a forward-looking equity beta, which is the Commission's explicitly stated intention (outlined above).¹⁶ The period of the 2016 IM expired one year into PSE4, and Auckland Airport's task was to determine an asset beta that was applicable for the five year PSE4 period. Further, the Commission acknowledges in the Draft Report that Auckland Airport had legitimate reasons to update the equity beta parameter:

We understand why Auckland Airport has updated the equity beta estimate in the 2016 IMs. The equity beta is normally a relatively stable estimate over time and the estimate made at the IM review would be expected to be applicable for

¹⁴ Christchurch International Airport Limited, "Disclosure Relating to the Reset of Aeronautical Prices for the Period 1 July 2022 to 30 June 2027", (August 2022), paragraph 141

¹⁵ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.69

¹⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.48

the period of the IMs. However, the COVID-19 pandemic has had a disruptive effect on airports which may have caused the equity beta estimate in the 2016 IMs to be out of date. We therefore accept that Auckland Airport had legitimate reasons for departing from using the 2016 IMs for their calculation of the equity beta.¹⁷

Tax adjusted market risk premium

Scenario 1 adopted a TAMRP of 7.5%. This was in line with the TAMRP adopted in the PSE4 target return. Further comments on consideration of the TAMRP are provided below when considering Scenario 2.

Conclusion 1: Scenario 1 should be disregarded in the final report

Auckland Airport considers that the Scenario 1 calculation of the cost of capital is not a reasonable estimate of the PSE4 cost of capital, and should be disregarded in the Commission's final report.

Scenario 2: 2023 IM inputs

The Draft Report describes “**Scenario 2**” as the following:

The second scenario, which uses parameters that are consistent with the 2023 IMs, results in a WACC of 7.51%. This scenario uses an equity beta of 0.87, leverage of 23% and a TAMRP of 7.0%.¹⁸

Scenario 2 calculated by the Commission uses the 2023 IM input parameters for equity beta and TAMRP to calculate the mid-point WACC. Auckland Airport does not consider that these input parameters provide an appropriate reference point for the reasons stated below.

Risk-free rate and average debt premium

Auckland Airport agrees with the Commission's assessment of risk-free rate and average debt premium for the same reasons outlined above for Scenario 1.

Equity beta

Auckland Airport does not consider that the equity beta adopted from the 2023 IM decision provides an appropriate reference point for assessing the returns targeted in the PSE4 pricing decision.

We agree that it is appropriate for the PSE4 review to consider the impacts of the pandemic in assessing Auckland Airport's adopted cost of capital, however we do not consider the 2023 IM provides a reasonable point of assessment for the following reasons:

¹⁷ Commerce Commission, “Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 2.46

¹⁸ Commerce Commission, “Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 2.79

- the calculations in the 2023 IM contain two separate coding errors which have understated the asset beta estimate adopted in the 2023 IM;
- new criteria introduced in the 2023 IM to filter the sample of comparator companies cannot be attributed to issues caused by the pandemic – these new criteria present a substantial departure from established regulatory precedent in the 2016 IMs without a valid reason for change.

This view is supported by CEG, which has considered these issues in its attached report *Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper*. Further detail is provided below regarding the reasons for this assessment.

Given that the adjustments to the comparator sample made by the 2023 IM are subject to merits review, Auckland Airport expects that the Commission will be unwilling to concede for the purposes of this review that the changes were not valid. However, we believe that the Commission can and should accept that Auckland Airport's PSE4 asset beta should only be measured against scenarios that use a large comparator set for the asset beta as per the 2016 IM, given that the 2023 IM changes were made after Auckland Airport set prices.

Adjusting asset beta to reflect pandemic risk

The COVID-19 pandemic and its impact on aviation was not foreseen when the 2016 IMs were determined. The asset beta set in 2016 did not reflect pandemic risk, nor contemplate any adjustments for pandemic risk.

Auckland Airport has applied what we consider the most principled approach to give due regard to regulatory precedent, which was to update the input parameters based on data at the start of the PSE4 pricing period, without applying any adjustments due to the pandemic. We consider that this approach appropriately balances the need to maintain incentives to invest in the aeronautical infrastructure that Auckland Airport requires, while keeping profitability at an appropriate level. This would be consistent with the Commission's approach in the 2010 IM to not adjust airport asset beta for the impacts of the Global Financial Crisis.

However, we acknowledge that the Commission adopted a different approach in the 2023 IM decision, which sought to follow the Flint method that was adopted by the UKCAA to adjust for pandemic risk. The Flint method involves two key steps:

- calculation of baseline asset beta that is not impacted by pandemic data; and
- calculation of an uplift to the baseline asset beta to reflect expected future pandemic risk.

Auckland Airport sets out below further analysis of the approach adopted by the Commission in the 2023 IM decision, including its use of the Flint method in response to the pandemic, and other departures from previously established precedent in the 2016 IM.

Calculation of baseline asset beta

Under the Flint method, the baseline asset beta is estimated to reflect the asset beta of the selected comparator sample of companies, with pandemic impacted data excluded. In the context of the COVID-19 pandemic, that involves excluding historic asset beta observations for airports in the comparator set that are considered to have been impacted by the pandemic.

Use of weekly and four-weekly estimates

The 2016 IM uses the average of the weekly and four weekly-asset beta estimates of the comparator sample when determining its asset beta estimates.¹⁹ This is also the stated approach for estimating asset beta in the 2023 IM.

However, NZ Airports has identified coding errors in the calculation of asset beta in the 2023 IM. One of the errors relates to the calculation of the baseline asset beta, which inadvertently excludes 4-week asset betas. As per the joint expert report Commissioned by NZ Airports:

The NZCC intended to calculate the “pre-COVID” asset beta by averaging the weekly and four-weekly pre-COVID asset betas. However, the code only averaged the weekly asset betas. This correction will change the pre-COVID asset beta from 0.63 to 0.65.²⁰

Conclusion 2: Coding error understates baseline asset beta

Accordingly, if the Commission continues to use the 2023 IM comparator set (despite our views that a larger comparator set should be used), we consider the 2023 IM asset beta should be revised upward by 0.02 in order to rectify this coding error, and reflect the stated intention of the 2023 IM, which was also consistent with the applicable precedent of the 2016 IM to calculate beta based on weekly and four-weekly observations.

Calculation of pandemic uplift

Under the Flint method, the pandemic uplift is calculated based on the observed impact of the pandemic on asset beta, and assumptions made about the potential duration and frequency of future pandemics.

However, NZ Airports has identified coding errors in the calculation of the uplift in the 2023 IM. The code used to calculate the pandemic uplift applied an ordinary least squares regression, rather than a weighted least squares regression consistent with the Flint method. As per the joint expert report Commissioned by NZ Airports:

The final decision sought to apply the “Flint method” to inform the NZCC’s judgment in determining an appropriate level of pandemic adjustment. The Flint method requires the application of a weighted least square (WLS) regression. The NZCC code failed to correctly apply a WLS regression. Correctly implementing the WLS regression, the range of the pandemic premium for AIAL’s weekly asset beta increases from 0.02-0.08 to 0.07-0.15.²¹

¹⁹ Commerce Commission, “Input methodologies review decisions Topic paper 4: Cost of capital issues” (December 2016), paragraph 473.

²⁰ Competition Economists Group, Incenta, HoustonKemp, “Responding to - Coding errors made by NZCC”, (April 2024), paragraph 7

²¹ Competition Economists Group, Incenta, HoustonKemp, “Responding to - Coding errors made by NZCC”, (April 2024), paragraph 18

The joint expert report finds that this is a material error, as the impacts on the frequency of future pandemics that are being assumed in the estimates are material:

The NZCC transforms the data by the desired weights rather than the square root of the desired weights. Consequently, the actual weight the NZCC gives to the “non-COVID” observation is the square of the desired weights. This means, for example, when the NZCC is trying to model a one in 50 year pandemic it is actually modelling a one in 660 year pandemic.²²

Conclusion 3: Coding error understates Flint method pandemic uplift

As the final decision adopted an uplift of 0.04, correction of the error would increase the size of the uplift by 0.03-0.11, with 0.07 at the bottom-end of the estimated uplift range and 0.15 at the top-end.

Given the Commission’s decision to use 0.04 from a range of 0.02-0.08, we would consider that a value at or near the mid-point of the corrected range would also be appropriate. Using the mid-point would result in an uplift of 0.11, or 0.07 higher than the current uplift.²³

Selection of comparator sample

The 2023 IM adopts a comparator sample of 9 companies, by applying new filtering criteria, that were newly introduced in the 2023 IM decision. Auckland Airport considers the 2023 IM comparator sample does not provide a reasonable comparison to the PSE4 pricing decision because:

- the previous approach to selecting a large comparator sample was well established through two IM reviews (2010 and 2016), meaning the regulatory precedent available at the time of the PSE4 decision did not contemplate the use of new filtering criteria to shrink the sample;
- the additional filtering criteria introduced in the 2023 IM cannot be justified as a logical response to estimating asset beta following the pandemic, meaning there was no reason for Auckland Airport to anticipate that the 2023 IM or this pricing review would adopt a new approach to compiling the comparator sample;
- the asset beta under the 2023 IM is lower than using the 2016 IM method for compiling the comparator sample, but with pandemic impacted data excluded and no pandemic adjustment.

Relevant precedent

The 2016 IM adopted a broad sample of comparator airport companies, as per the approach in the 2010 IM.²⁴

²² Competition Economists Group, Incenta, HoustonKemp, “Responding to - Coding errors made by NZCC”, (April 2024), paragraph 36.a.

²³ For the avoidance of doubt, Auckland Airport does not consider this to be the correct method or uplift to account for pandemic risk. Rather, they are the values that should be used if the Commission corrects the coding errors in its own method.

²⁴ The 2010 IMs used a sample of 25

This precedent was first established when the 2010 IMs were determined, which considered how to establish the sample of comparator companies to estimate an airport asset beta. In the draft reasons paper for the 2010 IM, the Commission estimated an airports asset beta that was based on a sample of ten airport companies:

The only New Zealand airport that is listed on a stock exchange is AIAL. The Commission therefore included nine international overseas firms that operate airports in its sample of comparable firms.²⁵

The Commission changed its approach in its final decision, in response to submissions from airlines that considered asset beta was too high because the sample of ten airport companies was too small. Airlines submitted that the sample should be broadened to produce a lower asset beta estimate:

*Air NZ and BARNZ were concerned about the asset beta estimate provided by the Commission **considering it was too high**, and that therefore it would overstate the cost of capital for airport services²⁶*

***SFG (for Air NZ) increased the size of the comparator sample (from that used by the Commission in the Draft Reasons Paper).** Using the same approach as outlined by the Commission SFG concluded that the Commission's estimate of beta was overstated and that a more appropriate asset beta value was in the order of 0.50.²⁷*

Having considered this feedback, in the final decision for the 2010 IMs the Commission expanded its sample set, using criteria only to remove companies that were considered to be too small in value (for the potential effect of thin trading volumes), or had limited trading history.²⁸ In total, 25 airport companies were included in the sample.²⁹

This approach was carried forward to the 2016 IM, where 26 comparator companies were included in the sample. As was noted by the Commission during the 2016 IM Review:

The first step in our process is to identify relevant comparable firms for inclusion in our sample. We have followed largely the same approach to identifying the comparators for our sample as we did for the 2010 IMs.

²⁵ Commerce Commission, "Input Methodologies (Airport Services) - Reasons paper", (December 2010), paragraph 6.9.10

²⁶ Commerce Commission, "Input Methodologies (Airport Services) - Reasons paper", (December 2010), paragraph E.8.24

²⁷ Commerce Commission, "Input Methodologies (Airport Services) - Reasons paper", (December 2010), paragraph E.8.27

²⁸ Commerce Commission, "Input Methodologies (Airport Services) - Reasons paper", (December 2010), paragraph E8.43-44

²⁹ Commerce Commission, "Input Methodologies (Airport Services) - Reasons paper", (December 2010), Table E18

To identify relevant comparable firms for inclusion in the sample, we used Bloomberg's security finder to search for firms with 'Airport' in the description. In 2010, on the other hand, we used the 'Airport Development/Maintenance' and 'Transport – Services' ICBs to identify airports for our sample – however these classifications appear to no longer exist.

We then used Bloomberg company descriptions and 'Segment Analysis' information to assess the nature and extent of each company's business, and excluded any firms from the sample that we did not consider were sufficiently comparable. Consistent with our 2010 decision, we have also only included companies that had at least five years of trading data, and a market value of equity of at least US\$100m

This resulted in a sample of 26 firms.³⁰

New Zealand Airports remained supportive of this approach which maintained the previous precedent set on selecting the comparator sample from the 2010 IM,³¹ a submission which Auckland Airport was a party to and supported, as maintaining the sampling approach promoted regulatory certainty. Updating the sample set in accordance with the IMs was mostly a mechanical exercise, meaning it should be possible for airports to update the comparator sample at the time they set prices with little controversy.

2023 IM sample filtering criteria

New filtering criteria for the comparator sample were introduced in the 2023 IM that were not applied in the 2016 or 2010 IM estimates of asset beta. These additional criteria removed many of the comparator airport companies that were included in the asset beta estimate used in the 2016 IM.

The first filter was based on negative leverage, the second to remove firms based on liquidity:

Given our concerns about some of the firms using negative leverage to offset risks specific to their particular market (even outside of the Covid period), we have decided to restrict the sample to firms with positive leverage over the pre-Covid period. We also consider it appropriate to remove firms that are relatively illiquid. This removes 11 firms to leave a sample of 13.³²

This reflects a fundamental change in the methodology used to determine asset beta from the 2016 IM where such filters were not applied.

³⁰ Commerce Commission, "Input methodologies review decisions Topic paper 4: Cost of capital issues" (December 2016), paragraphs 460-463

³¹ NZ Airports Association, "Submission on Commerce Commission's input methodologies review draft decision", (August 2016), paragraph 155

³² Commerce Commission, "Cost of capital topic paper Part 4 Input Methodologies Review 2023 – Final decision", (December 2023), paragraph 4.157

Further filters were then applied, based on country risk classifications and asset beta reliability, with a further two firms removed from the sample:

GMRI on the basis of its high country-risk premium and country classification as secondary emerging.³³

Malta International Airport on the basis of its country classification and asset beta reliability.³⁴

This was then followed by a fourth step to remove two firms based on asset beta variability:

*There was criticism in submissions that we should not use country risk premium as an indicator because a firm's asset beta is relative to the market it is traded on, and all markets have an average equity beta of 1.0. This is a reasonable point. However, **we are also endeavouring to establish a sample that can be used to understand the effects of the pandemic**, and firms in countries that are not classified as developed or advanced emerging tend to have greater volatility in their asset beta estimates. Instead of using country risk premium, it may be more appropriate to remove firms with relatively high beta variability. On this basis, there are grounds for excluding the firms from Malaysia and Mexico, and we have decided to do so.³⁵*

CEG has opined on the application of these filters and concluded that these filters have not been introduced in response to the COVID-19 pandemic, but rather reflect an unrelated change in approach from the Commission to determine asset beta.

As noted by CEG:

The first and second steps remove 11 out of 24 firms. This is due to a change in sample selection criteria that cannot be (and was explicitly stated not to be) specific to the COVID-19 period (and would be illogical if it was given that no data from this period was used to estimate the pre-COVID asset beta).³⁶

These additional 4 exclusions reduce the sample from 13 to 9 firms. None of the rationales for these exclusions are based on the sample needing to change in response to COVID-19.³⁷

³³ Commerce Commission, "Cost of capital topic paper Part 4 Input Methodologies Review 2023 – Final decision", (December 2023), paragraph 4.160.1

³⁴ Commerce Commission, "Cost of capital topic paper Part 4 Input Methodologies Review 2023 – Final decision", (December 2023), paragraph 4.160.2

³⁵ Commerce Commission, "Cost of capital topic paper Part 4 Input Methodologies Review 2023 – Final decision", (December 2023), paragraph 4.163

³⁶ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 34

³⁷ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 36

The reference to “a sample that can be used to understand the effects of the pandemic” is a non-sequitur because the NZCC does not use the final sample of 9 firms to estimate the effect of the pandemic. The NZCC only uses AIAL’s data to estimate the impact of the effect of the pandemic. Including or excluding Malaysia and Mexico from its final sample would have no impact on the NZCC’s estimate of the effect of the pandemic. Excluding firms with “relatively high beta variability” from the sample used to estimate the pre-COVID-19 asset beta can have no rationale link to the experience of COVID-19 (which was completely excluded from the pre-COVID-19 asset beta estimate).

In summary, the new criteria adopted in the 2023 IM were open to the NZCC to apply in the 2016 IM and would have had a similar effect at that time. The NZCC did not adopt those criteria at that time.

Of course, it is true that:

- *the effect of the NZCC’s 2023 decision to apply new selection criteria is to lower the estimated pre-COVID estimated asset beta (relative to the 2016 IM sample selection method) by around 0.08³⁸*

The fact that none of the filtering criteria have any logical connection to understanding or mitigating the impact COVID-19 is inconsistent with the Commission’s stated reasoning for adopting the 2023 IM equity beta in assessing the PSE4 pricing decision. The 2023 IM was selected for Scenario 2 on the basis that the change to the comparator sample was applied to accurately capture the impacts of the pandemic (Auckland Airport emphasis):

*The 2023 IM review considered the issues around the estimation of the equity beta and leverage in detail and involved multiple rounds of consultation before coming to a final decision. **The 2023 IMs were based on a comparator sample that differed from the 2016 sample because we considered the 2016 sample was not reliably capturing the effects that COVID-19 had on the airport equity beta and leverage.***³⁹

This statement in the PSE4 review reflects the reasoning set out in the 2023 IM cost of capital topic paper (Auckland Airport emphasis):

Our view is that the spike in airport asset betas caused by Covid was an important reason for reconsidering how we establish the comparator sample. *When we reviewed our 2016 sampling method, we concluded that we should apply a more rigorous consideration of comparability before accepting firms in the sample. As a result, we reconsidered our approach and applied a stronger liquidity filter, removed firms that appear to be using negative leverage*

³⁸ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraphs 38-40

³⁹ Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 2.71

to offset their high business risk, and removed firms that have market comparability concerns and statistical noise in their beta estimates. Including these firms would have made it more difficult to understand the effects of the pandemic on beta and more challenging to determine the most likely value of beta to apply for the term of the IMs.⁴⁰

As demonstrated above, this reasoning is inconsistent with the specific rationale for applying each of the additional filters in the 2023 IM as they cannot be logically attributed to capturing the impacts of the pandemic, and the reasons stated in the 2023 IM have no relevance to the pandemic.

Further, the application of the Flint method means that the baseline asset beta (for which the sample is relevant) includes no pandemic impacted data, and the pandemic uplift was calculated on Auckland Airport only. This renders the impacts of the pandemic irrelevant to the sample selection of comparator companies.

Conclusions on sample selection

The Draft Report supports the use of the 2023 IM sample of comparator companies as follows (emphasis added):

*An alternative is to use the outcomes of the 2023 IM review. **Even though these outcomes were not available to Auckland Airport when it set its prices, the outcomes are our best estimate** of the methods that would be used by investors, market analysts and companies to determine the WACC for airports in the context of the COVID-19 pandemic.⁴¹*

Auckland Airport disagrees with the conclusion that the 2023 IM approach to selecting the comparator sample provides the best estimate to determine an appropriate cost of capital for Auckland Airport's PSE4 in the context of the pandemic because:

- the regulatory precedent set in the 2010 and 2016 IMs was to adopt a wide comparator sample with limited filtering criteria;
- the change from this established precedent by using additional filtering to shrink the comparator sample was introduced for reasons that are not logically related to the pandemic. The rationale used could equally have been applied in developing the 2016 or 2010 IM equity beta parameters (but were not applied); and
- the additional filtering criteria were not available at the time of the pricing decision – to expect that Auckland Airport, or any investor or company could have contemplated the introduction of these new criteria is unreasonable. It is certainly not the case that Auckland Airport should or could have anticipated that the pandemic would result in material changes to the IM comparator sample. A more reasonable position to assess Auckland Airport's PSE4 decision is

⁴⁰ Commerce Commission, "Cost of capital topic paper Part 4 Input Methodologies Review 2023 – Final decision", (December 2023), paragraph 4.177

⁴¹ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.70

the approach adopted in the 2016 IM, as that is what Auckland Airport, airlines and investors expected at the time.

Conclusion 4: 2016 IM sampling criteria is the most reasonable to apply to the PSE4 pricing decision

Auckland Airport considers that the 2023 IM sampling criteria do not provide a reasonable basis for assessing the PSE4 pricing decision, given the material departure from the approach established in the regulatory precedent of the 2010 and 2016 IMs, and the illogical attribution of the introduction of new filtering criteria to the pandemic. The 2016 IM, which provides the basis for assessing this decision, was the most recent regulatory precedent available to Auckland Airport at the time of the pricing decision and any reasonable assessment of the PSE4 pricing decision should be made based on the 2016 IM sampling criteria.

Calculation of baseline asset beta based on 2016 IM approach

Calculating a baseline asset beta (ie excluding any pandemic impacted data) using the 2016 IM methodology provides an appropriate reference point to assess the reasonableness of using the 2023 IM asset beta as a benchmark. This approach carries forward the previous IM methodology, but excludes any impacts of the pandemic. It should provide a conservative estimate of what a reasonable asset beta is, prior to any pandemic adjustments.

CEG has used the 2016 IM sampling methodology to calculate the baseline asset beta, correcting for the coding errors to calculate the average of weekly and four weekly estimates. This approach, exclusive of any pandemic adjustment, calculates a baseline asset beta of 0.73. As noted by CEG:

I therefore include a sensitivity in which I use the 2016 IM asset beta comparator sample selection methodology rather than the 2023 IM sample. This results in my estimate of the pre-COVID-19 asset beta rising from 0.65 (inclusive of coding correction) to 0.73.⁴²

This indicates that a reasonable approach to estimating asset beta, following the established regulatory precedent, results in a materially higher baseline asset beta (i.e. before pandemic risk is accounted for). This implies that the 2023 IM baseline asset beta estimate of 0.63 is materially understated.

