Price Setting Disclosure

In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010

17 August 2023

IMPORTANT NOTICE

This document has been prepared for the sole purpose of complying with the Airport Services Information Disclosure Determination 2010 (the "**Determination**"). As required by the Determination, this document contains forward looking statements, forecasts and comments about future events, including our expectations about the performance of Auckland Airport's business. Forward looking statements and forecasts involve inherent risks and uncertainties, both general and specific, such that there is a risk that such forward looking statements or forecasts will not be achieved.

In particular, aeronautical demand forecasts are inherently uncertain and should not be relied on or viewed as market guidance.

Factors that could cause Auckland Airport's actual results to differ materially from the forecasts include matters outside of our control, such as the inherent risk that forecast aircraft and passenger demand (which is based on third party information) departs from actual demand due to material events beyond the control of Auckland Airport. For matters over which we have greater control, such as capital and operational expenditure, the forecast periods in this disclosure are long-dated, running in some instances to ten years. It is very likely that the assumptions informing the forecasts, and therefore the forecasts themselves, will change during the forecast period.

As such, the information in this document must be interpreted with care. It must not be relied on for any purpose other than to assess whether Auckland Airport is meeting the purpose of regulation under Part 4 of the Commerce Act. The information in this document will be subject to a review by the Commerce Commission, who will publish a summary and analysis report in accordance with the Commerce Act 1986.

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All currency amounts are expressed in New Zealand dollars unless otherwise stated and figures, including percentage movements, are subject to rounding.

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1. The purpose of this price setting disclosure

Auckland International Airport Limited ("**Auckland Airport**") is subject to information disclosure regulation under Part 4 of the Commerce Act 1986 ("**Commerce Act**"). This regime requires Auckland Airport to report information about our price setting decisions and annual performance, applying input methodologies and information disclosure requirements set by the Commerce Commission ("**Commission**").

Price Setting Event 4 ("**PSE4**") for Auckland Airport occurred on 7 June 2023 when Auckland Airport determined the standard aeronautical charges for airfield activities and certain specified passenger terminal activities ("**Aeronautical Pricing Activities**") that apply from 1 July 2023 to 30 June 2027 ("**Standard Charges**" for "**PSE4**"). This followed the price freeze period for FY23, the first year of PSE4, during which charges remained unchanged from FY22, the final year of PSE3. The approach to the price freeze was agreed in advance with the vast majority of Auckland Airport's airline customers (including those represented by the Board of Airline Representatives of New Zealand (**"BARNZ"**)), including the forecast recovery of sub-target-returns for FY23 over FY24-27.

This PSE4 pricing decision followed consultation with Substantial Customers[1] in accordance with the Airport Authorities Act 1966 ("**AAA**"). This is the price setting event which has triggered this disclosure requirement.

This document is Auckland Airport's price setting disclosure under Clause 2.5 of the Airport Services Information Disclosure Determination 2010 ("**Determination**"), which requires the disclosure by Auckland Airport of information following a price setting event. It meets the requirements of the determination by:

- meeting the requirements of Clause 2.5 (1) by publicly disclosing information that summarises, explains, sets out rationale, evidences and describes how the total revenue requirement has been determined, including summarising the views of Substantial Customers on elements of the revenue requirement where required;
- meeting the requirements of Clause 2.5 (3) by publicly disclosing an overview of the pricing methodology used to set prices for the PSE4 pricing decision, a description of the services and prices related to PSE4, and an explanation as to why the application of the pricing methodology adopted leads to efficient prices; and
- meeting the requirements of Clause 2.5 (4) by publicly disclosing a list of the Auckland Airport's standard prices for PSE4, following the PSE4 pricing decision.

Clause 2.5 (2) sets out disclosures which are optional. Where each of the voluntary disclosure requirements is addressed within this document, it is set out in Table 1 below.

[1] Substantial Customers are those that pay, or an entity which represents customers who in aggregate pay, more than 5% of regulated revenues in the last financial year: see Airport Authorities Act 1966, section 2A. BARNZ is also a Substantial Customer

Table 1: Table of disclosure requirements

Disclosure Requirement	Disclosure required	Where disclosure requirement is met
2.5 (1) (a) and (b)	Publication of Schedules 18, 29 and 20	Disclosure Schedules
2.5 (1) (c) (i)	Description and explanation of forecast asset base	Section 3.2, page 21
2.5 (1) (c) (ii)	Description and explanation of forecast cost of capital	Section 3.4.1, page 52
2.5 (1) (c) (iii)	Description and explanation of forecast operational expenditure	Section 3.3.1, page 45
2.5 (1) (c) (iv)	Description and explanation of forecast depreciation	Section 3.2.6, page 41
2.5 (1) (c) (v)	Description and explanation of forecast unlevered tax	Section 3.3.3, page 51
2.5 (1) (c) (vi)	Description and explanation of forecast revlauations	Section 3.2.7, page 42
2.5 (1) (c) (vii)	Description and explanation of forecast other factors	Section 3.5, page 63
2.5 (1) (d) (e)	Forecast carry forward adjustments	Section 3.2.3, page 22
2.5 (1) (f)	Cash-flow timing assumptions	Section 3.4.2, page 59
2.5 (1) (g)	Differences in forecast post-tax IRR	Section 3.4.1, page 52
2.5 (1) (h) (i)	Differences between post-tax WACC and foreacst cost of capital	Section 3.4.1, page 52 Section 3.4.4, page 61
2.5 (1) (j)	Forecast asset base	Section 3.2.2, page 21
2.5 (1) (k)	Assets held for future use	Section 3.2.8, page 43
2.5 (1) (l) (m)	Forecast capital expenditure by category, and aims and objectives of key capital expenditure projects Description of key capital expenditure projects	Disclosure Schedules Section 3.2.3, page 22 Appendix A: Summary of Capital Investment Programme consistent with pricing decision
2.5 (1) (n)	Forecast operational expenditure	Section 3.1.1, page 45
2.5 (1) (o)	Forecast total financial incentives	Section 3.3.2, page 50
2.5 (1) (p)	Non-standard depreciation methodology	Section 3.2.6, page 41
2.5 (1) (q)	Forecast depreciation	Section 3.2.6, page 41
2.5 (1) (r) (s)	Forecast revaluations, CPI used for revaluations	Section 3.2.7, page 42
2.5 (1) (t)	Alternative methodology with equivalent effect	
2.5 (1) (u)	Revenue requirement not applicable to price setting event	Section 3.4.3, page 59
2.5 (3) (a)	Summary of pricing methodology	Section 4.1, page 64
2.5 (3) (b)	Description of price setting event	Section 4.2, page 68
2.5 (3) (c)	Price efficiency and cross-subsidies	Section 4.3, page 80
2.5 (4)	List of standard prices	Appendix B: Auckland Airport's schedule of Standard Charges effective 1 July 2023

The Aeronautical Pricing Activities covered by Standard Charges include all airfield and most specified passenger terminal activities. Aircraft and freight activities include the servicing and maintenance of aircraft and the handling of freight, and include the provision of assets for hangars, fright facilities, fuelling, flight catering and waste disposal. These are excluded from the PSE4 price setting decisions, as are certain specified passenger terminal activities, namely leased identified tenancies and collection facilities for duty free ("**Other Regulated Activities**"). Charges for Other Regulated Activities are individually negotiated with customers outside of the aeronautical pricing consultation on Standard Charges. Together Aeronautical Pricing Activities plus Other Regulated Activities represent 100% of specified airport activities under the AAA.

The purpose of this disclosure is to ensure that sufficient information is available to interested persons to assess whether the purposes of Part 4 of the Commerce Act are being met, per the purpose of information disclosure regulation at section 53A of the Act. This information will also assist interested persons to assess whether Auckland Airport's pricing and investment decisions are efficient.

Except where noted, this disclosure contains forecast information as at 7 June 2023. The forecasts contained in this disclosure therefore may not represent Auckland Airport's most recent forecasts and should not be regarded as market guidance. Interested persons should refer to the important notice on forward looking statements and forecasts on the inside cover of this document.

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2. Summary of the Aeronautical Pricing Decision

Auckland Airport recognises the importance of our role as New Zealand's major gateway to the world, and the key role we play in facilitating and supporting New Zealand tourism and trade. We are New Zealand's busiest international and domestic airport and act as a key regional hub, serving a city that represents around a third of the New Zealand population. We take our responsibility as one of New Zealand's most important infrastructure assets seriously, and we are conscious that the capacity, resilience and quality of the facilities we provide directly impacts our airline and cargo customers, passengers, and the wider regional and national economies.

Our pricing objectives reflect this responsibility, as we seek to deliver the resilience, capacity and infrastructure needed to respond to recent and forecast growth and to build the airport Auckland and New Zealand needs, while ensuring our capital and operating costs remain efficient.

Our vision for aeronautical pricing is that charges will be at a level that:

- supports an aeronautical investment programme that provides long-term benefits for airlines, cargo customers and passengers;
- provides a sound, reliable and resilient quality of service to users of the airport and they benefit from efficiencies over time;
- incentivises innovation and continuing efficiencies;
- enables the delivery of efficient services with the right balance between capital investment, operating expenditure, resilience, and the long-run needs of users; and
- provides a fair return for investors on existing infrastructure and the ongoing investment in airport facilities and services.

When setting prices, Auckland Airport balances economic principles which promote efficient pricing with practicable price structures. Auckland Airport is now over 50 years old. Airline customers have enjoyed the lowest aeronautical charges in the region for an extended period of time. Now a step-change in infrastructure investment is needed to ensure that the airport can meet long-run capacity, safety, resilience and customer experience requirements. Delays to investment would undermine these outcomes, and only add further to the long-run cost of capital investment required.

In proceeding with this investment plan, Auckland Airport has been highly cognisant of the cost of the programme. Aviation was significantly impacted by COVID-19 which required that most aeronautical projects were put on hold during the pandemic, including the planned terminal development. The pandemic has also contributed to a permanent step-change increase in construction costs. Accordingly, we have undertaken extensive analysis to optimise the cost of the capital plan to strike the right balance between managing capital costs and meeting the long-run capacity, safety, resilience, efficiency and experience that our customers and passengers expect.

2.1. Consultation on PSE4 prices

The final pricing decision for PSE4 is the culmination of two years of consultation with Substantial Customers as the aviation industry has emerged from the global COVID-19 pandemic. It is underpinned by a capital investment programme developed in consultation with customers over a much longer period. Auckland Airport believes the pricing decision fairly reflects the operational and capital investment needed to serve the passengers of today, and to become the airport Auckland and New Zealand needs for the future. Through this process we have carefully considered the cost of investment against alternatives, and the resulting impacts on capacity, safety, resilience, efficiency and customer experience.

Auckland Airport is not required to apply the Commission's input methodologies in pricing. However, Auckland Airport has been materially guided by the information disclosure regime when developing its Aeronautical Pricing Decision. We are conscious that all parties were engaged in the development of the regulatory regime, and we felt it was sensible to leverage the considerable resources that have been invested in that process when setting prices. Where appropriate, Auckland Airport has adopted approaches that are consistent with the Commission's methodologies and/or with the spirit and intent of Part 4 regulation.

2.1.1. FY23 price freeze reduced FY23 revenues by over $100 million

After considering the feedback provided by Substantial Customers on the price freeze consultation that started in June 2021, in January 2022, Auckland Airport decided to hold prices flat for the 2023 financial year ("**FY**") at 2022 financial year prices (but with the $2.00 / international pax plus Goods and Services Tax ("**GST**") Regulatory or Required investment ("**RRI**") charge discontinued) and to delay the PSE4 price reset by a year to support the airlines as the aviation industry recovered from the pandemic.

The decision to freeze prices in the first year of PSE4 resulted in Auckland Airport receiving more than $100 million lower aeronautical revenue in the 2023 financial year compared with the prices required to achieve our overall PSE4 Target Return for that year. This was effectively a 30% reduction on aeronautical charges for FY23. These deferred revenues are forecast to be recovered over the remaining four years of PSE4. This requires a significant step up in aeronautical prices in FY24. This early-PSE4 aeronautical pricing relief was welcomed and supported by the majority of Substantial Customers as the industry recovered from the impacts of the pandemic.

2.1.2. Passenger forecasts from an independent expert, incorporate price elasticity of demand impacts

To ensure that the passenger forecasts are fair and unbiased, they are based on a set of forecasts from independent industry experts DKMA. In developing its forecasts, DKMA considered the feedback received from Auckland Airport and from airlines.

DKMA's unconstrained forecasts have total passenger traffic growing from 16.0 million passengers in FY23 (76% of FY19 which is the last full financial year prior to the pandemic), to 24.2 million passengers in FY27 (115% of FY19). DKMA's unconstrained forecasts project that domestic traffic will recover faster than international, exceeding pre-pandemic levels by FY25 (103%), with international traffic expected to take slightly longer to recover, reaching 105% of pre-pandemic levels in FY26.

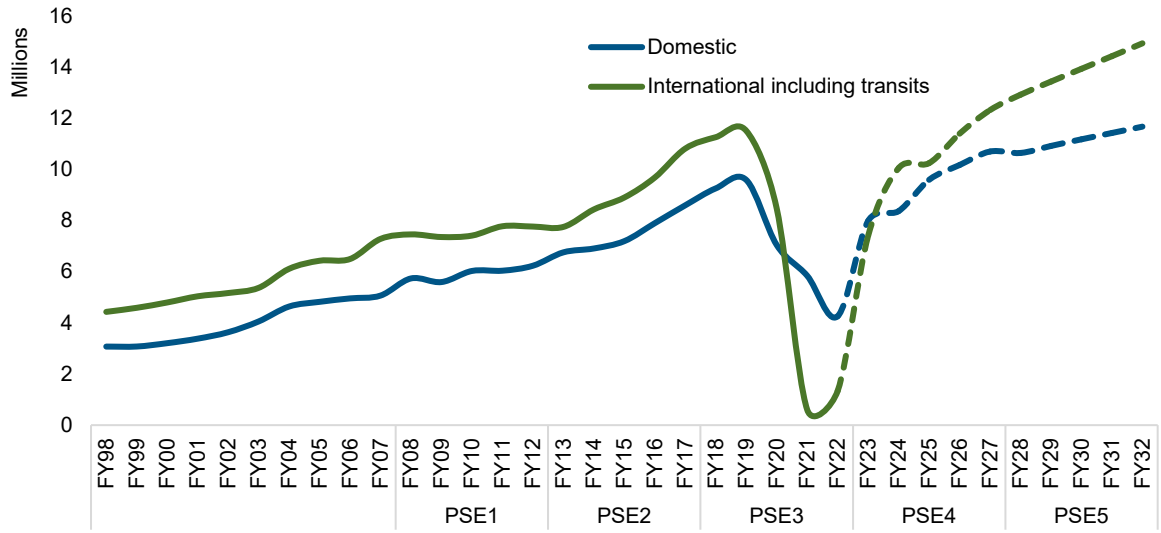
Auckland Airport has adjusted the DKMA forecasts to align with our latest forecast outturn for the 2023 financial year and the more recent passenger demand estimates developed by Auckland Airport for its FY24 budget. Unconstrained forecasts beyond FY24 remain those provided by DKMA.

Potential price elasticity impacts on passenger demand from rising aeronautical charges being passed through to airfares was an issue that was raised by airlines and considered throughout the consultation. Based on analysis from global aviation economics experts InterVISTAS, DKMA's unconstrained forecasts were adjusted for the potential price elasticity of demand impacts due to Auckland Airport's aeronautical charge increases.

Based on the final pricing decision, InterVISTAS estimated that price elasticity of demand impacts could dampen total passenger numbers over the entire PSE4 period by between 0.6% and 1.1%. It found that domestic trunk routes will be most impacted, with those passenger numbers estimated to be dampened over the PSE4 period by between 0.9% to 1.5%. Of note, InterVISTAS' elasticity analysis was based on average ticket prices that prevailed in FY19 growing in-line with inflation, not the current significantly higher prices currently being charged by airlines (which if used would have led to lower forecast price elasticity of demand impacts).

InterVISTAS' price elasticity of demand estimates were used to prepare the constrained long run passenger forecasts used to set prices as set out in the following chart.

Figure 1: Constrained long-run pricing passenger forecast



2.1.3. Priced capital investment of $2.6 billion forecast to be commissioned in PSE4

Auckland Airport is responsible for long-term master planning and the resilience of the airport system. It is incumbent on us to consider the short, medium and long term implications of airport infrastructure decisions. The infrastructure projects in our Final Capital Plan for PSE4 should be viewed in this context, for example:

- The existing Domestic Terminal Building ("**DTB**") faces considerable capacity constraints if it was to continue to provide terminal services for domestic jets. Under the Auckland Airport Master Plan the location of the DTB is required for future airfield, therefore any ongoing domestic jet operations would significantly constrain long-run capacity growth. Extending jet services usage of the DTB would require substantial capital investment, but still result in a significantly degraded passenger experience and reduced operational efficiency over the medium to long term.
- Auckland Airport is a single runway operation. A critical resilience requirement is a contingent runway that can be stood up within an operationally effective timeframe. The new Domestic Processor location will enable development of the contingent runway, whereas continuing to have jets operating at the existing DTB would seriously constrain its operation, resulting in substantial aircraft landing and take-off delays and congestion. The planned pavement renewal projects on the main runway are essential for resilience and safety reasons. Furthermore, an operating contingent runway would be essential following any significant aircraft incident that closes the main runway for a significant period of time. The only other alternative, early delivery of a second runway, would come at a far greater cost.
- The Auckland Airport Board has decided that the Integrated Terminal Programme is the best option for replacing the existing domestic terminal, so as to build resilience in the airport system and deliver the required capacity and customer experience. It will build resilience by enabling the operation of a contingent runway, responding to climate change including storm water upgrades, and meeting capacity and regulatory requirements. It will also deliver an enduring, long-term solution aligned to the 2014 Master Plan.

Regulated capital investment

Total regulated capital investment over the 10-year forecast period out to FY32 is forecast to be $6.7 billion as set out in Schedule 18. This significant capital investment plan includes priced assets, which are recovered through aeronautical charges, such as airfield and terminal facilities that are common-use and used by airlines. The Terminal Integration Programme, including delivery of the new Domestic Processor is at the core of this plan. These investments have been consulted on extensively with Substantial Customers. Regulated assets that are not recovered through aeronautical prices, such

as cargo facilities, airline lounges, airline offices and the allocated share of common assets to non-priced assets are also included in this total investment forecast over the 10-year planning horizon.

Priced capital investment for PSE4

The Final Capital Plan for PSE4 pricing includes a forecast of $2.6 billion of commissioned assets (ie assets to be completed and operational) during PSE4 – this is down $0.5 billion from the initial $3.1 billion estimated in the first iteration of the capital plan.

For PSE5, the forecast capital plan has decreased by $1 billion from the capital plan first consulted on with airlines. The less-certain PSE5 aeronautical capital expenditure projects that were consulted on with airlines were grouped into a high capital investment scenario. Those projects are not reflected in the baseline forecast set out in Schedule 18. The high capex scenario comprises mainly capacity related projects that are subject to future optionality and uncertainty. Those projects will be subject to further consultation ahead of PSE5 pricing, and the forecast commissioned assets for the PSE5 pricing period will be re-forecast and consulted on ahead of setting prices for PSE5.

Table 2: Assets commissioned forecast for PSE4 pricing, and indicative for PSE5

($million)	PSE4	PSE5
Draft Capital Plan	3,115	4,159
Revised Capital Plan	2,793	3,069
Final Capital Plan	**2,575**	**3,107**

Airline consultation on capital investment

Auckland Airport has been consulting with Substantial Customers on its capital investment plan, including the Terminal Integration Programme, for well over a decade. This consultation has informed the Auckland Airport Master Plan, and refinement of options and design of future domestic terminal operations at Auckland Airport.

In the most recent phase of formal capital expenditure consultation associated with the PSE4 aeronautical pricing consultation, Auckland Airport has consulted with airlines on three iterations of the capital plan (draft, revised, and final). These plans were informed by detailed reviews and airline consultation to identify and assess cost/benefit trade-offs, including workshops with airlines to assess the trade-offs. Further work to refine and update certain project-specific cost estimates (concurrent to the value-engineering review) identified cost increases, mostly due to the strong and worldwide construction inflation which has occurred post-COVID. Those cost increases offset some of the savings identified.

Terminal Integration Programme

On 16 March 2023, Auckland Airport approved both the Domestic Processor preliminary design and funding to complete the remaining design phases of the Domestic Processor, and reaffirmed its May 2021 decision to proceed with the Terminal Integration Programme. This was considered to be the best decision in the long-term interests of airlines, passengers and the New Zealand economy.

The decision to re-affirm the Terminal Integration Programme was taken after extensive consultation, analysis and careful consideration, but ultimately without the support of airlines. Although Air New Zealand and BARNZ supported the almost identical Paheko East pathway in August 2021, this position has changed reflecting the higher forecast airport prices, changes which are partly due to increased capital expenditure costs, but also resulting from updating our midpoint post tax WACC estimate as set out in section 3.4.1.

Airlines continue to call for a materially lower cost alternative to be presented, but they have not proposed any viable, long run alternatives themselves. Auckland Airport has considered a large number of alternative options throughout the consultation process, in terms of the type of terminal that is built, its location at the airport, its cost and the extent to which it is integrated. Through this extensive analysis and consultation, **no viable alternatives** that could meet all necessary requirements and that would be materially lower cost were identified by either Auckland Airport or proposed by airlines.

Airlines continue to request that we operate the DTB as the main domestic terminal for jet operations for a longer period of time, ie beyond 2030, to allow more time for an alternative plan to be developed. The implications of delaying the Terminal Integration Programme have been considered in a number of ways, including the implications on airfield operations during main runway slab replacement works, as swell as the impacts on domestic passenger processing capacity, customer experience, safety and resilience. Given the extensive negative impacts of this option, this was not considered to be a viable alternative. Auckland Airport continues to be open to incorporating viable alternatives.

Notably, the Board's 16 March 2023 decision to re-affirm terminal integration and to move to detailed design had been previously deferred on four occasions since 19 December 2022 (and had been deferred before that period as well – it was originally scheduled for decision in September 2022) in response to airline feedback. This was done to ensure all alternatives and options were considered, including final feedback from airlines.

This process informed the decision taken by the Auckland Airport Board to re-affirm this programme on 16 March 2023. Further detail on how these alternatives were considered is set out below in section 3.2.3.5.

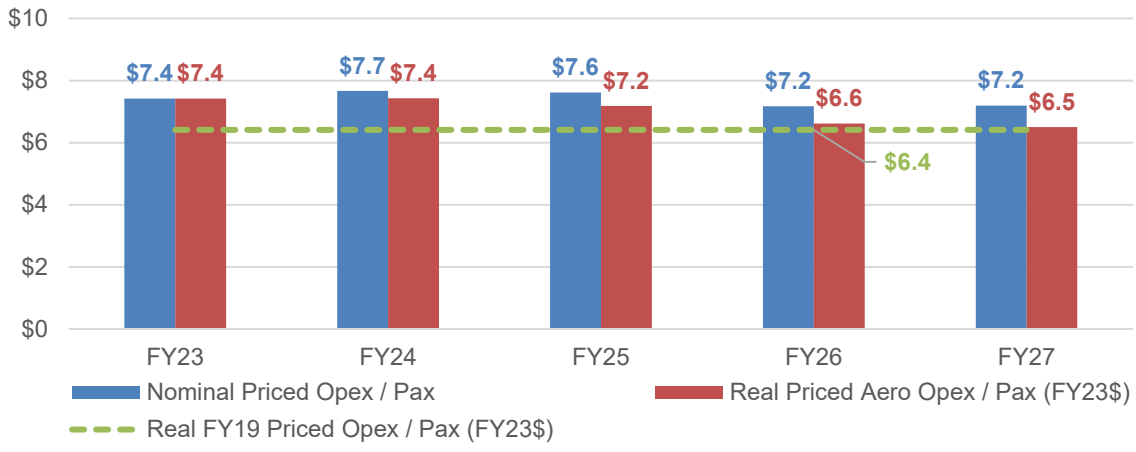
2.1.4. Real operating expenditure per passenger forecast to return close to pre-pandemic levels

A key component of Auckland Airport's corporate strategy is to be innovative and efficient in how we operate. In doing so, we aspire to set our operating costs at a level that maintains sound and reliable service levels whilst also seeking to optimise our costs of operation to provide efficiencies to our customers. Auckland Airport also considers potential trade-offs between operating and capital solutions when making capital expenditure decisions.

Benchmarking indicates that operational costs at Auckland Airport are efficient. The Jacobs 2022 Airport Performance Indicators report, showed that Auckland ranked 43rd out of 50 airports on operating cost per passenger (where 50th has the lowest operating cost per passenger). Airports with a lower operating cost per passenger were either significantly larger, benefitting from economies of scale, or were in lower-labour-cost countries when compared to New Zealand (e.g. Mexico, India, Thailand). Auckland Airport continues to balance the trade-off of the benefits that increased operational expenditure can have for airport customers and passengers, against minimising aeronautical charges for airlines. Our operational expenditure forecasts seek to strike the right balance between these two competing tensions.

The current cost environment has been volatile, amid significant cost inflation and ramping up operations as volumes have increased following the pandemic. However, forecast aeronautical operational expenditure per passenger will reduce in both nominal and real terms over the pricing period, with forecast real operational expenditure per passenger of $6.50 in FY27, returning close to the pre--pandemic real operational expenditure per passenger of $6.41.

Figure 2: Operating cost per passenger for PSE4



2.1.5. Target return for PSE4 of 8.73%

Auckland Airport adopted a target return for PSE4 priced activities of 8.73%. This was set equal to the midpoint (50th percentile) WACC estimate based on the 2016 WACC IM with updated comparable company data inputs as at the end of June 2022 (ie the start of PSE4), excluding the prior 5 BPs downwards adjustment to asset beta and applying the Commission's most recently published Tax Adjusted Market Risk Premium ("**TAMRP**") estimate. Our approach to setting PSE4 Target Return was independently reviewed by Dr Tom Hird from Competition Economics Group ("**CEG**"), whose work also included evaluating the airline feedback received throughout the consultation process (refer below).

When considering the Auckland Airport approach to removing the 5 basis points downward adjustment previously applied by the Commerce Commission, Dr Hird noted:

> *I do not consider that there is a valid conceptual or empirical case for presuming that aeronautical asset betas are lower than non-aeronautical asset betas*[2]

Auckland Airport provided airline feedback on cost of capital from the consultation process to Dr Hird and asked him to consider whether this feedback warranted changes to the target return that had been proposed for PSE4 pricing. In Dr Hird's view:

> *none of the submissions made give reason for AIAL to alter its proposed approach to estimating the WACC for PSE4.*

Auckland Airport is confident in our approach for the PSE4 aeronautical pricing decision is highly principled and robust. This approach, supported by independent expert analysis, used updated market data and the Commission's most recent TAMRP estimate to replicate the Commission's in force 2016 WACC IM, but it discontinued the now discredited 5 basis points downwards asset beta adjustment. The input parameters used to support this target return are set out in section 3.4.1.

2.1.6. Charging structure remains largely unchanged from PSE3

Apart from the new washup mechanisms outlined in the next section, the overall structure of charges remains largely unchanged from PSE3, with landing charges, passenger service charges, check-in charges, and aircraft parking charges all levied separately. However, we have increased the transit passenger charge to match the international passenger charge, but continued PSE3's approach of only charging once per transit passenger journey (charging on arrival but not departure).

We have also reduced the 48 hour exemption from parking charges for domestic freighters down to 12 hours, in order to manage congestion and encourage efficient use of the airfield. We have deferred the imposition of these parking changes by twelve months to 1 July 2024 to give these customers time to adjust their operations, and we will engage with domestic freighter operators on this change ahead of its implementation. Prices were set on the basis that this adjustment would begin on 1 July 2023, therefore this deferral means that Auckland Airport is foregoing some forecast FY24 aircraft parking revenue and this would slightly reduce forecast IRR compared with that set out in this Price Setting Disclosure.

The Runway Land Charge ("**RLC**") is retained in the Schedule of Charges. But given the expected delayed timing of second runway works, it is not expected to be triggered during PSE4 and has been set at $0.00 per passenger for all of PSE4.

2.1.7. Wash-up mechanisms address asymmetric risk, and protect airlines from capex underspend

Auckland Airport has introduced two washup mechanisms for PSE4: an asymmetric risk washup, and a capex washup.

2.1.7.1. Asymmetric risk sharing wash-up

Auckland Airport has adopted an *ex post* asymmetric risk sharing washup mechanism in PSE4 to partially compensate Auckland Airport or airlines for a 15% or greater reduction or increase in

[2] CEG Economics, AIAL asset beta and WACC estimates for PSE4

aeronautical demand (measured as aeronautical revenues) versus the price setting forecast. Any washup will only occur to the extent that it coincides with a 75 basis point (i.e. 0.75%) or more reduction (or increase) in actual PSE4 post-tax IRR versus the Target Return.

If triggered, the washup would recover (or refund) the lesser of the revenue shortfall (or surplus) over and above the 15% threshold, and the IRR shortfall (or surplus) over and above the 0.75% threshold. This *ex post* washup would not impact PSE4 prices; instead it would be carried forward as a positive or negative pricing asset base value adjustment and be forecast to be recovered via aeronautical prices over PSE5.

Auckland Airport notes that advice from CEG was clear that WACC does not compensate for asymmetric risk because the Commission's global comparable airports used to determine asset beta enjoy on average more generous asymmetric risk washup mechanisms than the very modest recovery mechanism proposed by Auckland Airport in the Draft Pricing Proposal ("**DPP**"). Dr Hird noted:

> *AIAL is not proposing double compensation. In fact, AIAL's proposals fail to fully compensate for asymmetric risk. This is because AIAL's wash-up mechanism only reduces but does not eliminate asymmetric risk. AIAL would be justified to, and if it followed UKCAA precedent for Heathrow AIAL would, include in its building block costs an estimate of the expected cost of being exposed to the residual asymmetric risk. AIAL has not done so and, therefore, is under-compensated for exposure to asymmetric risk.*[3]

Auckland Airport is not seeking to recover any of the $500 million-plus revenue shortfalls suffered due to the pandemic versus the price setting forecast for PSE3. This contrasts to certain European jurisdictions where airports are actively discussing models with regulators to recover previously incurred pandemic losses through future pricing periods.[4]

2.1.7.2. Capex washup

Auckland Airport has adopted a capex washup in PSE4 that is one-way, and can only favour airlines. This has been adopted at Auckland Airport's initiative, given the very large increase in forecast capital expenditure over PSE4 versus Auckland Airport's historic capex rates, the deliverability challenges that this material capex increase poses, and the resulting potential for Auckland Airport to materially exceed our Target Return for PSE4 by under-delivering versus the commissioned capex forecast.

A commissioned capex washup would be triggered where total assets commissioned fall short of forecast by 7.5% or more and there is an actual priced PSE4 post-tax IRR that exceeds Target Return by 75 basis points or more. If triggered, the value carried forward would be equal to the lesser of the economic value of the capex shortfall over and above the 7.5% capex threshold, and the IRR surplus over and above the 0.75% threshold. These thresholds have been adjusted in response to feedback that they were set too wide in the DPP.

This is a one-way wash-up. It does not benefit Auckland Airport in the event capital investment exceeds forecasts. Instead, it only compensates airlines if commissioned capital investment forecasts are not met for PSE4 and this drives above-target returns for Auckland Airport.

The Regulatory and Requested Investment ("**RRI**") policy for capex has also been rolled into the capex washup to avoid re-setting prices in-period when RRI capex is incurred. An RRI wash up for capex would be triggered where total assets commissioned exceeds forecast, or where total assets commissioned falls short of forecast, but priced IRR also falls short of target return by 75 basis points or more.

