

# **Auckland International Airport Limited**

## **Price Setting Disclosure**

**in accordance with clause 2.5 of the Commerce Act (Specified Airport Services Information Disclosure) Determination 2010**

**2 August 2012**

### **IMPORTANT MESSAGE ON FORWARD LOOKING STATEMENTS AND FORECASTS**

This document has been prepared for the express purpose of the Price Setting Disclosure. The 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, and there is a risk that such forward looking statements or forecasts will not be achieved. A number of important factors could cause Auckland Airport's actual results to differ materially from the forecasts, plans, objectives, expectations, estimates and intentions expressed in such forward looking statements. These factors include, but are not limited in any way to, natural disasters, changes in GDP for originating countries of demand, foreign exchange movements, oil prices and change in aircraft technologies and airline priorities. The forecast periods in this disclosure are long-dated, running in some instances to ten years. The length of the term of the forecast period, combined with the factors that might change during the period, result in it being very likely that the assumptions informing the forecasts, and therefore the forecasts themselves, will change during the forecast period. As such, reliance should not be placed on any forward looking statement or forecast in this document. The information set out in this document does not constitute investment advice on whether you should acquire any security issued by Auckland Airport.

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## PART A: Introduction to disclosure for interested parties

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### Disclosure requirement

Auckland Airport is subject to the Commerce Act (Specified Airport Services Information Disclosure) Determination 2010 ("**Determination**") made pursuant to Part 4 of the Commerce Act 1986 ("**Commerce Act**").

Clause 2.5 of the Determination requires the disclosure by Auckland Airport of information following the setting of aeronautical charges. Accordingly, this document is Auckland Airport's price setting disclosure under clause 2.5 of the Determination ("**Disclosure**").

### Auckland Airport's price setting event

Auckland International Airport Limited ("**Auckland Airport**") is required by the Airport Authorities Act 1966 ("**AAA**") to consult with Substantial Customers at least every five years on charges for identified airport activities. Substantial Customers are those that pay, or an entity who represents customers who in aggregate pay, more than 5% of regulated revenues in the last financial year. Periodic pricing reviews by Auckland Airport are needed to ensure a reasonable return is made on the significant investments in essential long-term, quality New Zealand infrastructure through appropriate charges to airport users.

In August 2011, Auckland Airport commenced its consultation ("**Aeronautical Pricing Consultation**" or "**Aeronautical Pricing**") with Substantial Customers on its charges for aeronautical pricing activities ("**Standard Charges**"). Aeronautical Pricing Activities ("**Aeronautical Pricing Activities**") included airfield and terminal activities but excluded aircraft and freight activities and 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 the Aeronautical Pricing Consultation. Auckland Airport has therefore not included Other Regulated Activities in its Standard Charges.

The Aeronautical Pricing Consultation process involved several phases. The first phase involved consultation on the individual building blocks used to determine Standard Charges. The second phase involved the release of Auckland Airport's Initial Pricing Proposal and subsequent consultation. The third phase involved the release of Auckland Airport's Revised Pricing Proposal and subsequent consultation, which included the opportunity for Substantial Customers to present to the Board of Directors of Auckland Airport. As a result of the comprehensive, robust and constructive consultation process, the 2012 pricing decision changed substantially from the Initial Pricing Proposal. Auckland Airport recognises its revenues represent an operating cost for our airline customers, and like any business airlines would like to keep costs as low as possible and seek savings, particularly during a challenging economic climate. At the same time, Auckland Airport has a responsibility to ensure that New Zealand's tourism and trade growth needs are met by ensuring it can attract and continue to attract capital in a globally competitive market to fund investment in appropriate infrastructure over the long term. Through consultation, Auckland Airport has sought to achieve the right pricing package to balance these considerations.

Auckland Airport's Aeronautical Pricing Consultation concluded on 7 June 2012 with the release of its decision ("**2012 Pricing Decision**") on its Standard Charges.

It was that 2012 Pricing Decision that triggered this Disclosure. As anticipated by the Commerce Commission ("**Commission**"),<sup>1</sup> this Disclosure includes a sub-set of information that has already been consulted on and made available to airlines under confidentiality through the Aeronautical Pricing Consultation process. With this new pricing now in place, Auckland Airport looks forward to continuing

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<sup>1</sup> Information Disclosure Reasons Paper, 22 December 2010, paragraph 5.13.

to work together with its airline customers to help grow tourism, travel and trade for the benefit of New Zealand.

## Executive summary of the 2012 Pricing Decision

### Key Points:

- Auckland Airport conducted a robust consultation process prior to re-setting Standard Charges on 7 June 2012, to take effect on 1 July 2012 to understand the views and priorities of the airlines.
- In setting Standard Charges Auckland Airport endeavoured to balance the needs of the airlines, the travelling public and its investors.
- The new Standard Charges demonstrate that growth in international air services is reducing overall per passenger charges and benefiting travellers. Auckland Airport remains committed to stimulating further air services demand for Auckland and New Zealand.
- Overall per passenger charges for next five years have been held flat in real terms, remain competitive and still represent only a fraction of the total cost of travel.
- International charges have been reduced modestly. This has been achieved in the context of charges which already were “middle of the pack” and delivering results in service quality benchmarking (Annual Service Quality monitoring and Skytrax awards) which indicate consumers consider the quality of the international experience at Auckland Airport to be well above average.
- Benchmarking within Australasia, indicates Auckland Airport’s domestic charges have been well below average. Much needed short-term improvements at domestic terminal, as a result of airline fleet changes, are a key priority for Auckland Airport and require an increase in domestic charges.
- Auckland Airport continues to consult with stakeholders on the next key stage in infrastructure development for the airport – a New Terminal Facility.
- Auckland Airport considers it is important that an appropriate return on investment is achieved to enable Auckland Airport to source suitable debt and equity funding from global capital markets. Auckland Airport also considers that a precise return cannot be calculated and that the weighted average cost of capital must be considered within a range.
- Incentivising investment for the Northern Runway is crucial in the context of the development of New Zealand’s tourism industry. Options were put forward during consultation to signal the cost of supply for a Northern Runway. The options were based on the Commission’s “Future Use” methodology. Following consultation, Auckland Airport is concerned that the Commission’s methodology may not deliver commercially acceptable outcomes for the airlines in the future due to the step change in pricing implied by it. At present, alternative land use options exist, but Auckland Airport continues prudently to hold significant areas of land for future aeronautical purposes rather than selling or developing the land for other commercial use. However this landholding provides no current cash return and future aeronautical returns remain uncertain. Further dialogue is required to develop the certainty needed to enable investment in a Northern Runway.
- Auckland Airport remains committed throughout the forthcoming period to serve the interests of consumers and New Zealand by driving choice, innovation, efficiency and quality – reflecting its service ethos of making journeys better – and by ensuring that, as the airport that receives more than 70% of all visitors to New Zealand and contributes the most to tourism and trade, it does not constrain the country’s economic growth agenda.

The 2012 Pricing Decision on Standard Charges results in overall charges for airlines on a per passenger basis remaining flat in real (inflation adjusted) terms for the next five years. International airlines have benefitted from recent passenger growth in international air services with an initial reduction in overall international charges per passenger, while much needed improvements at the domestic terminal require an increase in domestic charges per passenger.

The new pricing schedule features an increase (averaging \$1.32 per passenger) in domestic charge and a reduction (averaging \$0.58 cents per passenger) in international charges in the first year. The new pricing schedule also brings international and domestic charges more in line with the underlying costs involved in providing the respective airport facilities and services. Over the following four years of the pricing period, average charges will increase by around 2% annually, broadly in line with the

expected rate of inflation. All airport charges are collected from airlines and form part of their cost of operations (ie there are no charges directly payable by passengers).

Key structural pricing changes effected to simplify the approach to pricing include: the removal of a separate international terminal service charge, the removal of domestic terminal lease charges relating to passenger processing areas, the introduction of an international transit and transfer charge, and the phased introduction of passenger charges for 2-11 year olds, consistent with most Australian airport pricing practices.

The reduction in international charges was the first for Auckland Airport since becoming a listed company, and is evidence of how Auckland Airport's focus on developing new air services is benefiting travellers through lower pricing. Over recent years, Auckland Airport has invested significantly to grow international passenger volumes, with initiatives to grow tourism and encourage more airlines to fly to Auckland, more often – especially from the high growth travel markets of Asia.

By increasing the number of passengers passing through Auckland Airport, and by keeping a tight hold on expenditure and driving operational efficiencies, costs are able to be spread over a larger base volume. Organic growth in travel is forecast. Auckland Airport competes for incremental growth and invests funding to stimulate this incremental growth. By excluding the cost associated with potential new routes Auckland Airport shares both in the risk and reward of passenger volume growth above organic growth. Auckland Airport also carries the business risk of actual growth falling below the organic growth rate forecast.

Forecast revenues are set on a basis which includes capital investment of circa \$245 million in aeronautical assets, in today's dollars over the next five years.<sup>2</sup> A high priority in this regard is capacity enhancements to the Domestic Terminal Building, which will be delivered over the course of the next 18 months to enable it to cope with the increasing size of aircraft being used on main domestic routes in the near term.

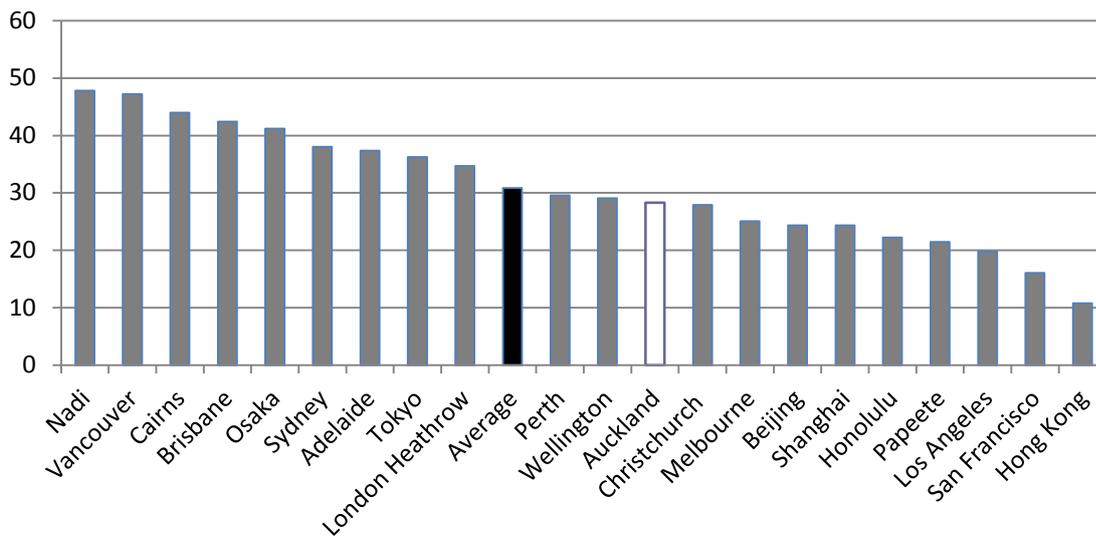
Following feedback from airlines Auckland Airport has extended the consultation on longer term plans for a new terminal and associated facilities. The new terminal will be a key part of Auckland Airport, the domestic travel experience and New Zealand's tourism and trade infrastructure for many years to come, so Auckland Airport believes it is worth spending more time now in discussion with stakeholders to get the plans right.

Before setting the new price structure, benchmarking information was updated to test how charges at Auckland Airport compared to other airports. Auckland's international charges were "middle of the pack" compared with other airports around the world served by Air New Zealand, and the new pricing path would ensure they remained competitive at near or below average. The analysis by Leigh Fisher set out below shows Auckland Airport's charges to be below average on a turnaround basis, with Auckland Airport ranking 12th position out of the 21 airports sampled for the B777-200ER. The Leigh Fisher benchmarking report is provided in Appendix I.

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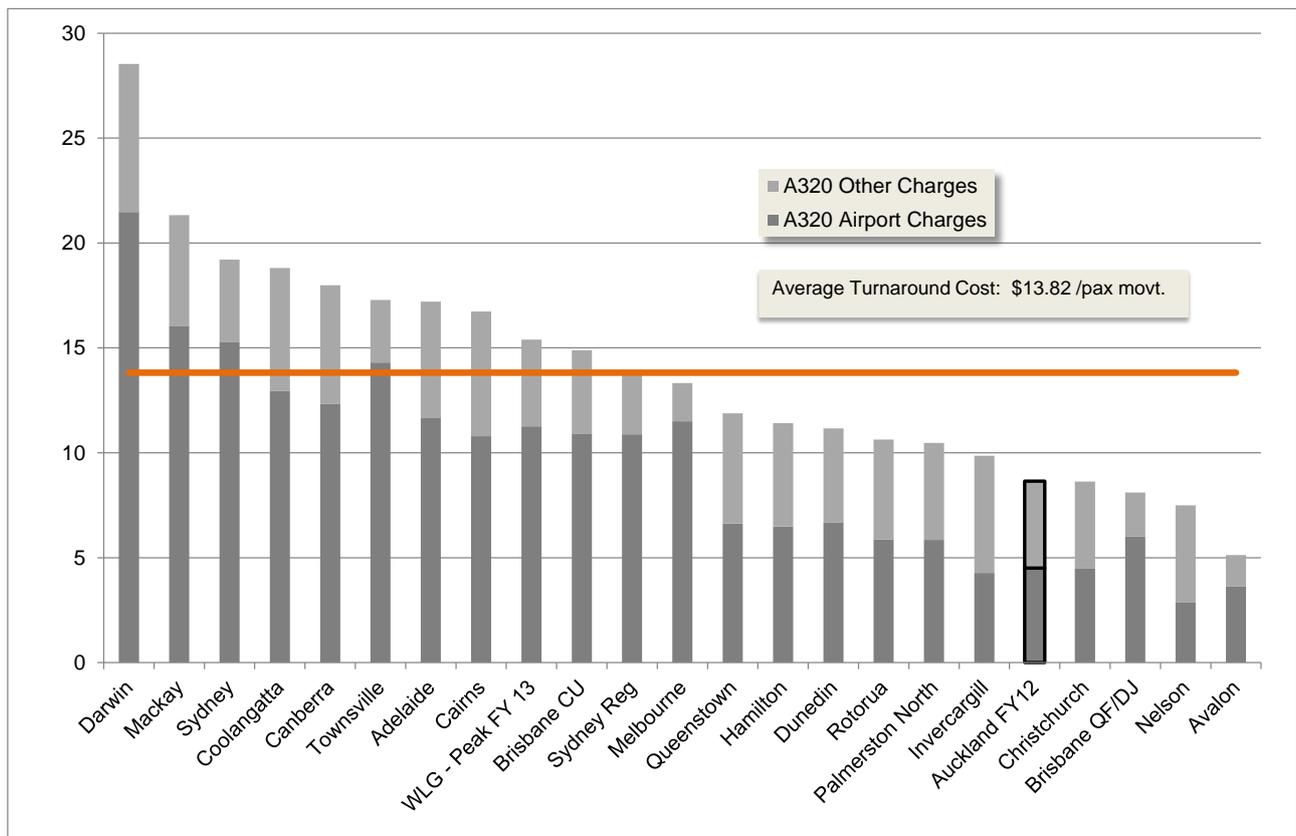
<sup>2</sup> This is consistent with the nominal forecast of \$290 million shown in Schedule 18.

**International charges per passenger (each way) – B777-200ER (NZ\$)**



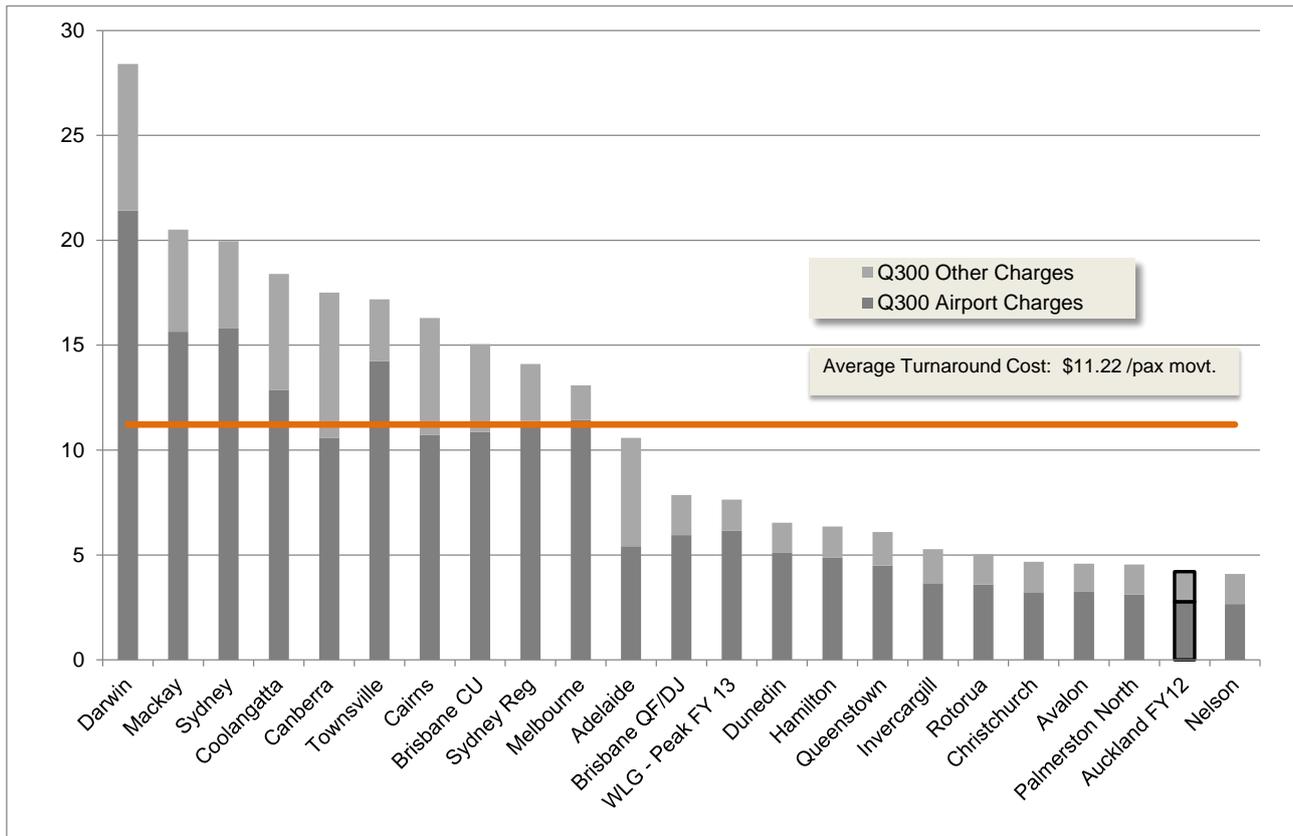
Benchmarking of domestic charges was also undertaken. The Airbiz benchmarking report is provided in Appendix J. This found Auckland Airport’s domestic charges to be amongst the lowest of all airports in New Zealand and Australia. Even with the increase, domestic charges will still be below the average.

**Domestic charges per passenger (each way) – A320 (NZ\$)**



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**Domestic charges per passenger (each way) – Q300 (NZ\$)**



Auckland Airport considered the recently-introduced information disclosure regulation during the Aeronautical Pricing Consultation. Auckland Airport is closely aligned with almost all of the Commission’s input methodologies in its assumptions for pricing. In a few instances, Auckland Airport has departed from those methodologies because, informed by expert advice, it considers Auckland Airport specific inputs are more appropriate than the Commission’s generic industry inputs, or because it has previously been requested by airline customers to take an alternative approach.

As an overall package, the new pricing effected through the Aeronautical Pricing Consultation is estimated to achieve an 8.475% after tax return on aeronautical investment over the five year period. Auckland Airport considers that the forecast return is broadly in line with the Commission’s April 2012 published 75<sup>th</sup> percentile point estimate of 8.04% weighted average cost of capital (“WACC”), as per its input methodologies, after adjusting for Auckland Airport specific inputs, market conditions and a longer-term view. In this regard Auckland Airport considers it is important that an appropriate return on investment is achieved to enable Auckland Airport to source suitable debt and equity funding from global capital markets. Achieving an appropriate return is particularly important because Auckland Airport competes for that capital with other Australasian commercial airports. Auckland Airport also notes that the calculation of WACC for a particular portion of a company is subject to variables that require expert assessment, judgment and estimation. Measuring appropriate WACC returns, mid cycle, on invested capital, whilst risk free rates are at unprecedented low levels in some countries, is problematic without a reference to an entity’s actual cost of funding. As such, Auckland Airport did not establish a single point estimate of WACC to apply for pricing but rather established an estimated range and evaluated the forecast building block outcomes, including the forecast revenue required, within this range.

Auckland Airport consulted on price signalling options for the Northern Runway with Substantial Customers. Unlike terminal development, staging options are limited and pricing issues must be front-footed if investment is to be delivered in a dynamically efficient manner without price shocks.

Throughout consultation with the Commission on the new information disclosure regime, Auckland

Airport maintained that excluding strategically held assets (such as land) from the regulatory asset base could cause a fundamental problem and inhibit investment in projects strategically important to tourism and trade in New Zealand – such as the Northern Runway. Nevertheless, the Commission determined that land is to be excluded from the regulatory asset base unless it is currently used in the supply of specified airport services. Under the Commission’s methodology these assets are simply tracked as “future use assets”. Theoretically, absent any regulatory change, Airports can nevertheless expect to be able earn a full return on and of the costs incurred in holding and developing this land without profits appearing excessive, provided it is eventually commissioned for use to supply airport services – albeit a significant increase in charges at the time the new supply is created. Using the Commission’s approach this land will therefore theoretically enter the regulatory asset base once demand is sufficient to justify expansion of the Airport – not before.

During the Aeronautical Pricing Consultation Auckland Airport explored options to use the Commission’s future use asset monitoring and an interim charge to smooth charges for the Northern Runway. Following consultation, Auckland Airport considers that the Commission’s exclusion of the Northern Runway land from the regulatory asset base to be inappropriate and that even if the regulatory environment remained stable, the future use construct which has been developed in the input methodologies is a theoretical approach which will not deliver a commercially effective outcome. Incentivising investment for this strategic development is crucial in the context of the development of New Zealand’s strategically important infrastructure. At present, alternative land use options exist, but Auckland Airport continues to prudently hold significant areas of land for future aeronautical purposes rather than selling or developing the land for other commercial use. Yet this strategic landholding provides no cash return and future aeronautical returns remain highly uncertain. Auckland Airport will continue its dialogue with airlines and the Commission on this strategically important issue, with a view to developing the sort of certainty required for such significant investment to be made.

### **Purpose of the price setting disclosure**

The purpose of this Disclosure is to assist interested persons to assess, over time, whether Auckland Airport’s pricing and investment decisions are efficient.<sup>3</sup> For the avoidance of doubt, the Commission’s input methodologies for information disclosure are mandated to apply to the annual information disclosure only and not to Auckland Airport’s pricing decisions.

Auckland Airport notes that this disclosure contains forecast information as at June 2012, therefore the forecasts contained in this Disclosure may not represent Auckland Airport’s most current forecasts.

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<sup>3</sup> Information Disclosure Reasons Paper, 22 December 2010, paragraph 5.12. More specifically, the statutory purpose of information disclosure is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 is being met (section 52A of the Commerce Act 1986).