Conclusion 5: 2023 IM equity beta does not provide a reasonable basis to assess the PSE4 pricing decision and should be discarded by the Commission in its final assessment

As set out above, there are a number of reasons why the 2023 IM estimate of asset beta materially understates a reasonable Auckland Airport PSE4 asset beta, including:

- *coding errors in the calculation of the baseline asset beta;*
- *coding errors in the calculation of the pandemic uplift under the Flint method;*

⁴² Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 26

- *the additional sampling criteria introduced in the 2023 IM has no basis in regulatory precedent, nor can their introduction be attributed to the pandemic. It is not an approach that could have reasonably been anticipated by airports, airlines and investors at the time PSE4 prices were set; and*
- *the baseline asset beta (i.e. no pandemic risk accounted for) using the 2016 IM filtering criteria (0.73) is higher than the 2023 IM asset beta that includes a pandemic uplift.*

Tax adjusted market risk premium

In Scenario 2 the Commission adopts a TAMRP parameter of 7.0%. This is compared to the TAMRP of 7.5% adopted in the PSE4 pricing decision, the same value adopted by Christchurch Airport in its PSE4 pricing decision – an approach the Commission considered to be reasonable in its pricing review:

We accepted the use of 7.5% by Christchurch Airport for its PSE4 on the basis that it was our most recent estimate when it made its pricing decision in mid-2022.⁴³

However, for its analysis of Scenario 2, the Commission considers that Auckland Airport should have recalculated the TAMRP, because the asset beta input parameter was re-calculated based on updated input data:

Auckland Airport should have recalculated the TAMRP, just as it recalculated equity beta and leverage⁴⁴

The Commission elaborates further on the reasons why it has treated its assessment differently in Scenario 2:

However, Auckland Airport postponed its decision for a year and has adopted an approach that uses market data as at 1 July 2022, but information and methods that were developed or available after 1 July 2022. It is unclear why Auckland Airport chose to recalculate the equity beta and leverage in 2023 but not the TAMRP.⁴⁵

Auckland Airport should have recalculated the TAMRP, just as it recalculated equity beta and leverage, and as a result would have used a value of 7.0%. We consider that this is the value that would have been used by investors, market analysts and companies at the time Auckland Airport set its prices.⁴⁶

⁴³ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.64

⁴⁴ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.74

⁴⁵ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.65

⁴⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.74

Auckland Airport considers that there are a number of reasons that justify why the approach to adopt the latest published estimate of the TAMRP was reasonable.

TAMRP was not materially impacted by the pandemic

As has already been set out, Auckland Airport updated the asset beta estimate because the COVID-19 pandemic had a material impact on the asset beta of airports, and this event revealed new information about the true risk of pandemics faced by airports. Auckland Airport considers that the pandemic gave legitimate reasons to re-estimate the asset beta of airports, a position to which the Commission has confirmed it agrees.⁴⁷

However, the impacts of the pandemic on airport asset beta estimates were more material than the impacts on the TAMRP estimate. As the Commission has noted, this is an economy wide measure:

*The TAMRP is a key parameter in our estimate of the cost of equity. The TAMRP is a market-wide parameter, so we use a consistent approach across all sectors that we regulate.*⁴⁸

Further, the Commission's estimate of TAMRP available at the time of setting prices, was far more recent than the Commission's estimate of asset beta for airports in 2016, and had been used by the Commission post-pandemic:

*We re-estimated the TAMRP in 2020 as part of the process of setting the cost of capital IMs for fibre and concluded the TAMRP had increased from 7% to 7.5%. In March 2022 we amended the IMs for GBPs to incorporate the new estimate of 7.5% for the TAMRP.*⁴⁹

With the Commission estimating the TAMRP of 7.5% in 2020 and again applying it in March 2022, this indicates that the Commission considered 7.5% provided a reasonable estimate of the post-pandemic TAMRP.

However, the Commission noted in the Draft Report:

*However, we also consider that Auckland Airport's approach of using the latest published value of the TAMRP that was available when it made its decision, which is 7.5%, would not have been unreasonable if it had also used this alongside the values of equity beta and leverage from the 2016 IMs.*⁵⁰

⁴⁷ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.46

⁴⁸ Commerce Commission, "Part 4 Input Methodologies Review 2023 - Process and Issues paper", (May 2022), paragraph 6.45

⁴⁹ Commerce Commission, "Part 4 Input Methodologies Review 2023 - Process and Issues paper", (May 2022), paragraph 6.48

⁵⁰ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.75

Auckland Airport does not consider that it is reasonable to treat the 2016 IM asset beta estimate the same of the TAMRP. Determining an appropriate TAMRP was a fundamentally different circumstance compared to the asset beta for airports which was previously estimated in 2016 – some six years prior – and had also been materially impacted by the pandemic.

The Commission validated use of a TAMRP of 7.5% three months prior to the start of PSE4

The TAMRP was a much more recent estimate. One reason (there are others) Auckland Airport opted to adopt the published TAMRP of 7.5% was this parameter was validated by the Commission in March 2022, just three months prior to the start of the PSE4 pricing period of 1 July 2022.

Precedent supported adopting the Commission's most recent estimate of TAMRP rather than re-estimating it

In setting the Fibre IMs the Commission rejected submissions that the TAMRP should be updated at the start of regulatory periods:

In our Fibre IMs-setting process we discussed and rejected submissions suggesting that the TAMRP should not be prescribed in the cost of capital IMs but should be determined at the start of each regulatory period.⁵¹

In arriving at this decision, we balanced the certainty provided by setting the TAMRP as a parameter in the IMs against the benefits of reflecting current market conditions.⁵²

The Commission also acknowledged the difficulty of re-estimating the TAMRP, and the subjectivity involved in determining it, as a reason for not re-estimating the TAMRP at the start of regulatory periods:

*We also recognised that the TAMRP is not observable, **and so any estimate necessarily requires judgement**, and that re-estimating the TAMRP is a substantive piece of work.⁵³*

The views of the Commission that the TAMRP should not be re-estimated at the start of regulatory periods, was not observable, and requires judgement to determine, all indicate that the approach to adopt the Commission's 3-month old estimate was a reasonable approach.

⁵¹ Commerce Commission, "Part 4 Input Methodologies Review 2023 - Process and Issues paper", (May 2022), paragraph 6.49

⁵² Commerce Commission, "Part 4 Input Methodologies Review 2023 - Process and Issues paper", (May 2022), paragraph 6.50

⁵³ Commerce Commission, "Part 4 Input Methodologies Review 2023 - Process and Issues paper", (May 2022), paragraph 6.50

The Commission considered not updating its TAMRP estimate for the 2023 IM

During the 2023 IM Review the Commission also noted that it was considering carrying-forward the TAMRP of 7.5% that was estimated in 2020 (and re-used in March 2022) and not re-estimating this parameter for the 2023 IM review (emphasis added):

***We are considering using our 2020 estimate of the TAMRP in the current review. The 2020 estimate is an estimate of a market parameter that we expect is relatively stable over time.** However, we also intend considering how often the TAMRP should be estimated and how new estimates should be applied across regulated sectors.*⁵⁴

This was the position of the Commission in its Process and Issues Paper for the 2023 IM Review, that was published on 20 May 2022, just six weeks prior to the start of the PSE4 pricing period.

That the Commission itself was considering using the 2020 estimate of 7.5% six weeks prior to the start of the PSE4 pricing period indicates that the Commission considered this to be a reasonable estimate of TAMRP at the time, and that Auckland Airport's approach to do the same is also reasonable.

The Commission updated the TAMRP based on market data after the start of PSE4

Ultimately, the Commission decided to update the TAMRP estimate in the 2023 IM Review, as it noted in the draft decision on the 2023 IM cost of capital (our emphasis):

*In the Process and issues paper we raised the possibility of using 7.5% as the TAMRP for all businesses regulated under Part 4, although we also indicated that we would consider how often the TAMRP should be estimated. **Since we published the Process and issues paper, interest rates have increased and so we considered it prudent to re-estimate the TAMRP for the present review.***⁵⁵

The main reason cited behind the decision by the Commission to re-estimate the TAMRP was that interest rates had increased since it released its process in issues paper in May 2022.

The PSE4 pricing period commenced on 1 July 2022 (shortly after the release of the Process and Issues paper), and Auckland Airport's price freeze proposal supported by airlines specified that only market data up until 30 June 2022 was to inform the pricing decision:

Auckland Airport's target return for the full five-year PSE4 pricing period shall be determined during the PSE4 consultation period retrospectively as at 1 July

⁵⁴ Commerce Commission, "Part 4 Input Methodologies Review 2023 - Process and Issues paper", (May 2022), paragraph 6.51

⁵⁵ Commerce Commission, "Cost of capital topic paper Part 4 Input Methodologies Review 2023 - Draft decision" (June 2023), paragraph 4.171

2022 (the commencement of PSE4) by applying the relevant input parameters as at that date (e.g. including the observable interpolated 5 year risk free rate).⁵⁶

Auckland Airport therefore considers updating the TAMRP on the basis cited by the Commission (higher interest rates observed since mid-2022) would have been inconsistent with the terms of the price freeze supported by airlines.

Conclusion 6: Adopting a TAMRP input parameter of 7.5% is reasonable

The above demonstrates that it was reasonable to adopt a TAMRP of 7.5% for the PSE4 pricing decision, specifically:

- *unlike the old airport asset beta, post-pandemic estimate of the TAMRP of 7.5% had been recently validated by the Commission;*
- *in March 2022 the Commission had used a 7.5% TAMRP, just three months before the start of PSE4 pricing period; and*
- *on 22 May 2022 the Commission indicated that it was considering not re-estimating the TAMRP in the 2023 IM Review and may maintain it at 7.5%, just six weeks before the start of the PSE4 pricing period.*
- *It would clearly have been accepted by the Commission if Auckland Airport had set prices in June 2022 (ie if there was no price freeze)*

Conclusion 7: Scenario 2 should be disregarded in the final report

Given the significant number of issues identified with the inputs into Scenario 2 as outlined above, Scenario 2 should be disregarded by the Commission in its final report on the PSE4 pricing decision.

Developing an appropriate estimate of the mid-point WACC

For the reasons outlined above, Auckland Airport considers that both Scenario 1 and Scenario 2 should be disregarded in the Commission's assessment of the PSE4 cost of capital. The difference between Scenario 2 with a WACC of 7.51%, and the PSE4 target return of 8.73% was 122 basis points.

A more appropriate reference point to assess Auckland Airport's target returns should consider and address the issues that have been identified above in this submission. Addressing these issues will result in a mid-point WACC that is higher than the Scenario 2 estimate in the Draft Report. These improvements to the Commission's mid-point WACC estimate should materially reduce or even completely close the 122 basis point gap between the Commission's assessment of an appropriate mid-point cost of capital and the PSE4 target return of 8.73%.

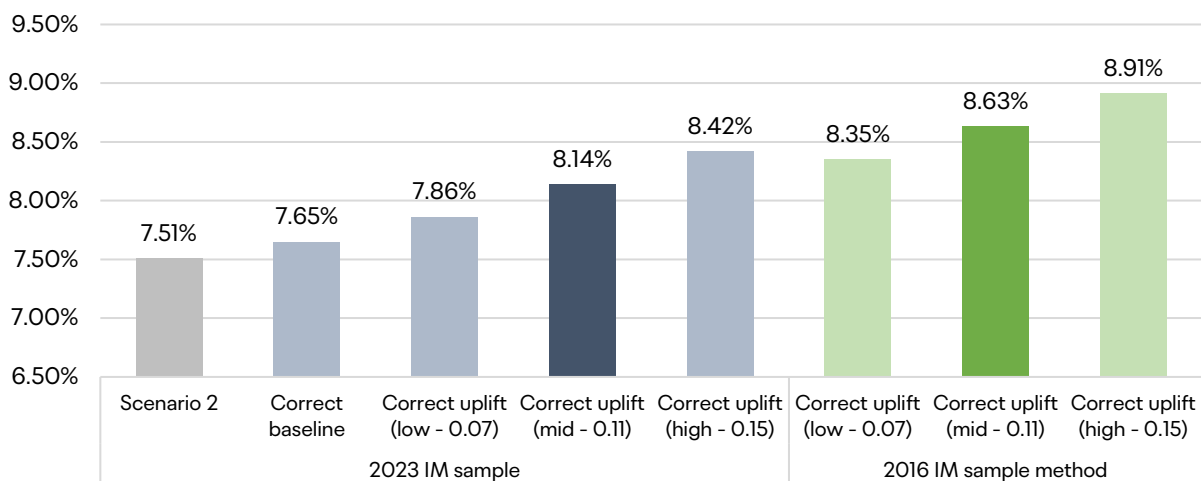
⁵⁶ Auckland Airport, "Proposal on PSE4 price reset delay" (November 2021)

Correcting for coding errors

As identified in the joint expert report for NZ Airports, coding errors have been identified in the 2023 IM decision in the calculation of the baseline asset beta, and the pandemic uplift. We now present what the cost of capital estimates would be if these coding errors were corrected, by presenting the WACC with an updated baseline asset beta and range of pandemic uplifts.

As outlined below, correcting the coding errors alone would increase the WACC estimate from 7.51% under Scenario 2 in the draft review, to a range of between 7.86% and 8.42%. The mid-point of these estimates is 8.14%, which if adopted would reduce the gap from the Draft Report by around half.

Figure 1: WACC estimates after correction of coding errors in 2023 IM decision

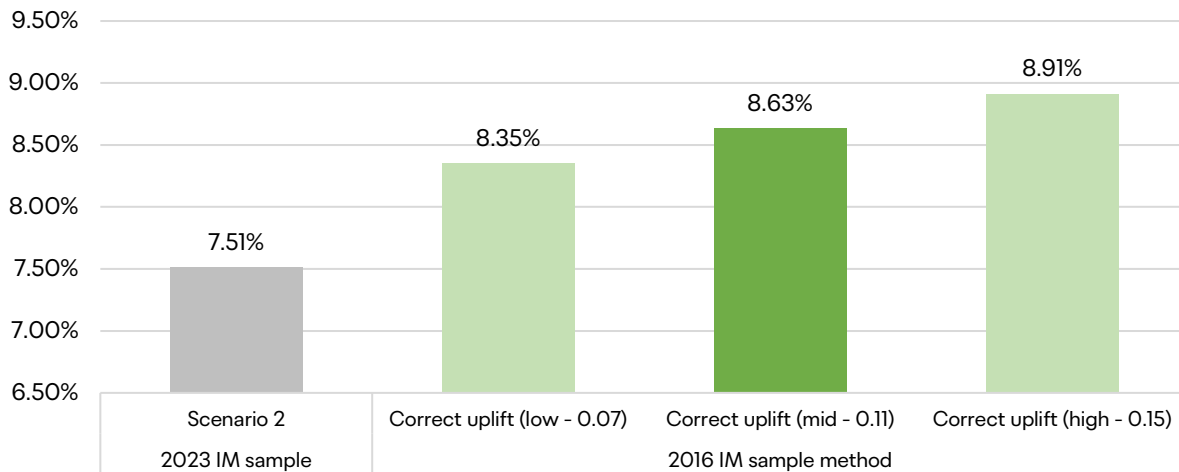


Adopting 2016 IM sample selection criteria

Auckland Airport submits that it is reasonable to apply the 2016 IM sampling methodology, which is aligned to the established regulatory precedent, rather than adopting the 2023 IM sampling approach.

If the 2016 sampling methodology were to be applied, this would bring the relevant WACC range, with a corrected pandemic uplift, higher to between 8.35% and 8.91%, with a mid-point of 8.63%. This range is broadly consistent with the PSE4 target return of 8.73%.

Figure 2: WACC estimates from adopting 2016 sampling methodology

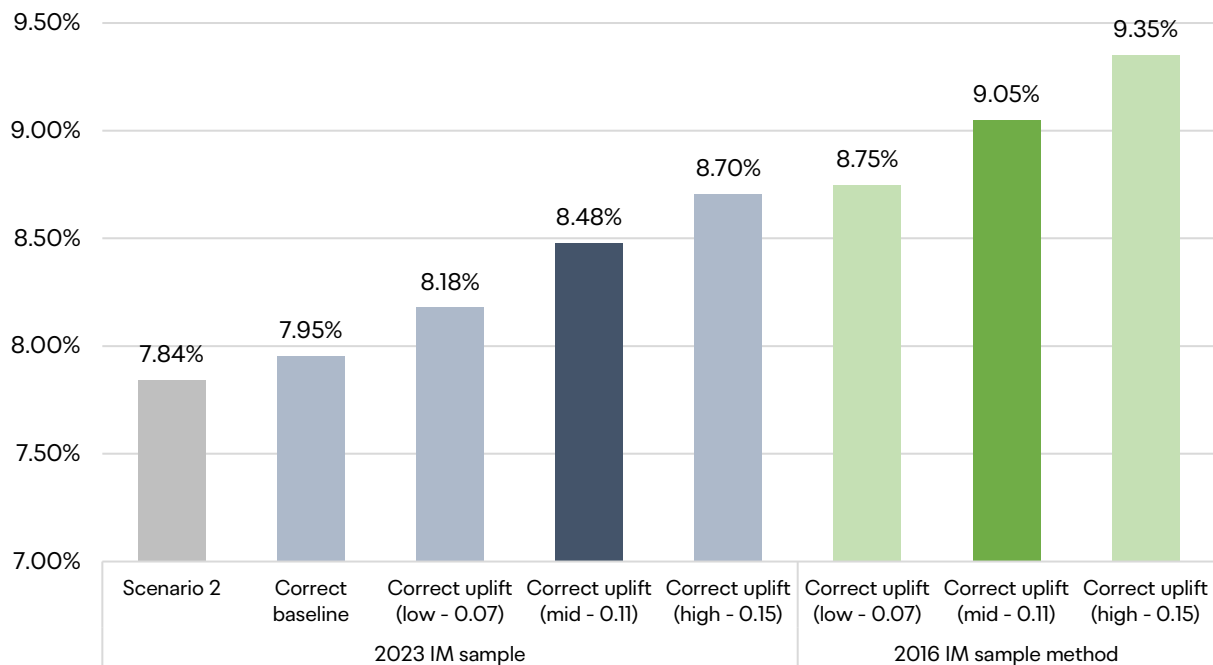


Adopting a TAMRP of 7.5%

The above estimates of the WACC reflect a TAMRP of 7.0%, as per Scenario 2 of the Draft Report. However, Auckland Airport considers that it was reasonable for it to adopt a TAMRP of 7.5%, as this was completely aligned with the Commission’s views on TAMRP at the start of the PSE4 pricing period, and consistent with the TAMRP adopted by Christchurch in its pricing decision of mid-2022.

As outlined below, the mid-point WACC using the 2023 IM sample with coding errors corrected would be 8.48%. Adopting the 2016 IM sampling methodology would increase this further to 9.05%. The PSE4 target return lies broadly in the middle of these two WACC estimates.

Figure 3: WACC estimates from adopting a 7.5% TAMRP



Reasons why a cost of capital above the mid-point should be considered reasonable

Information disclosure regulation allows airports to set their own returns

The airport IMs allow airports to set their own target return, compared to more regulated industries where this is determined by the Commission. The Commission publishes a mid-point WACC with a standard error. This allows airports to consider how their specific risk compares to the mid-point and apply adjustments up or down based on that risk to ensure that they have the appropriate incentives to invest:

For airports, the context is different. Airports, rather than us, determine both:

- *the estimate of WACC that is used to set prices for the pricing period (and each subsequent pricing period of the asset’s life); and*
- *the estimate of WACC that determines whether and when each investment will proceed.⁵⁷*

Logically, an airport would use the same approach to WACC for both purposes, thereby ensuring the prices charged for airport services reflect the returns required by the airport to cover all its costs, including its cost of capital, on its investment to provide those services. As a result of using its own estimate of

⁵⁷ Commerce Commission, “Input methodologies review decisions Topic paper 6: WACC percentile for airports”, (December 2016), paragraph 62

WACC to set its prices, it is not apparent why an airport would defer investment because the WACC (which it sets for itself) is too low.⁵⁸

This rationale from the Commission creates a clear link between the WACC percentile, and an airport's incentive to invest. We consider this is particularly relevant given the substantial scale of Auckland Airport's capital investment plans. Auckland Airport considers that the WACC it has set for itself is at the appropriate level given the investment required.

Auckland Airport WACC above the Commission's mid-point WACC

Basis for Auckland Airport's WACC being above the mid-point WACC

In setting its PSE4 target return, Auckland Airport focused on re-estimating the mid-point WACC given the material information the pandemic revealed about airport risk. However, in the Draft Report, the Commission has formed a different view of the mid-point WACC - our response as to why we do not consider this estimate to be reasonable has been outlined above.

The rationale for applying an uplift to the mid-point WACC is an acknowledgement that the Commission's estimate may be incorrect, and that an allowance should be made for this margin of error, given the material costs of under-investment if the WACC is set too low.

If there remains a difference of the mid-point WACC and the PSE4 target return in the Commission's final report, the Commission should also consider in the final report why it would be appropriate for Auckland Airport to target return above the mid-point WACC, and to what extent this would explain the difference between the Commission's estimate of the mid-point WACC, and the PSE4 target return of 8.73%.

Auckland Airport identifies increased asymmetric risk, operating leverage, the heightened post-pandemic inflationary environment, and the observed Auckland Airport asset beta as reasons why the Commission should consider whether a target return for PSE4 above its mid-point WACC estimate can be reasonable.

Quantifying cost of self-insurance for asymmetric risk

The Commission has previously recognised that there are legitimate reasons for a margin to be added to the estimate of WACC to compensate for asymmetric risk:

There is the potential for businesses to face asymmetric risk (eg, catastrophic risk, stranding risk) and this can be compensated for in different ways. One option would be to add a margin to the allowable rate of return to compensate for asymmetric risk. This would potentially increase the targeted rate of return above the WACC estimate.⁵⁹

CEG has considered whether Auckland Airport's target return for PSE4 appropriately accounts for asymmetric risk. CEG makes the following observations:

⁵⁸ Commerce Commission, "Input methodologies review decisions Topic paper 6: WACC percentile for airports", (December 2016), paragraph 63.