2.1.8. Prices for Price Setting Event 4

Following the price freeze in FY23, aeronautical prices increase in FY24, but they are coming off a very low base. Domestic charges have been 40-50% lower than comparable airports in the Australia and New Zealand region for a number of years. The PSE4 increases will bring prices in-line with those at comparable airports.

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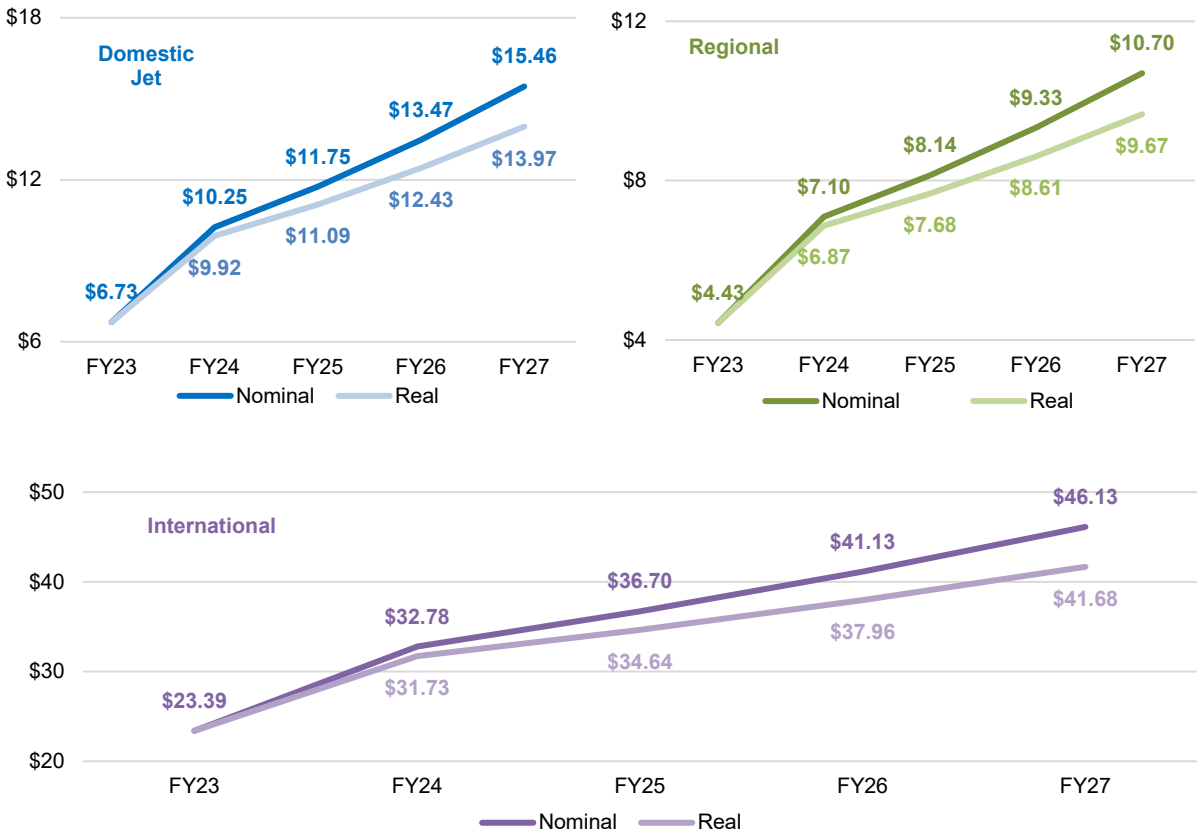
[3] CEG, Review of feedback on AIAL WACC estimates for PSE4

[4] CEG Report for AIAL p. 56

The rise in aeronautical prices over PSE4 is necessitated by passenger volumes that are still below pre-pandemic levels, the catch-up from the circa $100 million under-recovery of revenues in FY23, the significant capital investment that is planned to be delivered during PSE4, and the increase in Target Return from PSE3 based on updated input parameters. The overall revenue per passenger ("**RPP**") of the pricing decision is outlined below.

The table demonstrates that in the 2024 financial year, Domestic Jet RPP will increase to $10.25 per passenger; then increase further to $15.46 in FY27, or to $13.97 per passenger in 2023 dollars. Regional RPP in FY24 will be $7.10 per passenger, increasing to $10.70 per passenger by FY27, or to $9.67 per passenger in 2023 dollars. International RPP will be $32.78 per passenger in FY24, increasing to $46.13 per passenger by FY27, or to $41.68 per passenger in 2023 dollars.

Figure 3: Nominal and inflation adjusted RPP price paths, PSE4



The above RPP price paths are based on the key passenger and landing charges set out in the table below.

Table 3: Prices for key charges, PSE4

		FY23	FY24	FY25	FY26	FY27
MCTOW charges						
<6 tonnes	$/Landing	$60.24	$75.64	$86.98	$100.03	$115.04
6-40 tonnes	$/tonne per landing	$8.73	$12.74	$14.65	$16.85	$19.38
40 tonnes		$14.20	$20.72	$23.83	$27.41	$31.52
Passenger charges						
Domestic Passenger Charge (DPC)	$/pax	$3.10	$5.05	$5.80	$6.67	$7.67
Regional Passenger Charge (RPC)	$/pax	$2.64	$4.53	$5.21	$5.99	$6.88
International Passenger Charge (IPC)	$/pax	$15.49	$21.20	$23.56	$26.20	$29.15
Transit Passenger Charge (TPC)	$/pax	$6.24	$21.20	$23.56	$26.20	$29.15
Runway Land Charge	$/pax	$1.19	$0.00	$0.00	$0.00	$0.00

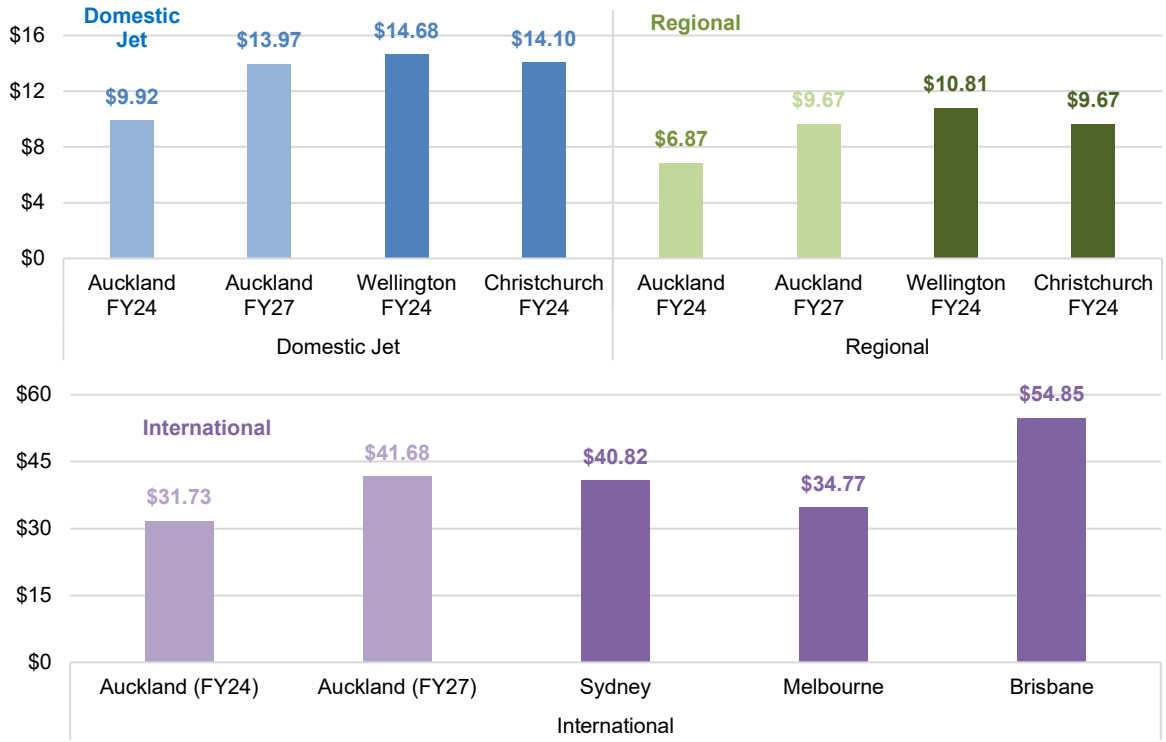
Benchmarking of our proposed aero charges for FY24 shows that Auckland Airport's proposed charges for PSE4 are in-line with comparable airports in the Australasian region.

We have benchmarked our real (inflation adjusted) aeronautical charges per passenger in FY24 and FY27 with comparable airports in the region in FY24. By adjusting for inflation, this allows for a like-for-like comparison over time. FY24 is used as the basis for comparison, as future charges at all major airports (except for Christchurch) are not publicly available.

For FY24, notwithstanding the step-up following the price freeze, domestic and regional charges will remain well below that of Christchurch and Wellington airports. In FY27 real domestic jet charges will be slightly lower than both Christchurch and Wellington airports' real FY24 charges, while real regional charges will be lower than Wellington, and consistent with those at Christchurch.

For international charges, Auckland Airport's FY24 prices are below the published prices of Sydney, Melbourne and Brisbane airports. By FY27, Auckland's charges will be higher than the current FY24 charges at Melbourne, slightly higher but broadly in-line with the FY24 charges at Sydney, and below the charges at Brisbane. Auckland Airport's FY27 charges could well be lower than Sydney and Melbourne airports if those airports' price increases are above inflation over the next four years.

Figure 4: Airport charges benchmarks, real $NZD [5]



Overall, we consider that our price path for PSE4 is reasonable given the substantial investment in airfield and terminal infrastructure that we are forecasting to deliver over this period, and the increase in the cost of capital relative to PSE3. This investment is essential to maintaining capacity, resilience and quality of the facilities we provide which directly impacts our airline and cargo customers, passengers, and the wider regional and national economies.

2.1.9. Price Setting Event 5

No decisions on PSE5 aeronautical prices have been taken as part of this PSE4 pricing decision. The uncertainty of prices beyond PSE4 must be stressed, as they are influenced by demand growth, actual aeronautical capex delivered and the financial inputs used to derive WACC. However, as set out in the capital investment forecasts, there is a significant amount of investment forecast to be completed during PSE5. Recovering a fair return on the cost of this investment will result in higher prices.

Importantly, rising airport charges is not a good reason to not invest in nationally significant long-dated airport infrastructure. The benefits to the New Zealand economy and the travelling public unlocked through the planned capital investment at Auckland Airport is substantial. The very large increases in air fares seen recently because of COVID-related shortages in airline capacity demonstrate that the cost of constrained airport capacity, including the risk of materially higher airfares, would likely far outweigh the impact of the higher aeronautical charges (which comprise only a small share of an airfare) to fund the required airport infrastructure.

[5] Charges for year-ended June 2024, except for Wellington where charges are for year ended March 2024, Melbourne where charges are effective from October 2022. Australian Airports charges are based on published rates, exclude security costs, and have been converted to NZD at the rate of 1.078 AUD / NZD. All airport charges rebased to FY23 dollars using CPI

Discussions with airlines will continue ahead of the aeronautical pricing decision for PSE5 on options to mitigate price elasticity of demand concerns raised by airlines for PSE5.

2.2. Consultation with Substantial Customers on Standard Charges

Auckland Airport has obligations to consult with Substantial Customers on significant capital investment and pricing decisions. While capital expenditure forecasts are a key input into the PSE4 pricing decision, there were in fact two separate decisions to be made by Auckland Airport under the AAA, and two separate consultation processes.

2.2.1. Pricing consultation

Section 4B of the AAA requires Auckland Airport to consult with Substantial Customers on aeronautical charges at least every five years. Auckland Airport commenced an extensive consultation process with its Substantial Customers in June 2021 to review and revise its Standard Charges for PSE4.

Given the uncertainty as to the timing and shape of the aviation industry's recovery from the COVID-19 pandemic, Auckland Airport consulted with Substantial Customers on a delay to the PSE4 pricing decision. This resulted in a price freeze for the 2023 financial year with the support of the majority of airlines, which acknowledged that any shortfall in return would be recovered over the balance of PSE4.

The consultation process picked up again following the price freeze with the release of the first of three consultation papers on 7 July 2022. The consultation process concluded with Auckland Airport releasing updated Standard Charges on 8 June 2023 that came into effect from 1 July 2023.

Auckland Airport conducted a robust, extensive and meaningful consultation process with Substantial Customers prior to making the Aeronautical Pricing Decision. Our priority was to ensure that the consultation process provided Substantial Customers with sufficient information and time to reflect on and provide their views on Auckland Airport's proposals, and we consider that we have comprehensively achieved this objective.

Auckland Airport was flexible and reactive to airline feedback throughout the consultation process. For instance, in response to the level of concern airlines raised with the scale and cost of the proposed capital plan earlier in the consultation, Auckland Airport decided that a review of the Draft Capital Plan was required, and so adjusted the consultation timelines accordingly. Auckland Airport also granted Substantial Customers extensions to consultation timeframes on numerous occasions where requested.

Auckland Airport valued the feedback we received from our Substantial Customers, which helped us to understand their views and priorities, and which informed our final decisions on Standard Charges. Throughout the consultation process, Auckland Airport tested our proposals with Substantial Customers, listened carefully to airline feedback, and made a number of material changes to our proposals in response to airline views.

2.2.2. Capital investment consultation

Auckland Airport has also been consulting with Substantial Customers prior to the approval of significant capital expenditure (such as the Terminal Integration Programme), pursuant to section 4C of the AAA.

Auckland Airport has been engaging with Substantial Customers on an integrated terminal and related capital works since 2012. This included the following phases of consultation:

- 2014: Master Plan
- 2017: Terminal Development Plan
- 2018-20: Domestic Jet Facility
- 2021: Paheko Consultation to identify Integrated East Terminal Pathway
- 2022-23: 10-year Capital Plan consultation

The 2014 Master Plan settled on a south-eastern location for the new domestic terminal, integrated with international, as the optimal terminal layout – a significant change from the previous northern airfield location, that was proposed by airlines and adopted by Auckland Airport in its Master Plan.

Following the most recent phase of formal consultation, on 16 March 2023, Auckland Airport advised its Substantial Customers that the Board had unanimously resolved to approve both the Domestic Processor preliminary design and the funding to complete the remaining design phases and reaffirm its May 2021 decision to proceed with the Terminal Integration Programme, including the Domestic Processor. The decision reflected the culmination of engagement and consultation with airline customers on the development dating back to 2012.

The Terminal Integration Programme and Domestic Processor location align with the 2014 Master Plan and are the outcome of a significant period of planning and consultation. Auckland Airport considers that this programme is the best option to deliver capacity, resilience and a future growth pathway for Auckland Airport.

As explained in section 3.2.3, no viable alternatives that could meet all necessary requirements and that would be materially lower cost were identified by Auckland Airport or proposed by airlines through the extensive consultation that has been undertaken. This follows Auckland Airport's extensive consultation on the Terminal Integration Programme which has taken place since the 2014 Master Plan during which time Auckland Airport has rigorously considered alternatives in terms of the type of terminal that is built, its location at the airport and the extent to which it is integrated with existing facilities. Throughout this engagement and consultation, the expected cost of alternatives has been considered in assessing choices and trade-offs as the programme has been developed.

3. Forecast total revenue requirement

Clause 2.5(1)(c) of the Determination requires a description of how each of the components of Auckland Airport's revenue requirement in Schedules 18 and 19 have been determined,[6] including an explanation of:

- the rationale for the basis of preparing these components and any related assumptions;[7]
- the extent to which these components were used to determine the forecast total revenue requirement;[8] and
- the differences (if any) between the preparation of each component and the most recent corresponding historical financial information disclosed in accordance with clause 2.3 of the Determination.[9]

Clause 2.5 (1) (d-u) also sets out specific information that is required to be disclosed related to specific elements of the forecast revenue requirement. These disclosure requirements are met in this section.

3.1. Overview of forecast total revenue requirement

Auckland Airport's total revenue requirement for its Total Regulated Activities comprises revenue from three types of activities:

- **Aeronautical Pricing Activities**: These activities include all airfield and most specified passenger terminal services provided by Auckland Airport. Revenue associated with these activities is recovered by way of Standard Charges, where a building blocks model is used to determine the revenue requirement.[10]
- **Non-Isolatable Activities**: These activities include a small sub-set of specified passenger terminal services that are **not covered** by Standard Charges but where the assets and operating costs cannot reasonably be separately identified from the assets and operating costs associated with Aeronautical Pricing Activities. The revenue associated with these activities is treated as an offset to the building blocks revenue requirement for Aeronautical Pricing Activities;[11] and
- **Other Regulated Activities**: These activities include all aircraft and freight services, along with those specified passenger terminal activities subject to leases or licences where the relevant assets and operating costs can be isolated from the assets and operating costs associated with Aeronautical Pricing Activities. These include leased tenancies (e.g. office space and VIP lounges) and collection facilities for duty free. The revenue requirement for these activities is determined through negotiation of individual leases and/or licences between Auckland Airport and individual customers.

3.1.1. Revenue requirement for Aeronautical Pricing Activities

Auckland Airport has used a building blocks model for Aeronautical Pricing Activities. In forecasting the required revenue, Auckland Airport's aeronautical pricing objective was to earn a normal economic return, ie our PSE4 Target Return, on the forecast priced asset base as well as recovering forecast depreciation and operating expenses plus unlevered tax.

The priced asset base over PSE4 was forecast by starting with the opening asset base, and then forecasting each of the building blocks inputs into the asset base, including commissioned capital

[6] These components are listed in clause 2.5(1)(c)(i)-(vii) of the Determination.

[7] Clause 2.5(1)(c)(viii) of the Determination.

[8] Clause 2.5(1)(c)(ix) of the Determination.

[9] Clause 2.5(1)(c)(x) of the Determination.

[10] This revenue appears in Schedule 19(v): Total Revenue Requirement for Pricing Assets as "Forecast revenue from airport activity charges applicable to the price setting event".

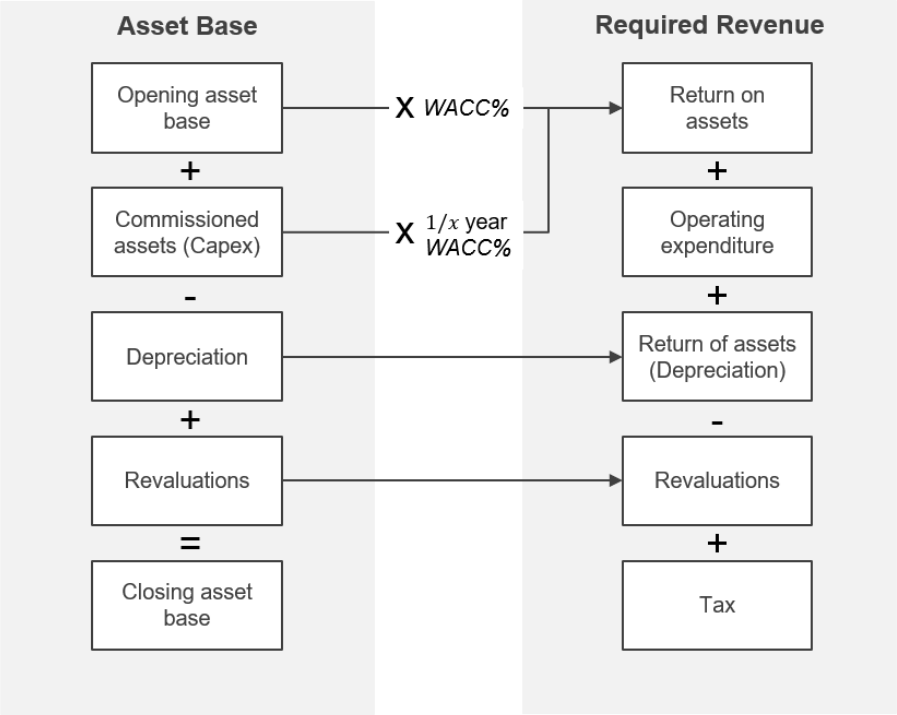
[11] This revenue appears in Schedule 19(v): Total Revenue Requirement for Pricing Assets as "Forecast lease, rental and concession income (applicable to the price setting event)" and "Forecast other operating revenue (applicable to the price setting event).

investment and depreciation on current and future assets (there were no forecast revaluations for priced activities).

The target return was determined based on the midpoint weighted average cost of capital ("**WACC**") estimate calculated by updating the Commerce Commission's 2016 Input Methodology for the latest data available as at the start of PSE4 and discontinuing the previous 5 basis points asset beta downwards adjustment versus the comparable company average.

Other recoverable expenses under the building block model were also forecast, including operational expenditure and levered tax. The high -level building blocks to determine the revenue requirement are set out below in Figure 5.

Figure 5: Building blocks to forecast required revenue



For further information on Auckland Airport's pricing methodology for setting Standard Charges, refer to section 4.

3.1.2. Other Regulated Activities

We note that a target return and building blocks model is not used to determine the revenue requirement for Other Regulated Activities, as these revenues are primarily generated through arms-length negotiated leases. The periodic nature of lease negotiations means that investment planning and revenue forecasting for these activities does not necessarily align with the five-yearly pricing cycle for Aeronautical Pricing Activities. The revenue forecasts for all Other Regulated Activities covered by way of leases (both aircraft and freight activities and tenanted properties within the terminal) are set with reference to market rents for comparable properties. But, because of the extra RAB value to be indirectly allocated by our space-based shared asset allocation rules to Other Regulated Activities over PSE4, market rents are not forecast to deliver a full economic return on that additional indirectly-allocated RAB. This is associated with Auckland Airport's terminal development programme, much of which will not directly alter the floor area or the market value of the spaces leased to aeronautical customers. Hence forecast returns from Other Regulated Activities are well below our Target Return for PSE4.

3.2. Forecast asset base

3.2.1. Disclosure requirement

Clause 2.5(1)(c)(i) and Schedule 18(vi) require Auckland Airport to provide a description of how the components of the "revenue requirement" for specified airport service" ("**Total Regulated Activities**") has been determined.

Schedule 19(v) requires Auckland Airport to provide an equivalent explanation for the subset of specified airport activities covered by the Aeronautical Pricing Decision" ("**Aeronautical Pricing Activities**").

3.2.2. Opening asset base

A fundamental input into the building block approach is the asset values used to determine required revenue, of which the opening asset base is a key input. Auckland Airport's information disclosures provide a robust starting point for determining the opening asset base.

Unlike in past years, where the opening asset base for the pricing period would need to be forecast as the final year of the previous pricing period is normally not yet complete at the time we set prices, given the price freeze for the first year of PSE4 the closing regulated asset base for PSE3, as reported through information disclosure, was available at the time of the pricing decision and this disclosure.

Key steps in determining the opening asset base included:

- updating the closing RAB for financial year ("**FY**") 2022 as per information disclosure, to reflect the updated allocation rules determined through the PSE4 pricing consultation;
- determining the priced asset base by allocating the opening regulated asset base between priced and non-priced activities; and
- maintaining the moratorium on revaluations for priced assets.

This section of the paper meets the disclosure requirements under clause 2.5 (1)(c)(i), and clause 2.5 (1)(j) of the Determination.

3.2.2.1. Opening total asset base for PSE4

The opening RAB for PSE4 has been based on the closing RAB for the 2022 financial year, as per the information disclosures for the 2022 financial year, adjusted for updated allocation rules that have been determined through the PSE4 pricing consultation.

Updates to the allocation rules for PSE4 resulted in an upwards adjustment to the opening PSE4 RAB from the closing 2022 information disclosure RAB of $59.6 million. This change in allocations can be attributed to the forecast recovery of aeronautical activities relative to non-aeronautical activities over PSE4 versus the 2022 financial year, as they were still dampened in 2022 by the lingering impacts of the pandemic.

The asset valuations used for the opening asset base remain unchanged from Auckland Airport's 2022 information disclosures.

Table 4: Reconciliation of PSE4 opening RAB (total regulated activities)

Opening Regulatory Asset Base	$('000)
Regulatory asset base as at 30 June 2022	1,638,341
Adjustment resulting from cost allocation	59,550
Estimate of regulatory asset base at start of price setting event	1,697,891

Source: Schedule 18 (vii)

3.2.2.2. Determining the priced asset base

The opening RAB for total regulated activities was allocated between Aeronautical Pricing Activities and Other Regulated Activities. Under information disclosure, the total asset base is categorised into three activities – airfield activities, terminal activities, and aircraft and freight activities. Determining the priced asset base required two main steps to be undertaken:

- remove the value of all aircraft and freight assets from the total asset base; and
- allocate and remove the value to non-priced terminal activities within the terminal activities asset category.

Non-priced terminal assets include airline lounges, airline offices, and the duty-free collection point. The floor space – and the associated proportionate share of the value of the domestic and international terminals – occupied by these non-price aeronautical activities was excluded from the priced asset base. The allocations of the priced and non-priced components of the aeronautical asset base are set out in the table below.

Table 5: Allocation of total asset base to priced asset base

$('000)	Priced	Non-priced	Total
Airfield	$676,499	$-	$676,499
Terminal	$639,089	$239,833	$878,922
Aircraft and Freight	$-	$142,470	$142,470
Total asset base	$1,315,588	$382,303	$1,697,891

3.2.2.3. Moratorium on asset valuations

Auckland Airport has maintained the moratorium on revaluations of priced aeronautical assets from 2006. This approach, which is consistent with past practice, has been subject to extensive consultation and scrutiny in previous PSEs. Accordingly, Auckland Airport continued the carry-forward of the $86.1 million downwards adjustment to remove historic airfield and terminal land revaluations.

Further information related to the carry-forwards adopted to reflect the moratorium on asset valuations is included in section 3.2.3.

3.2.3. Capital Investment

This section together with Appendix A meets the disclosure requirements under clause 2.5(1)(l-m) of the Determination. Specifically, clause 2.5(1)(l) requires the disclosure of forecast capital expenditure by category and the aims and objectives of key capital expenditure projects. Clause 2.5(1)(m) requires Auckland Airport to publicly disclose, for the period of five consecutive years immediately following the price setting event, a description of each key capital expenditure project as disclosed in accordance with Schedule 18, including an explanation of:

(i) the process by which the need for the key capital expenditure project was determined, including any assessment criteria;

(ii) any consumer engagement undertaken as part of the process referred to in clause 2.5(1)(m), including a description of how consumer demands have been assessed;

(iii) any alternative expenditure projects considered, and the rationale for excluding those alternative projects;

(iv) the extent to which the key capital expenditure project is reflected in pricing; and

(v) any constraints or other factors on which successful completion of each key capital expenditure project is contingent.

The key capital expenditure projects for the period of five consecutive years immediately following PSE4 which are referred to in this section and are detailed in Appendix A are set out in Schedule 18(xi) which also includes the key capital expenditure projects forecast until 30 June 2032.

This section provides a high-level overview of Auckland Airport's approach to capital expenditure planning and developing its capital investment programme.

3.2.3.1. Overview of Auckland Airport's capital expenditure planning

Auckland Airport is now over 50 years old and a step-change in infrastructure investment is needed to ensure the airport delivers a reliable, resilient, safe service that meets the expectations of users, and caters to future demand and capacity requirements. Auckland Airport's Capital Plan seeks not only to expand capacity to meet expected future growth, but to address constraints that are a result of the existing legacy infrastructure from when the airport was developed.

These plans have been in development since 2012 in consultation with partner airlines. This engagement culminated in 2019 with plans for the major development of a new Domestic Jet Hub, which was to be delivered with connections to the international terminal, planned to be open and operational in 2023. However, the global pandemic happened. In response, all major projects at Auckland Airport were put on hold amid considerable uncertainty for the aviation industry and the future of travel.

The pandemic was highly disruptive. It closed international borders and required people to stay at home, with aviation one of the most impacted industries. This included inflationary pressures becoming common globally, and a permanent step-change increase in construction costs..

During the period aviation was significantly impacted by COVID-19, and while most aeronautical projects remained on hold, Auckland Airport re-examined its long-term aeronautical infrastructure development plans to ensure they were appropriate for the post-pandemic world. This exercise confirmed that Auckland Airport still required a new domestic terminal facility and identified the optimal location and pathway to delivering this critical infrastructure.

At the heart of our ten year aeronautical investment plan is the terminal integration programme. This includes several distinct projects required to develop the Domestic Processor – ie a new domestic terminal facility integrated with the existing international terminal, with common facilities including check-in, baggage, and pick-up drop-off areas.

This investment will enable the relocation of domestic jet services from the existing Domestic Terminal Building ("**DTB**") into the new integrated facility, enhancing customer experience and unlocking additional domestic capacity to meet long-term demand forecasts. Jet operations using aircraft stands and gates on the southern side of the existing DTB would constrain capacity of contingent runway operations to such an extent that it would result in substantial delays and not be fit for purpose. These operations are necessary for airport resilience and safety reasons, including renewal of slabs at the centre of the main runway.

Many of the projects in the Terminal Integration Programme address airport resilience, such as services upgrades or increasing stormwater capacity. These have been included in the programme as it is the most efficient way of delivering this infrastructure. These works would be required even if the Terminal Integration Programme was not being delivered. This programme will ensure that Auckland Airport remains fit for the future and is able to meet demand for airport capacity. Not delivering this capacity would constrain growth, cause a deterioration in the passenger experience, and increased operational inefficiency and delays.

A shortfall in capacity would also risk significantly higher airfares paid for by passengers. As we have seen post-pandemic, airfares have increased significantly owing to COVID-19 related airline capacity shortages (aircraft and aircrew) as passenger demand has recovered. New Zealand-wide, post-pandemic airfares are up around 60 per cent in nominal terms – or by around one-third after inflation.

Forecast five- and ten-year capital investment programme

The aeronautical pricing process involves a thorough review of infrastructure priorities for the next ten-years. The forecast capital plan represents our best estimate of project delivery as at June 2023. Projects that are forecast to be completed within the five year price setting event window are reflected in the building blocks approach to forecasting required aeronautical revenues.

The 10-year forecast gives a long-term view of airport investment that is planned, including projects that are not due to be completed and reflected in aeronautical prices until the subsequent pricing period

(PSE5 and beyond). While no decision on PSE5 prices has been taken as part of the PSE4 pricing decision, throughout the consultation process, Auckland Airport provided airlines with a view on the outlook for PSE5 to inform their responses on the PSE4 plans. Discussions with airlines will continue ahead of the aeronautical pricing decision for PSE5 which is due in H1 calendar 2027.

Inherent uncertainty in forecasting capital investment programme

Forecasting the need and cost of capital investment required for the airport over 10 years is not an exact science and inherently involves a significant amount of uncertainty due to a number of factors including demand growth, changes in asset condition, changes in cost to deliver infrastructure, and new information that may emerge on the needs and requirements of users. There has been significant volatility as a result of the pandemic, adding additional uncertainty to long-term demand forecasts.

Auckland Airport's approach to forecasting capital expenditure has been challenging given the amount of disruption caused by the pandemic. The pandemic has disrupted demand, created uncertainty over the short-medium term recovery of passenger volumes and caused construction cost inflation.

Auckland Airport sets out in this price setting disclosure and Schedule 18, the projects that are forecast to be undertaken over the 10-year forecasting window. The programmes of work, and underpinning projects included in Schedule 18 reflect the projects that we have a high degree of certainty will be necessary to maintain operations of the airport and deliver the terminal integration programme.

The forecast capital plan includes the step-change of capital investment required to ensure Auckland Airport it is fit for the future. Auckland Airport is highly cognisant of the cost of this programme. Airlines have raised concerns about the overall scale of the capital investment programme during the lengthy consultation period, and the impact that will have on future aeronautical charges. Therefore we have considered an extensive number of options and alternatives to manage the overall cost of the programme, including any lower whole of life cost and operational solutions. We have also considered requests to delay the programme, however without any plausible alternative solution being proposed by airlines this would only compound costs, and risk adverse impacts on airport resilience, safety, capacity and passenger experience.

