



Investigation into Metro Tasmania Pty Ltd's pricing policies

Final Report

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The Office of the Tasmanian Economic Regulator

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
CONTEXT FOR THE INVESTIGATION	I
COMPARATIVE PERFORMANCE.....	II
Indec Report.....	III
EFFICIENT COSTS AND MAXIMUM REVENUE NEEDS.....	V
Capital costs.....	V
Operating and maintenance costs.....	VIII
ADULT FARES	X
ALTERNATIVE FARE STRUCTURE	XII
Maximum fares – new fare structure	XVI
METRO INDEX	XVII
SUMMARY OF RECOMMENDATIONS	XXI
MAXIMUM REVENUES.....	XXI
MAXIMUM FARES.....	XXI
Full and peak adult fares	xxi
ALTERNATIVE FARE STRUCTURE	XXI
METRO INDEX	XXII
1 INTRODUCTION	1
1.1 TERMS OF REFERENCE	1
1.2 MATTERS TO BE TAKEN INTO ACCOUNT	2
1.3 STRUCTURE OF THIS REPORT	3
2 METRO OPERATIONS	5
2.1 BACKGROUND	5
2.2 CURRENT CONTRACTUAL ARRANGEMENTS.....	5
2.2.1 Fare controls.....	6
2.3 METRO SERVICES.....	6
2.3.1 Service standards under the New Service Contract (NSC).....	7
2.3.2 Service reviews.....	7
2.4 PATRONAGE	9
2.4.1 Current patronage.....	9
2.4.2 Patronage trends	12
2.4.3 Factors influencing public transport patronage	14

2.4.4	Journey to work	15
2.4.5	Metro patronage initiatives.....	17
2.4.6	Patronage forecasts.....	17
2.5	KEY DEVELOPMENTS SINCE THE 2009 INVESTIGATION	18
3	METRO REVENUES.....	21
3.1	SOURCES OF REVENUE	21
3.2	GOVERNMENT FUNDING	21
3.2.1	Contract payments.....	21
3.2.2	Additional government funding	22
3.3	OWN SOURCE REVENUES	22
3.3.1	Fare revenue	22
3.3.2	Other revenue.....	24
4	COMPARATIVE PERFORMANCE	25
4.1	INTRODUCTION.....	25
4.2	METRO'S FORECAST FINANCIAL PERFORMANCE	25
4.2.1	Capital costs	27
4.2.2	Operating and maintenance costs	27
4.3	COMPARATIVE PERFORMANCE	30
4.3.1	Metro's performance over time	30
4.3.2	Public sector comparisons.....	34
4.3.3	Private sector comparisons.....	36
4.3.4	Normalised comparison and best practice comparator.....	37
4.3.5	Summary and conclusions - Indec Report.....	39
5	REGULATOR'S ASSESSMENT OF EFFICIENT COSTS AND MAXIMUM REVENUE NEEDS	43
5.1	APPROACH	43
5.2	CAPITAL COSTS.....	43
5.2.1	DDA compliance costs.....	44
5.2.2	Capital expenditure	47
5.2.3	Return on capital.....	49
5.2.4	Depreciation.....	52
5.2.5	Alternative approaches to capital allowances and valuation of assets.....	53
5.2.6	Capital allowances.....	53
5.3	OPERATING AND MAINTENANCE COSTS.....	54
5.3.1	Bus hourly costs	55
5.3.2	Bus kilometre costs.....	56
5.3.3	Bus overhead costs	57
5.3.4	Summary of Regulator's conclusions on operating costs	58
5.4	RECOMMENDED MAXIMUM REVENUES	60

6	ADULT FARES.....	63
6.1	INTRODUCTION	63
6.2	2009 INVESTIGATION FINDINGS.....	64
6.3	METRO'S CURRENT FARES.....	64
6.4	COMPARATIVE FARES.....	66
6.4.1	Tasmanian private operator fares	66
6.4.2	Interstate fare comparisons	68
6.5	REGULATOR'S ASSESSMENT.....	69
6.5.1	Relationship between costs and fares revenue.....	69
6.5.2	Peak cost recovery	73
6.5.3	Full cost recovery for all services	74
6.5.4	Patronage responses to changes in fares.....	74
6.5.5	Subsidy of adult fares	74
6.5.6	Maximum fares	75
7	ALTERNATIVE FARE STRUCTURES.....	77
7.1	INTRODUCTION	77
7.2	METRO'S PROPOSED URBAN FARE STRUCTURE.....	77
7.2.1	Zonal-based fares	77
7.2.2	Distance-based concession fares	78
7.2.3	Differentiation of the urban student flat fare	79
7.2.4	Peak and off-peak fares.....	79
7.2.5	Weekly and monthly passes	79
7.2.6	Modification of the Greencard daily cap.....	80
7.2.7	Cessation of cash day tickets and cash ticket transfers.....	80
7.2.8	Summary	80
7.3	FARE STRUCTURES AND SYSTEMS IN OTHER JURISDICTIONS.....	81
7.4	ASSESSMENT OF ALTERNATIVE FARE STRUCTURES	85
7.4.1	Simplicity and comprehensibility	85
7.4.2	Equity.....	87
7.4.3	Availability of technological capability to support those structures	90
7.4.4	Relativities between existing fare categories	90
7.4.5	The need for a transition path while avoiding price shocks for any particular passenger group	91
7.4.6	Consistency with government policy	92
7.4.7	Peak and off-peak fares, incentivising fare pre-payment and reducing or eliminating the opportunity for underpayment	95
7.4.8	Summary	97
7.5	OTHER ISSUES RAISED IN SUBMISSIONS.....	100
7.6	REGULATOR'S CONCLUSION	101
7.6.1	Maximum fares – Metro's proposed alternative fare structure	101

- 8 METRO INDEX REVIEW..... 103**
 - 8.1 METRO INDEX 103
 - 8.1.1 Background..... 103
 - 8.1.2 Current Metro Index and 2009 recommendations..... 104
 - 8.2 COST WEIGHTS 105
 - 8.2.1 Final recommendation 108
 - 8.3 SUB-INDICES FOR METRO’S INPUT COSTS..... 108
 - 8.3.1 Fuel costs 108
 - 8.3.2 Labour costs 109
 - 8.3.3 Other cost components..... 110
 - 8.4 ADMINISTRATION OF THE METRO INDEX 111

- APPENDIX A – TERMS OF REFERENCE 113**

- APPENDIX B – SUMMARY OF SUBMISSIONS 117**

GLOSSARY

Term	Meaning within the context of this Report
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
AWOTE	Average Weekly Ordinary Times Earnings
capex	Capital expenditure
CPI	Consumer Price Index
CSA Agreement	Community Service Activity Agreement
CSO	Community Service Obligation
Commission	Government Prices Oversight Commission (GPOC)
CPSR	Core Passenger Services Review
DDA	<i>Disability Discrimination Act 1992 (Cth)</i>
DIER	Department of Infrastructure, Energy and Resources
EBA	Enterprise Bargaining Agreement
ER Act	<i>Economic Regulator Act 2009</i>
First boardings	First boardings refers to passengers boarding a bus and paying a fare as opposed to passengers that may transfer between buses during their journey on the same ticket.
FSR	Financial Sustainability Review
GHPTNP	Greater Hobart Passenger Transport Network Plan
GST	Goods and Services Tax
GTE	Government Trading Enterprise
Indec	Indec Consulting Pty Ltd
Metro	Metro Tasmania Pty Ltd
Metro Act	<i>Metro Tasmania Act 1997</i>
Metro Pricing Order	<i>Government Prices Oversight (Metro Bus Fares) Order 2009</i>
MSE	Members Statement of Expectations
MTT	Metropolitan Transport Trust
NSC	New Service Contract - the contract between Metro and the Government for Metro to provide urban passenger transport bus services in Hobart, Launceston and Burnie.
opex	Operating expenditure
Preliminary Submission	The submission made by Metro Tasmania in January 2014 in response to the release of the Terms of Reference.
Regulatory period	The period from 1 July 2014 to 30 June 2019.
SBI	School Bus Index
WACC	Weighted Average Cost of Capital

EXECUTIVE SUMMARY

Context for the investigation

On 22 October 2013, the Minister for Finance, with agreement from the Minister for Sustainable Transport, requested the Tasmanian Economic Regulator (the Regulator) conduct an investigation into Metro Tasmania's Pty Ltd's (Metro's) pricing policies. This is the sixth investigation into Metro's pricing policies and the first undertaken by the Regulator¹, five having been undertaken by the former Government Prices Oversight Commission (the Commission).