⁵⁹ Commerce Commission, "Input methodologies review decisions Topic paper 6: WACC percentile for airports", (December 2016), paragraph 67.

*AIAL's pricing model does not include any compensation for the actuarially expected cost of asymmetric risk exposure within operating costs.*⁶⁰

*This means that AIAL's PSE4 8.73% target return needs to be interpreted as a target modal return. This is the "most likely" return that AIAL will receive. This is above the actuarially expected return for PSE4 after taking into exposure to asymmetry in expected cash-flows.*⁶¹

While the impact of the pandemic is the most obvious asymmetric risk that has been recently experienced, CEG goes on to explain the nature of other asymmetric risks, beyond pandemics, that are not already accounted for in the WACC:

*Other asymmetric risks that AIAL is exposed to include natural disasters (such as earthquakes), terrorism, wars, airline insolvency, labour conflict, financial crises and inflation outbreaks. These might affect AIAL directly or airports that AIAL provides connections to. Such asymmetric events can have effects on demand but also on costs incurred by AIAL (e.g., an earthquake in Auckland may affect AIAL's passenger numbers and its expenditures).*⁶²

CEG notes that to reflect these asymmetric risks an adjustment is required in order to accurately assess the PSE4 target return to account for these risks:

The existence of asymmetric risks means that the expected cost of self-insurance against those risks, expressed as a per annum percentage of RAB, needs to either:

- *be deducted from AIAL's modal target return before it can be meaningfully compared with a WACC estimate; or*
- *be added to a WACC estimate before it compared with AIAL's "target return".*⁶³

Further, CEG cites the established regulatory precedent in New Zealand that allows for these asymmetric risks to be added to the WACC:

⁶⁰ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 45

⁶¹ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 46

⁶² Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 48

⁶³ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 65

The NZCC has recognised this elsewhere. For example, for Chorus, the NZCC allowed a 10bp premium on the CAPM WACC (along with other measures) to compensate for the asymmetric impact on cash-flows of asset stranding⁶⁴

Relevant airport precedent to quantify cost of asymmetric risk

CEG then considers the application of asymmetric risk adjustments in the context of airports, based on the precedent established by the UKCAA which included (in addition to applying a pandemic uplift to asset beta):

- a shock factor of -0.87% applied to the passenger forecast, in relation to non-pandemic downside shocks; and
- an asymmetric risk allowance to compensate Heathrow Airport (HAL) for low frequency, high impact shocks that cause major disruption to traffic.

In considering these adjustments applied by the UKCAA, CEG quantifies the value of the UKCAA asymmetric risk adjustments in the context of Auckland Airport:

*The shock-factor adjustment is equivalent to a 0.88% ($1/(1-0.87\%)$) increase in prices above those necessary to recover costs in the modal (most likely) scenario. For AIAL this would be the equivalent of a **15 bp (i.e., 0.15% of post-tax WACC) on PSE4 RAB in compensation for “non-pandemic downside” events.**⁶⁵*

In addition, the UKCAA provided £25m pa in compensation to Heathrow for exposure to large “pandemic like” asymmetric events.⁶⁶

*£25m pa for Heathrow is equivalent to a **16bp** compensation **on RAB for “pandemic like” events** (i.e., 0.16% higher than WACC return) given Heathrow’s £16bn RAB⁶⁷*

*The UKCAA also provided HAL a one-off increase in its RAB of 1.88% (£300m) which provided partial compensation for ex-post asymmetric risk associated with COVID-19. A 1.88% increase in RAB is equivalent to a **14bp** increase in post-tax WACC⁶⁸*

⁶⁴ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 68

⁶⁵ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 78

⁶⁶ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 80

⁶⁷ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 83

⁶⁸ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 84

However, differences in scale are not the only differences between Heathrow and AIAL. As discussed below, AIAL's risk sharing mechanism provides much lower levels of protection against asymmetric risk than Heathrow's TRS. Moreover, there is good reason to believe that the underlying exposure to asymmetric shocks is higher for a smaller non-hub airport such as AIAL.⁶⁹

*Nonetheless, if I ignore the latter differences and only adjust for scale, then the UKCAA precedent would imply modal compensation for asymmetric cash-flow risk of **45bp** (=15bp+16bp+14bp). If you exclude the 14bp from the £300m RAB uplift this falls to **31bp**.⁷⁰*

CEG goes on to quantify the value of the Heathrow Traffic Risk Sharing mechanism, which further insulates it from downside asymmetric risk to a much greater extent than the revenue wash-up mechanism Auckland Airport applied in PSE4. Assessing the combined impact of all forms of compensation, CEG finds:

*Adding 43bp, 46bp, 14bp pa results in a **1.03%** "UKCAA equivalent" compensation for AIAL. If I do not include the 14bp associated with Heathrow's RAB increase then the result is **89bp**.⁷¹*

Having established the quantum of compensation the UKCAA precedent indicates, CEG then considers what an appropriate uplift on the WACC for all self-insurance costs for asymmetric risk for Auckland Airport, having considered the regulated revenue wash-up included in the pricing decision:

0.49% is an estimate of the minimum reasonable self-insurance costs of exposure to pandemic risk. Of course, pandemics are just one of the many asymmetric risks that airports are exposed to (others include earthquakes, terrorism, wars, airline insolvency, labour conflict and financial crises). On this basis, I adopt 0.49% as the minimum reasonable estimate of total self-insurance costs for AIAL for all asymmetric risks.⁷²

The highlighted estimate of 8.24% is AIAL's target modal return (8.73%) less the lower bound estimate of the cost of self-insurance against asymmetric risk (0.49%). This deduction of 0.49% converts AIAL's model target into an actuarially expected target return. Only the actuarially expected target return

⁶⁹ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 85

⁷⁰ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 86

⁷¹ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 93

⁷² Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 97

can be validly compared with estimates of the WACC (which are estimates of an actuarially expected return – not modal return).⁷³

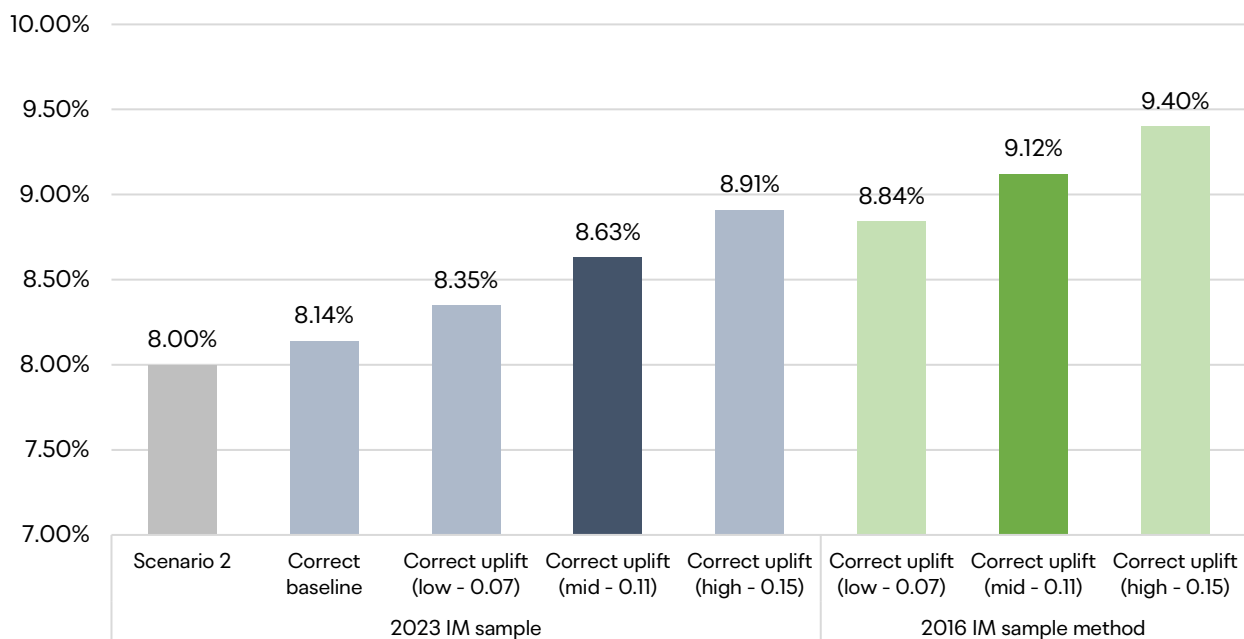
Reflecting cost of self-insurance for asymmetric risk in WACC assessment

Consistent with the findings of CEG, Auckland Airport considers that the Commission should consider the cost of self-insurance for asymmetric risk in its assessment of the PSE4 target return.

While CEG has deducted the cost of self-insurance to determine the actuarially expected target return for PSE4 (8.24%), it is equally valid to add the cost of self-insurance to the mid-point WACC estimate that the PSE4 target return is compared to. This then generates an estimate of the mid-point WACC that includes compensation for asymmetric risk.

This is presented below, with the 0.49% return quantified by CEG, added to the WACC scenarios based on the 2023 IM with coding errors corrected, and the 2016 IM sampling methodology, reflecting a TAMRP of 7.0%. This indicates using the 2023 sampling methodology, and the mid-point of the pandemic uplift indicates a reasonable WACC of 8.59%, which then increases to 9.12% if the 2016 IM sampling methodology is adopted.

Figure 4: WACC estimates to reflect the cost of self-insurance for asymmetric risk



Operating leverage

The Commission has previously recognised evidence of higher operating leverage provides a principled basis for adopting an uplift to asset beta when it reviewed Auckland Airport’s PSE3 pricing decision:

⁷³ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 158

An adjustment to our asset beta estimate may, in principle, be justified if Auckland Airport can demonstrate that:

A201.1 its operating leverage is (or is expected to be) significantly higher than the companies in our comparator sample; and

A201.2 any difference is of a magnitude that can reasonably be expected to meaningfully impact the asset beta.⁷⁴

However, in PSE3, the Commission did not find that Auckland Airport had an operating leverage that was significantly higher than other airports in the comparator sample, which is why it did not support an asset beta uplift on the basis of operating leverage for PSE3:

We do not consider the available evidence shows Auckland Airport's current or future operating leverage is likely to be significantly above that of other airports (in our asset beta comparator sample) over the PSE3 period.⁷⁵

Replication of Commission's operating leverage analysis from PSE3

CEG has re-visited Auckland Airport's operating leverage for the PSE4 pricing decision. First, it has updated the analysis on operating leverage undertaken by the Commission for the PSE3 review, by replicating the methodology used for the PSE3 review using the both the 2016 and 2023 IM samples. CEG finds under this analysis that Auckland Airport's operating leverage is higher than that of the sample comparators:

The above analysis shows that AIAL's degree of operating leverage are above both the mean and median of both samples.⁷⁶

Alternative measures of operating leverage

CEG has identified some limitations with the Commission's measure of operating leverage that was used in PSE3 and has considered adjustments to improve the robustness of the estimates.

Using these alternative metrics, CEG finds that while operating leverage pre-pandemic is in-line with the 2023 IM comparator sample, for the PSE4 pricing period is forecast to be materially higher, reflecting an increase in operating leverage for Auckland Airport in PSE4:

This suggests that according to this metric, AIAL did not have unusually high operating leverage in the pre-COVID period. However, the operating leverage

⁷⁴ Commerce Commission, "Review of Auckland International Airport's pricing decisions and expected performance (July 2017 – June 2022) Final report – Summary and analysis under section 53B(2) of the Commerce Act 1986", (November 2018), paragraph A201

⁷⁵ Commerce Commission, "Review of Auckland International Airport's pricing decisions and expected performance (July 2017 – June 2022) Final report – Summary and analysis under section 53B(2) of the Commerce Act 1986", (November 2018), paragraph, X28.2

⁷⁶ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 119

for AIAL's PSE4 forecast is materially higher (lower value) than the sample (in fact, the highest) and to the previous price setting events.⁷⁷

Using this metric, AIAL (whole of business pre-COVID) and PSE4 (aeronautical only) have lower slopes (higher operating leverage) than the sample average. Meaning that for every \$100m increase in Revenue, AIAL's Expenses increase on average, by a smaller amount than most of the other airports.⁷⁸

AIAL PSE4's slope is at the 26th percentile (i.e., 74th percentile when in reverse order) This analysis is consistent with the previous analysis suggesting the PSE4 operating leverage is elevated relative to the comparators used to set the base asset beta in in the 2023 IM. ⁷⁹

As noted by CEG, this increase in operating leverage can be attributed to the increased capital expenditure forecast for PSE4:

PSE4 has considerably higher capital expenditure (as a percentage of RAB) than even PSE3. As can be seen in Figure 5-8, PSE4 forecast capex to RAB ratio is 47% higher than PSE3 forecast capex to RAB. ⁸⁰

This analysis from CEG sets out the evidence of how Auckland Airport's operating leverage is forecast to increase during the PSE4 pricing period, which as the Commission has previously acknowledged, is a valid reason for a target return above the mid-point WACC to be adopted.

Post-pandemic risk environment

CEG notes that the heightened uncertainty following the pandemic which should also be considered when considering the reasonableness of the PSE4 target return:

There were unusually high levels of uncertainty surrounding PSE4 which are relevant to assessing the reasonableness of PSE4 WACC. These heightened levels of uncertainty reflect, in part, the recovery of the economy from the impacts of COVID-19. ⁸¹

As noted by CEG this means that Auckland Airport bears all inflation risk, as Auckland Airport's RAB is not indexed for inflation. The impact of higher than expected inflation is that Auckland Airport's real return will be lower:

⁷⁷ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 134

⁷⁸ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 140

⁷⁹ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 141

⁸⁰ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 145

⁸¹ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 103

However, once expected losses of 0.80% pa due to higher (uncompensated) inflation over PSE4 are factored in, AIAL is “on track” for a return of 7.93% (i.e., less than the corrected midpoint WACC). This is before factoring in the impact of lower-than-expected profits in FY23 and any impact from below forecast passenger numbers over the remainder of PSE4.⁸²

Observed Auckland Airport asset beta

The Commission noted in PSE3 that some weight should be placed on the observed asset beta of Auckland Airport, when considering whether an asset beta above the mid-point should be considered:

However, despite all of the described difficulties of assessing the implications of the observed asset beta estimates, we consider Auckland Airport’s observed asset beta does have some relevance as a reference point. We consider the observed asset beta gives some weight to Auckland Airport’s view that an appropriate asset beta could potentially be higher than our mid-point estimate.⁸³

However, the Commission did note that this alone did not provide sufficient evidence to justify an uplift above the mid-point. Auckland Airport does not contest this. However, Auckland Airport’s observed pre-pandemic asset beta of 0.79 as calculated per the 2023 IM approach is materially higher than the baseline asset beta adopted by the Commission as its mid-point in the final decision (currently 0.63). Based on the Commission’s prior reasoning, this gives further weight to a WACC above the mid-point providing a reasonable point of comparison for Auckland Airport’s PSE4 WACC.

Reflecting percentile uplift to mid-point WACC

Consistent with the findings of CEG, for the reasons outlined above, Auckland Airport considers that the Commission should consider a percentile uplift to the mid-point WACC when using it to assess the reasonableness of Auckland Airport’s PSE4 target return. As per CEG:

Based on the considerations covered in this section, it is reasonable (in the long term interests of passengers using Auckland airport) for AIAL to target a mean (actuarially expected) return that is above the midpoint WACC over PSE4. Exactly how much above the midpoint WACC is less obvious. However, the NZCC’s decision to allow electricity businesses to target the 65th percentile is a relevant point of comparison (especially given elevated risks for PSE4).⁸⁴

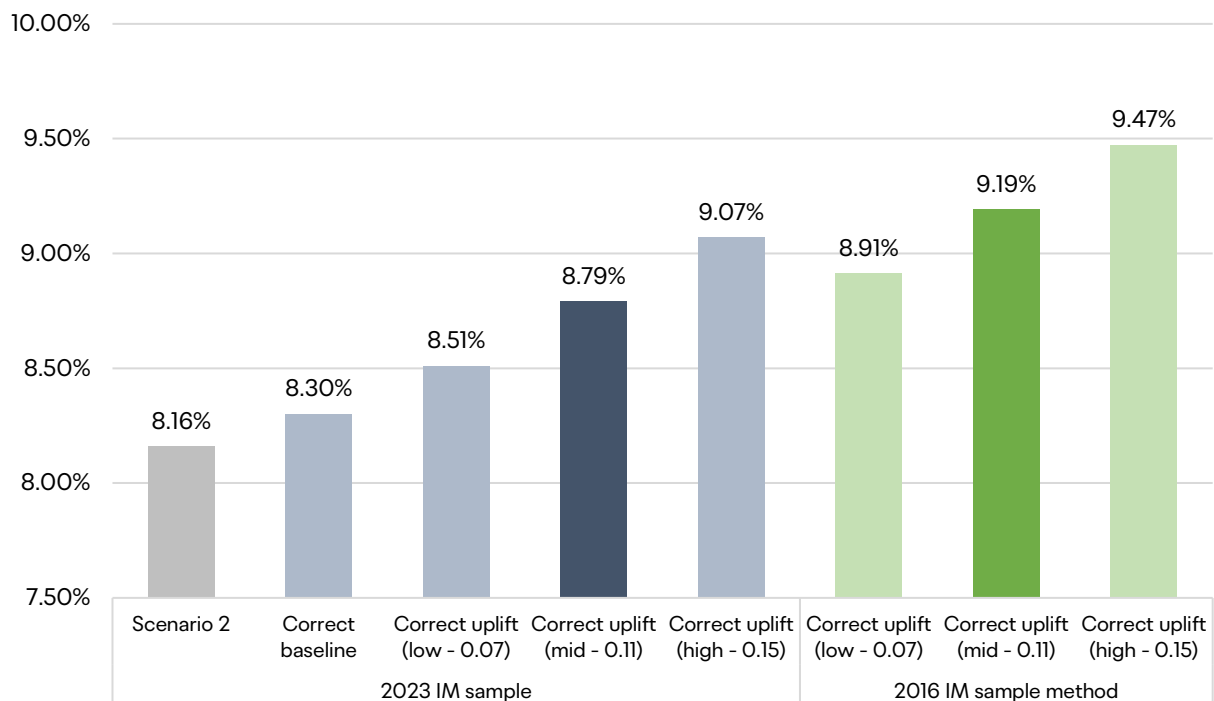
⁸² Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 110

⁸³ Commerce Commission, “Review of Auckland International Airport’s pricing decisions and expected performance (July 2017 – June 2022) Final report – Summary and analysis under section 53B(2) of the Commerce Act 1986”, (November 2018), paragraph A233

⁸⁴ Competition Economists Group, “Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper”, (August 2024), paragraph 148

Auckland Airport presents below the WACC estimates using the 2023 and 2016 IM samples, reflecting an uplift to the 65th percentile. This shows mid-point of the corrected pandemic uplift results in a WACC using the 2023 IM sample is in-line with the PSE4 target return, with the 2016 IM sampling methodology resulting in returns above the PSE4 target return of 8.73%.

Figure 5: WACC estimates to reflect an uplift to the 65th percentile

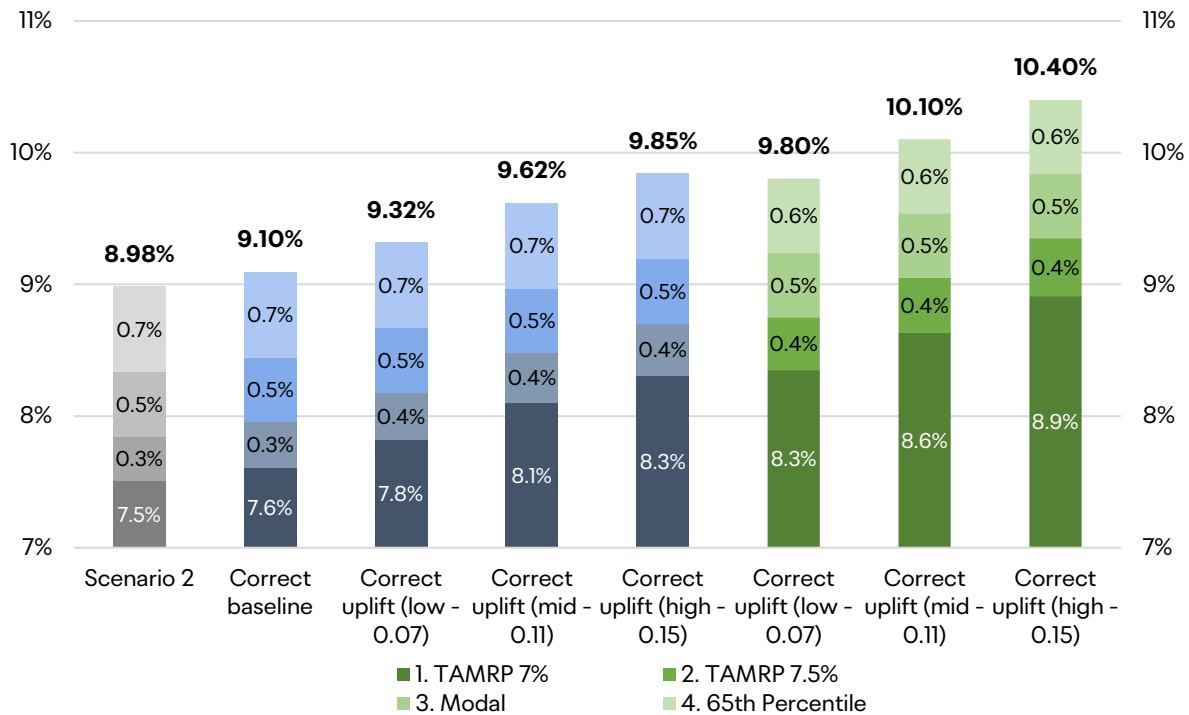


Combined impacts on estimate of reasonable WACC to assess PSE4 target return

Auckland Airport has presented above what we consider to be reasonable changes to the Commission’s approach to estimating the cost of capital used to assess the Auckland Airport PSE4 target return. Each of these changes has been presented separately, however these improvements to the estimates are not mutually exclusive and can be combined.