Summary of the 10 year capital plan

As outlined in Schedule 18, the 10-year investment plan includes 11 major programmes of work, total capital investment cashflow on regulated assets of $6.6 billion is forecast over the 10 year forecast period. At the centre of the plan is the Terminal Integration Programme. These programmes are summarised in the below table. Further detail on these particular investment programmes, in accordance with disclosure requirements, is included in *Appendix A: Summary of Capital Investment Programme consistent with pricing decision*.

Table 6: Summary of forecast capital expenditure

Capital Investment Programme	Description	10-year investment ($m)
Terminal Integration – enabling projects and airport resilience	Multi-year programme of enabling works to relocate infrastructure and prepare the site for the construction of a new domestic jet pier and headhouse integrated into the existing international terminal building, and to provide upgrades to improve airport resilience.	1,641
Terminal Integration — Domestic Processor	Domestic jet operations integrated into existing international terminal, with a new domestic jet pier and terminal headhouse – due to open in 2028-29	2,092
Terminal Integration — Transport Hub	This development will transform how travellers arrive and depart from the main airport terminal, while paving the way for any future mass rapid transit to deliver passengers direct to terminal	163
Domestic Terminal Building Upgrades	Provides the upgrades necessary to accommodate domestic jet operations through to the opening of the integrated domestic terminal in 2028-29	148
Aeronautical Programme	The aeronautical capacity programme includes upgrades to the international terminal and airfield facilities and airport emergency services.	738
Contingent Runway	This will re-establish a contingent runway on Taxiway Alpha that is safe, reliable and fit for purpose for operation with expected future demand and the latest regulatory requirements – this enables main runway slab renewals, and defers the need for a second runway further into the future	137
Roading Programme	This programme delivers elements of the long-term transport masterplan; the purpose of which is to increase the capacity and efficiency of the roading network	164
Utilities Programme	The purpose of this programme is to either increase the capacity of existing utility networks such as electricity or water or to introduce new functionality to existing networks such as airside electric vehicle charging facilities or wastewater recovery systems across the airport precinct	82
Renewals – airfield pavement and ground lighting	Airfield renewals programme will invest to maintain and renew airfield pavements and ground lighting assets	584
Renewals — other	The primary aim of this programme is to ensure that Auckland Airport's existing assets are fit for purpose, safe to operate and enable the efficient day to day operation of the business	561
Cargo Precinct	Given the capacity constraints of the current facilities, the new cargo terminal project proposes a dedicated and consolidated cargo handling facility on the northern side of the airfield at Manu Tapu	285
Total		**6,596**

Base and high capital expenditure scenarios

The less-certain PSE5 aeronautical capital expenditure projects that were consulted on with airlines were grouped into a high capital investment scenario. Those projects are not reflected in the baseline forecast set out in Schedule 18. The high capex scenario comprises mainly capacity related projects that are subject to future optionality and uncertainty. Those projects will be subject to further consultation ahead of PSE5 pricing, and the forecast commissioned assets for the PSE5 pricing period will be re-forecast and consulted on ahead of setting prices for PSE5.

In total, the additional capital expenditure projects included in the high scenario were forecast to have around $1.1 billion of commissioned cost, of which around $1 billion was forecast to apply to aeronautical charges in PSE5. These projects, not included in the Schedule 18 10 year capital investment forecast, are summarised in the below table. While it is possible any of these projects will be delivered during PSE5, the likelihood that they would all be delivered is lower.

Table 7: Capital investment projects in high capital investment scenario, assets commissioned forecast in PSE5

Capital Investment Programme	Comments	Base scenario ($m)	Additional spend in high scenario ($m)
Renewals — Other	Choices remain for other renewals activity (excluding AGL and pavement). Operational solutions, and ongoing assessment of the condition of assets would inform the need for this investment going forward.	165	164
Capacity — roading	Choices remain whether roading projects are delivered in PSE5 for Southern Access (Pūkaki Bridge) and Eastern Ring Route.	41	465
Capacity — aeronautical	Choices remain whether Pier B gates, and Arrivals Stage 2 are delivered in PSE5. Operational solutions could defer the need for infrastructure.	197	424
Capacity — utilities	50% of potential utility development could be deffered, and will remain subject to ongoing assessment.	29	24
Total		**270**	**1,077**

Second runway project – subject to further consultation

Current estimates of demand indicate that demand growth at Auckland Airport could trigger the need for a second runway. and will be subject to more detailed analysis and consultation. The most recent estimate of the need for additional runway capacity is the pre-pandemic estimate of 2032.

The case for the second runway remains highly uncertain. It will be subject to a number of changing variables including future passenger demand, changes in technology, aircraft improvements and changes to fleet mix. More detailed analysis and consultation is necessary to consider the need and expected timing of this project. The high capital expenditure scenario included an assumption that there could be $710 million of spend on this long-lead-time project incurred out to 2032, but no assets were forecast to be commissioned and recovered through pricing in this period..

3.2.3.2. Benefits to consumers of the capital investment programme

The ten-year forecast capital plan comprises a significant step-change in infrastructure investment to deliver the long-term capacity required to support growth and to meet future resilience and quality requirements. The planned projects will provide an airport that is safe, regulatory-compliant, delivers needed airport capacity, supports resilience of airport services, enhances customer experience, and supports delivery of Auckland Airport's sustainability targets.

Safe and compliant

Operating a safe and compliant airport was prioritised highly in developing the capital investment plan. Key investments include renewals of concrete pavements, with over 23,000 concrete slabs and 600,000 m^2 of asphalt on the airfield, a continuous program of renewals is required to maintain pavement integrity. Operation of the contingent runway will enable the renewal of concrete slabs on the main runway. Without it, the alternative would be to deliver a second runway which would come at a far greater cost. Renewal of existing ground lighting equipment and supporting infrastructure, is also required to ensure it is compliant, resilient, and remains fit for purpose.

Works are also being undertaken in the existing domestic terminal, to upgrade key building systems such as fire, vertical transportation, HVAC, electrical and water to accommodate operations and maintain building code compliance through to 2030.

A safe airport, compliant with regulations is a non—negotiable, and in the long-run interest of consumers.

Airport capacity

The capital plan and the Terminal Integration Programme will deliver a future growth pathway for Auckland Airport aligned to the Auckland Airport Master Plan. This new domestic jet capacity will replace the capacity-constrained existing domestic terminal which is forecast to no longer operate jets

from 2028-29. Capacity needs during the construction phase are also met, with investment in additional aircraft stands that are displaced through construction of the Domestic Processor.

Ensuring Auckland Airport is able to meet capacity requirements is to the benefit of consumers. As recently demonstrated following the pandemic, aviation capacity shortfalls can significantly increase airfares. By ensuring that Auckland Airport has the capacity to meet future demand, this will enable competition in the market which gives consumers choice and puts downward pressure on airfares.

Airport resilience

The Terminal Integration Programme will build resilience into the airport system by addressing key points of resilience. Auckland Airport is a single runway operation, which carries the risk of not having operational runway capacity during pavement renewal projects, as well as in the event of an aircraft incident on the main runway which could have a significant impact on air traffic for New Zealand.

A critical resilience factor is the new contingent runway that will be able to be stood up within an operationally effective timeframe. The new Domestic Processor location enables the development and efficient operation of the contingent runway, whereas the Jet operations using aircraft stands and gates on the southern side of the existing DTB would constrain capacity of contingent runway operations to such an extent that it would result in substantial delays and not be fit for purpose. The alternative of delivering a second runway would come at a far greater capital cost. Enabling the contingent runway defers this cost further into the future.

Airport resilience is also supported by responding to climate change including storm water upgrades in a number of key projects that form part of the terminal integration programme. The recent flood event at Auckland Airport has underlined the need to ensure that airport operations are resilient to climate change. Planned projects will increase stormwater capacity. For utilities infrastructure including fibre, business technology, and electricity, forecast demand requirements and resilience of existing infrastructure have informed the investment programme.

Investing in airport resilience is in the long-term benefit of consumers. It ensures that the airport can provide a consistent and reliable service. The impacts of a loss of resilience, including delays and capacity impacts ultimately come at a cost to consumers. Many of the projects in the Terminal Integration Programme address airport resilience (e.g. increasing stormwater capacity). These have been included in the programme as it is the most efficient way of delivering this infrastructure. These works would be required even if the Terminal Integration Programme was not being delivered.

Customer experience

Investments in the existing Domestic Terminal Building are being made to upgrade and refresh key guest facing parts of the building such as bathrooms and helpdesks. These works to improve the customer experience reflect feedback we have received directly from passengers.

The Terminal Integration Programme and design of the Domestic Processor will provide a new modern passenger experience, consistent with other international airports. Scope and design of the development has appropriately balanced scope and cost against operational efficiency and future passenger experience, with floor space benchmarked against comparable airports and International Air Transport Association ("**IATA**") level of service standards.

The customer experience is considered across all elements of the airport system. Projections of future transport travel times into and out of the airport inform the parameters of roading projects to ensure the entire passenger experience is fit for purpose.

Delivering the customer experience that passengers expect is completely aligned to the long-term benefit of consumers. The long-lead times of delivering infrastructure mean that significant forward planning to ensure that the solutions will meet customer needs is integral and embedded in the planning process.

Sustainability

We acknowledge that the aviation sector contributes to climate change and are working with our aviation partners to reduce this impact. The effects of climate change, including rising sea levels and unpredictable weather patterns will impact our business, community and country.

Auckland Airport's sustainability objectives including Auckland Airport's net zero target by 2030, are embedded within the capital projects we are delivering,. Projects include initiatives to decarbonise the existing international terminal facilities, with different elements of the terminal delivered through different projects where the opportunities are aligned.

We have brought forward investment into the stormwater network and commenced the development of a stormwater masterplan which identifies the necessary upgrades and development of infrastructure, including new stormwater ponds.

As a large-scale business, we work hard to reduce the impact our operations have on the surrounding environment by implementing best-practice environmental controls and ongoing monitoring of our environmental performance. In addition, we implement resource use efficiency and waste minimisation measures. For new infrastructure we draw on sustainable design principles to guide our decision-making through the planning, design and construction phases.

Auckland Airport's location is of historical and cultural significance to Māori. Building strong and enduring relationships with tangata whenua is important to us. We also strive to be a good neighbour and play an active part in creating value for the whole community as we continue to develop the airport. We work alongside local iwi on the design of projects across the precinct, including the Transport Hub, terminal development and Mānawa Bay. The infrastructure programme, and airport operations more broadly creates employment opportunities for the local community.

Benefits delivered from the Domestic Processor

The objective of integrating domestic jet and international operations in a single terminal has been a core part of Auckland Airport's masterplan since 2012. Delivery of the Domestic Processor will create an enhanced customer experience for domestic travel (while also avoiding a degradation in the existing experience), provide additional capacity above the existing Domestic Terminal, which is capacity constrained, and unlock expansion pathways to enable long-run growth at Auckland Airport.

Specifically, delivery of the Domestic Processor will meet the following objectives:

- a new domestic terminal facility with capacity to meet the IATA Optimum Level of Service through to 2033;
- expansion pathways for future domestic terminal capacity beyond the 2044 masterplan horizon;
- improved customer experience for domestic and international passengers;
- significant reduction of minimum connect times between domestic and international services;
- International and domestic BHS capacity through to 2033. All day check-in via automated Early Bag Storage and significantly improved all round BHS performance, resilience and expandability;
- maximising capacity of contingent runway operations, enabling main runway pavement repairs; and
- improved operational efficiency by having optimal airfield layout (aircraft push-backs no longer onto taxiways), Code E MARS capable stands providing more operational flexibility for airlines, infrastructure will enable contactless passenger journeys, more efficient baggage systems including all-day check-in, efficiencies generated through integrated facilities for airlines, government agencies, and ground handlers.

3.2.3.3. The process for determining the need for capital investment

This section of the paper together with Appendix A meets the disclosure requirement under clause 2.5(1)(m)(i) of the Determination. It outlines Auckland Airport's approach to investment planning and assessing the need for capital expenditure, including the assessment criteria and development principles that inform Auckland Airport's capital expenditure decisions. Appendix A summarises the process for determining the need at a key capital expenditure programme level.

Auckland Airport is responsible for long-term master planning and airport system resilience. It is incumbent on us to consider the short, medium and long-term implications of airport infrastructure decisions. The infrastructure projects in our Capital Plan for PSE4 and PSE5 have been planned in this context, with reference to the Auckland Airport Master Plan.

Development principles

Aviation is an industry that has historically been subject to material and ongoing changes in demand, supply and operational dynamics. This has recently been demonstrated by the significant impacts due to the COVID-19 pandemic, resulting in significant short-term volatility in demand.

As passenger demand has recovered, we continue to plan for the long-term needs of Auckland and New Zealand, and how Auckland Airport can best meet those requirements. Auckland Airport draws on the following development principles when deciding to invest in long-life assets and seeking to manage the associated uncertainty:

- Safe and secure: Our operation must remain safe and secure, meeting new regulatory and statutory requirements that change over time.
- Demand driven: We must look at the medium to long-term trends as the short-term view can be volatile.
- Timely and resilient: Airport infrastructure takes time to plan, design and build. These development timeframes need to be allowed for. Resilience is required to maintain operations through periods of development and in the event of outages.
- Affordable, stageable and efficient: We seek to identify manageable stages that best match demand and capacity, while also considering the efficient development of the overall programme of works in a given year. Smoother inter-year capital profiles generally support these principles.
- Flexible and innovative: We need to manage and influence the levers which can create headroom from existing infrastructure (e.g. technology and continuous improvement) and think creatively in identifying the range of options for resolving a given issue to most efficiently operating the existing infrastructure.

These development principles have informed Auckland Airport's planning process for aeronautical investment for PSE4.

Auckland Airport's capital plan has also been informed by the design objectives embedded in the Master Plan. Consistent with the objectives of the Master Plan, and as per the approach in PSE3, Auckland Airport's planning process for PSE4 and PSE5 has therefore sought to:

- ensure the long-term operational, safety and commercial aviation requirements of the airport continue to be met. This includes the delivery of additional capacity that will enable economic growth and that is informed by long-term thinking;
- deliver an overall airport system with the capacity and ability to adapt to changing environmental, social, technological and economic conditions and pressures;
- meet the needs of modern airport users, including airlines and passengers;
- provide a high quality connection for passengers transferring between domestic and international services;
- provide access to and from the airport for the maximum range of transport modes, including facilitating public transport access and protecting for future connectivity (including rail) in a clear, efficient and effective manner;
- design and deliver infrastructure in a manner that enables Auckland Airport's role as an international, national and regional gateway for airlines, commuters, tourists, visitors and workers; and
- reflect the distinctive character of Auckland Airport, including promoting and enhancing New Zealand's unique culture and heritage.

Demand forecasts to inform the capital investment plan

Forecast future demand is used to inform capital planning. This includes development of forecasts of peak demand based on standard aeronautical planning principles using peak hour forecasts. This approach is important to underpin that Auckland Airport is planning to deliver the right infrastructure, at the right time.

The Draft Capital Plan was developed based on demand forecasts that were developed in consultation with airlines during the pandemic. Following the completion of an updated set of demand forecasts by independent advisors DKMA for this PSE4 aeronautical pricing consultation, the peak demand forecasts were also updated. The peak hour forecast for domestic passengers and aircraft movements was largely consistent in the medium term with the earlier forecasts, but peak demand forecasts for

international passengers was lower out to 2032. These updated peak hour forecasts informed revisions to the projects included in 10 year investment plan and their timing.

Further detail on how these forecasts were developed by DKMA is set out in section 5.2.

3.2.3.4. Consumer engagement on capital expenditure

This section provides a high-level description and timeframe of Auckland Airport's consultation with Substantial Customers regarding capital expenditure, while Appendix A specifies at a key capital expenditure project level the nature of Auckland Airport engagement with Substantial Customers and assessment of consumer demands as required by clause 2.5(1)(m)(ii).

Auckland Airport's capital plan is the result of extensive consultation with Substantial Customers. At the centre of the capital investment plan is the Terminal Integration Programme, which culminates decades of engagement and consultation with airline customers dating back to 2012. An overview of the extensive consultation and engagement that has been undertaken in developing the Terminal Integration Programme is outlined below.

Pre-2014 Master Plan

Prior to the 2014 Master Plan, Auckland Airport consulted with airlines on a proposal for a future northern runway to service domestic aircraft movements, with domestic operations to be located in a midfield location (i.e. north west of the existing international terminal). As part of this consultation, an alternate proposal for a long-term concept was presented to Auckland Airport by airline customers, with the key features of the proposal to:

- retain domestic activity in the existing Domestic Terminal Building;
- move domestic jets into a new facility located between the existing domestic and international terminals from 2020; and
- expand international traffic northward from a new Pier B expansion by 2030 (or earlier if triggered).

2014 Master Plan

In 2014 the Auckland Airport Master Plan developed the long-term airport layout to cater for expected traffic volumes to 2044, when 40 million annual passengers were forecast to use the airport. The Master Plan noted the physical constraints that exist at Auckland Airport, including its location at the eastern side of Manukau Harbour and being surrounded by water on three sides.

When considering the optimal terminal layout, the 2014 Master Plan considered four terminal configurations:

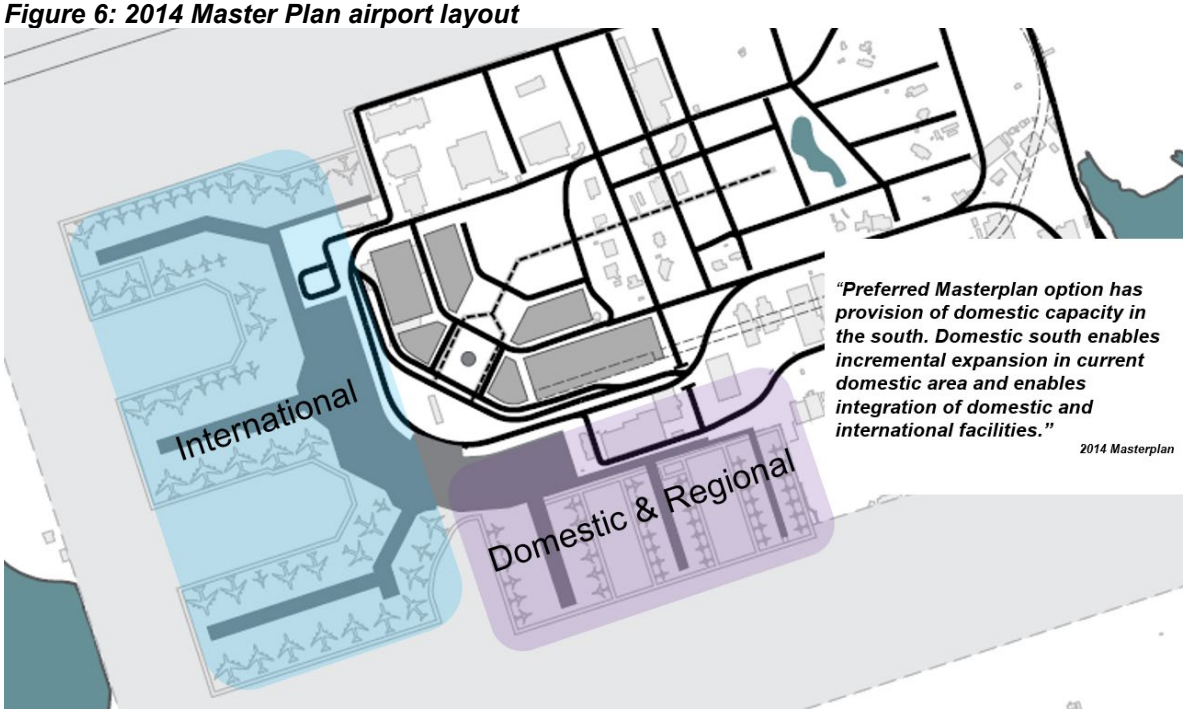
- Domestic North/International South;
- Domestic South/International North;
- Domestic South and then relocated to the North, a flip; and
- Split Domestic either side of the International Terminal.

Through development of the Master Plan these configurations were assessed, with the Domestic South/International North configuration scoring the highest of the options as it provided:

- Short-term advantage in terms of tangible operational benefits for domestic operators and derisking and decoupling of terminal and runway capacity issues;
- Medium-term benefit by allowing integrated terminal expansion and providing appropriate stand capacity for small domestic aircraft to the south and east in an area which is not suitable for widebody international aircraft; and
- Long-term advantage in terms of providing a linear development pathway of domestic to south and international to the north, which has advantages for airline operations in terms of track miles.

Comprehensive engagement on the overall draft Master Plan was undertaken with key stakeholders, including the Substantial Customers and feedback was requested over the period of November 2013 to February 2014. This included seeking support on the terminal configurations as well as the integrated terminal concept. Collectively, there was a good level of support for the overall draft Master Plan.

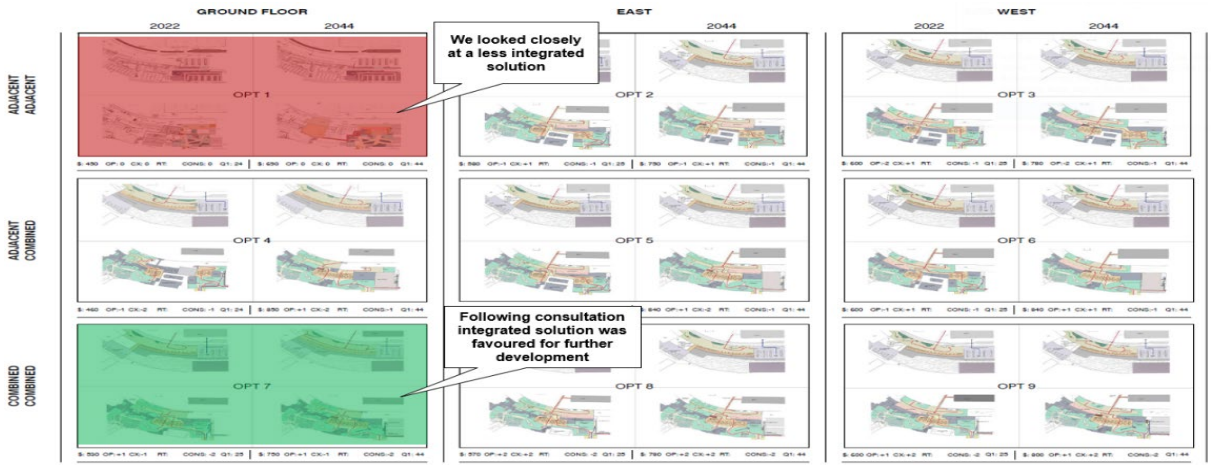
Figure 6: 2014 Master Plan airport layout



2017 Terminal Development Plan:

The 2017 Terminal Development Plan ("**TDP**") built on the 2014 Master Plan by breaking down the Master Plan into projects and testing the feasibility and timing of these projects. For the Domestic Processor, the TDP considered options which balanced depth of integration against both the benefits of integration, and the ability to build a fully integrated terminal within an operational environment. Options spanned an adjacent domestic terminal connected to international via a link bridge only at one extreme, to a fully joined terminal (continuous floor plate) on initial opening at the other extreme.

Figure 7: Domestic Terminal options considered in 2017



At the time of the TDP, no window of low traffic opportunity was foreseen which would allow floor plate construction over the complex east part of the existing international terminal without very significant risk of operational disruption and hence an adjacent terminal was initially proposed by Auckland Airport. This proposal received criticism from airlines who favoured a fully integrated terminal on opening. Through consultation a compromise was reached where the new domestic terminal would initially open as adjacent, transitioning to fully integrated as part of a second stage of development.

That solution would re-provide existing complex east terminal infrastructure (plant, baggage) as part of Stage 1, allowing demolition of these facilities when the floor plate was joined as part of Stage 2. All Substantial Customer airlines supported Stage 1 in principle. Some, but not all, airlines also supported Stage 2, while some airlines raised concerns over the cost of the development and considered it excessive.

2018-20 Domestic Jet Facility

Following the broad support for the concept design of the TDP, the development of the Domestic Jet Facility ("**DJF**") was launched, initially examining the position of key facilities such as individual airline check-in and D-I transfer arrangements. Ten different options were analysed through this process. The majority of airlines supported the layout identified under 'Option 10', which was developed to reflect a combination of options 4 and 7. An airline also requested a commitment from Auckland Airport to the delivery of the completely integrated terminal (all stages of a multi-stage build) within a reasonable timeframe.

Further work in 2019 post airline feedback focused on developing and fast-tracking the Stage 1 build with the aim of opening during 2023. The DJF project was publicly announced in February 2020, but then terminated due to the pandemic in March 2020 at which point Preliminary Design (considered to be 30% of full detailed design) had been completed.

2021 Paheko Consultation

In late 2020, the COVID-19 pandemic presented the opportunity for a project team to identify the detailed requirements and feasibility of integrating domestic jet operations into the existing ITB, including to consider alternatives.

This was done to determine if there was a rapid and cost effective way to migrate domestic jets into the international terminal, using existing international capacity that was not being used due to the closure of international borders. This involved a detailed engagement programme with key stakeholders, identifying the "Integrated West" pathway which relocated domestic operations into the existing international terminal building.

This was compared to the "Integrated East" pathway, that was consistent with the DJF concept, but took advantage of the low traffic environment to deliver a more integrated facility in the up-front build, rather than re-visiting this later through a second stage as was planned under the DJF plan. The Integrated East pathway was shown to be of a lower cost than the Integrated West pathway.

Both pathways were presented to airlines and formal feedback requested. The total investment cost, and indicative price paths were presented to airlines as part of this consultation. Airline feedback considered that Integrated East provided the most viable pathway for terminal integration, however some feedback objected to the investment given the cost of the build.

Following this process, and having considered the feedback received, the Integrated East solution was approved by the Auckland Airport Board, and a public announcement, with support for integration from Air New Zealand and BARNZ was made in August 2021. Airline engagement continued following this decision to enable refinement of design.

July 2022: Draft Capital Plan and investment commitments for 2023 financial year

Auckland Airport released the Draft Capital Plan to airlines in July 2022, which set out a forecast of the 10-year aeronautical capital investment plan, the key projects and an indicative forecast of the impact on aeronautical prices.

Auckland Airport also sought feedback on specific capital commitments that were scheduled to occur during the 2023 financial year, ie the first year of PSE4 during the price freeze. These largely related to some of the enabling works that were required to facilitate the Integrated East terminal development, and ongoing design of the domestic processor.

All Substantial Customers raised concerns with the size and cost of the Draft Capital Plan, although feedback on the specific projects varied. There was some support for the terminal integration development pathway 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 the terminal integration programme continuing to progress, with explicit support for the enabling works elements included in the capital commitments proposed for FY23, including progression of Domestic Processor design. These projects with an estimated cost of $470 million facilitated the continued development of the Integrated East terminal pathway.

Airlines also raised concerns over the potential price elasticity of demand impacts that may arise due to the forecast increase in aeronautical prices. Further consideration of price elasticity of demand impacts is set out in section 5.3

November 2022: Draft Capital Plan Review and airline workshops

Following the feedback on the Draft Capital Plan, given the feedback on the scale and cost of the proposed capital plan, Auckland Airport decided that a review of the Draft Capital Plan was warranted, and so adjusted the PSE4 consultation timelines accordingly, including the postponement of capex commitment decisions related to the design of the Domestic Processor to accommodate this review including further consultation.

The review considered opportunities to reduce cost, assess the certainty of the timing and scope of key projects, and consider scope optimisation and value engineering opportunities for key terminal integration projects that were still in design phase.

The savings opportunities identified through the review were presented to Substantial Customers at workshops during November 2022, where the trade-offs were considered and discussed. The workshops also presented information to airlines on the measures that were incorporated in the capital plan for climate change adaption, including the provision of stormwater capacity being incorporated into projects to meet future expected climate change requirements.

Auckland Airport requested airlines' written feedback on the matters presented in the workshops to inform the revisions to the capital plan to inform the Draft Pricing Proposal.

February 2023: Release of Revised Capital Plan with Draft Pricing Proposal

A Revised Capital Plan was then provided to airlines as part of the Draft Pricing Proposal, which adopted many of the savings identified through the Draft Capital Plan review, as well as other subsequent changes to the plan. These subsequent changes included further cost revisions to key projects, a risk adjustment to the plan for deliverability, deferrals of projects, the impact of capitalising work-in-progress at target return rather than forecast interest expense (in-line with the Commerce Commission Input Methodologies) and changes to the construction cost escalation forecasts.

The net impact of these changes reduced the value of commissioned priced investment during PSE4 by $430 million, but increased the overall cost over the 10-year investment programme as the savings identified in the Capital Plan review had been offset by growing construction cost escalation and other adjustments to the forecast.

For projects that were forecast to be completed and commissioned beyond the PSE4 pricing period, Auckland Airport took into consideration the scale and deliverability of the capital plan and opted to factor in several deliverability adjustments and deferrals into the base-scenario. These adjustments reflect that, while projects may be triggered based on demand forecasts in PSE5, they could likely be delayed given the scale of the overall programme, future technological advances and changes to the shape of future peak periods.

March 2023: Auckland Airport decision to re-affirm the Terminal Integration Programme

On 16 March 2023, Auckland Airport approved both the Domestic Processor preliminary design and funding to complete the remaining design phases of the Domestic Processor, and reaffirmed its May 2021 decision to proceed with the Terminal Integration Programme. This was considered to be the best decision in the long-term interests of passengers and the New Zealand economy.

The decision to re-affirm the Terminal Integration Programme was taken after extensive consultation, analysis and careful consideration, but ultimately without the support of airlines. Although Air New Zealand and BARNZ supported the Paheko East pathway in August 2021, this position has changed, in large part based on increased cost and forecast airport prices.

Airlines continue to call for a materially lower cost alternative to be presented but have been unable to propose any viable, long run alternatives themselves. Auckland Airport has considered options

throughout the consultation process, in terms of the type of terminal that is built, its location at the airport and the extent to which it is integrated. Through this extensive analysis and consultation, **no viable alternatives** that could meet all necessary requirements and that would be materially lower cost were either identified by Auckland Airport or proposed by airlines.

Airlines continue to request that we operate the DTB as the main domestic terminal for jet operations for a longer period of time, beyond 2030, to allow more time for an alternative plan to be developed. The implications of this have been considered in a number of ways, including the implications of delaying the Terminal Integration Programme, the airfield impacts on the DTB that allow for efficient airfield operations, the impacts on airport capacity of remaining in the DTB for longer, the safety and resilience implications for contingent runway operations and main runway slab renewals due to extending jet operations at the DTB, and the further deterioration on passenger experience and service that would result. Given the extensive negative impacts of this option, this was not considered to be a viable alternative. Auckland Airport continues to be open to incorporating viable improvements.

Notably, the Board's 16 March 2023 decision to re-affirm terminal integration and to move to detailed design had been previously deferred on four occasions since 19 December 2022 (and had been deferred before that period as well – it was originally scheduled for decision in September 2022) in response to airline feedback. This was done to ensure all alternatives and options were considered, including final feedback from airlines.

This process informed the decision taken by the Auckland Airport Board to re-affirm this programme on 16 March 2023. Further detail on how these alternatives considered is set out below in section 3.2.3.5.

June 2023: Final Capital Plan for PSE4

The Final Capital Plan for PSE4 (which included the Terminal Integration Programme reaffirmed by the Board in March 2023) reflected the extensive consultation on the capital plan since the Draft Capital Plan was tabled with airlines in July 2022 (including feedback received in response to the plan in the Draft Pricing Proposal) as well as wider consultation on the terminal integration programme since 2012.