In its preliminary submission, Metro questioned the appropriateness of the Regulator undertaking Metro pricing policy investigations. This was because it considered fares policy and contract payments should be undertaken by the one organisation and due to the cost of undertaking investigations. The Regulator notes that it is currently bound by the *Economic Regulator Act 2009* (ER Act) to undertake Metro pricing policy investigations every five years.

Metro primarily operates passenger transport bus services in the metropolitan areas of Hobart, Launceston and Burnie. These urban services are specified in a New Service Contract (NSC) between Metro and the Secretary of the Department of Infrastructure Energy and Resources (DIER) on behalf of the State Government. In addition, Metro operates a number of urban fringe services in the regions of Wynyard, Ulverstone, the South Arm Peninsula and the D'Entrecasteaux Channel. These contracts are separate to the NSC and are therefore outside the scope of this Investigation.

In 2012-13 Metro received 22 per cent of its revenue from fares, 75 per cent from Government funding through contract payments and additional grant funding and the remainder from other business activities and investment. The additional government grant funding commenced in 2009-10 and has primarily been used by Metro to replace buses and on road infrastructure such as stops, bus shelters and seats.

In terms of patronage, Metro's first boardings have continued to decline since the previous Investigation. This has been primarily driven by declines in adult and concession passengers, partially off-set by increases in student passengers. In particular, Metro's adult full-fare patronage fell from approximately 24 per cent of total first boardings in 2008-09 to the current level of 19 per cent of total first boardings. This is the lowest percentage of adult full-fare passengers first boarding as a percentage of total first boardings in Metro's history.

¹ The Tasmanian Economic Regulator (the Regulator) is a three person independent statutory body established under the *Economic Regulator Act 2009* (ER Act). This body assumed the functions of the former Government Prices Oversight Commission (GPOC) in 2010.

The Regulator notes the continual declining trend in adult full-fare passenger first boardings. Adult full-fare paying passengers are the primary component of fare revenue such that a significant decline in adult full-fare passengers means a significant decline in fare revenue and, in turn, a reduction in Metro's ability to cover its costs. This also means that Metro's fixed costs are effectively spread over a shrinking customer base necessitating higher fares, higher contract payments, a reduction in services or a combination of all of these measures.

In its preliminary submission, Metro considered that it has implemented a number of initiatives to encourage more people to use Metro's services including:

- a campaign promoting the benefits of the Greencard ticketing system;
- greater services for the Channel regions south of Hobart;
- a fare free weekend promotion; and
- undertaking market research to identify, and develop strategies to address the reasons for the declining patronage.²

In its preliminary submission, Metro noted that it expects the rate of decline in its patronage numbers will abate in 2013-14 in response to marketing and service improvements and forecasts that patronage levels will stabilise in 2014-15. Metro expects patronage to grow by slightly less than one per cent per annum thereafter.

Comparative performance

In preparing its final recommendations, the Regulator examined Metro's financial and non-financial performance since the 2009 Investigation and for the upcoming regulatory period ending on 30 June 2019. It also considered the potential for Metro to secure operational efficiencies.

Metro advised that it was forecasting a loss on passenger transport operations after taking account of its expected revenues from Government for services in the defined urban areas. Forecast revenues and costs from charters, advertising, rent and investments partially offset the net operating losses from Metro's passenger transport operations.

Metro identified a range of areas where it could make operational efficiencies to directly reduce the cost of operations or to enable better utilisation of resources. These included through its enterprise agreements; integration of its planning and rostering system with its ticketing system; bus prioritisation measures; development of satellite depots and bus yards to minimise inefficient 'dead running'; a service availability policy to more efficiently evaluate service changes; adjustments to its fleet procurement strategy; and a fare restructure.

² See Metro's Preliminary Submission, p.29.

The Regulator notes that many of these actions and proposed initiatives would appear to be sensible business practices undertaken in a competitive market aimed at improving efficiency. However, the Regulator notes that many of these initiatives are still in the development phase which makes it difficult to assess the robustness of the proposals and their potential impact on Metro's efficiency. The Regulator understands that these initiatives may not have been implemented or progressed to date due, in part, to a lack of available funding.

In Metro's submission on the Draft Report, Metro added that any decision to pursue an efficiency saving measure is taken within an integrated planning framework that takes account of service delivery needs, corporate objectives, financial and budgetary constraints and Metro's overall resource allocation objectives. Generally, this process occurs through the preparation of a business case. Metro notes that this structured approach allows for greater control over the project selection process to facilitate the allocation of funds consistent with Metro's strategic business plans. Furthermore Metro noted that it must also plan the implementation of efficiency saving measures in a manner that does not jeopardise the delivery of the contracted level of service.

The Regulator considers that in assessing efficient costs, for the purpose of fare setting, it should have regard to an efficient competitive market operator. Given this the Regulator has relied on the results of benchmarking studies to assess Metro's efficiency consistent with the approach in previous investigations.

Indec Report

As in previous investigations, Metro provided the Regulator with the results of a benchmarking study in which it was a participant. In previous investigations, Metro has separately engaged Indec Consulting Pty Ltd (Indec) to provide a detailed report specific to Metro. For the current Investigation, Metro is now a participant of a broader benchmarking exercise undertaken by Indec for all jurisdictions in Australia, including public and private operators.³ Whilst this new benchmarking approach contains less detailed information on specific Metro financial performance it does include more comparable information for operators which is submitted on an annual basis. Furthermore, the new report includes other non-financial indicators on operational and service performance.

The Indec Report compared Metro's performance with that of the other major public sector bus operators in Australia. Based on the information available in the Indec Report, Metro outperforms the other public operators on all but one of the non-capital financial indicators, which is consistent with Indec's previous findings. However, Metro demonstrates mixed performance on the operational indicators by outperforming the weighted average on kilometres and speed per bus but underperforming with respect to patronage. Furthermore, Metro was found to underperform on the service quality indicators.

³ Indec Reports are provided to the Regulator on a commercial-in-confidence basis.

The Indec Report also compared Metro's performance to that of private sector operators in Australia. Metro has mixed results with respect to the financial indicators. Metro outperforms the private operators for bus hourly costs which is consistent with previous results presented by Indec. However, Metro underperforms with respect to total kilometre costs (largely due to fuel costs) and also with respect to overhead costs. As shown in Table 4.7, with respect to the operational and service indicators, Metro generally under performs relative to the private operators.

In previous investigations, in addition to comparing Metro with public and private sector operators, Indec also compared Metro's performance with a weighted average of a selected sample of 'best practice operators' (the Benchmark Operator). However, under the revised benchmarking framework, Indec has not prepared a specific Benchmark Operator to compare with Metro. Rather, Indec has normalised the data provided by other operators for differences with Metro (such as fuel costs, differences in average speed and overhead costs per kilometres travelled) to provide a more meaningful comparison. Once normalised, Metro still out performs the public operators' data. Furthermore, Metro outperforms the private operators with respect to kilometre costs after normalisation. However, Metro's overhead costs remain relatively high compared to private operators and Metro's bus hourly costs are higher than private operators after normalisation. Furthermore, Metro's performance against service standards would appear to be relatively poor compared to private sector operators.

In terms of considering a Benchmark Operator for the current Investigation, the Regulator notes that, for the previous investigation, Indec created a comparator based on a sample of 18 Sydney Metropolitan private bus operators. The Regulator understands that this was on the basis that operators in this region were the most efficient in Australia. Given this, and for consistency, the Regulator considered in the draft report that comparison with the normalised private sector operator weighted average is the most appropriate basis to use in assessing Metro's efficiency for fare setting purposes.

