# Christchurch International Airport Limited

## Price Setting Disclosure

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

19 December 2012

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**APPENDICIES**

## PART A: INTRODUCTION TO DISCLOSURE FOR INTERESTED PARTIES

### 1 Disclosure requirement

Christchurch International Airport (CIAL) is subject to the Airport Information Disclosure Determination (Decision No. 715) (*Determination*) made pursuant to Part 4 of the Commerce Act 1986 (*Commerce Act*).

Clause 2.5 of the Determination requires CIAL to make a price setting event disclosure within 40 working days following a decision by CIAL to fix or alter its charges for specified airport services.

### 2 Christchurch International Airport's 2012 price setting event

CIAL is required by the Airport Authorities Act 1966 (AAA) to consult with Substantial Customers (also referred to in this document as the airlines) 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 CIAL are needed to ensure a reasonable return is made on the significant investments in essential long-term, quality infrastructure through appropriate charges to airport users.

This price setting event disclosure is made pursuant to clause 2.5 of the Determination following CIAL's decision on 24 October 2012 to set new charges for specified airport services for the period 1 December 2012 to 30 June 2017 (the *Pricing Period*).

In May 2012, CIAL commenced its Aeronautical Pricing Consultation with Substantial Customers on its charges for the provision of aeronautical pricing activities. Such activities include airfield and terminal activities but exclude aircraft and freight activities and certain specified passenger terminal activities, including leased tenancies and check-in counters (in this Disclosure referred to as Other Regulated Activities) for which separate commercial arrangements have been entered into. The arrangements for other regulated activities are individually negotiated with specific customers outside the aeronautical pricing consultation process and accordingly CIAL has not included other regulated activities in its standard charges.

The aeronautical pricing consultation process involved several phases. The first was an initial publication to Substantial Customers of the proposed demand forecast to be used in the setting of prices in the pricing consultation process. Feedback was received from airlines and following consideration of the various comments the demand forecast was kept as proposed and used as the basis for pricing proposal for consultation under section 4B of the AAA.

The first phase of the consultation process involved the release of CIAL's initial pricing proposal and subsequent consultation (including meetings and written responses to a range of questions received by the airlines). The second phase involved the release of CIAL's revised pricing proposal and subsequent consultation.

A summary of the steps involved in the consultation process is detailed below.

| **Summary of Pricing Consultation Process** | | |
|---|---|---|
| **Item** | **Description** | **Date** |
| 1. | Letter to Airlines outlining the proposed Consultation Process | 2 March 2012 |
| 2. | Submission of Pricing Proposal and Supporting Information to Airlines | 12 March 2012 |
| 3. | Briefing session to Airline representatives and BARNZ in Christchurch | 20 March 2012 |
| 4. | Receipt of summary of questions and points of clarification from BARNZ | 22 March 2012 |
| 5. | Circulation of the summary of questions received to all airlines/BARNZ for information | 23 March 2012 |
| 6. | Summary of all questions received and responses to the questions and updated pricing model circulated to airlines/BARNZ | 16 April 2012 |

| | | |
|---|---|---|
| 7. | Further update on questions received and responses circulated to airlines/BARNZ | 24 April 2012 |
| 8. | Circulation of 20 March briefing to airline/BARNZ representatives circulated to all airlines | 24 April 2012 |
| 9. | Circulation of Summary of Asset movements and relevant categories for the 2008-2012 Period circulated to airlines/BARNZ | 10 May 2012 |
| 10. | Circulation of the Deferred Value Account Concept to airlines/BARNZ for their consideration | 11 May 2012 |
| 11. | Circulation of an updated copy of the pricing model, having taken account of the points raised/queried by Airlines and BARNZ | 17 May 2012 |
| 12. | Receipt of Response from Qantas on its assessment of CIAL's Initial Pricing proposal | 17 May 2012 |
| 13. | In support of the DVA concept paper a more specific example was circulated to airlines/BARNZ outlining the concepts in response to a request from one airline | 23 May 2012 |
| 14. | Receipt of Response from BARNZ on its assessment of CIAL's Initial Pricing proposal and on behalf of the airlines it represents | 25 May 2012 |
| 15. | Receipt of Response from Jetstar on its assessment of CIAL's Initial Pricing proposal | 27 May 2012 |
| 16. | Receipt of Response from BARNZ on CIAL's Land Valuation reports | 29 May 2012 |
| 17. | Receipt of Response from BARNZ (and on behalf of the airlines it represents) on CIAL's Proposed DVA Concept | 31 May 2012 |
| 18. | Submission of Revised Pricing Proposal and Supporting Information to Airlines, following detailed consideration of their initial responses | 1 August 2012 |
| 19. | Briefing session to airline representatives and BARNZ in Auckland on the revised pricing proposal | 23 August 2012 |
| 20. | Submission from Air NZ on the Revised Pricing proposal | 4 September 2012 |
| 21. | Receipt of Response from BARNZ on its assessment of CIAL's Revised Pricing proposal | 7 September 2012 |
| 22. | Receipt of BARNZ assessment of the worked example of the tax treatment of revaluations with a gross WACC | 11 September 2012 |
| 23. | Receipt of Response from BARNZ on its assessment of CIAL's Revised Pricing proposal on behalf of the airlines it represents | 12 September 2009 |
| 24. | Receipt of Response from Jetstar on behalf of the Qantas Group on its assessment of CIAL's Revised Pricing proposal | 21 September 2012 |
| 25. | Final Pricing Decision | 24 October 2012 |
| ***Note*** – This summary excludes verbal communication and discrete letters between CIAL and Airlines/BARNZ on a range of issues over the consultation process | | |

As a result of the robust and constructive consultation process, CIAL's 2012 pricing decision changed substantially from that contained in the initial pricing proposal. This was a result of both feedback from the airlines in terms of the inputs into the building blocks model and a reconsideration of the pricing methodology following airline feedback. CIAL's willingness to defer cost recovery until later in the economic life of the assets was affected by the airlines' position towards risk sharing. This was particularly relevant given the substantial investment CIAL had just made in its new Integrated Terminal Development ($215 million). Increases in

terminal services charges, and to a lesser extent in airfield charges, were necessary owing to the significant increase in the value of assets involved in providing these services.

In developing the proposal CIAL also recognised the impact of its charges on airlines' operating costs. This concern had to be balanced against CIAL's responsibility to ensure that an appropriate recovery on the ITP investment was achieved for shareholders. Through the consultation, CIAL sought to achieve the right package balancing the needs of airlines, CIAL and the travelling public.

CIAL's aeronautical pricing consultation concluded on the 24th October 2012 with the release of its decision (2012 Pricing Decision) on standard charges.

The pricing consultation with substantial customers was for the period 1 December 2012 to 30 June 2017 (a period of 4 years and 7 months). The information contained in this disclosure is for the 5 year period 1 July 2012 to 30 June 2017 (as required by the Determination).

## Executive summary of the 2012 Pricing Decision

**Key highlights**

- CIAL conducted a robust consultation process over the March to September 2012 period, prior to the resetting of standard charges on the 24th October 2012 to take effect from 1 December 2012, having taken account of the views and feedback from substantial airline customers.
- The ITP was treated as being in its commissioned state from 1 December 2012 (the beginning of the price reset period). This was a commercial judgment to reflect the fact that the ITP was progressively developed and used by the airlines over a three year period. The airlines will not be charged for the use of the first two stages until 1 December 2012, and while the project was not totally complete at that date, the terminal was substantially complete. This approach has provided an economic benefit to the airlines through the delay in implementing charges for the ITP.
- In setting the standard charges CIAL endeavoured to balance to the needs of the airlines, the travelling public and CIAL's requirement to achieve a return on investment.
- The central feature of the decision is that the new charges are the beginning of the recovery of the costs involved in CIAL's new Integrated Terminal Development (ITP) over the lifetime of that investment, which was predominantly the replacement of the domestic terminal built in 1960.
- CIAL is committed to stimulating air services demand and tourism activity for Christchurch and the wider South Island following the Canterbury earthquakes. This recognises Christchurch and CIAL's special role as the gateway to the South Island. The transition price path, which results in lower prices in the first period after the ITP investment than would be the case, is a key feature of CIAL's commitment to stimulating economic activity.
- It is CIAL's intention to recover no more than the efficient costs of current service delivery and the new ITP. This has necessitated an increase in prices, particularly for domestic terminal services charges which have remained fixed since January 2001.
- In setting new charges for international terminal services on a stand-alone basis, CIAL has maintained the per seat charge at levels set in 2001 as a deliberate incentive to international carriers. CIAL hopes that this will stimulate growth in international tourism activity into Christchurch and the South Island.

- Our transition price path both delays the recovery of Required Revenue and offers a substantial permanent under-recovery as a contribution to the economic rebound of the region. This will reduce costs for the airlines and the travelling public through the 2013-2017 pricing period. Our permanent under-recovery is in the order of $16 million and reflects CIAL's commitment to recovery of the Canterbury region.

- In developing CIAL's revenue requirement through the use of the building blocks model, CIAL has largely applied the Commerce Commission's Input Methodologies (IMs). However, we hold a different view to the Commission as to what is an appropriate WACC. Adopting the Commission's estimate of WACC would imply significant reductions in CIAL's cost of equity over the past two years, despite CIAL's view that our risk has not decreased and that it would simply not be possible for us to raise equity at a lower cost today than we would have two years ago. Also, our method for incorporating the tax allowance is different to the IMs, due to our approach of calculating the levelised constant real price. However, we believe that the effect of the tax allowances on prices is in line with the IMs.

- The Canterbury earthquakes have provided a significant challenge and revenue risk to CIAL. This is mainly because of the uncertain passenger and aircraft demand profile over the next 2-3 years, as international travel to the South Island has been adversely impacted through the perception of the damage to Christchurch and the South Island as a destination. CIAL's new pricing schedule results in an increase (progressively from $2.21 to an average of $8.30 per seat by 2017) in domestic charges and a substantially lower increase of ($0.30 incrementing to $4.52 by 2017) for international services. The new pricing schedule also brings domestic and international charges more in line with the underlying costs and aircraft configurations for aircraft involved in providing the respective services.

- The new charges are the outcome of a thorough consultation, considering the respective needs of airlines, consumers, and Canterbury after the earthquakes. We aim for no more than an appropriate return for our shareholders.

## *CONSISTENCY WITH PART 4 OF THE COMMERCE ACT*

The Commerce Commission's IMs and the purpose of Part 4 of the Commerce Act have been an integral part of CIAL's deliberations for this pricing reset

### *How the IMs have influenced our decision*

Questions about the legal relevance of the IMs have not been a pressing issue for CIAL in this decision. Instead, our starting point has been that the IMs are an important benchmark, representing as they do the Commission's view as to the most appropriate way to calculate the efficient cost of service for airports under Part 4 information disclosure.

CIAL followed the logic of the IMs in calculating its cost of service using the building blocks methodology, and setting its charges so as to recover its reasonably efficient costs.

Where it was appropriate, CIAL directly adopted the IMs to identify its costs. However, CIAL also exercised its duty to shareholders to make its own assessment of the reasonable costs of owning and operating Christchurch International Airport. A key part of that assessment has been to consider the way the IMs calculate costs and the reasoning behind the IMs, and to form our view as to the true costs of owning and operating the airport. Because the IMs were deliberated over a long period with input from a number of parties and experts, CIAL was able to use the IMs as the point of reference for its own analysis, and to focus on the aspects of the IMs which CIAL believed were not appropriate for the CIAL's circumstances.

Our overall assessment is that our cost inputs are fully consistent with the asset valuation and cost allocation IMs.

Our approach to tax is complicated by the fact that our pricing is derived on the basis of expected cost recovery over the life of the assets, rather than only from the calculation of costs within the pricing period itself. Although we use the pre-tax WACC to estimate the benchmark levelised constant real price, we show later in this disclosure document that our revenue over the pricing period does not exceed the maximum allowable revenue based on the tax payable approach. Our analysis presented to the airlines as part of the Revised Pricing Proposal shows that there is no material difference in the level of the levelised constant real price between deriving that price on the basis of (i) our approach of using the pre-tax WACC to calculate the levelised constant real price and (ii) the calculation of the levelised constant real prices using the present value of tax payable over the life of the assets. For this reason, we consider our method of using the pre-tax WACC to estimate the levelised constant real price over the life of the assets is consistent with the tax IM.

In the one area where we have materially diverged from the IMs – WACC – we have explained in this document our reasons for doing so.

One area where the IMs have clearly influenced our decision is in the valuation of CIAL's assets. CIAL has applied the asset valuation IM except for one particular departure in favour of the airlines. Although the IM does not require revaluations required by the 2009 RAB MVAU valuation to be treated as income, CIAL has decided to treat the revaluation gain as income. This is a $10.5m benefit to airlines and is additional to the $16m present value under recovery discussed above.

### *Conclusion*

CIAL's decision has been made after a constructive consultation process with the airlines under the AAA. CIAL's intention from the outset of this process has been to arrive at a decision which balances the needs of the airlines, the travelling public and CIAL. The consultation process has greatly assisted CIAL in this and CIAL believes that the new charges achieve our objective of prices that strike the right balance.

Getting the balance right has been a fundamental consideration throughout the process to determine CIAL's charges. CIAL is acutely aware of the challenges facing not only the airlines in a tough commercial environment, but also the broader challenges facing the Canterbury region after the 2010 and 2011

earthquakes. It is important to CIAL's shareholders that CIAL contributes to efforts to re-establish Christchurch and the South Island as a thriving commercial centre and an attractive tourist destination.

## *Purpose of the Price Setting Disclosure*

The purpose of this disclosure is to assist interested persons to assess over time whether CIAL's pricing and investment decisions are efficient.

CIAL notes that this disclosure contains forecast information as at October 2012 and therefore the forecasts contained in this disclosure may not represent the most current forecast, particularly demand.

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## PART B: CLAUSE 2.5 DISCLOSURE – FORECAST TOTAL REVENUE REQUIREMENTS

## 1. DISCLOSURE SCHEDULES RELATING TO FORECAST TOTAL REVENUE REQUIREMENT -Price reset 1 December 2012 to 30 June 2017

### 1.1. Price Setting Event Disclosure - Clause 2.5(1): Disclosures of Forecast Information Clause *2.5(1)(a) Public Disclosure of Forecast Total Revenue Requirement*

| | |
|---|---|
| Regulated Airport | Christchurch International Airport Ltd |
| Pricing Period Starting Year Ended | 30 June 2013 |

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

ref *Version 2.0*

**18a: Revenue Requirement**

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

Refer to Section 2.1

| | ($000) | Pricing Period Starting Year | Pricing Period Starting Year + 1 | Pricing Period Starting Year + 2 | Pricing Period Starting Year + 3 | Pricing Period Starting Year + 4 |
|---|---|---|---|---|---|---|
| | Forecast value of assets employed | 493,592 | 509,034 | 511,195 | 513,553 | 516,228 |
| | Forecast cost of capital | 9.76% | 9.76% | 9.76% | 9.76% | 9.76% |
| | Forecast return on assets employed | 48,170 | 49,677 | 49,888 | 50,118 | 50,379 |
| *plus* | Forecast operational expenditure | 26,858 | 28,703 | 29,274 | 29,976 | 30,623 |
| *plus* | Forecast depreciation | 17,249 | 17,980 | 18,367 | 18,977 | 19,541 |
| *plus* | Forecast tax | 12,414 | 11,963 | 12,033 | 12,177 | 12,085 |
| *plus (less)* | Forecast revaluations | (19,579) | (20,127) | (20,325) | (20,326) | (20,417) |
| *less* | Forecast other income | 87 | 89 | 91 | 93 | 95 |
| *plus (less)* | Other factors | (25,885) | (14,891) | (5,909) | 634 | 1,947 |
| | Forecast total revenue requirement | 59,140 | 73,216 | 83,237 | 91,463 | 94,063 |
| *less* | Revenue requirement not applicable to price setting event | 10,028 | 10,238 | 10,453 | 10,673 | 10,896 |
| *plus (less)* | Revenue smoothing adjustment | – | – | – | – | – |
| | Forecast revenue for services applicable to price setting event | 49,112 | 62,978 | 72,784 | 80,790 | 83,167 |
| | **Forecast total revenue requirement for the following regulated activities** | | | | | |
| | Airfield activities | 24,923 | 30,354 | 35,234 | 39,734 | 40,969 |
| | Aircraft and freight activities | 3,912 | 3,995 | 4,079 | 4,164 | 4,252 |
| | Specified passenger terminal activities | 30,305 | 38,867 | 43,924 | 47,565 | 48,842 |
| | Forecast total revenue requirement | 59,140 | 73,216 | 83,237 | 91,463 | 94,063 |

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

Refer to Section 2.6
Refer to Section 2.2.2 for comment on Value of assets Employed for Pricing Period Starting year

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Regulated Airport: **Christchurch International Airport Ltd**

Pricing Period Starting Year Ended: **30 June 2013**

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

*Version 2.0*

Year of most recent annual disclosure (year ended)

| ref | | ($000) | 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 |
|---|---|---|---|---|---|---|---|---|
| **18b(i): Forecast Asset Base** | | | | | | | | |
| 58 | | Forecast asset base—previous year | 396,690 | 480,103 | 506,714 | 511,354 | 511,035 | 516,071 |
| 59 | *less* | Forecast depreciation | 18,967 | 17,249 | 17,980 | 18,367 | 18,977 | 19,541 |
| 60 | *plus* | Forecast revaluations | 3,739 | 9,936 | 10,483 | 10,682 | 10,682 | 10,774 |
| 61 | *plus* | Assets commissioned | 30,567 | 33,557 | 12,137 | 7,366 | 13,331 | 9,083 |
| 62 | *less* | Asset disposals | 1,684 | – | – | – | – | – |
| 63 | *plus (less)* | Forecast adjustment resulting from cost allocation | (1,352) | 367 | – | – | – | – |
| 64 | | Forecast asset base | 408,993 | 506,714 | 511,354 | 511,035 | 516,071 | 516,387 |
| **18b(ii): Forecast Works Under Construction** | | | | | | | | |
| 67 | | Works under construction—previous year | 35,921 | | | | | |
| 68 | *plus* | Capital expenditure | 30,273 | 33,557 | 12,137 | 7,366 | 13,331 | 9,083 |
| 69 | *less* | Assets commissioned | 30,567 | 33,557 | 12,137 | 7,366 | 13,331 | 9,083 |
| 70 | | Works under construction | 35,627 | – | – | – | – | – |

* *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.*

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Regulated Airport: Christchurch International Airport Ltd
Pricing Period Starting Year Ended: 30 June 2013

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

ref *Version 2.0*

### 18b(iii): Forecast Capital Expenditure

| ($000) | 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 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Capital Expenditure by Category** | | | | | | | | | | | |
| Capacity growth | | | | 5,916 | | | | | 5,916 | 10,000 | |
| Asset replacement and renewal | 33,557 | 12,137 | 7,366 | 7,415 | 9,083 | 7,064 | 8,017 | 8,309 | 8,444 | 9,394 | |
| Total capital expenditure | 33,557 | 12,137 | 7,366 | 13,331 | 9,083 | 7,064 | 8,017 | 8,309 | 14,360 | 19,394 | |
| **Capital Expenditure by Key Capital Expenditure Project** | | | | | | | | | | | |
| Airfield Pavement Maintenance Works | 6,400 | 6,700 | 5,400 | 5,000 | 6,300 | 4,000 | 5,500 | 5,500 | 6,000 | 6,700 | 57,500 |
| Apron / Taxiway Remediation | 18,675 | | | | | | | | | | 18,675 |
| Pound Road Realignment and RESA | 4,890 | | | | | | | | | | 4,890 |
| Phase 3a – Regional Stands, Hangar 4 Removed | | 3,130 | | | | | | | | | 3,130 |
| Motor vehicles | | | | | | | | 1,500 | | | 1,500 |
| Runway Extensions | | | | | | | | | | 10,000 | 10,000 |
| Terminal lighting upgrade | 500 | | | | | | | | | | 500 |
| Disaster Recovery & High Availability | | | | | 500 | | | | | | 500 |
| Full Airside screening | | | | | | 500 | | | | | 500 |
| Asset Management System Upgrade | | | | | | | 500 | | | | 500 |
| Disaster Recovery & High Availability | | | | | | | | | 600 | | 600 |
| Asset Management System Upgrade | | | | | | | | | | 700 | 700 |
| International Stand Optimisation | | | | 5,916 | | | | | 5,916 | | 11,832 |
| Other capital expenditure | 3,092 | 2,307 | 1,966 | 2,415 | 2,283 | 2,564 | 2,017 | 1,309 | 1,844 | 1,994 | 21,791 |
| Total Capital Expenditure | 33,557 | 12,137 | 7,366 | 13,331 | 9,083 | 7,064 | 8,017 | 8,309 | 14,360 | 19,394 | 132,618 |

| | |
|---|---|
| Regulated Airport | Christchurch International Airport Ltd |
| Pricing Period Starting Year Ended | 30 June 2013 |

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

ref *Version 2.0*

126 **Basis for Cost Allocation**

127 Refer to section 2.2.4 and appendix K

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140 *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.*

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

142 Refer to section 2.4.3

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155 *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.*

156 ## 18b(iv) FORECAST OPERATIONAL EXPENDITURE

| 157 ($000) | Pricing Period Starting Year | Pricing Period Starting Year + 1 | Pricing Period Starting Year + 2 | Pricing Period Starting Year + 3 | Pricing Period Starting Year + 4 |
|---|---|---|---|---|---|
| 158 | | | | | |
| 159 Corporate overheads | 8,132 | 8,691 | 8,864 | 9,076 | 9,272 |
| 160 Asset management and airport operations | 16,672 | 17,817 | 18,171 | 18,607 | 19,009 |
| 161 Asset maintenance | 2,054 | 2,195 | 2,239 | 2,293 | 2,342 |
| 162 Forecast operational expenditure | 26,858 | 28,703 | 29,274 | 29,976 | 30,623 |

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## 2. DISCLOSURE RELATING TO FORECAST TOTAL REVENUE REQUIREMENT

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

Schedule 18 requires CIAL to provide an overview of the methodology used to determine its "revenue requirements" for specified airport services. The revenue requirement is an estimate of the total efficient cost of service—including return on and of capital—in providing the required services during the pricing period. An airport's actual pricing proposal may exceed or fall below the revenue requirement during any one period, depending on decisions made about the timing of cost recovery over the life of the assets. In general, for long-lived assets serving a growing volume of customers, it would be efficient for pricing to recover less than the total cost of service during the early years of the economic life of the assets and more than the total cost of service during the later years of the economic life.

Schedule 18 assumes that an airport has set its prices for 5 years, the prices cover all specified services, and the prices were calculated using a building blocks model. Given the standard practice of airports, the 5 year building block is used as the framework for assessing the maximum allowable revenue to be recovered for that period. This requirement is derived without reference to the volumes expected during the period. However in the circumstances facing CIAL, where it had made a significant infrastructure investment in the new integrated terminal, the pricing methodology CIAL developed was to recover the ITP investment over the expected life of the facility in line with growth in volumes. This involved the setting of prices by reference to a calculation of long-run levelised prices that was designed to minimise demand distortions, provide a cost efficient outcome and minimise price shock distortion between price reset periods. The long term model looks at the overall cost using the building block accumulation process, over the economic life of the assets (20 years plus a terminal value), including projections for additional forecast capital expenditure (for the pricing period) and long term volume growth. As a result, the target revenue for the current pricing period differs from an assessment of maximum allowed revenue which does not take the growth in volumes into account.

The pricing consultation for this pricing period was only for a period of 4 years and 7 months and the graduated price path set only applies to a subset of the specified services, as some specified services are priced under separate commercial agreements. This means that to complete the disclosure required by Schedule 18, we have had to start with our pricing decision, widen the period scope to a five year period (by starting at 1 July 2012 rather than 1 December 2012) and add the revenue from Other Regulated activities not covered by the pricing decision (refer Table 2). Since Schedule 18 assumes a building blocks approach for the maximum allowable revenue which we did not use for the setting of our prices for the 4 yr 7 month period, we had to populate Schedule 18 with proxies that were used as a cross check in the pricing consultation. For example, we used an annual tax payable building block figure in our cross-check on the reasonableness of our calculation of long-run levelised prices, and this amount has been included in Schedule 18.