Final updates to the plan reflected changes to project timing based on the latest available information. However, aside from these adjustments, the changes from the Revised Capital Plan tabled in February were minimal – a reflection of the extensive consultation, analysis and feedback previously undertaken.

3.2.3.5. Alternative capital expenditure projects considered

This section of the paper together with Appendix A meets the disclosure requirements under clause 2.5(1)(m)(iii) of the Determination. Appendix A specifies where Auckland Airport considered alternatives to specific key capital expenditure projects and the rationale for excluding any such alternative projects.

Alternatives to the Terminal Integration Programme and Domestic Processor

The Terminal Integration Programme and Domestic Processor location align with the 2014 Master Plan and are the outcome of a significant period of planning and consultation. Auckland Airport considers that this programme is the best option to deliver capacity, resilience and a future growth pathway for Auckland Airport. Many of the projects in the Terminal Integration Programme address airport resilience. These have been included in the programme as it is the most efficient way of delivering this infrastructure. These works would be required even if the Terminal Integration Programme was not being delivered.

As explained below, no viable alternatives that could meet all necessary requirements and that would be materially lower cost were identified by Auckland Airport or proposed by airlines through the extensive consultation that has been undertaken.

The summary of airline engagement above outlines Auckland Airport's extensive consultation on the Terminal Integration Programme which has taken place since the 2014 Master Plan during which time Auckland Airport has rigorously considered alternatives in terms of the type of terminal that is built, its location at the airport and the extent to which it is integrated with existing facilities.

Alternative design

Auckland Airport's assessment of alternative terminal designs throughout the consultation process concluded that an acceptable alternative terminal design would not deliver materially reduced cost. Key to this is that an acceptable alternative terminal design is unlikely to materially reduce terminal floorplate, which is the key driver of cost.

Extensive analysis was undertaken before confirming the terminal design, including benchmarking the floor areas in the Domestic Processor design. This analysis indicated that there were some areas of opportunity to reduce scope and cost, and these were further pursued through the value engineering consultation process as part of design refinement. Changes were adopted through this process, but wholesale changes were not justified.

Other options analysed by Auckland Airport included:

- **operating the Integrated Terminal without a pier** — which would require a bus lounge or some form of walk out canopy to a new domestic apron. In terms of operation and passenger experience, the product would be a significant step down from the current domestic terminal, without providing the benefit of a substantial uplift in capacity; and
- **construction of a single level walk-out pier** — a walk-out pier of this type would be a considerable reduction below the current Domestic Processor design in terms of customer experience, ease of operation, and overall resilience, particularly in the event of off-schedule arrivals and departures. The potential cost savings of this approach were marginal in comparison to the deterioration in passenger experience, operational efficiency and resilience.

This analysis indicated that these options were not considered to offer an acceptable alternative solution to the favoured design.

Alternative locations

Alternative locations for domestic terminal services had been considered throughout the consultation process since 2012. The terminal location was set out in the 2014 Master Plan, then refined and re-affirmed through subsequent rounds of analysis, planning and consultation.

At the end of 2022, Auckland Airport re-considered previous work on potential lower cost alternative locations for a domestic terminal, including a northern precinct development for domestic services that is not integrated to existing international terminal facilities. It was re-confirmed that a northern option would not deliver a materially different, lower cost option for the following reasons:

- The various terminal studies since 2017, whether adjacent or combined had consistently demonstrated floor area requirements of between 6,000 and 7,000 m2 per million annual passengers. The overall size of a terminal in the northern precinct would not be significantly different from that currently designed, and the cost of the new terminal facility is largely determined by its size.
- Additional infrastructure requirements to service a northern terminal would add costs – additional airfield works would be required, including taxiways and aircraft stands to service a new terminal location. Additional landside roading and infrastructure would be required. The cost of additional infrastructure was expected to more than offset any savings generated by building in a more greenfield environment; and
- A terminal in the northern precinct would result in a duplication of infrastructure that would create additional cost, including facilities like passenger pick-up and drop-off, baggage system, security screening areas.

In addition, a terminal in the northern location would result in additional operational costs and reduce efficiency for airlines, with greater taxi times for aircraft from a mid-field location, relative to the proposed location which is much closer to the southern runway. In the long-run, this would create further inefficiencies for a dual runway operation, as flight paths make it more efficient for the emphasis of domestic operations to be on the southern runway, and international operations on the northern runway.

This 2022 review also acknowledged that since the approval of the integrated east terminal pathway by the Auckland Airport Board in May 2021, with the support of Air New Zealand and BARNZ, Auckland Airport had been progressing the enabling works projects to deliver the terminal integration pathway and these projects are now committed costs and are being delivered, in-line with that Board decision.

Delaying Terminal Integration and operating the existing Domestic Terminal for longer

Auckland Airport has extensively considered the implications of remaining in the DTB for longer. As part of this analysis, Auckland Airport has considered the financial cost and future capacity costs and implications of delaying the Terminal Integration Programme, as well as the operational impacts. This analysis found that delays to the programme would:

- **add costs through construction cost escalation** – recent spikes in construction costs have demonstrated how they can rise quickly. These costs rarely go backwards and a delay of 5 years would add around half a billion dollars to the overall cost
- **constrain domestic capacity** – the existing Domestic Terminal Building faces considerable capacity constraints if it continues to provide terminal services for domestic jets. Capacity constraints span many terminal functions including baggage, airside dwell, security screening, land transport and airfield. If the Domestic Processor is not delivered as planned it would significantly impact the ability to grow domestic traffic and international connectivity, constrained airport capacity risks higher airfares for passengers;
- **reduce resilience to climate change –** projects within the programme include a range of measures which provide climate adaption. The most significant of these in the short term following the recent flooding event is the additional stormwater infrastructure provided by the remote stands airfield project;
- **reduce the efficiency of contingent runway operations** – operation of jet aircraft from the DTB significantly reduces the airfield capacity while operating the contingent runway, resulting in substantial delays, not making it fit for purpose. Contingent runway operations will provide vital airport resilience, and are necessary to undertake renewals of slabs on the main runway;
- **impact on customer experience** – as the capacity of the DTB remains constrained while passenger demand grows, the customer experience would deteriorate with the terminal operating above capacity for longer;
- **not avoid need for new domestic terminal capacity in alternative location** – the Auckland Airport Master Plan sets out the development of airfield in the south to meet future demand, with the current location of the DTB to be replaced by future airfield as well as terminal piers. Delaying the Terminal Integration Programme would not avoid the need for a new domestic terminal.

Using the International Terminal as overflow

The use of the international terminal building for domestic operations was considered as part of the analysis and consultation undertaken with airlines on terminal integration options in 2021. This option named 'Integrated West' identified a number of challenges and risks with that pathway including operating shared airside spaces with both domestic and international passengers including that the return of international traffic post-COVID would trigger the need for additional investment in international terminal and airfield infrastructure to meet international demand displaced by domestic operations using existing international facilities.

The now rapid post-COVID recovery of international services means that the ITB is now back operating at close to 2019 levels of demand. Therefore capacity to operate domestic services, even if harmonised screening and common dwell could be achieved, would be limited due to a lack of stand capacity at the ITB, particularly during peaks hours.

Consideration of these alternatives

Having considered the identified alternatives, Auckland Airport's Board decided that the Integrated Terminal Programme remained the best option for replacing the existing domestic terminal, building resilience in the airport system and delivering a future growth pathway for Auckland Airport. The programme will build resilience into the airport system by addressing key issues such as operation of a contingent runway, responding to climate change including storm water upgrades, and meeting capacity and regulatory requirements. It will also deliver an enduring, long-term solution aligned to the 2014 Master Plan, which will provide the airport capacity to meet demand and avoid capacity constraints that may result in higher airfares paid by passengers.

Having considered all of the factors, proceeding with the Terminal Integration Programme was the right choice for New Zealand and the travelling public.

3.2.3.6. Key capital expenditure projects reflected in pricing

Appendix A meets the disclosure requirements under clause 2.5(1)(m)(iv) of the Determination. Specifically, it includes a table which sets out the commissioned aeronautical projects that have been reflected in aeronautical charges for PSE4.

3.2.3.7. Constraints or contingency factors

Appendix A meets the disclosure requirements under clause 2.5(1)(m)(v) of the Determination. Specifically, it specifies for each key capital expenditure project whether there are constraints or other factors on which successful completion of the project is contingent.

3.2.4. Asset allocations

This section sets out how assets have been allocated to Aeronautical Pricing Activities, and other Regulated Activities.

Aeronautical Pricing Activities

Auckland Airport based its asset allocation methodology on the approach required by the Commission for the purpose of information disclosure regulation, making minimal adjustments for pricing consultation as appropriate.

Auckland Airport's asset allocation methodology involved the following key steps:

- identifying assets that are directly attributable to Specified Airport Activities and directly attributing them accordingly;
- identifying assets that are indirectly attributable to Specified Airport Activities (i.e. that are common or shared) and allocating those assets to Specified Airport Activities using allocation rules;
- separately identifying assets held for future aeronautical use; and
- adjusting asset allocators if required for the purposes of setting Standard Terms to align with pricing consultation decisions.

Each allocation rule has a primary allocation which segments costs between regulated and non-regulated activity including Aeronautical Pricing Activities, and Other Regulated Activities, and a secondary allocation which segments the regulated cost to the various aeronautical activities to which the investment relates.

Allocation rules used were based on the same approach as the allocation rules used for information disclosure. The key changes from the FY22 information disclosure allocation rules was that where allocation rules are based on usage or activity, pre-pandemic allocation rules were used to more accurately reflect the expected activities in the more normal operating environment expected for PSE4. Where space was the basis of the allocation, the same rules used for information disclosure in FY22 were used.

As noted above, some adjustments were made for the purpose of setting Standard Charges and determining the revenue requirement as set out in Schedule 19. By way of summary, Auckland Airport made the following adjustments for aeronautical pricing purposes:

- Nixon Road – airline feedback during consultation considered that Nixon Road should not form part of the aeronautical roading network. While Auckland Airport notes that Nixon Road does have a number of aeronautical uses (it serves AIAL engineering services, passengers use it to park vehicles, it diverts traffic off the main roads in the network that would otherwise need higher capacity, it provides resilience in the event of closure of main arterials).As a concession to airlines the aeronautical allocation for Nixon Road was reduced to 50% for the PSE4 pricing period, down from 76%. This concession has resulted in a reduction in the opening priced RAB of $2.2 million for the PSE4 pricing period.
- Bathroom allocations — bathrooms requirements are based on the number of passengers using the terminal, and are not influenced by non-aeronautical activities. During consultation airlines considered that these facilities should have shared costs with non-aeronautical uses. As a concession to airlines, we have allocated bathroom facilities based on the relevant terminal space rules for both the ITB and DTB rather than allocated directly to aeronautical terminal assets. This allocates bathrooms as shared use, and results in a 61% priced RAB allocation of the value of

bathrooms (65% in the International terminal and 52% in the domestic terminal). This decision not only reduced the aeronautical allocation of bathrooms, but flowed on to reduce other aeronautical asset allocations influenced by terminal space rules. This reduces the opening priced RAB by ~$2 million and forecast commissioned assets over PSE4 by $3.5 million.

Other Regulated Activities

Allocation rules for Other Regulated Activities define the share of assets associated to identified tenancies (eg aeronautical offices and VIP lounges) in the terminal, collection point and aircraft and freight facilities.

3.2.4.1. Assets Commissioned Forecast

The following table provides the assets commissioned forecast for Aeronautical Pricing Activities, and Other Regulated Activities. This is the assets commissioned forecast that has been used to determine the forecast revenue requirement for PSE4.

Table 8: Assets commissioned forecast for PSE4

$m	FY23	FY24	FY25	FY26	FY27	PSE4
Aeronautical Pricing Activities	223	352	935	411	654	2,575
Other Regulated Activities	22	101	137	38	231	529
Total Regulated Activities	**245**	**452**	**1,072**	**449**	**885**	**3,104**

Differences to financial year 2022 information disclosure

The assets commissioned forecast has been prepared on the same basis as the 2022 information disclosures. Where rules were space based, they were based on the FY22 information disclosure values and were rules were reliant on activity measures that were impacted by the pandemic, pre-pandemic values were used to determine the allocations.

3.2.5. Carry-forwards

There are two opening carry-forward adjustments, and two closing carry-forward adjustments included in the PSE4 price setting disclosure.

The moratorium on land revaluations for priced assets has been reflected with an opening and closing carry-forward adjustment for PSE4. The second carry-forward adjustment reflects a carry-forward of $1.7 million due to the under-recovery of revenue under the Regulatory and Requested Investment Policy, which was associated with the costs of segregating the international terminal to facilitate ‘green zone’ and ‘red zone’ passengers during the pandemic, to enable quarantine free travel to and from Australia and to the Pacific Islands. There is also a closing carry-forward adjustment included to reflect adjustments made following the aeronautical pricing decision on 7 June 2023. These post-pricing decision adjustments have been made to reflect land transfers and disposals forecast to occur during the pricing period that were not accounted for at the time of the pricing decision, and corrections to allocation of operational expenditure between pricing and assets held for future use.

This section of the paper meets the disclosure requirements under clause 2.5(1)(d-e) of the Determination.

3.2.5.1. Moratorium on revaluations of priced assets

To reflect the moratorium on revaluations of priced assets, there is a negative opening carry forward adjustment of $86.1 million to exclude revaluations between the start of the moratorium in 2006 and the start of information disclosure in 2010 (the “**Moratorium Adjustment**”) for airfield and terminal assets. This is matched by an identical closing carry-forward adjustment, therefore forecast investment value throughout PSE4 is net of the Moratorium Adjustment. The Moratorium Adjustment is intended to be carried forward at the same value in future periods unless the moratorium on asset revaluations is unwound and a revalued asset base is used for aeronautical pricing purposes in the future.

The value of the Moratorium Adjustment was established in detail for PSE3 and carried into PSE4 unchanged. Further information on how it was calculated can be found in the PSE3 price setting disclosure.

Background to the moratorium on asset revaluations

When Auckland Airport set prices in 2007, with the support of airlines, it introduced a moratorium on terminal and airfield asset valuations which meant that it would not revalue its aeronautical asset base used for pricing purposes for at least 10 years.

After that decision was made, in late 2010 the Commission introduced its Ims setting out how land and specialised assets should be valued for monitoring purposes as part of information disclosure regulation under the Commerce Act 1986. These Ims specified that land should be valued at its Market Value Alternative Use ("**MVAU**") as at 30 June 2009, and the value of specialised assets should be based on an airport's most recently reported values, rolled forward to 2009. The High Court subsequently ruled that the initial value of land in the RAB should be its MVAU as at 30 June 2010.

The regime also required Auckland Airport to index (i.e. revalue) the regulatory disclosure value of both land and specialised assets at CPI each year, and permitted periodic MVAU revaluations of land assets in the regulatory asset base ("**RAB**"). When Auckland Airport consulted on PSE2 pricing, we raised the possibility of lifting the moratorium, in part to reflect the regulatory disclosure requirement then to revalue these assets regardless of any moratorium applied for pricing. But the moratorium was ultimately retained for PSE2 in response to customer feedback. All parties recognised, however, that this resulted in a pricing approach that differed (for legitimate reasons) from the Commission's information disclosure monitoring regime. Auckland Airport noted that it would need to consult with airline customers and BARNZ ahead of PSE3 about whether the moratorium remained in place, was adapted, or, if the disclosure valuation methodology was applied and the moratorium lifted, how any revaluation gains or losses would be treated.

In December 2016, the Commission published amendments to its original Ims, requiring airports to not index regulatory asset values if revaluations were not applied for pricing. This decision required Auckland Airport to restate its historical disclosed asset values to wind back previous mandatory evaluations under the old IM.

Summary of views from Substantial Customers

Auckland Airport consulted on our proposed retention of the PSE3 Moratorium Adjustment during the PSE4 pricing consultation. All Substantial Customers supported an ongoing moratorium on revaluations including the proposed continued carry-forward of the $86.1 million downwards adjustment.

3.2.5.2. Regulatory and Requested Investment Policy Carry-forward

In PSE3, as in PSE2, the Regulatory and Requested Investment ("**RRI**") policy was included in Standard Charges to compensate Auckland Airport should unforecast capital investment or opex be triggered by a new central government or local government directive, legislative or regulatory mandate or be requested specifically to meet the needs of a customer. The RRI policy enables the pass-through of 80% of unforecast expenditures relating to a government, legislative or regulatory directive. The less than 100% pass-through requirement reflects Auckland Airport's commitment to discharging any such obligations efficiently.

During PSE3, the RRI was invoked to enable 80% recovery of unforecast capital investment required to segregate Auckland Airport's international terminal to facilitate "Red Zone" MIQ-travel contemporaneously with quarantine free travel for safer international destinations nominated by the government during the COVID19 pandemic, e.g. the trans-Tasman "bubble" .

Calculation of the carry-forward adjustment

Auckland Airport originally forecasted the "Red Zone" RRI operational costs at $6.3M . Following consultation with airlines, a $2+GST increase to the International Passenger Charge ("**IPC**") and Transit Passenger Charge ("**TPC**") was adopted for the period of 1 October 2021 to 30 June 2022, based on a forecast of 2.5 million pax generating $5 million in revenue over the period.

After the trans-Tasman bubble was closed and Auckland went into lockdown it became evident that the RRI charges would not generate the forecast revenue. But partially offsetting lower revenues, the suspension of the Red Zone obligations on 14 March 2022 also reduced costs versus forecast. The net impact was that the Red-Zone RRI charges in the 2022 financial year under-achieved the targeted

80% cost recovery by $1.73 million. Accordingly, per the RRI policy, Auckland Airport has washed up these under-recovered costs into our PSE4 prices. Table 9 shows the difference in passenger forecasts, revenue differences and cost impact for the year.

Table 9: RRI adjustment final reconciliation

RRI adjustment calculations	Original forecast ($m)	Final impact RRI for FY22 ($m)
Passengers (inc. transits) from Oct-21 to Jun-22 (m)	2.5	1.1
RRI Charge per INT pax ($)	2.0	2.0
Expected revenue ($m)	5.0	2.3
Estimated total cost ($m)	6.3	5.0
80% of recovery of estimated cost ($m)	5.0	4.0
Revenue over/under recovery	**-**	**(1.7)**

Summary of views from Substantial Customers

Early in the second quarter of calendar 2022, we consulted with airlines on the forecast under recovery of the RRI adjustment and options on how the under-recovery could be addressed. Alternatives considered included maintaining an RRI adjustment charge into FY23 (on top of the price freeze), or "washing-up" the value of the under-recovery into the PSE4 price reset. The latter approach was supported by the majority of airlines. Following this consultation, Auckland Airport opted to not continue the RRI adjustment in the 2023 financial year, and to "wash up" any residual under or over-recovery into the PSE4 pricing decision.

3.2.5.3. Post-pricing decision closing carry-forward adjustment

Following the PSE4 pricing decision announced on 8 June 2023, Auckland Airport identified errors and omissions relating to three inputs into the pricing model that must be corrected for this price setting disclosure, namely:

- omitted land transfers into the priced RAB with a value of $48 million. These primarily relate to land parcels required for the construction of remote stands and the Domestic Processor. Making this adjustment increases the value of both assets commissioned and the closing RAB;
- $41 million of priced RAB assets that are forecast to be disposed of during PSE4 for $nil consideration. These primarily relate to assets being demolished to enable construction of the Domestic Processor, wider Terminal Integration and superseded by upgrades to the existing Domestic Terminal. Reflecting this adjustment reduces the value of the closing RAB; and
- $17 million of operating expenses previously included in the PSE4 forecast for priced activities, which have subsequently been identified as relating instead to assets held for future use ("**AHFU**"). These costs do not impact the priced IRR and will not be recovered through aeronautical charges for priced activities. These primarily comprise rates on the land set as aside for the second runway. Reflecting this adjustment reduces the operational expenditure forecast.

The forecast timing of these post-pricing decision adjustments is outlined in the below table.

Table 10: Post-pricing decision adjustments

Adjustment $000	FY23	FY24	FY25	FY26	FY27
Land transfers	14,405	11,659	21,541	-	-
Disposals	16,715	12,518	5,150	6,449	(59)
Operational expenditure	(3,103)	(3,276)	(3,557)	(3,633)	(3,761)

The net effect of correcting these errors is to reduce the forecast PSE4 IRR for priced activities. In order to reflect the correct closing investment value, reflecting these adjustments, Auckland Airport has included a forecast closing carry-forward adjustment in PSE4 that increases the forecast closing PSE4 investment value by $42.3 million. This adjustment correctly reflects the value that Auckland Airport

intends to recover in subsequent pricing periods, as it raises the forecast PSE4 IRR back to the Target Return of 8.73% for aeronautical priced activities.

This approach is considered appropriate because it avoids the alternatives of altering PSE4 prices, incorrectly presenting the pricing disclosure schedules by presenting incomplete forecasts or incorrect information, or forecasting an IRR that is below the appropriate return on capital.

This carry-forward adjustment could then be offset in the next PSE5 pricing period. As these adjustments were made following the pricing decision, customer views on this carry-forward adjustment from Substantial Customers have not been sought. Views from Substantial Customers would be sought ahead of any recovery of this carry forward adjustment, which would be via PSE5 charges for priced activities.

3.2.6. Depreciation

Auckland Airport has used a standard straight-line depreciation approach for determining the depreciation forecasts to be recovered through aeronautical charges for priced activities. This is consistent with past practice. Shorter asset lives have been adopted for the capital expenditure forecast to upgrade the existing DTB, reflecting its expected lifespan. Under the disclosure requirements, these depreciation rates continue to meet the definition of standard depreciation, as depreciation is be calculated based on the forecast useful life of the assets.

This section of the paper meets the disclosure requirements under clause 2.5(1)©(iv) and clause 2.5(1)(p-q) of the Determination.

3.2.6.1. Description of and rationale for forecast depreciation

Auckland Airport's approach to forecast depreciation in this price setting event is outlined below.

Aeronautical Pricing Assets

Auckland Airport's approach to forecast depreciation was:

- all assets in existence as at 30 June 2006 have been depreciated according to the economic life ascribed in the Opus specialised asset valuation reports used to determine the value of specialised assets in the initial RAB and the pricing asset base;
- all assets added to the RAB from 30 June 2006 to 30 June 2022 have been depreciated according to the economic life as determined at or near the date of commissioning. The economic life used was extended slightly because, for regulatory disclosure purposes, depreciation can only commence in the financial year immediately following the commissioning date; and
- all asset additions after 30 June 2022 are depreciated by asset class according to the average economic life of that asset class determined with reference to the historical cost weighted depreciation of assets in existence prior to 30 June 2022. As per asset additions from 30 June 2006 to 30 June 2022, depreciation commences in the financial year immediately following the commissioning date.

Other Regulated Assets

With the exception of assets allocated directly to aircraft and freight activities, the same approach was used to forecast depreciation for assets employed in Other Regulated Activities as that used for forecasting depreciation for Aeronautical Pricing Activities.

Assets allocated directly to aircraft and freight activities were depreciated using modified straight line depreciation. A modified approach was used to be consistent with the CPI-based revaluations that we have forecast for these assets, reflecting that rentals are reset periodically for these assets based on market-based revaluations. The modified straight line method uses the same economic life as the straight line method, but the standard depreciation expense, based on the original asset cost, has been escalated in-line with the CPI-based revaluations.

3.2.6.2. Depreciation forecasts

In the following table we provide the depreciation forecast for Aeronautical Pricing Activities, and Other Regulated Activities. This is the depreciation forecast that has been used to determine the forecast revenue requirement for PSE4.

Table 11: Depreciation forecast for PSE4

$m	FY23	FY24	FY25	FY26	FY27	PSE4
Aeronautical Pricing Activities	58.3	73.1	92.8	137.2	157.4	518.9
Other Regulated Activities	13.3	15.1	20.5	33.0	37.2	119.1
Total Regulated Activities	**71.6**	**88.1**	**113.4**	**170.2**	**194.6**	**638.0**

Differences to financial year 2022 information disclosure

The depreciation forecast has been prepared on the same basis as the 2022 regulatory disclosures. As noted above, updated allocation rules used for PSE4 created a difference between the closing asset base in 2022 as per information disclosure, and the 2023 opening asset base. The updated opening asset base was used for the depreciation forecast adopted for PSE4.

3.2.6.3. Application of standard depreciation

Auckland Airport has used standard depreciation to determine the forecast revenue requirement disclosed in Schedules 18 and 19, and in the pricing model for Standard Charges. Standard depreciation is appropriate because:

- it is simple, easy to use, and has been used for the majority of Auckland Airport's assets in the past for aeronautical pricing purposes, information disclosure and statutory financial reporting;
- it is the best estimate of an asset's life at the time of commissioning; and
- we have not identified circumstances where non-standard depreciation would be appropriate to either reflect our airport-specific characteristics, reflect the expected value or utilisation of the RAB or parts of the RAB, or deliver a better outcome for consumers.

Changes in forecast asset lives

Auckland Airport has not made any changes to forecast asset lives for PSE4, except for using shorter asset lives for some investment in the existing DTB (see below).

Shorter asset lives for DTB upgrade investments

Auckland Airport has adopted shorter asset lives for some of the DTB upgrade projects, i.e. fully depreciating these assets by June 2029 when the existing DTB is forecast to be decommissioned. Consistent with the Input Methodologies and GAAP, the depreciation period for these assets will match the period they are expected to be in use.

3.2.7. Revaluations

This section of the paper meets the disclosure requirements under clause 2.5(1)(c)(vi) and clause 2.5(1)(r-s) of the Determination.

3.2.7.1. Description of and rationale for forecast revaluations

Aeronautical Pricing Activities

Auckland Airport's approach to asset valuation for Aeronautical Pricing Activities has been to retain the moratorium on priced asset revaluations for the pricing period (ie no forecast revaluations apply to those assets). All Substantial Customers supported this approach.

Other Regulated Activities

Other regulated activities comprise terminal assets (those which are non-priced), and aircraft and freight assets. For terminal assets no revaluations have been forecast, as these are similar assets to those covered by Standard Charges, so the approach to revaluations of these assets has been kept consistent with that of priced assets under the moratorium.

For aircraft and freight activities, revenues are driven by contracted rental rates and renegotiated at the end of the term of the lease. Prices are struck through benchmarking to comparative market rentals.

For aircraft and freight activities, revaluations have been included in the asset forecast and are disclosed as part of the calculation of the forecast regulatory profit in Schedule 18(vi). Forecast revaluations for aircraft and freight assets reflect indexing at CPI inflation expectations, as set out in Schedule 18(xiv).

3.2.7.2. Revaluation forecasts

The following table summarises the forecast value of revaluations relevant to the forecast total revenue requirement. CPI forecasts reflect forecasts from the New Zealand Treasury.

Table 12: Revaluations forecast for PSE4

$m	FY23	FY24	FY25	FY26	FY27	PSE4
Aeronautical Pricing Activities	-	-	-	-	-	-
Forecast CPI	*6.2%*	*3.3%*	*2.6%*	*2.3%*	*2.1%*	
Other Regulated Activities	9.0	6.5	6.9	6.6	10.7	39.7
Total Regulated Activities	**9.0**	**6.5**	**6.9**	**6.6**	**10.7**	**39.7**

Differences to financial year 2022 information disclosure

The depreciation forecast has been prepared on the same basis as the 2022 information disclosure. As noted above, updated allocation rules used for PSE4 created a difference between the closing asset base in 2022 as per information disclosure, and the 2023 opening asset base. Revaluation forecasts have been applied to these updated asset values. The revaluation methodology for other regulated activities (i.e. indexed at CPI) remains consistent with past practice.

3.2.8. Assets held for future use

Schedule 18 provides the PSE4 forecasts for assets held for future use ("**AHFU**").

Auckland Airport decided to retain the Runway Land Charg" ("**"LC**") as part of the Schedule of Charges for PSE4 but set it to $0.00 in recognition of the delay to expected timing of the second runway from the late 2020's to at least the late 2030's or beyond. As such, there is no forecast revenue associated with the RLC for the purposes of disclosure in Schedule 18(x). However, we have forecast a small amount of AHFU revenue comprising lease rentals on land held for future use.

Holding costs for AHFU are forecast to continue to accumulate in relation to land that is held for the second runway. Auckland Airport will consult with airlines on the timing and need of the second runway following the PSE4 pricing decision.

This section of the paper meets the disclosure requirements under clause 2.5(1)(k) of the Determination.

3.2.8.1. Runway Land Charge

Auckland Airport has decided to retain the Runway Land Charge which was introduced in PSE3 as a mechanism to reduce the final commissioned cost of the second runway and reduce long term second runway price elasticity impacts. It would also provide additional cashflow for the construction of the second runway by recovering some of the land holding costs via cash receipts at the time they were incurred, rather than carrying them forward and compounding them into the final second runway commissioned asset value. The RLC was designed to be NPV neutral, and come into effect once certain triggers for the second runway project were met, but these were not invoked for PSE3 and so the RLC charge was never levied on airlines.

After carefully considering feedback from Substantial Customers which opposed the RLC being applied for PSE4, Auckland Airport decided to retain the RLC in the Schedule of Charges for PSE4 but set it at a price of $0.00.

Further background on the rationale and purpose of the RLC is set out in the PSE3 price setting disclosure.

3.2.8.2. Other AHFU revenue

Auckland Airport currently earns a small amount of revenue on land held for aeronautical development (approximately $0.1 million annually). This is more than offset by the operating costs in relation to this land (predominantly rates expenses) of approximately $2.2m to $2.7m per annum over PSE4. This amount is disclosed in the "Forecasts assets held for future use net revenue" line of Schedule 18(vi).

The table below shows the forecast net revenues from assets held for future use over PSE4.

Table 13: AHFU forecast for PSE4

$000	FY23	FY24	FY25	FY26	FY27	PSE4
Revenue	96	169	169	169	169	771
Expenses	3,103	3,276	3,557	3,633	3,761	17,330
Forecast net revenue from assets held for future use	**(3,007)**	**(3,107)**	**(3,388)**	**(3,465)**	**(3,592)**	**(16,559)**

All revenues and operating costs in the table above are expressed pre-tax. We note that the forecast revenue information presented in Schedule 18(vi) is expressed pre-tax, whereas Schedule 18(x) shows net revenue after deducting operating costs and tax.

3.3. Forecast non-asset based revenue

This section sets out the basis for the forecast revenue requirement for operational expenditure, airline incentives, and unlevered tax.

3.3.1. Operational expenditure

This section of the paper meets the disclosure requirements under clause 2.5 (1)(c)(iii) and 2.5(1)(n) of the Determination.

3.3.1.1. Description of and rationale for forecast operational expenditure

Auckland Airport has disclosed its total forecast operational expenditure for Specified Airport Activities in Schedule 18, and its forecast operational expenditure relevant to Aeronautical Pricing Activities and Non-Isolatable Activities in Schedule 19.

Auckland Airport seeks to control operating cost growth while providing the service levels expected by our customers and we carefully consider potential trade-offs between operating and capital solutions.

A key component of Auckland Airport's corporate strategy is to be innovative and efficient in how we operate. In doing so, we aspire to set our operating costs at a level that seeks to maintain sound and reliable service levels whilst also seeking to optimise our costs of operation to ensure we are efficient for our customers. Auckland Airport carefully considered potential trade-offs between operating and capital solutions as part of expenditure decisions, ensuring we deliver the right outcomes for stakeholders that operate at the airport.

Auckland Airport considers that our operational cost forecasts have been subject to a very high level of scrutiny internally, in particular during the budget setting processes for FY23 and FY24, and externally through the airline consultation process. The current environment has been volatile, with strong cost escalation being observed both for input costs, and wages and salaries. These forecasts will be very challenging for the business to operate within.