In its submission on the Draft Report, Metro contended that, if a Benchmark Operator is to be used for the purposes of determining an efficiency adjustment, this Benchmark Operator should be based on an efficient public sector operator due to the additional costs that public sector operators face. The Regulator notes that the normalised public sector operator weighted average is based on two public sector operators in Australia which does not necessarily provide an estimate of efficient cost for a public sector operator. The Regulator acknowledges, as noted in the Indec Reports, that government operators tend to face additional costs and restrictions on their ability to be as efficient as private operators. However, the Regulator considers its role is to determine efficient costs. The Regulator considers that the normalised private sector operator weighted average is the best available information to use in estimating an efficiency target for a bus operator. Furthermore, as discussed in the Draft Report and in previous investigations, the Regulator applies the efficiency factor only to cost items that it considers Metro can influence. For example, the Regulator did not adjust a third of Metro's Bus Overhead Costs as it was considered that the variation between Metro's costs and those of the Benchmark Operator were

outside Metro's control. In this way, the Regulator discounts the efficiency factor of the Benchmark Operator to make it more appropriate for public sector operators such as Metro. Based on the information available, the Regulator considers, for fare setting purposes, this is the most appropriate approach for determining the costs of a Benchmark Operator for Metro.

Efficient costs and maximum revenue needs

It is common regulatory practice to calculate the revenue requirement for a regulated monopoly business by means of a building block approach. Under this approach allowable revenues are equal to the sum of the assessed efficient operating and maintenance costs plus an allowance for depreciation (return of capital) and a risk adjusted return on capital for each year of the regulatory period. The risk adjusted return is calculated by multiplying the approved asset base by an appropriate weighted average cost of capital (weighted to reflect the proportions and relative cost of debt and equity). This approach is designed to provide the business with a sustainable asset base. The asset base is rolled forward each year by adjusting for additions to the asset base, less depreciation and any capital contributions received from third parties.

The above approach was adopted for the previous Investigation and the Regulator considers it to be the most effective means of determining Metro's efficient costs for fare setting purposes for the current Investigation. Furthermore, as in previous investigations, the Regulator has assumed there have not been any changes to Metro's services for the purpose of fare setting. Changes in service may lead to an increase or decrease in costs for Metro. Whilst this will have implications for Metro's level of required contract payments the Regulator considers that the implication for fares is likely to be minimal.

Capital costs

The terms of reference (ToR) required the Regulator, in making a recommendation on the efficient cost of delivering the service required of Metro, to have regard to Metro's sustainable management of its capital base. The Regulator was also required to have regard to the costs of compliance with Metro's *Disability Discrimination Act 1992 (Cth)* (DDA) obligations.

In its preliminary submission for this Investigation, Metro states that it is providing 65 per cent of its services statewide with DDA compliant vehicles. This excludes dedicated school trips which Metro notes are excluded from the DDA requirements. Metro has achieved this percentage through the use of 85 DDA compliant vehicles out of a fleet of 217. These vehicles are distributed around the state with 63 vehicles in Hobart, 16 in Launceston and 6 in Burnie. At present Metro is, therefore, meeting its obligations with respect to DDA services based on the 2012 requirements outlined in Table 5.1.

Metro also noted that it has obligations to use its newer buses for its urban fringe contract services to meet average age and maximum age requirements. This means that Metro must prioritise DDA compliant buses to urban fringe areas which typically

have lower frequency and often require overnight lay-overs in outlying satellite yards. These obligations appear to restrict Metro's ability to improve its DDA compliance using its existing bus fleet. Metro considers that a significant investment in new buses is necessary to meet the obligations due under the DDA in both 2017 and 2022.

At present this investment is funded from the additional \$3.25 million the Government currently provides Metro each year on top of its contract payments. Metro considers that it will have an accumulated funding shortfall of \$13.9 million by 2015-16 in terms of meeting its DDA requirements. Metro provided the Regulator with a copy of its budget submission for the 2013-14 state budget in which it sought this additional funding.

Metro has proposed a number of methods to fund its future DDA requirements which include

- increased contract payments;
- equity injections;
- debt; or
- a combination of the above.

The Regulator considers that the deadlines for Metro to meet its DDA requirements and average age fleet requirements and the funding required to meet those obligations are policy issues for the Government to consider. This is particularly in light of the fact that 75 per cent of Metro's revenue is sourced from the Government.

Capital expenditure requirements

Metro's forecast capital expenditure program is largely based on its available funding sourced from the Government through its contract payments and, in particular, its \$3.25 million per annum additional government grant funding. This funding is used mostly for bus replacements with additional funding in 2018-19 budgeted for the replacement of its ticketing system.

Metro considers that its current method of funding is not sustainable and should be reviewed. In particular, Metro considers the process for adjusting its contract payments, and the uncertainty surrounding the additional \$3.25 million per annum government funding, should be reviewed. Metro's preliminary submission refers to a number of reviews that are being undertaken with regards to Metro's finances. Metro's forecast capital expenditure program does not reflect any potential outcomes of these as yet completed reviews nor its perceived DDA requirement funding. Whilst Metro has now conducted a business case for its proposed bus investments to meet its DDA obligations, funding has yet to be provided by Metro's primary funding source (the Government). As such the Regulator does not consider it prudent to include potentially unfunded capital expenditure in determining fares. To do so would mean that passengers would be paying a contribution to capital investment that may not be undertaken because the Government may not provide funding for it.

Based on this the Regulator considers it prudent to include only the funding that has been approved by the Government. The Regulator notes that whilst the approval of this capital expenditure, for the purpose of fare setting, has not necessarily considered the efficiency of that expenditure, based on Metro's DDA obligations it is likely that current funding would be at the lower end of funding required by Metro. Allowance for Metro's current annual capital estimates therefore would not appear excessive. That said the Regulator considers that it is the role of the Government and Metro, through the reviews discussed above, to ensure arrangements are in place to enable Metro to achieve value for money in its capital expenditure program and operations more broadly. This may include more efficient procurement outcomes and/or balancing the objectives of DDA obligations and average fleet requirements.

Return on capital

In previous investigations a return on capital was included in Metro's revenue allowance, recognising that a private operator undertaking Metro's services on contract would require a commercial return on capital employed in the business. Such an allowance should reflect a risk adjusted weighted average cost of capital (WACC). The WACC recognises both the debt and equity components of the capital investment in a business.

As in previous investigations, a seven per cent pre-tax real return on the cost of capital has been applied to Metro's capital assets.

Depreciation and valuation of asset base

The Regulator understands that Metro adopts a combination of depreciation methods for its different asset classes, most notably accelerated depreciation for its bus fleet. Whilst the Regulator prefers the straight line method, which is standard regulatory practice in setting maximum allowable revenues in other regulated businesses, the Regulator notes that Metro's bus purchases will remain relatively steady over the regulatory period and total depreciation as a percentage of total assets will be relatively stable over the period. This is consistent with the findings of previous investigations. This suggests that there may be limited value in Metro preparing a separate set of regulatory accounts based on straight line depreciation in addition to its current financial statements accounts as is currently the case with regulated entities in other industries.

The Regulator understands that the opening and closing asset balances reported in Metro's preliminary submission (and in its annual report) are based on their 'fair value'. The Regulator considered alternative asset valuation methods based on asset replacement value. Furthermore, the Regulator considered an approach adopted in the Tasmanian urban water sector, which values assets based on an upper limit using the building block approach, and a lower limit that satisfies a basic business test of business viability in which all costs are met, including a provision for asset refurbishment/replacement, but without allowing for a return on the cost of capital other than actual interest costs incurred and dividends paid. Under these approaches it is likely that maximum revenues would substantially rise, particularly with the upper limit. To fund these maximum revenues both fares and contract

payments may need to rise substantially and the increase in fares may, in turn, lead to further falls in patronage. Based on the information available, the Regulator considers that Metro's contract payments are unlikely to rise in the near term. Given this, the Regulator considers it inappropriate for it to propose an increase in fares to cover the increased cost if contract payments will not increase commensurately. Furthermore, the Regulator considers that this is essentially a policy issue for the Government given that it funds 75 per cent of Metro's costs.

The Regulator has therefore adopted the asset values provided by Metro together with its financial statement depreciation method.