The cost estimate was based on the most current information available, including the approved Business Plan for the three years ending 30 June 2015. While the new Integrated Terminal had not been completed at the time of the preparation of forecast, the estimates of operating costs likely to occur post the commissioning of the new terminal were made on the best information available at the time.

We are required to forecast both the revenue requirement over the pricing period and forecast revenue over the same period. In the context of disclosing our revenue requirement, it is necessary to emphasise that this five year requirement was an important but only partial input into our pricing model. As explained, our pricing model is based on setting a levelised constant real price to recover the overall costs over the economic life of the assets. For short-hand, we refer to this price as LRMC: long-run marginal cost. However, the estimated revenue requirement disclosed in Schedule 18 played two crucial roles:

- It provided the basis for estimating costs for the remainder of the period: all costs were rolled forward using assumptions about inflation, volumes as well as specific additional capex requirements

- It provided the benchmark for checking our estimated revenue for the pricing period. We did not wish to exceed the required revenue. In fact, our pricing approach is designed to under-recover the required revenue during the next pricing period.

As indicated in Part A of the disclosure the revenue requirement for the 2012 pricing decision did not include Other Regulated Activities, such as aircraft and freight activities and certain terminal services activities such as identified tenancy leases, collection facilities for Duty Free goods and licence fees for the use of the integrated check-in counter services.

### *Revenue Outlook*

In establishing the price path, CIAL's starting point was the economic principle that it will achieve an NPV = 0 outcome over the life of the assets. However, in order to contribute to the economic recovery of the region, CIAL has made the following decision consisting of two components:

- Due to the delay in the completion of the ITP, new prices will only commence from 1 December 2012, representing the substantial completion of the new terminal. As a result, new prices will only apply to 4 years 7 months of the 5 year period
- Our expected revenue for the period falls short both of the revenue requirement for the period, and of the revenue that would have been possible if the levelised constant price (the LRMC price) was introduced on 1 December 2012. While we have some expectation of recovering some of the shortfall relative to the revenue requirement in future periods, we accept the shortfall relative to the LRMC revenue path as being non-recoverable (in other words, we have no expectation of increasing our pricing in the future above the LRMC level in order to compensate for the fact that our initial prices are below the LRMC level). This expected under-recovery accepts a permanent under-recovery, estimated at $16 million in present value terms.

Below we explain our approach to setting the revenue strategy. There are three key parameters in any cost recovery strategy: timing, volume and risk.

#### Timing of cost recovery

There are many different "price paths" (combinations of prices over time) that would recover CIAL's efficient costs. CIAL advised airlines that it was open minded about the most appropriate timing of price rises. All price paths consistent with the cost building blocks model should give CIAL an expectation of recovering its efficient costs over the life of the ITP. However, timing of cost recovery determines the underlying risk. The greater the deferral of recovery, the higher the risk to CIAL compared to the risk of recovering the costs as they are incurred. Since the WACC used in calculating our efficient costs assumes timely cost recovery (i.e. recovering the costs as they are incurred), airlines needed to recognise that any deferral, without a corresponding recognition of risk in our rate of return, represents an economic cost to CIAL.

#### The effect of volume uncertainty on cost recovery

Volume forecasts are an important component of the building blocks model, since they translate the required revenues into prices. All demand forecasts are risky, and CIAL accept that under normal circumstances, once the best effort to forecast volumes is made, CIAL bears the risks associated with such forecasts for the duration of the pricing period. Prior to commencing the consultation process CIAL produced initial demand forecasts for the pricing period, which were provided to the airlines for initial comment.

CIAL also noted that the current circumstances are obviously not normal. The effects of the 2010 and 2011 earthquakes on volumes over the next two years are highly uncertain, so that the demand forecasts pose greater than usual risks. This volume risk further increases the risks associated with any deferral of cost recovery.

### How to share the risks generated by the cost recovery strategy

A cost recovery strategy that involves deferring price increases generates risks which are not covered by CIAL's cost of capital. Any under-recovery in revenue over the next five years will require an over-recovery in the subsequent pricing periods if CIAL is to recover its efficient costs. There is a risk that CIAL will be prevented from over-recovering revenue in the future. Since CIAL is not remunerated for this additional risk, it needs to be shared with the airlines.

Overall, our pricing strategy seeks to balance the desire to minimise both demand distortions and price shocks:

- **Minimise demand distortions.** A key pricing benchmark is the price which, if implemented today, would allow full cost recovery over the life of assets without subsequent price shocks. Such a price reflects the long-run cost of providing the airport service, taking into account the expected future volumes. This price is a good benchmark against which to test other prices, because such levelised prices (LRMC) minimise demand distortions.

  Pricing below or above this long-run cost of providing airport services creates demand distortions by sending inappropriate signals to users, and hence may lead to inefficient outcomes. Pricing below the full cost-recovery level may appear attractive because it would encourage demand in the short term. However, because CIAL requires costs to be recovered in full in the long run, pricing below full cost recovery today leads to prices that need to be above the full-cost recovery level in the future. In this way, the consequence of encouraging demand now will be to suppress demand in the future.

- **Minimise price shocks.** CIAL understands that price shocks are likely to be difficult for airlines to manage because it is difficult to achieve a sudden increase in revenue to meet increased costs. CIAL is also aware that a price shock would be particularly difficult for airlines to manage in the current economic climate, so in developing the proposed pricing reset CIAL aimed to keep the price rises in 2012-2017 to a manageable level.

  LRMC pricing is considered a useful benchmark because it minimises demand distortions, and results in constant real prices. However, achieving this result would require a large initial price increase, and for this reason, CIAL intended to offer airlines "deferrals" on the initial price increases required to achieve LRMC. This would have meant that CIAL will "under-recover" required revenue relative to the revenue generated by LRMC pricing. Airlines were aware that this under-recovery needed to be balanced out by future periods of over-recovery to enable CIAL to cover its efficient costs over the lifetime of the ITP.

  Offering a deferral introduces some demand distortions in order to lessen the price shock in 2012. An important part of the pricing consultation was deciding on the appropriate balance: the larger the deferral, the bigger the demand suppression when prices rise above LRMC in the future.

CIAL's initial proposal proposed a significant deferral on the price rises in the LRMC benchmark, to lessen the price shock to airlines in the 2013-2017 period. This deferral on price rises would have resulted in a significant under-recovery of revenue relative to the LRMC benchmark. To ensure that CIAL recovered its efficient costs over the remainder of the economic life, an under-recovery of revenue from the 2012-2017 periods would have needed to be balanced by an equal and opposite level of over-recovery of revenue in a future pricing period or periods.

The proposal submitted to the airlines for this carry forward recovery was a concept titled DVA (Deferred Value Account). This concept would have allowed CIAL to defer part of the required price increases until subsequent pricing periods. By securing agreement from the airlines on the amount to be carried forward, the DVA would have reduced CIAL's regulatory risks and would have allowed us to recover more than our efficient costs in future periods to compensate for the lower recovery proposed in this period.

In the submissions by BARNZ and the airlines our proposal was rejected on the grounds that:

- The DVA is not necessary because there is no under recovery; and/or
- They do not agree with the concept.

While CIAL rejected these reasons, the strong opposition from BARNZ and the airlines led CIAL to abandon the concept in its revised proposal.

The revised pricing proposal reduced the expected under-recovery relative to LRMC to $16 million in present value terms. The final pricing decision:

- Reduced the under-recovery by introducing an intermediate price step in variable airfield and domestic terminal charges from 1 January 2015 in addition to the charges detailed in our original pricing proposal;
- The extension of the eligible passengers category for the application of the International Passenger Services Charge to infants in the 2-11 year age group as suggested by BARNZ; with
- The remainder being absorbed by CIAL—that is CIAL will not pursue this under recovery from the 2013 to 2017 period in any later period.

## *Reconciliation of Revenue*

For aeronautical pricing activities the following tables provide a summary of Schedule 18 separately identifying aeronautical pricing activities that were the subject of the consultation process and Other Regulated Activities to arrive at the total regulated activities for the 2013-2017 period.

***Table 2: Schedule 18 – Reconciliation of the Aeronautical Pricing Model to Total Regulated Activities***

*A) Aeronautical Activities*

| NZD 000's | As per Pricing Model | | | | |
|---|---|---|---|---|---|
| | 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 |
| **Forecast value of assets employed** | 415,491 | 432,722 | 436,657 | 440,832 | 445,469 |
| Forecast cost of capital | 9.76% | 9.76% | 9.76% | 9.76% | 9.76% |
| Forecast return on assets employed | 40,548 | 42,230 | 42,614 | 43,021 | 43,474 |
| Forecast operational expenditure | 24,943 | 26,749 | 27,278 | 27,939 | 28,543 |
| Forecast depreciation | 13,778 | 14,592 | 15,002 | 15,579 | 15,961 |
| Forecast tax | 11,129 | 10,714 | 10,821 | 11,002 | 10,954 |
| Forecast revaluations | (17,920) | (18,505) | (18,741) | (18,779) | (18,909) |
| Forecast other income | 87 | 89 | 91 | 93 | 95 |
| Other factors | (23,279) | (12,713) | (4,099) | 2,121 | 3,239 |
| Forecast total revenue requirement | **49,112** | **62,978** | **72,784** | **80,790** | **83,167** |
| Revenue requirement not applicable to price setting event | 0 | 0 | 0 | 0 | 0 |
| Forecast revenue for services applicable to price setting event | **49,112** | **62,978** | **72,784** | **80,790** | **83,167** |

*B) Other Regulated Activities*

| NZD 000's | Other Regulated Activities | | | | |
|---|---|---|---|---|---|
| | 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 |
| **Forecast value of assets employed** | 78,101 | 76,312 | 74,538 | 72,721 | 70,759 |
| Forecast cost of capital | 9.76% | 9.76% | 9.76% | 9.76% | 9.76% |
| Forecast return on assets employed | 7,622 | 7,447 | 7,274 | 7,097 | 6,905 |
| Forecast operational expenditure | 1,915 | 1,954 | 1,996 | 2,037 | 2,080 |
| Forecast depreciation | 3,471 | 3,388 | 3,365 | 3,398 | 3,580 |
| Forecast tax | 1,285 | 1,249 | 1,212 | 1,175 | 1,131 |
| Forecast revaluations | (1,659) | (1,622) | (1,584) | (1,547) | (1,508) |
| Forecast other income | 0 | 0 | 0 | 0 | 0 |
| Other factors | (2,606) | (2,178) | (1,810) | (1,487) | (1,292) |
| Forecast total revenue requirement | **10,028** | **10,238** | **10,453** | **10,673** | **10,896** |
| Revenue requirement not applicable to price setting event | 10,028 | 10,238 | 10,453 | 10,673 | 10,896 |
| Forecast revenue for services applicable to price setting event | 0 | 0 | 0 | 0 | 0 |

*C) Total Regulated Activities*

| NZD 000's | Total Regulated Activities | | | | |
|---|---|---|---|---|---|
| | 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 |
| **Forecast value of assets employed** | 493,592 | 509,034 | 511,195 | 513,553 | 516,228 |
| Forecast cost of capital | 9.76% | 9.76% | 9.76% | 9.76% | 9.76% |
| Forecast return on assets employed | 48,170 | 49,677 | 49,888 | 50,118 | 50,379 |
| Forecast operational expenditure | 26,858 | 28,703 | 29,274 | 29,976 | 30,623 |
| Forecast depreciation | 17,249 | 17,980 | 18,367 | 18,977 | 19,541 |
| Forecast tax | 12,414 | 11,963 | 12,033 | 12,177 | 12,085 |
| Forecast revaluations | (19,579) | (20,127) | (20,325) | (20,326) | (20,417) |
| Forecast other income | 87 | 89 | 91 | 93 | 95 |
| Other factors | (25,885) | (14,891) | (5,909) | 634 | 1,947 |
| Forecast total revenue requirement | **59,140** | **73,216** | **83,237** | **91,463** | **94,063** |
| Revenue requirement not applicable to price setting event | 10,028 | 10,238 | 10,453 | 10,673 | 10,896 |
| Forecast revenue for services applicable to price setting event | **49,112** | **62,978** | **72,784** | **80,790** | **83,167** |

*D) Total Revenue*

| Target Revenue Movement Summary | | | FY13 July - Nov (5 months) | FY13 Dec - June (7 months) | FY14 | FY15 | FY16 | FY17 | Present Value Forgone |
|---|---|---|---|---|---|---|---|---|---|
| **LRMC Target revenue** | *Note 1* | (20yrs+term value) | **28,149** | **39,408** | **72,792** | **76,669** | **79,410** | **81,924** | |
| **Maximum allowable revenue (after deduction of asset revaluations)** | | **Per Building blocks** | **30,163** | **42,228** | **75,691** | **76,883** | **78,669** | **79,928** | |
| Difference between MAR and LRMC - i.e. revenue smoothing factor | | | (2,014) | (2,820) | (2,899) | (214) | 741 | 1,996 | |
| Value forgone by CIAL | | | (11,448) | (6,997) | (9,814) | (3,885) | 1,380 | 1,243 | **$-15.9m** |
| Total "other factor" | | **Schedule 18** | (13,462) | (9,817) | (12,713) | (4,099) | 2,121 | 3,239 | |
| **Forecast Total Revenue** | | | **16,701** | **32,411** | **62,978** | **72,784** | **80,790** | **83,167** | |
| **Forecast total revenue requirement** | | **Schedule 18** | | **49,112** | **62,978** | **72,784** | **80,790** | **83,167** | |
| ***Note 1- Pricing Consultation Period*** | | | | | | | | | |

The Total Other Factors summarise the difference between our expected revenue and the maximum allowable revenue after revaluations income has been deducted. Revaluations occurring prior to 2012 amount to $33.46 million and are spread evenly on a present value basis at $9.64 million per year over the price reset period. The interaction between the progression towards the levelised constant real price and the timing of these revaluations creates an apparent small over-recovery in the last two years of the pricing period. At the beginning of the following pricing period, once the carry forward of prior period revaluations of $9.64 million has expired, the price path will result in the renewed under-recovery compared to the maximum allowable revenue

## 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 the revenue requirement set out in Schedule 18 has been determined, including an explanation of:**

- **the rationale for the basis of preparing these components and any related assumptions;**
- **the extent to which these components were used to determine the forecast total revenue requirement; 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**

While CIAL has used a long-term framework, rather than a 5 year model, we have adopted the building block approach to estimating the cost of service, and deriving the revenue requirement from the cost of service over the life of the assets. The build-up of the cost of service is a well-recognised approach in regulatory economics, is familiar to the airlines, and is applied by the Commerce Commission in their recently released IMs under Part 4 of the Commerce Act.

While CIAL is not subject to price control regulation, CIAL believes that following the basic regulatory logic of the building blocks approach provides a reasonable basis for setting commercial prices. In essence, by linking

prices to reasonably efficient costs, CIAL customers can be assured that they will not be over-charged over the lifetime of the investment, and that CIAL will not make unreasonable profits.

Broadly, in a regulatory setting, the building blocks approach is a 'bottom-up' method that determines total cost using the following calculation:

The building blocks method identifies total costs by calculating the following discrete cost components:

- Asset base
- Capital expenditure
- Operating expenditure
- Weighted average cost of capital (WACC)
- Depreciation
- Regulatory tax allowance

CIAL sought expert advice from independent consultants to ensure that the costs calculated in the building blocks model are reasonable and accurate. These expert reviews are intended to provide confidence in the process used to calculate CIAL's efficient costs and the resulting pricing proposal.

These expert reviews include:

- ***Seagar & Partners*** – completed a land valuation, using the Commission's Market Value Alternative Use (MVAU) method *(Appendix 4 and 5 (Section 9)),*
- ***Opus*** International Ltd - completed a valuation of CIAL's specialised airport assets using the Optimised Depreciated Replacement Cost (ODRC) method (*Appendix 6 and 7*), and
- ***PricewaterhouseCoopers*** **-** conducted an independent review of CIAL's weighted average cost of capital (WACC).

Each of these elements is considered in detail below. For further information on CIAL's pricing methodology used in the setting of standard charges refer to section 2.7 of this disclosure.

## *How the IMs have influenced the CIAL Pricing Decision*

A key part of CIAL's assessment of its costs has been to consider the way the IMs calculate costs and the reasoning behind the IMs, and to form our view as to the true costs of owning and operating the airport. Because the IMs were deliberated over a long period with input from a number of parties and experts, CIAL considered them to be important element in assessing its efficient costs.

The table below shows a comparison of the way CIAL assessed costs against the IMs:

| Building block | Input methodology | CIAL Decision |
|---|---|---|
| **Asset valuation** | | |
| Opening valuation – land assets | MVAU valuation as at 30 June 2009 | MVAU valuation as at 30 June 2009 adopted |
| Opening valuation – specialised assets | The value of specialised assets in CIAL's 2009 disclosure financial statements | The value of specialised assets in CIAL's 2009 disclosure financial statements adopted |
| Land held for future development/use | Exclude from land asset value | Excluded from land asset value |

| | | |
|---|---|---|
| Specialised assets held for future development/use | Exclude from specialised assets value | Excluded from specialised assets value |
| Roll forward (revaluations) – land assets | Land may be revalued in any year using MVAU<br>If land not revalued, CPI indexation to apply<br>Revaluations to be treated as income | CPI indexation 2010-2011<br>MVAU adjustment 2012<br>2013-2017 CPI indexation<br>All revaluations treated as income<br>2009 MVAU adjustment to opening RAB revaluation gain treated as income (although this is a departure from the IM, it benefits the airlines by $10.5m) |
| Roll forward (revaluations) – specialised assets | CPI indexation<br>Revaluations to be treated as income | Specialised assets rolled forward using CPI indexation<br>Revaluations treated as income |
| **WACC** | | |
| Pre/post tax WACC | Post tax WACC | Pre-tax WACC |
| Leverage | Fixed at 17% | 26% |
| Risk-free rate | The risk free rate will be calculated on the basis of:<br>• observed market yield to maturity of benchmark NZ government NZ$ denominated nominal bonds<br>• a five year term. | Calculated using a 5 year term, adjusted for equity to reflect short term anomaly arising from the GFC |
| Debt premium | The debt premium is calculated by reference to publicly traded bonds with a Standard and Poor's long-term credit rating of A- and a remaining term of five years. | Calculated using:<br>• a BBB+ credit rating; and<br>• a 5 year term |
| Debt issuance costs | Fixed at 0.35% | 0.35% |
| TAMRP | Fixed at 7.0% | 7.5% |
| Asset beta | Fixed at 0.60 | 0.70 |
| Equity beta | Fixed at 0.72 | 0.95 |
| Taxation (corporate and investor) | 28% | 28% |
| WACC range and point estimate | 50th percentile | 50th percentile |
| **Tax** | | |
| General approach | Tax obligations should be estimated using a 'tax payable' approach. | Benchmark long-term levelised constant real price calculated using 'tax expense' approach<br>Cross checked using a regulatory tax |

| | | |
|---|---|---|
| | | payable basis |
| **Cost allocation** | | |
| General approach | Costs which are directly attributable must be allocated to the type of activities to which they are directly attributable.<br>Costs which are not directly attributable must be allocated based on causal factors, or based on proxy factors where causally based allocators are not available. | Where costs are directly attributable they have been allocated to the activities for which they are directly attributable.<br>Where costs are not directly attributable, they have been allocated on the basis of causal and proxy allocation factors. |

Our overall assessment is that our cost inputs are consistent with the asset valuation, tax and cost allocation IMs.

### 2.2.2. Forecast value of assets employed

**2.5(1)(c)(i) Forecast Value of Assets Employed**

**Each airport must publicly disclose a description of how the Forecast value of Assets Employed has been determined. The "Forecast Value of Assets Employed" is defined as the value of assets used by an airport in determining the airport's total revenue requirement for the purposes of consultation undertaken as part of a price setting event.**

There are two key issues involved in this aspect:

- A new asset valuation methodology consistent with the asset valuation IM; and
- The Integrated Terminal Development.

#### *Asset Valuation Methodologies*

***Description and rationale***

The forecast value of assets employed was based on the closing regulated asset values per the 2009 valuation methodologies specified in the Commerce Commission's asset valuation IM – namely, Market Value Alternative Use (MVAU) for CIAL's land assets and Optimised Depreciated Replacement Cost (ODRC) for CIAL's non-land assets.

Opening valuations were set at 2009, and rolled forward to 2012 by the addition of capital expenditure, the deduction of depreciation and disposals, plus the indexing of specialised assets at CPI, consistent with the IMs. In our initial proposal the valuations were revalued from the opening 2009 asset valuations at periodic ODRC valuations but following consultation with the airlines CIAL adopted the CPI indexation method.

In addition, the asset valuation IM allows for land to be revalued on a MVAU basis periodically (at least once every 5 years) with CPI indexation being used in the interim years.

#### Land Assets

Land assets comprise the airfield (runways, taxiways, aprons and ground handling areas), terminal, utilities and roads.

CIAL valued land assets at 30 June 2009 as part of the 2009 Disclosure Financial Statements, pursuant to the Airport Authorities Disclosure Regulations. In establishing the opening asset base for land, the MVAU methodology as prescribed by the asset valuation IM was applied to the closing land portfolio. An updated MVAU land valuation was then carried out by Seagar & Partners in 2012 to derive an updated valuation for the opening asset base for the pricing reset period 2013-2017.

Both the initial MVAU revaluation (June 2009) and the 2012 MVAU revaluation of land were treated as revenue in the pricing model over the 2013-2017 pricing period. The asset valuation IM does not require the initial revaluation to derive the opening asset base (June 2009) to be treated as income, as this is a "line in the sand" opening valuation. However, CIAL customers asked that this revaluation be treated as income, and CIAL agreed to this departure from the IM. This departure from the asset valuation was made in the interests of our customers, who benefited to an approximate $10.5m value.

In addition, all land revaluations resulting from the CPI indexation 2013-2017 have been included in the financial model and treated as revenue (or loss as appropriate). This revenue is spread over the pricing period from 1 December 2012 to 30 June 2017 in line with the IMs.

### *Methodology to value land assets – MVAU*

Seagar & Partners were requested to carry out a valuation using the MVAU method. This was compiled on the basis of an alternate use plan should the airport cease operating as an airport. This alternate use plan was prepared by Planit Associates, and reviewed by Chapman Tripp Barristers & Solicitors to ensure that it was consistent with current planning and expected policy changes. . The valuation carried out by Seagar & Partners incorporated all categories of use and their relative special proportions in line with the Planit alternative use plan.

The MVAU valuation resulted in an opening June 2009 valuation of $210,220 per ha. The 2012 MVAU revaluation increased this value to $249,220 per ha.

A copy of the Seagar & Partners report as at June 2009 and at December 2011 are appended to this disclosure as Appendix 4 and 5.

## Non-Land Assets

The asset valuation IM sets the opening value for non-land assets at the level set at 30 June 2009, as specified in CIAL's 30 June 2009 Disclosure Financial Statements. In CIAL's case, value of non-land assets in the 30 June 2009 Financial Statements was based on an ODRC valuation.

The assets were then rolled forward to 2012 by the addition of capital expenditure, adjustment of footprint to reflect the changed use of the international terminal building post ITP, the deduction of depreciation and disposals, and the indexing of non-land assets at CPI, consistent with the asset valuation IM.

As with Land, revaluations resulting from the CPI indexation have been included in the pricing financial model and are treated as revenue (or loss as appropriate). The revenue (loss) is spread over the pricing period from 1 December 2012 to 30 June 2017 in line with the asset valuation IM.

### Details of Non-Land Assets

#### *Airfield assets*

Airfield assets are predominantly runways, aprons and taxiways. The value of these assets in the opening asset base for the 2013-2017 pricing period was the value of the assets as disclosed in CIAL's June 2009 financial statements, plus additions and CPI indexation for 2010-2012 .

#### *Domestic terminal*

The original domestic terminal was demolished in 2012 and had been fully depreciated by this date. As such, no carry over value was included in the current price setting.

The ITP was developed in two stages, with the first stage opening on 1 May 2011 and the second stage being progressively developed following the complete demolition of the old terminal. The full terminal is targeted to be fully completed by early 2013.

The ITP comprises the:

- Integrated Check in hall and baggage handling
- Passenger facilitation departure gates and associated infrastructure
- Relevant airline facilities
- Commercial facilities, and
- Airside works (civil and aircraft handling infrastructure).