When all of these evidenced and reasonable changes are combined, they indicate that a WACC estimate that exceeds the PSE4 target return of 8.73% should be considered reasonable. This is illustrated in the chart below:

Figure 6: Combined WACC estimates



To summarise the changes indicated above, compared to the Scenario 2 WACC of 7.51%:

- correction of coding errors adds a range of 0.3-0.8% to the WACC;
- adopting the 2016 IM sample instead of the 2023 IM sample adds around 0.5% to the WACC;
- adopting a 7.5% TAMRP instead of 7.0% adds 0.4% to the WACC;
- reflecting a conservative self-insurance cost of asymmetric risk adds 0.5% to the WACC; and
- and targeting the WACC at the 65th percentile (with all of the above changes) adds 0.6-0.7% to the WACC.

CEG has reached a similar conclusion, that there is a reasonable basis for the Commission’s WACC used to assess the PSE4 target return to be sufficiently higher than the PSE4 target return:

There is a 1.22% (122bp) differential between AIAL’s modal target return of 8.73% and the NZCC’s Scenario 2 midpoint mean WACC of 7.51%. This differential is substantially (more than fully) accounted for by making the following two (three) adjustments to the NZCC Scenario 2 mean WACC:

- **49bp:** being the lower bound estimate of the annualised cost of asymmetric cash-flow risk - which can be characterised as either:
 - an upward adjustment to the NZCC mean expected return to convert it into a modal return (allowing a like-for-like comparison to AIAL’s target return); or

- a downward adjustment to the AIAL modal return to convert it into a mean expected return (allowing a like-for-like comparison to a WACC estimate which is, by definition, a mean expected return).
- **63bp**: which is the impact of correcting for the impact of coding errors in the 2023 IM asset beta estimates.
- **49 bp**: which is the impact of adopting the 2016 IM asset beta sample selection criteria rather than the 2023 sample selection criteria (given that the change in sample selection criteria was unrelated to incorporating pandemic risk).⁸⁵

Auckland Airport supports this conclusion based on the analysis provided by CEG and encourages the Commission to consider the findings of CEG carefully when it finalises this review and its findings on the cost of capital.

Review of WACC compared to the mid-point

The Commission notes that as part of its framework for assessing Auckland Airport's cost of capital:

The mid-point WACC represents our starting point when assessing returns for profitability analysis, but we accept that there may be legitimate reasons for an airport to target returns that are different to our mid-point WACC estimate.

If the airport has departed from our mid-point WACC estimate, what are each of the parameter values used? Has the airport applied an uplift to its mid-point cost of capital (eg, due to asymmetric risks), and if so, what adjustment is made?⁸⁶

This reflects the precedent that was set by the Commission when it considered the WACC percentile for airports in 2016:

In particular, airports will need to identify factors which result in different mid-point estimates of the cost of capital (eg, due to a different methodological approach) from factors that could justify an uplift to a mid-point estimate (eg, any asymmetric risks (such as catastrophic risk) or factors that warrant a further margin to arrive at the targeted return).⁸⁷

⁸⁵ Competition Economists Group, "Treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper", (August 2024), paragraph 149

⁸⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 2.14

⁸⁷ Commerce Commission, "Input methodologies review decisions Topic paper 6: WACC percentile for airports", (December 2016), paragraph 131

In determining the target return for PSE4 of 8.73%, Auckland Airport considered that this represented the mid-point WACC, having followed established regulatory precedent. However, it is clear from the Commission's draft conclusions that the Commission holds a different view of the mid-point WACC.

Should the Commission remain of the view that the mid-point WACC is below 8.73%, as indicated in the Draft Report, Auckland Airport considers that there are additional valid reasons for the target return to be above the Commission's mid-point.

Cost of underinvestment

When the Commission is considering if an uplift to the mid-point WACC is appropriate, it should continue to assess the cost of underinvestment. In the context of airports when considering these costs, the Commission focused on the costs of delays to air services and the congestion that results:

In general, we expect any under-investment to instead result in delays to capacity expansion which is likely to lead to a lower quality of service (such as delays at peak time or shifting of demand out of peak periods)⁸⁸

The general deterioration in quality (including congestion) is likely to build up steadily over time and be visible to consumers. This provides opportunities for airports and airlines to find solutions to problems before the total cost to consumers becomes too large.⁸⁹

As a result, we consider that these considerations mean the case for an uplift seems significantly weaker for airports than for energy businesses.⁹⁰

While all of the above is true, Auckland Airport considers that this position does not give sufficient weight to the social and economic cost of increasing airfares as a result of capacity constraints. As has been demonstrated following the recent pandemic, airfares can increase significantly where supply exceeds demand. These increasing airfares, which were many times larger than the total value of prevailing airport charges, come at the cost of consumers. Auckland Airport submitted on this in the submission to the Process and Issues paper.⁹¹

We consider that the assessment of the case for applying an uplift in the 2016 IM understates these costs to consumers, and the Commission should consider these costs when it assesses any difference between the PSE4 target return, and the Commission's mid-point WACC estimate.

⁸⁸ Commerce Commission, "Input methodologies review decisions Topic paper 6: WACC percentile for airports", (December 2016), paragraph 150

⁸⁹ Commerce Commission, "Input methodologies review decisions Topic paper 6: WACC percentile for airports", (December 2016), paragraph 152

⁹⁰ Commerce Commission, "Input methodologies review decisions Topic paper 6: WACC percentile for airports", (December 2016), paragraph 153

⁹¹ Auckland Airport, "Submission on Commerce Commission Process and Issues Paper for its review of Auckland Airport's 2022 - 2027 price setting event", (January 2024), p.10

Conclusions on cost of capital

Table 1: Summary of conclusions on cost of capital

Conclusion	Summary
Conclusion 1: Scenario 1 should be disregarded in the final report	Scenario 1 is not a reasonable estimate because it is not forward-looking and does not include pandemic risk - it should be disregarded in the Commission's final report.
Conclusion 2: Coding error understates baseline asset beta	If the Commission continues to use the 2023 IM comparator set (despite our views that a larger comparator set should be used) - the asset beta should be revised upward by 0.02 to reflect the average of weekly and four-weekly estimates
Conclusion 3: Coding error understates Flint method pandemic uplift	The 2023 IM adopted a pandemic uplift of 0.04, correction of the error would increase the size of the uplift by 0.03-0.11, with 0.07 at the bottom-end of the estimated uplift range and 0.15 at the top-end. We consider a value at or near the mid-point of the corrected range (as per the 2023 IM) would be appropriate.
Conclusion 4: 2016 IM sampling criteria is the most reasonable to apply to the PSE4 pricing decision	The 2023 IM sampling criteria does not provide a reasonable basis for assessing the PSE4 pricing decision, given the material departure from the approach established in the regulatory precedent of the 2010 and 2016 IMs, and the illogical attribution of the introduction of new filtering criteria to the pandemic. Any reasonable assessment of the PSE4 pricing decision should be made based on the 2016 IM sampling criteria.
Conclusion 5: 2023 IM equity beta does not provide a reasonable basis to assess the PSE4 pricing decision and should be discarded by the Commission in its final assessment	<p>The 2023 IM estimate of asset beta materially understates a reasonable Auckland Airport PSE4 asset beta, for the reasons outlined in Conclusions 2-4.</p> <p>The baseline asset beta (ie no pandemic risk accounted for) using the 2016 IM filtering criteria (0.73) is higher than the 2023 IM asset beta that includes a pandemic uplift (0.67) – demonstrating that the 2023 IM asset beta is materially underestimated.</p>
Conclusion 6: Adopting a TAMRP input parameter of 7.5% is reasonable	<p>It was reasonable to adopt a TAMRP of 7.5% for the PSE4 pricing decision:</p> <ul style="list-style-type: none"> • in March 2022 the Commission used a 7.5% TAMRP, just three months before the start of PSE4; • on 22 May 2022 the Commission indicated that it was considering not re-estimating the TAMRP in the 2023 IM Review, keeping 7.5%; and • It would have been accepted by the Commission as reasonable without the 1 year delay to the PSE4 pricing decision.
Conclusion 7: Scenario 2 should be disregarded in the final report	Given the significant number of issues identified with the inputs into Scenario 2 as outlined above, Scenario 2 should be disregarded by the Commission in its final report on the PSE4 pricing decision.

Auckland Airport encourages the Commission to consider each of these proposed changes to how it assesses Auckland Airport's PSE4 target return both on their own merits, and in light of the weight of the evidence that has been presented by Auckland Airport, CEG in its expert report, and by other submitters to this review.

4 Expected profitability

For the reasons set out above, in the previous section on the cost of capital, Auckland Airport does not agree with Commission's draft finding that its estimated target return represents excess profits, because Auckland Airport does not consider that either scenario is a reasonable estimate of a mid-point WACC.

Auckland Airport welcomes the Commission's draft findings that the PSE4 operational expenditure forecasts appear reasonable. Key observations in the Draft Report included support for our approach to use non-tradeable inflation as a cost driver and found no issues with our approach to forecast headcount. We agree with the Commission that it should take further comfort operational costs are forecast to return to pre-pandemic levels in real terms by the end of PSE4.

Auckland Airport considers that the adoption of straight-line depreciation is consistent with the established guidance in the IMs, which specify very little detail about alternative approaches to depreciation. As we noted, as part of the consultation for PSE4, Auckland Airport considered whether to adopt an alternative profile for depreciation when consulting with airlines for PSE4. However, based on feedback received, Auckland Airport concluded that airlines were aligned with Auckland Airport's position to maintain straight-line depreciation for assets commissioned in PSE4.

Auckland Airport agrees with the Commission's draft finding that accelerated depreciation is the best approach for investment in the existing DTB, as it is consistent with GAAP and prevents an increase in prices in PSE5 when the assets are written off.

Auckland Airport agrees with the Commission's draft findings on the PSE4 demand forecasts. As we have previously noted, Auckland Airport sought independent analysis from experts DKMA to develop the unconstrained demand forecasts. These forecasts were then refined to incorporate airline feedback. As the Commission has recognised, the remaining difference in opinion on demand elasticity has not resulted in Auckland Airport targeting excess profits.

Auckland Airport welcomes the Commission's draft conclusion that the two-way revenue wash-up that was introduced in PSE4 is appropriate in principle. We agree with the Commission's conclusion, that the two-way revenue wash-up reflects the asymmetric risk of materially large demand shocks that are not captured through the cost of capital.

Expected returns

For the reasons set out above, in the previous section on the cost of capital, Auckland Airport does not agree with Commission's draft finding that:

Auckland Airport set the target return on its priced services equal to its estimated WACC of 8.73%, with a return on its total regulated activities of 7.79%. This decision will result in additional cost to consumers over the PSE4 period. We have estimated that this represents excess profits of between \$193.4

million and \$226.5 million, in nominal terms, from the priced activities over the price setting period.⁹²

We have explained in chapter three why we do not agree that the PSE4 target return of 8.73% is a driver of excessive profits, because we consider that the mid-point WACC scenarios adopted in the Draft Report do not provide a reasonable reference point for assessing the PSE4 target return. However, we are treating the Commission's draft findings seriously, and have indicated publicly that Auckland Airport will reduce prices if the Commission still considers that the target return of 8.73% is too high in the final report.

We welcome and agree with the Commission's findings that the other forecasts and inputs for the potential drivers of profitability appear to be reasonable and are in-line with the IMs.

Observations on draft findings for profitability

We would like to add some additional context to the Commission's draft assessment of profitability. We note that the additional revenue of between \$193 million and \$226 million is spread over the five years of the PSE4 pricing period, this is between \$39 to \$45 million per year. When considered on a cost per passenger basis this equates to between \$1.90 to \$2.22 of revenue per passenger over PSE4.

We note in the previous section how the Commission carefully considers the interactions between the cost of capital and investment. The cost to consumers of the Commission's draft finding, of less than \$2 per passenger, should be considered in the context of the total price of domestic and international airfares. As was observed when travel re-started following the pandemic, steep increases in airfares can occur when demand exceeds supply – the delivery of airport capacity is a vital component to ensure that the supply of air travel services can keep up with demand over the long-term.

As the Commission noted in its Draft Report, Auckland Airport's current prices are the lowest domestic charges amongst the regulated New Zealand airports, and the international charges are low in comparison to Australasian international airports. As noted by the Commission:

We consider these pricing comparisons to be important context in our evaluation of whether Auckland Airport's pricing decisions for PSE4, including its significant investment programme, are consistent with the purpose of Part 4.⁹³

We agree that these comparisons are important and should inform the Commission's assessment – however it is not clear from the Draft Report how the Commission has considered this factor in its assessment of Auckland Airport's targeted profitability. Further clarity on this point would be welcomed in the final report.

⁹² Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 3.4

⁹³ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph X13

Assessment of total regulated return

We appreciate that the Commission has given detailed consideration and analysis to Auckland Airport's priced return, and do not object to this approach. However, Auckland Airport considers that additional focus should also be given to the overall regulated return, as this is the most fulsome measure of Auckland Airport's aeronautical activities. This would also be consistent with the Commission's stated approach in the process and issues paper (emphasis added):

*The mid-point weighted average cost of capital (WACC) represents our starting point when assessing the appropriate level of returns targeted by an airport. However, we consider that there may be legitimate reasons for an airport to target returns that are different to our mid-point WACC estimate. We require airports to provide evidence to explain any differences or departures through information disclosure. **We intend to consider the returns for both priced and all regulated activities when assessing cost of capital and profitability.***

We supported the Commission's stated approach in our submission on the process and issues paper:

Auckland Airport agrees with the proposed approach to consider the returns for both priced and all regulated activities when assessing cost of capital and profitability. This approach is consistent with the approach adopted for the PSE3 review. Auckland Airport notes that the returns on other regulated activities vary over time, with charges for these activities individually negotiated with customers outside of the aeronautical pricing consultation on Standard Charges.⁹⁴

However, the Draft Report has assessed profitability on priced activities only, with no quantification or assessment of profitability on total regulated activities (as was proposed in the process and issues paper).

That being said, we do agree with the Commission that revenue from other regulated activities is underpinned by contracts that do not align to the five-year pricing resets, and that the lower return on these assets that are commissioned in PSE4 should increase in the future.⁹⁵ However, as we noted in our submission on the process and issues paper, a full commercial return on these assets over their life is expected to remain challenging:

Currently it is extremely challenging for Auckland Airport to achieve a full commercial return from many of the non-priced regulated activities. This is expected to continue over the medium term based on current forecasts due to the significant amounts of capital expenditure in the aeronautical capital plan that are indirectly allocated to other aeronautical activities.⁹⁵

⁹⁴ Auckland Airport, "Submission on Commerce Commission Process and Issues Paper for its review of Auckland Airport's 2022 - 2027 price setting event", (January 2024), p.14

⁹⁵ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 3.20

In the final report, we consider that the Commission should quantify and assess profitability of total regulated activities alongside priced activities, consistent with its proposed approach in the process and issues paper. The total regulated return is the most holistic measure of regulated activities. When assessing profitability for the purpose of Part 4, of which one of the limbs is to limit excess profits, all regulated activities should be examined when making this assessment.

If such an assessment and quantification is not included in the final report, then the reasons for this should be explained by the Commission. This would provide helpful guidance to airports to understand how the Commission intends to assess profitability through these post-pricing decision reviews going forward.

Operating expenditure

Auckland Airport welcomes the Commission's draft findings that the PSE4 operational expenditure forecasts appear reasonable. Key observations in the Draft Report include support for our approach to use non-tradeable inflation as a cost driver, and found no issues with our approach to forecast headcount. We agree with the Commission that it should take further comfort that operational costs are forecast to return to pre-pandemic levels in real terms by the end of PSE4.

Cost pressures have continued since the forecast for PSE4 was made, with non-tradeables inflation up 6.8% between June 2022 and June 2023 and 5.4% between June 2023 and June 2024, compared to a forecast on 6.04% and 3.31%. This indicates that operational expenditure may have been underestimated and provides further evidence that Auckland Airport has not adopted an operational expenditure forecast that will result in excessive returns. In line with the purpose of the regulatory regime, the forecast will continue to act as an incentive for the airport to manage costs efficiently throughout the pricing period, setting an efficient baseline for the next pricing reset.

Depreciation

Tilted annuity depreciation

A key conclusion in the Draft Report was that straight-line depreciation may not best promote the long-term benefit of consumers:

"We are not convinced that straight-line recovery of depreciation of investment in long-lived assets, such as new terminal infrastructure, best promotes the long-term benefit of consumers. A tilted annuity approach to the recovery of depreciation is likely to be more consistent with outcomes produced in a workably competitive market."⁹⁶

Auckland Airport considers that the adoption of straight-line depreciation is consistent with the established guidance in the IMs, which specify very little detail about alternative approaches to

⁹⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 16.3

depreciation, including when they should be used. Further, Auckland Airport consulted with airlines on alternative depreciation methods that could be adopted, but consistent with the feedback we received from airlines, these were not adopted in the PSE4 pricing decision.

As the Commission has identified in its Draft Report, Auckland Airport's prices are in-line with other comparable airports in PSE4. We consider this demonstrates that the PSE4 prices do not present an affordability concern for consumers, and that alternative depreciation approaches are therefore not required.

As requested, we provide further detail on the analysis that was undertaken below.

The IMs stipulate straight-line depreciation as the standard approach

The current airport IMs stipulate that straight-line depreciation is the standard approach for depreciation of assets, with non-standard depreciation being allowed when properly explained and justified. The Commission's view is that straight line depreciation may not promote the long-term benefit of consumers, which contradicts this method of depreciation being prescribed as standard in the IMs.

Auckland Airport considers that if there are specific circumstances where alternative depreciation profiles should be applied, then this should be made clearer through the IMs. This clarity could include detail on how the Commission would expect alternative depreciation approaches to be used.

Consultation with airlines on alternative depreciation for PSE4

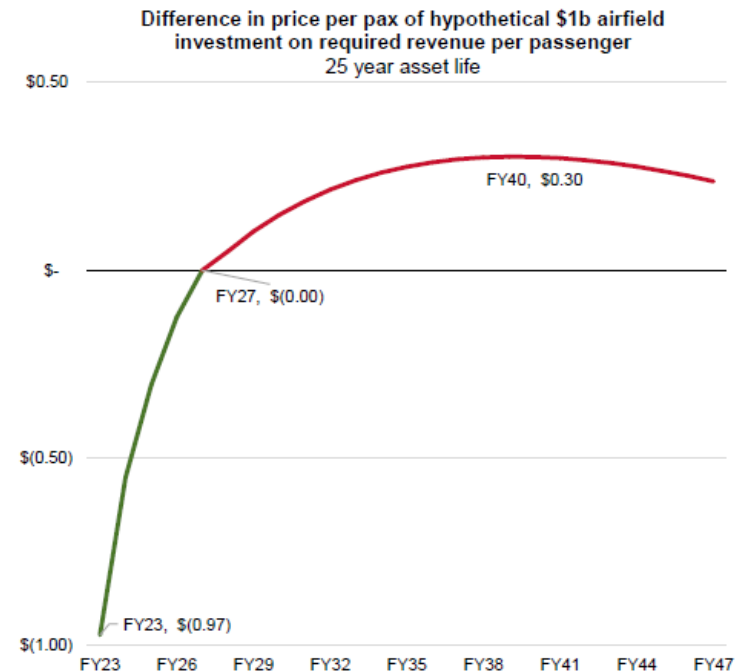
As part of the consultation for PSE4, Auckland Airport considered whether to adopt an alternative profile for depreciation. Auckland Airport shared analysis, through an illustrative example of the impacts of adopting a usage-based depreciation profile, for a hypothetical airfield investment of \$1 billion with an assumed 25 year useful life, as outlined in Figure 7 below.

Figure 7: Alternative depreciation analysis from PSE4 pricing consultation

Alternative Depreciation Profile

Alternative depreciation profiles can reduce prices in the near-term, but increase prices in the longer-term

- Airlines suggested that adopting an alternative depreciation profile should be considered, e.g. where depreciation is based on usage rather than time
- For example, the depreciation profile for airfield assets could be based on the number of aircraft landings over their lives, rather than a straight-line depreciation approach based on time
- This can reduce the revenue requirement in the early years of the asset life by reducing the amount of depreciation recovered – the so called “return of capital”
- However, this means that the asset value in the RAB will stay higher for longer, driving additional aeronautical charges through increased “return on capital” owing to the larger asset base
- Auckland Airport has developed a simple model to demonstrate this impact – for a hypothetical airfield investment of \$1 billion with a 25 year useful life. Based on the DKMA forecast passenger and landing volumes (unconstrained for elasticity impacts), adopting a usage based depreciation rate based on the number of landings would:
 - Reduce average prices over the first five years by an average of 39 cents per passenger
 - Increase average prices over the remaining 20 years by an average of 24 cents per passenger
- The above scenario demonstrates that assuming a 25 year useful life, if the alternative depreciation profile was adopted in PSE4, prices over PSE5-PSE8 would be higher – this would not help address airline concerns over the affordability of the PSE5 price path
- Assuming a longer 50 year useful life, prices would be lower only for the first 6 years, and higher for the remaining 44 years



Auckland Airport view: alternative depreciation profiles introduced in PSE4 unlikely to reduce PSE5 aeronautical prices – reconsider for PSE5 onwards

Analysis of alternative depreciation approach

The usage-based depreciation profile in this example was based on the long-term forecast for the number of aircraft landings provided by DKMA, with the same unit of depreciation applied to each landing over the life of the asset – i.e. each landing was allocated the same nominal unit of depreciation.⁹⁷ This resulted in 2.3% of the asset value being depreciated in year 1, and 5.2% depreciated in year 25.

The pricing impacts of this approach were then modelled. These took into account not only the difference in the depreciation expense, but also the resulting impacts on the return on capital (due to the asset base remaining higher for longer), by calculating the annual required return on invested capital at the target return of 8.73%.

The analysis shared with airlines found that, relative to straight-line depreciation, over the 25 year life of the asset average prices were 39 cents per passenger lower across the first five years, and an average of 24 cents per passenger higher over the remaining 20 years of the asset life. This alternative depreciation approach would also result in an additional \$160 million of nominal revenue to be collected over the assets' life.