Operating and maintenance costs

To assess the efficiency of Metro's proposed operating and maintenance costs the Regulator has relied upon the outputs of the benchmarking undertaken by Indec Consulting. This was performed on the following basis:

1. Efficiency factors for each operating cost category was determined as the percentage difference between Metro's actual unit costs and the weighted average of private operator costs unit costs in 2011-12.
2. The efficiency factors referred to in point one above were then applied to the 2011-12 actual costs submitted to Indec to determine the weighted average efficiency factors for bus hourly, bus kilometre and bus overhead costs. However, where the Regulator considered that a cost variation was not within Metro's control, efficiency adjustments were not made; that is, the Regulator provided Metro with its actual unit costs.
3. The weighted average efficiency factors were applied to the total budgeted operating expenditure for all urban passenger transport services for each year of the regulatory period. That is, Metro's operating expenditure for each year was adjusted by the weighted average efficiency factor.

The weighted average efficiency factor of 88.2 per cent suggests that Metro is 11.8 percentage points less efficient than the Benchmark Operator. This compares to efficiency factors of 93.75 per cent and 96.1 per cent in the 2009 and 2006 investigations respectively. Whilst the Regulator notes that the efficiency factor is much lower than in previous investigations, it highlights Metro's declining efficiency. This declining trend has also been mirrored in the declining patronage numbers. Furthermore, Metro's service standard performance in terms of on-time running and number of complaints is substantially poorer compared to the private sector.

In its submission on the Draft Report, Metro noted that there are significant differences between a private sector operator's functions and those of a public sector operator such that the calculated efficiency factor is neither reasonable nor achievable (particularly for Bus Overhead Costs). Metro noted its concern that the efficiency factor had been set in light of the Regulator's view that Metro's efficiency is declining and is mirrored by declining passenger patronage and other non-financial performance indicators that are poorer than other private sector operators (which it considered are not directly comparable).

The Regulator reiterates that it sees its role as determining efficiency targets commensurate with those applying in an efficient competitive market (at least for fare setting purposes). That said as previously mentioned, the Regulator has not adjusted a third of Metro's Bus Overhead Costs as it considered that the variation between Metro's costs and those of the Benchmark Operator were outside Metro's control. This is consistent with the approach taken in previous investigations. Furthermore, the substantial reduction in the efficiency factor observed for Bus Overhead Costs would appear to be consistent with the general trend of Metro's rising overhead costs as reflected in Table 4.2. The Regulator considers that to the extent that these increases may have occurred due to government obligations outside Metro's control it is not appropriate that these should be recovered from passengers through fares. Rather, recovery of these costs should be negotiated with DIER through contract payments. Given these elements, the Regulator considers that the 88.2 per cent efficiency target is not unreasonable, at least for fare setting purposes.

Based on the weighted average efficiency factor of 88.2 per cent, the Regulator has calculated efficient operating costs to be \$37.49 million for 2014-15 rising to \$38.50 million for 2018-19.

Whilst the Regulator has adopted this efficiency factor for fare setting purposes, the Regulator is of the view that benchmarking is not a substitute for undertaking a detailed assessment of the business' operations in order to identify areas where real efficiencies can be achieved. Such an assessment is for Metro to undertake and is not within the scope of this investigation.

Maximum Revenues

In making its recommendation for this Final Report, the Regulator notes the following:

- The maximum revenues have been recommended based on the amount the Regulator considers sufficient for an efficient operator to earn a commercial return. Payments under the NSC have not, in the past, incorporated a return on capital such that Metro has been left with little headroom to accommodate adverse events.
- The methodology used to determine the Benchmark Operator to compare with Metro for efficiency assessment has changed from the previous investigation. The Regulator has adopted the normalised weighted average operational benchmarks from private operators in Australia (as opposed to public operators) as an indication of average best practice as it appeared to be more closely related to the benchmarking methodology used in other investigations. Whether Metro can achieve this target for all of its costs may be debateable, however for fare setting purposes, the Regulator considers this to be the most appropriate target based on the available information.
- The Regulator has made its assessment based on its understanding of Metro's current funding levels from the Government, particularly with regards to meeting DDA obligations and current service level requirements. If the

Government changed its level of funding and/or service requirements this would have implications for Metro's capital expenditure program and the calculation of maximum revenues under the building block approach methodology adopted.

- The Regulator recognises that the Government will determine the level of fares for all passenger classes in the Metro Pricing Order and in the NSC. In determining fares and contract payments to recover maximum revenue, calculations will need to take account of the differences between the patronage forecasts provided in this report and the estimated response to any changes in fares proposed by the Government; and
- As in the previous investigation, the forecast maximum revenues were predicated on a set of assumptions regarding future input costs. The Regulator notes that there is the potential for some input costs to rise more quickly or fluctuate in real terms such as fuel costs and the cost of bus acquisitions as a result of a change in the value of the Australian dollar. The recommended maximum revenues presented in Table 5.10 therefore reflect the Regulator's best estimates of real changes in input costs. Any changes in real input costs not taken into account in the Regulator's assessment or not appropriately reflected in the Metro Index are discussed in more detail in Chapter 8.

The Regulator's recommended maximum allowable revenue for each year of the regulatory period is provided in the 'Summary of Recommendations' at the end of this Executive Summary.

Adult fares

Under section 25 of the ER Act, and as specified in the ToR, the Regulator was required to recommend appropriate maximum prices to be charged in respect of the monopoly services supplied by Metro. As in previous investigations, this was interpreted as requiring a recommendation of the maximum total revenues that Metro may earn from the provision of those services. In addition, the ToR required the Regulator "to identify what changes would be necessary to the full adult fares structure to achieve full cost recovery".

In 1997 the Commission examined in detail the relationship between costs and fares revenue for Hobart, Launceston and Burnie for services provided in peak, inter-peak, evening and weekend/public holiday periods. For this investigation, the Regulator again examined the relationship between costs and fares using the methodology developed in 1997 as a basis for examining cost recovery from fares and as a way of assessing the full adult single fare required to achieve full and peak cost recovery.

In its submission on the Draft Report, Metro submits that the application of the methodology developed in 1997 for allocating costs has reduced usefulness and relevance. Furthermore, Metro considers that the methodology should be updated to reflect current travel patterns and changes to route services that have occurred

since 1997. Metro considers that any relationship between peak and full adult cost recover cannot be relied upon until the methodology is updated to reflect current travel patterns and route services.

The Regulator acknowledges that the same cost allocation assumptions have been used for each Metro investigation since the 1997 Government Prices Oversight Commission (GPOC) Investigation and it is likely that those assumptions have diminishing relevance over time. That said, the Regulator understands that the original cost allocation assumptions were meant to only act as a high level guide. For the Regulator to update the methodology itself it would need detailed data from Metro on the breakdown of Metro's costs between regions and across different time periods. This would also include costs data that varies in terms of the number of kilometres travelled per bus at different times of the day and the volume of hours buses are in-service at different times of the day. Unfortunately such data was not available to the Regulator for the conduct of this investigation.

In previous investigations the Commission recommended Metro undertake its own detailed review of its cost recovery ratios in each period to provide it with a better understanding of the relationship between fares and costs. As noted above, the Regulator maintains this view and considers that Metro is in the best position to undertake this analysis. The Regulator also understands that Metro will be conducting a number of route analyses over the regulatory period aimed at improving operational efficiencies. This may change the time and frequency of bus services which would in turn change the data used to undertake cost allocation across periods. The completion of this process therefore may be the most appropriate time for Metro to undertake analysis on cost allocation consistent with its more efficient operating model. The Regulator considers this approach to be consistent with the comment made in DIER's submission where it supports moving "single ticket fares towards peak cost recovery but with the proviso of efficient route design which ensure best use of capacity in order to minimise peak cost".

Based on this methodology the Regulator estimates that if all passengers were paying the full adult fare, peak cost recovery would be 57 per cent for Hobart, 39 per cent for Launceston and 21 per cent for Burnie. The weighted average over the three regions is 52 per cent. This suggests that fares would need to increase by 92 per cent (48 percentage points) to achieve cost recovery in the peak period.

The Regulator notes that this is a substantial increase over that reported in the 2009 Investigation. This is due to a sharp reduction in the calculated peak cost recovery. This reduction is partly due to the general decline in passengers however it mostly appears to be due to a switch of passengers from peak periods to inter-peak periods. In fact peak cost recovery is now at a similar level to that of total cost recovery.