In addition to this infrastructure, a separate regional terminal was constructed to service Turboprop aircraft. This facility has been excluded from the setting of prices in this pricing reset as recovery of the cost of the regional terminal is the subject of a discrete commercial agreement with Air New Zealand. However, as the passenger facilitation in the ITP is also designed to meet the needs of Turboprop aircraft passengers, an allocation of relevant costs and assets has been made in determining the price to be set from 1 December 2012 for Turboprop passenger services provided.

### *International terminal*

The international terminal comprises the assets constructed in 1998 and subsequent additions in 2004. Certain components of the existing international terminal were removed as part of the ITP e.g. the Atrium and the international departure area, to enable the new ITP to be fully integrated and completed. This footprint was reflected in the Opus Valuation in June 2011 (appendix 7) the value of which was then adjusted to reflect the 2009 disclosure unit values in the derivation of the opening asset base value.

The balance of assets remaining were included at 2009 disclosure values with CPI indexation from 2010-2012 added to establish the opening asset base for the current pricing period.

The existing international terminal assets are appropriate for airline and passenger needs. However, some further development is required to provide the necessary gate and stand facilities to meet future growth over the Pricing Period. Refer to the sections on capital expenditure in this disclosure and the related independent capacity review report prepared by Airbiz at Appendix 9 for further details.

### *Integrated Terminal Project (ITP)*

The ITP is the most important change to CIAL's infrastructure base since the CIAL's 2009 pricing review. The ITP was the product of an extensive consultation process with the airlines, resulting in a fit-for-purpose terminal that will meet growing passenger and aircraft movements, utilising modern passenger processing technologies.

The ITP was also designed to meet the requirements of changing passenger facilitation processes and new technologies likely to be implemented by the airlines.

A comprehensive cost estimate analysis was compiled by CIAL's expert Quantity Surveyor - Rawlinson's. The high level summary is provided in the following table:

| Cost Summary - ITP<br>*Excluding Capitalised Interest* | | | Total Build Cost $000's |
|---|---|---|---|
| Airfield | | | 18,675 |
| Domestic Terminal - Turboprop | 11,302 | | |
| Domestic Terminal - Domestic Jet | 66,979 | | |
| Total Domestic Terminal | | | 78,281 |
| International Terminal | | | 38,208 |
| Check-in Counters | | | 12,250 |
| **TOTAL AERONAUTICAL** | | $ | 147,415 |
| **TOTAL COMMERCIAL** | | $ | 68,048 |
| **TOTAL ITP DEVELOPMENT** | | $ | 215,463 |

*NOTE – excludes capitalisation of interest on the construction up to the date of commissioning.*

In completing an on-going assessment of the works over the project development period, Rawlinson's continued to conclude that the ITP is a reasonable investment. In particular, Rawlinson's concluded that the ITP was the "minimum efficient increment". Minimum efficient increment means that, due to the large fixed costs of any airport construction, any smaller increase in terminal capacity would have been more costly in the long run, particularly with respect to the additional construction that would be needed sooner to meet growing demand and the greater cost both from the lack of economy of scale through construction and the multiple mobilisation and demobilisation costs. In other words, any initial excess capacity that may occur in the early stages is a necessary by-product of increasing the terminal capacity by a cost effective amount.

## Initial asset values

The initial asset values for the start of the pricing period for the setting of Standard Charges were calculated by taking the asset values at 30 June 2009 (from CIAL's disclosure financial statements), adding any additions and revaluations, subtracting any disposals and subtracting depreciation for the period 1 July 2009 to 30 June 2012.

This gave the opening asset valuation from 1 July 2012. This summary is detailed in the following table:

***Table 3: Initial Asset Values***

| ASSET SUMMARY 2008 - 2012 | | | | | | |
|---|---|---|---|---|---|---|
| **Asset Class** | **2008 CLOSING** | **Additions** | **Adjustments** | **Revaluation** | **Depreciation** | **2012 CLOSING** |
| Land | 56,207,749 | 265,225 | | 22,914,893 | | 79,387,867 |
| Buildings | 1,321,162 | 688,388 | | | 341,835 | 1,667,715 |
| Computers & Furniture | 1,225,728 | 2,035,702 | | | 1,639,691 | 1,621,739 |
| Motor vehicles | 2,661,741 | 2,400,446 | | | 1,783,349 | 3,278,838 |
| Plant & equipment | 972,449 | 2,125,628 | | | 839,416 | 2,258,661 |
| Airfield Runway Apron Taxiways | 81,783,817 | 22,885,461 | | 7,178,985 | 16,800,052 | 95,048,211 |
| Infrastructure | 8,990,366 | 1,803,856 | | 138,041 | 2,833,811 | 8,098,452 |
| Terminal facilities | 78,175,645 | 131,686,208 | 10,371,838 | 3,207,617 | 13,530,351 | 209,910,957 |
| Software | 210,843 | 623,992 | | | 643,695 | 191,140 |
| **Total assets** | **231,549,500** | **164,514,906** | **10,371,838** | **33,439,536** | **38,412,200** | **401,463,580** |

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

***Table 4: Forecast value of assets employed ($000)***

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| | $000s | $000s | $000s | $000s | $000s |
| Regulatory investment value – Aeronautical Pricing Activities | 415,491 | 432,722 | 436,657 | 440,832 | 445,469 |
| Regulatory investment value – Other Regulated Activities | 78,101 | 76,312 | 74,538 | 72,721 | 70,759 |
| **Total value forecast assets employed** | **493,592** | **509034** | **511,195** | **513,553** | **516,228** |

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

***Table 5: Forecast value of assets employed – difference to historical financial information***

| **Historic Disclosure** | **Disclosure Year ended 2012** | **Forecast Revenue Requirement** | **Opening Balance Forecast year ended 2013** |
|---|---|---|---|
| | $000s | | $000s |
| Terminal and Airfield – regulatory valuations | 330,354 | Terminal and Airfield – Valuations rolled forward | # 401,464 |
| Other regulated activities – regulatory valuations | 78,639 | Other regulated activities – Valuations rolled forward | 78,639 |
| **Total** | **408,993** | | **480,103** |

*# Refer to section 2.3 for details of variation in Opening Asset Base for pricing compared to 2012 Disclosure.*

## 2.2.3. Forecast cost of capital

**2.5(1)(c)(ii) Forecast Cost of Capital**

**Each airport must publicly disclose a description of how the Forecast Cost of Capital has been determined. "Forecast Cost of Capital" is defined as the cost of capital used by an airport in determining the airport's total revenue requirement for the purposes of consultation undertaken as part of a price setting event.**

The estimated cost of capital directly enters into our pricing model in the following ways:

- The estimated WACC is used to calculate the levelised constant real price for each service (on a pre-tax basis). This price, multiplied by the forecast volumes, provides the target revenue for this pricing period;
- The estimated WACC is used to calculate the Revenue Requirement (on a post-tax basis) as a cross-check. As explained elsewhere, the target revenue for this pricing period is less than the Revenue Requirement.

In estimating its cost of capital, CIAL utilised the Capital Asset Pricing Model (CAPM). CIAL:

- Used the cost of capital IM as the starting position;

- Considered which of the input parameters in the IM are appropriate to CIAL's specific circumstances, and which are not (this is necessary given the cost of capital IM is not supplier-specific); and
- Considered to what extent the long-term estimates used for the CAPM model (in particular the risk-free rate for the cost of equity) were appropriate given the current turmoil in the financial markets.

Our conclusions on the appropriate parameters, based on expert advice from PricewaterhouseCoopers, are presented in the table below.

***Table 6: Aeronautical pricing WACC parameters***

| **Input Parameter** | **Aeronautical Pricing WACC FY13-FY17 Pricing Period** |
|---|---|
| Risk-free rate (equity) | 6.00% |
| TAMRP | 7.50% |
| Asset beta | 0.70 |
| Equity beta | 0.95 |
| Gearing | 26% |
| Risk-free rate (debt) | 4.31% |
| Debt risk premium | 2.35% |
| Debt issuance cost | 0.35% |
| Investor tax rate | 28% |
| Corporate tax rate | 28% |
| Cost of equity | 11.41% |
| Cost of debt | 7.01% |
| **Aeronautical post-tax nominal WACC (midpoint)** | **9.76%** |

CIAL acknowledges that there are some differences between our estimated parameters and the cost of capital IM:

- Some of these departures represent the differences in assessment which are currently being examined under the Merits Review;
- Two other differences, which we discuss below, relate to our specific assessment of the current market conditions and CIAL's specific circumstances.

### Current market conditions

CIAL used a figure of 6% as the risk free rate for the estimate of the cost of equity. This represents a 10 year average of the risk free rates. We believe this average is a much better predictor of the cost of equity than the most recent risk free rate.

The standard approach to the calculation of the cost of equity relies on the stability of the long-term relationship between the risk free rate and the required return on equity. This stability does not mean that the equity risk premium is constant at all times, but it does require that it revert to its mean within a reasonably short time frame.

The financial markets have been unstable since the beginning of the global financial crisis in late 2007. During the initial stages of the crisis, share prices collapsed but the government bond rates remained fairly stable. Many estimates of the cost of equity at that time (including those made by some regulators around the world) responded by making a somewhat arbitrary upward adjustments to the market risk premium.

Since 2011, stock markets have generally been going through a recovery. However, since 2011, there has also been an unprecedented decline in the government (risk free) bond rates. Both in Australia and New Zealand, bond rates fell by about a half in the past year and a half. Many market observers and analysts have pointed to this fall as the new expression of the unfolding crisis: the flight to safety, which has resulted in a "bubble" in prices for government bonds. Hence, while the stock markets may be returning to more normal conditions, the market for "risk free" securities is no longer normal.

In essence, under the current market conditions, it would not be responsible to ignore the lack of stability in the relationship between the risk free rate and the cost of equity. There are a number of ways to deal with this uncertainty. After extensive professional advice and reviews, CIAL has formed the view that it should address the current market uncertainty by using the medium-term average of the risk free rates as the forecast of the future risk free rate, while continuing to use the historical estimates of the market risk premium. Under the current market conditions, it is not probable that the most recent risk free rate represents the best forecast of future risk free rates. Hence, the CIAL approach represents a legitimate response to market uncertainty.

We emphasise that we only make this adjustment for the calculation of the cost of equity. The debt markets follow the current risk free rate, and hence it is appropriate to use the most recent risk free rate for the cost of debt.

### Asset Beta

As the table below shows, CIAL is unusual among New Zealand airports in relying on a large proportion of leisure visitors for its revenues. Such visitors are more strongly correlated with the economic cycle—and hence with the rest of the market—than business and other visitors. For this reason, CIAL believes that the industry average asset beta developed for the IM is not appropriate to its circumstances. Our estimate of the asset beta is based on the risks of a leisure-based airport.

***Table 7: Relative mix of Airport Passenger Profile***

| **New Zealand Airports – Purpose of visit - 12 mths to 30 June 2011** | | | |
|---|---|---|---|
| ***Purpose of Visit*** | ***Christchurch*** | ***Auckland*** | ***Wellington*** |
| Holiday/vacation | 55% | 42% | 31% |
| Visiting friends and family | 29% | 33% | 42% |
| ***Subtotal leisure*** | **84%** | **75%** | **73%** |
| Business | 8% | 13% | 16% |
| Conference / Education/ other | 8% | 12% | 11% |
| **TOTAL** | **100%** | **100%** | **100%** |

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

As required by the Determination, CIAL applied a WACC of 7.56% for its most recent annual disclosure under clause 2.3 of the Determination. This is the WACC that is determined by the application of the cost of capital IM. For the reasons discussed above, CIAL applied a WACC of 9.76% to calculate the total forecast revenue requirement.

### 2.2.4. Forecast operational expenditure

**2.5(1)(c)(iii) Forecast Operational Expenditure**

**Each airport must publicly disclose a description of how the Forecast Operational Expenditure has been determined. "Forecast Operational Expenditure" is defined as the forecast operational expenditure used by an airport in determining the airport's total revenue requirement for the purposes of consultation undertaken as part of a price setting event.**

The forecast operation expenditure directly enters into our pricing model in the following ways:

- The forecast operational expenditure over the 20 year period is used to calculate the levelised constant real price for each service (on a pre-tax basis). This price, multiplied by the forecast volumes, provides the target revenue for this pricing period
- The forecast operational expenditure during the pricing period is used to calculate the Revenue Requirement as a cross check. As explained elsewhere, the target revenue for this pricing period is less than the Revenue Requirement.

CIAL, in developing the efficient cost base for the determination of revenue required was aware that the aviation sector and airlines are experiencing tough market conditions. Accordingly, CIAL was conscious that costs need to be effectively managed and savings achieved where practical. CIAL has an on-going focus on identifying initiatives to reduce operating costs and improve business processes.

However, certain events were beyond CIAL control and have resulted in increases in operating costs:

- The Canterbury earthquakes have caused increases in two main operating costs:
    - Increased insurance premiums for Material Damage/Business Interruption owing to the significant losses resulting from the September 2010 and February 2011 earthquakes,
    - CIAL has allowed in the forecast the possible need for incentive packages to retain existing services in the face of the drop in passenger numbers. This allowance for increased incentive and promotion costs will ensure initiatives can be jointly pursued with the airlines to offset the detrimental impact of the earthquake on Christchurch. The maintenance of services at current levels (as a minimum) is an imperative to minimise the unfavourable impact on the Christchurch economy and CIAL's performance. These programmes will include operational incentive support and joint marketing programmes.
- The ITP has a larger footprint than the old terminal, which drives additional cleaning, energy and property costs. In addition the new integrated baggage-handling system has resulted in higher operational costs to support the sophisticated capability required to ensure full service coverage to meet Domestic and International passenger services. This system, while having a higher operating cost, has significantly reduced the capital investment that would have been required if separate Domestic and International Baggage handling systems had been retained.
- Energy costs have been assumed to rise steeply post the end of the current supply contract, having been in place on a fixed tariff basis for the last five years.
- The Commerce Commission's regulatory processes, including the consultation on and release of the IMs, has caused an increase in our legal, advisory and labour costs to ensure on-going compliance.
- Personnel costs in total have increased. This has been done to ensure high quality customer service in the new ITP and upgraded airfield services. Remuneration has been assumed to increase in line with CPI, as agreed in employment contracts.

Other personnel cost increases are the result of growth in CIAL's commercial business, but such costs have not been allocated to CIAL's aeronautical business in this pricing reset.

- The underlying operating cost increase, excluding these items, has been held at levels close to CPI.

- During the consultation process on operating costs Airlines responded to certain costs being included in operating costs, particularly promotion and incentives. These comments were considered and adjustments were made as a concession removing the costs related to specific airlines or destinations.

CIAL believes that its operating expenditure is reasonable having regard to its operating environment.

***Forecast operational expenditure for CIAL is disclosed in Schedule 18.***

The forecast for operating costs incorporated in CIAL's pricing decision were based on the approved company business plan for the financial years ending 30th June 2013, 2014 and 2015. The 2016-2017 years were forecast using CPI indexation.

***Table 8: Summary of Operating costs***

| Summary of Operating Costs Allocated to Airline Pricing ($000's) - FINAL | | | | | |
|---|---|---|---|---|---|
| Category | FY 13 Forecast | FY 14 Forecast | FY 15 Forecast | FY 16 Forecast | FY 17 Forecast |
| Personnel | 11,221 | 11,933 | 12,247 | 12,504 | 12,767 |
| Consulting Fees | 614 | 563 | 565 | 576 | 588 |
| Other Admin | 2,360 | 2,768 | 2,873 | 2,910 | 2,948 |
| Insurance | 2,394 | 2,489 | 2,564 | 2,641 | 2,720 |
| Maintenance | 896 | 1,571 | 1,520 | 1,552 | 1,584 |
| Cleaning | 1,267 | 1,428 | 1,471 | 1,502 | 1,534 |
| Energy | 1,945 | 2,101 | 2,164 | 2,209 | 2,255 |
| Rates | 375 | 396 | 333 | 340 | 348 |
| Promotions and airline incentives | 772 | 803 | 832 | 862 | 892 |
| Other Operating costs | 2,193 | 1,701 | 1,686 | 1,794 | 1,838 |
| Baggage Handling System | 907 | 995 | 1,025 | 1,046 | 1,068 |
| **Total Operating Expenses** | **24,943** | **26,749** | **27,279** | **27,938** | **28,543** |
| **% Annual Movement** | | **7.2%** | **2.0%** | **2.4%** | **2.2%** |

## *Allocation to the Aeronautical Business*

A comprehensive outline of the allocation process applied to operating costs and assets is detailed in Appendix 2 (Cost and Asset Allocation) to this disclosure. In determining the costs to be applied to this reset of Aeronautical Charges, this allocation process has been applied.

The following table identifies the breakdown of operating costs by category allocated to the specified activities as included in the pricing reset, having applied the relevant allocation principle.

***Table 9: Operating Costs by Category***

| CIAL SUMMARY OF COSTS BY PRICING CATEGORY FY2013-17 ($'000's) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Category | FY 13 | FY 14 | FY 15 | FY 16 | FY 17 | TOTAL $ | TOTAL % |
| Airfield | 10,497 | 11,337 | 11,523 | 11,777 | 12,034 | 57,167 | 42% |
| Terminal International | 7,654 | 8,138 | 8,337 | 8,586 | 8,775 | 41,489 | 31% |
| Terminal Domestic - Jet | 5,210 | 5,596 | 5,710 | 5,830 | 5,952 | 28,298 | 21% |
| Terminal Domestic - Turbo Prop | 1,583 | 1,677 | 1,710 | 1,746 | 1,783 | 8,499 | 6% |
| **Costs Included in Airline Pricing** | **24,943** | **26,749** | **27,279** | **27,938** | **28,543** | **135,452** | **100%** |

The allocation drivers applied are consistent with the cost allocation IM as determined by the Commerce Commission. The cost allocation was based on the premise that;

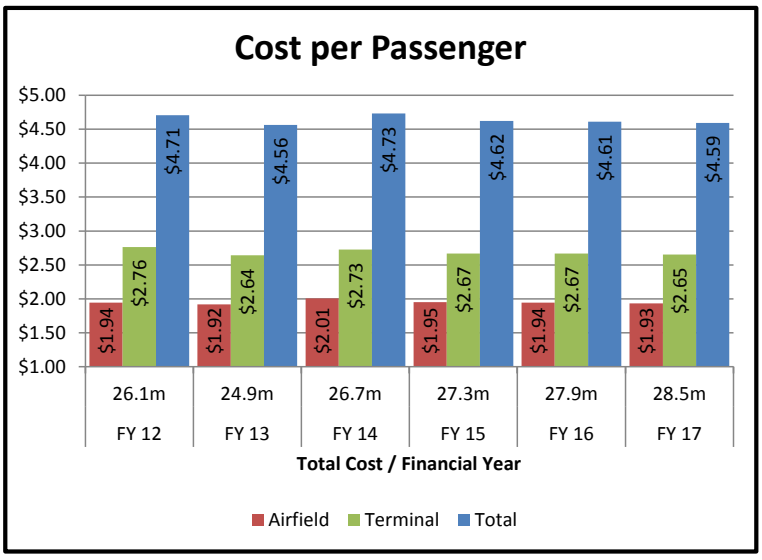
*If a cost is directly attributable to a specific activity, as so far as the asset or operating expenditure is solely and wholly caused by a single activity, then the cost/asset is allocated directly to that regulated*

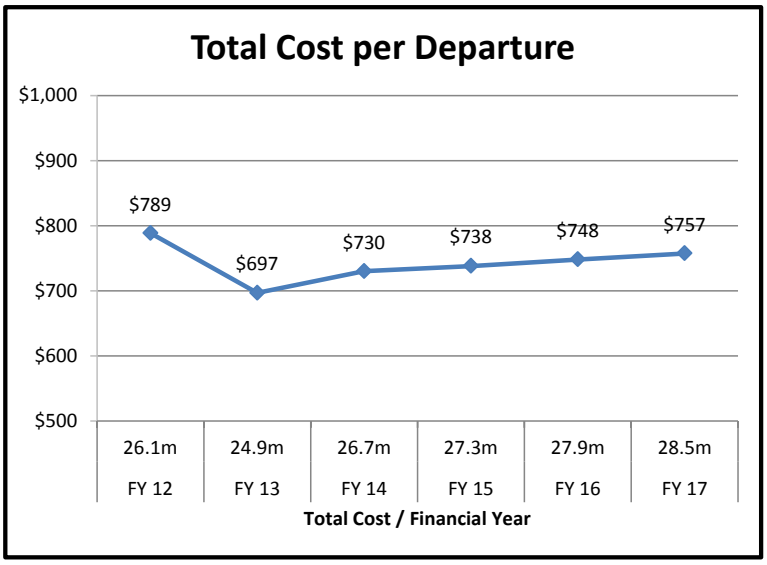
*activity. Costs that are not directly attributable to single activity must be allocated using the accounting based allocation approach (ABAA). Where possible cost and asset allocators are based on current casual relationships and where this is not possible proxy allocators must be used instead. The details of the proxy allocators used as allocation drivers were detailed in Appendix 2. CIAL chose to apply the input methodologies approach for the allocation of costs as determined by the Commerce Commission for information disclosure. This required costs to be allocated directly to aeronautical pricing wherever possible. Costs that were not directly attributable to aeronautical activities were then allocated using an accounting-based allocation approach (ABAA). This approach is based on "causal" allocators wherever possible and where not possible, a proxy allocators was used.*

### *Forecast Cost per Passenger*

In considering the relative efficiency over the pricing period, the analysis below identifies the trend in the total operating cost per passenger and per aircraft over the pricing period. In addition, the same analysis has been compiled considering the discrete trends for airfield costs (on a per aircraft movement basis) and terminal costs (on a per passenger basis).

***Table 10: Forecast Cost per passenger***



### *Conclusions*

- Despite the increase in operating costs, predominantly as a consequence of the new ITP and the impact of the Canterbury earthquakes, the cost per passenger is relatively flat but is in a downward trend;
- Airfield charges per departing movements reflect the ongoing costs of maintaining the airfield, but also clearly reflect the reduction in the level of aircraft movements as airlines endeavour to increase route yield through increased load factors and changes in fleet mix to aircarft with an increased seat capacity – both of which are designed to reduce airline cost per seat kilometre.

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

***Table 11: Forecast Operating cost***

| **Operating costs** $'000 | **2013** | **2014** | **2015** | **2016** | **2017** |
|---|---|---|---|---|---|
| Aeronautical Pricing Activities | 24,943 | 26,749 | 27,279 | 27,938 | 28,543 |
| Other Regulated Activities | 1,915 | 1,954 | 1,995 | 2,038 | 2,080 |
| **Total Operating Costs** | **26,858** | **28,703** | **29,274** | **29,976** | **30,623** |

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

***Table 12: Operating cost comparison: historic disclosure vs revenue requirement ($000)***

| **Historic Disclosure** | **Year ended 2012** | **Forecast Revenue Requirement** | **Forecast year ended 2013** |
|---|---|---|---|
| | $000s | | $000s |
| Aeronautical Pricing Activities | 25,759 | Aeronautical Pricing Activities | 24,943 |
| Other Regulated Activities | 2,556 | Other Regulated Activities | 1,915 |
| **Total** | **28,315** | | **26,858** |

The allocation drivers for operating costs have been consistently applied from previous years for those costs not impacted by the new ITP. The allocation of costs impacted by the increased infrastructure has been applied on the basis outline in Appendix 2 to this disclosure, taking particular consideration of the expanded and diversified footprint.

Operating costs in 2012 were adversely impacted by the continuing effect of the Canterbury earthquakes and severe climate conditions (snow storms).

Within the Aeronautical Pricing activities, 2012 historic disclosure of operating costs included actual costs for Route development initiatives (2,368), whereas in the pricing forecast this only included non-route/airline specific initiatives (772).

The grouping of costs by operating cost category as disclosed on Schedule 18 (corporate overheads, asset management and airport operations, and asset maintenance) has been applied under the same method as the information was prepared for the 2012 information disclosure.