Airline feedback on alternative depreciation

Some airline feedback agreed with this analysis and considered that there were limited price benefits, as lower depreciation was a driver of a higher return on capital and the RAB would remain higher for longer. Other airline feedback indicated that there was some interest for alternative depreciation, but for it to be applied starting in PSE5.

Based on this feedback, Auckland Airport concluded that airlines were aligned with Auckland Airport's position to maintain straight-line depreciation for assets commissioned in PSE4. Accordingly, a straight-line depreciation approach was carried through into the final pricing decision. Auckland Airport indicated that it would re-visit alternative depreciation approaches when consulting on PSE5.

During this consultation, Auckland Airport also considered other mechanisms to smooth prices, including the use of carry-forward adjustments to smooth the projected price paths across PSE4 and PSE5. The most effective way (in Auckland Airport's view) to smooth price increases in PSE5 (the time period airlines were most concerned about in terms of price increases) was to bring-forward revenue using carry-forward mechanisms into PSE4. However, this proposal was not supported by airlines and therefore was not adopted in the pricing decision.

Accelerated depreciation

The Commission considered Auckland Airport's approach to adopting accelerated depreciation in the PSE4 pricing decision:

"We find Auckland Airport's use of accelerated depreciation for the investment in the existing Domestic Terminal Building (DTB) is in line with GAAP and not unreasonable, as it is consistent with the Airport's intention to de-commission the DTB when the new domestic terminal becomes operational. Additionally, a

⁹⁷ For simplicity, this analysis was undertaken on a pre-tax basis.

non-accelerated approach would have reduced prices in PSE4 but increased prices in PSE5.”

Auckland Airport agrees with the Commission’s draft finding that accelerated depreciation is the best approach for investment in the existing DTB, as it is consistent with GAAP and prevents an increase in prices in PSE5.

The timelines adopted for the accelerated depreciation approach reflected the best information available at the time of setting PSE4 prices. Even in the event that plans change, and the timing of these assets being decommissioned also changes, this will remain net-present-value neutral to Auckland Airport over the life of the assets.

Demand forecasts

Auckland Airport agrees with the Commission’s draft findings on the PSE4 demand forecasts. The main findings on demand include:

There has been extensive consideration, consultation and expert studies on demand from both Auckland Airport and airlines. Auckland Airport has taken into consideration views of the airlines and expert reports provided by them as well as obtaining its own in response to airline concerns.⁹⁸

We agree with the above draft conclusion from the Commission. As we have previously noted, Auckland Airport sought independent analysis from experts DKMA to develop the unconstrained demand forecasts. These forecasts were then refined to incorporate airline feedback. Auckland Airport also responded to concerns from airlines on the impacts on demand from changes in aeronautical charges, and commissioned industry experts InterVISTAS to provide advice on potential demand impacts. The Draft Report noted the following on demand impacts:

We understand that expert studies relating to price elasticity of demand show different magnitudes for the potential impact on demand from the increase in Auckland Airport’s charges. However, we do not consider that the potential impact of these differences is of sufficient significance in the operating expenditure forecast or the projection of long-term capacity needs.⁹⁹

We welcome this draft finding from the Commission. InterVISTAS is recognised as global experts on price elasticity of demand analysis, with the basis of their analysis being a study undertaken for IATA, which is considered to be industry standard. Auckland Airport gave due consideration to an alternative study developed by airlines, but considered its findings overstated impacts on demand, and that the findings of InterVISTAS’ study remained appropriate for informing PSE4 price forecasts, and to inform capital planning.

⁹⁸ Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 3.78.1

⁹⁹ Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 3.78.2

The Commission notes that had airline views on demand elasticity been adopted in PSE4, this would have resulted in higher charges for airlines:

Auckland Airport has forecasted higher passenger demand than what the airlines consider is reasonable. This is opposite to the general demand forecast incentives of airports and airlines. For PSE4, higher passenger demand forecast means that the price per passenger is lower than otherwise, which benefits consumers. When facing constraints, capacity expansion by investing in infrastructure enables airline competition, which also benefits consumers. Our draft conclusion is that Auckland Airport's overall demand forecast appears reasonable and is unlikely to result in excessive profits for the PSE4 period.¹⁰⁰

As the Commission has recognised, the difference in opinion on demand elasticity has not resulted in Auckland Airport targeting excess profits. The forecast used by Auckland Airport is higher than the forecast airlines think is reasonable. If the impacts suggested by airlines were adopted, this would have resulted in higher charges and higher profits compared to the inputs that have been adopted.

Revenue wash-up

Auckland Airport welcomes the Commission's draft conclusion that the two-way revenue wash-up introduced in PSE4 is appropriate in principle:

Our draft conclusion is that in principle, the two-way revenue wash-up seems appropriate to protect both the Airport and airlines from significant revenue variance to forecast and address under- or over-recovery of revenue by the Airport in the event of a demand shock, like COVID-19. The presence of this risk sharing mechanism does not affect our estimate in Chapter 2, of a reasonable WACC for Auckland Airport over PSE4. This is because WACC is an industry-wide measure and unaffected by how Auckland Airport decides to share risks with airlines.¹⁰¹

We agree with the Commission's draft conclusion, that the two-way revenue wash-up reflects the asymmetric risk of materially large demand shocks that are not captured through the cost of capital. This conclusion is consistent with the advice provided by CEG:

The CAPM WACC includes compensation for systemic risk. It does not include compensation for events that cause cash-flow asymmetries. For example, there is no compensation in a business' WACC for the cost of insurance against a fire destroying a its factory. Just because we use the word "risk" to describe

¹⁰⁰ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 3.78.3

¹⁰¹ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 3.93

systematic and asymmetric risks does not mean that all costs for the latter are covered in the former.¹⁰²

CEG has also noted that it considers the two-way revenue wash-up does not fully compensate Auckland Airport for asymmetric risk:

...AIAL will be under-compensated so long as it does not include in its cost build up the actuarially expected cost of these asymmetric shocks. AIAL's proposed wash-up mechanism limits, but far from eliminates, AIAL's exposure to extreme negative shocks to revenues (such as from future pandemics). AIAL has not proposed such direct compensation for asymmetric risk exposure and this is the basis for my conclusion that AIAL is under-compensated for risk.¹⁰³

Accordingly, we consider this to be a reasonable measure, which has also been adjusted in response to airline feedback, as noted by the Commission:

While some airlines did not agree on the thresholds of the two-way revenue wash-up, there was agreement in principle over wash-ups generally and Auckland Airport lowered the IRR threshold from 1% to 0.75% after considering airlines' feedback.

We recognise that the Commission considers that more information and transparency on how the wash-up would work would be beneficial:

We consider more transparency from Auckland Airport around inputs and analysis could aid customers' understanding of the effect of the revenue wash-up mechanism.

Auckland Airport has been mindful of the importance of transparency as to how the wash-up mechanism would work in practice. In order to do this, Auckland Airport has already included additional information in the commentaries for its annual information disclosures. This additional information specifies the values and metrics that would be used to assess if the two-way revenue wash-up (or the capex wash-up) for PSE4 are triggered. This information is included in Table 4 of the FY23 Auckland Airport information disclosures.¹⁰⁴

We consider the publication of this information, combined with the detail set out on the mechanism in the Schedule of Charges, combined with Schedule 19 of the PSE4 price setting disclosures and the Commission's publicly available models, in total provide sufficient information for customers to analyse the potential impacts of this two-way wash-up mechanism under different scenarios.

¹⁰² Competition Economists Group, Incenta, HoustonKemp, "Responding to - Coding errors made by NZCC", (April 2024), currently 58

¹⁰³ Competition Economists Group, "Review of feedback on AIAL WACC estimates for PSE4", (May 2023), paragraph 68.

¹⁰⁴ Auckland Airport, "Annual Information Disclosure Regulatory Performance Summary For the year ended 30 June 2023", (November 2023), p. 8

5 Investment

Auckland Airport welcomes the Commission's analysis and draft findings of Auckland Airport's capital investment plans. We commend the Commission on the thorough job that it has done in interrogating our investment plans, and the evidence that has been presented in this review, including the following draft conclusions:

"We consider that the process and rigour Auckland Airport applied to planning and costing the investment plan was reasonable. When identifying the needs for investing in a new domestic terminal, Auckland Airport had adequate regard to the current service quality issues, asset maintenance, and capacity requirements in the long run. It considered a wide range of options. Auckland Airport has appropriately introduced a one-way capital expenditure wash-up mechanism to mitigate the risk of under delivery."¹⁰⁵

"Our draft conclusions is that there appear to be operational and financial reasons for Auckland Airport to proceed with the terminal integration program now. The enablement of an efficient contingent runway operation would not only benefit the main runway pavement renewals, but also improve the resilience of the runway operations in general. If the investment is deferred because the cost to build and associated increases in airport charges are considered too high, postponing the same investment into the future is unlikely to address this concern."¹⁰⁶

We elaborate further below on the findings in the Draft Report, and respond to some of the additional materials that have been published by the Commission alongside the Draft Report.

Capital expenditure consultation process and investment delivery

Auckland Airport takes its consultation obligations seriously and appreciates the Commission's recognition that feedback from Substantial Customers was included in the development and design of the capital investment programme.

Auckland Airport also notes the Commission's comment that extensive consultation can lead to delays in the delivery of planned capital investment. Auckland Airport recognises this risk and will continue to structure the timing of its consultation to best ensure the timely delivery of infrastructure and capacity to support consumers .

Appropriateness of planned investment

We support the Commission's robust framework that it has used in the Draft Report to assess Auckland Airport's capital investment plans. By stepping through key steps and consideration of the capital investment planning process, including how the need for investment was identified,

¹⁰⁵ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.6.1

¹⁰⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.109

the different options that were considered, and the scope of the planned investment, the Commission has undertaken a robust analysis of Auckland Airport's capital investment plans.

Needs identification

Auckland Airport agrees with the Commission's draft conclusion on the needs identification process for the Terminal Integration Programme:

We consider that when identifying the needs for investing in a new domestic terminal, Auckland Airport had adequate regard to the current service quality issues, asset maintenance, and capacity requirements in the long run. We note the majority of Auckland Airport's customers appear to agree that there is a need for investment of some kind to meet some of the needs identified, but they have different views on the type, size and timing of the solutions.¹⁰⁷

Auckland Airport followed an extensive needs identification and consultation process to design a capital plan which is fit for purpose. As the Commission notes, major customers acknowledge that significant investment is required for a new domestic terminal.

Options considered

As the Commission has noted, since 2012 Auckland Airport has consulted with Substantial Customers on 21 terminal design options. The final design for the Domestic Jet Terminal ("DJT") and broader capital plan is the best option to deliver capacity, resilience and future growth, and has been developed based on airline feedback received throughout consultation.

We appreciate the Commission recognising that Auckland Airport considered a number of options that presented alternatives to the Terminal Integration Programme, including changes to the design, alternative locations, operating out of the existing Domestic Terminal Building for longer, or using the existing International Terminal for domestic services.

These represent the high-level options that were considered to provide for future domestic services. However, there were many other options considered throughout the design and consultation process to identify the optimal solution that was eventually adopted. Further detail on alternative designs is addressed further below.

Scope of investment

Auckland Airport supports the following draft conclusions from the Commission's Draft Report:

The size and scope of the planned new domestic terminal are in alignment with the forecast busy hour passenger numbers.¹⁰⁸

We recognise airlines have a different view on the dampening effect on demand that higher airport charges would have. However, there is consensus that the existing DTB is facing increasing capacity constraint. The peak forecasts

¹⁰⁷ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.39

¹⁰⁸ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.71

suggest that a slower increase in utilisation does not negate the need to invest in greater capacity for growth.¹⁰⁹

Auckland Airport acknowledges that the current capital investment plan is significant, however work has been undertaken to review the size of the programme and consider where cost savings can be made.

The capital programme, and in particular the DJT represents an efficient design to meet the resilience, service quality and capacity needs of consumers.

In response to the initial draft capital plan, all Substantial Customers raised concerns with the size and cost of the overall plan, although feedback on the specific projects varied. There was some support for the terminal integration and new regional terminal development pathways in principle, but airlines sought options to reduce the cost and scope of these developments, or to defer elements of the plan before construction started. Some airlines supported some of the specific projects in the plan, including enabling works for terminal integration, which were included in the capital commitments proposed for FY23.

Arup analysis for Air New Zealand

Air New Zealand commissioned Arup for three phases of work:

Arup was engaged for three phases of work: an initial assessment of AIAL's IDT against global benchmarks and the production of a shortlist of alternative options; a deep dive into shortlisted options including cost estimates from quantity surveyors WT Partnership; and a more developed review of Air NZ's final recommended option.¹¹⁰

Auckland Airport considers that many of the findings contained in the Arup analysis validate the approach that has been adopted by Auckland Airport in designing the Domestic Jet Terminal. We set out below further comments on these three phases of work.

Assessment against global benchmarks

Arup has benchmarked the proposed design of the DJT against other airports globally. This analysis, with Auckland Airport annotations, is shown below in Figure 8. This shows benchmarks of gross floor area by annual passenger volumes, which demonstrates that:

1. The existing Domestic Terminal Building at Auckland Airport, and terminals in Christchurch and Wellington, are the smallest in the world when benchmarked against terminals globally.
2. The DJT (labelled IDT) in the below, is in-line with global comparators in the 2033 design year, reducing out to the 2043 design year.
3. The Arup developed alternative Adjacent Domestic Terminal on a per passenger basis would be smaller than global comparators, and on a per passenger basis would be a similar size to the existing Domestic Terminal Building. It is well recognised by all users of the Domestic Terminal Building that it is at capacity and is not delivering a good customer experience.

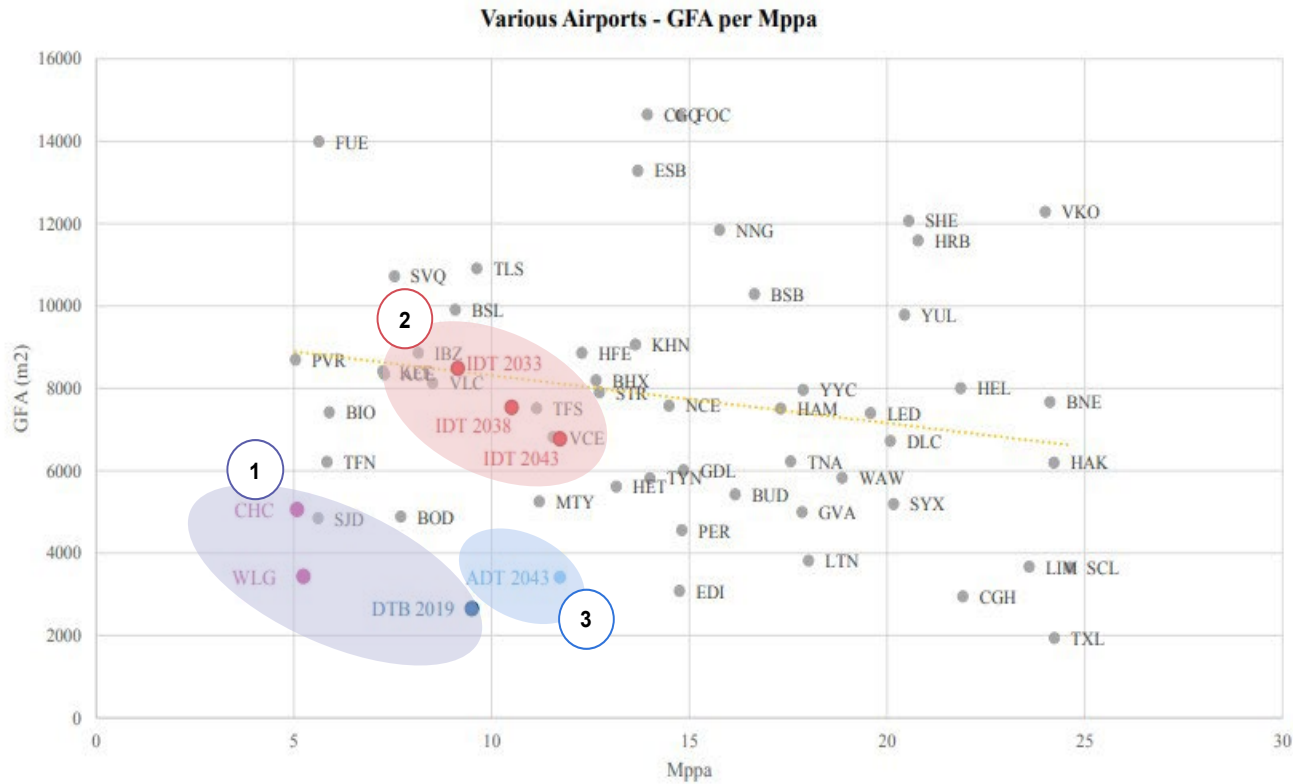
¹⁰⁹ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.72

¹¹⁰ Air New Zealand, Arup, "Affordable Domestic Terminal Pathway" (April 2024), p. 4

Figure 8: Arup benchmarking of gross-floor area by annual passenger volumes

6. Terminal layouts

Benchmarking



Note, benchmarks include Domestic and International Airports

Source: Air New Zealand / Arup, October 2023, p. 46, with Auckland Airport annotations

It is important to be mindful that this benchmarking analysis is against existing airport terminals at a point in time. The airports benchmarked are now open and in operation, so their benchmark measure will decrease over time as passenger numbers grow into the existing facility – i.e. these benchmarks would have been higher when they first opened. This dynamic will also apply to the DJT over different demand horizons from 2033 to 2043 (red shaded area “2” in the diagram above).

Accordingly, it is standard practice for a new terminal to start higher on these benchmarks and decrease over time. This further supports that the DJT has been designed to an appropriate size and the ADT would be too small.

The Arup analysis also considers that the DJT has been designed and sized appropriately. When scoring of the shortlisted terminal options including the DJT, it noted the following about Auckland Airport’s design:

New processor sized for appropriate number of domestic passengers¹¹¹

Alternative options considered

Arup developed and scored 14 different options for providing domestic terminal services at Auckland Airport.¹¹² This was then reduced to a shortlist of four alternative terminal options, of which the Adjacent Domestic Terminal option was favoured by Air New Zealand. The other three shortlisted options all included a remote operation of Pier A1 which provided the new Domestic Jet capacity, with passengers required to be bussed to the remote pier, resulting in a complex operational solution, and a poor passenger experience.

Accordingly, of the 14 different options identified by Arup for Air New Zealand, the Adjacent Domestic Terminal alternative was presented by Air New Zealand as the viable alternative.

Alternative Adjacent Domestic Terminal

Auckland Airport undertook an assessment of the information that was shared by Air New Zealand on the proposed alternative design. That analysis and assessment has since been published by the Commission as part of this review¹¹³. As noted by the Commission, this assessment found that the design was incomplete, did not meet the requirements to be a fully functional terminal, would result in poor customer experience, lacked an operational model, and offered a low level of integration.¹¹⁴

In light of the additional documents published alongside the Draft Report, Auckland Airport would also like to make additional comments on the Adjacent Domestic Terminal alternative proposal.

¹¹¹ Air New Zealand, Arup, “Affordable Pathways Phase 3 - Final Report” (October 2023), p. 86

¹¹² Air New Zealand, Arup, “Air New Zealand AKL Domestic Terminal – Affordable Pathways - Final Report” (August 2023), p. 69

¹¹³ Auckland Airport, “Analysis of Feasibility Study - AKL Domestic Terminal Options”, (December 2023)

¹¹⁴ Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 4.67

Cost estimates

The Air New Zealand submission focused on a cost of \$1.1 billion for the Adjacent Domestic Terminal. Auckland Airport has previously outlined why this does not provide a valid cost comparison, including its exclusion of financing costs, unrealistic escalation assumptions, and the exclusion of fundamental requirements in the design. Auckland Airport maintains that a more accurate cost gap between the two solutions on a like-for-like comparison is \$100 million, rather than the \$1 billion suggested by Air New Zealand.

Despite Auckland Airport advising Air New Zealand of these differences in cost estimates in December 2023, its submissions on cost have continued to mislead this review, claiming that its \$1 billion cost difference reflects costs that are estimated on the same basis (when they are not):

Estimated on the same basis, the cost for AIAL's IDT came out at ~\$2.2bn which is the same cost AIAL has disclosed for the IDT portion of the Integrated Terminal Programme.¹¹⁵

The Arup materials indicate that there are an additional \$852 million of capital costs, over and above the \$1.1 billion in costs cited by Air New Zealand for the Adjacent Domestic Terminal solution – these have been described as 'incomparable costs'. Inclusion of these costs results in the total capital cost of the Adjacent Domestic Terminal of \$2.04 billion.¹¹⁶

These additional capital costs were not shared in the materials that were provided by Air New Zealand when it proposed the Adjacent Domestic Terminal option in October 2023. Inclusion of these costs would not appear to address many of the issues Auckland Airport has identified with the costings that have been presented by Air New Zealand. This indicates the overall costs of this alternative could well be materially higher than Auckland Airport's current proposal. Further detail on these costs would better inform the Adjacent Domestic Terminal proposal.

Evaluation and scoring

Arup as part of its analysis evaluated and scored the different options it developed as alternatives, including the 14 different options on its long-list,¹¹⁷ and the four shortlisted options it then investigated further.¹¹⁸ These evaluations and scores included the Auckland Airport DJT design.

In its evaluation of the short-listed options, Arup scored the functionality of each solution, and then compared this alongside the estimated capital costs of these solutions. Excluding capital costs, Arup evaluated its Adjacent Domestic Terminal proposal with a total score of 30, compared to a score of 28 for Auckland Airport's solution. These were both materially higher than the other shortlisted options, that scored between 17 and 24 on operational measures.