The ToR also required the Regulator to consider what changes would be required to the adult fare structure to achieve full cost recovery. As discussed above, peak cost recovery is now at a similar level to full cost recovery. This suggests that a similar increase in magnitude of the full adult fare that achieves peak cost recovery would also achieve full cost recovery.

The Regulator's recommended total maximum revenue requirement for Metro for 2018-19 is \$46.35 million (real 2013-14\$).⁴ The Regulator estimated that to achieve full cost recovery in 2018-19, it would be necessary for all passengers to pay an average fare equivalent to \$6.83 (real 2013/14\$, GST inclusive) or more, if price elasticity effects were taken into account. This is a 96 per cent increase on the weighted average with respect to current ticket sales or 14.4 per cent per annum. A similar increase is required for peak cost recovery given that the peak and full cost recovery ratios have converged. A much larger increase is required if elasticity impacts are taken into account.

The Regulator acknowledges that this would represent a significant increase in fares which would likely have a significant impact on Metro's commuter patronage. Furthermore, the Regulator notes that the calculated real increase in fares does not take into consideration the impacts of any subsidies to be applied for congestion or environmental outcomes or other purposes. The Regulator considers that if these issues were not taken into account, fares would likely rise to be higher than most jurisdictions in Australia. However, as noted above, the Regulator has only been asked to identify the maximum fares required to achieve full and peak cost recovery. In previous investigations, the Government has indicated that it is responsible for considering the magnitude of any such subsidies.

Given this, and the fact that Metro may move to a new fare structure as discussed below, the Regulator has decided against publishing specific maximum fares as it considers they would be unrealistic. Rather, in making Metro's pricing order, the Regulator suggests that the Government consider the calculated maximum real increase for full and peak cost recovery, any changes to Metro's fare structure and the level of subsidy it wishes to provide.

Alternative fare structure

The ToR require the Regulator to investigate the potential for alternative fare structures giving particular attention to matters of:

- i. simplicity and comprehensibility;
- ii. equity;
- iii. availability of technological capability to support those structures;
- iv. relativities between the fare categories;
- v. the need for a transition path while avoiding price shocks for any particular passenger group;
- vi. consistency with Government policy; and
- vii. other relevant matters including differentiating between peak and off-peak fares to encourage travel in low cost periods, incentivising fare pre-payment and reducing or eliminating the opportunity for underpayment.

⁴ See Chapter 5, Table 5.10

The Regulator has, therefore, considered alternative fare structures proposed by Metro as well as fare structures in place in other jurisdictions. Each of these alternatives have been considered with respect to:

- the criteria outlined above from the ToR;
- the estimated implementation costs; and
- the potential benefits to Tasmania.

In its preliminary submission, Metro proposed a new fare structure that it considered reflected the ticketing products and fare pricing principles recommended by the Commission in its previous investigations. Furthermore, Metro has taken into account issues identified during the financial sustainability review (FSR) process undertaken by DIER. In summary Metro's proposal involves:

- moving from the current sectional based ticketing system to a zonal system;
- introducing distance based fares for Adult Concession Fares;
- determining stronger links between Adult Full Fare, Adult Concession Fare and Student Fares;
- introducing alternative ticketing options including off-peak pricing, weekly and monthly tickets;
- modifying existing Greencard caps and removal of cash transfer tickets; and
- transitioning fares over time to avoid price shocks.

The Regulator notes that, in other jurisdictions, fare structures range from very simple systems with single ticket/single zone with weekly discounts such as in Darwin, systems with Greencard style discounts such as Tasmania and Adelaide, to more detailed systems with peak/off peak pricing, weekly/monthly discounts such as in Brisbane and Melbourne.

Additionally some jurisdictions have a tag-on/tag-off system of charging in addition to their fare structures. Under this system passengers are charged based on their distance travelled as recorded on a smart card (with a micro chip). Passengers are required to tag-on when they board a bus and are then required to tag-off when they disembark. A discounted fare on a single 'cash purchase' ticket is provided under this system similar to the Greencard style systems, however to receive the discount passengers must tag-off when they disembark the bus. Failing to tag-off results in passengers being charged a default fare which is higher than what their fare may have otherwise been. This system has been implemented in Brisbane, Melbourne, Perth and Canberra with Sydney currently in the process of implementing a similar system.

The Regulator notes that there are a wide variety of fare structures and payment methods used in different jurisdictions. Based on this information it would appear

that in determining an appropriate fare structure the following needs to be considered:

- the trade-offs between the number of zones considered for distance based pricing;
- whether peak/off-peak pricing is appropriate;
- whether single ticket prepay discounts be provided (such as under the Greencard) and/or weekly and monthly passes;
- the benefits of implementing a tag-on/tag-off system; and
- how these options should be combined.

In its submission on the Draft Report, Metro contends that a tag-on/tag-off fare collection arrangement is more appropriately considered as a ticket validation system than as a component of a fare structure. Metro considers these systems are used to enforce a pre-defined fare structure rather than to define the fare structure itself. Metro also considers that its current and proposed fare structure could operate independently of a tag-on/tag-off system as could other jurisdictions' systems and should, therefore, be considered separately from the fare structure.

The Regulator appreciates Metro's comments about the distinction between a fare structure and ticket validation system, however the Regulator considers that the choice of fare structure can be greatly influenced by the ticket validation system used. In this sense, the Regulator considers that the practical application of the fare structure, and how well it compares to the each assessment criteria defined in the ToR, is dependent on the ticket validation system used. For example, whilst the number of zones/sections of a fare structure may influence how complicated a fare structure is, the Regulator considers that the implementation of a tag-on/tag-off system greater reduces this complication for customers who do not need to calculate their actual fare (see, for example, Brisbane and Perth). Given this, and based on the Regulator's understanding of the requirements of the ToR, the Regulator considers that a tag-on/tag-off system should not be considered in isolation of potential fare structure considerations.

In assessing Metro's fare proposal the Regulator considers that it adequately meets most of the criteria outlined in the ToR. The Regulator notes that its potential weakness may include being overcomplicated due to the number of ticketing options and having a limited ability to detect underpayments by passengers. That said, the Regulator notes that in considering options to improve on these criteria there is likely a trade-off with respect to other criteria. For example, removing weekly and monthly passes may improve the simplicity/comprehensibility balance of Metro's fare proposal however it will reduce the incentive for passengers to pre-pay. Furthermore, a tag-on/tag-off system may reduce the likelihood of underpayment however it is not a costless solution leading to it scoring lower based on Metro's currently available technology. Furthermore, it is difficult to determine what the equity impact on passengers may be, particularly moving from sections to zones, given existing data.

However, the Regulator notes that each category has been weighted equally in coming to a total assessment of the fare structures relative to the ToR and that a different position may be arrived at depending on the relative weight applied to each criterion.

In its submission on the Draft Report, Anglicare Tasmania raised a number of concerns with Metro's fare proposal including the impact on the transport disadvantaged. Specifically, Anglicare has concerns with the proposed zonal boundaries, the removal of cash based free transfers and distance based charges for concession passengers. Furthermore, Anglicare noted that many passengers are not able to switch to off-peak travel and take advantage of the proposed cheaper off-peak fares. Anglicare considered that policy changes that affect the public transport system must take into account the needs of passengers from lower socio-economic areas.

The Regulator notes that with respect to the issues raised by Anglicare, Metro's fare proposal is not inconsistent with the criteria outlined in the ToR. Anglicare also raised a number of affordability issues that are outside the scope of this Investigation. These issues are best dealt with by the Government and Metro itself.

To further consider a tag-on/tag-off system the Regulator requested details of the likely cost of installing such a system. The indicative estimate provided by Metro was \$1.14 million. Furthermore, the Regulator also understands that there would be additional operational costs faced by Metro which would need to be taken into account. To make a positive financial return on such an investment, the financial benefits would therefore need to be more than these costs. The most obvious financial benefit would be the reduction in the amount of fare evasion. The Regulator has calculated that around 7.3 per cent per annum (10.1 per cent including interest payments) of existing adult passengers would have to be fare evading to recover these funds.⁵ Alternatively 1.6 per cent (2.2 per cent with interest) of existing adult customers per annum would need to be fare evading to recover 22 per cent of the installation costs which is equivalent to Metro's current fare box recovery. However, once again, more funds would be needed to fund the additional operational costs on an on-going basis.