## PART B: Clause 2.5 Disclosure - Forecast Total Revenue Requirement

### 1. Disclosure schedules relating to Forecast Total Revenue Requirement

#### 1.1 Schedule 18a – Revenue Requirement based on WACC of 8.88% (75<sup>th</sup> percentile)

FOR THE PRICE SETTING EVENT 1 JULY 2012 - disclosed in accordance with clause 2.5(1)(a)(i)

		Total Regulated				
		Pricing Period Starting Year Jun-13	Pricing Period Starting Year + 1 Jun-14	Pricing Period Starting Year + 2 Jun-15	Pricing Period Starting Year + 3 Jun-16	Pricing Period Starting Year + 4 Jun-17
	<b>(\$000)</b>					
	<b>Forecast value of assets employed</b>	1,069,799	1,084,036	1,134,523	1,133,728	1,127,229
	Forecast cost of capital	8.88%	8.88%	8.88%	8.88%	8.88%
	Forecast return on assets employed	94,989	96,253	100,736	100,665	100,088
<i>plus</i>	Forecast operational expenditure	77,369	79,176	79,554	82,911	86,741
<i>plus</i>	Forecast depreciation	42,895	41,770	47,194	47,134	43,931
<i>plus</i>	Forecast tax	33,089	36,914	38,836	41,446	43,937
<i>plus (less)</i>	Forecast revaluations	(2,942)	(2,975)	(3,014)	(3,052)	(3,085)
<i>less</i>	Forecast other income	3,674	3,770	3,869	3,971	4,077
<i>plus (less)</i>	Other factors	(10,037)	(9,719)	(9,480)	(9,144)	(8,824)
	Forecast total revenue requirement	231,688	237,648	249,957	255,988	258,711
<i>less</i>	Revenue requirement not applicable to price setting event	19,790	20,163	20,595	21,037	21,268
<i>plus (less)</i>	Revenue smoothing adjustment	(9,491)	(1,365)	(1,878)	3,934	13,042
	Forecast revenue for services applicable to price setting event	202,407	216,121	227,484	238,885	250,485
	<b>Forecast total revenue requirement for the following regulated activities</b>					
	Airfield activities	93,375	95,921	98,719	101,187	101,130
	Aircraft and freight activities	11,504	11,748	12,019	12,296	12,487
	Specified passenger terminal activities	126,810	129,979	139,220	142,504	145,093
	Forecast total revenue requirement	231,688	237,648	249,957	255,988	258,711

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**1.2 Schedule 18a – Revenue Requirement based on WACC of 9.45% (85<sup>th</sup> percentile)**

FOR THE PRICE SETTING EVENT 1 JULY 2012 - disclosed in accordance with clause 2.5(1)(a)(i)

		Total Regulated				
		Pricing Period Starting Year Jun-13	Pricing Period Starting Year + 1 Jun-14	Pricing Period Starting Year + 2 Jun-15	Pricing Period Starting Year + 3 Jun-16	Pricing Period Starting Year + 4 Jun-17
	<b>(\$000)</b>					
	<b>Forecast value of assets employed</b>	1,069,922	1,084,258	1,135,012	1,134,281	1,127,836
	Forecast cost of capital	9.45%	9.45%	9.45%	9.45%	9.45%
	Forecast return on assets employed	101,069	102,424	107,218	107,149	106,540
<i>plus</i>	Forecast operational expenditure	77,369	79,176	79,554	82,911	86,741
<i>plus</i>	Forecast depreciation	42,902	41,781	47,237	47,181	43,982
<i>plus</i>	Forecast tax	33,087	36,910	38,824	41,433	43,923
<i>plus (less)</i>	Forecast revaluations	(2,942)	(2,975)	(3,015)	(3,053)	(3,086)
<i>less</i>	Forecast other income	3,674	3,770	3,869	3,971	4,077
<i>plus (less)</i>	Other factors	(16,207)	(15,973)	(16,028)	(15,689)	(15,332)
	Forecast total revenue requirement	231,604	237,574	249,922	255,962	258,692
<i>less</i>	Revenue requirement not applicable to price setting event	19,790	20,163	20,595	21,037	21,268
<i>plus (less)</i>	Revenue smoothing adjustment	(9,406)	(1,290)	(1,843)	3,961	13,061
	Forecast revenue for services applicable to price setting event	202,407	216,121	227,484	238,885	250,485
	<b>Forecast total revenue requirement for the following regulated activities</b>					
	Airfield activities	93,322	95,873	98,675	101,147	101,094
	Aircraft and freight activities	11,504	11,748	12,019	12,296	12,487
	Specified passenger terminal activities	126,778	129,953	139,229	142,518	145,111
	Forecast total revenue requirement	231,604	237,574	249,922	255,962	258,692

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**1.3 Schedule 18 – Based on 9.16% - mid-point of the range (80<sup>th</sup> percentile)**

Regulated Airport  
Pricing Period Starting Year Ended

**Airport Company**  
**30 June 2013**

**SCHEDULE 18: REPORT ON THE FORECAST TOTAL REVENUE REQUIREMENTS**

ref Version 2.0

**6 18a: Revenue Requirement**

**7 Overview of the methodology used to determine the revenue requirement**

8 Refer to Section 2.1.

		Pricing Period Starting Year	Pricing Period Starting Year + 1	Pricing Period Starting Year + 2	Pricing Period Starting Year + 3	Pricing Period Starting Year + 4
	for year ended	30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17
16	<b>(\$000)</b>					
18	Forecast value of assets employed	1,069,860	1,084,147	1,134,768	1,134,004	1,127,533
19	Forecast cost of capital	9.16%	9.16%	9.16%	9.16%	9.16%
20	Forecast return on assets employed	98,029	99,338	103,976	103,906	103,313
21	plus Forecast operational expenditure	77,369	79,176	79,554	82,911	86,741
22	plus Forecast depreciation	42,899	41,775	47,215	47,157	43,957
23	plus Forecast tax	33,088	36,912	38,830	41,439	43,930
24	plus (less) Forecast revaluations	(2,942)	(2,975)	(3,015)	(3,052)	(3,086)
25	less Forecast other income	3,674	3,770	3,869	3,971	4,077
26	plus (less) Other factors	(13,122)	(12,846)	(12,753)	(12,416)	(12,077)
27	Forecast total revenue requirement	231,646	237,611	249,940	255,975	258,701
28	less Revenue requirement not applicable to price setting event	19,790	20,163	20,595	21,037	21,268
29	plus (less) Revenue smoothing adjustment	(9,448)	(1,327)	(1,861)	3,948	13,052
30	Forecast revenue for services applicable to price setting event	202,407	216,121	227,484	238,885	250,485

**31 Forecast total revenue requirement for the following regulated activities**

32	Airfield activities	93,348	95,897	98,697	101,167	101,112
33	Aircraft and freight activities	11,504	11,748	12,019	12,296	12,487
34	Specified passenger terminal activities	126,794	129,966	139,224	142,511	145,102
35	Forecast total revenue requirement	231,646	237,611	249,940	255,975	258,701

**36 Description of any other factors that are considered in determining the forecast total revenue requirement**

37 It is noted that forecast total revenue requirement is exclusive of forecast other income. This other income remains part of Auckland Airports total forecast revenue  
38 requirement. A description and breakdown of the revenue requirement not applicable to the price setting event is provided in Section 2.6

**SCHEDULE 18: FORECAST TOTAL REVENUE REQUIREMENTS (cont)**

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Year of most recent annual disclosure (year ended)

30 June 2011
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(\$000)

for year ended

Pricing Period Starting Year – 1 *	Pricing Period Starting Year	Pricing Period Starting Year + 1	Pricing Period Starting Year + 2	Pricing Period Starting Year + 3	Pricing Period Starting Year + 4
30 Jun 12	30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17

**18b(i): Forecast Asset Base**

Forecast asset base—previous year	1,039,681	1,037,585	1,052,024	1,072,262	1,115,125	1,106,813
less Forecast depreciation	43,355	42,899	41,775	47,215	47,157	43,957
plus Forecast revaluations	2,778	2,942	2,975	3,015	3,052	3,086
plus Assets commissioned	38,480	54,396	59,039	87,064	35,794	39,148
less Asset disposals	–	–	–	–	–	–
plus (less) Forecast adjustment resulting from cost allocation	–	–	–	–	–	–
Forecast asset base	1,037,585	1,052,024	1,072,262	1,115,125	1,106,813	1,105,090

**18b(ii): Forecast Works Under Construction**

Works under construction—previous year	17,658	1,789	12,978	36,713	6,028	7,127
plus Capital expenditure	22,611	65,584	82,773	56,379	36,893	48,120
less Assets commissioned	38,480	54,396	59,039	87,064	35,794	39,148
Works under construction	1,789	12,978	36,713	6,028	7,127	16,099

\* Disclosure for pricing period starting year – 1 is only required if no disclosure has been made pursuant to clause 2(3) in respect of the year directly preceding the pricing period starting year.

**SCHEDULE 18: FORECAST TOTAL REVENUE REQUIREMENTS (cont 2)**

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79 **18b(iii): Forecast Capital Expenditure**

		Pricing Period Starting Year 30 Jun 13	Pricing Period Starting Year + 1 30 Jun 14	Pricing Period Starting Year + 2 30 Jun 15	Pricing Period Starting Year + 3 30 Jun 16	Pricing Period Starting Year + 4 30 Jun 17	Pricing Period Starting Year + 5 30 Jun 18	Pricing Period Starting Year + 6 30 Jun 19	Pricing Period Starting Year + 7 30 Jun 20	Pricing Period Starting Year + 8 30 Jun 21	Pricing Period Starting Year + 9 30 Jun 22	Total
80	<b>(\$000)</b>											
81												
82	<b>Capital Expenditure by Category</b>											
83	Capacity growth	48,365	64,863	40,175	15,667	27,515	54,244	66,063	69,012	15,859	48,542	
84	Asset replacement and renewal	17,220	17,910	16,205	21,226	20,605	19,735	21,790	24,553	25,831	27,182	
85	Total capital expenditure	65,584	82,773	56,379	36,893	48,120	73,979	87,852	93,565	41,690	75,724	
86	<b>Capital Expenditure by Key Capital Expenditure Project</b>											
87	Short term capacity enhancements (DTB)	11,138	20,732	12	-	-	-	-	-	-	-	31,883
88	Baggage Reclaim Expansion (RECLAIM 1)	221	10,993	-	-	-	-	-	-	-	-	11,214
89	Baggage Reclaim Expansion (RECLAIM 2)	-	-	-	-	-	-	3,209	-	-	-	3,209
90	BHS feed expansion (or BHS 2)	-	-	6,028	6,343	-	-	-	-	-	-	12,371
91	Check in project	552	3,223	3,375	-	-	-	-	-	-	-	7,151
92	ITB Forecourt Reconfiguration (or FC3)	-	-	-	4,702	9,712	-	-	-	-	-	14,414
93	Landside ground floor capacity enhancement	-	-	-	2,425	13,674	14,121	-	-	-	-	30,220
94	ITB Landside plaza infill	-	-	-	-	-	-	1,784	7,232	-	-	9,016
95	New Stand (NS3) and Taxilane (TL2)	-	-	-	-	-	24,871	-	-	-	-	24,871
96	New Stand 1	-	10,119	-	-	-	-	-	-	-	-	10,119
97	New Stand 2	-	-	11,750	-	-	-	-	-	-	-	11,750
98	New Stand 4	-	-	-	-	-	-	13,483	-	-	-	13,483
99	New Stand 5	-	-	-	-	-	-	-	11,109	-	-	11,109
100	New Stand 6	-	-	-	-	-	-	-	-	14,304	-	14,304
101	Taxilane 1	-	11,244	-	-	-	-	-	-	-	-	11,244
102	ITB Pier B departure gate extension	-	-	-	-	-	5,373	22,628	26,077	-	-	54,078
103	Pier B ground boarding project (or PIERB 1)	-	-	15,275	-	-	-	-	-	-	-	15,275
104	Stand repositioning	-	-	-	-	-	-	10,786	13,888	-	36,832	61,506
105	Security expansion	-	-	-	-	-	-	6,741	-	-	-	6,741
106	Asphalt apron replacement	552	577	2,411	627	326	336	346	356	367	378	6,276
107	Concrete runway and apron replacement	5,520	6,922	3,617	6,269	6,520	4,030	6,917	7,125	7,339	7,559	61,819
108	ITB Airbridge refurbishment	1,767	1,615	965	502	391	403	138	142	147	151	6,221
109	Taxiway Lima	21,534	-	-	-	-	-	-	-	-	-	21,534
110												
111												
112												
113												
114												
115												
116												
117	Other capital expenditure	24,300	17,347	12,946	16,025	17,497	24,847	21,821	27,635	19,535	30,804	212,756
118	Total Capital Expenditure	65,584	82,773	56,379	36,893	48,120	73,979	87,852	93,565	41,690	75,724	662,561

**SCHEDULE 18: FORECAST TOTAL REVENUE REQUIREMENTS (cont 3)**

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**Basis for Cost Allocation**

Refer to Sections 2.2.4 and 2.5.

An explanation of where and why disclosures differ from the cost-allocation Input Methodology and/or, where costs are shared between regulated and non-regulated assets, an explanation of the basis for that allocation.

**Key Capital Expenditure Projects—Consumer Demands Assessment**

Refer to Section 2.4

An explanation of how consumer demands have been assessed and incorporated for each reported project and the degree to which consumers agree with project scope, timing and cost.

**18b(iv) FORECAST OPERATIONAL EXPENDITURE**

(\$000)	for year ended	Pricing	Pricing	Pricing	Pricing	Pricing
		Period Starting Year	Period Starting Year + 1	Period Starting Year + 2	Period Starting Year + 3	Period Starting Year + 4
		30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17
Corporate overheads		30,903	32,535	34,408	36,411	38,324
Asset management and airport operations		22,000	23,064	23,948	25,261	26,558
Asset maintenance		24,466	23,577	21,199	21,239	21,860
Forecast operational expenditure		77,369	79,176	79,554	82,911	86,741

## 2. Disclosure relating to Forecast Total Revenue Requirement

This Section 2 should be read as being part of Schedule 18 of the Determination.

### 2.1 Overview of the methodology used to determine the revenue requirement

Schedule 18a requires Auckland Airport to provide an overview of the methodology used to determine its "revenue requirement" for specified airport services. The underlying rationale of a revenue requirement is that it is determined by a building blocks analysis. Depending on the extent to which a building block model is strictly adhered to, the forecast revenue for a period may not equal the revenue requirement. The Determination requires information on both the revenue requirement and forecast revenue to be disclosed. As part of its Aeronautical Pricing Consultation, Auckland Airport adopted a building blocks approach to determining its revenue requirement for airfield activities and terminal activities in setting Standard Charges. However, as explained in this disclosure, downward adjustments were made such that forecast revenue does not equal the revenue requirement implied by the building block model.

As indicated in Part A of this Disclosure, the revenue requirement for the 2012 Pricing Decision did not include Other Regulated Activities, such as aircraft and freight activities and certain passenger terminal services, namely identified tenancies leases and collection facilities for duty-free goods. This is because the revenue from these activities is not recovered by way of Standard Charges. Auckland Airport's revenue requirement for Other Regulated Activities is instead determined through negotiation of individual leases and/or licences between Auckland Airport and individual customers based on market value.

The building blocks approach used in determining the revenue requirement for Standard Charges (ie excluding Other Regulated Activities) can be formulaically represented as follows:

$$\text{Revenue requirement} = \text{Efficient (Pricing Asset Base} \times \text{WACC} + \text{Operating Expenditure} \\ + \text{Tax} + \text{Depreciation}) - \text{Other aeronautical income} - \text{Forecast Revaluations}$$

However, as a result of consultation with its Substantial Customers, Auckland Airport made a number of adjustments to the building blocks, adjusting the theoretical revenue requirement to reach the forecast revenue. These adjustments are explained within each description of the relevant building block components, which are discussed under Section 2.2 below.

Auckland Airport has taken a holistic approach to aeronautical pricing which recognises the challenging economic environment facing the industry and in particular our airline customers. Auckland Airport has not actually sought to achieve an NPV=0 outcome for the relevant pricing period, and has instead forecast a significant under-recovery. Auckland Airport considers that Standard Charges are efficient. Guiding principles are described in Section 2.7.

For the Aeronautical Pricing Activities, Auckland Airport considers that airlines will want to compare the disclosed information to the model used for aeronautical pricing. The following tables provide a summary of Schedule 18 for the sub-set of activities which were part of the Aeronautical Pricing Consultation versus Other Regulatory activities. This information is presented based on the mid-point WACC scenario of 9.16%.

**Tables A: Sch 18 – Reconciliation of the Aeronautical Pricing Model to Total Regulated Activities**

(\$000)	As per Pricing Model					
	Pricing Period Starting Year	Pricing Period Starting Year + 1	Pricing Period Starting Year + 2	Pricing Period Starting Year + 3	Pricing Period Starting Year + 4	
	Jun-13	Jun-14	Jun-15	Jun-16	Jun-17	
	<b>Forecast value of assets employed</b>	902,969	918,931	970,966	971,605	966,110
	Forecast cost of capital	9.16%	9.16%	9.16%	9.16%	9.16%
Forecast return on assets employed	82,737	84,200	88,967	89,026	88,522	
Forecast operational expenditure	70,493	72,010	72,205	75,208	78,664	
Forecast depreciation	37,957	37,050	42,659	42,780	39,983	
Forecast tax	30,627	34,353	36,140	38,656	41,063	
Forecast revaluations	-	-	-	-	-	
Forecast other income	3,674	3,770	3,869	3,971	4,077	
Other factors	(6,284)	(6,395)	(6,757)	(6,761)	(6,723)	
Forecast total revenue requirement	211,856	217,448	229,345	234,938	237,433	
Revenue requirement not applicable to price setting event	-	-	-	-	-	
Revenue smoothing adjustment	(9,448)	(1,327)	(1,861)	3,948	13,052	
Forecast revenue for services applicable to price setting event	202,407	216,121	227,484	238,885	250,485	
Revenue as per Pricing model	206,081	219,890	231,353	242,856	254,562	

**Schedule 18 – Other Regulated Activities**

(\$000)	Other regulated					
	Pricing Period Starting Year	Pricing Period Starting Year + 1	Pricing Period Starting Year + 2	Pricing Period Starting Year + 3	Pricing Period Starting Year + 4	
	Jun-13	Jun-14	Jun-15	Jun-16	Jun-17	
	<b>Forecast value of assets employed</b>	166,892	165,216	163,802	162,400	161,422
	Forecast cost of capital	9.16%	9.16%	9.16%	9.16%	9.16%
Forecast return on assets employed	15,292	15,138	15,009	14,880	14,791	
Forecast operational expenditure	6,876	7,166	7,350	7,703	8,077	
Forecast depreciation	4,942	4,725	4,557	4,377	3,973	
Forecast tax	2,460	2,559	2,690	2,783	2,867	
Forecast revaluations	(2,942)	(2,975)	(3,015)	(3,052)	(3,086)	
Forecast other income	-	-	-	-	-	
Other factors	(6,838)	(6,451)	(5,996)	(5,654)	(5,354)	
Forecast total revenue requirement	19,790	20,163	20,595	21,037	21,268	
Revenue requirement not applicable to price setting event	19,790	20,163	20,595	21,037	21,268	
Revenue smoothing adjustment	-	-	-	-	-	
Forecast revenue for services applicable to price setting event	0	(0)	0	(0)	(0)	

**Schedule 18 – Total Regulated Activities**

(\$000)	Total Regulated					
	Pricing Period Starting Year	Pricing Period Starting Year + 1	Pricing Period Starting Year + 2	Pricing Period Starting Year + 3	Pricing Period Starting Year + 4	
	Jun-13	Jun-14	Jun-15	Jun-16	Jun-17	
	<b>Forecast value of assets employed</b>	1,069,860	1,084,147	1,134,768	1,134,004	1,127,533
	Forecast cost of capital	9.16%	9.16%	9.16%	9.16%	9.16%
Forecast return on assets employed	98,029	99,338	103,976	103,906	103,313	
Forecast operational expenditure	77,369	79,176	79,554	82,911	86,741	
Forecast depreciation	42,899	41,775	47,215	47,157	43,957	
Forecast tax	33,088	36,912	38,830	41,439	43,930	
Forecast revaluations	(2,942)	(2,975)	(3,015)	(3,052)	(3,086)	
Forecast other income	3,674	3,770	3,869	3,971	4,077	
Other factors	(13,122)	(12,846)	(12,753)	(12,416)	(12,077)	
Forecast total revenue requirement	231,646	237,611	249,940	255,975	258,701	
Revenue requirement not applicable to price setting event	19,790	20,163	20,595	21,037	21,268	
Revenue smoothing adjustment	(9,448)	(1,327)	(1,861)	3,948	13,052	
Forecast revenue for services applicable to price setting event	202,407	216,121	227,484	238,885	250,485	

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## 2.2 Descriptions of revenue requirement components

### 2.2.1 Overview of disclosure requirements

Clause 2.5(1)(c) of the Determination requires a description of how each of the components of Auckland Airport's revenue requirement set out in Schedule 18<sup>4</sup> has been determined, including an explanation of:

- the rationale for the basis of preparing these components and any related assumptions;<sup>5</sup>
- the extent to which these components were used to determine the forecast total revenue requirement;<sup>6</sup> 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.<sup>7</sup>

By way of overview, in developing each of the key inputs to the building blocks model, Auckland Airport's initial objective was to earn a normal return calculated using an appropriately determined WACC, an appropriate asset base and efficient operating cost base. Auckland Airport was concerned to ensure that the resulting charges were reasonable by adopting a meaningful and transparent consultation process with its Substantial Customers. To determine a normal return, Auckland Airport undertook an assessment over the pricing period (five years) on a prospective basis. This approach acknowledged the potential to experience under or over WACC returns in individual years. 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<sup>8</sup>.

For further information on Auckland Airport's pricing methodology for setting Standard Charges, refer to Section 2.7.

Components of the revenue requirement are discussed below.

### 2.2.2 Forecast value of assets employed

#### Description of and rationale for forecast value of assets employed

The forecast value of assets employed for the Aeronautical Pricing Activities was based on allocations of assets included in the pricing model determined from Auckland Airport's 30 June 2006 valuations, plus capital expenditure, less depreciation and then adjusted for lost and found assets.

The forecast value of assets employed for Other Regulated Activities in the terminal, but which are not included in pricing, were based on Auckland Airport's 30 June 2006 valuations, plus capital expenditure, less depreciation.

Other regulated Aircraft and Freight Activities are based on current market values as at 30 June 2011, updated to forecast 30 June 2012 accounting for forecast additions and depreciation.

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<sup>4</sup> These components are listed in clause 2.5(1)(c)(i)-(vii) of the Determination.

<sup>5</sup> Clause 2.5(1)(c)(viii) of the Determination.

<sup>6</sup> Clause 2.5(1)(c)(ix) of the Determination.

<sup>7</sup> Clause 2.5(1)(c)(x) of the Determination.

<sup>8</sup> Ramsey Pricing concepts 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 behavior. Users whose demand for service is more (less) sensitive to cost changes are allocated a proportionally smaller (larger) amount of common and fixed costs. Ramsey-Pricing techniques are commonly used to assign fixed and common costs in large networks.

The following further explains the approach taken in respect of Aeronautical Pricing Activities and Other Regulated Activities.

## Opening valuations

### *Aeronautical Pricing Activities*

Auckland Airport considered two options in the initial phase of consultation:

- The latest regulatory valuation as at 30 June 2011, consistent with the most recent historic financial disclosure; and
- The moratorium approach, which was a roll forward of the 2006 valuation for actual additions and depreciation.

Based on strong feedback from Substantial Customers, Auckland Airport decided to retain the moratorium on asset revaluations that it adopted for the purpose of setting its aeronautical charges for the FY08-FY12 period ("**2007 Pricing Decision**").

During the consultation process for the 2007 Pricing Decision, as part of adopting a pragmatic approach to pricing, Auckland Airport undertook to adopt a moratorium on asset revaluations for the next two pricing periods. Auckland Airport made this commitment expressly subject to any regulatory change that might occur during that time as follows:<sup>9</sup>

AIAL's approach [to asset revaluations] is predicated on there being no change to any future regulated approach to asset revaluations. AIAL has adopted this approach, but reserves its future position in respect of this issue.

Since the 2007 Pricing Decision, there has been, in Auckland Airport's view, significant regulatory change with the introduction of the Commission's new information disclosure and price monitoring regime. However, Auckland Airport received strong feedback from its Substantial Customers that they preferred the moratorium remain in place for the FY13-FY17 pricing period. After careful consideration of these views, and the Commission's new valuation methodology for information disclosure purposes, Auckland Airport determined that it would not revalue its assets for the purpose of the 2012 Pricing Decision, but would instead maintain the moratorium.

The basis for the asset valuations used in the 2012 Pricing Decision are therefore consistent with the asset valuations adopted for the 2007 Pricing Decision, which were as follows:

- Land asset valuations were undertaken by Seagar and Partners ("**Seagars**") as at 30 June 2006 ("**Seagar land valuations**") adjusted to Market Value Alternative Use ("**MVAU**"); and
- Specialised asset valuations were undertaken by Opus International Consultants Limited ("**Opus**") as at 30 June 2006 ("**Opus specialised assets valuation**").

All valuations were undertaken in accordance with Auckland Airport's 2006 Asset Valuation Handbook on the basis of fair value and consistent with financial reporting and professional standards for property valuation. A summary of these valuations is provided below.

Where a lost or found asset has been identified which is not reflected in the valuations used for the 2007 Pricing Decision, the value of the pricing asset base has been updated in a manner consistent with the Commission's Input Methodologies Determination (as practically, this is the simplest approach to follow). Auckland Airport also notes that the 2006 valuations that have been adopted for the purpose of the 2012

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<sup>9</sup> AIAL Aeronautical Pricing Revised Proposal, March 2007, p 11.

Pricing Decisions are also subject to an asset allocation exercise, which is discussed below. These matters were affected transparently through the Aeronautical Pricing Consultation.

### Seagar land valuation

For land, Seagar estimated Market Value Existing Use ("MVEU"), using both a zonal and a discounted cash flow approach. The MVEU methodology was intended to determine the cost that the developer of a competing airport facility could expect to have to pay to acquire the equivalent land in order to provide a similar service. For operational airfield land this comprised an opportunity cost valuation of the land in its next best alternative use, which equated to \$600,000 per hectare, plus holding and planning costs to convert the land to an airport of \$261,700 per hectare, to give an MVEU value of \$861,700 per hectare. The MVEU approach was considered consistent with the outcome that would be likely to prevail in a competitive market. For a complete explanation of the valuer's methodology, refer to the Seagar land valuation report at **Appendix A**. For Standard Charges in 2007 this valuation was adjusted to exclude the holding and planning costs to a value of \$600,000 per hectare of airfield land, approximating MVAU ("MVAU"). Land under terminals was based on the airfield land value.

### Opus specialised asset valuation

The basis for the non-land valuation methodology was Optimised Depreciated Replacement Cost ("ODRC"). For a complete explanation of the methodology adopted, refer to the Opus specialised asset valuation reports at **Appendices B** and **C**.

### *Other Regulated Activities*

For other regulatory activities in the terminal, the approach taken to asset valuation mirrors Aeronautical Pricing – it is based on 2006 Valuations plus invested capital less depreciation. In practice, the 2006 valuation is not a key reference point for setting revenues for Other Regulated Activities. Rather revenues are struck following a negotiation process which references current comparable market rentals. However, it was considered impractical to have a different valuation reference point for setting the revenue requirement within the terminal, therefore the rationale for adopting the 2006 valuation in this instance is pragmatism.

Aircraft and Freight rentals are managed via the property leasing team, which use standard property leasing practices to benchmark rentals for comparable industrial properties. Expert valuers determine appropriate market values based on agreed contracted rents and future market rents. The latest valuations for these properties were completed in 30 June 2011, as part of financial reporting, on a MVEU basis.

Auckland Airport has considered whether adopting separate regulatory valuations is appropriate for these Other Regulated Activities. However, in Auckland Airport's view these tenanted properties are leased on a competitive market basis. For all tenanted regulated activities, individual agreements are negotiated with the tenants. Contracts include rental dispute escalation practices and include arbitration clauses.

Further explanation of the market value existing use valuation for Aircraft and Freight activities is provided in **Appendix D** and **E**.

### **Capital expenditure forecast**

Auckland Airport's approach to forecasting capital expenditure and additions for aeronautical pricing and Other Regulated Activities was as follows:

- To take a medium term approach to planning within the context of the Masterplan;
- Auckland Airport acknowledged that capital expenditure priorities are dependent on a range of changing factors, including demand and funding availability;

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- Despite the potential for variability and uncertainty, Auckland Airport forecast the most likely scenario of capital expenditure based on factors sufficiently known at the relevant time;
- Auckland Airport used quantity surveyors to develop estimates in FY11 dollars for key capital expenditure projects, and converted this to a nominal forecast. The nominal forecast accounted for expected changes in building costs and consistent with disclosure reporting, capitalised and forecast holding costs based on the post-corporate tax WACC;
- For each project, Auckland Airport estimated the commissioning time and cost and applied the estimated aeronautical share of assets for Aeronautical Pricing and Other Regulated Activities;
- Auckland Airport calculated the required return on the opening asset base plus the proportion of commissioned assets in use during the year; and
- To exclude projects which were sufficiently uncertain and over \$5 million (eg likelihood of new security requirements), with these to be subsequently added if required by the airlines or regulators.<sup>10</sup>

Major strategic project capital forecasts were based on information provided by Beca Carter, quantity surveyors. Forecast escalation rates were provided by WT Partnership and holding costs, capitalised at WACC, based on the mid-point estimate of Auckland Airport's WACC range. The forecasts were subject to standard planning variations depending on their stage in the project management life cycle.

## Allocations

### *Aeronautical Pricing Activities*

Auckland Airport has adopted in setting its Standard Charges an asset allocation approach that is highly consistent with the input methodologies that are required to be used for information disclosure purposes.

Auckland Airport considered that some adjustments, however, were appropriate for the purpose of setting Standard Charges. By way of summary, Auckland Airport has made the following key decisions for pricing purposes:

- removed the direct and common share of assets which were excluded from aeronautical pricing (commercial and other regulatory);
- excluded the seabed owned by Auckland Airport (229ha) from the pricing asset base;
- excluded the Northern Runway and Northern Runway approach land (281.3ha) from the pricing asset base (consistent with its treatment as a future use asset for information disclosure purposes);
- revised the allocation rule for Manu Tapu Road from aeronautical to commercial; and
- changed the international forecourt allocation from 95% aeronautical to 75% aeronautical and 25% commercial.

This resulted in an FY11 closing asset base which was then rolled forward to closing FY12.

Auckland Airport believes that including the Northern Runway land in the pricing asset base is the most efficient approach to pricing, reflecting the benefits of ownership now, rather than the scenario of acquiring this land in the future which may not even be possible. However, in response to feedback received during the Aeronautical Pricing Consultation, Auckland Airport did not include the Northern Runway in Standard Charges. However, the Northern Runway land continues to be disclosed annually in the schedule relating to assets held for future use.