¹¹⁵ Air New Zealand, Arup, "Affordable Domestic Terminal Pathway", (April 2024), p. 14

¹¹⁶ Air New Zealand, Arup, "Affordable Pathways Phase 3 - Final Report" (October 2023), p. 81

¹¹⁷ Air New Zealand, Arup, "Air New Zealand AKL Domestic Terminal – Affordable Pathways – Final Report" (August 2023), p. 69-71

¹¹⁸ Air New Zealand, Arup, "Affordable Pathways Phase 3 - Final Report" (October 2023), p. 93

Arup provided the same scores for the two solutions across all functional areas of assessment except for operational impact, where it scored its Adjacent Domestic Terminal 5/5, compared to 3/5 for the Domestic Jet Terminal design. This difference is explained by Arup:

Single Code C taxilanes provide risk of significant delay from stands on east side of pier and overall airfield.¹¹⁹

Auckland Airport has set out in detail in its response to the materials provided by Air New Zealand why a single code C taxilane as designed for the DJT is not expected to have the operational impacts assumed by Arup.¹²⁰ Accordingly, Auckland Airport considers that a score of 5 on operational impacts would be more accurate. Further, given the operational concerns identified by Auckland Airport with the proposed Adjacent Domestic Terminal we consider that the score of 5 should be revised downward. We also consider that high level analysis of the other scores indicates that the airside score of Integrated Domestic Terminal should increase from 4 to 5, to align with its assessment of 'Regional Headhouse' option (which was scored 5).¹²¹ These changes alone would result in a higher score for the DJT, than the Adjacent Domestic Terminal. Auckland Airport considers further critical analysis of the other scoring criteria would likely identify additional changes that would widen the gap even further between the evaluation of these options.

Current development not included in Arup alternatives

The Arup proposal does not consider the progress that has been made on the delivery of the first packages of works for the Terminal Integration Programme. In particular, the East Terminal Enabling project is well underway, as is shown in the photo below, with baggage systems now in operation.

Figure 9: Construction of East Terminal Enabling project, July 2024



¹¹⁹ Air New Zealand, Arup, "Affordable Pathways Phase 3 - Final Report" (October 2023), p. 91

¹²⁰ Auckland Airport, "Analysis of Feasibility Study - AKL Domestic Terminal Options", (December 2023), p. 9-11

¹²¹ Air New Zealand, Arup, "Affordable Pathways Phase 3 - Final Report" (October 2023), p. 87

Auckland Airport consulted with airlines ahead of making commitments in the 2023 financial year on the early packages of works for the Terminal Integration Programme, including the East Terminal Enabling project. Auckland Airport proceeded with these projects, with explicit support from one Substantial Customer to commit to \$470 million of works under the Terminal Integration Programme for the 2023 financial year. This support to proceed with these capital commitments was provided in August 2022, following which Auckland Airport has proceeded to deliver these projects.

By not reflecting these committed projects in its design, the Arup proposal simply ignores the cost of these projects, the services that can be provided with these facilities, and the operational interface with the alternative proposals it has developed. Auckland Airport considers that this further reduces the usefulness and relevance of these alternatives.

Ensuring the Domestic Jet Terminal was appropriately sized

Through its design process, Auckland Airport took many steps to ensure the new terminal was designed to appropriate specifications.

Air New Zealand has submitted that the development is oversized for the following reasons:¹²²

- Arup's Programme of Requirements ("PoR") indicates the terminal is oversized;
- the security screening area is over-providing space per security screening lane;
- the provision for a combined international and domestic baggage system exceeds requirements;
- gate lounge areas are higher than expected because it appears it is assumed there are more passengers at the gate (i.e. an early call to gate model has been adopted);
- airside retail maybe over-provisioned – but it does align with peer airport benchmarks, kitchen and food dwell spaces have not been included in the retail provision; and
- the pier design appears to be wider than necessary (Perth TI is cited as a case study).

Auckland Airport sets out our response to these claims below.

Brownfield constraints for integrated terminal design

The DJT has been designed based on the Paheko East Terminal Integration Pathway, that was endorsed Air New Zealand and BARNZ in 2021. This design concept, for integration with the existing international terminal, introduces a number of brownfield factors that have influenced the design of the facility, including its size. These include:

- terminal integration dictates the departing passenger journey from west to east - this influences the passenger circulation space that is required, due to:
 - *common security screening point – the integrated design has contemplated security screening for domestic passengers will be located next to the existing international screening point (with potential for harmonised screening in the future);*

¹²² Air New Zealand, Arup, "Affordable Domestic Terminal Pathway", (April 2024), p. 7-9

- *master planned pier alignment – the Auckland Airport Master Plan sets out the location of future piers to ensure long-run capacity can be delivered, and existing international operations on Pier A are not impacted – this dictates the location of Pier A1 in the east; and*
- baggage system influences headhouse floorplate – the combined international and domestic baggage system has been designed to deliver the required capacity on the ground floor of the facility, this has been a key influence of the size of the floorplate on the ground floor.

While these brownfield factors have influenced the design, the size of the terminal remains appropriate as has been demonstrated by the terminal layouts benchmarking by Arup for Air New Zealand (presented above), and the IATA level of service guidelines that have been incorporated into the design.

These brownfield factors are a reason why the PoR approach to determining terminal size can be problematic. Such an approach to determining the size requirements is based on mathematics but does not take into account the physical brownfield constraints and other factors that need to be considered when designing an airport terminal.

Further, under the Auckland Airport Master Plan, the terminal headhouse will ultimately provide processing capacity for future domestic pier A2.

Pier and gate lounges

Auckland Airport considers that the new domestic pier has been appropriately sized, comparable to piers at other airports, with its design informed based on in depth engagement with airlines.

Pier benchmarks

Air New Zealand and Arup have submitted that the design of the pier at 33 metres appears to be too wide, citing benchmarks of other airports. Auckland Airport also sought advice on benchmarks for pier width during 2019, which included the following mix of domestic and international piers:

Table 2: Pier width benchmarks

Airport	Pier width
Auckland (International)	36m (dual-sided), 19m (single-sided)
Adelaide	32m (single-sided)
Brisbane	12-35m (width varies)
Birmingham	24m
Brussels	38m
Dublin	28-29m
Hong Kong	40m
London Heathrow	35-48m (T2B), 56m (T5B), 42m (T5C)
Melbourne	40m (T1 Domestic)
Munich	29m-60m

Narita	38m (T2)
Perth	28m (T1)
Sydney	36m
Zurich	21m, 40m

Source: Mott MacDonald, analysis undertaken July 2019

The above benchmarks indicate that there is no standardised pier width across global comparators, but that the pier design of 33 metres appears to be reasonable and in the mid-range of these benchmarks.

Further to this, benchmarking of pier width undertaken by Airbiz was provided to Air New Zealand in December 2023 in response to the Adjacent Domestic Terminal proposal.¹²³ These benchmarks do not appear to have been incorporated into Air New Zealand’s submissions to this process.

Provision of services in ground floor of the pier

In designing the pier, the services provided on the ground floor are also an important consideration. The ground floor of the pier includes a bussing lounge to enable the bussing of passengers to remote aircraft, plant rooms, and operational facilities for airline and ground handlers’ staff, these facilities also influence the floorplate of the facility. As Auckland Airport has engaged with airlines and ground handlers on the provision of these operational facilities, this has identified requirements for additional space in close proximity to the apron, resulting in an additional mezzanine area to fulfil these requirements.

Gate lounge provision

Gate lounges have been designed within the footprint of the pier and reflect the provision of seating. Informed by airline feedback, the provision of gate lounge provision area has been designed for 50% occupancy.

As noted by the Commission, the gate lounge provision is below the IATA level of service benchmarks at 1.1m² per passenger (compared to 1.5-1.7m² per passenger).

Perth Terminal 1 as a case study

Perth Terminal 1 is cited as a case study by Air New Zealand.¹²⁴ Auckland Airport does not consider Perth Terminal 1 provides a useful comparison, as this facility provides a service for materially lower passenger numbers.

Previous analysis by Auckland Airport has found that in FY18, while there were 6.6 million domestic jet passengers flying through Auckland Airport, there were 2.5 million passengers using Perth Terminal 1. On a busy hour basis, Auckland’s domestic jet busy hour was 61% higher than Perth Terminal 1.

Given the much higher volumes of passengers that are forecast to use the DJT, any comparison with Perth Terminal 1 should be treated with caution.

¹²³ Auckland Airport, “Analysis of Feasibility Study - AKL Domestic Terminal Options”, (December 2023), p. 35

¹²⁴ Air New Zealand, Arup, “Affordable Domestic Terminal Pathway”, (April 2024), p. 9

Retail provision

Auckland Airport notes that the Arup study identifies that the retail provision is in-line with global benchmarks. Importantly, airlines are not charged for the cost of providing retail facilities, as these costs are allocated based on usage, with retail costs excluded for airline aeronautical charges.

Auckland Airport is yet to set its allocation rules for the DJT. To inform consultation, Auckland Airport provided a set of rules to allocate costs of the terminal development which were estimated based on an earlier iteration of design. These allocations were indicative and no decisions on allocation rules for the DJT have been made. Auckland Airport will consult again with airlines ahead of setting PSE5 prices before determining the allocation rules to be used for PSE5.

Security screening

Space provision for security screening has been informed by Avsec screening requirements, the space provision required for screening equipment, and peak hour departing passenger volumes. See page 33 of Auckland Airport's analysis of the Arup Terminal Options presentation for further detail.

Baggage system

Auckland Airport has found that the design of the integrated terminal, including the decision to integrate domestic and international services into a single baggage system, creates efficiencies and reduces the overall floorplate required relative to two stand-alone baggage systems required under the alternatives presented by Air New Zealand and Arup. It is not clear from the materials available, the basis for its conclusion that this integration is driving higher cost.

Capital plan review considered headhouse floorplate reductions

As part of the capital plan review undertaken in late 2022, Auckland Airport identified seven separate opportunities to reduce floorplate in terminal head house or pier of the new DJT. Aside from one proposal to reduce the amount of plant included in the design (which was adopted), the remaining initiatives to reduce the floorplate in the design were not supported by airlines during consultation.

Generally, feedback received on these changes during consultation continued to raise concern over the overall cost of the programme, but without providing any viable alternative solutions. Specific feedback indicated that the impact of the reductions in floor plate outweighed the cost savings that could be realised from the reductions. Auckland Airport concurred with this conclusion, and aside from the changes to the provision of plant, the floor area of the headhouse and pier was carried forward.

Service quality in-line with consumer demand

In considering whether Auckland Airport's investment plans will meet service quality that consumers demand, the Commission has considered future capacity needs and service levels.

Capacity needs

The Commission noted in the draft report:

Airlines broadly agree that there are capacity issues with the existing DTB as well. We consider that in general, additional capacity enables new airlines to enter markets and promotes competition, which benefits consumers.¹²⁵

We are supportive of the Commission's conclusion on capacity needs. The DJT will address existing capacity constraints in the existing Domestic Terminal Building, by providing 26% additional capacity gate capacity, plus a further 10% capacity through bus lounges and 44% additional check-in capacity. This is critical, as Auckland Airport expects that if no further capacity investment is made, by 2026 the number of days over capacity would increase to 58 days per year, and by 2033 it would be near continuous at 296 days per year. The new Pier A1 is designed with flexibility in mind: all gates are A321 capable and, thanks to the Multi-Aircraft Ramp System ("MARS") larger code E aircraft such as B787 can be parked as required.

Currently, the DTB apron is not fully flexible, with some stands limited to A320 due to the proximity to Taxiway Bravo.

These capacity uplifts are provided whilst replacing the existing domestic jet capacity at the Domestic Terminal Building – capacity which will be lost when contingent runway operations are required to allow for renewals on the main runway.

As a replacement facility this also enables a pathway to long-run capacity growth indicated in demand forecasts, the existing Domestic Terminal Building acts as a hard constraint on this long-run capacity expansion pathway.

Service levels

The Commission's draft conclusion on service levels is as follows:

Overall, our draft conclusion is that the service levels that Auckland Airport is targeting for the design of the new domestic terminal do not appear to be excessive, in comparison to the IATA Optimum Level of Service standards or the average peer airports.¹²⁶

We welcome this conclusion. We have set out further detail above, in previous submissions, and in our regulatory disclosures on how we have used the IATA level of service guidelines to inform the design of the DJT.

These investment plans are intended to help address service quality concerns raised by consumers. A study undertaken earlier this year confirmed that Auckland Airport's investment is supported by consumers, including:

¹²⁵ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.81

¹²⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.87

- 76% of travellers want development at Auckland Airport
- 81% want airport investment that futureproofs against weather events
- 90% of travellers supported building more airline capacity to keep fares in check.

Capital cost estimates

We note the Commission's draft conclusion on capital cost forecasts:

We have information on how the capital expenditure forecast was costed and the level of rigour applied to the forecast. We have benchmarking information from Auckland Airport, which provides a high-level comparison. We received further information from Auckland Airport following our inquiries discussed above. Considering the information available to us, the process and rigour Auckland Airport applied when costing the capital expenditure plan was reasonable.¹²⁷

We welcome the Commission's draft finding on the robustness of our capital expenditure forecasts. Significant effort, analysis and rigour is applied to ensure that our cost estimates are accurate and robust. We appreciate that the Commission has recognised this in its draft report.

While recent volatility in construction costs following the pandemic is unfortunate, it is also unavoidable. This volatility has further necessitated the rigour to our costing estimates, which we have applied.

Investment timing

We welcome the Commission's draft conclusion on investment timing:

Our draft conclusion is that there appear to be operational and financial reasons for Auckland Airport to proceed with the TIP now. The enablement of an efficient contingent runway operation would not only benefit the main runway pavement renewals, but also improve the resilience of the runway operations in general. If the investment is deferred because the cost to build and associated increases in airport charges are considered too high, postponing the same investment into the future is unlikely to address this concern.¹²⁸

Auckland Airport therefore agrees with the Commission's draft finding that there are operational and financial reasons for Auckland Airport to proceed with the DJT now. The contingent runway is an important resilience project and therefore a relevant key driver of the timing of the DJT – the

¹²⁷ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.102

¹²⁸ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.108

need to realign taxiway Bravo to enable efficient contingent runway operations has also been recognised by Arup in its analysis.

We also concur with the Commission on the financial impacts of delay - while construction costs can be volatile, they rarely fall, but rather just increase at a slower rate. Further delay to the delivery of this essential infrastructure is only expected to make it more expensive to build.

Investment delivery

We note the Commission's draft conclusions on delivery of investment at Auckland Airport:

When viewing PSE2, PSE3 and the beginning of PSE4, Auckland Airport has largely delivered on its investment goals, except for the beginning of PSE3 which followed a period of over-spend relative to its forecast, delivering additional capacity demanded by market growth. The significant under-investment over the COVID affected period in PSE3 ought to be treated as an outlier and not reflective of regular practice. Overall, we do not have significant concerns over planned over and under-investment historically; under-delivery risk in PSE4 is also mitigated by the one-way capex delivery wash-up introduced by Auckland Airport.¹²⁹

We welcome the Commission's overall conclusions on capital investment, including Auckland Airport's track record of capital delivery. We agree that the impacts of the pandemic must be considered when assessing the capital delivery during PSE3 in its entirety. Decisions made by Auckland Airport to halt the majority of aeronautical investment in response to the global pandemic, lockdowns and border closures, were supported by Substantial Customers.

Capex delivery wash-up

Auckland Airport agrees with the Commission's draft conclusion that the capex wash-up appropriately allocates risk and provides the right incentives:

We consider that the introduction of the one-way capex wash-up mechanism for PSE4 shows that Auckland Airport is cognisant of the risk of under-delivery. Without any mechanism, the underinvestment risk primarily sits with airlines. Auckland Airport is better placed to manage the investment delivery risk. We consider the mechanism provides the right incentives and was reached following concession during consultation with substantial customers (with the 7.5% value previously set at 15%).¹³⁰

Auckland Airport proposed the introduction of the one-way wash-up in recognition of the additional risk posed by the significant capital investment programme. Auckland Airport

¹²⁹ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.115

¹³⁰ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 4.124

considers that the trigger is set at a level which balances ensuring that the capital investment is delivered to forecast, whilst maintaining the incentive to deliver capital projects efficiently.

6 Pricing structure

Auckland Airport concurs with the Commission's draft conclusion on pricing structure:

"Given that there are minimal changes to the pricing structure, we have no reason to change our overall conclusion from the PSE3 review that in general, Auckland Airport's pricing method does not result in prices which raise efficiency concerns."¹³¹

We welcome this finding, including the Commission's conclusion on the efficiency of regional charges in PSE4. We considered that given the disruption caused by the pandemic, there was value in continuing with the same pricing structure that was used in PSE3. However, we have made a number of small changes to the pricing structure in PSE4 to further improve the efficiency and price signals of our aeronautical charges. These include aligning the price of the transit passenger charge and international passenger charge and making changes to the exemptions for aircraft parking charges for domestic freighters.

The Commission has sought further information on changes to the exemptions that apply to domestic freighters for aircraft parking charges – we provide further information on this below.

Aircraft parking charges

The Draft Report considered submissions from Freightways and NZ Post on changes that have been applied to aircraft parking charges, to reduce the aircraft parking exemption period for domestic freighters from 48 hours of free aircraft parking to 12 hours.

We welcome the Commission's consideration of how the exemption was included in the building block model and agree with its draft conclusion that there was no error in the building block model for the calculation of aeronautical charges and aircraft parking. These changes to the aircraft parking exemptions have not been introduced as a revenue raising measure, but rather to encourage more efficient use of scarce aircraft stands on Auckland Airport's airfield.

The Commission has requested more information to explain why the change to reduce the domestic freighter exemption from 48 hours to 12 hours is appropriate. As we explain below, we believe this change is necessary to support efficient use of infrastructure given the forecast capacity constraints for aircraft stands. Auckland Airport's view is that there are choices for Freightways and NZ Post to make changes to their operations in response to the more efficient price signals we have introduced.

¹³¹ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph 5.8

Aircraft stand capacity outlook

Auckland Airport is forecasting no spare capacity in FY25, and a shortage in stand capacity in FY28, driven by cargo demand. This shortage was evident in analysis done prior to PSE4 prices being set and continues to be a challenge as forecasts are further developed.

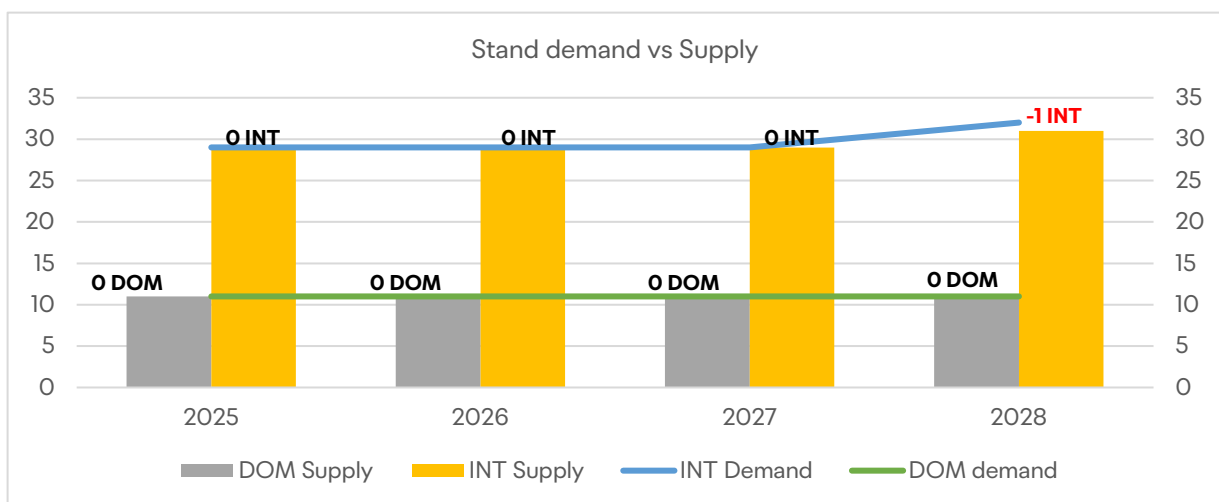
Aircraft stand demand forecasts

Our aircraft stand demand outlook is based on detailed modelling which has been undertaken based on projected future flight schedules which are in turn based on forecast overall growth in demand and future fleet growth. Such forecasting is inherently complex relative to aggregate demand forecasting (i.e. annual forecasting), as it considers operational constraints and aircraft movements on an hourly basis, to inform future projections of demand in peak periods.

This type of forecasting is standard practice to inform aeronautical planning, but given its complexity is not undertaken on a year-by-year basis. Detailed forecasts are developed based on schedules for 2025 and 2028 to provide an outlook for the remainder of the PSE4 pricing period.

The information is sufficient to identify any shortfall or surplus in the number of stands. It is estimated that domestic stands will meet demand through 2028, once remote stands are opened in 2025, leading to an increase in available supply. However, on the international side, a shortfall of one stand is forecasted for 2028. This shortfall is considered manageable. The modelling is based on peak season demand and accounts for the proposed stand closures during the DJT construction. It is important to note that some stand closures will occur during the low season, ensuring additional supply during the high season. This means that, as an example, unallocated aircraft could be parked on a domestic stand and then towed back to the international apron.

Figure 10: Aircraft stand demand vs supply



Aircraft stand demand and supply balance

Based on the latest indications, in 2025 there will be no surplus of stands – i.e. demand and supply are in balance but there is no additional capacity. This assumes that:

- all available hangars are fully utilised (except hanger 4 leased by Freightways, which is not currently used to store aircraft, as discussed below);
- during the DJT construction stages, temporary stands are provided to replace those closed for the Pier construction; and
- no long ground times – current behaviour of domestic freighters to remain parked for extended periods of time has not been included in this modelling of stand capacity requirements.

Accordingly, if the behaviour of domestic freighter aircraft remains unchanged, with extensive time spent on the ground at Auckland Airport, these forecasts indicate that a shortfall in stand capacity could eventuate from next calendar year.

Looking further forward, forecast growth in traffic indicates that additional stand capacity will be required to meet demand in 2028, a need that spans across all passenger and cargo segments. This is again based on the assumption that all hangars are full, some domestic jet stands are open for bussing operations and no long ground times occur.

Aircraft stand supply outlook

Auckland Airport is currently seeking to manage future changes to the airfield stand capacity, during the construction of the DJT and related works.