In addition, the Regulator understands that there are a number of indirect benefits associated with a tag-on/tag-off system. This includes the provision of greater information on the travel patterns of passengers which would enhance Metro's understanding of travel patterns compared to the present situation. This information could be used to more effectively target problem areas in the bus network system that may lead to more efficient operations, reduce costs and increase patronage. Furthermore, it could be a useful tool to better understand the impact of changes from sections to zones and changes to zonal boundaries on specific passengers. In this light, Metro and DIER would be better informed about the implications of any

⁵ This assumes recovery over a ten year period, consistent with Metro's ten year life for its electronic ticketing system. Furthermore, it assumes that passengers only evade a fare between one ticket type – short to medium and medium to long.

changes to not only the fare structure but to the efficiency of the overall bus network. Given this, implementation of a tag-on/tag-off system but retaining the existing fare structure may be a useful first step in better understanding the most appropriate way forward.

Stakeholders had mixed views on the suggested implementation of a tag-on/tag-off system with DIER strongly supporting its introduction whilst Metro considered it a very expensive and complex way to assess the potential impact of change. Metro considers that an improved fare structure can be implemented independent of a ticket validation system and that investment in such a system should be a separate consideration.

The Regulator notes that it does not necessarily recommend the implementation of a tag-on/tag-off system as it considers that this is a matter for Metro and the Government. If a decision was made to implement such a system, the Regulator recognises that additional capex and on-going opex would be required. The Regulator notes that all fare structures considered received the same assessment score as outlined in Table 7.4 and discussed above. From the Regulator's perspective, all fare structures, including options for a tag-on/tag-off system, therefore meet the assessment criteria from the ToR equally. That said the Regulator considers that the current fare structure would likely achieve a similar score relative to the assessment criteria. Ultimately, the decision regarding the appropriate fare structure depends on which criteria the Government and Metro consider more important. However, the Regulator considers that the information presented in this section may be relevant in informing that decision.

On balance, the Regulator considers Metro's proposal broadly meets the criteria outlined in the ToR. However, the Regulator notes the following issues that both Metro and DIER should consider with respect to a final decision on the fare structure:

- the trade-off between having three ticketing types: cash, Greencard and weekly/monthly pass against the simplicity of the fare structure, the incentive for pre-payment and likely impact on revenue and passenger numbers;
- the proposed zonal boundaries and their impact on passengers travelling to/from certain areas within the Hobart area relative to the current system;
- the ability of Metro to link concession and student fares to adult fares given current restrictions contained in the NSC; and
- the likely costs and benefits of implementing a tag-on/tag-off system noting that the Government would likely need to provide both the capex and opex funding to implement such a system.

Maximum fares – new fare structure

The Regulator has recalculated the maximum fares based on Metro's proposed new fare structure should the Government decide to move to this new fare restructure immediately. This includes Metro's forecast patronage separated into the new

ticketing classes. The Regulator estimates that an 85 per cent real increase in weighted average adult fares or 13.1 per cent per annum would be required for full cost recovery by 2018 - 19. This would be much more with elasticity impacts taken into account. Once again this excludes any subsidy for congestion or environmental outcomes. Based on the patronage data provided by Metro, the slightly lower increase required to achieve full cost recovery (compared to the current fare structure) is primarily due to the cessation of free cash based ticket transfers and the introduction of peak fares.

Again the Regulator recommends that, in making Metro's pricing order, consideration should be given not only to this calculated real increase but also to any changes to Metro's fare structure and the level of subsidy the Government wishes to provide.

Metro Index

The Metro Index is used to escalate Metro's maximum revenues as well as contract payments from the Government.

The current Metro Index is largely based on weights recommended by the Commission from the 2003 Investigation. The Regulator considers that to ensure an index continues to be appropriate for use in pricing and revenue decisions it needs to continually be reviewed and updated. This includes reviewing the costs weights to ensure they reflect the efficient cost structure of an industry at each investigation. To not do so runs the risk of perpetuating an inefficient cost structure that does not take into account improved operations or technology change (for example, more efficient fuel sources and uses).

Metro's preliminary submission noted that the Metro Index is used to adjust contract payments under the NSC and, Metro therefore considers it crucial that the Metro Index accurately measures movements in Metro's actual costs. Metro considers that the Metro Index weights should be based on Metro's actual costs and not that of a theoretical efficient private sector benchmark operator, as part of a focus on building in efficiency pressures. Metro considers that an efficiency target is more appropriately dealt with through the contracting process rather than incorporating efficiency drivers through the index used for adjusting costs.

In previous investigations the Commission considered that the weightings should be based on the efficient provider's own costs, not Metro's own costs; a position supported by DIER. The Commission also noted that the purpose of using an index based on exogenous variables and weightings is to ensure that Metro is provided with appropriate incentives to become more efficient.

In its Draft Report, the Regulator agreed with this view and did not consider it had received sufficient information to the contrary. If the Metro Index reflected Metro's exact costs then the basis for developing and maintaining the Metro Index disappears. The Metro Index is a mechanism to reflect the efficient cost structure of a competitive bus industry and the likely cost pressures faced in such an industry.

In its submission on the Draft Report, Metro noted that if the Metro Index is intended to drive efficiencies, then this should be undertaken through the exogenous indices applied to the sub-components of the Metro Index and not in forming the weights of the index itself. That is, Metro considered that the weights should be periodically reweighted based on Metro's actual expenditure.

The Regulator considers that Metro's proposal could lead to perpetuating an inefficient cost structure. For example, if the weights were based on Metro's current cost structure, and the exogenous cost index applied to that weight was relatively high compared to the other cost indices, then Metro would not have any incentive to transform its cost structure to a more efficient cost structure, reflected by the Benchmark Operator's cost weights. This is because it would receive higher contract payments without having to improve the efficiency of its cost structure. Furthermore, it would limit Metro's desire to improve efficiency over a five year period, knowing that the cost weights of the Metro Index would be adjusted to what its cost structure will be at the end of a five year period. By using an efficient operator's cost structure for the cost weights, Metro is forced to consider how to transform its cost structure to a more efficient outcome more quickly.

In its submission on the Draft Report, DIER noted its support for this position and considered that the Metro Index should reflect the cost structure of the efficient operator to ensure appropriate incentives exist to pursue efficiencies rather than to reflect an individual operator's actual costs.

Based on the above, the Regulator has decided to retain its Draft Report conclusions and has therefore analysed Metro's cost drivers on this basis.

In terms of sub-indices, the Regulator recommends the adoption of the same sub-indices recommended by the Commission in the previous investigation. This includes the use of the Average Weekly Ordinary Time Earnings (AWOTE) transport and storage component for labour costs. Metro opposed the use of this sub-index in its preliminary submission. The Regulator notes that the choice of an index needs to appropriately balance the objectives of being exogenous and independent to drive efficiencies but not be too unrealistic so that it is improper for the industry at hand. That said, the Regulator notes that it has not received any compelling additional information (including references in Metro's submission on the Draft Report on this issue) to suggest that the Commission's recommendations from the previous investigation to use AWOTE would not be appropriate for the Metro Index.

The Regulator has presented the Metro Index as three items consistent with the Commission's recommendations in previous investigations. The Regulator considers this appropriate as all labour related items would be represented by the one weight, with other non-labour overhead costs and bus maintenance grouped together. This allows the respective cost items to be inflated by more appropriate cost indices (see below). This is supported by Metro's preliminary submission and its submission on the Draft Report.

As in the 2009 Investigation, the Regulator has presented a Metro Index with a return on capital and without a return on capital. In the 2009 Investigation the

Commission recommended the calculation of a capital allowance for each year based on a rolled-forward regulatory asset base. Under this approach to calculating maximum revenues, the Commission recommended setting the weightings for the Metro Index exclusive of capital costs and applying these to Metro’s operating costs. The Commission noted that the Metro Index would be distorted if capital costs were included where capital is treated as a separate item.