Process to prepare operating cost forecasts

Auckland Airport has had the following objectives when setting the operating cost forecast for PSE4:

- to set a fair and reasonable forecast based on known information about service level requirements, forecast changes and trends;
- to take a transparent approach, guided by the information disclosure regime;
- to benchmark the reasonableness of the operating cost forecast; and
- to be clear about the known risks in the forecast, and what is included and excluded.

To prepare operating cost forecasts, Auckland Airport has:

- forecast consolidated Company-wide operating costs for the PSE4;
- identified operating costs attributable to single regulated aeronautical activities and directly attributed them to that activity;
- identified common costs that are shared across more than one regulated activity and/or between regulated and non-regulated activities;
- used causal allocators where appropriate to allocate those common costs across regulated and/or non-regulated activities;
- allocated the remainder of common costs using proxy allocators; and
- excluded the costs associated with terminal space that is leased to commercial tenants, VIP lounges and The Collection Point as well as aircraft and freight buildings and facilities that are leased to aircraft and freight operators.

Auckland Airport used forecast FY23 operating costs as the baseline for the draft operating cost forecast for PSE4 with future years' operating costs based on projected changes in cost drivers from FY23 onwards, being forecast cost inflation, individual Business Unit ("**BU**") opex forecasts developed in consultation with key Auckland Airport personnel and passenger volume forecasts. During the

forecasting process, the Board approved Auckland Airport's operating expenditure budget for FY24 and the PSE4 forecast for FY24 was aligned to this budget.

Cost drivers

The table below sets out the key aeronautical cost drivers that have been used for final operating cost forecasts for PSE4.

Table 14: Forecast cost drivers for PSE4

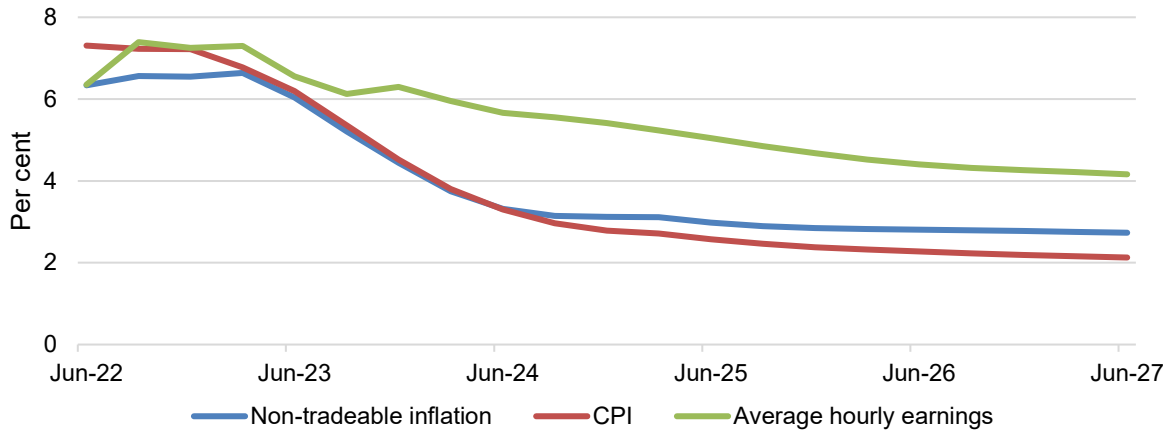
	FY23	FY24	FY25	FY26	FY27	Source
Cost inflation	6.0%	3.3%	3.0%	2.8%	2.7%	Non-tradeable inflation, The Treasury
Aero FTE[12]	480	556	587	586	585	Business forecast
Other FTE	124	135	138	136	135	Business forecast
PAX	15.9m	19.2m	20.3m	22.1m	23.6m	FY23 and FY24 based on Business forecast, FY25+ based on constrained forecast before adjusting for transits passengers

Cost inflation drivers were used to develop the opex forecasts, and non-tradeable inflation forecasts from the New Zealand Treasury were adopted as the cost driver. Using New Zealand Treasury forecasts provided an independent reference point for cost inflation. We adopted non-tradeable inflation forecasts as the cost inflation driver for the operational expenditure forecasts because these were considered to be the best indicator of Auckland Airport's operational cost drivers, which are largely domestic based services and labour costs. To adopt headline CPI would include costs that are less aligned to Auckland Airport's cost base, and to adopt average hourly earnings would exclude non-labour costs in the cost escalation driver.

New Zealand Treasury updated its forecasts in the 2023 Budget which revised down the forecast outlook for non-tradeable inflation (relative to its previous forecast). This change in forecast non-tradeable inflation was adopted in the pricing decision. We note that the non-tradeable inflation forecast now sits well below the hourly earnings (ie labour cost) forecast over the PSE4 pricing period.

With around one-third of operational expenditure on personnel costs, to the extent that the wages growth outturn matches The Treasury's forecast, the forecast wage growth adopted by Auckland Airport for PSE4 pricing will be too low. There are currently strong wage pressures in the New Zealand economy, wage inflation currently above 6 per cent, with Air New Zealand increasing its entry level wages by 27 per cent in order to attract staff. Auckland Airport too faces similar wage pressures. In that context, forecast non-tradable inflation was a very cost-efficient forecast cost driver.

Figure 8: New Zealand Treasury forecasts, 2023 Budget



[12] Headcount allocated on primary purpose of business unit. Individual functional allocations may differ

Headcount

Auckland Airport considered and analysed airlines' feedback which challenged the forecast growth of aeronautical FTEs and determined that the 72 increase in forecast headcount from FY23 to FY24 is justifiably driven by:

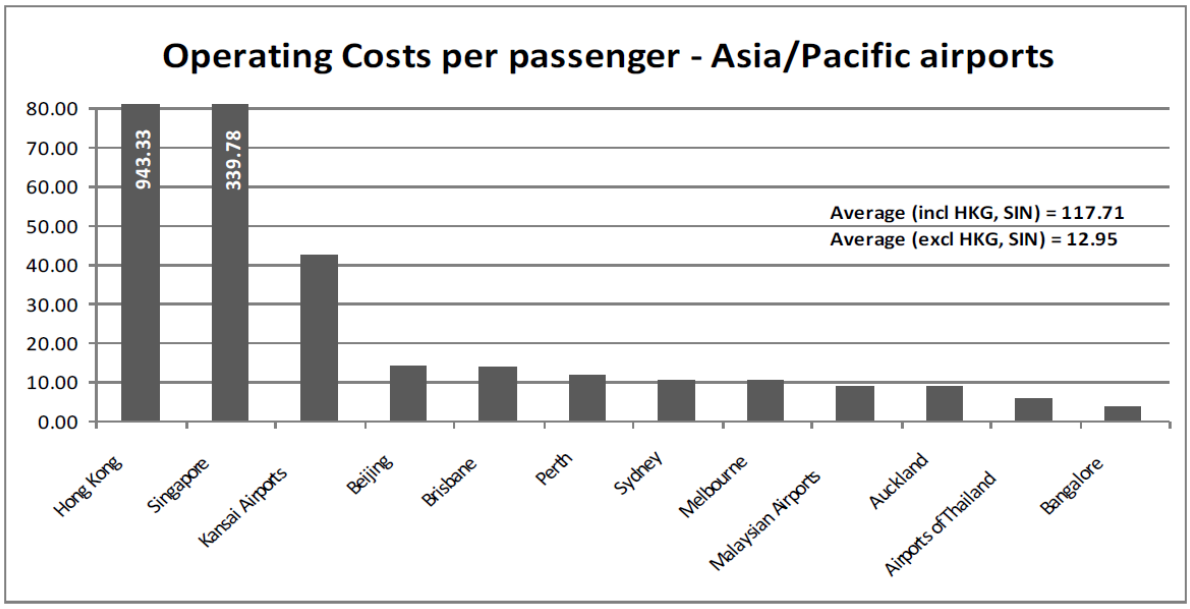
- Infrastructure delivery +35: This headcount increase is driven by the Terminal Integration Programme. Notably, the majority of the costs relating to this programme will be capitalised during construction and therefore are not included in the opex forecast; and
- Guest experience +17: This additional headcount is driven by additional front-line staff required as a result of increased passenger throughput plus extra resources to manage areas of disruption and construction as the terminal integration programme gets underway.

Auckland Airport considered that this recruitment plan is achievable and appropriate, given the accelerating recovery from the pandemic.

Operational expenditure forecasts are efficient

Benchmarking indicates that operational costs at Auckland Airport are very efficient. Jacobs 2022 Airport Performance Indicators report showed that Auckland ranked 43rd out of 50 airports on operating cost per passenger (where 50th has the lowest operating cost per passenger). All the other airports with a lower operating cost per passenger were either significantly larger (enjoying economies of scale) or were in lower-wage cost countries when compared to New Zealand (e.g. Mexico, India, Thailand). Auckland Airport continues to balance the trade-off of the benefits that increased operational expenditure can have for airport customers and passengers, against minimising aeronautical charges for airlines. Our operational expenditure forecasts seek to strike the right balance between these two competing tensions.

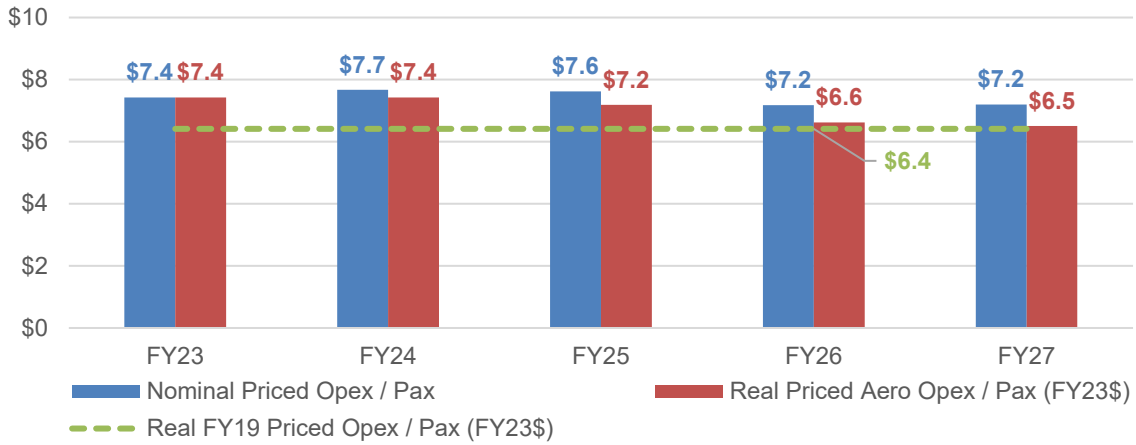
Figure 9: Jacobs Airport Performance indicators 2022, operating costs per passenger



*Source: Jacobs 2022 Airport Performance Indicators, operating costs per passenger represented as Special Drawing Right ("**SDR**") rates in a single unit of currency, not in dollars. 1 NZD = 2.1 SDR.*

This forecast indicates that operational expenditure per passenger will reduce in both nominal and real terms over the pricing period, with forecast real operational expenditure per passenger of $6.50 in FY27, returning to be in-line with pre-pandemic real operational expenditure per passenger of $6.41. The return of operational expenditure per passenger to pre-pandemic levels in real terms sets out how the operational expenditure forecast is efficient.

Figure 10: Priced operating cost per passenger for PSE4



Forecast operational expenditure per passenger reduces in both nominal and real terms over the pricing period, with forecast real operational expenditure per passenger of $6.50 in FY27, returning very close to with pre-pandemic real operational expenditure per passenger of $6.41.

The impact of the pandemic and the volatility created by the disruption cannot be understated. Significant short-term cost savings were implemented to protect financial viability in response to the significant drop in airport activity as borders were closed during the pandemic. As activity has ramped up again, labour shortages and cost inflation have combined to create a volatile cost environment. Uncontrollable expenses such as insurance and rates have increased substantially. The return to pre-pandemic operational expenditure over the forecast period, reflects an efficient outlook for operations as economies of scale return with passenger numbers.

3.3.1.2. Extent to which operating costs have been used to determine the forecast total revenue requirement

The following table summarises the forecast operating costs that were used to determine the forecast revenue requirements.

Table 15: Forecast operating costs PSE4

Opex Forecasts ($'000)	FY23	FY24	FY25	FY26	FY27	PSE4 Total
Aeronautical Pricing Activities and Non-Isolatable Activities	116,426	144,585	154,955	158,680	169,910	744,555
Other Regulated Activities	14,091	16,984	18,084	18,503	19,715	87,376
Total Regulated Activities forecast operating costs	**130,517**	**161,569**	**173,038**	**177,183**	**189,624**	**831,931**

The table below outlines a breakdown of the nominal priced operating cost forecasts by expense category and on a per PAX basis for PSE4.

Table 16: Priced operational cost forecasts by category

		PSE3	PSE4				
		FY22	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**
Personnel costs	- $m	32.0	39.6	46.9	51.3	54.4	57.2
	- per PAX ($)	5.71	2.53	2.54	2.53	2.46	2.42
Other staff costs	- $m	1.7	3.5	4.2	4.6	4.8	5.0
	- per PAX ($)	0.30	0.22	0.23	0.23	0.22	0.21
Outsourced operations	- $m	10.6	14.6	15.2	15.9	16.5	17.3
	- per PAX ($)	1.89	0.93	0.82	0.78	0.75	0.73
Repairs and maintenance	- $m	16.1	12.8	20.7	23.1	24.7	26.6
	- per PAX ($)	2.87	0.82	1.12	1.14	1.12	1.13
Utilities exp	- $m	5.2	6.0	10.0	11.1	11.9	13.2
	- per PAX ($)	0.94	0.39	0.54	0.55	0.54	0.56
Cleaning	- $m	3.4	8.6	9.3	9.9	10.5	11.2
	- per PAX ($)	0.60	0.55	0.50	0.49	0.48	0.47
Telecoms and Computer	- $m	7.5	11.6	13.0	13.4	13.7	14.1
	- per PAX ($)	1.34	0.74	0.70	0.66	0.62	0.60
District plan noise obligation	- $m	0.0	0.0	0.0	0.0	0.0	0.0
	- per PAX ($)	0.00	0.00	0.00	0.00	0.00	0.00
Rates	- $m	2.1	3.1	3.3	3.6	3.7	3.8
	- per PAX ($)	0.38	0.20	0.18	0.18	0.17	0.16
Insurance	- $m	3.4	4.0	5.1	5.2	5.4	5.5
	- per PAX ($)	0.60	0.25	0.27	0.26	0.24	0.23
Marketing, Promotions and PR	- $m	0.5	3.6	3.8	3.2	3.0	3.1
	- per PAX ($)	0.10	0.23	0.21	0.16	0.13	0.13
Consultancy, audit and legal	- $m	2.5	5.2	4.9	4.8	5.0	5.9
	- per PAX ($)	0.45	0.33	0.26	0.24	0.23	0.25
Shareholder expenses	- $m	0.6	0.6	0.6	0.6	0.7	0.7
	- per PAX ($)	0.11	0.04	0.03	0.03	0.03	0.03
Other exps	- $m	8.5	3.2	7.6	8.3	4.4	6.3
	- per PAX ($)	1.51	0.33	0.45	0.56	0.36	0.46
Total	**- $m**	**94.0**	**116.4**	**144.6**	**155.0**	**158.7**	**169.9**
	- per PAX ($)	**16.79**	**7.56**	**7.85**	**7.81**	**7.35**	**7.38**

3.3.1.3. Difference compared to the most recent corresponding historical financial information

Consistent with previous price setting events, Auckland Airport has based its cost allocation methodology on the prescribed approach for information disclosures and adjusted downwards cost allocations to priced activities (airfield and priced passenger services) to exclude non-priced activities.

Excluded non-priced assets and operating costs relate to the regulated Aircraft & Freight segment, VIP lounges, airlines offices, The Collection Point and other areas of the terminals subject to exclusive leases. We note that this methodology has been transparently disclosed and broadly accepted since 2006.

Auckland Airport has refined our indirect allocation approach for PSE4 to ensure that operating costs associated with non-priced aeronautical activities are accurately excluded from aeronautical pricing. We first applied the same indirect allocation rule differentials as estimated for PSE3 for the Passenger Terminal segment between Regulated vs Priced activities, then completed further work to refine this approach for PSE4. The final PSE4 indirect cost allocation rules are outlined in the table below.

Table 17: PSE4 operating expenditure allocation percentages for key indirect allocation rules

Indirect Rules	Airfield	Passenger Terminal	Aircraft & Freight	Total Regulated	*Of which is priced*	Non-regulated
Company-wide	28%	40%	3%	**71%**	***69%***	29%
Aeronautical revenues rule	38%	54%	3%	**95%**	***91%***	5%
Airfield and terminal revenues rule	39%	55%	0%	**94%**	***94%***	6%
Electricity utilities	1%	19%	0%	**20%**	***20%***	80%
Water utilities	2%	37%	0%	**39%**	***38%***	61%
Gas utilities	23%	33%	2%	**58%**	***56%***	42%
Drainage & Stormwater	44%	12%	5%	**61%**	***56%***	39%
Roadways	27%	33%	3%	**64%**	***60%***	36%
Engineering Support Services	17%	63%	0%	**81%**	***81%***	19%

For the 2022 annual information disclosure, the most recent year, a split of the Terminal segment into priced and non-priced activities is not available, however the below table summarises the indirect cost allocation rules across the three regulated activities for comparison.

Table 18: 2022 information disclosure operating expenditure allocation percentages for key indirect allocation rules

Indirect Rules	Airfield	Passenger Terminal	Aircraft & Freight	Total Regulated	Non-regulated
Company-wide	40%	26%	8%	**74%**	26%
Aeronautical revenues rule	54%	35%	11%	**100%**	0%
Airfield and terminal revenues rule	61%	39%	0%	**100%**	0%
Electricity utilities	1%	16%	0%	**17%**	83%
Water utilities	10%	32%	1%	**43%**	57%
Gas utilities	29%	19%	6%	**54%**	46%
Drainage & Stormwater	45%	13%	5%	**62%**	38%
Roadways	2%	69%	1%	**72%**	28%
Engineering Support Services	20%	70%	0%	**90%**	10%

3.3.2. Incentives

This section of the paper supports the information provided at (xii) of Schedule 18 which meets the disclosure requirements under clause 2.5(1)(o) of the Determination.

Auckland Airport considers that airline incentives are a valid aeronautical operating cost to be recovered through aeronautical pricing. Incentives are provided by all major airports to airlines establishing new routes or expanding capacity. They were also provided to support airlines to recover from the pandemic.

They provide material economic benefit to the country and passengers through greater aviation services choice, more competition, and reduced prices. They also provide significant benefits to airlines receiving the incentives, and those that benefit from consequential traffic flows.

Over the long run, incentivising new routes increases passenger volumes which helps bring down aeronautical charges by dividing the costs amongst a greater pool of passengers and aircraft movements. For these reasons Auckland Airport considers that it remains appropriate that these programs are continued, and that the costs are recovered through aeronautical charges. The current allocation of 80% remains unchanged for PSE4, with the dollar values allocated to aeronautical activities presented in the table below.

Table 19: Incentives forecast for PSE4

Forecast financial incentives ($'000)	FY23	FY24	FY25	FY26	FY27	PSE4
Pricing incentives	8,318	7,523	9,741	10,833	10,410	46,825
Other incentives	1,117	1,187	386	–	–	2,690
Total	**9,434**	**8,709**	**10,127**	**10,833**	**10,410**	**49,514**

3.3.3. Unlevered tax

This section of the paper meets the disclosure requirements under clause 2.5 (1)(c)(v) of the Determination.

3.3.3.1. Description of and rationale for forecast unlevered tax

Aeronautical Pricing Activities

Auckland Airport used a tax rate of 28%. Consistent with the aeronautical disclosure regulations, which themselves are consistent with forecast aeronautical pricing period revenues being set to deliver a WACC-based Target Return, tax is forecast on an unleveraged basis. Auckland Airport calculated tax by multiplying the investor average tax rate by revenue less opex, tax depreciation and income from disposals.

Tax depreciation was calculated using two methods:

- for existing assets, tax depreciation is forecast per the tax fixed asset register, overlaid with aeronautical allocations; and
- for tax depreciation on forecast commissioned capex, average tax depreciation rates were applied by asset class (referencing historical cost weighted tax depreciation rates for the same classes of existing assets) overlaid with aeronautical allocations.

3.3.3.2. Extent to which tax has been used to determine the forecast total revenue requirement

The following table summarises the forecast unlevered tax that has informed the forecast revenue requirements.

Table 20: Forecast tax related to the total revenue requirement

$m	FY23	FY24	FY25	FY26	FY27	PSE4
Tax – Aeronautical Pricing Activities	$15.1m	$54.6m	$60.6m	$81.6m	$108.5m	$320.4m
Tax – Other Regulated Activities	$8.8m	$8.3m	$7.4m	$6.9m	$10.1m	$41.4m
Total Regulated Activities forecast tax	**$23.9m**	**$62.9m**	**$68.0m**	**$88.4m**	**$118.6m**	**$361.7m**

3.3.3.3. Difference compared to the most recent corresponding historical financial information

The impacts of the pandemic were significant in the most recent annual disclosure year, resulting in a much lower amount of tax payable due to significantly lower revenues. Hence forecast PSE4 tax is higher than shown in the historical financial information (FY22: $(1.9)m).

3.4. Cost of capital and returns

This section sets out the basis for the weighted average cost of capital, the cash-flow timing assumptions adopted, the non-priced regulated revenue that is forecast to be collected, and the forecast internal rate of return ("**IRR**").

3.4.1. Weighted average cost of capital

This section of the paper meets the disclosure requirements under clause 2.5 (1)(c)(ii) of the Determination. In addition, Auckland Airport is required to describe its approach to the forecast cost of capital and its target return at Schedule 18(v) and Schedule 19(v) of the Determination. This section should be read as part of Schedules 18 and 19 as is addressed those requirements.

3.4.1.1. Forecast cost of capital overview

In its decisions on the 2016 IM Review, the Commission clearly established that the cost of capital used by an airport in pricing could be different to the Commission's industry-wide mid-point estimate. And the Commission's reviews of airports' price setting decisions under the current regulatory regime, plus direct Commission statements, have clearly demonstrated that if an airport applies a different Target Return to the Commission's own industry wide mid-point WACC calculation (for first financial year of the pricing period), the airport must provide robust evidence supporting its approach. For example, the Commission made it very clear when reviewing and opining on Auckland Airport's PSE3 price setting decision that a departure in target return from its benchmark midpoint WACC calculation would be acceptable if, and only if, accompanied by compelling evidence to support such departure. That is the purpose of this disclosure.

Auckland Airport's updated 2016 WACC IM calculations as at the start of our PSE4 pricing period provided very compelling evidence that the 2016 WACC IM comparable company input data was badly out of date and would determine a materially inaccurate midpoint airport sector WACC estimate.

Auckland Airport adopted a target return for PSE4 priced activities of 8.73%. This was set equal to the midpoint (50th percentile) WACC estimate based on the 2016 WACC IM with updated comparable company data inputs as at the end of June 2022 (ie the start of PSE4), excluding the prior 5 BPs downwards adjustment to asset beta and applying the Commission's most recently published Tax Adjusted Market Risk Premium ("**TAMRP**") estimate. Our approach to setting PSE4 Target Return was independently reviewed by Dr Tom Hird from Competition Economics Group ("**CEG**"), whose work also included evaluating the airline feedback received throughout the consultation process (refer below).

Auckland Airport is confident that our approach for the PSE4 aeronautical pricing decision of replicating the Commission's in force 2016 WACC IM, except for discontinuing the 5 basis points downwards asset beta adjustment, but using updated market data and the Commission's most recent TAMRP estimate (and supported by expert independent analysis) is highly principled and robust.

During PSE4, revenue from Other Aeronautical Activities is forecast to be well below the target return that has been adopted for PSE4. This has diluted the forecast post-tax IRR for Total Regulated Activities to 7.79% versus the 8.73% Target Return used for priced activities.

The Commerce Commission's post-tax WACC calculation for FY23, the first year of our PSE4, is 6.98% (refer to its Cost of Capital determination for Auckland and Christchurch airports for disclosure year 2023). The difference between the 8.73% Target Return adopted for PSE4 and the Commission's midpoint post-tax WACC estimate for FY23 of 6.98% is due to Auckland Airport updating the comparable company input data and TAMRP as at the end of June 2022 and discontinuing the 5 BPs downwards asset beta adjustment. CEG's independent opinion was that this approach was highly principled and entirely appropriate as set out in the following sections.

The input parameters used to support this target return are set out in the table below.

Table 21: Comparison of post-tax WACC estimates

WACC element	Post-tax IRR (Aeronautical Pricing Activities)[13]	Post-tax IRR (Total Regulated Activities)	Commission's post-tax WACC (at 1 July 2022)
Risk free rate	3.60%	3.60%	3.60%
Investor Tax Rate	28%	28%	28%
Asset Beta	0.80	0.674 (implied)	0.60
Equity Beta	0.930	0.784 (implied)	0.74
TAMRP	7.50%	7.50%	7.0%
Cost of equity	**9.57%**	**8.08%**	**7.77%**
Debt margin	1.17%	1.17%	1.17%
Debt Issuance Costs	0.20%	0.20%	0.20%
Cost of debt (pre-tax)	**4.97%**	**4.97%**	**4.97%**
Corporate tax rate	28%	28%	28%
Ratios			
Debt to Value ratio	14%	14%	19%
Equity to Value ratio	86%	86%	81%
Post-tax WACC	**8.73%**	**7.79%**	**6.98%**

3.4.1.2. Forecast cost of capital for Aeronautical Pricing Activities

As set out in the table above, the difference between our PSE4 Target Returns for Aeronautical Pricing and Total Regulated activities versus the Commission's FY23 mid-point WACC estimate is due to us applying updated comparable company asset beta and leverage data as well as the Commission's most recent in-force TAMRP estimate as at the end of June 2022. All other input parameters were kept consistent with the Commission's post-tax WACC as at 1 July 2022, including all input parameters for the cost of debt.

Asset beta, leverage and equity beta

To commence PSE4 aeronautical pricing consultation with airlines over 12 months ago, Auckland Airport, with support from LJK consulting, estimated updated input parameters for asset beta (0.79) and leverage (14%). We also shared empirical analysis that demonstrated the 5 basis point downward adjustment to the airport asset beta was unwarranted and we have therefore discontinued that adjustment. Also, to ensure that this approach was robust and further inform the Draft Pricing Proposal, we commissioned the first independent expert report from CEG. CEG was asked to opine on:

- the consistency of Auckland Airport's approach for updating comparable company asset beta and leverage with the approach set out in Commission's 2016 WACC IM;
- the accuracy of our updated asset beta estimate; and
- Auckland Airport's approach of not adjusting the average comparable company asset beta estimate downwards by five basis-points.

Dr Tom Hird from CEG found our approach to updating asset beta and leverage consistent with available market evidence. Dr Hird's report reached the following key conclusions which informed the approach adopted to calculate target return:[14]

- *the asset beta for PSE4 for AIAL should be estimated using data up to June 2022 (the beginning of PSE4) and should follow the New Zealand Commerce Commission's (NZCC's) 2016 Input Methodologies (IM) approach and reasoning with the exception that there should be no presumption that aeronautical asset betas are lower than non-aeronautical asset betas.*

[13] Implied asset beta of actual return targeted accounting for land transfers forecast to enter the priced asset base

[14] CEG Economics, AIAL asset beta and WACC estimates for PSE4, February 2023

- *The sample of comparators should be the same as the sample used in the 2016 IM with the only exceptions being that:*
  - *airports that have been delisted/newly listed are removed/added to the sample; and*
  - *Airport Facilities and GMR Industries are removed on the basis that the majority of their operations and revenue streams are unaffected by passenger volumes.*
- *I consider that it would be a serious error for the NZCC to move away from its 2016 IM method and attempt to shrink the size of sample by excluding comparators that do not have "stable" asset betas and/or operate in countries with market risk premiums that are "substantially different to the market risk premium for New Zealand".*

  I estimate a sample average asset beta of 0.80 which is consistent with estimates from CEPA and LJK consulting (for the same sample). The sample average leverage is 14% (15% in the five years to June 2017 and 13% in the 5 years to June 2022).
- *In summary, I do not consider that there is a valid conceptual or empirical case for presuming that aeronautical asset betas are lower than non-aeronautical asset betas.*
- *Conceptually, aeronautical cash-flows are more exposed to temporary economic shocks than non-aeronautical cash-flows and have average risk exposure to permanent economic shocks. If anything, this suggest higher risk for aeronautical activity than non-aeronautical activities.*
- *Empirically, the available evidence suggest that if any adjustment were to be made it would be positive. That is, the evidence suggests that, if anything, aeronautical operations are higher risk than non-aeronautical operations at the average airport.*

A second report from CEG was commissioned to assess the Target Return feedback received from airlines in relation to the Draft Pricing Proposal and whether it warranted any changes to the proposed target return. In this report Dr Hird concluded:[15]

- *In my view, none of the submissions give reason for AIAL to alter its proposed approach to estimating the WACC for PSE4.*

A summary of the key issues considered by CEG, analysis undertaken, and advice received is outlined below.

Most recent 10-year asset beta observations

CEG noted Auckland Airport's approach of updating the comparable company asset beta observation period to include the most recent 10 years of data immediately preceding our five-year PSE4 period captures a period impacted by the COVID-19 pandemic.

In Dr Hird's opinion, continuing to replicate the Commission's traditional rolling 10-year data analysis period would provide an actuarially fair attribution to all macro-economic events across time. This is because all years will be equally represented in pricing decisions over the long-run. An approach of removing data impacted by COVID-19 (and potentially other future macroeconomic shocks) from the analysis period would, on the other hand, result in a material under-estimation of airport sector systematic risk over the long term.

Those economic shocks and associated periods of higher systematic risk are not hypothetical. They are indeed experienced by regulated airport companies through the course of time and must be captured in their target returns so as to deliver investors their required risk-adjusted return over the long term.

CEG cautioned against manipulating asset beta data sampling periods to under-weight periods impacted by economic shocks such as the COVID-19 pandemic, the Global Financial Crisis, Severe Acute Respiratory Syndrome, Avia Flu, etc, etc. Dr Hird noted that to the extent that the impacts of any such economic shocks are regarded as 'over-represented' in a sample period that's impacted by such economic shocks, it will be under-represented in periods where such shocks do not occur.

[15] CEG Review of feedback on AIAL WACC estimates for PSE4, this report has been provided to the Commerce Commission

The probability *ex ante* of such economic shocks impacting the upcoming pricing period is greater than zero. It is clear therefore that if regulated airports and/or the Commission were, at each aero pricing reset, to attempt to adjust the data set (or downwardly adjust the calculated average asset beta) to exclude or reduce the impacts of economic shocks that occurred during the sample period, they would also need to make similar but opposite adjustments to include those non-zero risks in the asset beta calculations for future periods where the data isn't impacted by such economic shocks. This would clearly be a minefield.

To get the right result over the long run, airports and the Commissions would need to be able to perfectly forecast the probability of such future economic shocks. Since perfect foresight isn't possible in this context, an approach that attempts to adjust measured asset beta results for economic shocks will deliver the wrong result over time. The better approach is to include the impacts of any such shocks in the periods that they impact the comparable company data; not attempting to adjust the asset beta results from these analysis periods downwards, nor attempting to adjust them upwards for periods not impacted by such shocks.

CEG also considered the Commission's suggestion for the airport sector of lengthening the asset beta observation window as part of its 2023 IM Review proposals for the WACC IM. Dr Hird noted that the most important factor is that over the long run, each year of comparable company data gets equal weighting. As explained above, that is the only way to achieve the actuarially correct asset beta result over the long term.