### *Other Regulated Activities*

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<sup>10</sup> These were to be recovered on an out-turn basis, however following consultation, as an alternative, capital projects over \$5 million which were unforeseen at the time of Aeronautical Pricing are recoverable via the Regulatory or Required Investment Policy.

Allocation rules for Other Regulated Activities define the share of assets associated with identified tenancies in the terminal, collection point and Aircraft and Freight facilities. The allocation methodologies were consistent with analysis as at the time of the price setting event for Aeronautical Pricing and consistent with the approach taken for information disclosure purposes.

### **Extent to which forecast assets employed have been used to determine forecast total revenue requirement**

The forecast value of assets employed for both Aeronautical Pricing Activities and Other Regulatory Activities was based on the forecast regulatory investment values of the respective activities. These are summarised in the table below:

**Table B:** Forecast value of assets employed (\$000)

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	\$000s	\$000s	\$000s	\$000s	\$000s
Regulatory investment value – Aeronautical Pricing Activities	902,969	918,931	970,966	971,605	966,110
Regulatory investment value – Other Regulated Activities	166,892	165,216	163,802	162,400	161,422
<b>Total value forecast assets employed</b>	<b>1,069,860</b>	<b>1,084,147</b>	<b>1,134,768</b>	<b>1,134,004</b>	<b>1,127,533</b>

### **Difference compared to the most recent corresponding historical financial information**

The most recent historical financial information disclosed in accordance with clause 2.3 of the Determination relates to the financial year ended 30 June 2011 (part of the May 2012 Disclosure).

The following table explains the key differences between the methodologies and values used in determining the revenue requirement for specified airport services and the historic financial information. Comparative numeric values are also provided.

**Table C:** Forecast value of assets employed – difference to historical financial information

<b>Historic Disclosure</b>	<b>Year ended 2011</b>	<b>Forecast Revenue Requirement</b>	<b>Forecast year ended 2013</b>
	\$000s		\$000s
Methodology based on 2011 MVAU – Regulatory Investment Value – Airfield and Terminal	1,032,622	Regulatory Investment Value - Airfield and Terminal - Methodology based on 2006 values rolled forward	952,077
Methodology based on 2011 MVAU – Regulatory Investment Value – Aircraft and Freight	59,129	Regulatory Investment Value - Aircraft and Freight Methodology based on 2011 Market Values	117,784
<b>Total</b>	<b>1,091,751</b>	<b>Total</b>	<b>1,069,860</b>

#### *Airfield and Terminal*

As shown in the table, the basis for the forecast value of assets employed for the Airfield and Terminal is based on the Moratorium approach, as requested by Substantial Customers. Therefore the 2006 MVAU valuations rolled forward to 2012 for depreciation and fixed asset addition as used for Aeronautical Pricing will differ from the values disclosed for 2011 which are based on a CPI roll forward of the regulatory valuation for property plant and equipment and MVAU for land in 2011.

## *Aircraft and Freight*

Rentals for Aircraft and Freight activities are determined from per square metre rental rates, which are based on competitive benchmarking of comparable commercial properties. These provide an accessible reference point for both the tenant and landlord for negotiating tenancy terms. Auckland Airport considers it would be impractical to transition to regulatory valuations where there are competitive market comparables available. This would only create confusion for tenants, more familiar with standard market practices.

### **2.2.3 Forecast cost of capital**

#### **Description of and rationale for forecast cost of capital**

##### *Aeronautical Pricing Activities*

Auckland Airport engaged Dr Alastair Marsden of Uniservices Limited ("**Uniservices**") to provide expert advice on the appropriate WACC to be used for setting Standard Charges for the FY13-FY17 pricing period. Specifically, Auckland Airport sought advice from Uniservices on:

- its recommended methodology for calculating the WACC to be used for Auckland Airport's aeronautical pricing;
- appropriate parameter estimates and parameter errors, including the details of the asset beta and leverage estimates;
- its analysis and summary of the current academic and industry views on the appropriate market risk premium;
- model error and a recommendation on appropriate percentiles for pricing;
- post-tax and vanilla WACC estimate;
- a comparison of the Uniservices' WACC estimate to the Commission's WACC input methodology;
- the process by which the Uniservices' WACC would be updated just before prices were reset on 1 July 2012; and
- its response to feedback from Substantial Customers.

Auckland Airport set the WACC parameters for setting its Standard Charges after consideration of Uniservices' expert advice, feedback from Substantial Customers and consideration of Auckland Airport's corporate experience in raising debt and equity. The Commission's methodology was used as a key reference point throughout consultation, but the parameters generated by that methodology are an industry-wide estimate, whilst the task at hand was to determine an efficient WACC specifically for Auckland Airport which must attract capital from global markets.

The generally accepted approach to the calculation of WACC has been applied to Auckland Airport's pricing. This represents the weighted average cost of equity (adopting the simplified version of the Brennan-Lally CAPM) plus the cost of debt, net of corporate tax deductions, as follows:

$$WACC = k_e \frac{E}{V} + k_d (1 - t_c) \frac{D}{V}$$

Where:

$k_e$  = cost of equity capital

$k_d$  = cost of debt

$E/V$  = "market" value of equity/total enterprise value

$D/V$  = "market" value of debt/total enterprise value

$t_c$  = corporate tax rate

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$$k_e = r_f (1 - T_i) + \beta_L (TAMRP)$$

Where, in addition to the terms already defined:

$r_f$  = Risk free rate

$T_i$  = The average (across equity investors) of their marginal tax rates on ordinary income

$\beta_L$  = Levered beta

TAMRP = Tax-Adjusted Market Risk Premium

The calculation of WACC for a particular portion of a company is subject to variables that require expert assessment, judgment and estimation. As such, Auckland Airport did not establish a single point estimate of WACC to apply for pricing but rather established an estimated range and evaluated the forecast building block outcomes, including the forecast revenue required, within this range. In order to complete Schedule 18, Auckland Airport has provided the range of the 75<sup>th</sup> to 85<sup>th</sup> percentile and the mid-point of this range to illustrate the forecast revenues. Throughout consultation, Auckland Airport updated market parameters. The final update for the 2012 Pricing Decision is based on market data as at 21 May 2012.

The following table summarises Auckland Airport's WACC range and the key WACC parameters that Auckland Airport has adopted in its 2012 Pricing Decision:

**Table D: Aeronautical pricing WACC parameters**

	Aeronautical pricing WACC for FY13-FY17 pricing period
Risk-free rate	3.48%
Post-tax market risk premium	7.50%
Company tax rate	28%
Debt premium to risk free rate	1.72%
Debt to debt plus equity ratio	30%
Asset beta	0.65
Nominal after tax WACC range	8.88% -9.45%

Auckland Airport's approach is consistent with the Commission's WACC methodology for information disclosure, except that:

- a seven year term of the risk-free rate has been adopted (between the Commission's 5 year and the expert advisor's recommended 10 year term) to better match the average original debt maturity of Auckland Airport's debt;
- an asset beta of 0.65 has been adopted (rather than the Commission's industry beta of 0.60). The asset beta was estimated by taking a similar approach to the Commission but placed greater emphasis on data specific to Auckland Airport and incorporated a downwards adjustment for the regulated business. Auckland Airport notes that the Commission estimated an asset beta for Auckland Airport of between 0.75 and 0.79. Auckland Airport also notes that the new price structure has a higher risk to Auckland Airport with a substantially reduced cost pass through element. This new structure is based on requests from some Substantial Customers for greater risk sharing, and Auckland Airport believes it will be faced with increased volatility beyond that indicated in the historic regression analysis;
- Auckland Airport's leverage is based on average corporate leverage, with an upwards adjustment for the regulated business (in much the same way as the asset beta has a downwards adjustment

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on account of the view that the regulated side of the business is less risky than the commercial side, the regulated side of the business requires an upward adjustment to account for its ability and need to attract more debt);

- a market risk premium of 7.5% has been adopted based on empirical research by *Dimson et al 2011*<sup>11</sup> and in recognition that the global financial crisis (“GFC”) has not ceased with the ongoing sovereign debt issues occurring in Europe; and
- a WACC range of between the 75<sup>th</sup> and 85<sup>th</sup> percentile has been adopted on the basis that the existence of asymmetric risk provides strong grounds for departing from the Commission's 75<sup>th</sup> percentile for pricing purposes (or 50<sup>th</sup> percentile as the starting point for monitoring purposes). Another possible approach is for Auckland Airport to incorporate such risks into its forecast operating costs, such as by way of a self-insurance "premium". This appears to be the Commission's preferred approach.<sup>12</sup> However Auckland Airport considers that incorporation of asymmetric risk in the WACC is a simpler approach.

The following table summarises the key methodological considerations over the course of the Aeronautical Pricing Consultation process. In the first phase of consultation, prior to the Initial Pricing Proposal, Substantial Customers made it very clear to Auckland Airport that they considered Auckland Airport should adopt the Commission's industry WACC and each of its parameters, for the purposes of pricing. Auckland Airport therefore used the Commission's methodology as the key reference point for consultation on WACC, and in cases of departure from the Commission's methodology, provided detailed rationales for these departures. While Substantial Customers provided an expert report and commentary in phase one of the consultation process, they only provided very limited additional responses in phases two and three of the Pricing Consultation, other than to reiterate their expectation that the Commission's methodology ought to be applied for pricing.

**Table E: Summary of WACC parameter key methodological considerations**

WACC Parameter	Commission	Uniservices Oct 2011	Futures Consultants Ltd Oct 2011	Auckland Airport IPP Dec/Jan 12	Feedback on IPP	Auckland Airport RPP	Feedback	Final Decision and Rationale
<i>Source of risk free rate benchmark</i>	Observed market yield to maturity of NZ Government NZ\$ bonds	Observed market yield to maturity of NZ Government NZ\$ bonds	Observed market yield to maturity of NZ Government NZ\$ bonds	Observed market yield to maturity of NZ Government NZ\$ bonds	No comment	Observed market yield to maturity of NZ Government NZ\$ bonds	No feedback on Auckland Airport's rationale for departures from the Commerce Commission approaches.	Consistent with the Commission's methodology.
<i>Term of the risk free rate</i>	5 years	10 years	5 years	7 years	5 years	7 years	Maintained position that Auckland Airport's WACC should be consistent with the findings of the Commerce Commission.	Despite expert support for 10 years, 7 years adopted consistent with Auckland Airport debt practices and the average debt maturity at issuance.
<i>Debt premium</i>	Difference between the risk free rate and the yield on publically tracked corporate bonds for A-rated airports	Difference between the risk free rate and the yield on publically tracked corporate bonds for A-rated airports	Difference between the risk free rate and the yield on publically tracked corporate bonds for A-rated	Difference between the risk free rate and the yield on publically tracked corporate bonds for A-	No comment	Difference between the risk free rate and the yield on publically tracked corporate bonds for A-	Varying views on	Consistent with the Commission's methodology.

<sup>11</sup> Dimson, E., Marsh, P. and M. Staunton, 2011, Equity Premia Around the World, London Business School, Chapter in book "Rethinking the equity risk premium", Edited by P. Brett

<sup>12</sup> Input Methodologies Reasons Paper, December 2010, paragraph E12.12.

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WACC Parameter	Commission	Uniservices Oct 2011	Futures Consultants Ltd Oct 2011	Auckland Airport IPP Dec/Jan 12	Feedback on IPP	Auckland Airport RPP	Feedback	Final Decision and Rationale
	with a term matching the risk free	with a term matching the risk free	airports with a term matching the risk free	rated airports with a term matching the risk free		rated airports with a term matching the risk free	whether a 50th or 75th percentile approach was appropriate.	
<i>Debt issuance costs</i>	0.35%	0.425%	0.35%	0.35%	No comment	0.35%		Consistent with Commission.
<i>Asset beta</i>	0.60	0.65	0.60	0.65	0.60	0.65		Consistent with Commission's approach to estimation, placing greater emphasis on Auckland Airport as part of the industry sample with a downward revision for the aeronautical vs the corporate asset beta.
<i>Leverage</i>	17%	30%	17%	30%	17%	30%		Based on Auckland Airport average corporate leverage with a upward revision for the aeronautical vs the corporate leverage.
<i>Investor tax rate</i>	28%	28%	28%	28%	No comment	28%		Consistent with Commission.
<i>TAMRP</i>	7%	7.5%	7%	7.5%	7%	7.5%		Based on historical empirical analysis of the TAMRP.
<i>WACC point estimate for pricing</i>	75 <sup>th</sup> percentile	75 <sup>th</sup> to 95 <sup>th</sup> percentile	50 <sup>th</sup> percentile	75 <sup>th</sup> to 95 <sup>th</sup> percentile	50 <sup>th</sup> to 75 <sup>th</sup> percentile	75 <sup>th</sup> to 85 <sup>th</sup> percentile		75 <sup>th</sup> to 85 <sup>th</sup> percentile. Range narrowed as part of package of considerations.
<i>Model error</i>	No adjustment	Up to 1% not unreasonable	No adjustment	No adjustment	No comment	No explicit adjustment		A non-explicit increment to the 75 <sup>th</sup> percentile range.
<i>WACC</i>	8.04% at April 2012	10.47%	7.34%	9.19%-10.68%, mid 9.93%	7.06% to 8.04%	9.30% - 9.87% mid 9.58%		8.88% - 9.45%, mid 9.16%

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### *Other Regulated Activities*

Auckland Airport has not commissioned research on the WACC requirement for Other Regulated Activities. Other Regulated Activities represent approximately 15% of specified airport activities. Auckland Airport considers the WACC analysis used in Aeronautical Pricing is an appropriate proxy for regulated activities generally.

#### **Extent to which the WACC has been used to determine the forecast total revenue requirement**

Schedule 18 has been completed based on the forecast range and mid-point estimates of WACC range of 8.88% to 9.45% and the mid-point of that range, 9.16% respectively for all regulated activities.

An efficient WACC remained one of the few areas of material difference between Auckland Airport and Substantial Customers following the Aeronautical Pricing Consultation. As described later in Section 2.2.7 on Other Factors, Auckland Airport considered it prudent to price below WACC and therefore set Standard Charges that result in an effective forecast return on investment of 8.475% for those assets that were included in Standard Charges.<sup>13</sup> This represented a forecast negative NPV of \$25.4 million relative to Auckland Airport's mid-point WACC of 9.16% over the pricing period.

#### **Difference compared to the most recent corresponding historical financial information**

Auckland Airport consulted in detail on the assessment of an appropriate return to incentivise further investment in Auckland Airport.

Auckland Airport considered it appropriate to consider Auckland Airport specific data and current risk concerns when establishing the WACC for Auckland Airport's Aeronautical Pricing. Based on expert advice, Auckland Airport decided that the industry-wide WACC set by the Commission for information disclosure purposes was not appropriate when forecasting Auckland Airport's specific risks over a five year period. In particular, the estimate of WACC using the Commission's WACC input methodology fundamentally understates Auckland Airport's actual debt costs.

Substantial Customers advocated that the Commission's methodology should be applied and that a WACC of circa 8% was appropriate as it was considerably higher than current bank rates and bond yields. As shown below, the Commission's April 2012 WACC of 8.04% infers a cost of debt of 5.9% and the estimates used for pricing are even lower, on the basis of updated risk free rates. Auckland Airport does not consider that the theoretical debt cost of funds calculated in the WACC model represents a commercially viable debt funding rate for an entire debt portfolio. Substantial Customers did not respond specifically to Auckland Airport's points raised in relation to the artificially low debt cost implied by the model.

The table on the following page highlights the differences between the WACC used for the most recent historical financial information (Commission industry post-tax WACC 30 June 2011) and that used for price setting (20 May 2011). The Commission's industry WACC for April 2012 is also illustrated, in comparison to the Auckland Airport specific WACC adopted for Aeronautical Pricing.

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<sup>13</sup> Pricing model dated 29 May 2012.

**Table F: Commission's Information Disclosure WACC comparisons to Aeronautical Pricing**

	<b>Commission Historical Information Disclosure Industry Post tax WACC 30 June 2011</b>	<b>Commission Industry Post tax WACC April 2012</b>	<b>Aeronautical pricing WACC for FY13-FY17 revenue forecast 20 May 2012 estimate</b>
<b>Risk-free rate</b>	4.35%	3.61%	3.48%
<b>Post-tax market risk premium</b>	7.00%	7.00%	7.50%
<b>Company tax rate</b>	28%	28%	28%
<b>Debt premium</b>	1.64%	1.94%	1.72%
<b>Debt to debt plus equity ratio</b>	17%	17%	30%
<b>Asset beta</b>	0.60	0.60	0.65
<b>Nominal after tax WACC range</b>	6.58% - 8.54% 25 <sup>th</sup> – 75 <sup>th</sup>	6.08% - 8.04% 25 <sup>th</sup> – 75 <sup>th</sup>	8.88% -9.45% 75 <sup>th</sup> – 85 <sup>th</sup>
<b>Implied cost of debt before tax</b>	6.34%	5.90%	5.55%

The post-tax vanilla WACC published as at 30 June 2011 and April 2012 represents an estimate by the Commission of an appropriate WACC for the airport industry. Auckland Airport acknowledges that the Commission intends to use annual updates of WACC to monitor performance. Auckland Airport has appealed the WACC methodology and considers it will not incentivise investment appropriately. Furthermore, Auckland Airport remains unclear how the Commission will compare returns ex post against annual WACC estimates, when the price setting event for Aeronautical Pricing is based on a forward looking estimate of WACC which will not be reviewed for five years.

As outlined above, the WACC set by the Commission for information disclosure purposes is significantly below the only observable WACC parameter – the cost of debt. Auckland Airport is confident that it has an efficient debt portfolio and therefore believes that the Commission's WACC methodology is too conservative. This may be due in some part to the unprecedentedly low yields being experienced in certain countries for government bonds.

#### **2.2.4 Forecast operational expenditure**

##### **Description of and rationale for forecast operational expenditure**

Auckland Airport has disclosed its total forecast operational expenditure for specified airport activities in Schedule 18.

Auckland Airport summarises below the key steps it took to determine its forecast operational expenditure for the purposes of Aeronautical Pricing and for Other Regulated Activities.

##### *Forecasting operational expenditure*

Auckland Airport used a forecast for 30 June 2012 as the base for forecast operational expenditure for the FY13-FY17 pricing period. Forecasting was then undertaken to determine the company-wide operating

costs for the FY13-FY17 period. Specific adjustments were made for any anticipated changes to the baseline (positive or negative). For example, one-off costs in the base year forecast, including Rugby World Cup costs, were excluded from this forecast. For each key area of operating cost, cost drivers were estimated to establish Auckland Airport's forecast operating costs for the period FY13-FY17. Key assumptions are described in Section 2.5 below.

#### *Allocating forecast operational expenditure*

Auckland Airport based its allocation approach on the Commission's cost allocation methodology that was established for information disclosure purposes. Where appropriate, costs were allocated directly to Aeronautical Pricing Activities, Other Regulated Activities and commercial activities using the base year business unit information. Remaining common costs were then allocated based on a set of cost allocation rules.

The following table summarises the key allocation rules applied in Auckland Airport's 2012 Pricing Decision. Total regulatory operating costs have been based on methodologies consistent with this. The first three columns demonstrate how the rules allocate costs amongst the three specified airport services for this Disclosure and the final column shows the allocation for the Aeronautical Pricing 2012 Decision.

**Table G: Cost allocation rules**

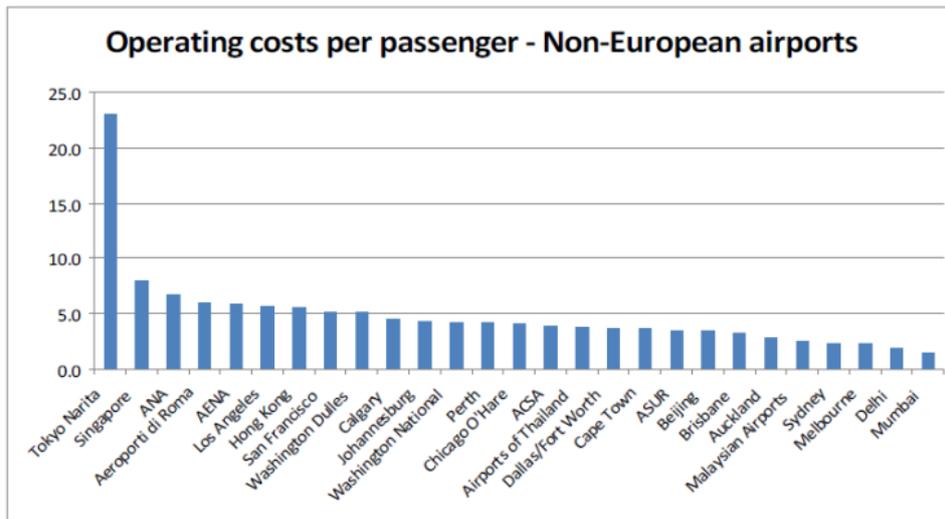
<b>RULE</b>	<b>Airfield</b>	<b>Passenger Terminal</b>	<b>Aircraft &amp; Freight</b>	<b>Price setting disclosure estimates including other regulated</b>	<b>Aeronautical pricing subset</b>
Company-wide	27%	44%	2%	<b>73%</b>	<b>63%</b>
Aeronautical revenues	37%	60%	3%	<b>100%</b>	<b>97%</b>
Airfield and terminal revenues	38%	62%	0%	<b>100%</b>	<b>100%</b>
Electricity utilities	1%	27%	0%	<b>28%</b>	<b>28%</b>
Water utilities	1%	31%	0%	<b>32%</b>	<b>31%</b>
Gas utilities	23%	37%	2%	<b>62%</b>	<b>53%</b>
Stormwater	61%	6%	6%	<b>73%</b>	<b>66%</b>
Wastewater	2%	30%	17%	<b>49%</b>	<b>27%</b>
Roadways	33%	35%	2%	<b>70%</b>	<b>64%</b>
Engineering Support Services	25%	64%	1%	<b>90%</b>	<b>89%</b>

#### *Benchmarking forecast operational expenditure*

Benchmarking is an important feature of Auckland Airport's Pricing Decision and considerations. For the 2012 Pricing Decision, Auckland Airport benchmarked its forecast operational expenditure to test whether Auckland Airport's cost base was efficient. Based on total costs per air traffic movement ("**ATM**"), total

costs per passenger and operating costs per passenger, Auckland Airport ranks as either the fourth or fifth lowest cost airport out of 50 global peers surveyed by Leigh Fisher.<sup>14</sup> The following figure shows, by way of example, Auckland Airport ranked 6<sup>th</sup> lowest out of the non-European airports for operating costs per passenger. Together with the European data, Auckland Airport ranks 6<sup>th</sup> lowest out of the total sample group of 50 airports.

**Figure 1: Operating costs per passenger - Non-European Airports**



Source: Leigh Fisher, Airport Performance Indicators 2011 Report.

In the early stages of consultation, analysis was also provided on how Auckland Airport benchmarked against Wellington International Airport ("WIAL") and Christchurch International Airport ("CIAL"). However, Auckland Airport acknowledged that national benchmarking is difficult due to differences between the scope of costs and services and traffic mix between airports.

As an example, the table below shows the significant difference between domestic and international passenger mix at Auckland, WIAL and CIAL.

**Table H: New Zealand airport passenger mix comparison**

	International Passengers	Domestic Passengers
Auckland Airport	56.3%	43.7%
Christchurch Airport	25.8%	74.2%
Wellington Airport	12.7%	87.3%

Source: Airport Company 2011 Annual Reports

Auckland Airport stands out as having a significantly higher proportion of international passengers. Therefore any benchmarking is distorted by the fact that Auckland's operational costs per passenger reflect the more complex nature of the services and facilities required for international passengers, such as security and hold baggage screening.

As a further check of the forecast operational expenditure used for setting its Standard Charges, Auckland Airport confirmed that the forecast operational expenditure was reducing on a per passenger basis in real

<sup>14</sup> Leigh Fisher Report, Airport Performance Indicators 2011 Report.

terms, over the forecast period, consistent with the efficiencies built into the forecast pricing model. Auckland Airport has in practice experienced rising operating costs per passenger. Auckland Airport takes every effort to manage operating costs, however in practice finds itself subject to material new regulatory costs, costs of competing with other airports for incremental demand and increasing quality expectations from consumers. Nevertheless, Auckland Airport understands the strong demand from airlines for operating cost efficiencies and developed its forecast operating cost assumptions to target cost efficiencies. By targeting reducing operating expenditure per passenger in forecasts for Aeronautical Pricing, the benefits of prospective efficiency gains are shared with consumers through lower prices.

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

**Table I: Forecast operating costs (\$000)**

	2013	2014	2015	2016	2017
	\$000s	\$000s	\$000s	\$000s	\$000s
Operating costs – Aeronautical Pricing Activities	70,493	72,010	72,205	75,208	78,664
Operating costs – Other Regulated Activities	6,876	7,166	7,350	7,703	8,077
<b>Total forecast operating costs</b>	<b>77,369</b>	<b>79,176</b>	<b>79,554</b>	<b>82,911</b>	<b>86,741</b>

### Difference compared to the most recent corresponding historical financial information

Allocation rules were reviewed during the Aeronautical Pricing Consultation and adjustments made in response to feedback. Most of this feedback was received prior to the May 2012 disclosure and therefore the allocation methodologies used in the FY11 annual disclosure made by Auckland Airport pursuant to clause 2.3, 2.4 and 2.10(1) of the Determination in May of this year ("**May 2012 Disclosure**") were aligned with the materials consulted on in the Revised Pricing Proposal in March 2012.

However in response to feedback, in the Final Pricing Decision it was decided to share the costs associated with non-airline specific route development activities (approximately \$3.5 million per annum in the forecast) between Aeronautical Pricing and Non-aeronautical Pricing Activities. This reduced the allocation of these costs to aeronautical from the 100% used in the May 2012 Disclosure to the 73.2% used for this price setting disclosure for all regulated activities and of which 62.7% has been allocated to the Aeronautical Pricing activities.

The grouping of operating costs by operating cost category (ie into corporate overheads, asset management and airport operations and asset maintenance) was carried out the same way as the information was prepared for the historic disclosure.

**Table J: Operating cost comparison: historic disclosure vs revenue requirement**

Historic Disclosure	Year ended 2011	Forecast Revenue Requirement	Forecast year ended 2013
	\$000s		\$000s
Operating cost allocation	74,095	Operating cost allocation	77,369
Non-airline specific route development activities	4,905	Non-airline specific route development activities	2,628

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## 2.2.5 Forecast depreciation

### Description of and rationale for forecast depreciation

#### *Aeronautical Pricing Activities*

Auckland Airport's approach to forecast depreciation when setting its aeronautical charges for the FY13-FY17 pricing period was as follows:

- All specialised assets in existence as at 30 June 2006 ("**existing assets**") were depreciated according to the economic life ascribed in the Opus specialised asset valuation reports (**Appendices B and C**). Auckland Airport forecast the depreciation of these existing assets by calculating the unallocated depreciation value first, then multiplying this by the asset allocation percentage to determine the pricing depreciation estimate for each existing asset.
- All specialised assets commissioned since 30 June 2006 ("**additions since 2006**") were depreciated according to their economic life at the date of commissioning. The economic lives of forecast additions to the asset base (such as capital expenditure projects) were estimated based on a high level analysis of the nature of the components and using default depreciation rates. To forecast the depreciation of these assets, Auckland Airport took the unallocated depreciation estimate and multiplied this by the forecast asset allocation percentage to determine the allocated depreciation value. For forecast additions from 1 July 2013 ("**additions since 2012**"), depreciation was based on the estimated economic life of forecast additions to the asset base (capital expenditure projects) based on a high level analysis of the nature of the components and estimated lives of the forecast additions to the asset base using default depreciation rates.
- Straight line depreciation was used in all instances.