The construction of the DJT requires the permanent closure of seven existing remote aircraft stands, with only three temporary stands that can be accommodated in the proximate location. The construction programme also impacts up to four jet capable stands on the existing Domestic Terminal Building, and one stand at the existing International Terminal Building which will be closed for a period of time.

Continued maintenance of existing assets is also necessary. From an apron perspective, this means that some existing stands will be closed for pavement renewals, temporarily reducing supply. The maintenance is dictated by the status of the pavement and delaying or not performing it would further compromise the condition of the apron.

To accommodate for these impacts, Auckland Airport is currently building new stands north of Pier B (International Terminal). These stands will be designated for international flights and cargo aircraft. The construction of the DJT will provide additional capacity to the domestic segment from 2028, and we are also currently consulting with airlines on the delivery of additional stands for regional aircraft which are expected to be required.

All these impacts on stand capacity require Auckland Airport to carefully plan stand closures, mostly targeting low season, while also considering that winter weather is not ideal for pavement renewals work. The outlook for stand capacity during the delivery of the Terminal Integration Programme, between 2025 and 2028, is outlined in the figures below.

Figure 11: available stands in 2025

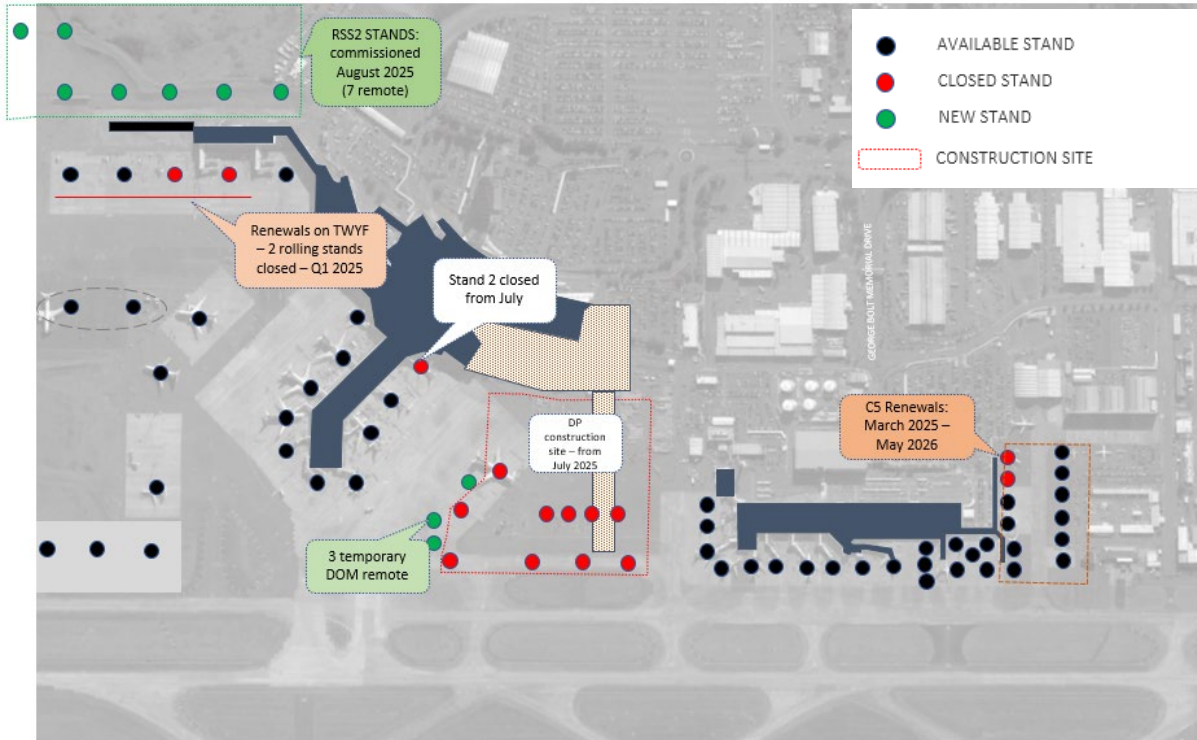


Figure 12: available stands in 2026

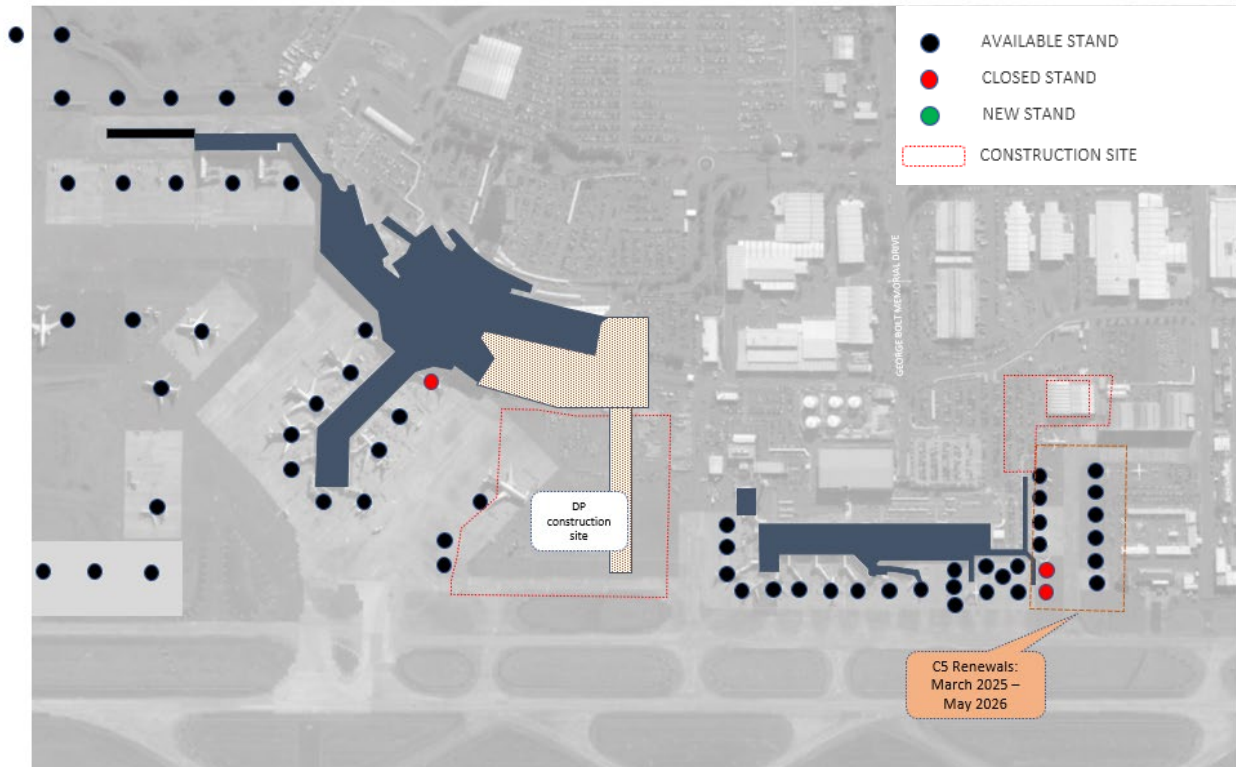


Figure 13: available stands in 2027

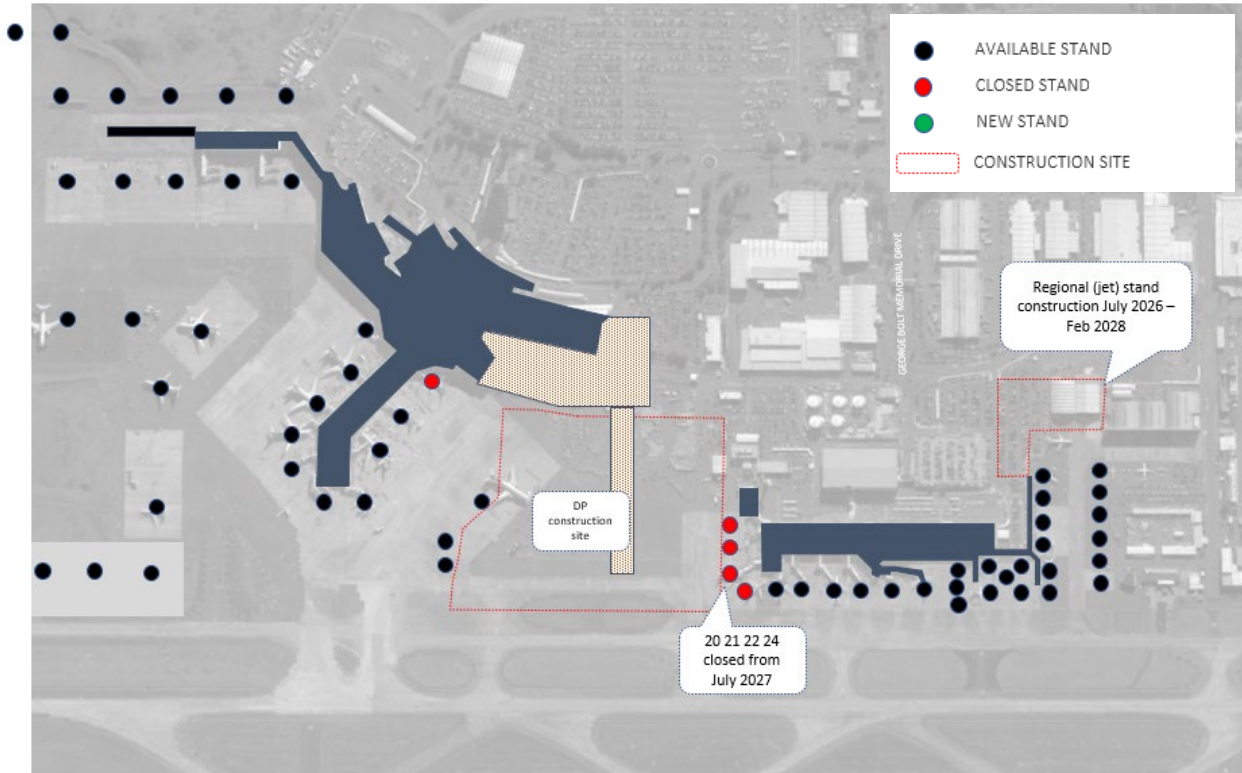
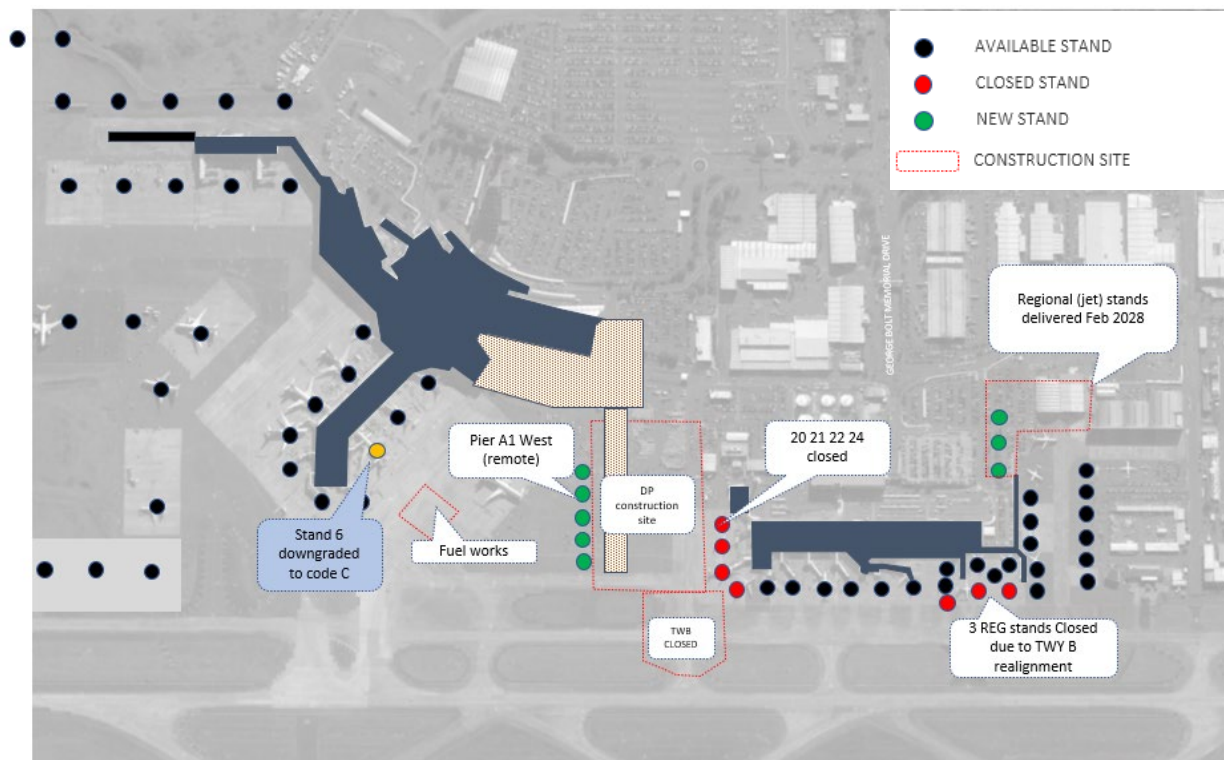


Figure 14: available stands in 2028



Implications of a shortfall in stand capacity

Auckland Airport considers that there are material costs that would be associated with a shortfall in stand capacity at Auckland Airport. These costs would be borne through lost services and growth, or service quality degradation for airline customers and their passengers.

Stand capacity necessary to service passenger airline services

Given our location in the world, Auckland Airport is what is often described as a 'slot-taker' on the hub and spoke global aviation network. That is, the times at which international aircraft fly in and out of Auckland Airport are usually dictated by other factors outside of Auckland Airport's control. In the context of long-haul connections into global airport hubs, connecting flight timings (airport hub banks) at these hub airports often dictate the time aircraft fly and thus the times that they will arrive at and depart from Auckland Airport.

For Auckland, this results in long-haul passenger aircraft spending time on the ground ahead of their return journey so they can arrive into their hub for their next slot. Specific examples include:

- Emirates daily service to Dubai is on the ground for around 10 hours on average; and
- Qatar daily service to Doha is on the ground for around 10.5 hours on average.

These services provide important connections for New Zealand to the rest of the world, particularly into Europe. If Auckland has insufficient stand capacity for these aircraft, then these services, or the future growth of similar services, would be put at risk. Notably, Emirates has not returned to its twice-daily pre-pandemic services into Auckland, if it were to return to this frequency then Auckland Airport must be able to provide suitable arrival and departure international terminal passenger processing slot times as well as the stand capacity required to enable the service to meet its slot requirements at the Dubai hub.

Stand capacity provides resilience

Another point to consider is that no surplus stands means that very little resilience is available in the system. For example, a LATAM plane was grounded for a week this year following the incident where it lost altitude inbound to Auckland Airport from Sydney. If this happened in 2025 with no spare stand capacity, the airport would need to use areas of the taxiways to respond to incidents like this and would likely need to turn other aircraft away while the plane was grounded. This is manageable for short periods but becomes problematic if aircraft are regularly parking for long periods and disrupting consumers ability to fly to Auckland.

Relative efficiency of current pricing structure for aircraft parking

Auckland Airport is working to incentivise all airlines to use the available airport resources efficiently, in line with the Part 4 purpose. In PSE3, Auckland Airport introduced parking charges for both passenger aircraft and freighters. This supports consumers by reducing the need for new infrastructure and keeping charges lower and introducing a price signal for airfield services that have a finite supply.

The Commission supported the introduction of parking charges in PSE3 to improve efficiency [emphasis added].

“For PSE3, we concluded that Auckland Airport had made changes to its pricing structure that were likely to improve efficiency. These efficiency improvements included the introduction of differential charges for domestic passengers travelling on trunk and regional routes, the introduction of parking charges for planes with time on the ground over six hours and differentiated charges for check-in services. We also concluded that Auckland Airport appeared to have set prices transparently in PSE3 and had regard to price stability and certainty for stakeholders.”¹³²

An assessment of the effectiveness of aircraft parking charges in PSE3 is difficult to make due to the disruption of the pandemic. However, since parking charges were implemented in PSE3 we have seen an increase in the number of domestic freighters operating at Auckland Airport, with the arrival of Texel Air into the market in April 2023.

However, there is currently a material difference in the treatment of aircraft where commercial passenger aircraft operators have a greater incentive to change their behaviour and use stands more efficiently with parking charges applying after 6 hours, relative to domestic freighter aircraft where charges apply after 48 hours on the ground. This creates disparity in the pricing system.

Domestic freighter aircraft do have options to change their behaviour

In the Draft Report, the Commission was not convinced that the changes to the aircraft parking exemptions would lead to an improvement in pricing efficiency:

*While we understand why Auckland Airport would want to make a change so that prices are charged consistently across customer groups, in this situation, it is not clear from the information provided how the change will lead to an improvement in the efficiency of Auckland Airport’s prices. This is because Freightways/NZ Post have indicated that they are not able to change their operations, which means that the pricing change may not result in a more efficient use of the airfield space.*¹³³

The Commission’s draft conclusion is based on the presumption that Freightways / NZ Post are not able to change their operations. However, Auckland Airport considers that there are changes that could be made by Freightways and NZ Post that own ParcelAir to how their aircraft are operated at Auckland Airport in response to the pricing signals that have been introduced.

As set out below, we think there are options to make better use of existing hangar facilities, realign the ground time of the domestic freighter network to match domestic freighter activity, and increase the utilisation of existing aircraft to reduce ground-time. We also consider that the existing commercial arrangements between ParcelAir and aircraft operator Airwork dampens the pricing signal Auckland Airport is seeking to achieve through its aircraft parking charges.

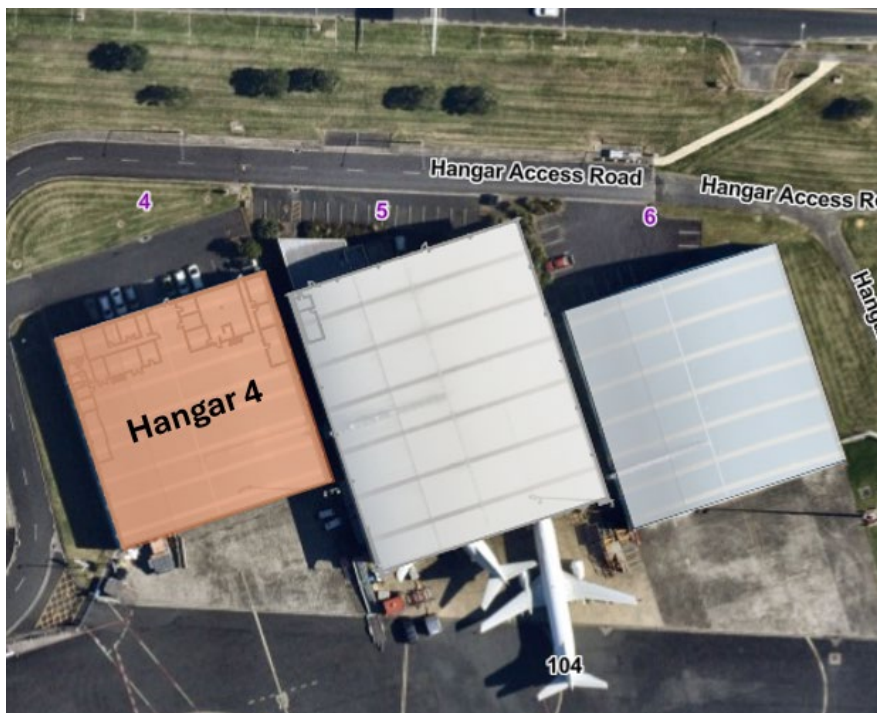
¹³² Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 5.4

¹³³ Commerce Commission, “Review of Auckland Airport’s 2022-2027 Price Setting Event - Consultation Paper”, (July 2024), paragraph 5.26

Use of existing hangar space at Auckland Airport

Freightways currently have a lease over Hangar 4 at Auckland Airport. Hangar 4 is capable of housing a domestic freighter aircraft, including the 737-400 that is currently used by Airwork for ParcelAir, and the 737-800 used by Texel Air while it is not loaded with freight (due to pavement strength).

Figure 15: Hangar 4 at Auckland Airport



The permitted use of the premises includes aircraft hangarage, warehouse and offices. Freightways sub-leases an area to another airport operator which uses the area to store a flight simulator for training purposes and performs minor line maintenance for ground handling equipment ("**GSE**"). Auckland Airport considers that these are services could be relocated and provided in an alternative location.

Auckland Airport considers that the use of Hangar 4 for freighter aircraft parking would be a more efficient use of this facility than how it is used currently, given the scarcity of aircraft stands at Auckland Airport. Aircraft that were parked in Hangar 4 would not be subject to aircraft parking charges.

However, as Freightways have a lease over Hangar 4, it is outside of Auckland Airport's control to determine the use of this facility that is controlled by Freightways. We consider that the adjustment of the parking exemption provides a price signal to Freightways, to reconsider how it uses Hangar 4 going forward.

More efficient aircraft movements

In financial year 2024, there were four domestic freighter aircraft that used Auckland Airport on a regular basis¹³⁴. The details of these aircraft were as follows:

- Airwork – ZKPAK, ZKPAT, ZKPAU – 737-400 freighters
- Texel Air – ZKTXE – 737-800 freighter

Following analysis of the movements of these aircraft, Auckland Airport considers that there are options and choices for these aircraft to be used more efficiently, to reduce their time on ground at Auckland Airport, and to more effectively use existing facilities available to Freightways that are not currently used to house aircraft.

No operations on Sundays increases time on ground at Auckland Airport

Across the 2024 financial year, data indicates there are no freighter aircraft movements on Sundays – any freighter aircraft that arrive at Auckland Airport on a Saturday which do not depart that day remain parked until at least Monday. Based on flight movements of these aircraft in the 2024 financial year, 42% of the time on ground greater than 12 hours was due to aircraft that arrived on a Saturday.