He also observed that it would be sensible for such asset beta re-calculations to occur immediately prior to each regulated airport's five-yearly aeronautical price reset so that the calculated asset beta reflects the most recently available period of data and to ensure that all data is weighted correctly. CEG pointed out if the Commission (and or regulated airports) were to shift from the rolling 10-year analysis period that was used to calculate asset beta and leverage for PSE2 and PSE3 to a 15-year window for PSE4 (and presumably for all future PSEs after that) this would mean that the five years of data to June 2012 would be overweighted. This is because this period was given a 50% weighting to determine asset beta in PSE2 and PSE3. But each five-year data period from the period ending June 2017 onwards would only get a 33% weighting in each pricing period from PSE4 onwards if we moved to a 15 rolling 15-year period.

More importantly perhaps, there is the potential for such a change to be perceived as an illustration of asymmetric regulatory risk. That is, where an ad hoc change is introduced in an attempt to dilute a period of realised high systematic risk, whereas a period of realised low systematic risk would be unlikely to elicit a similar response. On this basis, CEG recommended that Auckland Airport continue to adopt the Commission's traditional rolling 10-year analysis period to calculate asset beta for our WACC and target return calculations, updated to the period ended 30 June 2022.

Dr Hird also advised that departing from 2016 IM parameter values to update the data for the purpose of setting the WACC to govern PSE4,is the only approach that gives a reasonable and consistent approach to historical data for the purpose of estimating WACC parameters and, in particular, asset beta.

Auckland Airport considered it appropriate to maintain the approach to update the input data based on the information available prior to the commencement of this and future pricing periods.

Asset beta estimate and leverage accuracy

CEG was asked to undertake its own asset beta estimate by:

- applying its understanding of the Commission's criteria around comparable companies meeting the eligibility of being included within the company sample and excluding companies no longer meeting the criteria;
- using comparable company data over two consecutive five-year periods ended 30 June 2022 per the current WACC IM so as to calculate two five-year average estimates of both weekly and four-weekly asset beta, which are then averaged to give an overall average asset beta result for the upcoming pricing period; and
- comparing the approach with previous work undertaken by Auckland Airport and also work undertaken recently by the Commission's consultant CEPA.

CEG's overall average asset beta result (0.80) was almost identical to CEPA's estimate for the purposes of the 2023 IM Review (0.79) and the previous work undertaken by LJK Consulting for Auckland Airport (0.79). Accordingly, Auckland Airport's decision to update the asset beta for PSE4, and the magnitude of the increase from the Commission's 2016 WACC IM determination is strongly evidenced.

CEG's estimate further refined the comparable company sample set and was up to date for the ten years ended 30 June 2022 (the start of our PSE4). Auckland Airport has therefore applied CEG's 0.80 asset beta estimate to calculate WACC and Target Return for PSE4.

Pandemic impacts

Dr Hird commented on the potential to de-weight the impact of COVID-19 having regard to UKCAA precedent, and explained his view that applying the 2016 IM (with updated data) is the only method that can result in accurate compensation for systematic risk over time.

He considered that a full account of the UK precedent in relation to COVID-19 if applied to Auckland Airport would result in a permanent increase in compensation for all future PSEs equivalent to an asset beta uplift of more than four times the increase in asset beta attributable to COVID-19 in the 2016 IM method adopted by Auckland Airport to establish the PSE4 Target Return. Moreover, he noted that Auckland Airport's method only results in a temporary lift from COVID-19.

Based on this analysis and advice, Auckland Airport has maintained its approach to make no adjustments to the asset beta measurement for pandemic impacts.

The 5 basis point downward adjustment to the comparable company asset beta estimate in the 2016 IM

Finally, CEG was asked to opine on whether Auckland Airport was justified by the evidence in discontinuing the 2016 IM 5 basis points downward adjustment to the calculated overall average comparable company asset beta result.

Dr Hird both considered this issue conceptually and reviewed available data from global airports that report revenue and/or profit separately for their aeronautical and non-aeronautical business segments.

At a conceptual level CEG considered a range of scenarios of permanent and transient shocks to demand and considered the expected impact for both aeronautical vs non-aeronautical segments. On this analysis Dr Hird concluded that transient shocks would likely affect the aeronautical segment more than non-aeronautical segments. Permanent economic shocks to demand can be expected to also impact the aeronautical segment, but this is partly offset by the ability of airports to reset prices periodically to adjust for changes in forecast demand.

CEG supplemented the conceptual analysis with an empirical investigation of the Commission's (adjusted) comparable company sample. Given the COVID-19 pandemic was a global shock to aeronautical passenger demand – a time series of business segment performance over this period provides a useful observation period to see how the different segments performed with a sudden shock to passenger demand.

Overall, CEG found that non-aeronautical revenues and profits over the COVID-19 period showed more resilience than aeronautical revenues and profits from airport companies. This performance through an unanticipated shock to passenger demand (and the following recovery period), that was correlated with an overall reduction in share prices of listed companies across entire share markets (and a following recovery), demonstrated that non-aeronautical airport business segments demonstrated lower systematic risk than aeronautical segments during this period of economic shock and recovery.

CEG also conducted a regression analysis using the Commission's (adjusted) comparable company sample of asset beta over the five years to 30 June 2022 versus the proportion of reported revenue from non-aeronautical business segments in 2019 and found a significant negative relationship between the proportion of non-aeronautical revenue and asset beta. For example, the higher the proportion of non-aeronautical revenues, the lower the measured asset beta value over that five-year period.

Given both CEG's conceptual conclusions and empirical analysis, Dr Hird found no clear support for Auckland Airport adopting the Commission's 5 basis points downward adjustment to the overall global comparable company average asset beta result for the regulated aeronautical component. In fact, the empirical evidence suggests that there should instead be an upwards adjustment for the aeronautical

component. However, Auckland Airport did not make any such upwards adjustment for our PSE4 WACC calculation and target return determination.

Given that the most robust evidence presented to date does not support the contention that aeronautical activities are lower systematic risk than non-aeronautical activities, the downwards adjustment previously adopted by the Commission has not been applied to determine Auckland Airport's target return for PSE4.

CEPA analysis

The findings of CEG were also consistent with the findings of CEPA, the expert advisor to the Commerce Commission in the 2023 IM Review. CEPA was directed by the Commission to update the previous 2016 IM Review estimate of asset beta and leverage for airports and energy businesses regulated under Part 4 using exactly the same approach to update the analysis that was used in 2016.

CEPA found an updated asset beta of 0.79 for the airports sample set, with leverage of 14%. Whilst the time period measured by CEPA was slightly different, as Auckland Airport measured data as at 1 July 2022 (the start of the PSE4 pricing period), the findings were very consistent. This provided an additional, independent point of verification that the asset beta estimate adopted in the PSE4 pricing decision was a reasonable estimate of asset beta.

Conclusion on asset beta

Based on this analysis and advice from Dr Hird, the consideration of airline feedback received, and the Commission's own independent expert analysis, Auckland Airport adopted an asset beta input parameter of 0.80 for Aeronautical Priced Activities, and leverage of 14%. This resulted in an equity beta adopted of 0.93. This was based on a highly principled and robust approach of updating the Commission's 2016 WACC IM analysis except for discontinuing the now discredited 5 basis points downwards asset beta adjustment.

Tax adjusted market risk premium

The other key element of the cost of equity is the overall market risk premium demanded by investors for committing capital. For its most recent decisions, the Commission has adopted a tax-adjusted market risk premium ("**TAMRP**") of 7.5%.[16]

This was determined by the Commission for Chorus under Part 6 of the Telecommunications Act and for Gas Pipeline Business owners under Part 4 of the Act. This had increased from the 7% it identified in 2016 when setting the WACC Methodology for Airports.

Given the TAMRP is an economy-wide measure of investor expectations, Auckland Airport applied the Commission's most recent estimate when setting our target return. This was considered to be the best approach given that it was the most recent estimate of a sector-agnostic measure, and considered appropriate by our independent expert advisor, CEG.

During consultation, no evidence or arguments were provided by airlines as to why the Commission's most recent TAMRP estimate prior to PSE4, which is a sector-agnostic parameter, should not be adopted. Auckland Airport considered that using the Commission's most recent TAMRP estimate available at the time was consistent with the updating of all input parameters to reflect the most recent information prior to the pricing period commencing. This approach was maintained for the final pricing decision.

Input parameters consistent with the Commission's cost of capital determination

Other input parameters into the target return calculation were based on the Commerce Commission's *Cost of capital determination for disclosure year 2023 for information disclosure regulation as at 1 July 2022*, published in August 2022.

These parameters published by the Commission represented the latest available information at the start of the PSE4 pricing period.

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[16] Commerce Commission, *Fibre Input Methodologies Determination 2020*, published 13 October 2020 and Commerce Commission, *Gas Distribution Services Input Methodologies Amendment Determination (No.1) 2022*, 25 March 2022, Commerce Commission, *Gas Transmission Input Methodologies Amendment Determination (No.1) 2022*, 25 March 2022

Table 22: Commerce Commission cost of capital determination, August 2022

WACC element	Commission's post-tax WACC input parameters adopted in target return
Risk free rate	3.60%
Investor Tax Rate	28%
Debt margin	1.17%
Debt Issuance Costs	0.20%
Cost of debt (pre-tax)	**4.97%**
Corporate tax rate	28%

The risk-free-rate

The current practice in New Zealand is to set the risk-free-rate ("**RFR**") for lenders to be commensurate with the length of the pricing period. Therefore, we have used New Zealand government bonds ("**NZGB**") with a yield to maturity coinciding with a five-year term. The prevailing RFR is based on the Commission's daily observation of qualifying New Zealand Government Bonds over the period of April, May and June 2022. This methodology results in a RFR of 3.60% as published in the Commission's Cost of Capital Determination on 2 August 2022.

Debt issuance cost allowance

The target return includes the Commission's 20-basis point allowance for debt issuance costs.

Debt premium

The debt premium is the addition to the RFR required for the benchmark facility to debt finance its capital requirement based on the assumed (A-) credit rating for the business. The debt premium is based on an arithmetic average of debt premium observations across five years of qualifying trading corporate bonds. The averaging of the debt premium assumes refinancing occurs every year for five years with the prevailing rates embodied in the averaged debt premium. The average debt premium of 1.17% was published in the Commission's 2 August 2022 Cost of Capital Determination.

Tax rate

The New Zealand corporate tax rate of 28% was adopted, consistent with the Commission's Cost of Capital Determination.

Overall calculation of Auckland Airport's WACC estimate

Dr Hird's advice provided a strong, evidenced based position to maintain the 0.80 asset beta and the post-tax target return of 8.73%. After considering airlines' feedback and Dr Hird's analysis, Auckland Airport decided to adopt a target return for the PSE4 pricing period of 8.73%. Auckland Airport is confident that our approach for the PSE4 aeronautical pricing decision of replicating the Commission's previous WACC IM, except for discontinuing the now discredited 5 basis points downwards asset beta adjustment, using updated comparable company data at the start of PSE4, using the Commission's most recently published TAMRP estimate and supported by expert analysis is highly principled and robust. The input parameters used to support this target return are set out in the table below.

Table 23: Final WACC input parameters for PSE4 target return

WACC element	Input element	Reference
Risk free rate	3.60%	Commerce Commission[17]
Investor Tax Rate	28%	
Asset Beta	0.80	CEG Report
Equity Beta	0.930	Calculation
TAMRP	7.50%	Commerce Commission[18]
Cost of equity	**9.57%**	Calculation
Debt margin	1.17%	Commerce Commission[15]
Debt Issuance Costs	0.20%	Commerce Commission[15]
Cost of debt (pre-tax)	**4.97%**	Calculation
Corporate tax rate	28%	
Ratios		
Debt to Value ratio	14%	CEG Report
Equity to Value ratio	86%	Calculation
Post-tax WACC	**8.73%**	Calculation

3.4.1.3. Forecast cost of capital for Total Regulated Activities

The forecast post-tax IRR for Total Regulated Activities (7.79%) is lower than the forecast cost of capital for the PSE4 pricing period. This is driven by sub-WACC returns for Other Regulated Activities. The revenues for these activities are based on arms-length negotiations that are subject to standard commercial dispute resolution processes, rather than calculated using a building blocks model targeting a particular return that aligns with Auckland Airport's five-yearly aeronautical pricing cycle. The forecast sub-Target Return for this segment over PSE4 mainly reflects the significant additional RAB indirectly allocated to Other Regulated Activities (for example using space-based allocation rules) that's associated with Auckland Airport's wider PSE4 capex programme for priced activities. In many cases this indirect allocation of additional RAB does not change the physical nature of the actual spaces leased by aeronautical tenants and therefore there are no direct sources of revenue to generate an economic return on that incremental shared RAB value.

3.4.2. Cash-flow timing assumption

This section of the paper meets the disclosure requirements under clause 2.5 (1)(f) of the Determination.

Auckland Airport confirms it has adopted the default cash-flow timing assumptions under the Information Disclosure Determination of all expenditure occurring 182 days before the end of the disclosure year, and all revenue 148 days before the end of the disclosure year.

3.4.3. Non-priced revenue

Clause 2.5(1)(u) requires, for each service that is included in the revenue requirement not applicable to the price setting event as disclosed in accordance with Schedule 18, Auckland Airport to publicly disclose:

- a description of the service;
- the forecast total revenue requirement that is forecast to be earned from the service for each disclosure year of the price setting event;

[17] *Cost of Capital Determination for Disclosure Year 2023 for Information Disclosure Regulation* [2022] NZCC 28, 2 August 2022

[18] *Fibre Input Methodologies Determination*, 13 October 2020, *Gas Distribution Input Methodologies Determination* 25 March 2022 and *Gas Transmission Input Methodologies Determination* 25 March 2022

- the revenue earned from the service during the most recent disclosure year; and
- reference to any price setting event that the service has been applicable.

In this section the disclosure requirements are set out for the categories of service that form part of the forecast total revenue requirement but that did not form part of the price setting event consultation (i.e. Other Regulated Activities). These are:

- aircraft and freight services; and
- other passenger terminal services.

3.4.3.1. Aircraft and freight services

Under Section 2 of the AAA, aircraft and freight activities mean the activities undertaken (including the facilities and services provided) to enable, within a security area or areas of the relevant airport, the servicing and maintenance of aircraft and the handling of freight transported, or to be transported, by aircraft; and includes:

(a) the provision within a security area or areas of the relevant airport, of any one or more of the following:

  (i) hangars;

  (ii) facilities and services for the refuelling of aircraft, flight catering, and waste disposal;

  (iii) facilities and services for the storing of freight; and

  (iv) security, customs, and quarantine services for freight; and

(b) the holding of any facilities and assets, including land acquired or held to provide aircraft and freight activities in the future (whether or not used for any other purpose in the meantime).

Auckland Airport's aircraft and freight activities predominantly involve renting buildings to tenants who provide aircraft and freight services to airlines and cargo operators. The rental agreements for these tenancies are periodically negotiated between parties and are generally based on market comparables, and subject to normal commercial dispute resolution procedures. A key exception to this is the licence fee for the Joint User Hydrant Installation ("**JUHI**"), which relates to the provision of assets by Auckland Airport to enable fuel suppliers to deliver aviation fuel to aircraft. The price for this service is set on an annual basis following consultation. In practice agreement is reached with JUHI as the licensee.

The following table sets out the revenue that is forecast to be earned for aircraft and freight services for each disclosure year of the price setting event. The estimate of revenue earned from these services for FY23 is $32 million (FY22: $19 million). The $13.1m increase in forecast revenue in FY23 compared to the prior year is driven by JUHI (reflecting increased aircraft movements and associated fuel usage) and increased aeronautical ground rents and lease income (after removing previous rent abatements and reflecting any lease renewals).

Table 24: Aircraft and freight revenue

$m	FY22	FY23	FY24	FY25	FY26	FY27
Aircraft and freight forecast revenue	19.2	32.3	34.2	38.2	41.6	60.5

3.4.3.2. Other passenger terminal facilities

Under Section 2 of the AAA, specified passenger terminal activities mean the activities undertaken (including the facilities and services provided) in relation to aircraft passengers while those passengers are in a security area or areas of the relevant airport; and includes:

(a) the provision, within a security area or security areas of the relevant airport, of any one or more of the following:

  (i) passenger seating areas, thoroughfares, and airbridges;

  (ii) flight information and public address systems;

(iii) facilities and services for the operation of customs, immigration, and quarantine checks and control;

(iv) facilities for the collection of duty-free items; and

(v) facilities and services for the operation of security and Police services.

(b) any activities undertaken (including the facilities and services provided) in a passenger terminal to enable the check-in of aircraft passengers, including services for baggage handling; and

(c) the holding of any facilities and assets (including land) acquired or held to provide specified passenger terminal activities in the future (whether or not used for any other purpose in the meantime),

but does not include the provision of any space for retail activities.

Most specified passenger terminal activities fall into Aeronautical Pricing Activities that are covered by Standard Charges (typically passenger charges). However, some of these services relate to space in the terminals rented to aeronautical tenants, with revenues set through arms-length negotiations between the landlord and the tenants. The exceptions to this are services owned and operated by Auckland Airport, namely the Strata Lounge, VIP Meet & Assist Service and the Duty-Free Collection Point.

The following table sets out the revenue that is forecast to be earned for these services for each disclosure year of the price setting event. The estimate of revenue earned from these services for FY23 is $19.2 million (FY22: $12.3m). The $6.9 million increase in forecast revenue in FY23 compared to the prior year is driven by revenue relating to the Strata lounge (which was closed in FY22) and higher lease income from aeronautical tenancies in the international terminal (after removing previous rent abatements and reflecting any lease renewals).

Table 25: Other passenger terminal services total revenue

$m	FY22	FY23	FY24	FY25	FY26	FY27
Other passenger terminal services forecast revenue	12.3	19.2	22.5	23.9	27.6	27.7

3.4.4. Internal rate of return ("IRR")

This section sets out the forecast revenue requirements and IRR for priced activities, and total regulated activities for PSE4.

3.4.4.1. Priced IRR

The forecast revenue requirements for Aeronautical Priced Activities are set out below. These are consistent with schedule 19 of the Price Setting Disclosures.

Table 26: Forecast pricing asset base revenue requirements for PSE4

($000)	FY23	FY24	FY25	FY26	FY27
Opening RAB	1,315,588				
Opening carry forward adjustment	87,810				
Opening RIV	1,227,778				
Revenue[19]	232,854	423,494	494,684	612,828	742,931
Assets Commissioned	223,460	351,746	934,904	410,639	654,483
Revenue from Disposals	0	0	0	0	0
Operational Expenditure	116,426	144,585	154,955	158,680	169,910
Unlevered Tax	15,116	54,640	60,621	81,501	108,474
Closing RAB					3,331,059
Closing carry forward adjustment					43,744
Closing RIV					3,287,315
IRR	**8.73%**				
NPV	**$0.0**				

3.4.4.2. Total regulated IRR

The forecast revenue requirements for Total Regulated Activities are set out below. These combine the revenue requirements outlined above and are consistent with schedule 18 of the Price Setting Disclosures.

Table 27: Forecast Total Regulated Activities asset base revenue requirements for PSE4

($000)	FY23	FY24	FY25	FY26	FY27
Opening RAB	1,697,891				
Opening carry forward adjustment	87,810				
Opening RIV	1,610,080				
Revenue	284,355	480,191	556,827	682,039	831,200
Assets Commissioned	245,105	452,331	1,072,231	448,808	885,378
Revenue from Disposals	0	0	0	0	0
Operational Expenditure	130,517	161,569	173,038	177,183	189,624
Unlevered Tax	23,944	62,897	67,997	88,352	118,554
Closing RAB					4,151,598
Closing carry forward adjustment					43,744
Closing RIV					4,107,855
IRR	**7.79%**				
NPV	**$0.0**				

[19] Revenue for IRR model is net of airline incentives forecast

3.5. Other factors

The Determination requires Auckland Airport to describe any "other factors" that were a component of the Report on the Forecast Total Asset Base Revenue Requirements in Schedule 18 and the Report on the Forecast Pricing Asset Base Revenue Requirements set out in Schedule 19.

"Other factors" is defined in the Determination to mean the value of any factor used to determine the forecast total revenue requirement as required by clause 2.5(1) other than:

- forecast asset base;
- forecast operational expenditure;
- forecast depreciation;
- forecast unlevered tax;
- forecast revaluations; and
- forecast other operating revenue.

All factors considered in determining the total revenue requirement have been discussed above.

4. Pricing methodology

As required by clause 2.5(3) of the Determination, this section provides an overview of Auckland Airport's pricing methodology used to set Standard Charges, and other pricing-related information underpinning Auckland Airport's Standard Charges for FY23 to FY27 for Price Setting Event 4.

As required by clause 2.5(4) of the Determination, the schedule of Standard Charges is attached as Appendix B.

4.1. Summary of pricing methodology

As discussed in Section 3 above, the pricing methodology used to set Auckland Airport's Standard Charges for Aeronautical Pricing Activities was based on a building blocks approach. The required revenues were estimated using an Excel-based model that allocated assets, depreciation and operating expenditure between non-aeronautical and aeronautical activities and, within aeronautical activities, between priced domestic and international passenger terminal and airfield activities versus non-priced activities including the aircraft and freight segment. Required revenues for priced activities were set to achieve a forecast target return of 8.73% after tax for PSE4, but overlaid by some pricing concessions made as a direct result of feedback from Substantial Customers during the aeronautical pricing consultation.

As in PSE3, Auckland Airport's overarching rationale in reaching its Aeronautical Pricing Decision for PSE4 was to earn a fair and reasonable return on an appropriate asset base, as well as recovery of depreciation and efficient operating costs.

As discussed in section 3.4.1, to determine our target return for PSE4, Auckland Airport updated the Commission's in-force 2016 cost of capital Input Methodology with the latest available comparable company data and discontinued the now discredited 5 basis points downward adjustment for aeronautical activities. We adopted a target return equal to the mid-point WACC estimate applying this methodology.

4.1.1. General approach to pricing methodology and efficiency

Auckland Airport recognises the importance of our role as New Zealand's major gateway to the world, and the key role we play in facilitating and supporting New Zealand tourism and trade. We are New Zealand's busiest international and domestic airport and act a key regional hub, serving a city that represents around a third of the New Zealand population. We take our responsibility as one of New Zealand's most important infrastructure assets seriously, and we are conscious that the capacity, resilience and quality of the facilities we provide directly impacts our airline and cargo customers, passengers, and the wider regional and national economies.

Our PSE4 pricing approach reflect this responsibility, as we seek to deliver the capacity and infrastructure needed to respond to forecast growth and to build the airport of the future for Auckland and New Zealand. This is particularly important as the aviation industry recovers from the global pandemic.

Our vision for aeronautical pricing is that charges will be at a level that:

- Provides a fair economic return on the aeronautical investment programme that will provide long-term benefits for airlines, cargo customers and passengers;
- Facilitates a sound and reliable quality of service to users of the airport; and
- Incentivises innovation and efficiencies that customers benefit from over time; and
- balances economic principles which promote efficient pricing with practicable price structures.

Auckland Airport has maintained the fundamental price structure from PSE3, with only minor changes made to the structure of the schedule of charges. This reflects the pricing efficiency embedded in the current charging structure over PSE2 and PSE3. Further detail on how Auckland Airport's pricing structure has evolved over time are set out in the PSE3 price setting disclosure, where Auckland Airport determined that its pricing methodology and the resulting charges should:

- be consistent with achieving economic efficiency;
- encourage efficient use of Auckland Airport's assets, and ensure that Auckland Airport is encouraged to invest in the airport and run it efficiently;
- seek to reflect the costs driven by the consumption of Auckland Airport's services;
- reflect long-run costs by having reference to a five-year building block approach, and introducing an additional charge to start to provide efficient pricing signals and for efficient price smoothing ahead of the second runway development; and
- balance economic principles which promote efficient pricing with price structures that are transparent, easy to understand, stable over time, and simple for the airport and airlines to administer.

These principles have been carried forward into PSE4. The pricing structure remains largely unchanged from PSE3 with the exception of washup mechanisms to protect against an under-delivery of the commissioned capital expenditure forecasts used to set PSE4 prices casing material windfall economic gains for Auckland Airport and to protect against any material excess or shortfall in aeronautical demand versus the price setting forecasts from causing material windfall economic gains or losses for Auckland Airport.

Consistent with previous practice, Auckland Airport sought to set prices considering the following key principles:

- allow airlines to consume and pay for only what they consume by:
  - setting Standard Charges for a common set of needs for aircraft and passenger movements;
  - treating specific asset requirements separately, eg through leases and common-user licenses including VIP Check-In, VIP Lounges, office space, dedicated plant, etc; and
  - remaining open to entering into negotiations with individual airlines to reach agreement on variations from "charged services" (e.g. more for more or less for less, although acknowledging the challenges of this in a common user environment).
- reflect different cost drivers by:
  - separating services where there are distinctly different cost drivers or demand-side factors (price elasticity) (e.g. domestic vs international);
  - setting prices such that charges for a service are no more than its stand alone cost;
  - recognising that, to a significant degree, airfield services are related to the aircraft type rather than the passengers on board, and therefore that it is appropriate to continue to use maximum certificated take-off weight ("**MCTOW**") based charges for aircraft landings, and a combination of aircraft size and a time to reflect the utilisation of apron and/or stands associated with aircraft parking; and
  - using per passenger charges for passenger movements and associated terminal costs.
- reflect demand-side factors by:
  - allocating common costs using Ramsey Pricing principles that allocate higher proportions of costs to services with the lowest demand elasticity; [20]
  - considering the transition of price paths from current prices to the new prices for different services to minimise price "shocks" to a service;
  - considering long-run pricing issues and seeking to price in a way that minimises price shocks in future pricing periods where appropriate; and

[20] Ramsey pricing principles are used to vary the amount of common and fixed costs allocated to user types based on the likely impact of such a cost change on user behaviour. Users whose demand for service is more (less) sensitive to cost changes are allocated a proportionately smaller (larger) amount of common and fixed costs. Ramsey pricing principles are commonly used to assign fixed and common costs in large networks.

  - treating the cost of common goods, such as roads, forecourts, utilities and landside circulation areas as common costs, the aeronautical portion of which are included in passenger charges and allocated between passenger types, in a way that is likely to enhance price efficiency.

- consider congestion costs. Auckland Airport carefully considered whether peak pricing was appropriate including airline feedback during consultation and concluded that it was not appropriate for PSE4, but could be appropriate in future pricing periods if there are no cost effective options to expand supply.

Auckland Airport's pricing philosophy also involved:

- benchmarking charges to ensure they are competitive with charges offered by other airports;
- seeking to smooth prices to the extent practical; and
- being mindful of the economic conditions faced by our airline customers due to the global pandemic.

FY23 price freeze reduced FY23 revenues by over $100 million

After considering the feedback provided by Substantial Customers to the price freeze consultation that started in June 2021, in January 2022 Auckland Airport decided to hold prices flat for the 2023 financial year at 2022 financial year prices (but with the $2.00 / international pax plus Goods and Services Tax ("**GST**") Regulatory or Required investment ("**RRI**") charge discontinued) and to delay the PSE4 price reset by a year to support the airlines as the aviation industry recovered from the pandemic.

The decision to freeze prices in the first year of PSE4 resulted in Auckland Airport receiving more than $100 million lower aeronautical revenue in FY23 compared with the prices required to achieve our overall PSE4 Target Return for that year. This is effectively a 30% reduction on aeronautical charges for FY23. These deferred revenues are forecast to be recovered over the remaining four years of PSE4. The early-PSE4 aeronautical pricing relief was welcomed and supported by the majority of Substantial Customers as airlines recovered from the impacts of the pandemic.

4.1.2. Price Structure for PSE4

Auckland Airport has decided to retain the existing charging structure for PSE4 as used in PSE3 with small changes to transit and aircraft parking charges, plus the introduction of capex and aeronautical demand washup adjustment mechanisms.

Auckland Airport's overall pricing structure for its regulated aeronautical business includes landing charges based on the weight of aircraft landing, passenger charges based on the number of passengers that use the airport, aircraft parking charges based on the time aircraft are parked on the airfield, and check-in charges based on the use of the check-in facilities in the international terminal.

The small changes Auckland Airport has made the charging structure for PSE4 are outlined below. We:

- maintained the overall pricing structure approach, including landing charges, passenger charges, check-in charges, and aircraft parking charges;
- increased the price of the transit passenger charge to align it to the international passenger charge, but continued to apply it only to arriving transiting passengers – consistent with practice at other airports;
- from FY25 onwards, reduced the aircraft parking exemption for domestic freighters to 12 hours (down from 48 hours) to encourage efficient use of the airfield and manage congestion;
- maintained the current check-in pricing structure which incentivises airline and passenger usage of more efficient technology-based kiosk check-in solutions; and
- retained the runway land charge ("**RLC**") as part of the Schedule of Charges for PSE4, but set it to $0.00 in recognition of the delay to expected timing of the second runway from the late 2020's to the late 2030's or beyond.

At the start of the pricing consultation process, Auckland Airport sought feedback from customers on current aeronautical pricing structure. Substantial Customer feedback was that overall, customers supported the current framework of charges for priced aeronautical services. Auckland Airport agreed that the current pricing structure was appropriate and remained fit for purpose.

4.1.2.1. Risk allocation

Auckland Airport has introduced two washup mechanisms for PSE4: an asymmetric aeronautical demand risk washup, and a capex washup. Changes to the Regulatory and Requested Investment ("**RRI**") policy for capex have also been made to roll it into the capex washup, which avoids changes to prices in-period if any RRI capex investment is undertaken.

Overall Auckland Airport considers that these policies reflect an appropriate balance of risk, with demand risk only partially shared with airlines in the event of a significant asymmetric shock, and the capex wash-up ensuring that a shortfall in commissioned capital investment does not result in materially excess returns.

Asymmetric aeronautical demand risk-sharing wash-up

We have introduced an *ex post* asymmetric aeronautical demand risk sharing washup mechanism in PSE4 to partially compensate Auckland Airport or airlines for a 15% or greater reduction or increase in aeronautical demand (measured as aeronautical revenues) versus the price setting forecast. Any washup will only occur to the extent that it coincides with a 75 basis point (i.e. 0.75%) or more reduction (or increase) in actual PSE4 post-tax IRR versus the Target Return. If this mechanism was in place during PSE3, then 17% of the 32% aeronautical revenue losses experienced (due to COVID-19) vs the price setting forecast would now be forecast to be recovered during PSE4. Similarly, should, and to the extent that, PSE4 priced aeronautical revenues exceed forecast by 15% and IRR exceeds Target Return by 75 basis points, then that excess would reduce the future revenue requirement in PSE5.

We note European airports are discussing similar demand risk sharing mechanisms with their regulators, albeit we understand that those mechanisms will provide far greater revenue protection than Auckland Airport's PSE4 demand washup mechanism. For example, the Traffic Risk Sharing ("**TRS**") mechanism recently determined for Heathrow Airport by the UK CAA would recover 28% of the 32% reduction in priced aeronautical revenues experienced by Auckland Airport during PSE3, versus the 17% protection that Auckland Airport's PSE4 asymmetric demand risk washup mechanism would have provided. But over and above the TRS, Heathrow Airport will also: (i) carry forward an additional £300m ($625m) in RAB from 2021 onwards; (ii) enjoy an additional £25m ($52m) per annum of aeronautical revenue to compensate for residual pandemic risk (over and above that compensated by the TRS); and (iii) it has adopted a 0.87% lower forecast of passenger numbers than the UKCAA's "most likely" estimate. Despite Auckland Airport being subject to higher demand risk relative to Heathrow Airport, our newly introduced asymmetric demand risk wash-up mechanism for PSE4 does not mitigate demand risk for Auckland Airport anywhere near the extent of the protection now enjoyed by Heathrow.