#### *Other Regulated Activities*

Forecast depreciation for Other Regulated Activities (other regulated terminal assets and Aircraft and Freight) was based on the carrying value (as described above) and remaining economic life for existing assets and estimated value and economic life for forecast additions. All depreciation was straight line.

### Extent to which depreciation has been used to determine the forecast total revenue requirement

**Table K:** Forecast depreciation in revenue requirement (\$000)

	2013	2014	2015	2016	2017
	\$000s	\$000s	\$000s	\$000s	\$000s
Depreciation – Aeronautical Pricing Activities	37,957	37,050	42,659	42,780	39,983
Depreciation – Other Regulated Activities	4,942	4,725	4,557	4,377	3,973
<b>Total forecast depreciation</b>	<b>42,899</b>	<b>41,775</b>	<b>47,215</b>	<b>47,157</b>	<b>43,957</b>

### Difference compared to the most recent corresponding historical financial information

The primary difference between the forecast depreciation used to determine the revenue requirement and the most recent historical financial information arises from the preference by Substantial Customers that the moratorium be retained for the purposes of Aeronautical Pricing. The consequence of this is that, for Aeronautical Pricing, the underlying asset to be depreciated is based off a 2006 value (or cost for assets commissioned post 2006), whereas the May 2012 disclosure calculates depreciation on a 2009 asset value, with annual indexing to inflation.

**Table L: Depreciation comparison: historic disclosure vs revenue requirement (\$000)**

Historic Disclosure	Year ended 2011	Forecast Revenue Requirement	Forecast year ended 2013
	\$000s		\$000s
Terminal and Airfield - Depreciation based on regulatory valuations	42,466	Terminal and Airfield – Depreciation based on 2006 Valuations rolled forward	41,044
Aircraft and Freight - Depreciation based on regulatory valuations	1,290	Aircraft and Freight – Depreciation based on 2011 market valuation	1,854
Total	43,756		42,899

## 2.2.6 Forecast tax

### Description of and rationale for forecast tax

#### *Aeronautical Pricing Activities*

Auckland Airport used the corporate tax rate of 28% in calculating a cash tax payable applicable to the revenues and expenses on its pricing asset base for the purpose of setting Standard Charges. This is consistent with the Commission's input methodology for taxation. To calculate the cash tax payable Auckland Airport calculated regulatory taxable income by reversing out regulatory depreciation and deducting tax depreciation. For existing assets, the tax depreciation is calculated by using the same asset allocation percentage utilised for the regulatory assets and applying this allocation to the applicable tax depreciation for these assets. For asset additions, the estimated useful life of the project for calculating regulatory depreciation is also utilised as an estimate of the tax depreciation applicable for the assets upon commissioning. No allowance was made for other taxation timing differences, including timing deductions on holiday pay not paid out within 63 days, for accruals of expenditure or for immediate deductions on some prepayments.

#### *Other Regulated Activities*

For Other Regulated Activities the tax requirement forecast in Schedule 18 was based on the same approach except that tax depreciation was assumed to be the same as the accounting book depreciation for additions.

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

**Table M: Forecast value of tax employed (\$000)**

	2013	2014	2015	2016	2017
	\$000s	\$000s	\$000s	\$000s	\$000s
Tax – Aeronautical Pricing Activities	30,627	34,353	36,140	38,656	41,063
Tax – Other Regulated Activities	2,460	2,559	2,690	2,783	2,867
<b>Total forecast tax</b>	<b>33,088</b>	<b>36,912</b>	<b>38,830</b>	<b>41,439</b>	<b>43,930</b>

### Difference compared to the most recent corresponding historical financial information

The primary difference between the forecast tax used to determine the revenue requirement and the most recent historical financial information is that all historical tax depreciation figures are based on actual tax depreciation rates, whereas forecast tax depreciation expense on new additions is estimated using regulatory depreciation useful lives. Also the regulatory tax allowance for the most recent historical financial information is calculated after deducting notional deductible interest. This enables comparison of

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regulatory profit and return on investment ("ROI") with the vanilla WACC. Deducting notional deductible interest is not appropriate for pricing, which instead uses the post-tax WACC to calculate forecast required revenues. Both forecast taxable profit and forecast tax will therefore be higher in pricing than shown in the historical financial information.

**Table N:** Forecast tax – difference to historical financial information

Historic Disclosure	Year ended 2011	Forecast Revenue Requirement	Forecast year ended 2013
	\$000s		\$000s
Tax – based on actual tax depreciation rates and after deducting notional deductible interest	25,010	Tax – based on forecast useful lives, with no adjustment for notional deductible interest.	33,088

## 2.2.7 Forecast revaluations

### Description of and rationale for forecast revaluations

#### *Aeronautical Pricing Activities*

In 2007, Auckland Airport agreed to roll-forward the 2006 assets for additions, with no revaluations until at least 2017, subject to there being no change to the economic regulation of airports.

As mentioned above, based on strong feedback from Substantial Customers that Auckland Airport should retain the moratorium on asset revaluations for the FY13-FY17 pricing period, Auckland Airport decided that it would not revalue its assets for the purpose of the 2012 Pricing Decision. Accordingly, there are no forecast revaluations for the pricing period.

#### *Other Regulated Activities*

For Other Regulatory Activities which share similar assets to those covered by Aeronautical Pricing, a consistent approach has been taken with regards revaluation (ie no revaluations).

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. However for the purposes of providing a building block forecast which has some reference to contracted or market values, the revaluations have been included in the asset forecast and as an offset to the revenue requirement. Asset appreciation has been forecast in line with inflation expectations (ie 2.5% per annum).

### Extent to which revaluations have been used to determine the forecast total revenue requirement

**Table O:** Forecast value of revaluations (\$000s)

	2013	2014	2015	2016	2017
	\$000s	\$000s	\$000s	\$000s	\$000s
Revaluations – Aeronautical Pricing Activities	-	-	-	-	-
Revaluations – Other Regulated Activities	2,942	2,975	3,015	3,052	3,086
<b>Total forecast revaluations</b>	<b>2,942</b>	<b>2,975</b>	<b>3,015</b>	<b>3,052</b>	<b>3,086</b>

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## Revaluations - difference compared to the most recent corresponding historical financial information

There are differences between the forecast revaluations used to determine the revenue requirement and the most recent historical financial information.

For the historic annual disclosure, revaluations are mandatory at either inflation or based on an actual valuation for land, despite what practice is established for pricing purposes. Further regulatory valuations were undertaken as at 30 June 2011. The 2011 revaluation adjustment represented the two year effect of revaluations in excess of inflation. This represented an increase from a low point in 2009 following the impact of the global financial crisis ("GFC") on land values.

For Aeronautical Pricing, Auckland Airport agreed to continue the moratorium on revaluations until 2017 and therefore there are no revaluations forecast for Airfield and Terminal assets. Revaluations have been forecast for Aircraft and Freight Activities. As discussed in Section 2.2.2 Aircraft and Freight asset valuations are based on current agreement terms for the remainder of the contracted lease term and market rentals thereafter, using a standard valuation methodology, not the regulatory valuation methodology. As a result forecast revaluations for pricing for Aircraft and Freight are based off a higher valuation than the most recent disclosed value.

**Table P:** Forecast revaluations – difference to historical financial information

Historic Disclosure	Year ended 2011	Forecast Revenue Requirement	Forecast year ended 2013
	\$000s		\$000s
Revaluations – Airfield and Terminal	68,826	Revaluations – Airfield and Terminal	0
Revaluations – Aircraft and Freight	6,603	Revaluations – Aircraft and Freight	2,942

### 2.2.8 Other factors considered in determining the forecast total revenue requirement

In this section Auckland Airport describes the other factors (as included in Schedule 18a of the Determination) that had a material effect on the forecast total revenue requirement.

"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:

- (a) forecast return on assets employed;
- (b) forecast operational expenditure;
- (c) forecast depreciation;
- (d) forecast tax;
- (e) forecast revaluations; and
- (f) forecast other income.

#### *Aeronautical Pricing*

Auckland Airport has referenced almost all of the Commission's input methodologies as its 'building blocks' for pricing and, when departing from those methodologies for asset valuation and some WACC parameters, it has been transparent with airlines about the reasons for doing so. Despite our efforts to accommodate the views of Substantial Customers, there were some elements of the building blocks that remained difficult to reach common ground on.

As noted in the Executive Summary, Substantial Customers were invited to provide direct feedback to the Board on the Revised Pricing Proposal, prior to a Final Pricing Decision. BARNZ Represented Airlines<sup>15</sup> and Air New Zealand took this opportunity.

Mr John Beckett, on behalf of BARNZ Represented Airlines confirmed that the BARNZ Represented Airlines considered that Auckland Airport's consultation process had been constructive and had enabled good dialogue between the parties. Overall, the BARNZ Represented Airlines considered that four of the eight charges contained within the Auckland Airport's Revised Pricing Proposal were fair and reasonable (namely landing charges, aircraft parking charges, transit and transfer passenger charges and counter use charges). However the BARNZ Represented Airlines highlighted six issues to the Board that it had with the remainder of the Revised Pricing Proposal, namely:

- Route development costs: The BARNZ Represented Airlines considered that general business unit costs should be shared between aeronautical and commercial aspects of the business given that Auckland Airport recognised that passenger volumes were Auckland Airport's key value driver and that airline specific marketing costs should be removed from the cost base.
- Domestic Passenger Charge ("DPC"): The BARNZ Represented Airlines considered that the DPC should be set to ensure that domestic operations are meeting their direct costs and a fair share of indirect costs of shared assets. The BARNZ Represented Airlines considered that the DPC needed to be increased to achieve this result.
- Annual Variable Charge ("AVC"): The BARNZ Represented Airlines were concerned about the introduction of an annual variable charge and requested that these costs be included in the cost base on which charges were set.
- International Passenger Charge ("IPC"): The BARNZ Represented Airlines considered that the IPC was being set at a level which resulted in over-recovery on international terminal facilities, primarily as a result of the 9.16% WACC applied by Auckland Airport. The BARNZ Represented Airlines considered this was exacerbated by the removal of the exemption for passengers between 2 and 11 years and recommended that the Board consider phasing the introduction of the IPC to 2 to 11 year olds.
- Pier A: Although not directly related to pricing in this period, the BARNZ Represented Airlines wished to ensure that the Board understood its concerns about the use of Pier B for domestic operations and the consequences of extending Pier A. The BARNZ Represented Airlines considered Pier B was the most cost effective site for the expansion of international operations and did not support extending Pier A.
- Terms and Conditions: the BARNZ Represented Airlines acknowledged that Management had agreed to progress the negotiation of standard terms and conditions outside of the pricing decision, but explained to the Board the concerns the International Airlines represented by BARNZ held in relation to Auckland Airport's requirements for the provision of commercially sensitive information.

Mr Beckett also noted that, while Auckland Airport's WACC was higher than BARNZ' preference, the overall effective level of return being targeted by Auckland Airport was not egregiously higher. BARNZ considered Auckland Airport should apply the 75th percentile of the Commission's WACC determination.

Mr Norm Thompson, on behalf of Air New Zealand, commenced by explaining that Air New Zealand and Auckland Airport had come a long way in working together for the benefit of their mutual customers and that the purpose of his presentation was to only briefly touch on pricing, which he advised Air New Zealand was largely comfortable with, and rather focus on the significant capital works required in relation to the solution for domestic terminal capacity moving forward. This domestic terminal capacity solution

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<sup>15</sup> Air Calin, Airwork, Air Vanuatu, Emirates, FieldAir, LAN Airlines, Virgin Australia, Tasman Cargo Holdings, Air Pacific, Air Tahiti Nui, Cathay Pacific Airlines, EVA Airlines, Korean Air, Malaysia Airlines, Singapore Airlines and Thai Airways International.

was the key longer term issue for Air New Zealand and Auckland Airport.

In relation to pricing, Mr Thompson explained that Air New Zealand was facing increases in charges from a number of New Zealand airports, with major increases to domestic charges being a common theme. The main issues behind these increases were airport valuations and high WACC. Mr Thompson noted that Auckland Airport's proposed pricing was more realistic than other airports. Although Air New Zealand did want to raise one issue in relation to pricing, which was that Air New Zealand considered the WACC being proposed by Auckland Airport was excessive and not consistent with the Commission's Determination.

Auckland Airport considered this feedback, together with all other feedback from Substantial Customers and made a number of changes between the Revised Pricing Proposal and the Final Pricing Decision on the basis of the feedback received.

In the Final Pricing Decision Auckland Airport forecast the revenue requirement for Auckland Airport's 2012 Pricing Decision using the range of 8.88% to 9.45%, with the mid-point of the WACC range being 9.16%. This is described in Section 2.2.3. However, in recognition of some remaining differences of view, the current market conditions, challenges facing its customers and the travel industry, Auckland Airport did not seek to achieve NPV=0 and instead forecast a negative NPV and an effective return of 8.475%.

The table below shows how the deficit on required revenues for Aeronautical Pricing (in nominal cashflows) was phased over the FY13-FY17 pricing period. At a 9.16% WACC these other factors in Aeronautical Pricing have a negative net present value of \$25.4 million.

#### *Other Regulated Activities*

Auckland Airport forecast the total revenue requirement for Other Regulated Activities by applying the building block approach required in Schedule 18 and using the range of 8.88% to 9.45% and mid-point WACC of that range of 9.16%, which is described in Section 2.2.3.

Forecast Other Regulated Activities revenue is driven by market and investment conditions and expectations. Over the forecast period these are broadly CPI-based. For the most part, these revenues relate to leases within the terminal, or hangars (including those for aircraft maintenance), freight facilities within a security area and the joint user fuel hydrant line. The difference between the annual revenue forecast and the building block generated revenue requirement is shown below as "other factors" related to Other Regulated Activities.

**Table Q:** *Other factors FY13-FY17 pricing period*

<b>\$000's</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Other Factors in Commission Schedule 18a</b>					
Annual deficit to revenue requirement in Aeronautical Pricing Activities	(6,284)	(6,395)	(6,757)	(6,761)	(6,723)
Annual deficit to revenue requirement for Other Regulated Activities	(6,838)	(6,451)	(5,996)	(5,654)	(5,354)
<b>Total</b>	<b>(13,122)</b>	<b>(12,846)</b>	<b>(12,753)</b>	<b>(12,416)</b>	<b>(12,077)</b>

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## **2.3 Valuation report on which the value of the forecast value of assets employed is based**

Clause 2.5(1)(d) of the Determination requires that where the forecast value of assets employed is based on a value other than that used in the latest disclosure, public disclosure of the valuation report on which the value of the forecast value of assets employed is based, is required.

Auckland Airport made its first annual disclosure under clause 2.3 of the Determination in May 2012 ("**Historic Disclosure**"). The forecast value of assets employed for Auckland Airport's aeronautical pricing revenue requirement is not based on the values disclosed in the Historic Disclosure.

The relevant valuations for the forecast value of assets employed are provided in **Appendices A to G**.

### Airfield and Terminal Valuations

Refer to Section 2.2.2, above, in relation to an explanation of how the following valuations were used for the purpose of making its 2012 Pricing Decision and for the forecast value of assets employed for airfield and terminal assets:

- Appendix A:** Seagar Valuation – Aeronautical Land and Other Land Assets – 30 June 2006
- Appendix B:** Opus Valuation – 2006 Valuation of Specialised Buildings
- Appendix C:** Opus Valuation – 2006 Valuation of Reclaimed Land and Seawalls, Runways, Taxiways, Aprons and Infrastructure Assets

### Aircraft and Freight Valuations

The forecast value of assets employed for Aircraft and Freight was based on current market valuations as at 30 June 2011. The valuation exercise was tendered between Colliers and Seagars. Aircraft and Freight comprises 29.9 hectares, which is shown as Zone 2a in the valuation reports. The relevant sections of each report are as follows:

- Appendix D:** Colliers Market Value Existing Use Report, 30 June 2011
- Appendix E:** Seagar Valuation Report Property, Plant and Equipment Portfolio, 30 June 2011
- Appendix F:** Opus Valuation – June 2011 Revaluation of Auckland International Airport Specialised Buildings
- Appendix G:** Opus Valuation – June 2011 Valuation of Reclaimed Land and Seawalls, Runway, Taxiways, Aprons and Infrastructure Assets

## 2.4 Forecast capital expenditure

### 2.4.1 Overview of disclosure requirements

Clause 2.5 of the Determination requires disclosure of Auckland Airport's forecast capital expenditure on a five and ten year forecast basis as follows:

- Clause 2.5(1)(f) of the Determination requires the public disclosure and a description of each key capital expenditure project<sup>16</sup> for **the period of five consecutive years immediately following the price setting event**, including an explanation of:
  - (i) the aims and objectives of each key capital expenditure project;
  - (ii) the process by which the need for the key capital expenditure project was determined, including any assessment criteria;
  - (iii) any consumer engagement undertaken as part of the process referred to in clause 2.5(1)(f), including a description of how consumer demands have been assessed;
  - (iv) any alternative expenditure projects considered, and the rationale for excluding those alternative projects;
  - (v) the extent to which the key capital expenditure project is reflected in pricing; and
  - (vi) any constraints or other factors on which successful completion of each key capital expenditure project is contingent.
- Clause 2.5(1)(e) of the Determination requires that Auckland Airport publicly disclose:
  - (i) its forecast capital expenditure over a ten year forecast period by category, as disclosed in Schedule 18; and
  - (ii) the aims and objectives of the key capital expenditure projects over a ten year forecast period, as disclosed in Schedule 18.

In addition to providing an overview of Auckland Airport's approach to capital expenditure planning, in this section Auckland Airport sets out:

- the descriptions and explanations of key capital expenditure projects **for the five year forecast period** (FY13 to FY17), in accordance with clause 2.5(1)(f) of the Determination; and
- the aims and objectives of the key capital expenditure projects that extend beyond Auckland Airport's five year forecast period into its planning forecast **for a ten year forecast period**, in accordance with clause 2.5(1)(e). Refer to Schedule 18b(iii).

### 2.4.2 Overview of Auckland Airport's capital expenditure planning

#### Introduction

Auckland Airport takes a medium-term approach to capital expenditure planning, against the background of its longer term Masterplan.

In developing the capital expenditure programme for the medium term, Auckland Airport has consulted with its Substantial Customers on the likely nature of strategic projects over the forthcoming pricing period. Auckland Airport has also identified and consulted on the following key trends that were relevant to its facility planning:

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<sup>15</sup> A "key capital expenditure project" for the purpose of the Determination means a current or future project or programme of capital expenditure that involves total expenditure of more than \$5 million over the life of the project or programme.

- *Aircraft technology:* With the introduction of the Boeing 787 aircraft, there is potential for longer routes. There is also a trend towards airlines increasing aircraft capacity (up-gauging from Code D to Code E), which will increase dimensional requirements and peak hour processing requirements;
- *Process and technology innovation:* Both passengers and airlines are increasing their uptake of electronic processing for various stages of the travelling experience; and
- *Demographics:* This includes the socio-economic implications of "Gen Z", the ageing population and the broader demographic outlook.

## Forecast capital expenditure for Standard Charges

The base case forecast capital expenditure used in setting Auckland Airport's Standard Charges represented Auckland Airport's best view of the likely range of capital expenditure required over the upcoming pricing period. During the Aeronautical Pricing Consultation, Auckland Airport noted that project priorities would be influenced (and potentially constrained) by the nature of demand growth and that capital expenditure decisions could not be considered in isolation of the actual demand environment in the forthcoming period.

Forecasts have therefore been based on Auckland Airport's best estimate of projects that are considered necessary to meet the forecast demand. Where project estimation is made prior to preliminary design,<sup>17</sup> project estimates have a +/- 20% range of accuracy. This margin of error is standard when estimating construction costs. During the design process, Auckland Airport intends to further test the specification, prioritisation and project timing of proposed projects with its expert advisors and relevant stakeholders where applicable. Investment values referred to in Auckland Airport's Aeronautical Pricing Consultation were based on FY11 construction estimates, to which escalation and capitalised holding costs were added.

Given the uncertainties associated with forecasting, Auckland Airport did not include uncertain projects in its capital expenditure forecasts. However, Auckland Airport considered it appropriate that there be a mechanism through which it could seek to recover the costs of an investment that has not been forecast but is required by regulation or requested by airlines during the pricing period. Auckland Airport has therefore provided for a pricing adjustment to its Standard Charges in the event "regulatory-required" or "airline-requested capital investment" over \$5 million, which has not been forecast in pricing, emerges within the pricing period.

Auckland Airport consulted with its Substantial Customers on the nature of major projects greater than \$5 million and the extent to which these projects should be reflected in Standard Charges. Auckland Airport valued the contribution made by Substantial Customers during consultation on the capital expenditure programme, and as a result of this collaboration, the major capital projects that Auckland Airport ultimately included in pricing were unopposed by Substantial Customers.<sup>18</sup> Auckland Airport will continue to consult with Substantial Customers on "flow and function" through the design process to consider stakeholder views on capacity management and how to best trade-off cost and quality options.

A key outcome of the consultation process following feedback from its Substantial Customers, was that Auckland Airport excluded any capital expenditure associated with the development of a new terminal facility ("**New Terminal Facility**") to replace the existing domestic terminal building ("**DTB**") from Standard Charges for the time being. Auckland Airport is now consulting with Substantial Customers on the New Terminal Facility which will be a significant capital expenditure project. It is therefore not possible to accurately forecast expenditure or in fact appropriate to include it in Standard Charges at this stage. The project is, however, expected to be commissioned during the pricing period. Auckland Airport intends to

<sup>17</sup> This is the case for all major projects except Taxiway Lima, which is in detailed design.

<sup>18</sup> The taxilane for the international remote stand, planned for FY17, was the last capital expenditure project that was contentious. In its final pricing decision, Auckland Airport removed the taxilane from pricing in response to feedback.

recover any costs incurred during this pricing period in relation to a New Terminal Facility via a separate investment charge. That charge will form part of Auckland Airport's Standard Charges, but will not be set until further consultation with Substantial Customers on the location and design of the New Terminal Facility has occurred and a decision has been made to proceed with a preferred option.

### 2.4.3 Key capital expenditure projects for FY13-FY17

This section provides information on the key capital expenditure projects planned within the first five years of the forecast period. Auckland Airport has a comprehensive terminal and airfield programme, which can be summarised as follows:

- A long-term capacity expansion via the development of a New Terminal Facility. As consultation under the AAA on a New Terminal Facility is still ongoing, it is inappropriate to seek to apply a value to this project at this time. Auckland Airport has therefore not included this project in Schedule 18. However, as the project represents a significant capital expenditure project for Auckland Airport in the near future, Auckland Airport has provided a description of the project below.
- A terminal works programme, which includes:
  - Rehabilitation and refurbishment of the existing DTB facility ("**DTB Short Term Capacity Enhancement**");<sup>19</sup>
  - A number of projects within the International Terminal Building ("**ITB**"), including:
    - Stage 1 of the expansion of the baggage reclaim hall ("**Baggage reclaim expansion**") and increasing baggage handling systems feed capacity ("**BHS feed expansion**");
    - Check-in efficiency technology project ("**Check-in project**");
    - Construction of vertical circulation to the ground floor of Pier B to facilitate ground boarding ("**Pier B ground boarding project**"); and
    - Reconfiguration of forecourt functions, facilities and utilities to accommodate further development of the ITB ("**ITB forecourt reconfiguration**").
- An airfield works programme, which includes:
  - Replacement and renewal of runway and aprons as necessary ("**Runway and apron replacement**");
  - Construction of Taxiway Lima from Bravo to Pier B (east leg) ("**Taxiway Lima**"); and
  - A stand and taxilane development, which is related to the ITB expansion ("**Stand and taxilane programme**").

## LONG-TERM TERMINAL EXPANSION

### New Terminal Facility

The New Terminal Facility is a term used to describe the ultimate long-term capacity solution that, once consultation with Substantial Customers has been concluded on its design and location, will address existing domestic capacity concerns, ensure room for capacity growth in the future and over time integrate Auckland Airport's international and domestic services.

- (i) Aims and objectives: The primary aims and objectives of this project are to provide capacity for forecast domestic demand, in a cost-efficient manner, while meeting passenger and community expectations for safe, efficient and stress-free travel through a staged development approach. This requires ensuring sufficient capacity of the entire end to end network system, which includes surface access, parking, terminal facilities, control tower systems, as well as apron, runway and

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<sup>19</sup> Also referred to as the "DTB Rehabilitation" or "DTB Modifications" project.

taxiway systems. This project is also intended to reduce so far as practicable the need for passengers to take a long walk or bus ride when transiting between domestic and international flights. The degree of separation of the terminals is frequently the subject of negative feedback from travelers.

- (ii) Process for determining need: The existing DTB is experiencing significant congestion at peak times. This is evidenced by passenger circulation problems and passenger accounts of their DTB experiences.

Auckland Airport's forecast information<sup>20</sup> indicates that other key DTB precinct areas, including the forecourt and apron area, are also near their capacity, and that from the middle of the decade onward, runway congestion is anticipated during peak hours.

The up-gauging of Air New Zealand's jet fleet throughout the decade will result in the pervasive use of A320s on trunk routes. Between FY11–16, Air New Zealand will take delivery of 14 Airbus 320-200 jets, each configured to seat 171 passengers. This is 29% higher than the 133 seat configuration of the Boeing 737's that they will replace. Absent any other changes, peak busy hour domestic traffic in the morning is forecast to increase 18% overall, with Air New Zealand jet facilities experiencing a 20% increase.

Auckland Airport believes and both Air New Zealand and Jetstar are aware, that the existing facility and end to end infrastructure will become insufficient to service two or more carriers in the domestic market at an appropriate service level, and have therefore acknowledged the need to commission a New Terminal Facility in the near future to satisfy forecast demand. There is a strong preference amongst Auckland Airport and airlines to explore options for staging the development of the New Terminal Facility in order to minimise the overall cost of the programme, hence the continued consultation on the project.

- (iii) Consumer engagement: Preliminary discussions with domestic operators on the domestic capacity issue commenced in mid-2011. In November 2011, Auckland Airport held a workshop with industry parties to present its preferred option at the time, called the Integrated Terminal Facility ("ITF" or "**North Option**"), which was a two-stage development of a domestic terminal facility located to the north of the ITB. At this workshop, the initial concept design of an alternative "southern" terminal option was also presented by a Substantial Customer ("**South Option**"). In January 2012, Auckland Airport released its Initial Pricing Proposal, which proposed to include the ITF in the Standard Charges. Auckland Airport then issued a consultation paper by Auckland Airport in February 2012 seeking feedback on the ITF.