### 2.2.5. Forecast depreciation

**2.5(1)(c)(iv) Forecast Depreciation**

**Each airport must publicly disclose a description of how the Forecast Depreciation has been determined.**

**"Forecast Depreciation" is defined as the forecast depreciation used by an airport in determining the airport's total revenue requirement for the purposes of consultation undertaken as part of a price setting event.**

***Description of and rationale for forecast depreciation***

The depreciation profile for assets determines the timing of the recovery of capital invested – it does not affect the total amount recovered.

CIAL has adopted the standard accounting practice of depreciating fixed assets on a straight line basis, under which the depreciation charges are evenly spread throughout the normal economic life of the asset.

The depreciation rates used are based on the following;

- All assets are depreciated on a straight line basis writing the asset off over the useful economic life as disclosed in the IRD Publication IR265, General Depreciation Rates;
- The asset lives are detailed in Appendix 3. The terminal assets have been depreciated over a weighted average life of 27 years (in light of the terminal assets being predominantly new i.e. the ITP).

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

***Table 13: Forecast depreciation in revenue requirement ($000)***

| **Depreciation** $'000 | **2013** | **2014** | **2015** | **2016** | **2017** |
|---|---|---|---|---|---|
| Aeronautical Pricing Activities | 13,778 | 14,592 | 15,002 | 15,579 | 15,961 |
| Other Regulated Activities | 3,471 | 3,388 | 3,365 | 3,398 | 3,580 |
| **Total Depreciation** | **17,249** | **17,980** | **18,367** | **18,977** | **19,541** |

Forecast depreciation reflects the assumed lives of the infrastructure now in place and has been incorporated in the building block assumption for the return of capital through depreciation in both the setting of the LRMC price and the cross check through the building blocks to determine maximum allowable revenue for the price reset period.

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

***Table 14: Depreciation comparison: historic disclosure vs revenue requirement ($000)***

| **Historic Disclosure** | **Year ended 2012** | **Forecast Revenue Requirement** | **Forecast year ended 2013** |
|---|---|---|---|
| | $000s | | $000s |
| Terminal and Airfield – Depreciation based on regulatory valuations | 16,926 | Terminal and Airfield – Depreciation based on 2012 | 16,626 |

| | | | |
|---|---|---|---|
| Aircraft and Freight – Depreciation based on regulatory valuations | 2,041 | Aircraft and Freight – Depreciation based on 2012 Valuations rolled forward | 623 |
| **Total** | **18,967** | | **17,249** |

The primary differences in depreciation between 2012 and 2013 are;

- Terminal and Airfield - the final write-off of the old domestic terminal infrastructure and the inclusion of the new ITP
- Aircraft and freight – 2012 included an accelerated depreciation write-off for a building that did not meet required building standards and was uneconomic to repair.

### 2.2.6. Forecast tax

**2.5(1)(c)(v) Forecast Tax**

**Each airport must publicly disclose a description of how Forecast Tax has been determined.**

**"Forecast Tax" is defined as forecast tax used by an airport in determining the airport's total revenue requirement for the purposes of consultation undertaken as part of a price setting event**.

In calculating the long-term levelised price required to recover our costs over the medium term, we have used a simplified approach of estimating the long-term revenue requirement by applying the pre-tax WACC. This is because the timing of tax payable does not affect such long-term calculations. In other words, our pricing model calculates the implicit tax effect rather than an explicit tax allowance.

Under the long-term approach to price setting on which we consulted with the airlines, there is no easy way to calculate how much tax contributes to the required revenue in any one year. This is because under the long-term model, the target revenue in any one year is derived from multiplying the levelised constant real price for each service by the expected volume in that year. Since the levelised constant real price includes a constant element of tax recovery, the total tax recovery in any one year is related to the volume of service in that year, rather than to the actual tax liability. In other words, the pricing model does to the tax allowance exactly what it does to other cost components: it spreads the recovery over the economic life of the assets in such a way that each unit of volume makes a fixed contribution to the total recovery.

In response to the comments received from BARNZ and the airlines during the consultation, we provided a further simulated calculation as part of our Revised Pricing Proposal, which showed that over the economic life of the assets, there was no material effect on the levelised price from the implied tax allowance using our simplified calculation compared to an allowance which would be derived from calculating the tax payable for each year. It is clear that there would be timing differences between the two approaches, but such differences do not affect the calculation of the levelised price. It is inevitable, however, that tax calculations using slightly different approaches over the economic life of long-lived assets would produce slight discrepancies. Our simulated calculation showed that the discrepancy was small, and well within the margin of error for the calculation of the long-term levelised price. We highlighted that the long-term levelised price would, in any case, be updated at every price consultation to reflect updates in volume forecasts, changes in WACC parameters and new capital expenditure.

Despite a number of interactions on this topic, BARNZ and some airlines expressed the view during the consultations that our approach was designed to lift the calculation of the maximum allowable revenue over the next pricing period, and to provide us with an over-recovery of tax.

We would like to emphasise again that this is not the case. We have no intention of over-recovering the tax allowance. Our methodology for calculating the levelised constant real price ensures that the burden of the tax allowance, just as the burden of all other cost building blocks is spread evenly and fairly across the economic life of the assets.

For the avoidance of doubt, during the consultation process CIAL calculated and submitted to the airlines the maximum allowable revenue for the pricing period using the tax payable approach, derived from the calculations submitted by BARNZ. We believe that the tax payable allowance would be somewhat higher than the BARNZ estimate, but for a conservative comparison we employed the BARNZ methodology during the consultations as a cross-check.

Schedule 18 requires an estimate of how much tax contributes each year to the forecast total revenue requirement. As explained above, our approach of calculating a long term levelised price to recover our new terminal investment means we did not calculate tax, nor our revenue requirement, in that way. For that reason we have included in Schedule 18 the tax payable estimate based on the BARNZ methodology that was used as a reasonableness cross-check. This is the best proxy for the input required by Schedule 18 that was used during the consultation.

As we explain elsewhere in this disclosure, our target revenue for the period differs from the building blocks revenue requirement calculated in Schedule 18. This is because it is based on the long term levelised price. For this pricing period, the target revenue is less than the building blocks revenue requirement. As utilisation of the asset grows, the target revenue in future periods may exceed the building blocks revenue requirement.

### Extent to which depreciation has been used to determine the forecast tax

As we explained above, we used an implied tax calculation for our long-term pricing model (by applying the pre-tax WACC over the economic life of the assets). Hence, depreciation did not directly enter into the calculation of the implied tax allowance included in the price.

In addition and as explained above, we used a calculation of the tax payable as a check to ensure that we did not over-recover the Required Revenue (in fact, our pricing model leads to a substantial under-recovery during the pricing period). In that calculation, CIAL adopted a conservative approach to forecasting the tax revenue building block input. This is a consequence of the final asset classification for the ITP not being finalised at this point and accordingly a detailed tax depreciation breakdown by category is unknown. In this approach the treatment of depreciation used in forecasting tax is as follows:

- Airfield - tax depreciation is assumed to the same as accounting depreciation;
- Terminals – tax depreciation is assumed to be 66% of accounting depreciation, reflecting an “estimate for non-deductible building depreciation” and essentially removing building depreciation from the accounting depreciation to arrive at tax depreciation.

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

***Table 15: Forecast value of tax employed ($000)***

| | **2013** | **2014** | **2015** | **2016** | **2017** |
|---|---|---|---|---|---|
| | $000s | $000s | $000s | $000s | $000s |
| Tax – Aeronautical Pricing Activities | 11,129 | 10,714 | 10,821 | 11,002 | 10,954 |
| Tax – Other Regulated Activities | 1,285 | 1,249 | 1,212 | 1,175 | 1,131 |
| **Total forecast tax** | **12,414** | **11,963** | **12,033** | **12,177** | **12,085** |

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

| Historic Disclosure | Year ended 2012 | Forecast Revenue Requirement | Forecast year ended 2013 |
|---|---|---|---|
| | $000s | | $000s |
| Taxation based on actual tax depreciation and after deducting notional deductible interest | 1,665 | Tax based on forecast useful lives, with no deduction for notional interest | 12,414 |

The primary difference is reflected through the improved financial performance through an;

- increase in passenger demand post through an assumed commencement of the economic recovery post the Canterbury earthquakes and
- Improved returns through the price reset.

## 2.2.7. Forecast revaluations

**2.5(1)(c)(vi) Forecast Revaluations**

**Each airport must publicly disclose a description of how Forecast Revaluations has been determined.**

**"Forecast Revaluations" is defined as the forecast revaluations used by an airport in determining the airport's total revenue requirement for the purposes of consultation undertaken as part of a price setting event.**

As described in the section above on *Forecast Value of Assets Employed*, CIAL has both revalued the initial asset base from 2009 to a 2012 asset base, as well as forecast future revaluation of assets in accordance with the IMs.

The asset valuation IM allows for land to be revalued on a MVAU basis periodically (at least once every 5 years) with CPI indexation being used in the interim years.

Both land and non-land assets are forecast over the Pricing Period to revalue using the CPI Index annually.

For the Pricing Period, an average CPI inflation rate of 2.1% per annum was used as the basis for forecasting revaluation gains. The reference source for this level was the NZIER Consensus forecast dated 18 June 2012.

### Extent to which forecast revaluations have been used to determine the forecast tax

As explained previously, our long-term pricing model calculates an implicit tax allowance by using the pre-tax WACC over the economic life of the assets. By treating revaluations as income, we ensure that the NPV=0 condition is met in the pricing model (as we explain elsewhere, our actual approach to pricing results in NPV<0 due to an acceptance of a permanent under-recovery). Hence, income from revaluations is excluded from the calculation of the implicit tax allowance. Similarly, income from revaluations is excluded from the calculation of the tax payable, which we use as a check on our pricing model.

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

***Table 16: Forecast Revaluations***

| **Revaluations** $'000 | **2013** | **2014** | **2015** | **2016** | **2017** |
|---|---|---|---|---|---|
| Aeronautical Pricing Activities | 17,920 | 18,505 | 18,741 | 18,779 | 18,909 |
| Other Regulated Activities | 1,659 | 1,622 | 1,584 | 1,547 | 1,508 |
| **Total Revaluations** | **19,579** | **20,127** | **20,325** | **20,326** | **20,417** |

In aeronautical pricing activities, this reflects revaluations from:

1. *Revaluations over the 2009-12 period* - The "real" value of these revaluations is spread on a pre-tax WACC basis over the 4 years and 7 months pricing period, in 5 equal present value components (of $9,643 pa), plus
2. *CPI indexation* - using CPI inflation rate of 2.1% (Aeronautical $44,637, Other Regulated Activities $7,920).

In other regulated activities, the revaluation value reflects CPI indexation at CPI of 2.1**%.**

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

***Table 17: Valuation comparison***

| **Historic Disclosure** | **Year ended 2012** | **Forecast Revaluations** | **Forecast year ended 2013** |
|---|---|---|---|
| | $000s | | $000s |
| Revaluations based on Regulatory assets | 3,739 | Revaluations based on revaluations rolled forward on increased asset base. plus a share of revaluations 2009-2012 spread equally over the 2013 – 2017 pricing period | 19,579 |

The major difference between historic and forecast revaluations is a consequence of;

- An increase in the asset base following the completion of ITP,
- The revaluation of assets at CPI of 2.1% (2012 0.95%), and
- The carry forward of revaluations from 2009 – 2012, which have been spread equally over the price reset period ($9,643 pa)

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

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

### *Revenue requirement not applicable to price setting event*

As we explained above, the revenue requirement is an input into the pricing model, but is not the only relevant input. Hence:

- The price setting event did not directly seek to recover the revenue requirement during the next pricing period

- We used the revenue requirement as a cross check on our proposed price path, ensuring that we recovered less
- We used the revenue requirement for this pricing period as the basis for estimating future revenue requirements, which overall entered into the price setting event.

***Transition Revenue Path smoothing adjustment***

***Table 18: Other factors FY13-FY17 pricing period***

| $000s | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| **Other Factors in Schedule 18** | | | | | |
| Annual deficit to revenue requirement in Aeronautical Pricing Activities -(refer Table 2 D) | (23,279) | (12,713) | (4,099) | 2,121 | 3,239 |
| Annual deficit to revenue requirement for Other Regulated Activities | (2,606) | (2,178) | (1,810) | (1,487) | (1,292) |
| **Total** | **(25,885)** | **(14,891)** | **(5,909)** | **634** | **1,947** |

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

**Clause 2.5(1)(d) Valuation to Determine Forecast Value of Assets Employed**

**Where the forecast value of assets employed is based on a value other than that used for the purposes of the latest disclosure under clause 2.3, each airport must publicly disclose the valuation report on which the value of the forecast value of assets employed is based.**

**Forecast Value of Assets Employed is defined as the value of assets used by an airport in determining the airport's total revenue requirement for the purposes of consultation undertaken as part of a price setting event.**

***Table 19: Valuation comparison: historic disclosure vs revenue requirement ($000)***

| Historic Disclosure | Disclosure Year ended 2012 | Forecast Revenue Requirement | Opening Balance Forecast year ended 2013 |
|---|---|---|---|
| | $000s | | $000s |
| Terminal and Airfield –regulatory valuations | 330,354 | Terminal and Airfield – Revenue Valuations rolled forward | 401,464 |
| Other Regulated Activities – regulatory valuations | 78,639 | Other regulated Activities – Valuations rolled forward | 78,639 |
| **Total** | **408,993** | | **480,103** |

In our pricing consultation we treated the ITP as being in its commissioned state from 1 December 2012 (the beginning of the price reset period). This was a commercial judgment to reflect the fact that the ITP was progressively developed and used by the airlines over a three year period with the first (and major stage) being commissioned on 1 May 2011, the second stage 31 March 2012 and the final stage (including final remedial airside works) by April 2013. The airlines will not be charged for the use of the first two stages until 1 December

2012, and while the project was not totally complete at that date, the terminal was substantially complete. This approach has provided an economic benefit to the airlines through the delay in implementing charges for the ITP. Given the requirement in Schedule 18 of a 5 year analysis the ITP is treated in the schedule as commissioned from 1 July 2012 (still an approximation that falls between stages 2 and 3).

The difference in value between the 30 June 2012 Information disclosure for the Terminal and Airfield ($71.110m) and the opening asset base for pricing is detailed below;

*ITP Commissioned*

| | | |
|---|---|---|
| • Work in Progress at 30 June | $35.627m | |
| • Expenditure to complete in first part of 2013 financial year | $28.206m | |
| Total | | $63.833m * |
| *Other #* | | $ 7.277m |
| ***Total Difference*** | | ***$71.110m*** |

***Notes***

** - in calculating the IRR this amount ($63.833m) should be added to assets commissioned in 2013 to derive the correct asset investment additions over the period*

*# - represents the net total variation from differences in land valuations per hectare, land not included in pricing and the variation in footprint of the existing International terminal following the change in footprint use post ITP*

## 2.4. Forecast Capital Expenditure

**Clause 2.5(1)(e) Forecast Capital Expenditure by Category and Key Capital Expenditure Projects**

**Each airport must publicly disclose the airport's forecast capital expenditure by category and key capital expenditure project as disclosed in accordance with Schedule 18 and the aims and objectives of any proposed investments.**

A Key Capital Expenditure Project is defined as 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. For the avoidance of doubt, any amount of forecast capital expenditure that is planned to be incurred in a disclosure year must be disclosed in the disclosure year it is incurred. For the purpose of this definition, a programme is a group of projects that together contribute to one output (or a set of broadly overlapping outputs). In making disclosures regarding programmes, airports must provide details of each individual project that the programme comprises.

### Capital Expenditure Forecasts

In the current environment, CIAL is very aware that the airlines are facing tough market conditions and want to minimise their costs. To this end, CIAL planned to make only capital expenditures that were necessary to meet growing demand, fulfil statutory responsibilities for safety, ensure efficient infrastructure life cycle investment and to provide and uphold an appropriate level of customer service.

As part of the longer term asset management planning, CIAL has also assessed likely investment needs to ensure the effective and efficient provision of airport services to meet airline customers and the travelling public's needs over the medium term. In developing this forecast, CIAL commissioned Airbiz to:

- Independently review the longer term passenger/aircraft demand forecast to 2022; and

- Prepare an independent review of the gate and stand requirements required to meet this forecast growth in passenger and aircraft movements (refer Appendix 9).

### 2.4.1. Overview of disclosure requirements

Clause 2.5(e) of the Determination requires disclosure of CIAL's forecast capital expenditure on a ten year basis per schedule 18. The forecasts must be disclosed by the following specific categories:

- Capacity Growth
- Asset replacement and renewal

In addition, the aims and objectives of key capital expenditure projects must also be disclosed.

Clause 2.5(f) further requires a description of each key capital expenditure project for a period of five consecutive years immediately following the price setting event, including an explanation of:

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

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

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

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

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

### 2.4.2. Overview of CIAL's capital expenditure planning

CIAL's forecast capital expenditure consists of a number of projects, of varying sizes. CIAL is confident that all capital projects are necessary to provide the level of service that travellers expect and to maintain the necessary condition of the assets to optimise the asset management life cycle.

The capital projects have been developed having considered:

- The forecast demand for CIAL's services;
- A close knowledge of the needs of the business including estimates of asset condition and lifecycle investment requirements;
- Past experience of airport capital expenditure requirements, particularly with respect to regular infrastructure investment and plant replacement programmes;
- Technology enhancements to meet current and future business requirements;
- The development of a new safety area (RESA) to meet statutory requirements; and
- International gate capacity to meet forecast growth requirements – refer to the independent review carried out by Airbiz at Appendix 9.

The forecast Capital Expenditure for the 2013 -2017 pricing period, prior to allocation to the required activities, is as follows:

*Table 20: Capital expenditure 2013 - 2017*

| Forecast Capex Spend | $'000 | | | | |
|---|---|---|---|---|---|
| Category | FY 13 | FY 14 | FY 15 | FY 16 | FY 17 |
| Land | 100 | | | | |
| Airfield | 30,241 | 10,224 | 5,564 | 5,104 | 6,364 |
| Computers and Furniture | 1,000 | 800 | 990 | 540 | 1,310 |
| Infrastructure | 615 | 385 | 280 | 280 | 480 |
| Plant & Equipment | 840 | 490 | 490 | 490 | 490 |
| Motor vehicles | | 50 | | 50 | |
| Software | 255 | 70 | 60 | 90 | 40 |
| Terminal Facilities | 1,495 | 230 | 250 | 6,636 | 300 |
| **Total Forecast Capex spend** | **34,546** | **12,249** | **7,634** | **13,190** | **8,984** |

### 2.4.3. Key Capital Expenditure Projects for FY13-FY17

**Clause 2.5(1)(f) Future Key Capital Expenditure Projects**

**Each airport must publicly disclose, for the period of five consecutive years immediately following the price setting event, a description of each key capital expenditure project.**

***CIAL's key capital expenditure projects detailed in the forecast information for the 2012-2017 pricing period are detailed below.***

CIAL has three new significant capital expenditure projects (defined as total expenditure greater than $5m), excluding the final spend on the ITP airside works ($18.675 million), the details of which follow:

#### 1. Pavement Maintenance Programme

The airfield pavement maintenance is an on-going major pavement maintenance programme of works, compiled by BECA considering the long-term asset management requirements. It is prepared on a rolling 10 year basis. The forecasts included in the pricing proposal, are in line with this BECA asset management plan. An annual review is carried out in November of each year to identify and consider the actual condition of the pavements and to determine the required work programme to be carried out. This programme takes account of the changing surface conditions and areas where weaknesses may have been detected. CIAL considers that the asset management programme forecast within the capital expenditure forecast provides the appropriate balance to managing the airfield pavement asset over its life cycle, and thereby minimise major swings in the maintenance programmes required.

| | |
|---|---|
| **Estimated Expenditure** | Forecast expenditure: 2013 $6.400m, 2014$6.700m, 2015 $5.400m, 2016 $5.00m and 2017 $6.300m |
| **Description of works** | To provide the annual major maintenance works required by the 20 year Airfield Pavement Maintenance Programme, to remedy pavement deterioration on Runways, Taxiways and Aprons |
| **Aims and objectives** | To maintain the pavement at the required condition necessary for sustainable airfield operations for the Airlines, with the objective to achieve a maximum projected asset lifecycle before replacement is required |
| **Process by which need for the expenditure was** | A rolling 20 year pavement maintenance programme is developed using the external expertise of BECA Infrastructure. Prior to the annual works being carried out a 3 day pavement inspection takes place to assess surface condition and identify the planned |

| | |
|---|---|
| **determined** | works to be carried out, accelerated or deferred to later periods.<br><br>In developing this 20 year programme BECA make recommendations on the work programme required for separate pavement components identifying which areas require replacement, repair or remain fit for purpose. CIAL follows the advice provided by BECA. |
| **Any consumer engagement undertaken as part of process and how consumer demands have been assessed** | Engagement occurs with the airlines as part of the normal service delivery discussions with the necessary airline and airport staff involved. This is to ensure airlines are assured that CIAL is maintaining the pavement to the necessary standards. Other agencies on the airport are also involved and include Airways, Aviation Security, Fuel and Energy suppliers |
| **Any alternative projects considered and the rationale for excluding the alternatives** | Consideration of alternate surface forms has been carried out in the past and the present construction was deemed to have a more cost effective asset lifecycle cost for Christchurch airport |
| **The extent to which the project is reflected in pricing** | The annual pavement maintenance programme is included in the asset base to determine the allowable revenue, and while historic charges for airfield services have not recovered the required return on such investment the price path increases over this period go a significant way to achieving the required return on investment |
| **Any constraints or other factors on which successful completion of the project is contingent** | The constraints on achieving the successful completion are predominantly operational (working hours outside park airport operating times) and weather conditions |

## 2. Pound Road realignment

The Pound Road realignment is a regulatory requirement imposed on CIAL by the Civil Aviation Authority (CAA). This development has already been granted dispensation by the CAA in terms of the timing for the completion of such works. The works were originally to be completed by the end of 2011, but in order to ensure that this was the most effective means of meeting the safety requirements alternate considerations were evaluated. The current development as incorporated in the pricing proposal is central to ensure that CIAL meets the necessary regulatory and safety requirements and permissions for operating the cross wind 11/29 runway.

| | |
|---|---|
| **Estimated Expenditure** | Forecast expenditure: 2013 $4.890m |
| **Description of works** | Roading realignment to enable the required Runway End Safety Area (RESA) to be developed on land made available by the realignment |
| **Aims and objectives** | To meet regulatory requirements determined by the CAA to ensure the cross wind runway (11/29) has sufficient length to meet safety standards required |
| **Process by which need for the expenditure was determined** | A review by CAA as to the necessary safety environment having considered the operations of and the aircraft using the cross wind runway. |

| | |
|---|---|
| **Any consumer engagement undertaken as part of process and how consumer demands have been assessed** | As the road realignment required closing a road to meet such regulatory requirements Public Notification to the general public was made in accordance with the defined planning change processes |
| **Any alternative projects considered and the rationale for excluding the alternatives** | Consideration of alternate options to meet such obligations was carried out but the economic comparisons were such that this outcome was determined as being the most economically justifiable. |
| **The extent to which the project is reflected in pricing** | This investment has been included in the airfield asset base on which the new prices have been developed. |
| **Any constraints or other factors on which successful completion of the project is contingent** | The constraints relate to ensuring such development is achieved within the required timeframe as set by CAA |

### 3. International Stand optimisation

The international stand optimisation was included in the programme as outlined, having considered the Airbiz review of the forecast aircraft movement over the next 10 years. This is an important part of our terminal and airfield master planning and it is essential that such works are carried out in advance of the actual timing needs of the airlines, such that there is no disruption to service. The timing forecast in the capital expenditure profile is in line with the development time required for, and to meet, the aircraft movement growth forecast as proposed.