For the current investigation, the Regulator has again presented maximum revenue. However, this is calculated based on Metro’s current budgeted capital requirement. This would appear to be much lower than its required capital to meet DDA and other obligations however it reflects the level of funding it currently receives from the Government.

Given the uncertainty surrounding Metro’s funding and the static nature of the Metro Index weights since 2003, both an inclusive and exclusive return on capital Metro Index are provided. The Regulator considers that this allows the Government to use which ever index it requires to meet Metro’s strategic objectives.

Table 1.1: Recommended Metro Index sub-component indices and initial weightings

Component	Index	Without return on capital %	With return on capital %
Fuel	Average cost per litre of diesel fuel to Metro in preceding month (net of GST and fuel rebate)	15.98	13.18
Labour	The Transport and Storage component of the ABS average all capital cities AWOTE index	60.75	50.09
Other	Average All Capital Cities CPI	23.27	36.74
Total		100.00	100.00

SUMMARY OF RECOMMENDATIONS

Maximum revenues

The recommended maximum revenues and their constituent parts are presented in the following table:

Table 1.2: Recommended total maximum allowable revenues (real 2013 - 14\$)

	2014-15 \$'000	2015-16 \$'000	2016-17 \$'000	2017-18 \$'000	2018-19 \$'000
Operating	37 487	37 800	38 103	38 301	38 499
Depreciation	4 578	4 352	4 354	4 567	4 752
Return on capital	3 125	3 068	3 019	2 991	3 098
Total	45 190	45 220	45 476	45 858	46 350

Note: figures may not add up due to rounding

Maximum fares

Full and peak adult fares

Under the current fare structure, full adult fares would need to increase by 96 per cent or 14.4 per cent per annum to achieve full cost recovery by 2018 - 19 in real terms. A similar increase is required for peak cost recovery given that the peak and full cost recovery ratios have converged.

If Metro's alternative fare structure is adopted, full adult fares (based on Metro's patronage assumptions) would need to increase by 85 per cent or 13.1 per cent per annum in real terms to achieve full cost recovery by 2018-19.

Much larger increases would be required if elasticity impacts are taken into account.

These increases exclude any subsidy or externality considerations as these are a matter for the Government.

However, the Regulator is not recommending that fares increase by this or any other amount. Rather, in making Metro's pricing order, the Regulator recommends that the Government consider the calculated maximum real increase for full and peak cost recovery together with any changes to Metro's fare structure and the level of subsidy it wishes to provide.

Alternative fare structure

The Regulator has analysed Metro's proposed new urban structure including a number of other fare structures with respect to the selection criteria in the ToR. The Regulator notes that each fare structure meets the selection criteria adequately. The

Regulator notes that, ultimately, the decision regarding the appropriate fare structure depends on which criteria the Government and Metro consider more important.

Metro Index

The Regulator's recommended cost components, sub-indices and weightings for the Metro Index are set out in the following table:

Table 1.3: Recommendations in relation to the Metro Index

Component	Index	Without return on capital %	With return on capital %
Fuel	Average cost per litre of diesel fuel to Metro in preceding month (net of GST and fuel rebate)	15.98	13.18
Labour	The Transport and Storage component of the ABS average all capital cities AWOTE index	60.75	50.09
Other	Average All Capital Cities CPI	23.27	36.74
Total		100.00	100.00

The Regulator also recommends that the weightings remain unchanged during the regulatory period.

1 INTRODUCTION

Part 3 of the *Economic Regulator Act 2009* (ER Act) provides the Tasmania Economic Regulator (the Regulator) with the authority to undertake investigations into monopoly providers' pricing policies. Metro Tasmania Pty Ltd (Metro) is one such provider that the Regulator is required to investigate on a five year cycle.

This is the sixth pricing investigation into Metro's pricing policies; five having been undertaken by the former Government Prices Oversight Commission (the Commission). Previous Metro investigations were conducted in 1997, 2000, 2003, 2006 and 2009. Reports and related submissions for these five investigations may be obtained from the Commission's website: www.qpoc.tas.gov.au.

1.1 Terms of Reference

On 22 October 2013, the Minister for Finance, with agreement from the Minister for Sustainable Transport, requested the Regulator to conduct an investigation into Metro's pricing policies.

The ToR is reproduced in full in Appendix A. Essentially the Regulator was required to:

...investigate the pricing policies associated with the monopoly services supplied under New Service Contract (NSC) between Metro and the State Government.

In investigating Metro's pricing policies, the Regulator was to consider, amongst other things:

- the efficient cost of delivering the services required of Metro for the period 1 July 2014 to 30 June 2019, and in doing so:
 - have regard to costs of compliance with the *Disability Discrimination Act 1992 (Cth)*;
 - have regard to Metro's sustainable management of its capital base; and
 - investigate and report on the potential for Metro to secure operational efficiencies;
- the appropriateness of the composition and administration of the Metro Index; and
- what changes would be necessary to the full adult fares structure to achieve full and peak cost recovery.

The Regulator was also required to consider potential alternative fare structures giving particular attention to matters of:

- simplicity and comprehensibility;
- equity;
- availability of technological capability to support those structures;
- relativities between the fare categories;
- the need for a transition path to achieve implementation while avoiding price shocks for any particular passenger group;
- consistency with Government policy; and
- other relevant matters including differentiating between peak and off-peak fares to encourage travel in low cost periods; incentivising fare pre-payment and reducing or eliminating the opportunity for underpayment.

The Regulator is to provide a report to Government that will assist it in determining Metro's fares through a new pricing order.

1.2 Matters to be taken into account

Apart from the specific issues raised in the ToR, section 31 of the ER Act specifies certain matters that the Regulator must take into account in any investigation. These include:

- the cost of supplying or providing the monopoly service;
- any interstate or international benchmarks for prices, costs, revenues and return on assets in bodies supplying a service similar to the monopoly service;
- the need to protect consumers from the adverse effects of the exercise of monopoly power by a monopoly provider in relation to prices, pricing policies and standards of service in respect of the supply of the monopoly service;
- if appropriate, the need for a reasonable return (including the payment of dividends) on the assets of a monopoly provider;
- the need for efficiency in the supply of the monopoly service for the purpose of benefiting the public interest through a reduction in the cost of supplying the monopoly service;
- the effects of inflation;
- the need for the monopoly provider to be financially viable;
- the impact on pricing policies of any borrowing, capital, dividend and tax equivalent obligations of the monopoly provider, including obligations to renew or increase assets;
- any ministerial charter that applies to the monopoly provider;

- in the case of a monopoly provider that is a State-owned company, any statement of expectations from the shareholders or other similar document;
- any relevant provision in the Portfolio Act or any other Act;
- any community service obligations of the monopoly provider;
- the quality of the supply of the monopoly service;
- the matters set out in the terms of reference; and
- any other matter the Regulator considers relevant.

1.3 Structure of this report

The Regulator has produced this Final Report after taking into account Metro's preliminary submission, responses to the Regulator's call for submissions made at the time the Regulator gave notice of the commencement of the investigation and submissions provided on the draft report. The Final Report is structured as follows:

- Chapter 2 provides background on Metro's operations;
- Chapter 3 considers Metro's revenue sources;
- Chapter 4 considers Metro's financial and comparative performance;
- Chapter 5 outlines the Regulator's consideration of Metro's efficient cost and maximum allowable revenue;
- Chapter 6 considers the changes required to the full adult fares structure to achieve full and peak cost recovery;
- Chapter 7 considers the appropriateness of potential alternative fare structures; and
- Chapter 8 analyses the appropriateness of the composition and administration of the Metro Index.

2 METRO OPERATIONS

2.1 Background

Prior to February 1998, urban public transport services in Hobart, Launceston and Burnie were provided by the Metropolitan Transport Trust (MTT). The MTT was corporatised, becoming Metro Tasmania Pty Ltd (Metro), on 2 February 1998 as part of the Government's transport reform package.

Metro is a company limited by shares and was incorporated in 1998 under the *Corporations Act 2001 (Cth)* to perform functions relating to the operation of a public bus transport system.

Metro is also subject to the *Metro Tasmania Act 1997* (Metro Act).