During this consultation period, Substantial Customers acknowledged the importance of finding an appropriate capacity solution but requested that Auckland Airport not rush its decision on such a major strategic development, particularly in light of an alternative option to the south of the existing ITB that had been proposed by a Substantial Customer. Some Substantial Customers recommended that consultation on a New Terminal Facility continue and a separate charge be consulted on outside of Standard Charges.

In Auckland Airport's Revised Pricing Proposal released in April 2012, Auckland Airport advised its Substantial Customers of its proposal to remove the ITF from Standard Charges and to continue consultation on the New Terminal Facility.

Auckland Airport is committed to continuing consultation with its Substantial Customers and working with key stakeholders to develop an appropriate capacity solution. Auckland Airport has notified Substantial Customers of its consultation timeline. Consultation on the "North" and

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<sup>20</sup> Airbiz long term planning forecast, September 2011

"South" options is planned for between July 2012 and February 2013, with a view to determining the preferred pathway for capacity expansion by March 2013.

- (iv) Alternative projects considered: The establishment of a two-runway system is expected to be required beyond the forthcoming pricing period. However, planning for a two-runway airport must be incorporated within decisions undertaken now to ensure that the work on the relative ground levels, the terminal, roads and car park infrastructure that are required within this decade is consistent with future investment and can and will form part of a long-run efficient and integrated end-to-end system.

Auckland Airport has taken care to ensure that the evaluation of the options to meet this need are assessed with a long-term lens so that Auckland Airport and interested parties can have comfort that the option selected will encompass the end to end system requirements and will represent the long-run efficient solution.

Prior to the release of the Initial Pricing Proposal, Auckland Airport evaluated three options:

- a Greenfield development to the north of the ITB (the ITF / North Option);
- the part-brownfield development to the south of the ITB (the South Option); and
- a significant revamp of the existing DTB.

The revamp of the existing DTB was ruled out on the basis that it was unable to address all the queues and congestion in the end-to-end system in a cost effective manner. Additionally, the development of geographically separate domestic and international terminals is not considered to be good/best practice globally.

At the time, the proposal for a South Option was not, in Auckland Airport's view, sufficiently developed and had some significant flaws, and was therefore not considered viable.

However, as a result of Auckland Airport's consultation and further work by a Substantial Customer on the South Option, the South Option is under consideration as a potentially viable option.

A comprehensive NPV analysis of the North Option and the South Option is being undertaken until the end of 2012. The analysis will take into account the first order impacts for airline operators and Auckland Airport over the period FY15 to FY45. Airspace and airfield aircraft movement simulation analysis will be utilised to inform the operational consequences of both options. Each option will represent an evolution of the airport over a 30 year period that is broadly comparable in terms of capacity and capability. Cost estimates of option evolution will be utilised to assess the capital consequences. The NPV analyses will be supported by sensitivity analysis to test option performance under adverse volume and weather conditions, incorporating delay analysis. Consideration will also be given to the provision of capacity for new entrants. A set of passenger experience metrics will be utilised to measure the main aspects of the passenger experience.

- (v) Extent reflected in pricing: At the time of Auckland Airport's 2012 Pricing Decision, Auckland Airport was still in consultation with its airline customers on a pathway to develop a New Terminal Facility concept that would integrate Auckland Airport's international and domestic services. The New Terminal Facility is therefore not included in the Standard Charges that were set on 7 June 2012. Auckland Airport cannot accurately forecast expenditure for this programme as Auckland Airport is still consulting on fundamental matters that will influence the final budget, such as location and design. However, Auckland Airport has included a description of the New Terminal Facility project in this disclosure as the project is expected to significantly exceed the key capital expenditure project threshold of \$5 million and is part of its five year planning forecast. Once a capacity solution is decided upon following consultation, Auckland Airport intends to further consult with Substantial Customers on an investment charge, which will become part of the Standard Charges. It is possible that this investment charge will be set during the pricing period.

- (vi) Constraints or contingency factors: A full set of constraints and contingent factors has yet to be developed. However, Auckland Airport believes that the earthworks season may crucially influence this programme of works.

## TERMINAL WORKS

### DTB Short Term Capacity Enhancement (or DTB 1)

This project involves various upgrades, relocations and alterations to aspects of the DTB to ensure that the DTB can better cope with the domestic demand while maintaining acceptable customer standards until the longer-term capacity solution (the New Terminal Facility) is delivered.

- (i) Aims and objectives: The aims and objectives of this project are to focus on providing the functional requirements necessary to maintain an acceptable minimum level of customer experience and operational performance in the period leading up to moving to a potential New Terminal Facility.
- (ii) Process for determining need: The existing DTB last underwent a major investment in 2007. At the time, it was acknowledged by all stakeholders that the facility would have a limited life. Regular review has been undertaken of the on-going adequacy of the terminal precinct (including the apron) to meet current and forecast demand.

There is general consensus amongst Auckland Airport and airlines that the DTB facility will be insufficient to cope with the industry-wide adoption of A320s on domestic routes. There is support from airlines for a staged approach to development of the New Terminal Facility. The planning scenario for the New Terminal Facility and the DTB Short Term Capacity Enhancement contemplates that Jetstar would move to a new facility in the first instance by 2015 / 2016 and Air New Zealand would remain in the existing rehabilitated DTB until approximately 2020. Both carriers have reviewed, provided feedback and endorsed the concept design plans for the DTB Short Term Capacity Enhancement Project.

Key areas of poor passenger experience and congestion were initially identified to create the original draft concept improvement plan. This enabled a base from which to consult with Air New Zealand, Jetstar and Avsec. The design has been developed generally around the ability of two airlines (of scale) to operate until 2015 / 2016 in the current DTB, at which time Jetstar would move to the New Terminal Facility and just one carrier would remain in the DTB until 2020. Hence it has been important to match the capacity of the infrastructure and passenger experience levels required by Auckland Airport to these key dates and events. This ensures that improvement in immediate passenger experience levels are enabled, while not over-investing in a terminal with a current finite life.

Auckland Airport has worked with stakeholders to determine their needs and the best option for creating incremental capacity, acknowledging the brownfields nature of the site. Air New Zealand, Jetstar and Avsec have reviewed and provided feedback on concept design plans. Key deliverables include:

- Ground floor works, including:
  - expansion of the building at the regional end;
  - provision of further seating area;
  - reconfigured reclaim belts;
  - increased airside regional makeup baggage area;
  - further toilets at various locations; and
  - central screening point configured on ground floor.

- First floor works, including:
  - removal of the current Akarana Lounge at the Jetstar end of the DTB and reconfiguration of this area to increase seating capacity and to enable public access to toilets at this location;
  - construction of first floor link to allow airside access between all jet gates; and
  - expansion of circulation area width immediately outside the Koru Lounge.
- Apron works, including:
  - construction of fixed bridge links to stands 29, 30 and 31, which create more ground service equipment ("GSE") storage capability and permit dual boarding/de-planning;
  - paint marking to indicate GSE storage area and GSE circulation road; and
  - expansion of Air New Zealand airside baggage reclaim area and improvement for dolly circulation.
- Forecourt works, including reconfiguration of layout to ease flow and make it clearer and safer for all users.

(iii) Consumer engagement: Auckland Airport began working with the domestic carriers on the need for a New Terminal Facility and short-term options to extend the useful life of the existing domestic terminal in 2011.

Based on the feedback received during the Aeronautical Pricing Consultation, Auckland Airport agreed with its key stakeholders that the DTB Short Term Capacity Enhancement project could not be avoided and was a necessary precursor to a New Terminal Facility as it was not feasible to construct a new facility for both domestic carriers in a single stage.

During consultation, Substantial Customers also requested that Auckland Airport consider a wash-up on the investment value and asset life of the DTB. The concern was that an asset life of six years was too short for the proposed level of investment required (\$32 million). In its final Pricing Decision, Auckland Airport decided that it would provide for a discrete wash-up on the economic life of the DTB refurbishment as part of setting the investment charge for the New Terminal Facility. That is, if during the course of the New Terminal Facility consultation, the economic life of the DTB is revised (whether upward or downward) from the life used for planning, an adjustment will be made to the New Terminal Facility investment charge to account for any upward or downward revision to the expected life of the DTB.

(iv) Alternative projects considered: Auckland Airport has considered various alternative designs for the enhancement of the DTB, indeed the development of a concept design that was acceptable to all external and internal stakeholders has necessarily been an iterative process. The current proposed concept design for the DTB Short Term Capacity Enhancement has received broad support from the key stakeholders, namely Air New Zealand, Jetstar and Avsec. Auckland Airport will continue to work closely with these stakeholders in the roll out of this project.

(v) Extent reflected in pricing: Auckland Airport has forecast \$32 million for the DTB Short Term Capacity Enhancement in its Standard Charges. Incremental terminal assets are intended to be commissioned during FY15.<sup>21</sup> It has been acknowledged by consultation participants that, in practice, this programme will involve a number of incremental pieces of work to be commissioned over the course of FY14 and FY15.

(vi) Constraints or contingency factors: Because a New Terminal Facility is required in the near future, investment in the DTB facility is practically constrained by the forecast utility and recovery

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<sup>21</sup> \$28m in 2011 dollars excluding holding costs and construction inflation.

period of the investment. The proposed concept is contingent on some existing tenants relinquishing existing leases in order to facilitate a smooth transition.

### **ITB Baggage Reclaim Expansion (or RECLAIM 1)**

This project involves a programme of work for the ITB's inbound baggage handling systems. Stage 1 of this programme (that is, the Baggage Reclaim Expansion) is deliverable in FY13 and FY14. Stage 2 of this project is discussed briefly in the following section of this disclosure relating to the ten year forecast capital expenditure (Section 2.4.4).

- (i) Aims and objectives: The aims and objectives of the Baggage Reclaim Expansion are to increase the baggage reclaim system's handling capacity, improve passenger circulation and eliminate bottlenecks in this area. Stage 1 of the project consists of:
- opening up the western end of the baggage reclaim hall, with a net expansion within the area of 3100m<sup>2</sup>;
  - building two new code F capable reclaim belts and removing the current belt (CD1), which is in a constricted part of the ITB. This will provide a net gain of baggage reclaim length on a pro rata basis, one additional belt and additional circulation space for passengers; and
  - relocating existing facilities such as bag tracking facilities to make better use of the space.

The project is expected to provide the following benefits:

- better circulation;
  - easier access to all facilities;
  - less crowded carousels;
  - more intuitive "way finding"; and
  - more reclaim belts before the entrance into the secondary screening area, therefore avoiding backtracking.
- (ii) Process for determining need: Facility requirements were studied in September 2011 and summarised in the Airbiz Aeronautical Planning Programme Study 2011-2030 ("**Aeronautical Planning Programme Study**").<sup>22</sup> Auckland Airport's modelling of demand based on a synthetic schedule of aircraft arrivals (based on today's schedules) indicated that two code F belts would be required by 2014. Each additional belt is required to be capable of remote loading.
- (iii) Consumer engagement: Auckland Airport has consulted with BARNZ and other Substantial Customers on the Baggage Reclaim Expansion recommended in the Aeronautical Planning Programme Study as part of the capital expenditure consultation in relation to Auckland Airport's Standard Charges. Throughout the consultation process, Auckland Airport responded to BARNZ' questions regarding the proposed process and design of the project. Auckland Airport received support for the project from BARNZ, subject to Auckland Airport continuing to engage with it on the detailed design.

At the time of the 2012 Pricing Decision, this project was in the pre-concept stage of development. No consultation has taken place to date with the travelling public, however it is recognised that these facilities are one of the main passenger touch points in the immigration process. As such, Auckland Airport intends to test the expansion project with a public consultation group, possibly in the form of focus groups, during the early concept design phases.

- (iv) Alternative projects considered: Auckland Airport considered adding one belt in FY14 and a further belt in FY19, with the breezeway inside the building. The option of bringing the breezeway

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<sup>22</sup> Airbiz Aeronautical Planning Programme Study 2011-2030, September 2011.

within the building line was considered impractical and would fail to address circulation deficiencies. The project therefore does not include expanding into the breezeway space. Instead, more remote loading facilities are intended to be provided for the new belts.

- (v) Extent reflected in pricing: Auckland Airport has forecast \$11 million in incremental terminal assets for the Baggage reclaim expansion project, to be commissioned during FY14.
- (vi) Constraints or contingency factors: Part of the project area is a brownfield's site, therefore a carefully staged construction will be required to limit the impact on operations and customer experience. Auckland Airport's feasibility study indicates that existing tenants would need to be relocated to create more space, specifically, the baggage tracing offices (to maintain an airside landside boundary), and Ministry of Primary Industry biosecurity screening of unclaimed checked baggage. As the project is at pre-concept stage, further constraints or contingency factors may be identified further down the track (with the assistance of stakeholders and further consultation).

### **ITB Check-in project (or CI1)**

This project involves an international common-user self-service ("**CUSS**") solution to increase the efficiency and capacity of existing check-in hall, incorporating technology and innovation.

- (i) Aims and objectives: The aims and objectives of this project are to develop methods for international check-in through common-use technologies to:
  - increase the efficiency and use of the existing space;
  - defer capital investment in a new terminal building; and
  - maintain a leading-edge facility and meet passengers' service and technological expectations.

These methods will involve CUSS solutions to enable passengers to process themselves using a range of technology solutions and to facilitate all parts of the process relating to ticketing, check-in approvals, passport control, baggage drop off and other appropriate activities.

- (ii) Process for determining need: The key drivers of check-in capacity are busy hour passengers, aircraft mix and aircraft capacity. Check-in capacity is particularly sensitive to the number of wide-body aircraft being serviced in the peak hour. Airbiz' Aeronautical Planning Programme Study identified a need for increased check-in capacity at Auckland Airport by FY16. Key trends analysed as part of the aeronautical facility planning process continue to point to an ever increasing use of technology in the check-in process. In Auckland Airport's view, self-service check-in facilities are now mainstream and are not a reversible trend. There is a strong push for more efficient methods by airlines and a strong uptake by passengers.
- (iii) Consumer engagement: During Auckland Airport's recent pricing consultation, BARNZ acknowledged and supported the need to explore smarter ways and technological solutions for checking in customers, rather than expanding the check-in hall. However, caution was expressed by BARNZ about kiosks being old technology, noting the increased uptake of internet and mobile phone check-in. Auckland Airport recognised that there are various self-service check-in options, however it noted that parts of the process such as passport details, bag-tag and bag-drop needed to be handled on-site to meet the necessary security requirements. Consultation on the specific details of this project is yet to take place. It is intended that potential solutions will be consulted on with key stakeholders and tested with the public during the early stages of concept design in FY13.
- (iv) Alternative projects considered: An alternative approach considered was the expansion of the existing check-in hall using traditional facilities. This was not considered optimal by airlines or Auckland Airport. Further options to meet self-service requirements will be considered in the

concept design process, which will involve further consultation with BARNZ and key stakeholders.

- (v) Extent reflected in pricing: Auckland Airport has forecast \$7 million for the check-in project over FY13, FY14 and FY15.
- (vi) Constraints or contingency factors: A potential constraint may be achieving consensus between stakeholders for a CUSS solution where some carriers will have different commitments to self-service technologies and differing technology and brand strategies.

### **ITB Airbridge Refurbishment Programme**

This programme details the maintenance programme for airbridges in the ITB over the period of FY12 to FY18.

- (i) Aims and objectives: The aims and objectives of this programme are to improve and maintain an appropriate level of service and reliability for airbridges within the ITB and following full refurbishment and upgrade of the older airbridges to prolong the useful life by a further ten to fifteen years.
- (ii) Process for determining need: As part of the continuous review of airport assets and maintenance planning, airbridges have been inspected and prioritised for asset maintenance over a programme period from FY12 to FY18.
- (iii) Consumer engagement: Preliminary discussions were held with BARNZ prior to approval of the programme. An overview of the programme was provided, and feedback sought on the proposed strategy.
- (iv) Alternative projects considered: Two possible options have been investigated for airbridges at Gates 1, 2, 4, and 6. Option 1 is a complete replacement programme and Option 2 is to carry out a major refurbishment of the structure and systems. Auckland Airport considered the relative feasibility, reliability and cost effectiveness of the two options. Beca was engaged to carry out detailed and invasive condition surveys of the structure, running gear and services, together with an audit of the availability of parts for the system components which are old. Beca found that both options were feasible, however to do a full refurbishment the airbridges would need to be taken away and the airbridge closed for 40+ days. This was not considered acceptable. At a programme level refurbishment was the preferable option. To overcome the delay issue, the programme has been developed based on the following strategy:
  - i. purchasing one new airbridge in the first instance; then
  - ii. taking the removed airbridge away for full refurbishment, then
  - iii. installing the refurbished airbridge in the next airbridge location, and so forth.
- (v) Extent reflected in pricing: Schedule 18 shows the annual value forecast for the airbridge refurbishment programme. The forecast was based on the programme of works to deliver the following refurbishments by financial year: FY13 (two airbridge refurbishments), FY14 (two airbridge refurbishments), FY15 (two airbridge refurbishments), FY16 (one airbridge refurbishment), FY17 (one airbridge refurbishment), FY 18 (one airbridge refurbishment). Forecasts for FY13 to FY17 have been included in aeronautical pricing.
- (vi) Constraints or contingency factors: The key constraint on the programme is identifying the optimal timing for replacement / installation to minimise the impact on passengers and airlines. Auckland Airport meets with airline stakeholders as part of its project planning phase, endeavouring to match the downtime with periods of low planned passenger arrivals or departures. The programme will be re-evaluated at such time as the first replacement cycle has been completed and the method fully tested.

## ITB Pier B ground boarding project (or PIERB 1)

This project involves the construction of vertical circulation (stairs, escalators, lifts) from the first floor of the existing Pier B to the ground floor. Walkways and departure lounges will also be constructed on the ground floor.

- (i) Aims and objectives: The aims and objectives of this project are to provide ground boarding facilities to international stands on Pier B and to hold and maintain bussing levels at a reasonable level into the near future.
- (ii) Process for determining need: The initial ground boarding facility concept was outlined in the Airbiz Aeronautical Planning Programme Study and was refined in further studies related to forecast stand demand and forecast bussing undertaken between September 2011 and January 2012.
- (iii) Consumer engagement: An overview of the project was provided to Substantial Customers in October 2011. BARNZ initially suggested that the provision of ground boarding facilities at Pier B could alleviate bussing in future years and was generally supportive of the project, subject to it being properly consulted on the design and the sizing of any lounges. Further consultation will be undertaken during the concept design stage planned in FY14. Consultation with other consumer groups will be considered during the early concept design phases.
- (iv) Alternative projects considered: Other options initially investigated involved more intensive remote stand development and increasing bussing towards the level experienced in other international airports (10%) towards the end of the decade. This was considered by Auckland Airport to be undesirable deterioration in service.
- (v) Extent reflected in pricing: Auckland Airport has forecast \$15 million for the Pier B ground boarding project to be incurred in FY15.
- (vi) Constraints or contingency factors: This project's concept design will be influenced by the nature of the decision on the New Terminal Facility. If the New Terminal Facility is based in the south, the Pier B ground boarding will not involve a swing gate solution. If the New Terminal Facility is based in the north, there is an option to include a swing gate solution between domestic and international on the ground floor.

## ITB BHS feed expansion (or BHS 2)

This project involves a programme of work for the ITB's outbound baggage handling systems. The work would provide additional check-in baggage feed capacity from the vicinity of Counter 60 to the second hold baggage screening hall, providing a third baggage route to the baggage makeup hall and new baggage hall.

- (i) Aims and objectives: The aims and objectives of this project are to provide additional capacity to meet passenger growth and to increase redundancy, ensuring system availability in the event of a component failure and thereby increasing the resilience of the system.
- (ii) Process for determining need: The Aeronautical Planning Programme Study identified a shortfall in capacity in the baggage makeup area as passenger numbers increased and as check in gets faster based on improved technology and self-bag drop. Increases in the projected busy hour at check-in will increase loadings and congestion in the existing two delivery belts into the Hold Baggage Screening ("HBS"). It was also identified that the system would become constrained by only having two feed belts, from all 96 counters, which enter the baggage makeup hall. If one of the belts were to fail, over half of the counters would have no automatic baggage system and

would rely on manual intervention. A third baggage route to the baggage makeup hall was therefore identified as necessary to increase capacity and provide additional security to the system. It was also considered necessary to divert bags from the TC01 line adjacent to Counter 60 and divert these bags directly to the new baggage hall.

- (iii) Consumer engagement: This project was consulted on with Substantial Customers in the Aeronautical Pricing Consultation in October 2011, then in Auckland Airport's Initial Pricing Proposal and Revised Pricing Proposal, with BARNZ supportive of the need for additional BHS feeds. In addition, BARNZ Represented Airlines requested that the Airport give priority to an additional feed for fragile and over-size baggage feed.
- (iv) Alternative projects considered: Consideration was given to modifying the existing feed and bringing a new feed in to the baggage makeup hall in the vicinity of the existing feed. This was ruled out to avoid further congestion of the area and because of limitations on available space behind the existing bag corridor to accommodate a further feed. The BHS feed expansion project locates the new feed in the east bag hall, which will balance capacity between the eastern and western parts of the check-in area.
- (v) Extent reflected in pricing: Auckland Airport has forecast \$12.4 million for the BHS feed expansion project over FY15 and FY16, with commissioning in FY16.
- (vi) Constraints or contingency factors: The implications on HBS will need to be considered and allowed for an alignment with the upcoming changes and developments in the HBS upgrade programme, which is scheduled by Avsec to occur in two possible stages over the next ten years. Further constraints or contingency factors may be identified during concept design, scheduled for FY14.

### **ITB Forecourt Reconfiguration (or FC3)**

This project involves the reconfiguration of the ITB forecourt functions, facilities and utilities to accommodate further development of the ITB.

- (i) Aims and objectives: The aims and objectives of this project are to displace and reconfigure the ITB forecourt functions and facilities in order to free up the area currently under the building (in the undercroft) so that it can be brought into the usable interior of the ITB for expansion.
- (ii) Process for determining need: The Aeronautical Planning Programme Study modelled the demand for passenger facilities based on the forecast increases in passengers and aircraft movements. The model identified the need to expand the first floor security screening area, which could be further expanded if body scanning-type technology is introduced. The screening expansion would displace other users from the first floor to the ground floor (for the purpose of facilitating the landside ground floor capacity enhancement project discussed below). This is currently envisaged to be required by FY18/FY19. In order to create ground floor area, the building envelope needs to be expanded, which would in turn displace the forecourt road. This is envisaged to occur in FY17.
- (iii) Consumer engagement: During the Aeronautical Pricing Consultation, BARNZ supported in principle the concept of utilising the undercroft and reconfiguring and reusing existing space as a sensible and economically efficient way forward. Auckland Airport intends to consult with BARNZ and its substantial customers on the reconfiguration process closer to the project's commissioning when concept plans and detailed costing are available.
- (iv) Alternative projects considered: Auckland Airport considered retaining the existing forecourt and building line and expanding the terminal line to the east. In Auckland Airport's view, this option created an inefficient elongated terminal.

- (v) Extent reflected in pricing: Auckland Airport has forecast \$14.4 million for the ITB forecourt reconfiguration, with asset commissioning in FY17.
- (vi) Constraints or contingency factors: The timing of this project is dependent on the ultimate timing requirement for the expansion of the first floor security screening facility (also known as SEC2), which in turn drives the timing for the expansion into the ground floor undercroft (the landside ground floor capacity enhancement project, also known as CUST / SEC3, which is discussed below). There is also a risk that during the concept design stage in FY15 it is determined that the ground floor footprint in the undercroft will not be able to be expanded.

### **Landside ground floor capacity enhancement (or CUST / SEC 3)**

This project involves closing in the existing undercroft of the ITB between door 5 and the western end of the ITB, clearing all obstacles and opening out the area for use for terminal processing at ground level.

- (i) Aims and objectives: The aims and objectives of this project are to create space for the activity displaced by the first floor security screening facility expansion (SEC 2) and to utilise the space made available by the ITB forecourt reconfiguration.
- (ii) Process for determining need: The Aeronautical Planning Programme Study modelled the demand for passenger facilities based on the forecast increases in passengers and aircraft movements and identified a potential need to expand first floor security screening by FY17/FY18. Options to accommodate this expansion are very limited and necessarily involve displacing existing functions.
- (iii) Consumer engagement: This project was first identified and outlined to BARNZ and Substantial Customers in October 2011. BARNZ supported in principle the concept of extending the terminal on the ground floor, in particular the better utilisation of existing space rather than building additional space. BARNZ has been involved in discussions with Auckland Airport regarding the early stages of security screening facility expansion such that the landside ground floor capacity enhancement can be delayed until approximately FY18/FY19. This project will create the necessary space to enable the security screening facility expansion.

No specific consultation has taken place to date with the travelling public, however Auckland Airport recognises that these facilities are one of the main passenger touch points in the check-in process and the nature of the solution will therefore be tested with the public during concept design.

- (iv) Alternative projects considered: Expansion and creation of additional landside ground floor space is only available by extending development to the east and creating a long narrow terminal, and this design is not desirable. Development to the west was considered on the ground floor but this is constrained by existing premium check-in facilities and by the secondary Customs and Ministry for Primary Industries areas.
- (v) Extent reflected in pricing: There are some project cashflows in the first five years of the forecast, however this project is not scheduled to be commissioned until FY18. Therefore this project has not been included in Auckland Airport's Standard Charges as part of this price setting event.
- (vi) Constraints or contingency factors: This project is part of a sequenced development involving the ITB forecourt reconfiguration (FC3) and security screening facility expansion (SEC 2). These are both dependent on the performance of initial screening realignments, which are being undertaken as part of minor works for FY13.

## AIRFIELD WORKS

### Runway and apron replacement

These programmes mainly involve the rehabilitation of specific areas of airfield concrete and asphalt pavement. These areas are selected based on condition evaluation, which includes physical inspections.

- (i) Aims and objectives: The aims and objectives of the concrete and asphalt programmes are to develop and maintain pavement infrastructure assets, in a strategically focussed and planned manner that meets customer and stakeholder expectations. Auckland Airport relentlessly pursues innovations and best practices in maintenance and management technology, operational efficiency, sustainable maintenance and construction practices to provide reliable assets that ensure safe and efficient airport operations with an optimised lifetime value for the asset.
- (ii) Process for determining need: Auckland Airport maintains extensive asset pavement conditions and mapping data. Auckland Airport is currently in the process of transitioning to a network level pavement management system to further improve standards of care. Under this new approach Auckland Airport is segmenting the current pavement network into management sections with homogeneous pavement characteristics such as operational requirements, traffic, pavement profile, sub grade type and strength and pavement condition. The pavement works programme takes a network level approach and employs standard deterioration models.

There is a full survey undertaken annually, pursuant to which every individual slab is inspected with all defects marked and given a defect rating. All of this information is collated and a rating plan is produced showing the current state of the airfield slabs. This rating plan is then used as one of the drivers in determining the airfield replacement programme. The following considerations are taken into account:

- slab rating in the proposed area;
- traffic flow on the area;
- ability to access the area;
- impact on operations; and
- risk to operations.