| | |
|---|---|
| **Estimated Expenditure** | Forecast expenditure: 2016 $5.916m, |
| **Description of works** | Optimisation of one international aircraft stand to enable multi aircraft type to use the stand space |
| **Aims and objectives** | Optimisation of International aircraft stands to allow more narrow body jets to park in space currently allocated to wide body jets. This increases peak capacity for future growth without further major development for future flight forecasts. |
| **Process by which need for the expenditure was determined** | The requirement for optimisation of stands is driven by the capacity to handle aircraft at peak schedule times. Once the demand forecasts had been reviewed by the airlines this was independently reviewed by expert Airport planner Airbiz. This determined initially that two stands needed to be optimised. |
| **Any consumer engagement undertaken as part of process and how consumer demands have been assessed** | Consideration was given by the airlines as part of the pricing consultation process. The response from the airlines was that the demand did not warrant the optimisation of two stands. CIAL must have infrastructure ready in advance of such peaks and accordingly in its expert opinion believes that at least one stand should be optimised in the price reset period, although the timing is uncertain at this point. Accordingly the capital investment forecast was adjusted to include only one stand to be optimised rather than two as forecast in the initial proposal. |

| | |
|---|---|
| **Any alternative projects considered and the rationale for excluding the alternatives** | Such consideration for this augmentation is one of timing only. The final Pricing decision was for one stand only |
| **The extent to which the project is reflected in pricing** | The capital investment has been included in the assets employed for terminal services. However the transition price path does not result in recovery of assets owing to the major investment in ITP with the price path developed on the basis of achieving the return over the lifetime of the asset, which in the case of international stands is approximately 15-20 yrs. |
| **Any constraints or other factors on which successful completion of the project is contingent** | The constraints on achieving the successful completion are predominantly one of timing to ensure such capacity is ready to meet the increase in capacity required at peak times. |

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

The forecast Capital Expenditure for the 2018 -2022 period is as follows:

***Table 21: Capital expenditure 2018 - 2022***

| **Forecast Capex Spend** | **$'000** | | | | |
|---|---|---|---|---|---|
| Category | **FY 18** | **FY 19** | **FY 20** | **FY 21** | **FY 22** |
| Airfield | 4,074 | 5,594 | 5,574 | 6,064 | 16,804 |
| Computers and Furniture | 600 | 1,363 | 730 | 1,360 | 1,230 |
| Infrastructure | 700 | 280 | 360 | 280 | 530 |
| Plant & Equipment | 590 | 490 | 490 | 490 | 490 |
| Terminal Facilities | 1,100 | 290 | 1,155 | 6,166 | 340 |
| **Total Forecast Capex spend** | **7,064** | **8,017** | **8,309** | **14,360** | **19,394** |

CIAL has three significant capital expenditure projects (defined as total expenditure greater than $5m) in the 2018 – 2022 period, the details of which follow:

#### 1. Pavement Maintenance Programme

The airfield pavement maintenance is an on-going major pavement maintenance programme of works, compiled by BECA considering the long-term asset management requirements. It is prepared on a rolling 10 year basis. The forecasts included in the pricing proposal, are in line with this BECA asset management plan. An annual review is carried out in November of each year to identify and consider the actual condition of the pavements and to determine the required work programme to be carried out. This programme takes account of the changing surface conditions and areas where weaknesses may have been detected. CIAL considers that the asset management programme forecast within the capital expenditure forecast provides the appropriate balance to managing the airfield pavement asset over its life cycle, and thereby minimise major swings in the maintenance programmes required.

| | |
|---|---|
| **Estimated Expenditure** | Forecast expenditure: 2018 $4.000m, 2019 $5.500m, 2020 $5.500m, 2021 $6.000m and 2022 $6.700m |

| | |
|---|---|
| **Description of works** | To provide the annual major maintenance works required by the 20 year Airfield Pavement Maintenance Programme, to remedy pavement deterioration on Runways, Taxiways and Aprons |
| **Aims and objectives** | To maintain the pavement at the required condition necessary for sustainable airfield operations for the Airlines, with the objective to achieve a maximum projected asset lifecycle before replacement is required |
| **Process by which need for the expenditure was determined** | A rolling 20 year pavement maintenance programme is developed using the external expertise of BECA Infrastructure. Prior to the annual works being carried out a 3 day pavement inspection takes place to assess surface condition and identify the planned works to be carried out, accelerated or deferred to later periods.<br><br>In developing this 20 year programme BECA make recommendations on the work programme required for separate pavement components identifying which areas require replacement, repair or remain fit for purpose. CIAL follows the advice provided by BECA |
| **Any consumer engagement undertaken as part of process and how consumer demands have been assessed** | Engagement will occur with the airlines as part of the normal service delivery discussions with the necessary airline and airport staff involved. This is to ensure airlines are assured that CIAL is maintaining the pavement to the necessary standards. Other agencies on the airport are also involved and include Airways, Aviation Security, Fuel and Energy suppliers |
| **Any alternative projects considered and the rationale for excluding the alternatives** | Consideration of alternate surface forms has been carried out in the past and the present construction was deemed to have a more cost effective asset lifecycle cost for Christchurch airport |
| **Any constraints or other factors on which successful completion of the project is contingent** | The constraints on achieving the successful completion are predominantly operational (working hours outside park airport operating times) and weather conditions |

## 2. Runway Extension

In considering the forward aircraft growth pattern and the augmentation required to extend the life of the existing runway capacity and to assist the implementation of simultaneous operation s on both the main runway (02/20) and the cross wind runway (11/29) it has been forecast that extensions will be required to the present runways. The actual timing of the expenditure is not definitively determined at this stage and will be dependent on aircraft movement growth and so this is placeholder allowance for such augmentation.

| | |
|---|---|
| **Estimated Expenditure** | Forecast expenditure: 2022 $10.000m, |
| **Description of works** | Lengthening of runways to enable multi aircraft use across both runways under a simultaneous use operation |
| **Aims and objectives** | Extension of runways to enable dual use of runways to cater for future aircraft movement without the need for major development through a parallel runway. |

| | |
|---|---|
| **Process by which need for the expenditure was determined** | The requirement for runway lengthening will be driven by the capacity of the existing runways to handle the growth in aircraft movements, particularly at peak schedule times. |
| **Any consumer engagement undertaken as part of process and how consumer demands have been assessed** | Engagement will occur with airlines as part of the pricing consultation in future periods once the need for such extensions have been determined |

## 3. International Stand Optimisation

Optimisation of international aircraft stands to allow more narrow body jets to park in space currently allocated to wide body jets. This increases peak capacity for future growth and the capital investment reflects the conclusions contained in the Airbiz forecast of future development requirements for international gate stands.

The international stand optimisation was included in the programme as outlined, having considered the Airbiz review of the forecast aircraft movement over the next 10 years. This is an important part of our terminal and airfield master planning and it is essential that such works are carried out in advance of the actual timing needs of the airlines, such that there is no disruption to service. The timing forecast in the capital expenditure profile is in line with the development time required for, and to meet, the aircraft movement growth forecast as proposed. In the original consultation there were two projects forecast for International Stand optimisation however one was excluded as the airlines were of the opinion that the growth forecast would not require the second stand optimisation in the 2013 – 2017 pricing period. Accordingly one Stand was removed and has been deferred to 2021 as detailed below.

| | |
|---|---|
| **Estimated Expenditure** | Forecast expenditure: 2021 $5.916m, |
| **Description of works** | Optimisation of one international aircraft stand to enable multi aircraft type to use the stand space |
| **Aims and objectives** | Optimisation of International aircraft stands to allow more narrow body jets to park in space currently allocated to wide body jets. This increases peak capacity for future growth without further major development for future flight forecasts. |
| **Process by which need for the expenditure was determined** | The requirement for optimisation of stands is driven by the capacity to handle aircraft at peak schedule times. Once the demand forecasts had been reviewed by the airlines this was independently reviewed by expert Airport planner Airbiz. |
| **Any consumer engagement undertaken as part of process and how consumer demands have been assessed** | Consideration was given by the airlines as part of the pricing consultation process. The response from the airlines was that the demand did not warrant the optimisation of two stands. CIAL must have infrastructure ready in advance of such peaks and accordingly in its expert opinion believes that at least one stand should be optimised in the price reset period, although the timing is uncertain at this point. Accordingly the capital investment forecast for 2013 – 2017 was adjusted to include only one stand to be optimised rather than two as forecast in the initial proposal. This determined initially that two stands needed to be optimised. This project is therefore a reschedule of the deferred stand optimisation from 2013-2017. |

| | |
|---|---|
| **Any constraints or other factors on which successful completion of the project is contingent** | The constraints on achieving the successful completion are predominantly one of timing to ensure such capacity is ready to meet the increase in capacity required at peak times. |

## 2.5. Forecast Operational Expenditure

### 2.5.1. Overview of disclosure requirement

Schedule 18 requires operational expenditure to be grouped into the following categories:

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

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

**Clause 2.5(1)(g) Assumptions or Justifications for Forecast Operational Expenditure by Category**

**Each airport must publicly disclose any assumptions or justifications of the airport's forecast operational expenditure by category as disclosed in accordance with Schedule 18.**

In developing the operational expenditure forecast CIAL was aware of the need to contain airport costs as airline industry returns remain under stress. In addition, CIAL has an on-going focus on identifying initiatives to reduce operating costs and improve business processes. But in light of the step change in the operating cost structure post the completion of ITP and the continuing earthquake aftershocks, total forecast expenditure for 2012 was higher than 2011.

The operating expenditure forecast was based on the approved business plan prepared for the financial years ending 30th June 2013, 2014 and 2015 with the 2016-2017 years being indexed to CPI. All costs were subject to rigorous scrutiny by both management and the CIAL board.

The increased operational expenditure forecast for 2012 was predominantly due to several major cost increments, most of which are beyond CIAL's control. Further details follow:

- The ITP has a larger footprint than the old terminal, which drives additional cleaning, energy and property costs. In addition the new integrated baggage-handling system has resulted in higher operational costs to support the sophisticated capability required to ensure full service coverage to meet Domestic and International passenger services. This system, while having a higher operating cost, has significantly reduced the capital investment that would have been required if separate Domestic and International Baggage handling systems had been retained.
- The Canterbury earthquakes have resulted in a number of increased costs, including a significant increase in insurance premiums and increased incremental asset management operating costs
- Energy costs have been assumed to rise steeply post the end of the current supply contract, having been in place on a fixed tariff basis for the last five years. The costs of energy are forecast to rise in excess of 20% on renewal.

- Personnel costs in total have increased. This has been done to ensure high quality customer service in the new ITP and upgraded airfield services. Remuneration has been assumed to increase in line with CPI, as agreed in employment contracts.
- The Commerce Commission's release of the input methodologies has caused an increase in legal, advisory and labour costs to ensure on-going compliance.

The 2016 – 2017 years were determined by indexing the 2014 cost by the cumulative increases in CPI per the following %:

| | |
|---|---|
| 2016 | 2.1% |
| 2017 | 2.1% |
| 2018 > | 2.5% |

The basis for such indexation factors has been sourced from the NZIER Consensus forecast dated 18 June 2012.

In determining the costs to be applied to this reset of Aeronautical Charges an allocation process has been applied, with the basis of allocation being detailed in Appendix 2.

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

**Clause 2.5(h) requires public disclosure of each service that is included in the revenue requirement not applicable to the price setting event as disclosed in accordance with Schedule 18:**

(i) **a description of the service;**

(ii) **the forecast total revenue requirement that is forecast to be earned from the service for each disclosure year of the price setting event;**

(iii) **the revenue earned from the service during the most recent disclosure year; and**

(iv) **reference to any price setting event that the service has been applicable**.

### Regional Lounge

The Regional Lounge supports the Air New Zealand Turboprop business. This area is used for 'specified airport services' but is leased by Air New Zealand under a separate commercial agreement. This provides services for:

- The departure and arrival of passengers on routes serviced by turboprop aircraft;
- Baggage reclaim and other services for such passengers.

For this reason, it has been treated as a commercial space and subsequently been excluded from the five year pricing calculation.

### Check-In Counters

CIAL has excluded Check-in Counters from the assessment of required revenue and performance. This operation is covered under a separate license to occupy commercial arrangement with the respective airlines.

This area provides integrated check in services for both departing domestic (Jet and Turboprop aircraft) and International Jet aircraft services.

## Discrete Terminal Tenancies

CIAL has excluded a number of discrete terminal lease area tenancies to the airlines for their specific use for offices, storage, airline lounges etc. from the assessment of required revenue and performance. These areas are covered under separate commercial leases with the respective airlines concerned.

The forecast revenue for the above activities is detailed below.

***Table 22: Other Regulated Activities (excluding aircraft and freight) forecast revenue requirement***

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| | $000s | $000s | $000s | $000s | $000s |
| Other regulated activities forecast revenue | 6,116 | 6,244 | 6,374 | 6,509 | 6,644 |

## Aircraft and Freight activities

Aircraft and freight activities are also excluded from the assessment of required revenue and performance, as these are for leases with a range of customers, the terms of which are negotiated under separate commercial arrangements with the respective parties concerned.

Aircraft and freight activities include 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 1 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:

(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).

***Table 23: Aircraft and freight forecast revenue requirement***

| Forecast revenue | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| | $000s | $000s | $000s | $000s | $000s |
| Aircraft and Freight Forecast Total Revenue Requirement | 3,912 | 3,994 | 4,079 | 4,164 | 4,252 |

## Revenue earned from Other Regulated Services during the most recent disclosure year

| Historic Disclosure | Year ended 2012 | Forecast Revenue Requirement | Forecast year ended 2013 |
|---|---|---|---|
| | $000s | | $000s |
| Other regulated Activities | 6,168 | Other regulated Activities | 6,116 |
| Aircraft and Freight | 3,832 | Aircraft and Freight | 3,912 |
| **Total** | **10,000** | | **10,028** |

This comparison reflects the relatively stable nature of the activities once the expanded ITP had been established.

## 2.7. Pricing Methodology

### 2.7.1. Summary of pricing methodology

**Clause 2.5 (2): Disclosures Associated with Pricing Methodology**

**Clause 2.5(2)(a) Summary of Pricing Methodology**

**Each airport must publicly disclose a summary of the airport's pricing methodology.**

**"Pricing methodology" is defined as the methodology or methodologies used by an airport to set standard prices, including all material assumptions, pricing principles, models, estimates, calculations and processes used as part of a price setting event.**

Our pricing methodology is broadly based on three elements:

- We estimate the long-run levelised constant real price required to recover our costs (NPV=0) over the economic life of the assets
- We make downward adjustments to this price to reflect:
    - The current economic conditions, and the need to assist airlines during the difficult times
    - The period of post-earthquake recovery, and the need to assist the Canterbury region and Christchurch in particular to go through the process of recovery. CIAL believes it should take some share of the burden in the form of a permanent financial under-recovery.

As a result, we:

- Delay the proposed price increases to 1 December 2012, hence forgoing additional revenue during 5 months of the pricing period.
- Introduce a partial initial price increase on 1 December 2012. These prices are substantially below the levelised constant real price.
- Introduce a further price increase on 1 January 2015. This increases prices to approximately the LRMC level (in other words, we do not anticipate significant price adjustments in the future, apart from the reviews associated with updates in volume forecast and similar temporal factors).

We believe our pricing methodology is appropriate for the recovery of the costs of the long-lived assets and the current market conditions:

- The levelised constant real price minimises future price shocks and ensures that the total cost of investment is allocated fairly between current and future users. Our revenue will grow with utilisation, ensuring that per unit charges for all users are not differentiated by whether the use occurs during the relatively low utilisation early period in the life of the asset or the relatively high utilisation late period in the life of the asset
- Our market driven downward adjustments to the levelised constant real price represent an efficient and fair sacrifice on the part of CIAL to help maintain air services during the current difficult market conditions and the slow recovery from the earthquake. We believe that by the time the 2015 price adjustment occurs, the market will have started recovering and the earthquake reconstruction will be well underway.

Two further elements enter into our pricing methodology:

- For the international terminal, we seek to recover a reasonable proportion of the cost through a fairly and consistently applied Passenger Service Charge (PSC). Forecast revenue from the PSC is subtracted from the long-term revenue requirement used for the calculation of the levelised constant real price.

Following feedback from the airlines, we have widened the application of the PSC to include children from 2-11 yrs old, to reduce the amount of revenue that needs to be raised from the international terminal charges. It is noted that in order to stimulate international travel, particularly long haul services, the per passenger charge for use of International terminal services has been held constant at the rate set in 2001,

- To improve the efficiency of charging, we propose the introduction of the fixed and variable charges for the airfield. The split of the total airfield charge into the fixed and variable components is based on the fact that the impact of each use on the airfield has two elements:
    - By occupying the airfield, taxiways and apron for a period of time, and aircraft imposes a cost which is related to the fact of utilisation, rather than the size of the aircraft. This cost is recovered through a fixed charge.
    - Different aircraft impose maintenance and other variable costs in proportion to their Maximum Take-off Weight (MCTOW). This cost is recovered through a variable charge.

We recognise that there is no single, perfect way to allocate airfield cost between utilisation and variable impact components. We have tested our proposed fixed and variable charges on the basis of professional advice about maintenance impact of different aircraft types and of the investment required to accommodate different aircraft types. The split of the airfield charges into the fixed and variable components, compared to the previous MCTOW charge, increases the proportion of the airfield cost recovered from the turbo-prop planes. We estimate that the proportion to be recovered from all types of aircraft is a reasonable approximation of the incremental cost of each type.

***Table 24: Forecast Revenue***

| | **Total for** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2013-2017** | **2018-2022** | **2013** | **2014** | **2015** | **2016** | **2017** | 2018 | 2019 | 2020 | 2021 | 2022 |
| Forecast revenue at proposed prices (nominal value) | **348.8** | 458.6 | **49.1** | **62.9** | **72.8** | **80.8** | **83.1** | 85.6 | 88.3 | 91.6 | 94.5 | 98.7 |
| Maximum Allowable revenue (nominal value) | **383.6** | 456.7 | **72.4** | **75.7** | **76.9** | **78.7** | **80.0** | 91.0 | 91.1 | 91.3 | 91.5 | 91.8 |

***Table 25: Forecast of Present Value returns for pricing periods***

| | **Total for the periods** | | | |
|---|---|---|---|---|
| | **2013-2017** | | **2018-2022** | |
| | **Nominal Value** | **PV** | **Nominal Value** | **PV** |
| Forecast revenue at proposed prices | **348.8** | 249.7 | 458.6 | 178.0 |
| Maximum Allowable revenue | **383.6** | 282.0 | 456.7 | 178.8 |

## 2.7.2. Description of charged services

**2.5(2)(b)(i) Description of Charged Services**

**Each airport must publicly disclose a description of charged services.**

**"Charged services" is defined as category or group of specified airport services in respect of which a standard charge applies**.

A "charged service" under the Determination means a category or group of specified airport services in respect of which a standard charge applies. CIAL's "charged services" in respect of the 2012 pricing decision cover airfield landing facilities and services (for which a landing charge applies) and passenger terminal charges for the use of terminal facilities, services and common costs associated with domestic turboprop/jet and international jet passenger movements.

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

- Runways and taxiways,
- Aprons, including hard stands and aircraft taxiways and manoeuvring areas,
- Airside safety services,
- Airport fire services,
- Asset management of airfield services, including planning, repairs and maintenance,
- An appropriate share of common costs associated with corporate wide functions (including executive management/Board, finance, human resources, information technology and shared Aeronautical functions), and an allocated share of infrastructure, including various utility networks and access ways.

Landing charges are charged on the basis of an aircraft's maximum certified take-off weight (MCTOW).

"Terminal services charges" are charged on the basis of the seat capacity of the respective aircraft charged on a $ per seat basis.

The terminal services charges include the facilities (assets) and operational costs associated with:

- Landside congregation, circulation areas, share of toilets and egress for passengers and visitors,
- Queuing areas for aviation security,
- Airside congregation, circulation, seating in public areas and a share of toilets in egress for passengers and visitors,
- Baggage make-up hall, baggage re-claim area, conveyer systems and baggage collection areas.
- Common use airbridges, terminal systems required for the processing and administration of passengers including security, flight information display, public address, building fire, CCTV and communication systems,
- Public facilities and services for aviation security, a share of building infrastructure and plant and operating costs associated with this plant and equipment,
- Operations staff and management to ensure the effective daily operation of the terminal and facilitation of passenger flows and interaction with airlines,
- Asset management services including planning repairs and maintenance for common use assets.
- A share of common costs associated with corporate wide functions (including executive management/Board, finance, human resources, information technology and shared aeronautical functions.

- A share of infrastructure including utility infrastructure networks, access roads and forecourts, and
- Operational areas for customs and Ministry of Primary Industries operational space

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

**2.5(2)(b)(ii) Relationship between Quality of Service and Cost for Each Charged Service**

**Each airport must publicly disclose a description of the relationship between the quality of service provided and the cost for each charged service.**

In developing the charge for each respective service, CIAL took into account the needs of the respective passenger groups and the appropriate costs necessary to meet the desired quality of service performance .

The development of the ITP including the integration with the international terminal has ensured that the functional and requisite quality of service has been delivered through the facilities provided, the space allocated, and the operational support requirement provided to the respective passenger services.

CIAL provides a number of key support functions to deliver quality service to customers and these include:

- *An Integrated Operation Centre* – a monitoring centre and support staffing which provides 24 hours coverage per day to enable the prompt resolution of minor service interruptions, CCTV monitoring, service breaches, alarm door activation, fire alarm monitoring and general customer service response via appropriately selected and trained staff within the IOC.
- *Emergency Operations Centre* – the provision of a fully equipped EOC activated and co-ordinated by CIAL. This operates under a co-ordinated management system, of which part of the services includes an emergency alerting system (EAS) which notifies all relevant stakeholders by text, including airline and relevant agencies with such notifications being targeted to the nature of the incident in question. The Canterbury earthquakes and other related incidents have improved the level of service and the experience provided by the EOC and IOC together, providing a significantly improved business capability for service performance over the pricing reset period.
- *Incident management* – the IOC co-ordinates all on-airport incidents including communications with airport services staff on the ground in the terminal to ensure the effective management of identified occurrences.
- *Facility services* – Propel, CIAL's in-house facilities management team, provides integrated asset management and preventative maintenance programmes and responds to breakdowns in facilities and utility infrastructure.
- *Airside* – a monitoring team for airside operations is also provided by CIAL which includes the provision of wildlife management (predominantly birds) and responds to and provides regular review of airfield assets including the removal of foreign object debris and responds to medical incidences in the terminal and on the campus where required.
- *Fire service* – a comprehensive emergency response service required under the Civil Aviation Authority 139 Regulations meeting the current Category 8 rescue fire service requirements.
- *Health and Safety* - CIAL leads and co-ordinates a health and safety management approach across the airport campus, and this includes not only operations under CIAL's operational jurisdiction but also monitoring and reviewing incidences which may occur across the campus through independent contractors and external service providers (who must comply with the airport health and safety permit system prior to the commencement of necessary works).

- *Airport Services* – the provision of a comprehensive team to deliver quality services for the facilitation of passengers throughout the terminals and the forecourts to ensure effective service performance standards are provided.
- *Sustainability* – CIAL operates a sustainable development ethos in the carrying out of airport operations, and has received annual recertification of its CarbonZero certification since the initial award in 2010.

Service quality is measured through customer feedback and periodic ad hoc surveys and quarterly independent ACI (Airport Council International) Airport Service Quality (ASQ surveys). In addition to the standard form of questions, carried out uniformly on a worldwide basis, CIAL also undertakes additional surveys to identify specific requirements for the delivery of service for passengers using Christchurch Airport.

In addition CIAL carries out a number of improvement projects to ensure the effective delivery of service and the promptness of passenger processing throughout the terminal to minimise disruption to the passenger experience from the carpark to the aircraft and return.

CIAL complies with all safety, operational and security requirements set by the Department of Labour, CAA, Airways, Aviation Security and the respective border agencies.

CIAL regularly reports on the reliability of material services provided to airlines and passengers, with details of such information being found in Schedules 11, 14 and 15 of CIAL's November 2012 annual disclosure.

The following quality metrics will also reported over the pricing period on an annual basis in relation to services covered by landing charges, including:

- Runway reliability, taxiway reliability, remote stands and means of embarkation/disembarkation,
- Contact stands and airbridges, baggage sortation system on departures,
- Baggage reclaim belts, and
- On-time departure delay.

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

- Airbridge reliability,
- Ease of way finding throughout the airport,
- Ease of making connection with other flights,
- Flight information display screens,
- Walking distance within the terminal,
- Availability of baggage carts/trolleys, courtesy, helpfulness of airport staff,
- 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 a safe and secure environment.