Operations with no aircraft movements on Sundays differs to that of most other airport users, with the airport being a 24/7 operation. It also differs from international freight operators that do have movements over the weekend.

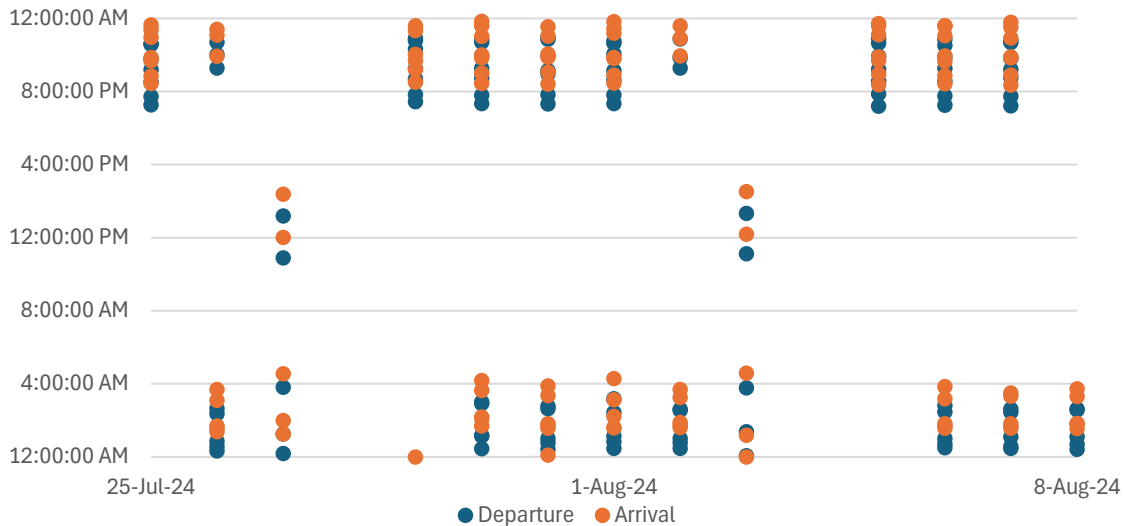
Limited operations during daytime hours and weekends

Auckland Airport faces its main challenges during two key periods: from 5 a.m. to 9 a.m., when aircraft that have operated inbound overnight are still on the ground, and early arrival aircraft from the USA and the Middle East are landing. A similar situation arises again from mid-afternoon, with inbound flights from Australia requiring stands and flights to the USA and Asia departing late evening.

As shown in the chart below, domestic freighter aircraft are typically on the ground during both of these peak periods for aircraft time on ground.

¹³⁴ Note that Parcel Air also use other freight aircraft from time to time which either do not operate frequently or also operate international freight and so are not classified as domestic freighters

Figure 16: Selected domestic freighter movements, Auckland Airport



Current operations spend disproportionate time on ground at Auckland Airport

Closer analysis of recent aircraft movements of these domestic freighters between 25 July and 8 August 2024 has revealed that while Auckland Airport accounts for 34% of the movements of these aircraft, they spend 64% of their time on ground at Auckland Airport.

Table 3 below shows that in the sample period, these four aircraft spent a total of 32.7 days on ground at Auckland Airport, 13 days at Christchurch Airport, 0.8 days at Palmerston North Airport, and 4.5 days in the air.

Table 3: Domestic freighter location (number of days) - 25 July - 8 August 2024

Tail	Auckland	Christchurch	Palmerston North	Air-time	Total time measured
ZKTXE	10.4	0.9	0.2	1.9	13.30
ZKPAK	7.9	4.6	0.1	0.6	13.24
ZKPAT	4.1	7.0	0.2	1.0	12.22
ZKPAU	10.4	0.5	0.3	1.1	12.26
Total	32.7	13.0	0.8	4.5	51.02
<i>Total Percentage</i>	<i>64.2%</i>	<i>25.4%</i>	<i>1.6%</i>	<i>8.8%</i>	<i>100.0%</i>

Source: FlightAware, data extracted 8 August 2024

Table 4 shows that the number of arrivals for these aircraft over the same period was 38 at Auckland Airport, 54 at Christchurch Airport, and 20 in Palmerston North. This equates to 34% of arrivals at Auckland Airport, and 48% of arrivals at Christchurch Airport.

Table 4: Domestic freighter – number of arrivals – 25 July – 8 August 2024

Tail	Auckland	Christchurch	Palmerston North	Total
ZKTXE	20	20	4	44
ZKPAK	5	7	3	15
ZKPAT	6	13	6	25
ZKPAU	7	14	7	28
Total	38	54	20	112
<i>Total Percentage</i>	33.9%	48.2%	17.9%	100.0%

Source: FlightAware, data extracted 8 August 2024

What this data indicates is that Auckland Airport is over-indexed for time on ground, relative to the amount of domestic freighter aircraft movements through Auckland, with Christchurch Airport comprising 48% of landings, but just 25% of aircraft time spent there.

Given that the most movements are through Christchurch Airport and not Auckland, it appears reasonable that these freighter operations could spend more time on ground in Christchurch, and less time on ground in Auckland, without compromising the existing operations. Christchurch Airport also has aircraft parking charges, with an exemption of the first 24 hours of parking for regular scheduled services.¹³⁵

Commercial terms with aircraft operators should encourage efficiency

Auckland Airport is not privy to the commercial terms between ParcelAir, the Freightways / NZ Post joint venture, and the suppliers of aircraft capacity to ParcelAir by the two aircraft operators Airwork and Texel Air.

It is the case that ParcelAir are billed directly for specific callsigns, which can relate to multiple different aircraft. The approach to assigning the parking charges to the relevant callsign is a commercial agreement between Airwork and ParcelAir, with the landing and take-off times applicable to each call sign being provided to Auckland Airport by Airways.

This billing arrangement has been put in place at the request of ParcelAir and Airwork, presumably reflecting the commercial terms agreed between ParcelAir and its operators for the pass-through of aircraft parking charges.

Auckland Airport is concerned that this arrangement could diminish the efficiency of the pricing signals introduced through aircraft parking charges, as it may not encourage the operator to find alternative use for these aircraft when they are not operating. If the parking charges were paid by the aircraft operator directly, then it may consider whether there is additional business it could find to avoid the domestic freighter aircraft charges. For example, Texel Air have other aircraft which operate trans-Tasman freighter services, as well as other domestic freighter services.

However, the current arrangements between Parcel Air and its operators, where there is a simple pass-through of parking charges, does not provide the price signals that the parking charges are seeking to achieve. Unfortunately, this is outside of Auckland Airport’s control, as it is down to the arrangements that have been made between two external parties.

¹³⁵ [Christchurch International Airport Schedule of Standard Aeronautical Prices, 1 July 2022](#)

7 Innovation

Auckland Airport supports that the Commission has taken a holistic approach in its Draft Report to consider if Auckland Airport's innovative practices promote the Part 4 purpose.

We provide further submissions below on how Auckland Airport has been innovative, and advocate for a broad definition of innovation to be applied to regulated airports in New Zealand.

Defining innovation

Innovation is an important consideration under Part 4

Auckland Airport considers that the regulatory framework has been carefully and deliberately designed to ensure that airports are incentivised to make decisions that are aligned to the interests of New Zealand consumers, and to achieve the outcomes in the Part 4 purpose, one of which is ensuring airports have the incentives to innovate.

In the case of airports, we consider the achievement of these outcomes is interrelated and each are not mutually exclusive - the interdependencies between these outcomes can be complex.

How is innovation measured?

The Commission noted:

*"innovation is the discovery and use of new information, leading to the development of new goods or services, and/or more efficient production techniques, and that innovation is not the same as the adoption of industry best practice from New Zealand or overseas."*¹³⁶

While Auckland Airport agrees in principle with the statement, we consider innovation is broader than just "new to world" concepts and "blue sky thinking". Innovation also encompasses continuous improvement and looking for new ways to bring increased efficiency, reduced cost and improved service quality to the airport.

The Commission identified in its Draft Report that innovation can lead to efficiency gains and a reduction in opex per passenger.¹³⁷ Beyond this, Auckland Airport considers that innovation can improve service quality, increase capacity and reduce capex spend. The examples below showcase how this is happening at Auckland Airport.

Innovation in the context of regulated New Zealand airports

Further to the submission from NZ Airports, Auckland Airport also believes that there is scope for more clarity on how the Commission will be assessing innovation and how this interacts with efficiency, quality and incentives to invest. While innovation is important, it should not always be

¹³⁶ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph para 6.6

¹³⁷ Commerce Commission, "Review of Auckland Airport's 2022-2027 Price Setting Event - Consultation Paper", (July 2024), paragraph para 6.11

the first option, and it is not always the role of individual airports alone to innovate. In some instances, the Part 4 purpose is better met through implementing new technology developed at larger airports or facilitating discussions on innovation with relevant stakeholders. We would encourage the Commission to also consider what innovation involves and how this should be measured in the context of NZ regulated airports.

Please see appendix A for further examples.

Appendix A: Further examples of innovation at Auckland Airport

Further examples of innovation at Auckland Airport

Auckland Airport has provided a number of examples of how it is innovating in the operations it provides to customers, through the previous submissions to this review, and in its annual information disclosures.

We provide further information below on how Auckland Airport is innovating through implementing new ideas, fostering collaboration amongst users of the airport, enabling other firms to innovate and invest, and adopting new technology, systems and processes.

Auckland Airport notes that the Commission recognised that Auckland Airport is innovating "to some degree". Auckland Airport agrees that the work being undertaken on the new operations centre and on machine learning shows innovation. In this appendix Auckland Airport further sets out how it is innovating through a number of other areas. Therefore, this appendix should be read alongside Auckland Airport's previous submissions and public disclosures to form a full picture of innovation at Auckland Airport.

Innovation through new ideas

Where appropriate, Auckland Airport has innovated through developing new systems, processes and technology, facilitating discussions with key stakeholders on innovation and implementing unique approaches to apply international best practice systems, process and technology from other airports and industries.

Innovative heat pump technology

Another example of how Auckland Airport is leading in innovation is the work we are doing in airport sustainability. Auckland Airport's work to cut carbon emissions has been recognised with a Level 4 Airport Carbon Accreditation from Airports Council International (ACI), putting it among the world's leading airports in terms of sustainability.³

The first, and biggest, saving will come from replacing six natural gas boilers, totalling 6.5 megawatts of heating, with electric air-source heat pumps. Included in the switch is the introduction of innovative heat pump technology that warms and cools air simultaneously within the same unit – one of the first large scale units of its type in New Zealand.⁴

While air conditioning or heat pumps which cool in summer and heat in the winter are not new, what we are currently testing is leading edge technology that can cool one area within the terminal but take the heat that's been extracted in the chilling process and pump it into a space that needs

warming up. A traditional HVAC system would just vent that air as waste, so it's doubling the efficiency and reducing cost.

At Auckland Airport we move a lot of air – up to 12 air changes an hour in some of our big dwell spaces. That currently requires about 15 megawatts of cooling or roughly 3000 of the air conditioning units in the average home.

A unique challenge in managing air temperatures within an airport terminal is the passenger ebbs and flows, which can see spaces like departure gates or arrival processing areas go from virtually empty to filled with hundreds of people then back to empty again within a short space of time.

While it creates complexity when we are trying to keep different spaces at a comfortable temperature throughout the day and night, we can see some real opportunities to harness the warmth of one area to take the chill off another, or vice versa.

The first step is testing one 500kw unit featuring the new technology – roughly 100 times the size of a residential heat pump – on a couple of areas within the terminal.

Stormwater treatment ponds

Auckland Airport is developing a new stormwater treatment system. This unique system combines a wetland with a biofilter,⁵ and is the first of its kind in New Zealand. It has been carefully developed for the New Zealand environment, including the use of native plant species.

The system is built to manage stormwater from a 106ha catchment within a footprint a third of the size of a traditional stormwater pond. Meaning, this new technology is three times more efficient than a traditional stormwater pond.⁶

Once complete, around 1,500 individual sections of pipe each measuring up to two metres in diameter, will capture stormwater flows from more than 100 hectares of land north of the international terminal, directing it away and into an innovative new treatment system. Featuring wetlands and biofiltration within a stormwater pond, native plants will be hard at work cleaning water before it flows into the Manukau Harbour.

The location of the new system also improves airport resilience by directing stormwater further away from the terminal buildings and critical airport infrastructure.



Innovative heat pump technology that warms and cools air simultaneously within the same unit is one of the first large-scale units of its type in New Zealand.



A New Zealand first, our innovative stormwater treatment system manages catchment from 106 hectares but at a third of the size of traditional stormwater ponds

³ Auckland Airport, "Auckland Airport achieves global Airport Carbon Accreditation as progresses once-in-a-generation upgrade", (February 2024), <https://corporate.aucklandairport.co.nz/news/latest-media/news-articles/auckland-airport-achieves-global-airport-carbon-accreditation>

⁴ Auckland Airport, "Replacing one of New Zealand's biggest air conditioning systems", (May 2023), <https://corporate.aucklandairport.co.nz/news/latest-media/2023/replacing-one-of-new-zealands-biggest-air-conditioning-systems>

⁵ Beca, DesignFlow, "A coupled wetland biofilter: The best of both worlds" (May 2019)

⁶ Auckland Airport, "Major stormwater expansion improves flood resilience and water treatment at Auckland Airport" (October 2023), <https://corporate.aucklandairport.co.nz/news/latest-media/2023/major-stormwater-expansion-improves-flood-resilience-and-water-treatment-at-auckland-airport>



One of the endangered New Zealand dotterel / tūturiwhatu which nest at the airport.

Environmental plan to reduce bird strike

For the safety of the travelling public, it is not always possible for bird species to coexist with airfield operations, due to the safety risks posed to aircraft by bird strike.

It is a safety issue Auckland Airport takes seriously, with a wide range of techniques used to move birds away from the airfield, such as using sirens, deterrent sounds, and cultivating grass that produces seed that has limited appeal to birds.

Tree planting is also done in a way to discourage birds from moving too close to the airfield. Auckland Airport has developed an airport environmental guide which is being shared with other airports in New Zealand to allow airports to plant native species and promote biodiversity while reducing the safety risks associated with bird strike.

Facilitating innovation through collaboration

Just as important as airports' leading innovation, is their ability to facilitate innovation. Consultation is an important part of designing new solutions and developments at the airport. This helps to ensure that it will be fit for purpose and meets the needs of all relevant stakeholders.

Arrivals process improvements

Auckland Airport considers the work done to reduce queuing times to be a good example of collaborative innovation. Most airports around the world do not have the same level of bio-security requirements as New Zealand, meaning that Auckland Airport is unable to draw on international best practice to improve issues with long queue times. Auckland Airport worked with the Ministry of Primary Industries to develop new ideas to better manage increasing passenger volumes. Queue times for international arrivals in the 2024 financial year improved by 43% at the median (50th percentile) compared to the previous year (from 31.3 minutes to 17.7 minutes), in part due to the implementation of a low-risk bio-security arrivals pathway in late 2023. When looking at queue times for the majority of travellers (the 95th percentile) during the financial year, there was a 33% reduction.

Innovative implementation of industry best practice technology, systems and processes

Sometimes the best, least risky and most efficient way to innovate is to apply new and innovative technology, which other airports are also using. Adopting proven, modern technology can come at a lower cost and with less risk than new or unproven concepts.

Common use ABDs

Over the next few years, around 100 traditional check-in desks will be replaced with self-service kiosks and automatic bag drops as Auckland Airport works towards integrating domestic jet services into the international terminal and bringing domestic and international travel together for the first time in decades.

The new technology will bring a real step change in the check-in experience, allowing travellers check-in at a kiosk, print their own luggage tags, and then use an automated bag drop – cutting waiting time at check-in.



New automatic bag drop technology will cut wait times and increase efficiency at check-in.

This major modernisation of check-in technology allows us to bring together the check-in experience for future international and domestic travellers into a single check-in area, and support travellers to complete the check-in process more efficiently.

The new self-service kiosks and automatic bag drops will be available to all travellers no matter what airline they're on, meaning multiple airlines can be checking in from the same kiosks at the same time, creating additional capacity and efficiency within the check-in hall.

The other advantage is that by moving people through the check-in process faster we will be able to manage the expected future passenger numbers for both domestic and international travel with only incremental increases in the size of the check-in area.

Making check-in a quicker and smoother experience for travellers is a big area of development for airports globally and self-service options are becoming increasingly commonplace. That allows for further layers of innovation to allow for smoother running of the whole airport ecosystem.

Baggage system

The Eastern Bag Hall will introduce modern technology into the baggage system. The individual carrier system (ICS) is being implemented by major airports in Europe as they upgrade their baggage handling system (BHS). It will provide a smarter way to process bags, providing a step change in energy efficiency and supporting Auckland Airport's sustainability objectives.

This system is more reliable, flexible and energy efficient than a traditional BHS. Baggage is placed directly into a carrier which is equipped with an RFID tracker. The bag then stays in this carrier throughout the sorting and scanning process, right up until it is loaded on the plane, allowing for 100% tracking at the airport.⁷

The ICS involves less equipment than a traditional conveyor belt and therefore takes up less footprint in the airport, reducing capex costs on scarce building infrastructure. It is also up to five times faster, improving efficiency and allowing for faster connection times.

Studies have also shown that the overall costs for operations and maintenance staff, spare parts and energy are substantially less in the ICS baggage handling. Operations and maintenance staff costs have reduced 30-70% in other airports using this system, as well as around 30% savings in energy.⁸

The innovative new individual carrier system uses less equipment and airport footprint than traditional baggage handling systems, and is five times faster.



⁷ Beumer Group, "Why airports are choosing ICS for their BHS" (2024), <https://www.beumergroup.com/knowledge/airport/why-choose-ics-for-bhs/>

⁸ Beumer Group, "Why airports are choosing ICS for their BHS" (2024), <https://www.beumergroup.com/knowledge/airport/why-choose-ics-for-bhs/>

Recycling concrete

Auckland Airport is laying the foundation for a massive airfield development by recycling its runway – and keeping 6000 truck trips off Auckland’s roading network in the process.⁹

Rather than being sent offsite as waste, 108,000 tonnes of concrete that previously formed the airport’s runway touchdown zones is being crushed up and repurposed as backfill for 250,000m² of new airfield, taking place to the west of the international terminal.

The airfield expansion requires a base of approximately 1.5 metres deep, capable of taking the weight of A380s, which are around 280 tonnes. Re-purposing materials allows us to be efficient in how we work and responsible with our construction waste.

The production of cement – a key ingredient in concrete – is estimated to contribute to around 8% of global carbon emissions, while construction waste forms a major part of the waste stream. Auckland Airport aims to divert at least 70% of construction waste from landfill or similar disposal across all its infrastructure projects.

Auckland Airport’s activities also enable investment from other firms

Girls in infrastructure is an opportunity to inspire the next generation of leaders with our once-in-a-generation upgrade programme.



⁹Auckland Airport, "Paving the way: Auckland Airport recycles runway as part of major airfield expansion", (June 2023), <https://corporate.aucklandairport.co.nz/news/latest-media/2023/paving-the-way-auckland-airport-recycles-runway-as-part-of-major-airfield-expansion>

¹⁰Auckland Airport, "Paving the way for girls in infrastructure at AKL: Group of 80 young wāhine tour construction sites", (June 2024), <https://corporate.aucklandairport.co.nz/news/latest-media/news-articles/paving-the-way-for-girls-in-infrastructure>

Girls in infrastructure

Auckland Airport hosted 80 female high school students across three of its major development sites, for Infrastructure New Zealand’s 'Girls in Infrastructure®' program.¹⁰ The event highlights the significant contributions of women in the infrastructure sector and aims to inspire the next generation of female leaders in this field.

Teens from 10 south Auckland high schools, aged 16 – 18 years old, were given tours in rotation across three key construction projects that are integral to Auckland Airport’s once-in-a-generation upgrade, delivering more resilience and smoother journeys for travellers.

Students had a chance to speak with women working in the infrastructure sector at an exhibition area supported by over 20 organisations working in the industry. They also were able to walk through a special area at the Ara Auckland Airport Jobs and Skills Hub where they were able to see heavy machinery and talk to the female drivers that operate them.

Auckland Airport is one of the region’s most active construction sites, with a thousand people currently working on our infrastructure pipeline at the precinct. This includes 600 working on the programme to integrate our international and domestic terminals and build for the future generations of travel. However, a fraction of all these workers are women.

Women have a key role to play in infrastructure and we’re delighted to support the Girls in Infrastructure® program.

Innovation in delivering concrete

Auckland Airport has a carefully planned infrastructure programme which supports work for hundreds of employees in the construction sector. When businesses have confidence in infrastructure investment, it allows them to invest in technology which makes process more efficient.

A great example of this is the investment undertaken by Auckland Airport and the contractor managing the remote stands project, north of Pier B at the international terminal. There have been major investments made, detailed below.

Concrete batching plant

A new concrete batching plant that can produce significantly more concrete than existing arrangements. This has also been located onsite to avoid disruption to and from the transport system.

Our onsite batching plant produces more concrete with less impact on the transport network.

In use at the airport is the largest concrete paver in Australasia – and the first and only one of its kind in New Zealand.

Paving machine

The contractor has invested in the largest concrete paver in Australasia – and the first and only one of its kind in New Zealand.

The Wirtgen SP94i slipform paver is providing productivity and quality upgrades on the remote stands site, by covering bigger pavement spaces, increasing coverage from 450-500m³ to 1400m³ per shift, injecting a 200% boost in pavement coverage.

This machine operates an automatic set of vibrators to get the concrete to settle (remove air voids etc) and achieve the quality specified. The Paver is then able to set the level and texturize the surface. Previously we have used a manual process to dip the vibrators into the concrete, then a motorised roller screed to achieve level, then a person with a broom to texturise the surface.

Once the remote stands project is complete, the concreting machine will be able to be used for other projects at the airport or elsewhere in New Zealand, helping to improve the efficiency of the delivery of other infrastructure where significant amounts of concrete are used.



Appendix B: CEG – treatment of systemic and asymmetric risk in NZCC PSE4 consultation paper