The key driver is the optimal timing to replace and renew assets to maintain service for the least lifetime cost.

A key factor in the pavement programme is determining the point in time when the programme requires a runway closure.

- (iii) Consumer engagement: The concrete programme was identified as a major investment over the pricing period and outlined to BARNZ and Substantial Customers during the pricing consultation process. The asphalt programme formed part of the minor works. In response to feedback on the concrete programme, Auckland Airport clarified that the slab replacement programme did not involve replacing slabs before the end of their expected 40 year life and confirmed that the runway slab replacement would occur around FY23 (outside the pricing period), which alleviated the initial concerns of BARNZ and other Substantial Customers. However, Auckland Airport explained that some of the slabs on the rapid exit taxiways, that were not able to be replaced during previous runway closures, will have to be replaced during this pricing period.
- (iv) Alternative projects considered: Auckland Airport also considered an on-going rolling annual programme of slab replacement with a major slab replacement and runway closure within one year of the pricing period. Auckland Airport considered that the options for replacement in FY23 represented the least cost in NPV terms and represented a reasonably flat and constant investment in slab replacement over a period exceeding ten years.

- (v) Extent reflected in pricing: Auckland Airport has forecast a total of \$29 million for slab replacement over the five year pricing period.
- (vi) Constraints or contingency factors: The maintenance window for pavement works is constrained by the volume and distribution of air traffic. At present, the key opportunities for planned maintenance are weekly periods from 0100hrs-0400hrs on a Monday morning. Growth in off-peak services has the potential to further constrain the timeframes for pavement maintenance. The programme details are contingent on implementing the new network level management system, which may result in changes to the pavement maintenance programme at a detailed level. The timing of works may be modified based on testing, inspection and rating as time progresses.

### **Taxiway Lima (or TWY1)**

This project involves the construction of a new taxiway from Taxiway Bravo to Pier B (east leg), which will be called Taxiway Lima. This taxiway will ultimately link to the northern runway and apron.

- (i) Aims and objectives: The aims and objectives of this project are to:
- reduce congestion and delays to Taxiway Kilo, which currently serves 15 international contact and remote stands;
  - create a second access to Pier A and Pier B (this ensures security of access); and
  - provide future access to the north of Pier B, by constructing stubs to future proof the access when future works are undertaken.
- (ii) Process for determining need: Auckland Airport's 2005 Masterplan for 2025 and beyond describes the major stages of airfield development. In this plan, Taxiway Lima was described as the first stage of significant airfield development that would logically follow the development of Pier B. The development was determined based on demand and existing capacity. Detailed staging and timing was not described.

The Aeronautical Planning Programme Study sets out the demand, capacity and growth paths for all international terminal and airfield requirements over the 2011-2030 period based on current forecasts. A delay study undertaken by Airbiz in 2012 indicated that Taxiway Lima was required to reduce congestion on Taxiway Kilo. On that basis, the commissioning of Taxiway Lima up to Pier B will be completed with additional stubs up to the taxiway strips to allow unconstrained construction work in the future hence avoiding delays on what will become the main thoroughfare to and from the international apron.

Taxiway Lima will be constructed to Code F clearance standards with an additional five metre service corridor for servicing of lighting equipment. Pavement construction has been designed based on forecast aircraft movements over the life of the pavement and the construction of the pavement will be with asphaltic cement surfacing. Airfield lighting and pavement marking is currently supplied by Airways Corporation ("**Airways**") and this model will continue for Taxiway Lima.

- (iii) Consumer engagement: Auckland Airport has consulted with BARNZ and Substantial Customers specifically on Taxiway Lima as part of its Aeronautical Pricing Consultation in 2011 and 2012. BARNZ noted that at least one of the taxiways to Pier B that was included in the ITF proposal, Taxiway Lima, would need to proceed irrespective of the final location of the future integrated terminal. Auckland Airport reclassified Taxiway Lima as a major capital expenditure project rather than being part of the New Terminal Facility project (named ITF at the time) following the New Terminal Facility's removal from pricing in the Revised Pricing Proposal. BARNZ advised that it considered a taxiway to access the current stands on Pier B as a priority for investment, and the construction of Taxiway Lima has been included in Standard Charges in accordance with this

feedback. Concept design materials have been provided to BARNZ for consideration. No specific passenger or public consultation is contemplated with regard to this project as the form of the solution does not have a direct effect on passenger experience or satisfaction.

- (iv) Alternative projects considered: No specific alternative options were considered as the position of Taxiway Lima is highly constrained. Initial reclamation of land in the mid 1990's determined the westerly extent of taxiway development. However at the detailed level, consideration was given to an alternative option for:
  - a. Construction of, the more westerly Taxiway Mike prior to Taxiway Lima. This was ruled out on the basis that it would disrupt operations if Taxiway Lima was built later;
  - b. The nature of pavement construction (asphalt, concrete or a combined approach were considered). Asphalt was determined to have a lower lifetime NPV cost; and
  - c. The scope of the build. An option excluding stubs was considered but was considered sub-optimal because it would cause the taxiway to be inoperable when the next stage of the adjacent taxiways was constructed.
- (v) Extent reflected in pricing: Auckland Airport has forecast for \$21.5 million for Taxiway Lima in FY13.
- (vi) Constraints or contingency factors: The works will be carried out in an area adjacent to operational taxiways. Closures and restrictions require careful coordination with airside operations. The project is dependent on Airways completing its aspects of the works within the required timeframe.

### Stand and taxilane programme

This project involves the provision of incremental international hardstand capacity. This is part of the new stand development programme which provides additional stands, and where necessary, taxilanes to service these, to meet the demand of additional aircraft services. The programme envisages the construction of six stands and two taxilanes in the vicinity of the western international apron in the next ten years.

- (i) Aims and objectives: The aims and objectives of this project are to meet the demand for aircraft stands and non-contact stands for the next ten years and to provide access to appropriate locations, whilst preserving minimum acceptable contingency stand levels.
- (ii) Process for determining need: The stand demand is derived from a study included in the Aeronautical Planning Programme Study and is based on a relationship between busy hour passengers and therefore busy hour aircraft movements. A typical busy day projected schedule was derived based on current usage and extrapolated to the future. Due regard was made to the number and use of contingency stands and stand headroom ie. free stands over and above the number of required stands. The nature of the programme was then influenced by customer requirements in respect of contingency hardstands. The stand and taxilane programme is as follows:

**Table R: Stand Programme**

Project Name	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
New Stand 01 ("NS1")		NS1								
New Stand 02 ("NS2")			NS2							
New Stand 03 ("NS3")						NS3*				
New Stand 04 ("NS4")							NS4			
New Stand 05 ("NS5")								NS5		
New Stand 06									NS6	

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("NS6")									
Taxilane 01 ("TL1")		TL1							
Taxilane 02 ("TL2")					TL2*				

New Stand 1 and Taxilane 1 (are linked projects, in the sense that TL1 is required to service NS1. This stand will have Code F dimensions, concrete structure and surfacing, and be MARS capable. It will be 1300m<sup>2</sup>.

New Stand 3 and Taxilane 2 are also linked projects.

\* The Aeronautical Planning Programme Study analysis predicts this infrastructure will be required by FY17. However on the basis of consumer feedback for capital planning purposes these facilities have been rescheduled to FY18.

- (iii) Consumer engagement: BARNZ and Substantial Customers were consulted with from October 2011 on the stand and taxilane programme. As a result of feedback on the Initial Pricing Proposal and further discussion with Substantial Customers, the stand demand was reduced by spreading the programme into the future and by maintaining (rather than increasing) the number of contingency stands, as initially proposed. Substantial Customers indicated a preference that only two new stands be included in the pricing period, and that the third stand (together with the taxiway) be excluded from pricing. As a result of this feedback, Auckland Airport decided to only include two new stands in the pricing period, but indicated that it would prefer to take a nimble and flexible approach to capacity requirements and consult with Substantial Customers if it became clear that Auckland Airport needed to commence works on a third stand prior to FY17.

BARNZ also noted its strong preference for international expansion from Pier B, rather than Pier A, and therefore did not support remote hard stands being constructed to the west of Pier A on the assumption that international expansion would occur through extension of Pier A. Rather, BARNZ considered the new hard stands should be constructed in their logical locations adjacent to Pier B. Further consultation on stand location is planned with Substantial Customers during concept design and in advance of the New Terminal Facility investment decision.

- (iv) Alternative projects considered: Various stand location options are still under consideration and will be consulted on further. The stands will be a combination of Code F and Code E capable stands to be determined based on demand at the time of concept design.
- (v) Extent reflected in pricing: Auckland Airport has forecast for \$21.4 million in incremental airfield assets for FY14, \$11.8 million for FY15.
- (vi) Constraints or contingent factors: The precise position of stands will be determined following further consultation and will be dependent on the outcome of the consultation regarding the future position of the domestic terminal facilities and development of piers. The evolution of demand and stand utilisation will influence the precise timing of delivery of the stand programme.

#### 2.4.4 Key capital expenditure for FY18-FY22

In accordance with clause 2.5(1)(e) of the Determination, this section describes the aims and objectives of the following key capital expenditure projects that extend beyond Auckland Airport's five year forecast period into its planning forecast for a ten year period:

- Terminal works:
  - ITB Landside plaza infill; and
  - ITB Pier B departure gate extension.
- Airfield works:

- Concrete runway and apron replacement and renewal (concrete slab replacement and asphalt surfacing);
- Stand and taxilane programme;
- Repositioning of stands; and
- Security expansion.

Auckland Airport notes that the New Terminal Facility project outlined in the previous section is also likely to involve expenditure in both the first and second five year forecast periods.

ITB Landside plaza infill: The aims and objectives of this project are to infill open plaza space between the domestic and international terminals. The form of this is contingent on the ultimate design and location of the New Terminal Facility.

ITB Pier B departure gate extension: The aims and objectives of this project are to further extend Pier B, providing two additional contact gates in order to maintain service levels and avoid excess bussing.

Concrete runway and apron replacement and renewal programme: This programme continues the aims and objectives set out within the five year forecast period, described above in section 2.4.3.

Stand and taxilane programme: This programme continues the aims and objectives set out within the five year forecast period, described above in section 2.4.3.

Repositioning of stands: The aims and objectives of this programme are to optimise stand capacity and access. The programme contemplates the relocation of Stand 19 which will provide further stand capacity in Pier B and accommodate a new taxilane. This project is dependent on further detailed design for Pier B expansion. Later in the programme, the Aeronautical Planning Programme Study, considered the relocation of stands near Pier A. Auckland Airport has received feedback from airlines that further international expansion of Pier B is preferable to Pier A. Schedule 18 includes forecasts relating to relocation of Pier A stands, however Auckland Airport acknowledges that this programme may be fundamentally reviewed following further business case review.

Security expansion (SEC2): Simulation analysis has been commissioned to provide greater certainty regarding when additional security screening capacity will be required. The current planning assumption is that this will be required by financial year 2019. Expansion options are to the north and possibly to the west of the current location of security screening on the first floor.

#### **2.4.5 Key capital expenditure – excluded from forecast**

The completion of the Northern Runway does not currently fall in the ten year plan, but merits comment for the information of interested parties. Auckland Airport has revised its planning horizon for the commissioning of the Northern Runway to 2025, plus or minus two years. Investment in the Northern Runway will be required over the ten year period, including design, levelling land, pre-loading and drainage works. This investment will be carried out as works under construction.

Further investigation is underway on modest opportunities to enhance the capacity of the existing runway. In good visibility conditions, around which throughput is dimensioned, Auckland Airport is in the top decile of single runway airports globally with a declared capacity of between 42-44 movements per hour.

Notwithstanding this, consultants engaged by Air New Zealand and Auckland Airport have both indicated that runway capacity enhancement to 46 movements per hour may be possible with the current mix of aircraft. This is reliant on regulatory changes from the Civil Aviation Authority. Throughput is not the only consideration, however, as continuous descent procedures have implications for the fuel savings available to airlines and can be a key driver in the short run. Noise is also a crucial consideration.

Auckland Airport supports prudent capacity enhancement initiatives where these meet the relevant safety criteria. Many of the initiatives identified by the airlines require regulatory change and potentially have national, rather than simply Auckland focussed implications. Auckland Airport is therefore supporting the programme to target incremental capacity enhancements, which Air New Zealand and Airways are leading.

## 2.5 Forecast operational expenditure

### 2.5.1 Overview of disclosure requirement

Clause 2.5(1)(g) requires Auckland Airport to publicly disclose any assumptions or justifications of its forecast operational expenditure by the following categories as disclosed in accordance with Schedule 18:

- Corporate overheads;
- Asset management and airport operations; and
- Asset maintenance.

The assumptions/justifications for Auckland Airport's forecast operational expenditure are set out below in Section 2.5.2. Auckland Airport's approach to determining its forecast operating expenditure for the purpose of the 2012 Pricing Decision is described above at Section 2.2.4.

### 2.5.2 Assumptions and justifications for total forecast operational expenditure

The following table sets out Auckland Airport's forecast annual growth assumptions for key aeronautical demand metrics for Auckland Airport's key cost items over the forecast pricing period. A brief explanation of the assumptions is set out after the table.

**Table S: Cost drivers**

Year Ending 30 June	2013 (F)	2014 (F)	2015 (F)	2016 (F)	2017 (F)
<b>Aeronautical demand metrics</b>					
International Passenger Movements (Excl. T&T)	1.8%	3.6%	3.2%	3.2%	3.2%
International Passenger Movements (Incl. T&T)	0.6%	3.6%	3.2%	3.3%	3.1%
Domestic Passenger Movements	2.7%	3.4%	3.6%	3.2%	2.7%
International MCTOW Volumes	- 2.5%	2.8%	2.7%	2.9%	3.0%
Domestic MCTOW Volumes	1.4%	1.1%	4.1%	1.7%	1.1%
CPI Inflation	2.5%	2.5%	2.5%	2.5%	2.5%
Change in FTE	1.7%	1.6%	1.6%	1.6%	1.6%
Personnel costs/FTE (real)	1.0%	1.0%	1.0%	1.0%	1.0%
<b>Key cost items</b>					
<i>R &amp; M:</i>					
Unit cost growth (real)	-	-	-	-	-
Volume impact	0.3%	0.7%	2.5%	2.4%	0.7%
Insurance (real)	8.2%	2.8%	2.2%	13.1%	4.2%

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Year Ending 30 June	2013 (F)	2014 (F)	2015 (F)	2016 (F)	2017 (F)
<i>Utilities:</i>					
Unit cost growth (real)	3.0%	3.0%	3.0%	3.0%	3.0%
Volume impact	0.5%	1.0%	2.0%	1.9%	0.9%
Rates (real)	3.4%	3.4%	3.4%	3.4%	3.4%
<i>Cleaning:</i>					
Unit cost growth (real)	1.0%	1.0%	1.0%	1.0%	1.0%
Volume impact	0.9%	2.0%	3.8%	3.7%	1.7%
<i>Consultancy, Audit, Legal (real):</i>	5.6%	4.0%	- 19.2%	- 1.2%	0.0%
<i>IT &amp; T (real):</i>	5.0%	10.0%	5.0%	5.0%	10.0%
<i>Marketing, Promotions &amp; PR:</i>					
BAU growth (real)	- 0.5%	- 0.5%	- 0.5%	- 0.5%	- 0.5%
Committed decline (real)	- 21.3%	- 35.9%	- 73.3%	- 80.1%	- 100.0%
<i>Aeronautical Outsourced Activity Fees (real):</i>	4.8%	2.0%	2.0%	2.0%	2.0%

Auckland Airport forecast operating cost by cost category on an unallocated basis. Operating cost growth assumptions are as follows:

- **Personnel Costs** –1% per annum real growth in unit salary costs. 1.7% per annum growth has been assumed in FTEs for FY13 and 1.6% per annum growth over the rest of the forecast period.
- **Repairs & Maintenance** – 0% per annum real growth in unit costs. Volume assumed to be driven in equal proportions by (i) an aeronautical activity driver (represented by an aeronautical index comprising both passenger and aircraft movements growth) and (ii) total terminal space. 'Efficiency scalars' apply to both the drivers so that only 50% of the growth in these measures drives forecast R&M volumes.
- **Utilities** – These costs comprise electricity energy, line and metering costs, water, waste water, sillage removal, gas and refuse disposal costs. Unit costs assume 3.0% per annum real growth. Volume assumed to be driven by (i) total terminal space and (ii) total passenger growth (both scaled to 30%).
- **Insurance** – The 8.2% real increase in FY13 reflects higher insurance costs following recent global events. 13.1% real growth in FY16 reflects renewal in that year of Auckland Airport's currently highly competitive material damage and business interruption policies.
- **Rates** - 6% per annum nominal increase (3.4% real) reflects Auckland Council's forecast rates increases over the forecast period.

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- **Cleaning** – 1% per annum real growth in unit costs. Volume assumed to be driven by (i) total terminal space and (ii) total passenger growth (scaled to 50% for aeronautical cleaning cost).
- **Telecommunications and Computer** – Real increases in IT&T costs are forecast off a relatively low base. Mobile technology is being increasingly deployed throughout the workforce, increasing productivity and data costs. New system management and maintenance cost are also forecast to grow as a result of SMART airport initiatives. On average this is estimated at 7% real cost increase per annum. A further increment is forecast with capacity expansion for terminal operations coinciding with Stage I of the proposed integrated terminal expansion.<sup>23</sup>
- **Marketing, Promotions and PR** – Auckland Airport has reviewed its marketing, promotions and PR forecasts. In terms of the approach to forecasting, where growth and market efficiency efforts are deemed to have a higher level of uncertainty in terms of volume, impact, timing and market mix, Auckland Airport has not forecast the volume, or the cost. Consistent with the approach to forecast demand:
  - Non-speculative marketing costs have been included in demand and operating cost forecast.<sup>24</sup>
  - Speculative marketing cost have been excluded from the demand and operating cost forecast.
- **Outsourced Activity Fees** – Comprises management contracts relating to baggage equipment, baggage trolley services, airside bus services and forecourt. 2% per annum real growth from FY14 reflects the labour content of these contracts plus volume growth resulting from some duplication of domestic infrastructure during the potential period of split domestic operations.

In Section 2.2.4, benchmarking of the baseline operating cost is discussed. In the Final Pricing Decision the Aeronautical Pricing cost forecast resulted in a targeted 2.8% real reduction in annual operating costs per passenger consistent with the corporate objective of driving increasing cost efficiency per passenger over time.

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<sup>23</sup> If the phasing or size of the facility materially alters over the course of the consultation this assumption will be updated.

<sup>24</sup> Auckland Airport had sufficiently advanced discussions with United Airlines for the Houston–Auckland service, that this service was included in the forecasts (demand and operating costs). Auckland Airport has since been advised by United Airlines that, due to Houston City Council's decision to add international flights at the city's second airport, William P. Hobby Airport, it is likely they will shelve growth plans out of their Houston hub at Bush Intercontinental Airport. Auckland Airport will continue to target incremental services to replace this proposed service.

## **2.6 Services in the revenue requirement not applicable to the price setting event**

Clause 2.5(h) 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) a description of the service;
- (b) the forecast total revenue requirement that is forecast to be earned from the service for each disclosure year of the price setting event;
- (c) the revenue earned from the service during the most recent disclosure year; and
- (d) 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. These are:

- Aircraft and freight services; and
- Other passenger terminal services.

### **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.
- (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 are predominantly landlord and tenant services. The rental agreements for these tenancies are periodically negotiated between parties based on market comparables. A key exception to this is the Joint User Hydrant License, 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 the licensee.

The following table sets out the forecast revenue requirement 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 during the most recent unaudited disclosure year was \$10.9 million.

In 2012, Auckland Airport invested \$4.5 million in assets associated with the Joint User Hydrant License. This has increased the forecast revenue requirement by approximately \$780,000 per annum. The remainder of the forecast is based on maintenance-based capital expenditure forecasts. Auckland Airport notes that some capacity growth capital expenditure is likely to be required, particularly in respect of the New Terminal Facility. Auckland Airport will consult with Substantial Customers regarding the appropriate recovery mechanism for such investment once there is greater certainty on the staging and location of any additional hydrant facilities.

**Table T: Aircraft and freight forecast revenue requirement**

	2013	2014	2015	2016	2017
	\$000s	\$000s	\$000s	\$000s	\$000s
Aircraft and Freight Forecast Total Revenue Requirement	11,504	11,748	12,019	12,296	12,487

### 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 1 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 are covered by Standard Charges (typically passenger charges). However, some of these services are landlord and tenant services, and therefore the rental agreements for these tenancies are periodically negotiated between parties. The exception to this is the collection facilities for duty-free, which relates to the provision of a facility by Auckland Airport for passengers to pick up duty-free items acquired otherwise than through the duty-free concessions operating at Auckland Airport.

The following table sets out the forecast total revenue requirement 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 during the most recent unaudited disclosure year was \$8.5 million.

**Table U: Other passenger terminal services total revenue requirement**

	2013	2014	2015	2016	2017
	\$000s	\$000s	\$000s	\$000s	\$000s
Other Passenger Terminal Forecast Total Revenue Requirement	8,287	8,414	8,576	8,741	8,781

## **2.7 Pricing methodology**

Pursuant to clause 2.5(2) 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 2012 Standard Charges, which are **attached in Appendix H**.

### **2.7.1 Summary of pricing methodology**

As discussed in Section 2.1 above, the pricing methodology used to set Auckland Airport's Standard Charges was based on a building blocks approach. The revenues were estimated using an excel-based model that reflected both the economic principles recommended by Auckland Airport's expert advisors and adjustments made throughout the Aeronautical Pricing Consultation, as a direct result of feedback from Substantial Customers.

Auckland Airport's overarching rationale in reaching its 2012 Pricing Decision was to earn a normal return, calculated using an appropriately determined WACC, an appropriate asset base and efficient operating costs. A normal return was considered to involve an assessment over time, acknowledging the potential to experience gains or losses in individual years based on a prospective NPV=0 basis, and no monopoly rents.

Auckland Airport's key guiding principles were that its Standard Charges should be reasonable, and that Auckland Airport should act responsibly having regard to the AAA and adopt a meaningful and transparent consultative approach to pricing.

The allocation methodologies that Auckland Airport has adopted in its 2012 Pricing Decision reflect the principles that:

- all charges should, at a minimum, cover the directly attributable costs of the relevant service;
- all other costs should be recovered having regard to Ramsey pricing principles; and
- a multi-till approach should be taken.

At the beginning of the pricing consultation process, Auckland Airport engaged Estina Consulting to assist it in developing appropriate pricing principles. A key issue for Auckland Airport's Pricing Decision was how to balance signalling long-run costs of demand with setting commercially acceptable returns over the five year forecast period (to shareholders, airlines and regulators) in an environment where the airport is being monitored on a prescriptive building blocks basis.

Auckland Airport recognised that prices facilitate two critical signalling roles in the market: signalling the cost of supply and signalling the willingness to pay.

The pricing principles Auckland Airport has adopted are as follows:

1. Allow airlines to consume and pay for only what they wish to consume by:
  - setting Standard Charges only for a common set of needs for aircraft and passenger movements;
  - treating specific asset requirements separately through leases and common-user licenses, eg: VIP Check-In, VIP Lounges, Office Space, Dedicated Plant, etc; and
  - entering into negotiations with individual airlines to reach agreement on variations from "charged services" (eg more for more or less for less), risk-sharing (eg changes to the price structure or where specific needs require long-life investments) and term of agreement (e.g. longer term arrangements).

2. Reflect different cost drivers by:

- separating services where there are distinctly different cost drivers or demand-side factors (price elasticity);
- setting prices such that the cost of a service is no more than its stand alone cost;
- recognising that, to a significant degree, airfield services are related to the aircraft type rather than passengers on board, and therefore that it is appropriate to continue to use maximum certificated take-off weight ("**MCTOW**") based charges for aircraft movements, with the addition of a time dimension for parking charges;
- using per passenger charges for passenger movements; and
- using per passenger charges instead of the existing Terminal Services Charge ("**TSC**") wash-up mechanism for airside terminal costs, with an annual adjustment to passenger charges in the event airline-requested or regulation-required investment is required.

3. Reflect demand-side factors by:

- allocating common costs to reflect differences in demand elasticity;
- considering the transition of price paths from current prices to the new prices for different services to avoid price "shocks" to a service; and
- 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.

4. Consider congestion costs. Auckland Airport considered whether peak pricing was appropriate, and concluded that it was mainly appropriate where there are no viable options to expand supply. Given Auckland Airport has viable expansion options, the use of peak/off-peak differentials should be deferred or moderate, unless there are delays to an efficient capacity expansion. It is not clear that airlines would alter their schedules in response to peak pricing at Auckland Airport.

5. Auckland Airport's pricing philosophy also involved:

- benchmarking charges to ensure they are competitive with charges offered by other airports serviced from Auckland Airport. Benchmarking reports from Leigh Fisher and Airbiz are attached at **Appendix I** and **Appendix J**, respectively;
- smoothing prices, to the extent practical. Airline feedback was, on the whole, not supportive of price smoothing now when the relevant capital expenditure contemplated is still in the distant future. Auckland Airport will continue to explore mechanisms to smooth prices for airlines, while endeavouring to manage airline expectations. If the industry does not support smoothing, step changes in price would be implied, for example, for the Northern Runway; and
- being mindful of the economic conditions faced by our airline customers.

6. In balancing the economic considerations with delivering a commercially acceptable outcome, Auckland Airport has taken into account the following practical considerations:

- Airlines prefer to use a five year bounded NPV building block evaluation for transparency purposes, even though reflecting forward-looking economic cost data would be more efficient from a pure economic perspective.

Using the five year bounded NPV method means that lumpy investments create volatility in returns. It can therefore be necessary to isolate large lumpy investments and to charge for them in ways that signal to airlines how incremental demand drives the timing of the investments. This has been done by isolating the lumpy investment Auckland Airport faces

with the Northern Runway, from the remaining assets. Auckland Airport has proposed options for smoothing the cost via an early introduction of a voluntary specific Northern Runway charge. Introducing a charge early enables Auckland Airport to reflect how increments in demand impact the timing of the lumpy investment in the Northern Runway. Auckland Airport did not propose to introduce an immediate compulsory charge for the Northern Runway, but explored the potential to use the Commission's future use asset monitoring and an interim charge to smooth charges for the Northern Runway.<sup>25</sup> Auckland Airport has signalled to the airlines and the Commission that pricing for this strategic asset remains unresolved. Auckland Airport is concerned that the current building blocks monitoring approach makes it more difficult for Auckland Airport to reflect long term economic considerations in pricing (without regulatory risk) and amplifies the incentives of airlines not to support the expansion at the optimal time. Furthermore, the future use construct which has been developed in the Input Methodologies is a theoretical approach. Auckland Airport is very concerned that this methodology will not deliver a commercially effective outcome and is concerned of the economic cost to New Zealand if the supply of essential tourism and trade infrastructure is constrained.