CIAL is committed to working with key stakeholders to improve the quality of the customer experience for both passengers and airlines. This is achieved through the use of a number of operational forums which meet on a

regular basis to consider operations and operational improvement. These forums result in a number of recommendations for improvement to the design of the facilities and the improvement of passenger flow throughout the terminals. The working groups including an airline working group, comprising CIAL, the airlines and ground handlers; a facilitation group involving CIAL and the many terminal based tenants including the airlines and government agencies; an airline operation committee established to promote understanding, co-operation and a close liaison between all members across the airport; and an airside safety group - all of which have a common interest to ensure the delivery of an efficient and effective service and to provide the necessary change to improve service experience. Through these groups CIAL strives for continuous improvement in the reliability of services that it delivers to airlines and customers who use Christchurch Airport.

In addition CIAL has established a people enablement strategy which recognised that there are multiple contact points throughout a passenger's journey through the airport, all of which need to be positive. This initiative involves all parties at the airport working together with a single objective of improving customer service excellence.

**Customer Satisfaction**

The new ITP to date has provided a significantly improved customer experience to all users of Christchurch Airport. Customer satisfaction is regularly monitored under the ASQ Survey and has significantly improved following the completion of the major stages of development through which significant increases in customer satisfaction have been achieved, with Christchurch Airport now being recognised, as monitored by the ACI ASQ survey, as a leading airport across Australasia in the provision of services and experiences to the travelling public.

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

**2.5(2)(b)(iii) Methodology Used to Allocate Costs to Particular Charged Services**

**Each airport must publicly disclose a description of the methodology used to allocate costs to particular charged services.**

CIAL has two major types of charged services in its 2012 pricing decision: landing charges and the terminal services charge, including international PSC charges. Together these represent 100% of the forecast revenue consulted on as part of the 2012 pricing reset.

Within each of these categories the following principles have been adopted:

- The approach taken to cost and asset allocation was based on the cost allocation IM, focusing on the allocation of costs to airfield, specified terminal activities and specified aircraft and freight activities.
- The advantage of this approach is to provide transparency in cost allocation and consistency with information disclosure requirements. High level assessments and pragmatic sense checks were made to ensure that the standard charges covered the costs associated with airfield and terminal services and common costs were allocated to minimise the distortion or cross-subsidisation.
- The broad principles of asset and cost allocation processes are provided in Appendix 2.

Below we provide a summary of the cost allocation process in relation to landing charges and terminal charges.

- ***Landing charges*** – costs allocated to the provision of landing services has involved the direct allocation of activities and costs relating to those activities. Firstly, where costs are directly attributable to activities, those costs are then allocated to that regulated activity. Where costs were not directly attributed to a single activity, then these have been allocated using an accounting based allocation approach where

possible cost and asset allocators have been based on current causal relationships. Where this was not possible, proxy allocators have been used.

In establishing the respective airfield charges a two tier pricing structure was created (for further detail, refer to the section in this disclosure on CIAL's pricing methodology. This involved both a fixed and variable component. The fixed component was based on an independent review carried out by BECA to provide a comparison between CIAL providing purely jet services and purely turboprop services to identify the relative differences in the costs of assets involved in such activity. While the fixed charge established was not directly in accordance with the value output of this analysis, it was decided that the fixed charge as set was reasonable when comparing the two extremes of a purely jet or purely turboprop airport.

The balance of the revenue as determined by the accumulation of costs was then attributed to the variable airfield costs that need to be recovered and was derived using a weight break basis for the respective aircraft types.

- ***Terminal charges*** **-** In determining the cost to be allocated to domestic turboprop and domestic jet passengers, specific consideration was made with respect to how passengers checked in and used the integrated baggage handling system - differentiating between the assets involved in the respective processes.

  This was necessary as the regional terminal, providing terminal services to turboprop aircraft, has been excluded from the passenger services charge for turboprop aircraft as this is charged under a separate commercial arrangement with Air New Zealand.

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

**2.5(2)(b)(iv) Significant Changes to, or Rebalancing of Prices from the Previous Pricing Period**

**Each airport must publicly disclose a description of significant changes to prices for charged services, including any rebalancing of prices, compared with equivalent services provided during the previous pricing period.**

In considering the individual categories of landing charges and terminal services charges the following points are made:

**Landing Charges**

- Landing charges previously have been based on a variable charge per MCTOW on a basis for aircraft configurations established in 2000. In developing the charges from 2012, CIAL had the objective of providing a cost structure which was more reflective of the costs incurred - many of which are independent of aircraft weight and include such elements as security, lighting and fire services and in particular, the overall provisioning of the airfield and support services to handle the number of aircraft movements. In determining this allocation of costs and the establishment of a fixed and variable cost structure CIAL applied the principle that where cost causation cannot be established any allocation of common costs should be such that:
  - All users pay at least their incremental costs, and
  - All users pay no more than their standalone costs.

  This is economically efficient in that no user or group of users are cross-subsidising any other user or group of users. As noted above, an incremental and standalone cost analysis of airfield charges was undertaken which identified that the proposed fixed charge was efficient in an economic sense and did not involve cross-subsidies, and also showed that turboprop aircraft were not bearing a disproportionate share of airfield costs.

- Following the establishment of the base fixed charge per aircraft, the balance of revenue was attributed on a variable charge basis differentiating between different aircraft weights. The revenue to be recovered under each category of jet and turboprop aircraft was determined applying the relative revenue ratio of turboprop to jet aircraft determined in 2000, and following an analysis of the trend profile of such revenue share over the last 5 years, it was determined that such a basis for variable charge allocation was still reasonable. Accordingly, it was applied in the setting of the variable MCTOW charges per aircraft type from 1 December 2012.

**Terminal Services Charge**

- There has been no major change to or rebalancing of prices for the use of terminal services. However, owing to the establishment of the three categories of turboprop, domestic jet, and international jet, appropriate allocations were made reflecting their use of assets and services provided particularly with respect to the ITP. Allocations of the use of assets and services were required based on the well-considered allocation factors and it is believed there is no cross-subsidy between the various domestic aircraft types.

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

**2.5(2)(b)(v) Methodology for Determining Pricing for Charged Services and How These Were Reconciled with the Forecast Revenue Requirement**

**Each airport must publicly disclose a description of the methodology for determining the proposed prices for charged services, and how those prices are reconciled with the forecast total revenue requirement.**

As explained previously, we did not seek to recover the entire revenue requirement over the pricing period. Our reconciliation with the forecast revenue requirement set out below shows the annual under-recovery.

The key issue here is how much of that under-recovery is final, and how much may be required to be recovered during future pricing periods. As we explained, we do not anticipate increasing prices above the levelised constant real price required to achieve NPV=0 (LRMC in our shorthand). In other words, any under-recovery relative to the revenue that would have been collected at LRMC prices is final. On the other hand, the gap between the revenue which would have been collected at LRMC prices and the Forecast Revenue Requirement is recoverable during future pricing periods. This recovery will occur by virtue of continuing to apply the levelised constant real price: in other words, it will not require deliberate price increases in the future.

*Table 26: Reconciliation of prices for charged services to forecast revenue for Standard Charges*

**RECONCILIATION OF FORECAST AERONAUTICAL REVENUE**

Unit 1,000,000

| | Unit Charge | FY13 July - Nov (5 months) | FY13 Dec - June (7 months) | FY14 | FY15 July - Dec | FY15 Jan - June | FY16 | FY17 |
|---|---|---|---|---|---|---|---|---|
| **Airfield** | | | | | | | | |
| **Landing charges** | | | | | | | | |
| Fixed charge - large aircraft | per movement | | 150.0 | 153.2 | 156.4 | 159.6 | 159.6 | 163.0 |
| Volume | | | 20,523 | 36,021 | 18,173 | 18,173 | 36,720 | 37,073 |
| Fixed charge - small aircraft | per movement | | 75.0 | 76.6 | 78.2 | 79.8 | 79.8 | 81.5 |
| Volume | | | 1,810 | 3,103 | 1,552 | 1,552 | 3,111 | 3,103 |
| Fixed revenue | | | 3,214,269 | 5,754,228 | 2,962,865 | 3,025,085 | 6,110,677 | 6,295,890 |
| **MCTOW charges** | | | | | | | | |
| Jet | $/MCTOW | | 12.3 | 14.4 | 14.7 | 19.0 | 19.0 | 19.4 |
| Volume | | | 818,368 | 1,428,650 | 727,232 | 727,232 | 1,485,651 | 1,500,935 |
| Turbo | $/MCTOW | | 7.8 | 8.7 | 8.9 | 11.5 | 11.5 | 11.8 |
| Volume | | | 239,500 | 436,002 | 218,263 | 218,263 | 439,389 | 443,312 |
| MCTOW revenue | | | 11,908,084 | 24,354,794 | 12,625,025 | 16,370,491 | 33,367,971 | 34,412,161 |
| **Total** | | **9,560,587** | **15,122,353** | **30,109,022** | **15,587,890** | **19,395,576** | **39,478,648** | **40,708,051** |
| **Total Airfield revenue for the year** | | | **24,682,940** | **30,109,022** | **34,983,466** | **34,983,466** | **39,478,648** | **40,708,051** |
| **Terminal** | | | | | | | | |
| **Int'l terminal** | | | | | | | | |
| **PSC charges** | | | | | | | | |
| Full PSC charge | $/eligible pax | | 11 | 11 | 11 | 11 | 11 | 11 |
| Child PSC charge | $/eligible pax | | - | 11 | 11 | 11 | 11 | 11 |
| Int'l PAX | | | 790,744 | 1,457,228 | 801,475 | 801,475 | 1,651,039 | 1,700,570 |
| Adult 93% | | | 735,392 | 1,355,222 | 745,372 | 745,372 | 1,535,466 | 1,581,530 |
| Children 6% | | | 43,965 | 81,022 | 44,562 | 44,562 | 91,798 | 94,552 |
| **PSC revenue** | | **5,982,973** | **8,162,847** | **15,942,303** | **8,768,266** | **8,768,266** | **18,062,629** | **18,604,508** |
| **Departing seat charge** | | | | | | | | |
| Departing seat charge | $/seat | | 3.53 | 3.53 | 3.53 | 3.53 | 3.53 | 3.53 |
| Volume | | | 518,724 | 889,241 | 479,669 | 479,669 | 1,013,101 | 1,066,610 |
| Revenue | | 232,283 | 1,831,095 | 3,139,021 | 1,693,232 | 1,693,232 | 3,576,247 | 3,765,133 |
| **Total** | | **6,215,257** | **9,993,942** | **19,081,323** | **10,461,498** | **10,461,498** | **21,638,875** | **22,369,641** |
| **Total International terminal revenuefor the year** | | | **16,209,199** | **19,081,323** | | **20,922,996** | **21,638,875** | **22,369,641** |
| **Domestic terminal - Jet** | | | | | | | | |
| Departing seat charge | $/seat | | 5.8 | 5.9 | 6.0 | 8.3 | 8.3 | 8.5 |
| volume | | | 1,063,459 | 1,977,165 | 997,905 | 997,905 | 2,006,432 | 2,002,713 |
| Revenue | | 782,449 | 6,168,064 | 11,708,376 | 6,033,491 | 8,316,262 | 16,721,046 | 17,040,544 |
| **Total for the year** | | | **6,950,512** | **11,708,376** | | **14,349,754** | **16,721,046** | **17,040,544** |
| **Domestic terminal - turboprop** | | | | | | | | |
| Departing seat charge | $/seat | | 1.86 | 1.90 | 1.94 | 2.67 | 2.67 | 2.73 |
| volume | | | 605,701 | 1,094,823 | 548,145 | 548,145 | 1,104,465 | 1,117,308 |
| Revenue | | 142,915 | 1,126,604 | 2,079,135 | 1,062,819 | 1,464,937 | 2,951,725 | 3,048,755 |
| **Total for the year** | | | **1,269,520** | **2,079,135** | | **2,527,757** | **2,951,725** | **3,048,755** |
| **Total forecast revenue** | | | **49,112,170** | **62,977,856** | | **72,783,972** | **80,790,295** | **83,166,991** |

### 2.7.7. Description of Terminal Service Charges

**2.5(2)(b)(vi) Terminal Service Charges**

> **Each airport must publicly disclose a description of any terminal access charges (even if these are bundled into other charges) and the methodology for determining any differentiation in terminal access charges on the basis of the means of access to the terminal (such as airbridge access, transfer bus access or walking access).**

There is no specific charge for terminal access in CIAL's Standard Charges. Access to the terminal is incorporated in the Terminal Services charge payable by airlines on the basis of a charge per seat based on the seat capacity of the specific aircraft. There are no explicit charges for airbridge or walking access. CIAL as a norm does not provide transfer bus access but if this was to occur as a requirement of an incident this would be an operating cost for CIAL to ensure effective service delivery.

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

**2.5(2)(c) Explanation of the Extent to Which the Airport Pricing Methodology Will Lead to Efficient Prices including whether there are any Cross Subsidies**

> **Each airport must publicly disclose an explanation of the extent to which the airport considers that the application of the pricing methodology will lead to efficient prices, including whether there are any cross-subsidies.**

Our analysis shows that the charging regime does not lead to any cross subsidies over the pricing period, relative to the revenue that would have been collected if levelised constant real prices for each component were applied from the start of the pricing period. Due to timing issues, the rates of recovery relative to the Forecast Revenue Requirement differ across the components.

CIAL believes that its pricing approach increases efficiency relative to an approach which would have simply sought to recover the Forecast Revenue Requirement. Since the ITP project is designed to accommodate volume growth, an attempt to recover the Forecast Revenue Requirement during the early years of the ITP's economic life would have resulted in higher prices, with prices then declining as utilisation increases. In effect, such an approach would mean that users during the early period would have paid more than users in the future.

We believe this would have been inefficient, as it might have suppressed demand during the early years, while incentivising congestion during later years. Our pricing approach minimises price shocks to the airlines while ensuring that all current and future users pay approximately the same inflation-adjusted charge.

In addition, we believe that the introduction of fixed and variable charges for the airfield increases the efficiency of our charging structure. Fixed charges send appropriate signals to owners of different sized aircraft about the utilisation of runways and ensure, in particular, that long-haul aircraft do not pay for more than their incremental impact on the runway assets

#### *CIAL believes that its charges will achieve outcomes consistent with the purpose of Part 4*

CIAL believes that the charges it has set are consistent with the purpose of Part 4. As we noted above, the IMs are an important benchmark for a significant part of the costs of service for airports, but there is much more to

setting prices than the costs represented by the IMs. CIAL needs to ensure that its forecasts of opex, capex and demand are accurate and take into account efficiencies, and also that the charges we set promote the efficient use of the airport, and reflect the requirement to achieve the required return on major infrastructure investment over the life of the asset.

Overall, CIAL believes that its charges will achieve outcomes consistent with the purpose of Part 4. While it is always CIAL's objective to provide airport services to its customers and the travelling public in a way that balances the needs of all stakeholders (with or without the incentives provided for by regulation), the circumstances produced by the Canterbury earthquakes have given this objective an added importance.

The table below explains how CIAL's pricing decision will achieve the outcomes in the purpose of Part 4.

| Part 4 outcome | How will CIAL's decision achieve that outcome? |
|---|---|
| Incentives to innovate and invest, including in replacement, upgraded, and new assets | The existence of incentives to invest is a product of CIAL's shareholders having an expectation of earning a reasonable return on the assets in which they invest.<br>CIAL received expert advice from PricewaterhouseCoopers on the appropriate cost of capital and carefully considered the WACC input methodology and feedback received from the airlines. On the basis of these considerations, we have concluded that the WACC adopted for this pricing reset is appropriate and will give CIAL's investors the expectation of earning a reasonable return. |
| Incentives to improve efficiency and provide services at a quality that reflects consumer demands | CIAL's forecasts of demand growth, opex and capex have taken into account expected efficiency gains , provided through the new ITP, and growth over the pricing period. CIAL will therefore need to achieve those efficiencies and growth if it is to recover its reasonable costs.<br>CIAL is constantly monitoring the quality of its service (as it is required to under information disclosure) and has procedures in place to address any concerns. CIAL expects that the quality of its service will improve significantly once the Integrated Terminal Project is completed. |
| Share with consumers the benefits of efficiency gains in the supply of regulated goods or services, including through lower prices | The charges we have decided on reflect a reasonable level of efficiencies, - provided through the new ITP that we expect to achieve over the pricing period. Our customers will therefore receive the benefits of those efficiency gains regardless of those efficiencies actually being achieved.<br>If we beat our forecasts, CIAL will retain the extra gains until the next price reset, at which point forecast operating costs for subsequent pricing periods will reflect such efficiencies achieved. |
| Limited in its ability to extract excessive profits | CIAL will be limited in its ability to extract excessive profits if it has reasonably assessed the costs of providing airport services and estimated an appropriate cost of capital.<br>CIAL is confident that it has reasonably assessed its costs. Two facts in particular lead us to this view:<br>• We have applied the asset valuation IM and our approach to cost allocation and tax is consistent with the IMs; and<br>• No major issues have been raised by the airlines in relation to our forecasts for opex, capex and demand.<br>For the reasons given above in relation to incentives to invest, CIAL is also confident that its estimated cost of capital is reasonable.<br>Any consideration of excessive profits has to be against the risks faced by the business. By delaying cost recovery, CIAL consciously takes on additional risks not reflected in the WACC |

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

**Clause 2.5(3): Disclosure of Standard Prices**

> **Each airport must publicly disclose a list of the airport's standard prices for all specified airport services, including whether the standard prices are inclusive or exclusive of GST.**

CIAL's Schedule of Standard Charges effective 1 December 2012 is attached as Appendix 1.

## PART C: CLAUSE 2.5 DISCLOSURE – DEMAND FORECASTS

### *1. SCHEDULE 19 – REPORT ON DEMAND FORECASTS* - Disclosed in accordance with clause 2.5(1)(a)(ii)

| | |
|---|---|
| Regulated Airport | Christchurch international airport Ltd |
| Pricing Period Starting Year Ended | 1 July 2013 |

**SCHEDULE 19: REPORT ON DEMAND FORECASTS**

*ref* *Version 2.0*

**19a: Passenger terminal demand**

| | | | | 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) | | | *for year ended* | 1 Jul 13 | 1 Jul 14 | 1 Jul 15 | 1 Jul 16 | 1 Jul 17 | 1 Jul 18 | 1 Jul 19 | 1 Jul 20 | 1 Jul 21 | 1 Jul 22 |
| Busy hour passenger numbers | Inbound passengers | Domestic | | 860 | 860 | 860 | 880 | 880 | 900 | 900 | 900 | 920 | 920 |
| | | International | | 840 | 940 | 1,000 | 1,020 | 1,040 | 1,060 | 1,080 | 1,100 | 1,120 | 1,140 |
| | | Combined * | | 1,400 | 1,460 | 1,520 | 1,540 | 1,540 | 1,560 | 1,580 | 1,580 | 1,580 | 1,600 |
| | Outbound passengers | Domestic | | 880 | 880 | 900 | 900 | 920 | 920 | 920 | 940 | 940 | 960 |
| | | International | | 820 | 900 | 980 | 1,000 | 1,000 | 1,020 | 1,040 | 1,060 | 1,080 | 1,080 |
| | | Combined * | | 1,260 | 1,380 | 1,440 | 1,440 | 1,460 | 1,460 | 1,480 | 1,480 | 1,480 | 1,500 |
| | | | | ** No disclosure of combined terminal forecasts is required for airports with no shared passenger terminal functional components.* | | | | | | | | | |
| Number of passengers during year | Inbound passengers | Domestic | | 2,040,844 | 2,081,478 | 2,133,324 | 2,186,927 | 2,241,522 | 2,297,425 | 2,353,577 | 2,414,211 | 2,461,926 | 2,511,302 |
| | | International | | 679,673 | 730,543 | 803,408 | 827,404 | 852,234 | 877,810 | 904,043 | 931,258 | 959,134 | 987,662 |
| | | Total | | 2,720,517 | 2,812,021 | 2,936,732 | 3,014,331 | 3,093,756 | 3,175,235 | 3,257,620 | 3,345,469 | 3,421,060 | 3,498,964 |
| | Outbound passengers | Domestic | | 2,072,528 | 2,114,162 | 2,167,207 | 2,221,117 | 2,276,723 | 2,333,777 | 2,393,404 | 2,451,445 | 2,501,043 | 2,550,927 |
| | | International | | 675,888 | 726,685 | 799,543 | 823,635 | 848,336 | 873,777 | 900,091 | 927,001 | 954,872 | 983,765 |
| | | Total | | 2,748,416 | 2,840,847 | 2,966,750 | 3,044,752 | 3,125,059 | 3,207,554 | 3,293,495 | 3,378,446 | 3,455,915 | 3,534,692 |
| | International transit and transfer passengers† | | | – | – | – | – | – | – | – | – | – | – |
| | | | | *† NB. Forecasts of international transit and transfer passenger numbers relate only to airports with extant or planned international transit and transfer facilities* | | | | | | | | | |

Page 5

Regulated Airport: **Christchurch international airport Ltd**
Pricing Period Starting Year Ended: **1 July 2013**

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

ref *Version 2.0*

### 19b: Aircraft Runway Movements

| | (000) | for year ended | Pricing Period Starting Year 1 Jul 13 | Pricing Period Starting Year + 1 1 Jul 14 | Pricing Period Starting Year + 2 1 Jul 15 | Pricing Period Starting Year + 3 1 Jul 16 | Pricing Period Starting Year + 4 1 Jul 17 | Pricing Period Starting Year + 5 1 Jul 18 | Pricing Period Starting Year + 6 1 Jul 19 | Pricing Period Starting Year + 7 1 Jul 20 | Pricing Period Starting Year + 8 1 Jul 21 | Pricing Period Starting Year + 9 1 Jul 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movements during busy period (total number of aircraft) | During the runway busy hour | | 24 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | During the runway busy day | | 228 | 233 | 235 | 237 | 239 | 241 | 243 | 246 | 248 | 250 |
| Landings during year (total number of aircraft) | Aircraft 30 tonnes MCTOW or more | | 17,284 | 16,990 | 17,289 | 17,535 | 17,705 | 17,848 | 17,924 | 18,200 | 18,394 | 18,860 |
| | Aircraft 3 tonnes or more but less than 30 tonnes MCTOW | | 21,054 | 22,186 | 22,211 | 22,348 | 22,523 | 22,666 | 22,861 | 23,090 | 23,199 | 23,698 |
| | Aircraft less than 3 tonnes MCTOW | | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 |
| | Total | | 49,911 | 50,749 | 51,073 | 51,456 | 51,801 | 52,087 | 52,358 | 52,863 | 53,166 | 54,131 |
| Landings during year (total MCTOW in tonnes) | Aircraft 30 tonnes MCTOW or more | | 1,402,917 | 1,428,650 | 1,454,464 | 1,485,651 | 1,500,935 | 1,521,582 | 1,536,582 | 1,565,264 | 1,580,497 | 1,624,086 |
| | Aircraft 3 tonnes or more but less than 30 tonnes MCTOW | | 410,571 | 436,002 | 436,526 | 439,389 | 443,312 | 446,374 | 450,648 | 455,449 | 457,899 | 467,723 |
| | Aircraft less than 3 tonnes MCTOW | | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 |
| | Total | | 1,996,412 | 2,047,576 | 2,073,914 | 2,107,964 | 2,127,171 | 2,150,880 | 2,170,154 | 2,203,637 | 2,221,320 | 2,274,733 |
| Landings during year (total number of aircraft) | Air passenger services—international | | 4,977 | 4,977 | 5,237 | 5,422 | 5,614 | 5,718 | 5,834 | 6,046 | 6,238 | 6,474 |
| | Air passenger services—domestic | | 33,309 | 34,147 | 34,211 | 34,409 | 34,562 | 34,744 | 34,899 | 35,192 | 35,303 | 36,033 |
| | Other aircraft | | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 | 11,573 |
| Landings during year (total MCTOW in tonnes) | Air passenger services—international | | 568,133 | 568,133 | 588,444 | 615,238 | 632,107 | 649,946 | 667,825 | 691,900 | 706,989 | 734,005 |
| | Air passenger services—domestic | | 1,244,004 | 1,295,167 | 1,301,194 | 1,308,449 | 1,310,789 | 1,316,659 | 1,318,052 | 1,327,461 | 1,330,056 | 1,356,452 |
| | Other aircraft | | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 | 182,924 |

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

Busy Hour passenger numbers is based on the Busy Hour and Stand Demand Forecast review by AirBiz

Number of passengers and aircraft movements during year is based on final CIAL forecast following airline feedback during the consultation process

## PART C:

## 1. DISCLOSURE RELATING TO DEMAND FORECASTS

CIAL 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 CIAL to provide a description of the basis for its forecasts, and/or assumptions made in forecasting.