Capex wash-up

We have also introduced a commissioned capex washup in PSE4 that is one-way and can only favour airlines. This has been adopted at Auckland Airport's initiative given the very large increase in forecast capital expenditure over PSE4 versus Auckland Airport's historic capex rates. This will pose deliverability challenges and, absent the implemented washup mechanism, could potentially result in PSE4 returns materially exceeding our Target Return for PSE4 should delivered commissioned capex fall materially behind the PSE4 price-setting forecast. Like the aeronautical demand washup mechanism, this washup would only apply to the extent that PSE4 IRR exceeds Target Return by more than 75 basis points.

Changes to Regulatory and Requested Investment Policy

Auckland Airport has also updated the Regulatory and Requested Investment ("**RRI**") Policy capex washup to link it to the new overall commissioned capex wash-up mechanism, rather than continuing the current intra-period RRI reset of charges. We decided that the RRI thresholds remain appropriate at $5 million capex and $1 million opex before any washup can be triggered. But the RRI capex washup can only occur to the extent that total commissioned capex exceeds the PSE4 price setting forecast, or if PSE4 IRR falls short of Target return by more than 75 basis points. This approach will ensure that Auckland Airport doesn't enjoy any windfall RRI washup into PSE5 if total PSE4 commissioned capex fall short of forecast. But a washup for unforecast RRI capex can be triggered if there is another major demand shock, like COVID-19, that results in IRR falling materially short of the Target Return.

4.2. Descriptions of methodology

The section meets the requirements of clause 2.5(3)(b) of the determination.

4.2.1. Description of charged services

A "charged service" under the Determination means a category or group of specified airport services in respect of which a standard charge applies. Auckland Airport's "charged services" in respect of the Aeronautical Pricing Decision are as follows:

Table 28: Charged services for Aeronautical Pricing Activities

Services	Charge	Basis of Charge
Airfield landing facilities and services	• Landing charge • Runway land charge ($0.00)	• Aircraft MCTOW landed
Airfield parking facilities and services	• Airfield parking charge	• Hourly rate by aircraft code (after six hours)
Passenger terminal facilities and services	• Domestic Passenger Charge ("**DPC**") • Regional Passenger Charge ("**RPC**") • International Passenger Charge ("**IPC**") • Transit Passenger Charge ("**TPC**")	• Per passenger
Check-in facilities and services	• Check in charge	• Varies according to check-in mode

We have retained the Runway Land Charge introduced in PSE3 associated with holding land for the future aeronautical development of a second runway at Auckland Airport, but this has been set to $0.00 for the PSE4 pricing period.

Airfield facilities and services

Airfield landing charges and parking charges are payable in respect of the facilities/assets and operational costs directly associated with:

- runway, taxiways and taxilanes;
- aprons including hardstands and aircraft manoeuvring areas;
- nose-in guidance and ground power units for international contact stands;
- airside safety services;
- airport fire services;
- asset management of airfield services, including planning, repairs and maintenance;
- a share of common costs associated with corporate-wide functions (e.g. Chief Executive and board, corporate, accounting and finance, legal, human resources, information technology, health and safety, security and shared aeronautical functions); and
- a share of infrastructure, including the utility networks and access roads.

Landing charges are charged on the basis of an aircraft's MCTOW. Parking charges are levied on hourly rates by size of aircraft.

Passenger terminal facilities and services

The DPC and the RPC cover the common use facilities (assets) and operational costs associated with:

- check-in hall (domestic only);
- a share of landside congregation, circulation areas, toilets and egress for passengers and visitors;
- a share of airside congregation, circulation, seating, and public areas, toilets and egress for passengers and visitors;
- baggage makeup hall, baggage claim areas, breezeway, conveyor areas outside baggage halls, baggage collection area;

- common use airbridges and bussing costs;
- terminal systems required for processing or administration of passengers including security, flight display system, public address system, building fire system, closed circuit television system and communication systems;
- public facilities and services for aviation security, including queueing areas;
- a share of building infrastructure and plant;
- operations staffing and management to facilitate effective daily operation of the terminal building and interaction with airlines;
- asset management services including planning and repairs and maintenance for Auckland Airport common use assets;
- a share of common costs associated with corporate-wide functions (e.g. Chief Executive and board, corporate, accounting and finance, legal, human resources, information technology, health and safety, security and shared aeronautical functions); and
- a share of infrastructure including the utility networks, access roads and forecourts.

International passenger charges (which include the IPC and TPC) cover the facilities/assets and operational costs associated with:

- a share of landside congregation and circulation areas, toilets and egress for passengers and visitors;
- a share of airside congregation, circulation areas, seating areas and lounges, toilets and egress for passengers and visitors;
- operational areas for New Zealand Customs and the Ministry of Primary Industries operational space;
- baggage makeup areas, baggage claim areas, breezeway, conveyor areas outside baggage halls, baggage collection area; baggage trolleys
- airbridges or bussing, including inter-terminal busses;
- terminal systems required for processing or administration of passengers including security, flight display system, public address system, building fire system, closed circuit television system and communication systems;
- a share of building infrastructure and plant;
- operations staffing and management to facilitate effective daily operation of the terminal building and interaction with airlines;
- asset management services including planning and repairs and maintenance;
- share of common costs associated with corporate wide functions (e.g. Chief Executive and board, corporate, accounting and finance, legal, human resources, information technology, health and safety, security and shared aeronautical functions); and
- a share of infrastructure including the utility networks, access roads and forecourts.

The Standard Charges adjustment policy sets out the mechanisms to enable adjustments for risk sharing washup adjustments, and regulatory or requested investment.

Check-in facilities and services

The check-in charge covers common use facilities and operational costs associated with the ITB check-in hall. The check-in charge does not cover dedicated single-user areas that are separately charged by way of lease or licence. For PSE4, the structure of the check-in charges varies according to the check-in mode adopted.

Traditional international check-in facilities are charged on a time per counter basis, based on allocated counter time (as opposed to actual usage). Facilities such as kiosks and bag drops are charged on a dollar per customer departing passenger rate. Different rates apply to dedicated kiosks versus shared facilities. Auckland Airport has an allocation policy for counters, kiosks, bag-drops and mobile exception desks.

The structure of check-in charges remains consistent with PSE3 charges, which encourage the uptake of more efficient check-in technology.

4.2.2. Description of relationship between quality of service and cost for each charged service

Charged services relate to services provided in a common-user environment.[21] Auckland Airport appreciates the importance of providing quality services to customers and we endeavour to maintain a good quality of service that meets the requirements of our airlines and passengers.

Auckland Airport's complex operating system involves many organisational stakeholders including airlines, border agencies, ground handlers, and Auckland Airport, which are all responsible for different elements of the service experience that matters to customers.

Auckland Airport monitors and manages service level outcomes at an operational level, measuring performance and working with all stakeholders on improving service level outcomes. Given the airport ecosystem was significantly disrupted during the pandemic, we believe that continuing to manage service levels through operational forums will deliver the best service level outcomes.

Auckland Airport is taking active steps to improve customer outcomes by dedicating resources focused on improvement in this area. In developing its operational expenditure forecast and operational budgets, Auckland Airport has strived to balance the competing needs of cost efficiency with improved outcomes for airlines and passengers.

Capital investment is also fundamentally important to service quality. Airport infrastructure must be fit for purpose to meet our customer's capacity and service level requirements.

4.2.2.1. Key support functions

Auckland Airport provides a number of key support functions to deliver the quality of service required by airline customers and passengers for charged services. These include:

- operations: a monitoring centre with support staffing provided 24 hours per day to enable the prompt resolution of minor service interruptions, CCTV monitoring, service breaches, alarm door activations, fire alarm monitoring and general customer service responses via trained staff in the contact centre;
- Emergency Operations Centre ("**EOC**"): a fully equipped EOC is activated and co-ordinated by Auckland Airport. The EOC operates under the Co-ordinated Incident Management System. Part of this service includes an emergency notification system via text to all airlines and relevant agencies;
- incident management: Auckland Airport Operations Centre co-ordinates all on-airport incidents (outside of EOC), for example unattended luggage, medical emergencies, suspicious articles/devices and vehicle traffic incidents on airport roads;
- maintenance: undertaking planned preventative maintenance programmes and responding reactively to unplanned breakdowns in facilities;
- infrastructure: Auckland Airport provides and maintains high quality airfield, terminals, leases hangars, cargo handling, roading, water, electricity, fibre, jet fuel and gas infrastructure;
- airside: a monitoring team for compliance and safety issues for all aircraft movement areas;
- fire and rescue service: emergency response service required by Civil Aviation Authority regulations, marine search and rescue services as required by Maritime New Zealand, and pre-hospitalisation emergency care as required by international health standards;
- health and safety: Auckland Airport leads and co-ordinates at least three health and safety forums across the airport. This includes regular joint stakeholder auditing and reporting of hazard identification and risk;
- medical and environmental: Auckland Airport provides first response to medical and environmental incidents;
- peak period management: during peak periods Auckland Airport proactively deploys staff to reduce wait times during peak period through improved queue management (although we do not consider

[21] Where a customer has additional service level demands to the common-user requirements, these are met through specific leasing arrangements with those customers. Examples include dedicated check-in areas, VIP check-in areas and VIP lounges. In these instances, the cost of the charged service is based on market-based rental comparisons.

this displaces the fundamental need of MPI and other Government agencies to provide adequate resource during peak periods); and
- sustainability: Auckland Airport operates a sustainable airport and facilitates other airport users to adopt sustainable practices.

4.2.2.2. Collaborative working group approach for managing service levels for charged services

Airports are a complicated system where a number of parties have an important role to play in influencing performance across a range of services and facilities, including airlines, government agencies, other third parties, and the airport itself.

Auckland Airport has a number of processes in place to foster a collaborative approach where all parties work together to improve the quality-of-service performance and outcomes across the overall airport system. These processes served Auckland Airport and airlines well during the challenges that have been presented during the pandemic.

An outcome of the pricing consultation from PSE3 was a commitment from Auckland Airport to using the Collaborative Operating Group ("**COG**") forums to establish a working group on service levels. The Senior COG (see below) has fulfilled this function.

The COG forum operates at multiple levels across the key organisations – these forums include:

- the CEO COG — held quarterly;
- Common User Safety Protocols ("**CUSP**") senior safety user group – held quarterly;
- the Senior COG — held monthly; and
- the Tactical COG — held daily.

The COG framework has had a positive effect on inter-agency cooperation and overall quality and performance at Auckland Airport. It has worked well throughout the pandemic and will continue to provide important service quality governance throughout PSE4.

4.2.3. Methodology used to allocate costs to particular charged services

Auckland Airport has set two key types of charges in the Aeronautical Pricing Decision – landing charges and passenger charges. Together these represent 95% of the forecast revenue consulted on for PSE4 as part of the Aeronautical Pricing Decision. Auckland Airport's process for allocating assets and costs to charged services was to develop separate building blocks information for airfield services and passenger terminal services.

Consistent with previous price setting events, Auckland Airport has based its cost allocation methodology on the approach also required for information disclosure regulation which requires the allocation of assets and costs to airfield, passenger terminal and aircraft and freight services. Auckland Airport has made adjustments to allocations for "priced activities" (aircraft and priced passenger services) to exclude non-priced activities. Excluded assets and operating activities relate to the regulated Aircraft & Freight segment, VIP lounges, airlines offices, The Collection Point and other areas of the terminals subject to exclusive leases.

Key principles of the allocation methodology involved direct allocation of costs in the first instance and allocation of common costs using causal or proxy allocators. Asset categories help ensure asset related costs are matched to the users of those assets in the charging structure. These categories include airfield, domestic terminal, international terminal, and common assets. Where assets have a shared use, these are allocated using allocation rules that are based on space, usage or revenue.

Analysis has been undertaken of the activities conducted by each business unit. For common costs which are shared across the entire business, the company-wide business rule is an important allocator and forms the basis of the allocation between regulated and non-regulated activities. Common costs attributed using the company-wide business rule are first shared between regulated and non-regulated activities based on international terminal space usage and then across airfield, terminal and aircraft and freight activities in proportion to relative revenues.

Only common costs are shared by the company-wide rule. Costs that are directly attributable to non-regulated activities, e.g. investment property, retail and car parking, including the specific management

overhead associated with those activities, are not allocated in any proportion to regulated aeronautical activities.

As discussed above, high level assessments and sense checks were made to ensure that the Standard Charges covered the direct costs associated with airfield and terminal services and common costs were allocated between domestic and international users applying Ramsey Pricing principles to minimise demand impacts. Required revenues for passenger terminal and airfield services were set to deliver NPV = 0, ie Standard Charges were set so as to recover the forecast PSE4 building blocks costs – namely opex, depreciation and target return - associated with these services and their related assets.

4.2.4. Description of significant changes to, or rebalancing of prices from, the previous pricing period

As set out above the charging structure has remained largely consistent with that in PSE3. Prices have increased, reflecting updated operating cost and RAB forecasts.

4.2.4.1. FY23 price freeze reduced FY23 revenues by over $100 million

After considering the feedback provided by Substantial Customers during the price freeze consultation that started in June 2021, in January 2022 Auckland Airport decided to hold prices flat for the 2023 financial year at 2022 financial year prices (but with the $2.00 / international pax plus Goods and Services Tax ("**GST**") Regulatory or Required investment ("**RRI**") charge discontinued) and to delay the PSE4 price reset by a year to support the airlines as the aviation industry recovered from the pandemic.

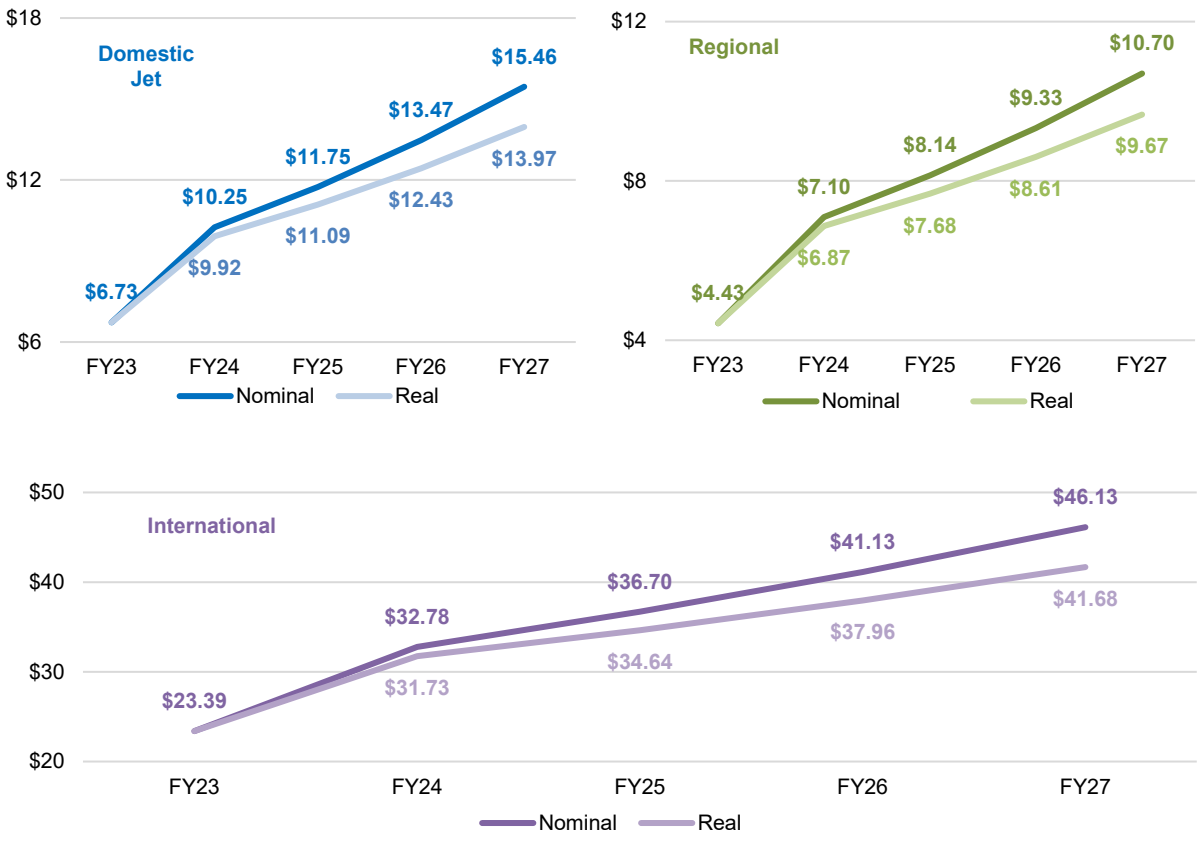
The decision to freeze prices in the first year of PSE4 has resulted in FY23 aeronautical revenue falling short of the revenue requirement to meet our Target Return in that financial year by more than $100 million. This represents a 30% reduction on aeronautical charges for FY23. As set out in the consultation materials on how the price freeze would work, these deferred revenues are forecast to be recovered over the remaining four years of PSE4. This requires a significant step up in aeronautical prices in FY24. The early-PSE4 aeronautical pricing relief was welcomed and supported by the majority of Substantial Customers as the industry recovered from the impacts of the pandemic.

4.2.4.2. Aeronautical prices for PSE4

The increases in aeronautical prices over PSE4 are necessitated by a range of factors including lower total passenger volumes than PSE3, forecast to remain below pre-pandemic levels until FY26, the catch-up from the circa $100 million under-recovery of aeronautical revenues in FY23, the significant capital investment that is planned to be delivered during PSE4, and the increase in Target Return compared with PSE3 reflecting updated comparable company WACC input parameter data as at the start of PSE4. The overall revenue per passenger ("**RPP**") of the pricing decision is outlined below.

The table demonstrates that in the 2024 financial year, Domestic Jet RPP will increase to $10.25 per passenger; then increase further to $15.46 by the end of the pricing period, or to $13.97 per passenger in 2023 dollars. Regional RPP in FY24 is $7.10 per passenger, increasing to $10.70 per passenger by FY27, or to $9.67 per passenger in 2023 dollars. International RPP will be $32.78 per passenger in FY24, increasing to $46.13 per passenger by FY27, or to $41.68 per passenger in 2023 dollars.

Figure 11: Nominal and inflation adjusted RPP price paths, PSE4



The above RPP price paths are based on the key passenger and landing charges set out in the table below.

Table 29: Prices for key charges, PSE4

		FY23 (and FY22)	FY24	FY25	FY26	FY27
MCTOW charges						
<6 tonnes	$/Landing	$60.24	$75.64	$86.98	$100.03	$115.04
6-40 tonnes	$/tonne per landing	$8.73	$12.74	$14.65	$16.85	$19.38
40 tonnes		$14.20	$20.72	$23.83	$27.41	$31.52
Passenger charges						
Domestic Passenger Charge (DPC)	$/pax	$3.10	$5.05	$5.80	$6.67	$7.67
Regional Passenger Charge (RPC)	$/pax	$2.64	$4.53	$5.21	$5.99	$6.88
International Passenger Charge (IPC)	$/pax	$15.49	$21.20	$23.56	$26.20	$29.15
Transit Passenger Charge (TPC)	$/pax	$6.24	$21.20	$23.56	$26.20	$29.15
Runway Land Charge	$/pax	$1.19	$0.00	$0.00	$0.00	$0.00

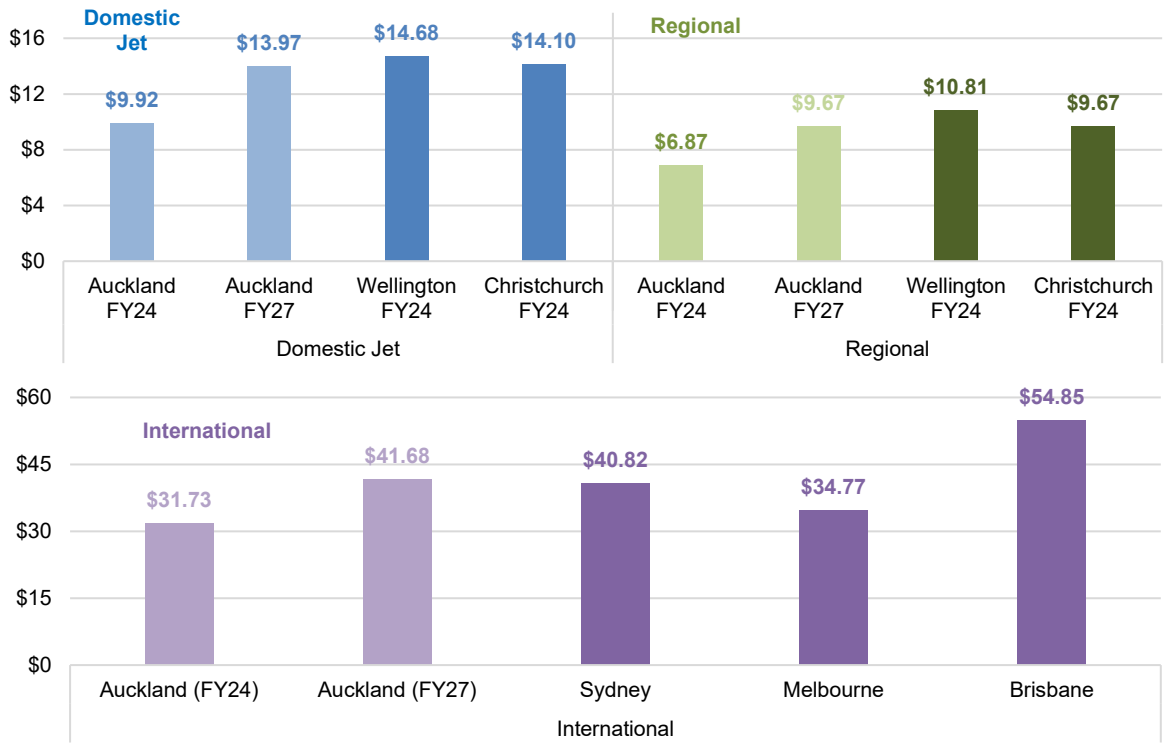
The FY23 prices shown above equal the closing prices for the PSE3 pricing period in FY22.

We have benchmarked our real (inflation adjusted) aeronautical charges per passenger in FY24 and FY27 with comparable airports in the region in FY24. FY24 is used as the basis for comparison, as future charges at these airports (except for Christchurch) are not publicly available. By adjusting for inflation, this allows for a like-for-like comparison over time.

For FY24, notwithstanding the step-up following the price freeze, domestic and regional charges will remain well below that of Christchurch and Wellington airports. In FY27 real domestic jet charges will be slightly lower than both airports' real FY24 charges, while regional charges are lower than Wellington, and consistent with those at Christchurch.

For international charges, Auckland Airport's FY24 prices are below the published prices of Sydney, Melbourne and Brisbane airports. By FY27, Auckland's charges are higher than the current FY24 charges at Melbourne, slightly higher but broadly in-line with the FY24 charges at Sydney, and below the charges at Brisbane. Charges at Auckland by FY27 could well be lower than Sydney and Melbourne airports where price increases are above inflation over the next four years.

Figure 12: Airport charges benchmarks, real NZD[22]



The overall structure of charges remains largely unchanged from PSE3, with landing charges, passenger service charges, check-in charges, and aircraft parking charges all levied separately. Excluding the aeronautical demand and capex washup mechanisms described above, the most significant changes to the pricing structure are outlined below.

4.2.4.3. Transit passenger charge

The price of the TPC has been increased to align it with the IPC for the remaining years of PSE4, however the TPC will continue to only be charged once (i.e. on arrival) per two-way transit passenger

[22] Charges for year-ended June 2024, except for Wellington where charges are for year ended March 2024, Melbourne where charges are effective from October 2022. Australian Airports charges are based on published rates, exclude security costs, and have been converted to NZD at the rate of 1.078 AUD / NZD. All airport charges rebased to FY23 dollars using CPI

journey. Aligning the headline TPC and IPC charges will increase the transit charges per movement to 50% of the IPC. This continues to represent a material discount for transit passengers that is consistent with other Australasian airports.

4.2.4.4. Domestic freighter parking exemption

From FY25 onwards, the aircraft parking exemption for domestic freighters will reduce to 12 hours (down from 48 hours) to encourage efficient use of the airfield and manage growing congestion issues given the scarcity of available space.

4.2.4.5. Runway Land Charge

The runway land charge has been retained as part of the Schedule of Charges for PSE4 but set to $0.00 in recognition of the delay to expected timing of the second runway from the late 2020's to the late 2030's or beyond.

4.2.4.6. Landing charges for aircraft < 6 tonne

Auckland Airport removed an anomaly in the ratios of the < 6 tonne landing fee, and the 6-40 tonne MCTOW charge, that was resulting in aircraft with a MCTOW between 6.0-6.9 tonne paying a lower landing fee than aircraft < 6 tonne which paid the fixed landing rate. The ratios of these charges have been amended so that aircraft < 6 tonne do not pay more per landing than aircraft > 6 tonne.

4.2.5. Description of methodology for determining pricing for charged services and how these were reconciled with the forecast revenue requirement

In determining pricing for charged services, Auckland Airport endeavoured to:

- ensure that prices covered direct costs and an appropriate share of common costs (set out above in section 4.2.3);
- ensure that prices were set on an NPV = 0 basis for airfield and priced terminal services (set out above in section 3.4.4); and
- minimise price shocks and provide a smoothed price path where possible.

Prices were then determined based on the revenue requirement, and volume forecasts, considering demand impacts.

4.2.5.1. Smoothing aeronautical prices during PSE4 pricing period

Impact of the price freeze on FY23 revenues

The FY23 price freeze has held prices flat at FY22 levels (but we also terminated the $2.00 (plus GST) per international passenger RRI charge that applied over the last 9 months of FY22). As set out in the following table, an additional $102 million of forecast FY23 revenue would have been required to achieve our PSE4 Target Return. So prices were discounted by 30 per cent for airlines during the 2023 financial year, which has supported the industry's recovery from the pandemic.

As explained in the price freeze consultation proposal, which was supported by airlines, the prices set are forecast to make up this shortfall over the remainder of PSE4.

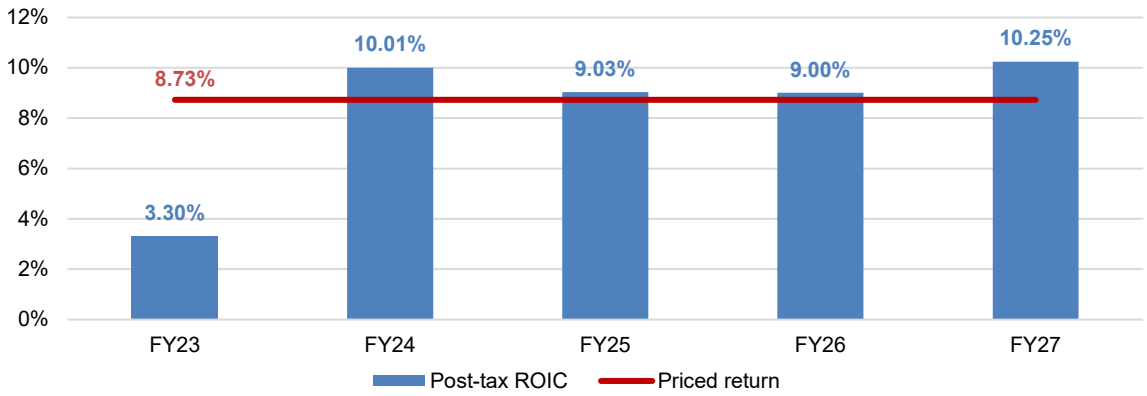
Table 30: Impact of price freeze on revenue in FY23

$000	FY23
Forecast revenue	241,171
Forecast NPBT	55,006
Forecast NPAT	41,172
Average RIV	1,299,934
Target return	*8.73%*
NPAT at Target Return	113,485
NPBT at Target Return	157,619
Difference in post-tax return	72,313
Difference in revenue	102,613
Equivalent reduction in FY23 prices	***30%***

Price smoothing over PSE4

Given the price freeze resulted in a significant under-recovery during FY23 relative to target return, this required higher aeronautical prices over the remainder of PSE4 (compared to if target return was achieved in FY23). In order to achieve the required revenue forecast, this required a significant step-up in FY24 to achieve the required revenue forecast over the pricing period. We considered airline feedback in calibrating the balance between the size of the step-up in FY24, against stronger annual growth in the price path for the remainder of the pricing period. We consider that the price path adopted strikes the right balance of mitigating the FY24 price shock against balancing stronger price escalation later in the pricing period. The forecast annual priced ROIC over PSE4 was considered in determining the growth profile, as shown in the figure below the profile remains relatively flat over the pricing period.

Figure 13: PSE4 forecast annual return on invested capital and target return



4.2.5.2. Determining aeronautical prices

The prices were determined based on the forecast revenue requirement on an NPV = 0 basis for Aeronautical Priced Activities, and the forecast volumes over the five year pricing period. Volume forecasts were developed consistent with the price paths. More explanation of volume forecasts is set out in section 5.

The tables below show the forecast prices, volumes and revenues for the Aeronautical Pricing Decision to each of the standard charged services.