- Auckland Airport has considered the building blocks for airfield activities and passenger activities and whether a rebalancing was required between landing charges and passenger charges. Rather than significantly increase MCTOW charges, Auckland Airport determined to allocate a portion of passenger charges related to airfield services because:
  - the MCTOW based charge covered the direct costs and a partial share of common costs; and
  - a number of airlines expressed a preference for per passenger charges to cover all or most services including the airfield. Therefore rather than impose a step change in landing charges to account for a full allocation of common costs, some of the passenger charge will be accounted for as a contribution to airfield common costs and airfield passenger driven assets, such as lighting, electricity networks, roading, rescue fire costs and storm water.
- There are varying views on the demand side impact of allocating common costs to domestic versus international charges. Generally, international airlines (represented by BARNZ) considered that domestic charges should be increased so as to recover the costs of the domestic operations plus an appropriate contribution towards common costs. Domestic carriers on the other hand raised concerns that the increase in domestic charges was too high and common cost allocation ought to minimise the impact on demand. Auckland Airport sought in its Final Pricing Decision to balance a recovery from domestic operations that covered direct costs and ensure a contribution (though relatively low) to common costs.
- Determining the most cost-efficient solution for the domestic terminal requires complex analysis, involving not just an assessment of the direct costs of alternatives, but the operational implications and consequences for airline network efficiency, together with permanent decisions affecting Auckland Airport's infrastructure for the next 40 years. Further analysis is

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<sup>25</sup> BARNZ Represented Airlines were generally not supportive of charging for the Northern Runway until it becomes "used and useful". Some Substantial Customers were concerned that an interim charge would be pre-financing. Auckland Airport continues to be of the view that interpretation of options to introduce a Northern Runway levy as "pre-financing" are misguided. Auckland Airport also agrees with the observations of its economic advisor (Estina) that it would be inefficient not to signal how demand growth is driving the need for a major capacity-step investment in a second runway, a charge for the Northern Runway prior to commissioning is more consistent with efficient pricing, and that it would be inconsistent if parties expected discounts to be offered post-commissioning and did not expect signalling of the cost of investment pre-commissioning.

required to determine the most efficient investment. In this respect Auckland Airport has determined not to rush the decision on the basis that this investment represented an important strategic asset for New Zealand. In this respect the Standard Charges do not fully reflect the cost of future supply.

## 2.7.2 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 2012 Pricing Decision are as follows:

- Airfield landing facilities and services (for which a landing charge ("**landing charge**") applies);
- Airfield parking facilities and services (for which an airfield parking charge ("**parking charge**") applies);
- Passenger terminal facilities and services and common costs associated with airfield (for which a Domestic Passenger Charge (or "**DPC**"), International Passenger Charge (or "**IPC**") and/or a Transit Passenger Charge (or "**TPC**") applies);
- Check-in facilities and services (for which a check-in facility charge ("**check-in charge**") applies).
- New terminal facilities (for which an investment charge is intended to apply), following further consultation.

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

- Runway and taxiways;
- 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 small share of common costs associated with corporate-wide functions (e.g. corporate, accounting and finance, human resources, information technology and shared aeronautical functions); and
- A small 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 based on hourly rates by size and duration where applicable. Auckland Airport's practice is typically not to charge for parking, as the administration costs outweigh the benefits. Nevertheless this charge has been retained within Standard Charges, not as a material forecast revenue item, but to be used if needed to respond to inefficient use of resources (ie prolonged parking by an aircraft).

The DPC covers the facilities (assets) and operational costs associated with:

- Check-in hall (domestic);
- Landside congregation, circulation areas, toilets and egress for passengers and visitors;
- Queuing areas for aviation security;
- 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;
- 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;
- A share of building infrastructure and plant;
- Operating costs associated with these areas and plant and equipment;
- 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;
- Share of common costs associated with corporate wide functions (eg CEO and board, accounting and finance, human resources, information technology and shared aeronautical functions such as the aeronautical leadership team);
- A share of infrastructure including the utility networks, access roads and forecourts; and
- Regulatory or Required investment as per the Regulatory or Required investment policy appended to the Standard Charges.

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 customs and 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;
- Operating costs associated with these areas and plant and equipment;
- 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 (eg CEO and board, accounting and finance, human resources, information technology and shared aeronautical functions, such as the aeronautical leadership team);
- A share of infrastructure including the utility networks, access roads and forecourts and;
- Regulatory or Required investment as per the Regulatory or Required investment policy appended to the Standard Charges.

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 use areas that are separately charged by way of lease or licence.

Auckland Airport has excluded any anticipated expenditure on a New Terminal Facility from its passenger and landing charges. Auckland Airport anticipates, however, that work on a New Terminal Facility will be required to be commenced during this pricing period (1 July 2012 – 30 June 2017). Auckland Airport has therefore established an Investment Charge, which will be set once the details of a New Terminal Facility are finalised (following consultation with Substantial Customers, as required under the AAA).

### 2.7.3 Description of relationship between quality of service and cost for each charged service

Charged services pertain to services provided in a common-user environment. Auckland Airport endeavours to maintain a good quality service at all times. However users are likely on average to experience a better quality service in the off-peak times, than during the peak.

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.

Auckland Airport provides a number of key support functions to deliver quality of service required by customers. These include:

- Operations – a monitoring centre and 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;
- Maintenance – undertaking preventative maintenance programmes and responding to breakdowns in facilities;
- Utility Infrastructure – Auckland Airport provides and maintains high quality and reliable water, electricity and gas infrastructure.
- Airside – a monitoring team for compliance and safety issues for all aircraft movement areas;
- Fire service – emergency response service required by Civil Aviation Authority ("**CAA**") regulations;
- 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 the Airport proactively deploys staff into identified problem areas to facilitate efficient queue management;
- Additional services – Auckland Airport offers an excess carry-on baggage check on behalf of the airlines. Auckland Airport staff check passengers who may be carrying excess baggage. This intervention occurs after check-in, but prior to passengers entering the customs departure area; and
- Sustainability – Auckland Airport proactively manages for the sustainability of its practices and has silver certification under the Earthcheck global sustainable tourism scheme.

Service quality is measured based on customer feedback, periodic ad hoc surveys and quarterly, independent Airport Council International ("**ACI**") Airport Service Quality ("**ASQ**") surveys, as well as airport benchmarking. Therefore, while the quality of service is actively monitored, the Standard Charges provide for a common-user environment with no specific quality differential. All other things being equal, Auckland Airport targets incremental improvement in its ASQ scores over time.

In addition to customer service, safety and security are core considerations. Auckland Airport complies with safety, operational and security requirements set by the Department of Labour, CAA, Airways,

Aviation Security and border agencies.

Auckland Airport regularly reports on the reliability of material services provided to airlines and passengers. Details of this can be found in Schedule 11, 14 and 15 of Auckland Airport's May 2012 Disclosure.

The following quality metrics will be reported over the pricing period in relation to services covered by landing charges:

- Runway reliability;
- Taxiway reliability;
- Remote stands and means of embarkation / disembarkation;
- Contact stands;
- On time departure delay; and
- Fixed electrical ground power.

The following quality metrics will be reported over the pricing period in relation to passenger satisfaction in terminals for services covered by passenger charges:

- Air bridge reliability;
- Ease of finding your way through an airport;
- Ease of making connections with other flights;
- Flight information display screens;
- Walking distance within and/or between terminals;
- Availability of baggage carts/trolleys;
- Courtesy, helpfulness of airport staff (excluding check-in and security);
- Availability of washrooms/toilets;
- Cleanliness of washrooms/toilets;
- Comfort of waiting/gate areas;
- Cleanliness of airport terminal;
- Ambience of the airport;
- Check-in waiting time; and
- Feeling of being safe and secure.

Auckland Airport is committed to working with its key stakeholders to improve the quality of service for both passengers and airlines. In order to improve the passenger experience, Auckland Airport has proactively engaged with key stakeholders to establish the multi-stakeholder Collaborative Operations Group ("**COG**"). COG aims to review and improve operational performance across the end to end journey. One of COG's first objectives was to identify and map the core end to end operational processes at Auckland Airport. The group is working together to agree base case operational standards for each process. The project team is gathering information to identify the key metrics that can assist operational performance. By overlaying these key metrics onto operational processes, improvements can be targeted towards achieving the agreed standards. The benefits of these operational improvements can be shared across all parties involved.

It is anticipated that COG will identify specific projects to drive operational improvement. These projects will be passed onto the Lean Steering Group ("**Lean**"). Auckland Airport has been using Lean to improve the quality of processes for over two years. Specific working groups are put together for each Lean project.

Auckland Airport strives for continuous improvement in the reliability of services that it delivers to airlines. Auckland Airport has operational improvement forums in place to improve airbridge, baggage system and runway and taxiway performance. While Auckland Airport is required to meet airlines quarterly, the Airport is endeavouring to present reliability data on a more frequent basis. Through the regular sharing of

reliability information, Auckland Airport aims to work with the airlines to improve the efficiency and accuracy of data capture. Auckland Airport is currently working with the airlines to develop more efficient ways of capturing on time performance and passenger data.

### *Customer satisfaction results*

Auckland Airport benchmarks quality perception by passengers in the annual Skytrax and ASQ results. Auckland Airport was named for the fourth year in a row the Best Airport in the Australia / Pacific region at the 2012 World Airport Skytrax Awards in April 2012. Auckland came second globally to Vancouver in the Best Airports by "size of airport", for airports handling 10 to 20 million passengers annually. Auckland Airport is committed to making journeys better and recognises that this is the sum of many different parts, from cleaners to Customs, from airlines to Aviation Security, from border agencies to baggage-handlers. Auckland Airport has invested in a number of innovations over recent years that have directly benefited the passenger by streamlining the processing part of the journey, therefore providing more time and choice and intends to continue that focus into this forthcoming pricing period.

Auckland Airport is committed to continuing to build more international connections, develop innovations, find efficiencies and improve the passenger experience wherever it can. There are some challenges ahead, as the domestic travel experience at Auckland lags behind the international travel experience. At a high level the ASQ results show that quality for the international terminal has improved over time with all the work that has been done. The DTB's ASQ results are currently holding stable. Auckland Airport will do its best to manage the service quality proposition at the DTB, but recognises that there is very likely to be some temporary negative impact during the brownfields development which is planned.

### *Benchmarking of charges*

Throughout the consultation process, Auckland Airport advised the airlines of its commitment to maintaining competitive charges.

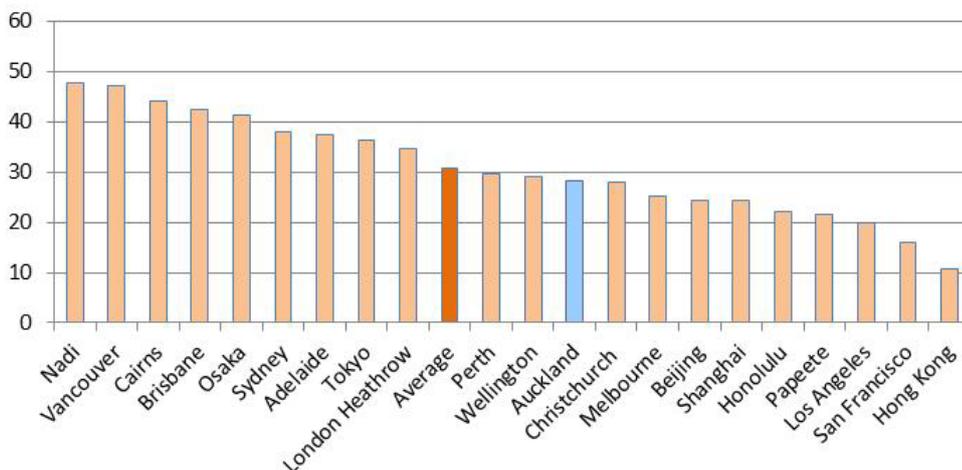
For the past three years Auckland Airport has commissioned Leigh Fisher to benchmark Auckland Airport's international charges against a sample of airports which Air New Zealand flies to on its international routes. The Leigh Fisher review of international airport charges is contained in **Appendix I**.

It is industry practice to benchmark on the basis of turnaround costs. This is because services provided by an airport in one instance may be provided by a third party at another airport. For example, Auckland Airport's airport charges include a fire rescue component, while in Australia this is commonly a third party charge. Therefore general references to "airport charges", may in fact be airport cost recoveries, third party costs or some combination of the two. To address this issue benchmarking is undertaken on the basis of estimated total turnaround costs. Turnaround costs are the sum of the charges made by an airport plus the charges made by third parties, including Government agencies, for services such as terminal navigation, security and rescue fire.

That analysis is shown on the following page and indicates Auckland Airport's charges to be below average on a turnaround basis, with Auckland ranking 12th position out of the 21 airports in all cases for the individual aircraft types sampled.

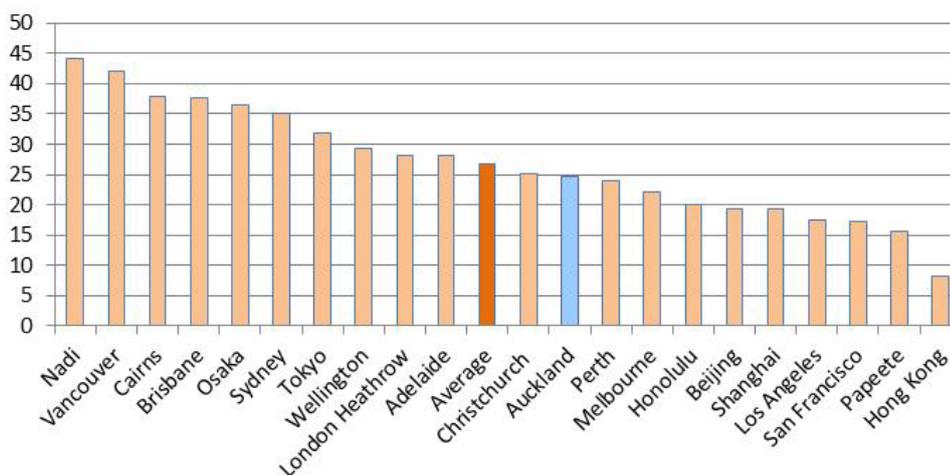
The following two figures illustrate the current effective turnaround charge per passenger each way for a B777-200 ER and an A320.

**Figure 2: International charges per passenger (each way) – B777-200ER (NZ\$)**



Source: Leigh Fisher, Comparisons of Airport Charges at Principal Airports served by Air New Zealand, November 2011

**Figure 3: International charges per passenger (each way) – A320-200 (NZ\$)**



Source: Leigh Fisher, Comparisons of Airport Charges at Principal Airports served by Air New Zealand, November 2011

In Aeronautical Pricing, Auckland Airport noted its continued focus on growing air services, which (absent capacity constraints) allows increased asset efficiency and lower international costs on a per passenger basis.

Auckland Airport has been very conscious that the airline industry is facing a number of pressures on international routes, particularly in relation to the price of jet fuel and the introduction of new taxes. Auckland Airport therefore made a modest reduction in international charges in FY13, with 1.5% increases

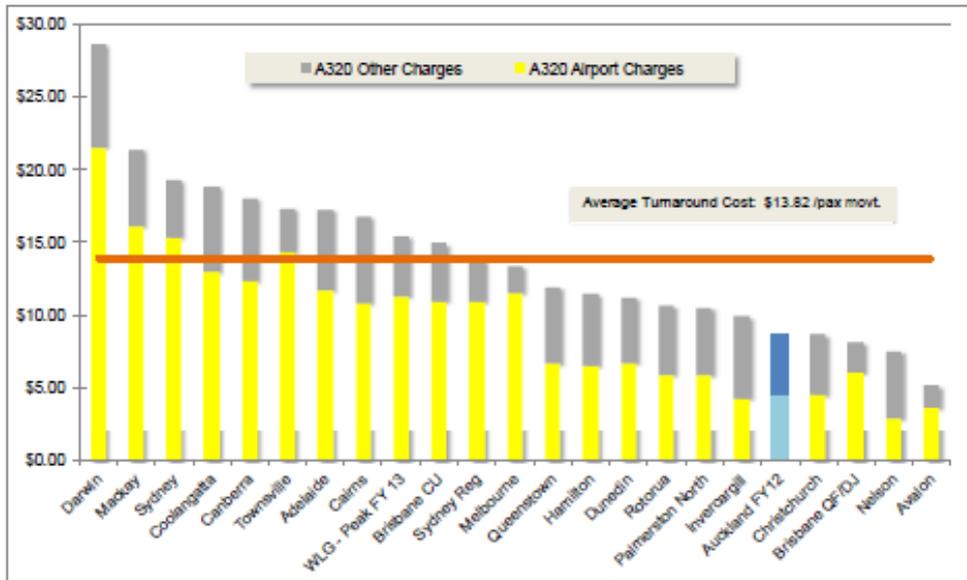
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from FY14 to FY17. Auckland Airport considers that the International Charges in FY13, and the smoothed price path beyond this, will be competitive and are likely to be lower than average as other airports' price changes are introduced. Furthermore, the value proposition is sound when Auckland Airport's charges are compared to Vancouver, recognising that Auckland came second globally to Vancouver in the Best Airports by "size of Airport", for airports handling 10 to 20 million passengers annually.

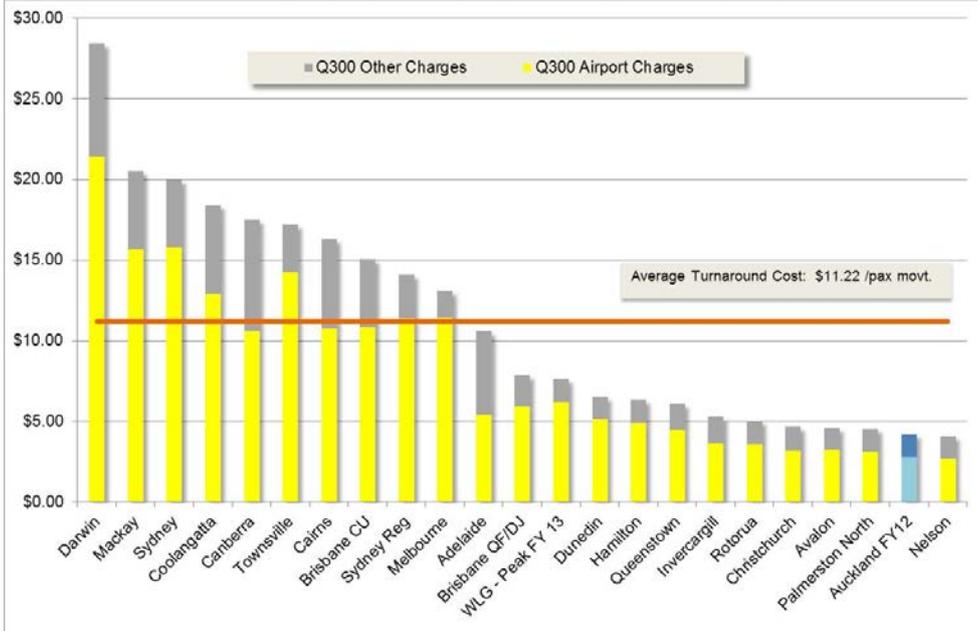
Auckland Airport has commissioned Airbiz to benchmark domestic turnaround costs over the past few years. The most recent report is contained in **Appendix J**. The following analysis indicates that domestic charges have been significantly below the market average with Auckland Airport's:

- Turnaround costs for the A320 the fifth lowest of the 23 airports surveyed; and
- Turnaround costs for the Q300 the second lowest of the 23 airports surveyed.

**Figure 4: Domestic charges per passenger (each way) – A320 (NZ\$)**



**Figure 5: Domestic charges per passenger (each way) – Q300 (NZ\$)**



Source: Airbiz Aviation, Domestic Turnaround Costs Review, June 2012

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Based on the new charges from 1 July 2013, Auckland Airport's effective turnaround costs per passenger will be approximately:

- \$9.95 per passenger for an A320, shifting its position to be just above Invercargill; and
- \$5.50 for the Q300, with a position between Invercargill and Queenstown airport.

Auckland Airport notes these independent reports were based on published prices and typical aircraft configuration, so may vary from carrier to carrier.

Together these results indicate that Auckland Airport's service quality proposition in an overall sense is above average and charges are below average. Auckland Airport is committed to continuously improving in the forecast period to maintain or improve this value proposition.

#### **2.7.4 Description of methodology used to allocate costs to particular charged services**

Auckland Airport has set two key types of charged services in its 2012 Pricing Decision: landing charges and passenger charges. Together these represent 97% of the forecast revenue consulted on as part of the 2012 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.

In the interests of simplicity and transparency, the approach taken to cost and asset allocation was based on the Commission's Input Methodology Determination that is required to be used for information disclosure purposes, which focuses on the allocation of costs to airfield, passenger terminal and aircraft and freight services.

Key principles involved direct allocation of costs in the first instance and allocation of common costs using causal or proxy allocators. A causal relationship exists when an allocator or factor influenced the utilisation of an asset, or a cost driver lead to an operating cost being incurred during the last 18 months. A proxy relationship is used when a causal relationship does not exist, so instead costs / assets are allocated via transparent quantifiable metrics. 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.

The advantage of this approach is to provide transparency in cost allocation and consistency with disclosure requirements. An implication of this is however that there is a significant allocation of common costs to airfield. In its Final Reasons Paper Auckland Airport proposed to acknowledge that a portion of passenger charges relate to airfield services rather than to create a step change in airfield charges.<sup>26</sup>

As discussed in 2.7.1, 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 to minimise the expected impact on demand. High-level checks were also undertaken to ensure that the DPC and TPC covered direct costs.

The broad principles of asset and cost allocation processes are provided in the comments in section 2.2.1 (asset allocation) and section 2.2.3 (cost allocation) above.

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<sup>26</sup> Final Reasons Paper, p60.

## 2.7.5 Description of significant changes to, or rebalancing of prices from the previous pricing period

The following describes the significant changes to, or rebalancing of, prices from the previous pricing period compared to the 2012 Standard Charges:

- Domestic and international landing charges have been equalised for aircraft 40 tonnes and over for the pricing period FY13 to FY17. In the previous pricing period, Auckland Airport had different domestic and international landing charge pricing for aircraft 40 tonnes and higher. In FY12, domestic flights were charged 39 cents more per tonne (excluding GST), than international aircraft in the same weight bracket. This price differential was created in 1997 when there was a 3% reduction to charges for international aircraft. This practice was subsequently explained on the basis of an absence of a DPC. This historic anomaly has been addressed in the new price structure for Standard Charges, with domestic and international landing charges equalised for aircraft 40 tonnes and over.
- A DPC has been introduced at a rate of \$1.98 (excluding GST) for FY13. In FY12, domestic terminal facilities were charged by way of leasing arrangements. This had an effective unit rate of approximately 70 cents per domestic passenger. This was required to be increased to \$1.98 from 1 July 2012 in order to cover direct costs (including the DTB Short Term Capacity Enhancement project) and to make a modest contribution to common costs. This charge also covers the use of domestic counter facilities.
- The TSC is abolished from 1 July 2012, subject to a final wash-up for FY12. For reasons of certainty and transparency, a number of the airlines were supportive of Auckland Airport removing the TSC in favour of including forecast costs in passenger charges and removing the pass-through element.
- The IPC incorporates charges previously included in the TSC. The scope of exemptions for the IPC has also changed. In FY12, 2-11 year olds were exempt from this charge. However, following consultation there was support for costs associated with international users to be shared across all users, except infants under 2 years of age. In response to feedback and to allow for a smooth transition, Auckland Airport has set charges for 2-11 years at 50% of the IPC in FY13, transitioning to the full IPC in FY14.
- Auckland Airport has three types of international counter facilities, described as allocated, non-allocated and exclusive use areas. In an effort to encourage efficient use of common user check-in counter areas, Auckland Airport intends to replace the existing licences for allocated and unallocated check-in counters with a time-based charge based on actual utilisation. In response to feedback and in order to provide time for Substantial Customers and ground handlers to adapt their processes to this new approach, time-based billing will be introduced for all common use facilities from 1 July 2013 (rather than take immediate effect).
- In response to feedback, parking charges have been increased by 10% to encourage a more efficient use of the apron. Auckland Airport's normal practice is not to charge for parking, as the administration costs outweigh the benefits (and is therefore not a material revenue forecast item), however this charge has been retained and applied if Auckland Airport needs to respond to inefficient use of resources (ie prolonged parking by an aircraft).
- Different approaches have existed for ground handling licence fees relating to ground handling for airfield, passenger and aircraft and freight activities. In response to feedback Auckland Airport has decided to standardise the approach in this area and will no longer levy a ground handling licence fee. Dedicated facility provision will however continue to be recovered by way of lease charges.

## **2.7.6 Description of methodology for determining pricing for charged services and how these were reconciled with forecast revenue requirement**

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

- ensure that prices covered direct costs;
- introduce any rebalancing or significant changes in the first year (eg landing charges / DPC); and
- avoid price shocks were possible by taking a staggered approach to the introduction of a charge (eg 2-11 year old charge for international terminal services); and
- smooth the annual price change thereafter.

Benchmarking was undertaken for international counter charges to ensure these were reasonable. As there are a variety of price structures available the remaining benchmarking focussed on benchmarking of overall charges, rather than within each pricing element.

Volume forecasts were developed consistent with the price structure and together with the price points provided a forecast of aeronautical pricing revenues.

The table on the next page shows the reconciliation of forecast revenues for the price setting event, to each of the standard charged services.