In this section, CIAL sets out its demand forecast assumptions for it's:

- 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.

### 1.1. Facility Planning Forecasts

The forecast busy hour passengers were developed using the 30th busiest clock hour method as is required for the Commerce Commission disclosure reporting. The forecasts were prepared by analysing the relationship between historic busy and annual passenger throughputs and projecting this relationship to likely future levels.

***Table 27: 2012 Busy hour passenger forecasts***

| FY | Overall | | International | | Domestic | | Domestic Jet | | Domestic TP | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Arr | Dep | Arr | Dep | Arr | Dep | Arr | Dep | Arr | Dep |
| 2011 | 1,402 | 1,347 | 811 | 805 | 857 | 836 | 657 | 619 | 384 | 375 |
| 2012 | 1,340 | 1,260 | 760 | 760 | 840 | 860 | 600 | 640 | 400 | 400 |
| 2013 | 1,400 | 1,260 | 840 | 820 | 860 | 880 | 600 | 640 | 400 | 400 |
| 2014 | 1,460 | 1,380 | 940 | 900 | 860 | 880 | 620 | 660 | 400 | 400 |
| 2015 | 1,520 | 1,440 | 1,000 | 980 | 860 | 900 | 620 | 660 | 400 | 400 |
| 2016 | 1,540 | 1,440 | 1,020 | 1,000 | 880 | 900 | 620 | 660 | 400 | 400 |
| 2017 | 1,540 | 1,460 | 1,040 | 1,000 | 880 | 920 | 620 | 660 | 400 | 400 |
| 2018 | 1,560 | 1,460 | 1,060 | 1,020 | 900 | 920 | 640 | 680 | 420 | 400 |
| 2019 | 1,580 | 1,480 | 1,080 | 1,040 | 900 | 920 | 640 | 680 | 420 | 400 |
| 2020 | 1,580 | 1,480 | 1,100 | 1,060 | 900 | 940 | 640 | 680 | 420 | 400 |
| 2021 | 1,580 | 1,480 | 1,120 | 1,080 | 920 | 940 | 640 | 700 | 420 | 400 |
| 2022 | 1,600 | 1,500 | 1,140 | 1,080 | 920 | 960 | 660 | 700 | 420 | 420 |

TABLE 1-1 BUSY HOUR PASSENGER FORECASTS

***Table 28: Busy Hour/Day Runway movements***

| FY | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Runway Busy Hour and Day Demand** | | | | | | | | | | |
| Busy Hour Runway Movements | 24 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Busy Day Runway Movements | 228 | 233 | 235 | 237 | 239 | 241 | 243 | 246 | 248 | 250 |

We have summarised this busy hour information in Figure 2-3 to assist in understanding historic trends and fluctuations.

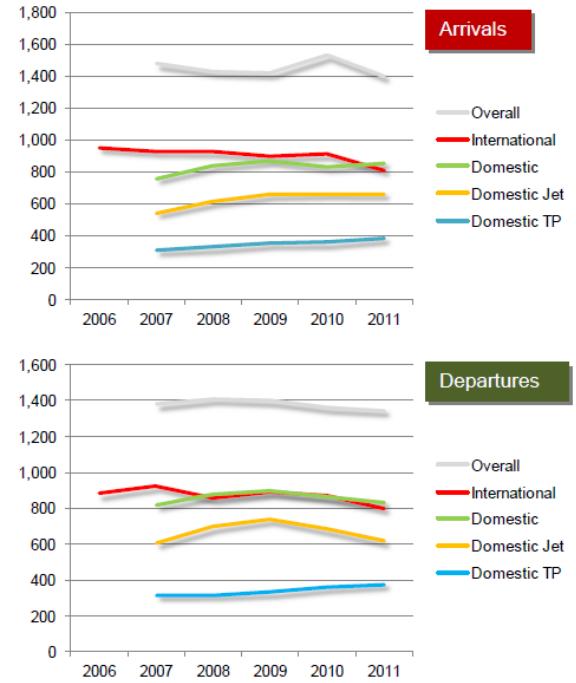



FIGURE 2-3 BUSY HOUR PASSENGERS

Peaking factors are calculated by dividing historic busy hour passengers by the annual passenger throughputs. These peaking factors have then been projected forward to FY2021. It is expected that the peaking factors will generally reduce as additional passenger growth leads to peak spreading. Figure 2-4 displays the historic and forecast peaking factors.

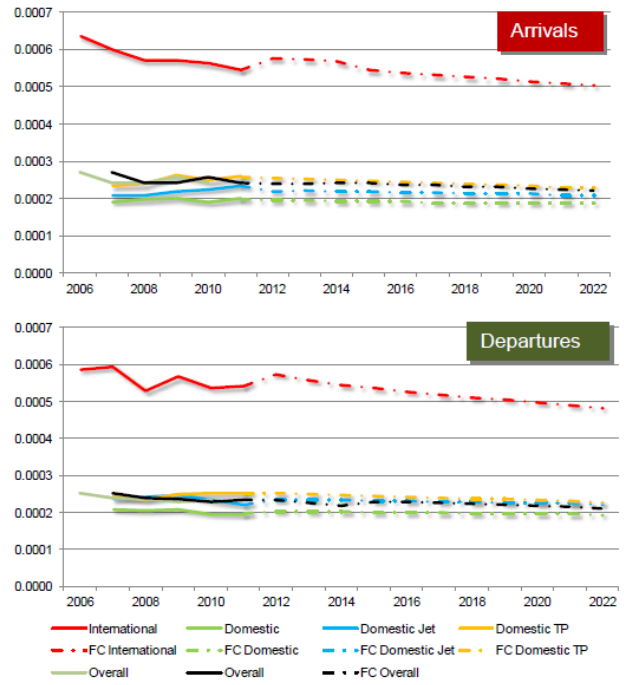



FIGURE 2-4 PEAKING FACTORS

### Overall – historic

- Due to the volume of domestic traffic over international traffic (x 2.9 in FY2011) the overall busy hour peak factor similar to the profile seen on the domestic market. Sixty-six percent of the flights within the busy hour are domestic movements.

### Overall - forecast

- Although the forecast passenger growth out to FY2022 favours international (x 2.2 in FY2022 versus x 2.9 in FY2011) and decreases the impact of the domestic busy hour on an overall busy hour we are forecasting the overall peak factor to continue to be similar to domestic.

## 1.2. Facility Planning Forecasts

### Methodology

The stand demand forecasts were prepared using the following method:

1. Select the operated schedule for the day that contained the 30th busiest hour in FY2011 form records provided by CIAL.
2. Analysed the selected schedule using the Airbiz Gate Allocation Program (GAP) to determine:
    a. Peak total stand demand.
    b. Peak active stand demand.
    c. Average aircraft passenger loads (passengers/aircraft movements).
    d. Average aircraft turnaround times (excluding layovers).

3. Project assumed future variables:
    a. Busy hour passengers for peak stand demand occurrence (projected growth at overall passenger growth rates individually identified for international, domestic jet and domestic turboprop).
    b. Average passenger aircraft loads (based on CIAL forecasts).
    c. Average aircraft turnaround times based on selected schedule.
4. Input variables into Airbiz Stand Projection Model to forecast active and non-active stands.
5. Apply aircraft codes to stand demand, matching the derived busy hour (from aircraft code type and passenger load) to the forecast busy hour.

The following tables are detailed in appendix 9, Airbiz Aviation, Busy Hour and Stand Demand forecast January 2013.

***Table 29: Stand analysis***

**International Forecasts**

| | Active | | | Non-Active | | |
|---|---|---|---|---|---|---|
| | F | E | C | F | E | C |
| **2011** | | 1 | 5 | | | 1 |
| **2012** | | 1 | 5 | | | 1 |
| **2013** | | 1 | 5 | | | 1 |
| **2014** | | 1 | 6 | | | 2 |
| **2015** | | 1 | 6 | | | 2 |
| **2016** | | 2 | 6 | | | 2 |
| **2017** | | 2 | 6 | | | 2 |
| **2018** | | 2 | 6 | | | 2 |
| **2019** | | 2 | 6 | | | 2 |
| **2020** | | 2 | 6 | | | 2 |
| **2021** | | 2 | 6 | | | 2 |
| **2022** | | 2 | 6 | | | 2 |

TABLE 3-4 INTERNATIONAL STAND DEMAND FORECASTS

**Domestic Jet Forecasts**

| | Active | | | Non-Active | | |
|---|---|---|---|---|---|---|
| | F | E | C | F | E | C |
| **2011** | | | 6 | | | 1 |
| **2012** | | | 6 | | | 1 |
| **2013** | | | 6 | | | 1 |
| **2014** | | | 6 | | | 1 |
| **2015** | | | 6 | | | 1 |
| **2016** | | | 6 | | | 1 |
| **2017** | | | 6 | | | 1 |
| **2018** | | | 6 | | | 1 |
| **2019** | | | 6 | | | 1 |
| **2020** | | | 6 | | | 1 |
| **2021** | | | 6 | | | 1 |
| **2022** | | | 6 | | | 1 |

TABLE 3-7 DOMESTIC JET STAND DEMAND FORECASTS

**Domestic Turboprop Forecasts**

| | Active | | | Non-Active | | |
|---|---|---|---|---|---|---|
| | E | C | B | E | C | B |
| **2011** | | 8 | 1 | | 1 | 1 |
| **2012** | | 8 | 1 | | 1 | 1 |
| **2013** | | 9 | 1 | | 1 | 1 |
| **2014** | | 9 | 1 | | 1 | 1 |
| **2015** | | 9 | 1 | | 1 | 1 |
| **2016** | | 9 | 1 | | 2 | 1 |
| **2017** | | 9 | 1 | | 2 | 1 |
| **2018** | | 9 | 1 | | 2 | 1 |
| **2019** | | 9 | 1 | | 2 | 1 |
| **2020** | | 10 | 1 | | 2 | 1 |
| **2021** | | 10 | 1 | | 2 | 1 |
| **2022** | | 10 | 1 | | 2 | 1 |

TABLE 3-8 DOMESTIC TURBOPROP STAND DEMAND FORECASTS

## 1.3. Aeronautical Pricing Forecasts

### Overview:

In developing the demand forecast to support the pricing proposal CIAL carried out a comprehensive assessment of the aircraft and passenger growth trends - both historic and forward outlooks, considering the following elements:

- A review of underlying trends as per New Zealand Tourism Council
- Discussions with airlines
- Forecast analysis based on historic growth
- An independent peer review by Airbiz

The demand forecast incorporated in the original pricing proposal was then amended to take account of the Canterbury Earthquakes (and continuing aftershocks) and the perceived impact of forward demand forecast. This was particularly relevant to international passenger traffic where very short term reductions had been experienced, particularly on long haul services.

An assessment was carried out, using Phuket as a benchmark to identify the potential forward growth impact following a major catastrophe event.

This forecast was reviewed by Airbiz considering the forward demand outlook for both aircraft and passenger movements and submitted to the airlines. Comments on these forecasts were received from airlines, both in terms of the international movements and domestic movements.

CIAL considered the airlines' comments and proposed that, subject to a reconsideration of the long haul demand forecast, the initial demand forecasts are appropriate for use in developing the price path. A key reason for retaining the initial demand forecasts in the proposal was that there was no consistent message from the airlines as to whether the demand forecasts were overstated or understated.

### *Review*

In considering CIAL's demand forecast in the initial Pricing Proposal comments were received from the airlines/ BARNZ with the broad conclusions being that:

- The international forward forecast was within a plausible range; however
- The domestic MCTOW and passenger forecasts were too low as a result of CIAL not taking sufficient account of the planned Air New Zealand fleet upgrades which will significantly increase the MCTOW

and seats offered by Air New Zealand domestically.

Air New Zealand provided CIAL with an update on their likely fleet reconfigurations for both Jet and Turboprop aircraft and these have been taken in to account in reviewing the initial demand forecast.

In addition, the final passenger demand forecast was updated taking account of the actual volumes for the year ending 30th June 2012, as this year sets the base on which future growth projections are then determined. This identified that the domestic market had dropped considerably more than initially estimated (-252,000 pax) and therefore the starting base for the future growth rates starts from a lower passenger baseline. On the other hand, the baseline passenger levels for the international passenger demand forecast increased (+104,000 pax).

## *Revision to demand forecast*

The demand forecast for the 5 years ending 30th June 2017 was revised following consideration of the comments received from the airlines and the updated Air New Zealand fleet configuration information. The key aspects of the revised forecasts are as follows.

### *Domestic Market*

- The forecast reflects the inclusion of additional aircraft on Christchurch routes, as per the Air New Zealand fleet configuration, commencing in the 2013 year with a subsequent increase in capacity for seats and MCTOW aircraft movements.
- A revision to the opening demand forecast levels (30th June 2012) on which the increase in demand forecast is then projected for the subsequent 5 years.
- Amendment to the demand forecast growth curve, taking account of the current estimate of the likely redevelopment programme for Christchurch and the recovery of tourism activity to the South Island, with Attachment 6 identifying the comparative annual movements incorporated.

### *International*

- In considering the Air NZ fleet reconfiguration CIAL noted that the demand forecast in the initial pricing proposal had already taken consideration of the reconfiguration of the Air New Zealand Jet fleet for the rationalisation of the A320 aircraft (with an increased seat capacity) through the replacement of the B737 aircraft.
- The starting point for the international demand forecast is now based on the revised forecast volumes for 30th June 2012.
- The incremental growth curve over the subsequent years has been amended to reflect a slightly less aggressive growth path in 2013 and 2014, owing to the improvement in 2012, but the overall growth level by 2015, 2016 and 2017 has been retained in line with the previous forecast.

The consequential impact of these revisions to the final demand forecast for passenger and aircraft movements and resulting MCTOW is detailed below.

# Final Demand Forecast

**Updated based on Airline Feedback**

*Table 30*

## Passenger Movements

| I/D | J/T | Values | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dom | | | | | Dom Pax | Dom %PY | Int | | Total Pax | Total %PY |
| FY | Jet Pax | %PY | Tprop Pax | %PY | | | | Pax | %PY | | |
| 2012 | 2,552,042 | | 1,480,676 | | | 4,032,718 | | 1,312,948 | | 5,345,666 | |
| 2013 | 2,581,560 | 1.2% | 1,531,813 | 3.5% | | 4,113,372 | 2.0% | 1,355,561 | 3.2% | 5,468,933 | 2.3% |
| 2014 | 2,611,787 | 1.2% | 1,583,853 | 3.4% | | 4,195,640 | 2.0% | 1,457,228 | 7.5% | 5,652,867 | 3.4% |
| 2015 | 2,674,460 | 2.4% | 1,626,071 | 2.7% | | 4,300,531 | 2.5% | 1,602,950 | 10.0% | 5,903,481 | 4.4% |
| 2016 | 2,744,949 | 2.6% | 1,663,095 | 2.3% | | 4,408,044 | 2.5% | 1,651,039 | 3.0% | 6,059,083 | 2.6% |
| 2017 | 2,810,166 | 2.4% | 1,708,079 | 2.7% | | 4,518,245 | 2.5% | 1,700,570 | 3.0% | 6,218,815 | 2.6% |
| 2018 | 2,880,136 | 2.5% | 1,751,066 | 2.5% | | 4,631,201 | 2.5% | 1,751,587 | 3.0% | 6,382,788 | 2.6% |
| 2019 | 2,952,717 | 2.5% | 1,794,264 | 2.5% | | 4,746,981 | 2.5% | 1,804,135 | 3.0% | 6,551,116 | 2.6% |
| 2020 | 3,028,641 | 2.6% | 1,837,014 | 2.4% | | 4,865,656 | 2.5% | 1,858,259 | 3.0% | 6,723,915 | 2.6% |
| 2021 | 3,089,174 | 2.0% | 1,873,795 | 2.0% | | 4,962,969 | 2.0% | 1,914,006 | 3.0% | 6,876,975 | 2.3% |
| 2022 | 3,149,233 | 1.9% | 1,912,996 | 2.1% | | 5,062,228 | 2.0% | 1,971,427 | 3.0% | 7,033,655 | 2.3% |

| I/D | J/T | Values | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dom | | | | | Dom Pax | Dom %PY | Int | | Total Pax | Total %PY |
| FY2 | Jet Pax | %PY | Tprop Pax | %PY | | | | Pax | %PY | | |
| 2013-2017 | 13,422,922 | | 8,112,910 | | | 21,535,832 | | 7,767,347 | | 29,303,179 | |
| 2018-2022 | 15,099,901 | 12.5% | 9,169,135 | 13.0% | | 24,269,036 | 12.7% | 9,299,414 | 19.7% | 33,568,450 | 14.6% |
| **2013-2022** | **28,522,823** | | **17,282,045** | | | **45,804,868** | | **17,066,761** | | **62,871,629** | |

## Aircraft Departures

| I/D | J/T | Values | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dom | | | | | Dom Deps | Dom %PY | Int | | Total Deps | Total %PY |
| FY | Jet Deps | %PY | Tprop Deps | %PY | | | | Deps | %PY | | |
| 2012 | 11,946 | | 18,733 | | | 30,679 | | 4,730 | | 35,409 | |
| 2013 | 11,872 | -0.6% | 19,196 | 2.5% | | 31,068 | 1.3% | 4,727 | -0.1% | 35,795 | 1.1% |
| 2014 | 11,578 | -2.5% | 20,328 | 5.9% | | 31,906 | 2.7% | 4,727 | 0.0% | 36,633 | 2.3% |
| 2015 | 11,617 | 0.3% | 20,353 | 0.1% | | 31,970 | 0.2% | 4,987 | 5.5% | 36,957 | 0.9% |
| 2016 | 11,678 | 0.5% | 20,490 | 0.7% | | 32,168 | 0.6% | 5,172 | 3.7% | 37,340 | 1.0% |
| 2017 | 11,656 | -0.2% | 20,665 | 0.9% | | 32,321 | 0.5% | 5,364 | 3.7% | 37,685 | 0.9% |
| 2018 | 11,695 | 0.3% | 20,808 | 0.7% | | 32,503 | 0.6% | 5,468 | 1.9% | 37,971 | 0.8% |
| 2019 | 11,655 | -0.3% | 21,003 | 0.9% | | 32,658 | 0.5% | 5,584 | 2.1% | 38,242 | 0.7% |
| 2020 | 11,719 | 0.5% | 21,232 | 1.1% | | 32,951 | 0.9% | 5,796 | 3.8% | 38,747 | 1.3% |
| 2021 | 11,721 | 0.0% | 21,341 | 0.5% | | 33,062 | 0.3% | 5,988 | 3.3% | 39,050 | 0.8% |
| 2022 | 11,721 | 0.0% | 21,562 | 1.0% | | 33,283 | 0.7% | 6,079 | 1.5% | 39,362 | 0.8% |
| | | | | | | | | | | | |
| 2013-2017 | 58,401 | | 101,032 | | | 159,433 | | 24,977 | | 184,410 | |
| 2018-2022 | 58,511 | 0.2% | 105,946 | 4.9% | | 164,457 | 3.2% | 28,915 | 15.8% | 193,372 | 4.9% |
| **2013-2022** | **116,912** | | **206,978** | | | **323,890** | | **53,892** | | **377,782** | |

## MCTOW for Departures (Tonnes)

| I/D | J/T | Values | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dom | | | | | Dom MCTO | Dom %PY | Int | | Total MCTO | Total %PY |
| FY | Jet MCTOW | %PY | Tprop MCTOW | %PY | | | | MCTOW | %PY | | |
| 2012 | 800,144 | | 361,426 | | | 1,161,570 | | 527,618 | | 1,689,187 | |
| 2013 | 817,913 | 2.2% | 372,024 | 2.9% | | 1,189,937 | 2.4% | 526,626 | -0.2% | 1,716,563 | 1.6% |
| 2014 | 841,175 | 2.8% | 397,455 | 6.8% | | 1,238,631 | 4.1% | 526,626 | 0.0% | 1,765,257 | 2.8% |
| 2015 | 846,720 | 0.7% | 397,979 | 0.1% | | 1,244,699 | 0.5% | 547,109 | 3.9% | 1,791,807 | 1.5% |
| 2016 | 851,274 | 0.5% | 400,842 | 0.7% | | 1,252,115 | 0.6% | 574,226 | 5.0% | 1,826,342 | 1.9% |
| 2017 | 849,723 | -0.2% | 404,765 | 1.0% | | 1,254,488 | 0.2% | 591,362 | 3.0% | 1,845,850 | 1.1% |
| 2018 | 852,726 | 0.4% | 407,827 | 0.8% | | 1,260,553 | 0.5% | 609,251 | 3.0% | 1,869,803 | 1.3% |
| 2019 | 849,646 | -0.4% | 412,101 | 1.0% | | 1,261,746 | 0.1% | 627,236 | 3.0% | 1,888,983 | 1.0% |
| 2020 | 854,431 | 0.6% | 416,902 | 1.2% | | 1,271,332 | 0.8% | 651,524 | 3.9% | 1,922,857 | 1.8% |
| 2021 | 854,728 | 0.0% | 419,352 | 0.6% | | 1,274,080 | 0.2% | 666,972 | 2.4% | 1,941,052 | 0.9% |
| 2022 | 854,656 | 0.0% | 423,786 | 1.1% | | 1,278,442 | 0.3% | 683,197 | 2.4% | 1,961,639 | 1.1% |
| | | | | | | | | | | | |
| 2013-2017 | 4,206,803 | | 1,973,066 | | | 6,179,869 | | 2,765,950 | | 8,945,819 | |
| 2018-2022 | 4,266,185 | 1.4% | 2,079,968 | 5.4% | | 6,346,153 | 2.7% | 3,238,180 | 17.1% | 9,584,333 | 7.1% |
| **2013-2022** | **8,472,988** | | **4,053,034** | | | **12,526,023** | | **6,004,130** | | **18,530,152** | |

## Freight Aircraft Demand Forecast

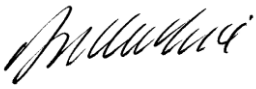
| Freight Demand Forecast | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Item** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** |
| **Aircraft Movements** | 2,543 | 2,543 | 2,543 | 2,543 | 2,543 | 2,543 | 2,543 | 2,543 | 2,543 | 2,543 |
| **MCTOW** | 114,863 | 114,863 | 114,863 | 114,863 | 114,863 | 114,863 | 114,863 | 114,863 | 114,863 | 114,863 |

**SCHEDULE 21**

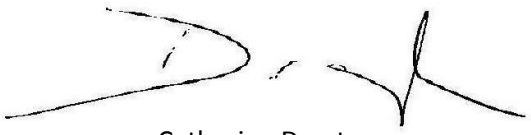
## CERTIFICATION FOR FORECAST TOTAL REVENUE REQUIREMENTS AND PRICING DISCLOSURES

### *Clause 2.7(2)*

We, David Mackenzie and Catherine Drayton being directors of Christchurch 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 Christchurch 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.