Table 31: PSE4 pricing decision – Schedule of Charges

		FY23	FY24	FY25	FY26	FY27
MCTOW charges						
<6 tonnes	$/Landing	$60.24	$75.64	$86.98	$100.03	$115.04
6-40 tonnes	$/tonne per landing	$8.73	$12.74	$14.65	$16.85	$19.38
> 40 tonnes		$14.20	$20.72	$23.83	$27.41	$31.52
Parking charges						
ICAO A or B	$/hour in excess of 6 hours	$20.00	$21.00	$22.05	$23.15	$24.31
ICAO C (designated apron)	$/hour in excess of 6 hours	$60.00	$63.00	$66.15	$69.46	$72.93
ICAO C or D	$/hour in excess of 6 hours	$129.89	$136.00	$142.80	$149.94	$157.44
ICAO E or F	$/hour in excess of 6 hours	$259.78	$273.00	$286.65	$300.98	$316.03
Passenger charges						
Domestic Passenger Charge (DPC)	$/pax	$3.10	$5.05	$5.80	$6.67	$7.67
Regional Passenger Charge (RPC)	$/pax	$2.64	$4.53	$5.21	$5.99	$6.88
International Passenger Charge (IPC)	$/pax	$15.49	$21.20	$23.56	$26.20	$29.15
Transit Passenger Charge (TPC)	$/pax	$6.24	$21.20	$23.56	$26.20	$29.15
Runway Land Charge	$/pax	$1.19	$0.00	$0.00	$0.00	$0.00
International check-in						
Traditional counter	$/counter per hour	$33.28	$36.00	$37.80	$40.97	$43.34
Dedicated kiosk and bag drop	$/per customs departing pax	$1.33	$1.40	$1.47	$1.59	$1.69
Common use kiosk and bag drop	$/per customs departing pax	$1.07	$1.10	$1.16	$1.25	$1.32
Check-in charges for units above the standard allocation						
Counter or bag drop counter	$/counter per hour	$59.90	$62.50	$65.63	$71.13	$75.25
Kiosk	$/kiosk per hour	$13.31	$15.00	$15.75	$17.07	$18.06
Mobile exception desk	$/kiosk per hour	$9.98	$11.25	$11.81	$12.80	$13.54

Table 32: PSE4 pricing decision – volumes forecast

		FY23	FY24	FY25	FY26	FY27
MCTOW charges						
<6 tonnes	Landings	4,675	5,633	5,751	5,835	5,903
6-40 tonnes	Tonnes landed	485,838	499,720	562,975	590,425	614,716
40 tonnes		5,642,632	6,973,027	7,273,920	7,989,632	8,568,521
Parking charges						
ICAO A or B	Hours in excess of 6 hours	4,453	4,285	4,716	4,804	4,867
ICAO C (designated apron)	Hours in excess of 6 hours	47,733	47,247	53,523	56,090	58,372
ICAO C or D	Hours in excess of 6 hours	14,826	19,665	20,833	22,666	24,090
ICAO E or F	Hours in excess of 6 hours	27,798	35,242	34,128	37,801	40,710
Passenger charges						
Domestic Passenger Charge (DPC)	Pax	5,699,314	5,974,626	6,856,363	7,276,685	7,661,866
Regional Passenger Charge (RPC)	Pax	2,290,655	2,398,275	2,742,376	2,900,306	3,043,307
International Passenger Charge (IPC)	Pax	7,120,399	9,639,129	9,761,176	10,868,167	11,752,588
Transit Passenger Charge (TPC)	Pax	287,303	416,249	490,652	535,393	573,643
Runway Land Charge	Pax	N/A	N/A	N/A	N/A	N/A
International check-in						
Traditional counter	Hours	94,940	102,230	72,848	40,268	0
Dedicated kiosk and bag drop	Departing Pax	183,022	534,033	869,490	1,294,981	1,755,560
Common use kiosk and bag drop	Departing Pax	183,022	534,033	869,490	1,294,981	1,755,560
Check-in charges for units above the standard allocation						
Counter or bag drop counter	Hours	4,747	5,111	3,642	2,013	0
Kiosk	Hours	119	346	564	840	1,138
Mobile exception desk	Hours	119	346	564	840	1,138

Table 33: PSE4 pricing decision – revenue forecast

$000		FY23	FY24	FY25	FY26	FY27
MCTOW charges						
<6 tonnes	$/Landing	$282	$426	$500	$584	$679
6-40 tonnes	$/tonne per landing	$4,241	$6,366	$8,248	$9,948	$11,911
40 tonnes		$80,125	$144,500	$173,345	$218,962	$270,050
Parking charges						
ICAO A or B	$/hour in excess of 6 hours	$89	$90	$104	$111	$118
ICAO C (designated apron)	$/hour in excess of 6 hours	$2,864	$2,977	$3,541	$3,896	$4,257
ICAO C or D	$/hour in excess of 6 hours	$1,926	$2,674	$2,975	$3,399	$3,793
ICAO E or F	$/hour in excess of 6 hours	$7,221	$9,621	$9,783	$11,377	$12,866
Passenger charges						
Domestic Passenger Charge (DPC)	$/pax	$17,668	$30,144	$39,781	$48,553	$58,791
Regional Passenger Charge (RPC)	$/pax	$6,047	$10,856	$14,276	$17,363	$20,951
International Passenger Charge (IPC)	$/pax	$110,295	$204,320	$229,999	$284,765	$342,556
Transit Passenger Charge (TPC)	$/pax	$1,793	$8,823	$11,561	$14,028	$16,720
Runway Land Charge	Pax	$0	$0	$0	$0	$0
International check-in						
Traditional counter	$/counter per hour	$3,160	$3,680	$2,754	$1,650	$0
Dedicated kiosk and bag drop	$/per customs departing pax	$243	$748	$1,278	$2,063	$2,959
Common use kiosk and bag drop	$/per customs departing pax	$196	$587	$1,004	$1,621	$2,325
Check-in charges for units above the standard allocation						
Counter or bag drop counter	$/counter per hour	$284	$319	$239	$143	$0
Kiosk	$/kiosk per hour	$2	$5	$9	$14	$21
Mobile exception desk	$/kiosk per hour	$1	$4	$7	$11	$15
Other priced revenue		$4,734	$4,876	$5,022	$5,173	$5,328
Total priced revenue[23]		**$241,171**	**$431,017**	**$504,425**	**$623,661**	**$753,341**

[23] Total priced revenue presented here includes aeronautical charges which are incentivised

4.2.6. Description of terminal access charges and the methodology for determining any differentiation in terminal access charges

There is no specific charge for terminal access in Auckland Airport's Standard Charges. For PSE4, Auckland Airport has maintained a charging structure that has no explicit differential terminal access charge for airbridges, transfer bus or walking access.

4.3. Why prices are efficient / identify cross-subsidies

Auckland Airport recognises the importance of our role as New Zealand's major gateway to the world, and the key role we play in facilitating and supporting New Zealand tourism and trade. We are New Zealand's busiest international and domestic airport and act a key regional hub, serving a city that represents around a third of the New Zealand population. We take our responsibility as one of New Zealand's most important infrastructure assets seriously, and we are conscious that the capacity, resilience and quality of the facilities we provide directly impacts our airline and cargo customers, passengers, and the wider regional and national economies.

Our pricing objectives reflect this responsibility, as we seek to deliver the capacity and infrastructure needed to respond to recent and forecast growth and to build the airport of the future for Auckland and New Zealand. This is particularly important as the aviation industry recovers from the global pandemic that had significant impacts on the industry over the past three years.

Our vision for aeronautical pricing is that charges will be at a level that:

- Supports an aeronautical investment programme that provides long-term benefits for airlines, cargo customers and passengers;
- Provides a sound and reliable quality of service to users of the airport and they benefit from efficiencies over time;
- Incentivises innovation and continuing efficiencies; and
- Provides a fair return for investors on existing infrastructure and the ongoing investment in airport facilities and services.

When setting prices, Auckland Airport balances economic principles which promote efficient pricing with practicable price structures.

4.3.1. Why prices are efficient

Auckland Airport considers that its pricing methodology fully implements the pricing philosophy referred to in section 4.2 above, and therefore leads to efficient prices. Auckland Airport considers that its Standard Charges reflect an efficient price structure that has been developed over time.

PSE4 has dealt with a number of challenges given the disruption from the pandemic. The price freeze implemented for FY23 resulted in lower prices for that year than otherwise would have been set. This was during a period of significant uncertainty as the industry emerged from the pandemic, thus supporting airlines during the recovery period. Prices across the remainder of the pricing period recover in NPV terms the efficient costs forecast to be incurred during the PSE4 pricing period out to June 2027. The pandemic also demonstrated the asymmetric risk that airports face, for which downside risk exists where there is no commensurate upside, as passenger volumes reached their lowest levels since 1966 during the pandemic.

Two ex-post wash-up mechanisms have been introduced as part of the Aeronautical Pricing Decision for PSE4. The asymmetric risk wash-up mechanism seeks to address the asymmetric risk faced by airports, whilst the capex wash-up mechanism has been introduced given the significant increase in investment forecast during PSE4, it ensures that Auckland Airport does not benefit through excess returns in the event that capital expenditure commissioned is materially below forecast.

4.3.2. Cross-subsidies

There are no cross-subsidies in Auckland Airport's Aeronautical Pricing Decision. Standard Charges for airfield and terminal services are forecast to achieve NPV = 0 over the pricing period.[24]

The allocation methodologies adopted were intended to reflect the principles that all charges should, at a minimum, cover the directly attributable costs of the relevant service and all other costs should be recovered having regard to Ramsey pricing principles.

These principles have been applied to operational costs, with 88% of shared terminal operational costs and airline incentives allocated to international charges and 12% allocated to domestic charges. This shared cost allocation reflects our assessment of the greater operational costs of servicing international passengers, and is consistent with Ramsey pricing principles of seeking to minimise price elasticity of demand impacts by allocating higher cost recoveries to higher value / less elastic air fares.

[24] Subject to very small rounding errors.

4.4. Schedule of standard charges

We have provided an updated schedule of standard aeronautical charges and payments policy in-line with the PSE4 pricing decision, this is included at Appendix B which outlines the approved tariff structures for PSE4, including the approved prices out to FY27. It also sets out the policies that apply for aeronautical pricing including the new wash-up mechanisms.

5. Demand forecasts

Auckland Airport has completed the Report on Demand Forecasts set out in Schedule 20 of the Determination. All quantitative demand forecast outputs can be found in that Schedule. Schedule 20 requires Auckland Airport to provide a description of the basis for its forecasts, and/or assumptions made in forecasting. These are set out below for:

- facility planning forecasts for a ten year forecast period, specifically:
  - annual busy hour passenger forecasts; and
  - annual busy period aircraft movement forecasts.
- aeronautical pricing forecasts for a ten-year forecast period:
  - passenger forecasts; and
  - aircraft movements and MCTOW forecasts.

5.1. Process for developing demand forecasts

Forecasting demand is a challenging exercise at the best of times, because in practice information changes constantly and facility forecasts depend on baseline throughput forecasts. The challenges of this exercise were exaggerated due to the disruption caused by the global pandemic, which closed borders and caused passenger volumes to collapse. The uncertainty caused by the pandemic was a key reason as to why the price freeze was proposed and implemented in the first year of PSE4.

During the pandemic, Auckland Airport in consultation with airlines, produced a consensus forecast of the expected pandemic recovery. This forecast, undertaken at a high level, and subject to significant uncertainty, was used to inform early stages of the PSE4 pricing consultation with airlines.

DKMA forecasts – aviation forecasting specialist

Auckland Airport then commissioned DKMA as an independent aviation forecasting specialist to prepare unconstrained passenger and air traffic forecasts. The intention of having an independent expert develop the demand forecasts was to ensure that these forecasts were objective, fair and unbiased. Auckland Airport then consulted with Substantial Airline Customers on the forecasts produced by DKMA. The feedback received from airlines was considered, and provided to DKMA to consider, before arriving at the final forecasts developed by DKMA for PSE4 aeronautical pricing.

Adjustments to annual forecasts

For the final PSE4 price setting forecasts, Auckland Airport made the following adjustments to DKMA's unconstrained forecasts:

- Aligned FY23 with our latest forecast outturn for that financial year and aligned FY24 with the forecasts developed by Auckland Airport for its FY24 budget – so as to use the most recent information;
- Price elasticity of demand analysis was commissioned from InterVISTAS and the unconstrained forecasts were softened based on its elasticity estimates; and
- Removed non-billable passengers (e.g. passengers less than two years old, and airline positioning crew).

Forecasts of peak demand

Schedule 20 also sets out DKMA’s passenger busy hour, runway busy hour and busy day forecasts. These forecasts have informed the outlook for peak demand, which was provided to airlines during the pricing consultation process, and have informed the timing, sequence and scope of projects included in the capital plan.

5.2. Facility planning forecasts

The forecast flight schedules and peak hour projections have a dual purpose - 1) a regulatory purpose; and 2) they serve as inputs to the master plan / capital planning which inform the development of aeronautical infrastructure and facilities. Given the disruption caused by the pandemic, initial capital planning was based with reference to pre-pandemic peak period demand forecasts, which were then updated reflecting the anticipated rate of post-pandemic recovery. These forecasts were then updated with the more detailed DKMA post-pandemic forecasts, with adjustments made to planning assumptions where required.

5.2.1. Determining baseline for passenger busy hour and day forecasts

To identify the peak hours and the busy day, DKMA relied on Auckland Airport's tower log data. The data set provides detailed traffic data covering both domestic and international flights as well as passenger numbers throughout the whole year, and enabled DKMA to identify the peak hours and a representative busy day.

DKMA's analysis is based on FY2019 which was the last 'normal' year pre-pandemic. DKMA identified the following peak hours / busy day as required for regulatory purposes:

- Domestic peak hour passengers arrival;
- Domestic peak hour passengers departure;
- Domestic peak hour passengers total;
- International peak hour passengers arrivals;
- International peak hour passengers departure;
- International peak hour passengers total;
- Busy day movements; and
- Peak hour movements.

The passenger peak hour is defined as the clock hour with the 30th highest ranked number of passengers during FY2019. The clock hour refers to the scheduled time. The passenger busy hours must be calculated on local (non-transit and transfer) passengers.

Busy day selection

For planning purposes a historical busy day must also be selected. When determining the peak hour and busy day, DKMA considered that in November 2019, Jetstar exited the domestic regional market which had been operated by leased Dash 8 300s. Given that the historical busy day needed to represent, as fully as possible, the hourly operation at Auckland Airport it became important to select a day after Jetstar's exit. Therefore, the analysis was based on December 2019.

DKMA observed that according to IATA and other industry experts, selecting a busy day within a peak month is a reasonable practice. In the case of Auckland Airport, December 2019 was the peak month for total passenger traffic. In addition, it was the second busiest month for international traffic (very close to the peak month of January) and it was the 4th busiest month for domestic activities.

For these reasons, a busy day in December 2019 was identified. Since December 2019 is not part of fiscal year 2019 (which ended in June 2019), DKMA decided to construct the monthly profile for the calendar year 2019 rather than the fiscal year 2019. The DKMA selected busy day was 6 December 2019, which was selected on the basis of DKMA's three-step methodology:

- **Step One**: For each day in December calculate the peak hours and select only the days which are reasonably close to the peak hours identified in the regulatory process. From Step One, DKMA retained seven days in December 2019 to further analyse in Step Two.

- **Step Two**: Further analyse the days selected in Step One based on the following criteria:
  - The mix between domestic and international traffic needed to be as close to a typical pattern (i.e., the average mix for the year).
  - Day of week: some days have weaker demand than others (e.g., Saturdays) and are less representative. Also, if a day is a public holiday (or very close to one) it is also considered less representative.

- The aircraft mix by ICAO category needed to be as close to the typical pattern of average aircraft mix for the year.
- The hourly profile of passenger flows was analysed to ascertain that nothing unusual happened that day.
- The difference in passenger volumes between the 30th hour of the year and the peak hour for each day. The busy day peak hour has to be as close as possible to the 30th hour value.
- The difference in the number of flights between the peak hour movements during the busy day versus the 30th hour movements. Since the planning process requires the assessment of terminal usage as well as runway utilisation, it was important that movements during the peak hour be as close as possible to those during the 30th hour.
- Total daily aircraft movements relative to the 18th busiest day where the closer the number of movements was to the 18th day the better was the fit.

- **Step Three**: DKMA defined seven criteria to select the busy day:
  - Deviation of peak hour from the 30th hour (Step One);
  - Route area mix (Step Two);
  - Day of week (Step Two);
  - Aircraft mix (Step Two);
  - Hourly profile (Step Two);
  - Peak hour movements versus 30th hour peak hour movements (Step Two); and
  - Daily movements versus the 18th busiest hour (Step Two)

A points-based model was used to calculate a score based on this criteria, and the day with the highest score (6 December 2019) was chosen as the busy day.

Once this day was selected, DKMA constructed the busy day schedule by reconciling each aircraft arrival with its corresponding departure, using the aircraft tail number as a reference. This was done to determine the ground time for each aircraft turn. This in turn was used to make sure that, when adding flights during the subsequent forecast years, consistency remained with respect to the minimum acceptable turn time for each aircraft category.

5.2.2. Determining baseline for runway busy day aircraft movements

The definition of the runway busy day is the 18th highest number of daily aircraft movements for the airport in FY2019 and the definition of the runway busy hour is the hour with the 30th highest number of hourly aircraft movements for that airport (based on clock hour) in FY2019. There is no disclosure requirement to split busy hour and busy day movements between international and domestic movements or by direction. Finally, the movements must be based on total airport activity (i.e., commercial and non-commercial combined).

In terms of busy day movements, in FY2019 the 18th day occurred November 2nd, 2018 with 570 movements and the busy hour had 45 movements.

5.2.3. Methodology for forecasting busy hour and busy day

The forecast methodology for projecting busy day activities was a combination of bottom-up and top-down as DKMA wanted to ensure consistency between growth in annual traffic and growth in busy day traffic. This had to hold true for passenger traffic, aircraft movements and the average aircraft size/mix.

The forecast methodology assumed that no major changes will take place in an airline's strategy during the forecast period an example of which would be the introduction of new connecting banks. DKMA therefore retained the current hourly operations pattern as a baseline and added more flights to it to cope with the growth in demand. This involved the following steps:

- **Step A**: This consisted in determining the difference in growth between annual and busy day passenger traffic. More specifically DKMA analysed historical trends to understand how busy day

share of annual traffic evolved and also analysed seasonal trends (peak month growth versus annual traffic). For the future DKMA assumed a difference in growth between busy day and annual traffic where DKMA expected busy day traffic growth to be slightly lower than annual growth as a whole, so as to better reflect a spread in demand between peak and off-peak periods.

- **Step B**: This consisted in determining future passenger load factors. Specifically, DKMA assumed an increase in load factor as a result of reasonable improvements in productivity. However, some limits were necessary as there could otherwise be a directional imbalance in travel demand. Also, if an aircraft change is anticipated (such as an up-gauge) the increase in load factor could be more modest (or unchanged).
- **Step C**: This step consisted in determining future average aircraft size and this needed to be consistent with projected average annual seats. Once DKMA had determined which carrier would serve a given city pair it became necessary to ensure that the aircraft type used was part of what was known about a carrier's announced fleet plan. The number of additional flights was then determined for each route area by applying the average aircraft size to total seating capacity.
- **Step D**: This consisted in identifying the city pairs that would support new flights. Additional frequencies on existing routes were added and a reasonable passenger load factor applied.
- **Step E**: Here a specific aircraft type was assigned to the route subject to the following:
  - 1) Sector distance of the route to be served.
  - 2) Flight range and aircraft block times on the route (particularly important on international long-haul routes).
  - 3) An airline's current and future fleet changes (assuming this information was available). In the absence of such information DKMA used a logical aircraft type for each airline.
- **Step F**: Consisted in assigning a time for arrival and departure for each flight taking into account the following:
  - 1) For routes currently served, ensure that new flights are assigned at different times of day than existing flights. If more than one flight to the same destination is planned within a clock hour, ensure that a reasonable time separation exists.
  - 2) Departure and arrival times for new flights are also a function of aircraft rotations and took into account block times to and from each destination as well as the need to ensure that the arrival time and departure time at the destination were commercially and operationally feasible.

Finally, a fine-tuning process was undertaken to ensure that the bottom up forecast of arrival and departure times did not build unjustifiable peaks (passengers or movements).

The peak demand forecasts developed by DKMA following this process are set out in Schedule 20.

5.3. Annual demand forecasts

Annual demand forecasts are the key input into aeronautical pricing forecasts, as they indicate the forecast total demand over which required revenues are spread. The annual demand forecasts have been developed to match the structure of aeronautical prices to generate a consistent set of forecasts used to inform aeronautical prices.

5.3.1. Forecast methodology and assumptions

DKMA's forecast methodology centred on top-down and bottom-up models. Long term traffic demand is based on a top-down model centred around the economy, demographics and tourism which are the main drivers of long-term aviation demand. In parallel, a bottom-up model based on demand-side factors (e.g., GDP, tourism and population) and supply-side factors (e.g., route development) was developed.

DKMA explained that long term traffic demand will be driven by these demand-side and supply-side factors, and economic, demographic and tourism growth plays the main role in long term aviation demand.

Forecast assumptions for passenger demand

DKMA observed that New Zealand's economy has become increasingly industrialized and diversified over the past few decades, a period marked by intensified globalization, which the country has been able to exploit to its benefit. Population and globalisation are both widely anticipated to slow down and as a result, New Zealand's GDP is projected to grow by 1.8% p.a. on average, through to 2048, with much of this driven by service industries (e.g., business & property, financial & insurance, tourism etc.).

DKMA noted that tourism forms a key component of New Zealand's economy, accounting for approximately 14% of the country's GDP pre-pandemic. Air transport, which accounts for almost 100% of visitor arrivals into New Zealand, is a key enabler for this sector. In 2019, 3.9 million international tourists visited New Zealand and traditionally, New Zealand's key source markets for tourist arrivals have included Australia (39%), China (11%), USA (9%), UK (6%), Germany (3%) and Japan (3%).

Also, most of the country's increase in tourist arrivals over the past 10 years have come from Asia Pacific countries, particularly China but also from other much smaller markets such as India, Indonesia and South Korea. Between 2000 and 2019, the country had experienced strong growth in tourist arrivals (approximately 4.1% p.a.) but the pace of growth was particularly robust between 2014 and 2019, averaging 6.2% per annum. The pandemic induced border closures depressed tourist arrivals (52,690 in 2021) and created uncertainty in the industry. However, with the re-opening of borders the tourism industry is anticipated to recover by 2026 and from then on grow at 3.5% p.a. (2026-2048).

In terms of New Zealand's demographic trends, the nation's population is forecast to slowly expand by 0.7% p.a. to reach 6.0 million by 2048, with Auckland and its surrounding area rising at a faster pace (0.9% p.a.) to reach 3.6 million. As such, Auckland's share of the nation's population, which currently stands at approximately 58%, is projected to rise to roughly 61% by FY2048.

DKMA noted that in the coming years, some of the key trends impacting the global demand-side for air travel will include:

- recovering from the Covid-19 pandemic;
- slowing economic growth in mature economies;
- environmental pressure; and
- the rise in international tourism, particularly to/ from the previously less-developed countries.

DKMA noted that these factors mean that trends which were evident pre-pandemic, namely GDP growth rates below 3% in the mature markets and GDP rates higher than 4% in the less mature markets, are likely to continue in the future.

On the supply side, DKMA expect Air New Zealand to be Auckland Airport's main airline. In November 2019 Jetstar ceased all turboprop activities in New Zealand so DKMA assumed that moving forward that Air New Zealand will only face competition from Jetstar on domestic trunk routes and have a monopoly (or near monopoly) on domestic regional routes. In the short and medium term, as the industry recovers from the pandemic, DKMA expected that both carriers are unlikely to compete as vigorously with each other, focusing more on profitability and rebuilding their finances than competing for market share from each other. Since the pandemic had a dramatic impact on the carriers' balance sheets and cash flows, DKMA assumed that both Air New Zealand and Jetstar will work to maximise profitability.

Aircraft Movements and MCTOW forecasts

DKMA's forecasts also projected total international cargo volumes and aircraft movements, split by route area, carrier group, MCTOW and ICAO size category.

Domestic cargo was excluded from DKMA's study as Auckland Airport could not provide a historical time series for domestic cargo volumes. As the nature of the statistics for air cargo differs greatly from those for passenger traffic, DKMA's methodology was somewhat different. The historical timeseries for cargo covered was shorter (2003 onward) and several computerized regression analyses were tested, and none provided good results. DKMA said the poor results could be attributed to one main factor: between 2003 and 2019 the economy in New Zealand had grown every year except in 2008 but during the same period cargo declined during half of the years.

Because the regression results were not conclusive, DKMA based the international cargo forecast on the following:

- trend analyses and extrapolations;
- judgment forecast; and
- benchmarks with industry forecasts.

DKMA explained that the projection of commercial aircraft movements required the construction of links between annual passenger traffic and aircraft movements. The first link was between historical passenger traffic and available seating capacity. From this, DKMA derived historical passenger load factors and average aircraft size. Assumptions were made regarding future load factors and average aircraft size to derive projected seats and aircraft movements.

DKMA explained that for non-commercial activities the movements were added based on past trends, the team's experience/ judgement and stake-holders information.

DKMA considered that although passengers are set to double from FY2019 to FY2048, this is not the case for total aircraft movements, which will average an annual growth rate of 1.5% between FY2019 and FY2048 (4.7% p.a. between FY2022 and FY2048). Three main factors explain this less rapid development:

- **international demand** is anticipated to be the fastest growing market at the Airport;
- over time carriers are anticipated to **deploy larger aircraft**. For example, Air New Zealand's domestic fleet development is modest, and the carrier has indicated that it would take additional jet aircraft but no additional turboprops. As a result, this will increase the average aircraft size.
- **passenger load factors** will continue to increase. However, in the case of load factors, a 'natural' limit has to be respected since, while it is mathematically possible to reach a 100% passenger load factor, in reality it is impossible to achieve this on a consistent basis without spilling passengers and turning away passenger demand.

DKMA explained that passenger aircraft movements will continue to represent the vast majority of activities at the Airport and between FY2019 and FY2048. They are expected to increase annually by 1.5% (compared to 2.5% p.a. for passengers).

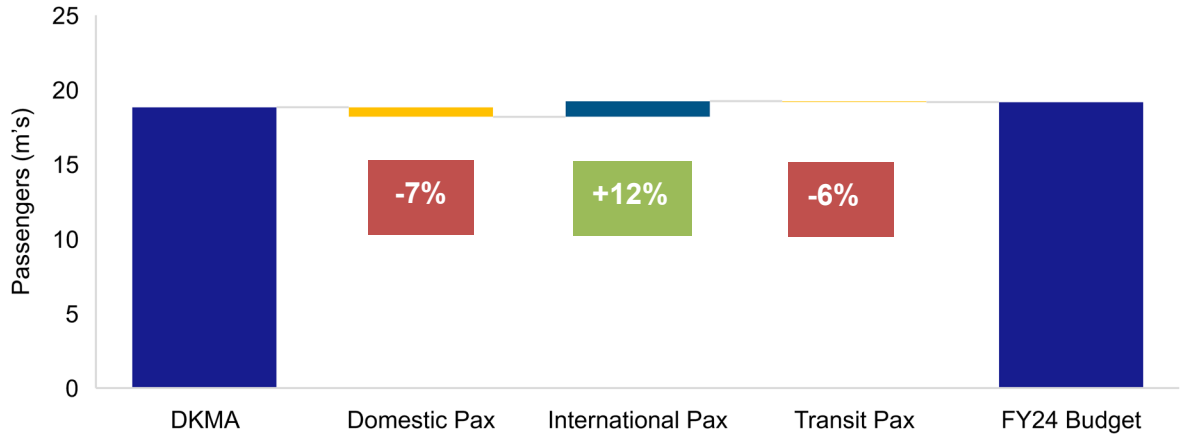
5.3.2. Auckland Airport's adjustments to DKMA's forecasts

Having considered the feedback received from airlines as well as DKMA's review of the forecast and airline feedback, Auckland Airport then made some adjustments to the DKMA unconstrained forecasts. These included updates to reflect the latest available outlook for passenger demand, removing non-billable passengers from the forecast for price setting, and adjustments to reflect price elasticity of demand impacts from changes in aeronautical charges.

5.3.2.1. Updates to reflect latest available outlook

Auckland Airport adjusted the DKMA forecast for FY23 to reflect estimated actuals for the year – this approach was in-line with the price freeze proposal supported by airlines, ie that estimated actuals for FY23 would be adopted in determining aeronautical prices. Updates were also flowed through for FY24 to reflect the latest Auckland Airport FY24 Budget view. Relative to the DKMA forecast, the adjustments resulted in a small reduction in domestic passengers, offset by a larger increase in international passengers. This resulted in a higher passenger forecast overall and therefore slightly lower average aeronautical prices. The adjustments to the DKMA forecast for FY24 are outlined in the chart below.

Figure 14: Adjustments to DKMA's FY24 passenger forecast



5.3.2.2. Adjustments to reflect price elasticity of demand

During the consultation process, airlines raised the issue of the price elasticity of demand, citing the potential impacts that increases in airport charges could have on airfares and passenger demand. Auckland Airport was already considering this issue and commissioned aviation industry economics experts InterVISTAS to undertake analysis on the potential impacts on future demand of Auckland Airport's forecast aeronautical charges, assuming airlines passed these charges on through higher airfares.

InterVISTAS are considered experts on this topic, having undertaken analysis for both airlines and airports over an extended period of time. Its previous Demand Elasticities report undertaken for IATA is widely cited in the aviation industry.

The InterVISTAS analysis presented the impacts based on 60% and 100% range of pass-through of forecast aeronautical charges into higher airfares. To elasticity-adjust DKMA's unconstrained demand forecast, Auckland Airport adopted the 80% mid-point of this range. The impacts on demand from this adjustment are presented for PSE4 in the below table by traveller segment.

Table 34: Elasticity impacts adopted for forecast adjustment

Passenger segment	FY24	FY25	FY26	FY27
Domestic - Trunk	-0.7%	-1.0%	-1.3%	-1.8%
Domestic - Regional	-0.4%	-0.6%	-0.9%	-1.3%
International - Short-haul	-0.2%	-0.5%	-0.9%	-1.3%
International - Long-haul	-0.1%	-0.2%	-0.4%	-0.5%

These impacts on demand were also flowed through to forecast aircraft movements. The demand forecasts presented in Schedule 20 reflect the above adjustments.

Airlines also submitted a separate study into demand impacts. Having carefully considered the findings of both studies, Auckland Airport considers that the approach adopted in the InterVISTAS study was highly robust, and that the study provided by airlines overstated the likely reduction in demand from changes in airport charges. Therefore the findings of the InterVISTAS study were adopted in adjusting the demand forecast for PSE4.

5.3.2.3. Other adjustments for pricing forecast

For determining aeronautical prices, the total demand forecast is also adjusted for billable passengers. This reflects that Auckland Airport does not charge airlines for some passengers using the airport, such as children under two years of age, airline repositioning crew, and departing transit passengers (transits

are only charged on arrival). The adjustments adopted for non-billable passengers are set out below. But the removal of non-billable passengers for pricing purposes is not reflected in the demand forecasts presented in Schedule 20 which instead show total forecast passenger numbers.

Table 35: Share of non-billable passengers by segment

Segment	Non-billable share
Domestic	1.6%
International	1.2%
Transit (International)	1.0%

5.3.3. Consultation with Substantial Customers on demand forecasts

Auckland Airport consulted with airlines on a number of iterations of passenger and air traffic forecasts. The process for developing the final forecast that was used to set PSE4 aeronautical process was a follows:

- In 2021 during the middle of the pandemic, Auckland Airport consulted with airlines to develop an appropriate medium-term demand forecast to be used for capital planning purposes. Following significant input from airlines through this process, an unconstrained base case forecast was developed. This forecast was re-presented to airlines for further feedback in July 2022 as part of the PSE4 aeronautical pricing consultation process.
- Auckland Airport then commissioned DKMA as an independent aviation forecasting specialist to prepare unconstrained passenger and air traffic forecasts to inform the Draft Pricing Proposal. The purpose of having an independent forecaster prepare these forecasts is to ensure that they are objective, fair and balanced. DKMA's unconstrained forecasts reflected the expected recovery of aviation demand from the pandemic, and other industry and economic factors.
- In developing its forecasts, DKMA was provided with and considered the airline feedback on the 2021 forecast and the expected recovery profile as aviation demand emerged from the pandemic.
- DKMA forecasted a recovery of domestic traffic to pre-pandemic levels in FY25, with a slower recovery in international traffic, reaching pre pandemic volumes by FY26. Those forecasts were then presented to airlines for further feedback.
- Feedback from airlines raised concerns with potential price elasticity of demand impacts that rising aeronautical charges would have on airfares and demand and, as described above, Auckland Airport commissioned InterVISTAS to undertake a price elasticity of demand study.
- The DPP sought further airline feedback, ie on DKMA's unconstrained passenger forecasts, on InterVISTAS' price elasticity study, and on the price elasticity of demand adjustments that Auckland Airport applied to DKMA's unconstrained forecasts.
- Airline feedback on the unconstrained demand forecasts was provided to DKMA to consider whether it warranted any adjustments to its latest forecast. DKMA considered that no significant concerns with the forecast methodology and assumptions were raised in the feedback.
- Airline feedback on the price elasticity of demand analysis was provided to InterVISTAS. InterVISTAS considered that its approach and findings remained valid.
- Auckland Airport also considered the feedback received on price elasticity of demand, including an alternative elasticity study submitted by airlines during consultation. Having considered the airlines' study and its key assumptions, Auckland Airport considered that key assumptions of the study were inconsistent with real world revenue management practices of airlines (which spread airport costs across different fare brackets proportionately) and that the InterVISTAS study provided a more robust estimate of potential price elasticity of demand impacts. InterVISTAS' estimated elasticity of demand impacts – albeit still materially higher than are actually being observed today in the market – were also more closely aligned to the real-world examples of (minimal) price elasticity of demand responses to the very large air fare increases enjoyed by airlines post-pandemic.

Having completed this thorough consultation process, the final demand forecasts were confirmed, as set out above.

6. Reference tables

6.1. List of figures

6.2. List of tables

6.3. List of appendices

The appendices attached to this pricing disclosure are as follows:

Appendix A: Summary of Capital Investment Programme consistent with pricing decision

Appendix B: Auckland Airport's schedule of Standard Charges effective 1 July 2023