**Table V: Reconciliation of prices for charged services to forecast revenue for Standard Charges<sup>27</sup>**

Year Ending 30 June		2013 (F)	2014 (F)	2015 (F)	2016 (F)	2017 (F)
<b>Airfield Revenue Forecasts -MCTOW</b>						
<b>Landings Charge Volume Driver</b>	<b>Mapping</b>	<b>Units</b>				
Turboprop -<6 Tonnes	Less than 6 tonne	[Landings]	-	-	-	-
Turboprop - 6 - 40 Tonnes	Between 6 and 40 tonne	[Tonnes]	473,000	482,000	491,000	500,000
Turboprop -> 40 Tonnes	Domestic Over 40 tonne	[Tonnes]	-	-	-	-
Domestic Jet -<6 Tonnes	Less than 6 tonne	[Landings]	-	-	-	-
Domestic Jet - 6 - 40 Tonnes	Between 6 and 40 tonne	[Tonnes]	-	-	-	-
Domestic Jet -> 40 Tonnes	Domestic Over 40 tonne	[Tonnes]	1,301,000	1,311,000	1,376,000	1,398,000
International Jet -<6 Tonnes	Less than 6 tonne	[Landings]	-	-	-	-
International Jet - 6 - 40 Tonnes	Between 6 and 40 tonne	[Tonnes]	-	-	-	-
International Jet -> 40 Tonnes	International Over 40 tonne	[Tonnes]	3,956,000	4,068,000	4,179,000	4,301,000
Freight/Other -<6 Tonnes	Less than 6 tonne	[Landings]	1,786	1,786	1,786	1,846
Freight/Other - 6 - 40 Tonnes	Between 6 and 40 tonne	[Tonnes]	13,990	13,990	13,974	14,598
Freight/Other -> 40 Tonnes	International Over 40 tonne	[Tonnes]	74,692	74,692	94,715	98,945
<b>Weight Bracket Volumes</b>	<b>Units</b>					
Less than 6 tonne	[Landings]	1,786	1,786	1,786	1,846	1,846
Between 6 and 40 tonne	[Tonnes]	486,990	495,990	504,974	514,598	523,598
Domestic Over 40 tonne	[Tonnes]	1,301,000	1,311,000	1,376,000	1,398,000	1,409,000
International Over 40 tonne	[Tonnes]	4,030,692	4,142,692	4,273,715	4,399,945	4,526,945
<b>Weight Bracket Charges</b>	<b>Units</b>					
Less than 6 tonne	[NZD /landing]	52.00	53.30	54.63	56.00	57.40
Between 6 and 40 tonne	[NZD /tonne]	8.75	8.97	9.19	9.42	9.66
Domestic Over 40 tonne	[NZD /tonne]	14.20	14.56	14.92	15.29	15.67
International Over 40 tonne	[NZD /tonne]	14.20	14.56	14.92	15.29	15.67
<b>Total Landing Charges</b>	<b>Units</b>					
Less than 6 tonne	[\$000's]	93	95	98	103	106
Between 6 and 40 tonne	[\$000's]	4,261	4,449	4,641	4,848	5,058
Domestic Over 40 tonne	[\$000's]	18,474	19,088	20,530	21,375	22,079
International Over 40 tonne	[\$000's]	57,236	60,318	63,764	67,275	70,937
<b>Total Revenue</b>	[\$000's]	80,064	83,950	89,032	93,601	98,180
		3.7%	4.9%	6.1%	5.1%	4.9%
<b>Passenger Charges Forecasts</b>						
<b>PAX Forecasts</b>	<b>Mapping</b>					
Domestic	PC - Domestic	6,443	6,660	6,900	7,120	7,311
International	PC - International	7,323	7,587	7,832	8,086	8,342
Transit Movements	PC - Transits	514	532	549	567	578
<b>Total</b>		14,280	14,778	15,282	15,774	16,231
<b>Domestic Exclusions (Under 2's)</b>		2.3%	2.3%	2.3%	2.3%	2.3%
<b>International Exclusions (Under 2's)</b>		1.4%	1.4%	1.4%	1.4%	1.4%
<b>% of PAX Aged 2-11</b>		5.85%	5.85%	5.85%	5.85%	5.85%
<b>% of full fair paid by 2-11 Year Olds</b>		50.0%	100.0%	100.0%	100.0%	100.0%
<b>Passenger Charge (PC) Volumes</b>						
PC - Domestic	pax (with exclusions)	6,295	6,507	6,742	6,956	7,143
PC - International	pax (with exclusions)	7,010	7,484	7,726	7,977	8,229
PC - Transits	pax (with exclusions) (one way)	246	262	271	280	285
		13,551	14,253	14,739	15,213	15,657
<b>Growth Estimates</b>						
Domestic		2.7%	3.4%	3.6%	3.2%	2.7%
International		1.8%	3.6%	3.2%	3.2%	3.2%
Transit Movements		(14.0%)	3.4%	3.3%	3.2%	1.9%
<b>Total</b>		1.5%	3.5%	3.4%	3.2%	2.9%
<b>Domestic PC Rates</b>						
PC - Domestic (DPC)	NZD/pax	\$1.98	\$2.03	\$2.08	\$2.13	\$2.18
<b>Total Domestic PC Collected</b>		12,463	13,208	14,023	14,817	15,572
<b>International PC Rates</b>						
PC - International (IPC)	NZD/pax	\$15.16	\$15.39	\$15.62	\$15.85	\$16.09
PC - Transits (TPC)	NZD/pax	\$3.65	\$3.74	\$3.83	\$3.93	\$4.03
<b>International PC Collected</b>						
PC - International (Regular)		106,269	115,180	120,684	126,439	132,408
PC - Transits		898	981	1,038	1,099	1,149
<b>Total International PC Collected</b>		107,168	116,161	121,722	127,539	133,557
<b>Counter Rental</b>		2,713	2,802	2,707	2,928	3,177
<b>Total Forecast Revenue</b>		202,408	216,121	227,484	238,885	250,485

<sup>27</sup> Note: Freight MCTOW was forecast separately but bundled into the International over 40 tonnes for the purposes of this reconciliation. Aircraft under 6 tonne are charged on the basis of landings, not MCTOW.

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### **2.7.7 Description of terminal access charges**

There is no specific charge for terminal access in Auckland Airport's Standard Charges. Access to the terminal is provided by way of paying landing charges and passenger charges. Auckland Airport has no explicit differential terminal access charge for airbridges, transfer bus or walking access.

Auckland Airport consulted with Substantial Customers on the appropriate timing of incremental contact, walking and remote (bussed) stands. The use of bussing is a question of setting the optimum asset utilisation before augmenting with further amenities in the Pier (in this case Pier B). Because augmentation is lumpy Auckland Airport has consulted with Substantial Customers on expectations that bussing levels will grow until the Pier B ground boarding project is commissioned.

### **2.7.8 Explanation of the extent to which Auckland Airport's pricing methodology will lead to efficient prices including whether there are any cross subsidies**

Auckland Airport considers that its pricing methodology fully implements the pricing philosophy referred to in Section 2.7.1 above, and therefore leads to efficient prices. That is, the pricing principles Auckland Airport has adopted are to:

1. Allow airlines to consume and pay for only what they wish to consume by:
  - setting Standard Charges only for a common set of needs for aircraft and passenger movements;
  - treating specific asset requirements separately through leases eg: VIP Check-In, VIP Lounges, Office Space, Dedicated Plant; and
  - moving to time based billing for common-user facilities where airlines can differentiate their service offering for check-in availability.
  
2. Reflect different cost drivers by:
  - separating services where there are distinctly different cost drivers or demand-side factors (price elasticity) eg domestic versus international services;
  - setting prices such that the cost of a service is no more than its stand alone cost;
  - recognising that, to a significant degree, airfield services are related to the aircraft type rather than passengers on board, and therefore that it is appropriate to continue to use MCTOW-based charges for aircraft movements, with the addition of a time dimension for parking charges;
  - using per passenger charges for passenger movements; and
  - using per passenger charges instead of the existing TSC wash-up mechanism for airside terminal costs, with an annual adjustment to passenger charges only for airline-requested or regulation-required investment as required.
  
3. Reflect demand-side factors by:
  - allocating common costs to reflect differences in demand elasticity (there is a higher allocation of common costs to the IPC than to other services);
  - considering the transition of price paths from current prices to the new prices for different services to avoid price "shocks" to a service that may have the potential to impact demand; and
  - treating the cost of common goods, such as roads, forecourts, utilities and landside circulation areas as common costs, a share of which are included in passenger charges and allocated between passenger types in a way that is likely to enhance price efficiency.

4. Consider congestion costs. Auckland Airport considered whether peak pricing was appropriate, and concluded that it is mainly appropriate where there are no viable options to expand supply.

Auckland Airport considers that its Standard Charges are allocatively efficient and revisions to the existing price structure will have the least possible impact on demand.

Auckland Airport is open to entering into negotiations with individual airlines to reach agreement on variations from charged services (eg more for more or less for less) and risk-sharing (eg changes to price structure or where specific needs require long-life investments). Some carriers have indicated a preference to see Standard Charges set before reaching any alternative agreement.

Auckland Airport has some remaining concerns regarding how it can efficiently price in the lead up to the requirement for a Northern Runway, in a regime where the Commission has excluded this runway land from the asset base for information disclosure purposes. Auckland Airport has explored options using the Commission's methodology for assets held for future use to signal to carriers that if a step change in pricing is to be avoided a smoothed interim charge would be required. At present Auckland Airport considers there is significant commercial uncertainty in this area and hopes to work constructively with regulatory bodies and Substantial Customers to address this at the appropriate time.

At the service level, individual prices reflect the key cost drivers for direct costs: eg MCTOW based charges for landing, terminal charges reflecting passenger numbers, and lease charges based on market or cost for specific space and plant.

Each service was priced at or above its forecast directly attributable cost, to recover different portions of common costs. No cross-subsidies were forecast in the charges.

#### **2.7.9 Standard Charges as at 1 July 2012**

Auckland Airport's schedule of Standard Charges effective 1 July 2012 is attached at **Appendix H**.

# PART C: Clause 2.5 Disclosure - Demand Forecasts

## 3. Schedule 19 - Report on Demand Forecasts

FOR THE PRICE SETTING EVENT 1 JULY 2012 - disclosed in accordance with clause 2.5(1)(a)(ii)

			Regulated Airport		Airport Company					
			Pricing Period Starting Year Ended		30 June 2013					
SCHEDULE 19: REPORT ON DEMAND FORECASTS										
ref	Version 2.0									
6	<b>19a: Passenger terminal demand</b>									
7										
8		(000)								
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27										

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**SCHEDULE 19: REPORT ON DEMAND FORECASTS (cont)**

ref Version 2.0

34 **19b: Aircraft Runway Movements**

			Pricing Period Starting Year	Pricing Period Starting Year + 1	Pricing Period Starting Year + 2	Pricing Period Starting Year + 3	Pricing Period Starting Year + 4	Pricing Period Starting Year + 5	Pricing Period Starting Year + 6	Pricing Period Starting Year + 7	Pricing Period Starting Year + 8	Pricing Period Starting Year + 9
		(000)	30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22
35												
36												
37	Movements during busy period (total number of aircraft)											
38		During the runway busy hour	0.0390	0.0400	0.0400	0.0410	0.0420	0.0420	0.0430	0.0450	0.0460	0.0470
39		During the runway busy day	0.4850	0.4920	0.5070	0.5110	0.5180	0.5190	0.5420	0.5540	0.5660	0.5720
40	Landings during year (total number of aircraft)	Aircraft 30 tonnes MCTOW or more	42	42	43	43	44	45	46	47	48	49
41		Aircraft 3 tonnes or more but less than 30 tonnes MCTOW	35	35	35	35	35	35	35	35	35	35
42		Aircraft less than 3 tonnes MCTOW	1	1	1	1	1	1	1	1	1	1
43		Total	78	78	79	79	80	81	82	83	84	85
44												
45	Landings during year (total MCTOW in tonnes)	Aircraft 30 tonnes MCTOW or more	5,332	5,454	5,650	5,798	5,936	6,049	6,190	6,325	6,453	6,616
46		Aircraft 3 tonnes or more but less than 30 tonnes MCTOW	489	498	507	517	526	534	544	553	563	568
47		Aircraft less than 3 tonnes MCTOW	3	3	3	3	3	3	3	3	3	4
48		Total	5,824	5,955	6,160	6,318	6,465	6,586	6,737	6,881	7,019	7,188
49												
50	Landings during year (total number of aircraft)	Air passenger services—international	22	22	23	23	24	24	25	26	27	27
51		Air passenger services—domestic	53	53	53	53	53	53	53	54	54	54
52		Other aircraft	3	3	3	3	3	3	3	3	3	3
53												
54	Landings during year (total MCTOW in tonnes)	Air passenger services—international	3,956	4,068	4,179	4,301	4,428	4,520	4,636	4,749	4,856	4,994
55		Air passenger services—domestic	1,774	1,793	1,867	1,898	1,918	1,947	1,978	2,009	2,040	2,067
56		Other aircraft	94	94	114	119	119	119	123	123	123	127

57 **Description of the basis for forecasts, and/or assumptions made in forecasting**

58 Refer to Section 4.

## 4. Disclosure relating to Demand Forecasts

Auckland Airport has disclosed its Schedule 19 demand forecast information in accordance with clause 2.5(1)(a)(ii) of the Determination in Section 3 above.

Schedule 19 also requires Auckland Airport to provide a description of the basis for its forecasts, and/or assumptions made in forecasting.

In this section, Auckland Airport sets out its demand forecast assumptions for its:

- 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.

### 4.1 Facility planning forecasts

Planning forecasts are contained in the Airbiz Report "Auckland Airport Facility Planning Demand Forecasts 2012" ("**Airbiz Facility Forecasts Report**").

The primary purpose of facility planning forecasts is to project demand for mid to long range planning of major elements of aeronautical infrastructure and facilities. Facility Planning Forecasts are updated approximately every five years or in advance of significant development and approximately 18 months prior to an Aeronautical Pricing event.

Facility planning forecasts may be also updated if triggered by:

- A significant change to plans triggering an unscheduled pricing event; and/or
- A significant change in the aviation market.

Internally Auckland Airport monitors regularly how actual traffic outcomes compare to forecasts, but annual deviations in and of themselves are not cause to update the long term planning forecasts. However, comparison information may be used to inform and modify individual project prioritisation.

The annual passenger forecasts were generated from forecast growth rates assessed by consideration of short and long-term historical trends, other forecasts for Auckland Airport traffic and industry outlooks.

Validation of the reasonableness of the annual passenger forecasts has been made by undertaking a regression analysis on historical passenger traffic for the key market modes (international and domestic).

The baselines for the international and domestic annual passenger forecasts were taken to be the respective nominal values at FY10 of the preceding 10 year trend lines (FY01 - FY10) of historical traffic records. This approach was taken to avoid using baseline positions at FY10 that might have been anomalously lower or higher than the overall trends.

The ten year busy hour passenger forecasts are summarised below:

**Table W: 2012 Busy hour passenger forecasts**

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
<b>Busy Hour Passengers</b>										
<b>Arrivals</b>										
International (including T&T)	1,760	1,820	1,880	1,940	2,000	2,040	2,100	2,160	2,220	2,260
International (excluding T&T)	1,640	1,680	1,740	1,800	1,860	1,900	1,940	2,000	2,060	2,100
Domestic	1,200	1,220	1,300	1,320	1,340	1,380	1,400	1,440	1,460	1,500
<b>Departures</b>										
International (including T&T)	1,840	1,900	1,960	2,020	2,080	2,140	2,200	2,260	2,320	2,380
International (excluding T&T)	1,700	1,760	1,820	1,880	1,920	1,980	2,040	2,100	2,160	2,200
Domestic	1,140	1,160	1,240	1,260	1,280	1,320	1,340	1,380	1,420	1,440

Source: Airbiz Facility Planning Demand Forecasts 2012

The baseline for the busy hour passenger forecasts has been derived from an analysis of historical operational records provided by Auckland Airport up to and including FY10. The records were sourced from Air Traffic Control Tower logs of runway take-offs and landings and flight information display ("FIDS") data.

For the key international and domestic traffic segments, both arriving and departing, the 30<sup>th</sup> busiest clock hour of passenger movements each year was determined.

Historical "peaking factors" for international and domestic segments were determined from busy hour and annual passenger traffic levels (peaking factor = busy hour passengers ÷ annual passengers). These peaking factors have been steadily reducing over recent years as new traffic fills in off-peak and shoulder periods, meaning that the growth of the peak period (busy hour) has been at a slower rate than the growth of annual traffic.

Peaking factors for international and domestic segments have been projected forward, taking account of the recent historical trends, with expectations of further, but slowing reductions in the peaking factors.

Future peaking factors have then been applied to the annual passenger forecasts for facility planning to derive projections for busy hour passengers to be utilised for terminal planning and utilisation assessments.

### Annual busy period aircraft movements forecasts

The baseline for the busy day and busy hour runway movement projections has been derived from an analysis of historical operational records provided by Auckland Airport for FY11. The records were sourced from Air Traffic Control Tower logs of runway take-offs and landings. A representative 95<sup>th</sup> percentile busiest day in FY11 was selected as the baseline busy day and the busiest clock hour on that busy day was selected as the baseline busy hour. The activity throughout the selected busy day was disaggregated into volumes of seats flown and numbers of aircraft movements in clock hours through the day, by selected route groups (Long Haul Americas, Long Haul Asia, Short Haul Tasman, Short Haul Pacific and Domestic). The underlying growth rates adopted for the annual passenger forecasts for facility planning were applied to each route group component and the projections for the number of seats in each route group, for each clock hour, extended throughout the planning period. The forecast seats for each route group and each clock hour were then converted back into aircraft movements for each route group, based on projected average seats per aircraft and load factor for each route group over the period. This provided the aggregate of busy day and busy hour runway movements through the forecasting period, with the 10 year forecast shown below.

**Table X: 2012 Busy period movement forecasts**

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Runway Busy Hour and Day Demand										
Busy Hour Runway Movements	39	40	40	41	42	42	43	45	46	47
Busy Day Runway Movements	485	492	507	511	518	519	542	554	566	572

Source: Airbiz Facility Planning Demand Forecasts 2012

Long-term facility planning demand forecasts continue to be the subject of consultation as part of the New Terminal Facility process. These have a particular focus on the 2030 planning horizon.

## 4.2 Aeronautical pricing forecasts

### Passenger forecasts

Auckland Airport commissioned Tourism Futures International ("**TFI**") to prepare passenger forecasts for Auckland Airport for the period FY11 to FY22 in mid-2012 ("**passenger forecasts**"). The initial five year period was the focus for the Aeronautical Pricing Consultation.

Acknowledging the sensitivity of the airlines to specific route development initiatives, Auckland Airport requested that the TFI forecast:

- include all base volumes, including those stimulated by Auckland Airport's active route development over the past five years;
- include any route development initiatives that had been announced (ie were not speculative and had a very high probability of occurring); and
- exclude more speculative demand (consistent with the approach of excluding the costs, which may be required to convert demand).

Auckland Airport also asked the airlines to provide their own forecasts, which would be treated confidentially and provided to the expert advisors. Many airlines took this opportunity.

TFI produced an original set of passenger forecasts for consultation in October 2011. This was updated in December 2011, March 2012 and May 2012 based on responses from the airlines, updated economic forecasts, revised capacity estimates and updated traffic data for 2011/2012.

TFI has prepared the passenger forecasts based on unconstrained demand. TFI has not included constraints on capacity or the impact of any stimulation from new joint marketing activities as these are uncertain in terms of size and timing. The basis for the TFI forecasts involved a detailed consideration of factors affecting forecast demand such as: the economic outlook, exchange rates, and resident population.

Economic growth is the strongest driver of aviation demand. TFI reviewed the latest economic forecasts from the IMF, OECD, Central Banks and private forecasters. The following GDP assumptions formed the basis of the economic input assumptions.

**Table Y: GDP Assumptions**

Markets	Years end 30 June for NZ and Aust, Years end 31 December for Other Countries						
	2011	2012	2013	2014	2015	2016	2017
New Zealand	1.6%	2.0%	3.1%	3.0%	2.4%	2.7%	2.7%
Australia	1.9%	3.3%	3.3%	3.0%	3.0%	3.3%	3.3%
UK	1.4%	0.9%	0.6%	2.0%	2.6%	2.7%	2.7%
Europe	1.6%	-0.5%	0.8%	1.5%	1.7%	1.7%	1.7%
USA	3.0%	1.8%	1.8%	2.2%	3.1%	3.4%	3.4%
China	10.3%	9.2%	8.2%	8.8%	9.5%	9.5%	9.5%
Japan	4.0%	-0.5%	2.3%	2.0%	2.0%	1.5%	1.3%
Korea	6.2%	3.9%	4.4%	4.2%	4.0%	4.0%	4.0%
India	10.1%	7.4%	7.0%	7.3%	8.1%	8.1%	8.1%
Hong Kong	7.0%	6.0%	4.3%	4.6%	4.4%	4.3%	4.3%
Singapore	14.5%	5.3%	4.3%	4.2%	4.2%	4.1%	4.0%

Source: TFI Traffic Forecast for Auckland Airport March 2012

TFI then considered the following factors affecting supply: global airline forecasts, oil prices, airlines' performance and outlook. This was then summarised into separate international and domestic market forecasts considering traffic performance and market composition, as per the table below.

**Table Z: TFI Forecasts Passenger Movements (000s)**

	Years end 30 June								CAGR Over 5 Years		
	2011 Actual	2012	2013	2014	2015	2016	2017	2022	2006 to '11	2012 to '17	2017 to '22
International AD	6,822	7,194	7,323	7,587	7,832	8,086	8,341	9,676	1.9%	3.0%	3.0%
International T&T	570	598	514	532	549	567	578	632	-8.5%	-0.7%	1.8%
Intern'al Total	7,392	7,792	7,837	8,119	8,381	8,653	8,920	10,309	0.8%	2.7%	2.9%
Domestic AD	6,042	6,272	6,443	6,660	6,900	7,120	7,311	8,332	4.0%	3.1%	2.6%

Notes: AD = Arriving and Departing passengers; T&T = Transit and Transfer Passengers;  
CAGR = Compound Annual Growth Rate. Source: TFI.

Source: TFI Traffic Forecast Final Update for Auckland Airport May 2012

Passenger forecasting focuses on underlying demand and supply conditions to develop forecasts by market. Inbound and outbound passenger data provided in Schedule 19 has been calculated based on an assumption of an equal share of arrivals and departures (which were forecast in aggregate) and transit and transfer passengers.

### Aircraft Movements and MCTOW forecasts

TFI provided demand forecasts at each stage in the consultation to Airbiz, who then translated the passenger forecasts through seat and load factor assumptions into landings and then landings into MCTOW through average MCTOW per aircraft assumptions. These assumptions were refined over the course of the consultation in response to demand updates, feedback from airlines including announced schedule and outlook changes. The final Aeronautical Pricing forecasts are shown on the next page for landings and MCTOW respectively.

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**Table AA: Airbiz Aeronautical Pricing Aircraft Landing Forecasts**

	FY2011 Actual	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
International Landings	21,472	22,100	22,200	22,400	22,900	23,300	23,900	24,400	25,100	25,900	26,600	27,400
International growth rate p.a.		2.9%	0.5%	0.9%	2.2%	1.7%	2.6%	2.1%	2.9%	3.2%	2.7%	3.0%
Domestic Jets	18,755	19,600	19,600	19,600	19,600	19,600	19,600	19,900	20,200	20,500	20,800	21,100
Domestic Turboprops	33,256	33,200	33,200	33,200	33,200	33,200	33,200	33,200	33,200	33,200	33,300	33,300
Total domestic landings	52,011	52,800	52,800	52,800	52,800	52,800	52,800	53,100	53,400	53,700	54,100	54,400
Domestic growth rate p.a.		1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	0.6%	0.7%	0.6%
Non passenger landings	3,663	3,000	3,000	3,000	3,000	3,100	3,100	3,100	3,200	3,200	3,200	3,300
Total landings	77,146	77,900	78,000	78,200	78,700	79,200	79,800	80,600	81,700	82,800	83,900	85,100

Source: Airbiz Auckland International Airport Final Aero Pricing Demand Forecast Landings and MCTOW May 2012

**Table BB: Airbiz Aeroprising Aircraft MCTOW Forecasts**

	FY2011 Actual	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
<b>Landed MCTOW</b>												
Total international MCTOW	3,914	4,057	3,956	4,068	4,179	4,301	4,428	4,520	4,636	4,749	4,856	4,994
International Growth rate p.a.		3.7%	-2.5%	2.8%	2.7%	2.9%	3.0%	2.1%	2.6%	2.4%	2.3%	2.8%
Domestic Jets	1,214	1,290	1,301	1,311	1,376	1,398	1,409	1,430	1,452	1,474	1,495	1,517
Domestic Turboprops	449	460	473	482	491	500	509	517	526	535	545	550
Total domestic MCTOW	1,663	1,750	1,774	1,793	1,867	1,898	1,918	1,947	1,978	2,009	2,040	2,067
Growth rate p.a.		5.2%	1.4%	1.1%	4.1%	1.7%	1.1%	1.5%	1.6%	1.6%	1.5%	1.3%
Non passenger MCTOW	113.6	92.2	94.2	94.2	114.2	119.3	119.3	119.3	123.4	123.4	123.4	126.5
Total MCTOW	5,690.6	5,899	5,824	5,955	6,160	6,318	6,465	6,586	6,737	6,881	7,019	7,188
<b>Landed MCTOW by weight category (000's)</b>												
30 tonnes MCTOW or more	5,216	5,419	5,332	5,454	5,650	5,798	5,936	6,049	6,190	6,325	6,453	6,616
3 tonnes MCTOW or more but less than 30 tonnes	470	477	489	498	507	517	526	534	544	553	563	568
Less than 3 tonnes MCTOW	4.6	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.4	3.5
Total MCTOW	5,690.6	5,899	5,824	5,955	6,160	6,318	6,465	6,586	6,737	6,881	7,019	7,188
MCTOW growth rate p.a.		3.7%	-1.3%	2.2%	3.4%	2.6%	2.3%	1.9%	2.3%	2.1%	2.0%	2.4%

During the course of the consultation process Auckland Airport received helpful feedback on the traffic forecasts which were subsequently refined. By the time of the Revised Pricing Proposal, pricing demand forecasts for the FY13 to FY17 pricing period were not a significant area of debate, with the main

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outstanding difference of note being the level of international passenger growth in FY13. No comment was received on the Aeronautical Pricing demand forecasts for the second five year period, from FY18 to FY22.

### **4.3 Forecasts – risk statement**

In this forthcoming period, the international growth forecast (which, in turn, drives the MCTOW forecast) is 3.0% (excluding transit and transfer passengers). This compares to actual growth of 1.9% between FY06 and FY11. The visitor growth rates adopted by TFI are also higher than those projected by the New Zealand Ministry of Tourism, TFI's assessment being that growth to Auckland will be above that anticipated by the Ministry over the forecast period.

Auckland Airport adopted the Aeronautical Pricing demand forecasts developed by its independent advisors, TFI and Airbiz. Auckland Airport considered that these organic forecasts contained significant downside risk associated with:

- Macro-economic factors, with the global outlook highly tense as at June 2012;
- The risk of increasing fuel prices and consequential impacts on passenger demand and route viability;
- The impact of government taxes internationally such as Air Passenger Duty and Emission Trading Schemes on demand; and
- One-off risks associated with natural disasters in the region.

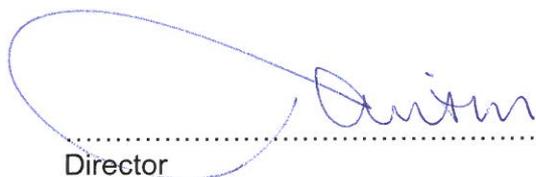
Nevertheless, Auckland Airport has strong ambitions for growth. Active marketing by third parties, such as governments, tourism bodies and tourism operators has created a competitive environment for air capacity and Auckland Airport must incur costs to remain internationally competitive for the limited number of available aircraft in airlines' fleet, and continue to grow overall volume for the benefit of all stakeholders and indeed New Zealand.

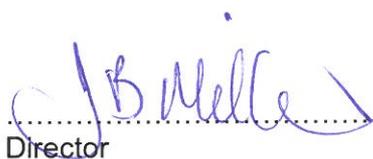
Auckland Airport intends to further grow traffic to New Zealand via its route development function and considers there are a number of markets that could be opened up that will create incremental, non-cannibalistic growth over and above this demand forecast. This will come at cost, which has also been excluded from the 2012 Pricing Decision.

**SCHEDULE 21 CERTIFICATION FOR FORECAST TOTAL REVENUE  
REQUIREMENTS AND PRICING DISCLOSURES**

Clause 2.7(2)

We, Joan Withers and James Miller being directors of Auckland International Airport] certify that, having made all reasonable enquiry, to the best of our knowledge, the attached Report on Forecast Total Revenue Requirements and Report on Demand Forecasts and the following attached information of Auckland International Airport prepared for the purposes of clause 2.5 of the Commerce Act (Specified Airport Services Information Disclosure) Determination 2010 in all material respects complies with that determination.

  
.....  
Director

  
.....  
Director

31 July 2012  
.....  
Date