David Mackenzie
**Director**



Catherine Drayton
**Director**

## APPENDICIES

**Appendix 1:** Standard Charges effective 1 December 2012

**Appendix 2:** Summary Cost and asset Allocation process

**Appendix 3:** Depreciation rates

**Appendix 4:** Seagar, Land Valuation Report , 30 June 2009

**Appendix 5:** Seagar, Land Valuation Report , MVAU update 31 December 2011

**Appendix 6:** Opus Valuation – June 2011 Revaluation of Auckland International Airport Specialised Buildings

**Appendix 7:** Opus, Valuation June 2011 International terminal building

**Appendix 8:** Opus Valuation – June 2011 Valuation of Reclaimed Land and Seawalls, Runway, Taxiways, Aprons and Infrastructure Assets

**Appendix 9:** Airbiz Aviation, Busy Hour and Stand Demand Forecast January 2012

## Appendix 1

### Christchurch International Airport Limited

### Schedule of Standard Charges

### Effective 1 December 2012

| Standard Charges | | | | | | |
|---|---|---|---|---|---|---|
| **Metric** | | **1 December 2012** | **1 July 2013** | **1 July 2014** | **1 January 2015** | **1 July 2016** |
| All Charges are Exclusive of GST | | | | | | |
| **Airfield Charge (fixed charge per departure)** | | | | | | |
| Turbo Prop | 6000 - 20,000kg | 75.00 | 76.58 | 78.18 | 79.82 | 81.50 |
| | Over 20,000kg | 150.00 | 153.20 | 156.37 | 159.65 | 163.00 |
| Jet | | 150.00 | 153.20 | 156.37 | 159.65 | 163.00 |

| Airfield Services Charge ($ per variable departing Aircraft MCTOW) | | | | | |
|---|---|---|---|---|---|
| Turbo Prop | 7.76 | 8.72 | 8.91 | 11.55 | 11.79 |
| Jet | 12.28 | 14.38 | 14.69 | 19.04 | 19.45 |

| Terminal Services Charge ($ per departing Aircraft Seat Capacity) | | | | | | |
|---|---|---|---|---|---|---|
| International | | 3.53 | 3.53 | 3.53 | 3.53 | 3.53 |
| Domestic | Jet | 5.80 | 5.92 | 6.05 | 8.33 | 8.50 |
| | Turbo Prop | 1.86 | 1.90 | 1.94 | 2.67 | 2.73 |

| **Passenger Services Charge ($ per eligible arriving and departing passenger)** (*Note 1)* | | | | | | |
|---|---|---|---|---|---|---|
| PSC ( Passenger Service Charge) *Note 1* | $/ pax | 11.11 | $11.11 | $11.11 | $11.11 | $11.11 |

| **Parking Charges (daily or par thereof charge over 6hrs)** | |
|---|---|
| Commercial Aircraft | No charge |
| Itinerant Aircraft | Refer to CIAL for Schedule of Charges |

***Note 1:*** *Passenger Services Charge applies to all eligible arriving and departing international passengers,*

- *1 December 2012 – eligible passengers excludes infants, 2-11 years, diplomatic travellers and Military personnel, and from*
- *1 July 2013, eligible passengers only exclude diplomatic travellers and Military personnel.*

## Cost & Asset allocation process

CIAL has chosen to apply the input methodologies approach for the allocation of costs as determined by the Commerce Commission for information disclosure.

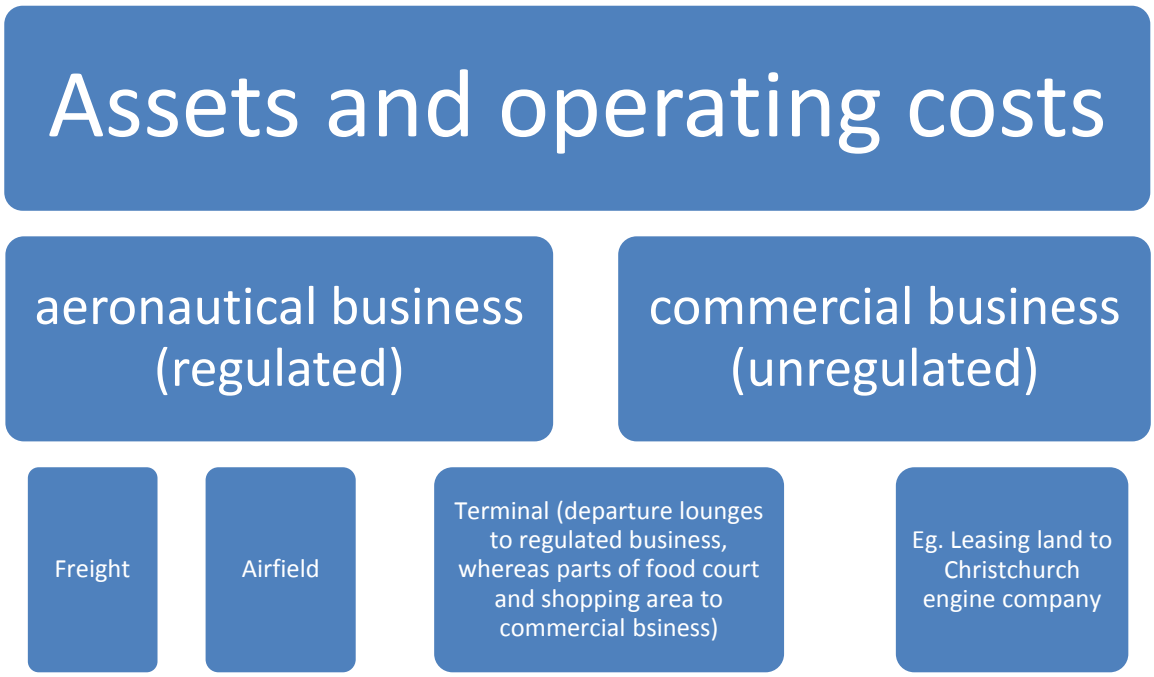
In this section, we:

- Summarise the cost allocation principles used in the input methodologies
- Discuss CIAL's allocation drivers; and
- Present and explain actual cost allocations

### Cost allocation drivers used in the input methodologies

The Commerce Commission's input methodologies involve allocating assets and operating costs between/across the three "Specified Airport activities"[1] and CIAL's unregulated commercial business:

- "aircraft and freight activities" (hangars, refuelling, freight storage, customers, etc.),
- "airfield activities" (runways, taxiways, parking aprons, airfield lighting, maintenance of aforesaid assets, fire and rescue services etc.) and
- "terminal services activities" (check-in, baggage handling, air bridges, passenger seating areas, public information systems etc.).




If a cost is directly attributable to one of the three activities, in so far as the asset or operating expenditure is solely and wholly caused by a single activity, then the cost is allocated directly to that regulated activity. Costs that are not directly attributable to a single activity must be allocated using the accounting-based allocation approach (ABAA). Where possible, cost and asset allocators must be based on current "causal relationships". Where this is not possible, proxy allocators must be used instead. CIAL refers to these causal relationships and proxies as "allocation drivers".

The allocation drivers used by CIAL are outlined in the "CIAL allocation drivers" section detailed below. If the airlines require any further information on the input methodologies for allocating costs, we refer them to the Commerce Commission website:

[1] http://www.legislation.govt.nz/act/public/1966/0051/latest/DLM379829.html

http://www.comcom.govt.nz/airports-2/.

## Allocation drivers

CIALs assets and activities are all identified by an asset / activity code (ASAC code). CIAL has approximately 300 ASAC codes which are aggregated into 11 groups, known as Primary Identifiers.

The 11 Primary identifiers are as follows:

| Primary Identifier | Activity |
|---|---|
| Airfield<br>Specified Terminal<br>Aircraft and Freight | Specified Activities as per Information Disclosure |
| Non-specified (contestable) terminal<br>Contestable property<br>Travel and Information<br>Carpark | Contestable Activities |
| Maintenance<br>Administration<br>Terminal<br>Farm | Shared activities to be allocated to specified and contestable identifiers |

Specified activities and contestable activities are allocated to a Primary Identifier based on their ASAC code. Shared activities are further reviewed to identify any relationship with a primary identifier, and are then reallocated.

In determining the costs incurred and their appropriate classification significant effort has been made to determine their primary causal effect. Where the costs have not been able to be directly allocated then the residual costs are allocated pro rata by the already determined directly allocated costs.

## Causal Relationships

## Operating Costs

In establishing the causal relationships for the allocation of operating costs the following are identified as the major categories;

- ***Personnel –*** Personnel costs were allocated by individually allocating each member of staff to Specified airport activities and Commercial activities. Estimations were necessary in this initial case for corporate staff but the majority of staff were able to be directly categorised.

  Where staff were allocated to Specified Airport Activities a further individual allocation was made to allocate a determined proportion to Airfield, Aircraft and Freight and Terminal Activities separately. Within Terminal Activities a further allocation was made to ensure that where activities relating to the terminal were incurred the question was considered as to whether they were covered by pricing or by separate commercial arrangements e.g. lease of lounges/offices to airlines. Where this was identified such costs were excluded from the labour costs allocated to pricing. Where labour costs were allocated to the terminal for pricing, a further consideration was made to allocate a relative proportion to the separate activities of international, domestic jet and domestic turboprop. This was

particularly pertinent to Airfield services and the Integrated Operations where an assessment was made of the time spent on the various activities on which the labour costs were then allocated.

- **Promotions and Airline Incentives** – as noted earlier these costs are related to the promotion of Christchurch as a destinations and an allowance for incentives to promote to routes. These costs have been allocated across the activities/services that such costs relate to. The costs have been allocated on the basis of applicable revenues that are generated by such additional costs. The vast majority (64%) of the costs have been allocated to international terminal and commercial revenue streams.
- ***Consulting Fees*** – these costs have reduced over prior years as in-house skills were developed to meet these particular business needs. Consulting costs for specific needs e.g. planning are directly attributable to the activity concerned with the balance being allocated to activities based on the most recent Disclosure Financial Statements allocation ratio.
- ***Insurance*** – Insurance costs have increased dramatically as a consequence of the September 2010 and February 2011 earthquakes. CIAL achieved a renewal of insurance cover capacity to meet business requirements and premiums were allocated on the basis of the Insurance value cover for the various activities. Premiums allocated to the terminal were then allocated by footprint share to determine the relative share for pricing activities within the specified terminal activities.
- ***Energy*** – This has been allocated on the basis of an independent audit carried out by Enercon, an independent Energy Consultant. This audit assessed the proportion of energy consumed by the Integrated terminal, the international terminal and the regional terminal. Once this initial assessment had been made the energy cost for each building was then allocated to the various activities based on footprint ratio.
- ***Cleaning*** – This cost has incorporated the additional cost arising from the increased footprint of ITP and the total has been allocated on the basis of footprint ratio.
- ***Maintenance*** – this cost assumed the relative ratio of maintenance between the various terminal components reflected the age of the various structures and for the pricing period assumed there was a higher cost in the international terminal (owing to age) as compared to the new ITP (a new building). The allocation to activity was then on the basis of footprint ratio.
- ***Other Operating Costs***- This cost item includes the one off costs of realignment for the new regulatory regime and the incremental ITP operating costs incurred to maintain services to airport users whilst the new ITP was being completed. Such costs in general have been allocated on cause e.g. regulatory costs applying to pricing activities (less an amount for Aircraft and Freight activities), staging costs based on terminal capital cost, and Baggage Handling Operations to aeronautical activity. The balance of the other operating costs that have not been directly allocated were then allocated on the same proportion of costs as per the most recent Disclosure Financial Statements (30 June 2010).
- ***Other Administration*** – Direct costs have been directly attributed to activities e.g. Insurance (see above) with the balance allocated to activities on the same proportion of costs as per the most recent Disclosure Financial Statements. Costs allocated to the terminal were then allocated on footprint ratio.

These costs have then been applied to the building block model in deriving the revenue requirement.

## Resulting Allocation

The application of the causal principles resulted in the following summary of allocations:

**CIAL SUMMARY OF COSTS BY PRICING CATEGORY**
**FY2013-17 ($'000's)**

| Category | FY 13 | FY 14 | FY 15 | FY 16 | FY 17 | TOTAL $ | TOTAL % |
|---|---|---|---|---|---|---|---|
| Airfield | 10,497 | 11,337 | 11,523 | 11,777 | 12,034 | 57,167 | 42% |
| Terminal International | 7,654 | 8,138 | 8,337 | 8,586 | 8,775 | 41,489 | 31% |
| Terminal Domestic - Jet | 5,210 | 5,596 | 5,710 | 5,830 | 5,952 | 28,298 | 21% |
| Terminal Domestic - Turbo Prop | 1,583 | 1,677 | 1,710 | 1,746 | 1,783 | 8,499 | 6% |
| **Costs Included in Airline Pricing** | **24,943** | **26,749** | **27,279** | **27,938** | **28,543** | **135,452** | **100%** |

## Assets

## Overview of Asset Allocation

All assets are allocated an asset or activity code (ASAC code) on the basis of the driver of the asset cost. The driver of the asset cost is based on function. The ASAC codes are in turn mapped to a primary identifier.

Where there is no unique driver for an asset, the remaining unallocated assets are allocated on the same percentage basis as similar assets which have a prime identifier e.g. non-allocated sewer lines are proportionally allocated based on primary identifiers with sewer lines.

## Integrated Terminal

The new integrated terminal supports both a combination of international and domestic services. In addition, the domestic operation supports jet services separately from turboprop services. In setting the revenue requirement the following group of services has been differentiated:

1. International
2. Domestic Jet, and
3. Turboprop

All three services have specific requirements for their operations and have been priced separately. All assets and the costs that are allocated to the determination of allowable revenue for the purpose of total airline pricing have had a further allocation between international, domestic jet and turboprop.

The footprint of the terminal has been determined in a finished state for ITP. A summary plan showing the total terminal facility as allocated into its respective activity groupings is detailed on Attachment 14.

The integrated terminal in total, as shown in table 18 below, has been allocated into 3 separate buildings, identified as Buildings 104,105 and 106, as identified on the footprint plan.

- ***Building 104*** is the middle section of the building and predominantly services domestic jets. It also incorporates areas which support the international and turboprop services, such as check-in counters, and the integrated baggage handling system.
- ***Building 105*** predominantly services the international terminal.
- **Building 106** is the regional lounge which supports the Air New Zealand Turboprop business, and is totally excluded from pricing as this infrastructure is covered under a separate commercial arrangement with Air New Zealand.

## Allocation of Total Floor Area to Designated Areas of the Terminal

***Table 18:***

| CIAL Completed Terminal Floor Plan (SQM) | | | | |
|---|---|---|---|---|
| **Description (CAD Drawings)** | **104** | **105** | **106** | **TOTAL** |
| Airbridges | 636 | 767 | - | 1,403 |
| Airline Lounge | 2,196 | 1,347 | - | 3,543 |
| Airline Leased | 1,831 | 1,660 | 2,942 | 6,433 |
| CIAL Facilities | 564 | 608 | - | 1,172 |
| Check-in Counters | 2,417 | - | - | 2,417 |
| Domestic Baggage Reclaim | 863 | - | - | 863 |
| Integrated BHS | 5,110 | - | - | 5,110 |
| International Baggage Reclaim | - | 1,282 | - | 1,282 |
| Leased Security & Border Control Space | 426 | 982 | - | 1,407 |
| Public & Common | 9,536 | 17,122 | 74 | 26,732 |
| FoodHall | 714 | - | - | 714 |
| Retail | 3,780 | 3,781 | 901 | 8,462 |
| Security & Border Control Space | 210 | 121 | 45 | 376 |
| Swing Gate Airbridge | 11 | 1,913 | - | 1,924 |
| Swing Gate | 251 | 137 | - | 387 |
| Toilet, Plant & Vertical Circulation | 6,147 | 4,108 | 583 | 10,838 |
| Vacant Rentable Space | 271 | 894 | 459 | 1,624 |
| **TOTAL** | **34,961** | **34,721** | **5,004** | **74,687** |

Each of the spaces is then allocated on the basis of whether the space is included or excluded from the airline pricing calculation. Areas used for 'specified airport services' which are leased by airlines, such as the regional lounge, and check-in counters are treated as commercial spaces and are excluded from the five year pricing calculation.

## ITP Capital Investment and Cost allocations

| Cost Summary - ITP *Excluding Capitalised Interest* | | | Total Build Cost $000's |
|---|---|---|---|
| Airfield | | | 18,675 |
| Domestic Terminal - Turboprop | 11,302 | | |
| Domestic Terminal - Domestic Jet | 66,979 | | |
| Total Domestic Terminal | | | 78,281 |
| International Terminal | | | 38,208 |
| Check-in Counters | | | 12,250 |
| **TOTAL AERONAUTICAL** | | $ | 147,415 |
| **TOTAL COMMERCIAL** | | $ | 68,048 |
| **TOTAL ITP DEVELOPMENT** | | $ | 215,463 |

*NOTE – excludes capitalisation of interest on the construction up to the date of commissioning*

## Method of Capital Cost Allocation

Rawlinson have compiled a summary from their QS estimates for the project costs, compiling the total cost from the sum of the following;

- Building Cost
- P&G Costs
- Staging Costs
- Contingency Allowance
- Professional Fees
- CIAL costs incurred directly related to the Capital Project
- Project Reserve for Scope changes
- Minor Works, and
- Escalation costs incurred over the project lifecycle

The allocation of costs such as contingency, Professional Fees and the like has been made on the basis of Rawlinson's best professional judgement to determine the final cost outcome for the various components of work.

These final costs have been then used as the basis for the allocation of costs to the various aspects of Business activity.

In addition to the total cost above, interest incurred on financing the development to the date of commissioning has also been incorporated into the final additional asset cost. This amount has been applied in the proportion of the basis of the total capital cost allocated.

**CIAL Depreciation Rates for Future Capital Expenditure**

The depreciation Rates used for accounting purposes are based on the following;

- All assets except those revalued by the ODRC method (Terminals, Sealed Surfaces and Infrastructure Assets), are depreciated on a straight line basis based writing the cost off over the useful economic life as disclosed in the IRD publication IR265, General Depreciation Rates.
- Assets that are revalued using the ODRC methodology are depreciated using the rates specified by the valuer at the time of revaluation. Any additions to these asset classes during the period between revaluations are depreciated on a straight line basis so as to write off the cost price over the useful economic life as disclosed in the IRD publication IR265, General Depreciation Rates.

| Asset Categories | Est Useful life (years) | Straight line Depreciation Rate |
|---|---|---|
| | | |
| ***Buildings and structures (BUIL) (note: the rate for buildings with an estimated useful life of 50 years or more is 0% from the 2011-12 income year)*** | | |
| Aprons (airports) | 50 | 2% |
| Borewells | 20 | 5% |
| Buildings (default class) | 40 | 3% |
| Buildings (portable) | 12.5 | 8% |
| Buildings with prefabricated stressed-skin insulation panels | 33.3 | 3% |
| Carparks (building and pads) | 50 | 2% |
| Driveways | 50 | 2% |
| Fences | 20 | 5% |
| Hardstandings | 50 | 2% |
| Lampposts (excluding wooden) | 25 | 4% |
| Manholes | 50 | 2% |
| Roadways | 50 | 2% |
| Runways (for airports) | 33.3 | 3% |
| Signs (road) | 6.66 | 15% |
| Signs (street nameplates) | 6.66 | 15% |
| Taxiways (airports) | 50 | 2% |
| ***Building fit-out (when in books seperately from building cost) (BDFO)*** | | |
| Aerials (for televisions) | 15.5 | 6% |
| Air conditioners (split system) | 10 | 10% |
| Air conditioning systems | 20 | 5% |
| Air conditioning systems (in use 24 hours a day) | 12.5 | 8% |
| Alarm systems (fire) | 20 | 5% |
| Alarms (burglar) | 8 | 13% |
| Appliances (domestic type) | 8 | 13% |
| Awnings | 10 | 10% |

| | | |
|---|---|---|
| Blinds | 8 | 13% |
| Building fit-out (default class) | 20 | 5% |
| Carpets (modular nylon tile construction) | 15.5 | 6% |
| Carpets (other than modular nylon tile construction | 5 | 20% |
| Ceilings (suspended) | 20 | 5% |
| Doors (roller and similar) | 12.5 | 8% |
| Electrical reticulation | 25 | 4% |
| Escalators | 20 | 5% |
| Fences | 20 | 5% |
| Flagpoles | 25 | 4% |
| Flooring (parquet) | 15.5 | 6% |
| Furnture (fitted) | 15.5 | 6% |
| Generators (standby) | 25 | 4% |
| Grills (roller and similar) | 15.5 | 6% |
| Hand dryers (air type) | 3 | 33% |
| Hand soap dispensers | 2 | 50% |
| Handrails | 25 | 4% |
| Heating systems | 20 | 5% |
| Hose reels (fire) | 25 | 4% |
| Lifts | 25 | 4% |
| Light fittings | 10 | 10% |
| Light controllers (emergency) | 12.5 | 8% |
| Meters (water) | 15.5 | 6% |
| Monitoring systems | 10 | 10% |
| Motors (for roller doors) | 10 | 10% |
| Paper towel dispensers | 2 | 50% |
| Partitions (demountable) | 15.5 | 6% |
| Partitions (non-load bearing) | 20 | 5% |
| Plumbing | 20 | 5% |
| Plumbing fixtures | 25 | 4% |
| Pumps (heat) | 10 | 10% |
| Sanitary appliances | 8 | 13% |
| Security systems | 10 | 10% |
| Signs (electric) | 10 | 10% |
| Signs (other than electric) | 20 | 5% |
| Smoke detectors | 20 | 5% |
| Sprinkler systems | 25 | 4% |
| Vinyl flooring | 10 | 10% |
| Water heaters (no over-sink type) | 15 | 7% |
| Water heaters (over sink) | 10 | 10% |
| Watering systems | 3 | 33% |
| ***Computers (COMP)*** | | |
| Cabling | 6.66 | 15% |
| CAD/CAM equipment | 4 | 25% |
| Computer equipment | 4 | 25% |
| Disk drives (for use with personal computers) | 4 | 25% |
| Laptop computers | 4 | 25% |

| | | |
|---|---|---|
| Mini computers | 4 | 25% |
| Network servers | 4 | 25% |
| Notebook computers | 4 | 25% |
| Personal computers | 4 | 25% |
| Plotters | 5 | 20% |
| Printers | 5 | 20% |
| Routers | 4 | 25% |
| Scanners | 4 | 25% |
| Voicemail equipment | 4 | 25% |
| ***Office equipment and furniture (OFUR)*** | | |
| Answering machines (for telephones) | 3 | |
| Calculators | 3 | 33% |
| Chairs | 12.5 | 8% |
| Coin and note counters | 8 | 13% |
| Desks | 15.5 | 6% |
| Filing Cabinets | 15.5 | 6% |
| Furniture (fitted) | 20 | 5% |
| Furniture (loose) | 12.5 | 8% |
| Office equipment (default class) | 5 | 20% |
| Office furniture (default class) | 12.5 | 8% |
| PA systems | 5 | 20% |
| Photocopiers | 5 | 20% |
| Radios | 5 | 20% |
| Screens (for offices) | 15.5 | 6% |
| Security systems | 10 | 10% |
| Shelving (fixed) | 20 | 5% |
| Tables | 15.5 | 6% |
| Telephone systems | 6.66 | 15% |
| Whiteboards (electronic) | 5 | 20% |
| ***Pumping sets (where not industry specified) (PUMP)*** | | |
| Borewell Pumps | 10 | 10% |
| Submersible pumps | 10 | 10% |
| ***Reticulation systems, including power generation (excluding electrical, communications and gas reticulation) (RETC)*** | | |
| Piping (for stormwater) | 25 | 4% |
| Piping (for water) | 25 | 4% |
| Temperature probes (portable) | 5 | 20% |
| Valves (for sewerage) | 25 | 4% |
| Valves (for stormwater) | 25 | 4% |
| Valves (for water) | 25 | 4% |
| | | |
| ***Software (SOFT)*** | | |
| The copyright in software, the right ot use the copyright in software or the right to use software | 4 | 25% |
| ***Transportation (TRAN)*** | | |
| Airport runways | 33.3 | 3% |
| Fire engines | 20 | 5% |

| | | |
|---|---|---|
| Forklift trucks (under 8 tonnes) | 10 | 10% |
| Motor vehicles - class NA (for transporting light goods, gross vehicle mass up to 3.5 tonnes) | 10 | 10% |
| Motor vehicles - class NB (for transporting medium goods, gross vehicle mass over 3.5 tonnes but not over 12 tonnes) | 12.5 | 8% |
| Motor vehicles - class NC (for transporting heavy goods, gross vehicle mass over 12 tonnes) | 10 | 10% |
| Trailers classes TA and TB (for transporting light goods, gross vehicle mass up to 3.5 tonnes) excluding domestic trailers | 15.5 | 6% |
| Trailers - Class TC (for transporitng medium goods, gross vehicle mass over 3.5 tonnes, but not over 10 tonnes) | 20 | 5% |
| Trailers - Class TD (transporting heavy goods, gross vehicle mass over 10 tonnes) | 15.5 | 6% |
| ***Water and effluent treatment (where not industry specified) (WATR)*** | | |
| Borewells | 20 | 5% |
| Piping (fibrous cement) | 25 | 4% |
| Piping (plastic) | 25 | 4% |
| Water and effluent treatment plant and equipment (default class) | 25 | 4% |
| | | |