Metro's principal objective, as stated in section 5 of the Metro Act, is:

...to provide road passenger transport services in Tasmania and to operate those services in a manner consistent with sound commercial practice.

Metro now operates on a similar basis to privately-owned passenger transport operators, paying all appropriate taxes or tax equivalents, rates and duties. However, Metro is not currently funded to provide a return on equity.

The MTT was initially declared a 'monopoly service provider' in 1997 for the purposes of the *Government Prices Oversight Act 1995*. Following incorporation, Metro's status as a declared 'monopoly service provider' continued.

As a monopoly service provider, Metro's pricing policies became subject to regular review every three years before being recently extended to five years.

2.2 Current contractual arrangements

Metro primarily operates passenger transport bus services in the metropolitan areas of Hobart, Launceston and Burnie. These urban services are specified in a New Service Contract (NSC) between Metro and the Secretary of the Department of Infrastructure, Energy and Resources (DIER) on behalf of the State Government. The Secretary of DIER opted to extend Metro's current contract in October 2013 for another five years.

Metro also operates a number of urban fringe services in Wynyard, Ulverstone, the South Arm Peninsula and the D'Entrecasteaux Channel areas of the state. These contracts are separate to the NSC and the pricing policies in respect of these contracts are outside the scope of this investigation. Services to Wynyard, Ulverstone and South Arm were previously part of the NSC however these were moved to urban fringe contracts on 1 July 2011.

In February 2009 a number of private bus companies handed in their school bus contracts to the Transport Commission and Metro was asked to take on those services. The urban school bus services were added to the NSC whilst the non-urban school bus services added to Metro's urban fringe contracts. Metro ceased to operate its Bothwell contract on 2 January 2012 as it was making a significant financial loss on the service.

2.2.1 Fare controls

There are currently two mechanisms controlling the fares charged by Metro:

- (1) Metro's Board of Directors is able to determine adult fares for travel on scheduled route services, but must ensure that those fares do not exceed the maximum fares defined in the *Government Prices Oversight (Metro Bus Fares) Order 2009* (Metro Pricing Order) made by the relevant Minister. The current Metro Pricing Order specifies maximum full adult fares for single tickets for the five years following the commencement of the Order, ie from 1 October 2009 to 30 September 2014.

Under section 39 of the Economic Regulator Act, Metro is required to submit any proposed fare changes to the Regulator for approval prior to amending its adult fares.

- (2) Maximum fares for all passengers (adult, adult concession, child/student and tertiary students) are also specified in the NSC. Under the NSC changes to fares require the approval of the Secretary of DIER prior to those changes being made.

2.3 Metro services

Metro's urban operations provide passenger bus services in the urban areas of Hobart, Launceston and Burnie. Services include dedicated school services, passenger route services and a range of charter services.

Metro operates weekday services in all urban areas and evening services in Hobart and Launceston. Weekend and public holiday services are available in Hobart and Launceston, with only minimal Saturday services available in Burnie.

Table 2.1 shows a breakdown of the urban route services operated by Metro in Hobart, Launceston and Burnie.

Table 2.1: Number of route services operated by Metro as at March 2014

Region	Weekdays	Saturday	Sunday and public holidays	School only
Hobart	1 506 – 1 545	550	221	110
Launceston	392	107	37	79
Burnie	137	37	-	24

Source: Metro

2.3.1 Service standards under the New Service Contract (NSC)

The Government's expectations of Metro are reflected in its NSC. The NSC sets out the customer service standards that Metro is required to meet in the delivery of its services. These standards define the strategic requirements of Government for regular passenger transport services in urban areas. Metro also notes that its role has been clarified to not only deliver bus services, but also plan and develop bus services so as to maximise compliance with the urban service standards subject to the availability of adequate resources.

These strategic service standards comprise:

- a set of tables that specify, for different types of areas, the number of bus services that are to be provided at different times of the day (peak, inter-peak and off-peak) and on different days of the week; and
- a set of clear principles that should be adopted by Metro with regards to route design and timetable planning (such as the 'directness' of bus routes, the acceptability of route variations and the even spacing of the bus timetable).

In its preliminary submission, Metro notes that these standards reflect the passenger need of certain areas taking into account population and the number of transport disadvantaged in specific areas and the location demand generators in the area (retail and recreation facilities, civil amenities, business activity centres and larger educational facilities).

2.3.2 Service reviews

Metro has undertaken a number of reviews and initiatives aimed at addressing and improving its service levels. Most notably this includes the Greater Hobart Passenger Transport Network Plan (GHPTNP) and the Eastern Shore review.

In its preliminary submission, Metro notes that its GHPTNP provides Metro with the strategic framework for reviewing and developing the bus services and infrastructure in the Greater Hobart area that are aligned with Government strategic plans. These Government plans include the Tasmanian Urban Passenger Transport Framework, Southern Tasmania Regional Planning Framework, Southern Integrated Transport Plan and the Tasmanian Infrastructure Strategy. Metro notes that its GHPTNP includes:

- strategy and principles that will guide the Plan and facilitate an integrated network, including the identification of service levels;
- an action plan that identifies and prioritises improvements needed over a three year and 10 year period;
- indicative future bus routes and service layers as well as timelines for service reviews;
- a funding requirement plan;

- key performance targets for Metro to measure progress against; and
- a monitoring and review process.

Metro notes that its main focus in the first four years of implementing the recommendations of the GHPTNP will be developing the network and also addressing current network inefficiencies such as service duplication and convoluted route structures. Once the network has been established the focus will shift to increasing frequencies to match the minimum service level frequencies in the GHPTNP.

Metro's Eastern Shore review involved customer engagement on measures to improve services for passengers. The changes implemented included improved weekend and peak services for high frequency corridors and a reduction in travel times for some areas.

2.3.2.1 Customer Service Charter

Metro's performance against its Customer Service Charter is assessed through responses provided in annual customer satisfaction surveys.

The main issues of note from the 2013 survey included:

- 69 per cent of passengers were satisfied or very satisfied with the bus route coverage;
- 71 per cent were satisfied or very satisfied with the services provided by Metro;
- 80 per cent were satisfied or very satisfied with the services provided by bus drivers;
- 77 per cent were satisfied or very satisfied with the personal safety on board the bus; and
- 70 per cent were satisfied or very satisfied with the reliability of services.

These results were broadly similar to those observed during the 2011 and 2012 surveys.

Metro also noted respondents were more likely to be very dissatisfied or dissatisfied with the frequency of services (19 per cent) and the operating hours of the services (17 per cent).

The survey results also demonstrate that passengers were generally more satisfied with how complaints were dealt with compared to previous years.

Finally, respondents were generally satisfied with buses including the ease of getting on and off and the cleanliness. Passengers were however dissatisfied with bus infrastructure.

The Regulator understands that the results of all surveys have indicated that improving the frequency of Metro's passenger services; the operating hours of the services; and the reliability of buses arriving on time continue to be key measures whereby customer satisfaction could be raised (particularly in the Hobart region where overall satisfaction remains lower than elsewhere). The Regulator notes that these issues were also raised during the previous investigation.

2.4 Patronage

Passengers of Metro's timetabled services are grouped into three main categories:

- (1) adult (full-fare);
- (2) concession (including tertiary students); and
- (3) student.⁶

2.4.1 Current patronage

In its initial submission, Metro noted that in 2012-13 its urban passenger transport services provided approximately 10.07 million passenger trips (total boardings).⁷

'Total boardings' includes passengers transferring from one bus to another as a separate boarding. The alternative measure is 'first boardings' which measures the number of passenger trips.

Table 2.2 shows total boardings from 1994-95 to 2012-13. As can be seen, total boardings declined significantly from 1994-95 to 1999-00, and then generally increased year on year, with the exception of 2002-03. Total boardings have begun decreasing again since 2010-11.

⁶ Previously Metro classified this group of passengers as child/student. One outcome of the CPSR is that the child/student distinction is no longer relevant as student fares apply at all times on all services. Therefore, the Commission has adopted the term 'student' in this Final Report.

⁷ Metro's Preliminary Submission, p.28.

Table 2.2: Total boardings (including transfers, charter and contract services)⁸

Year	Hobart '000	Launceston '000	Burnie '000	Total '000
1994-95	8 750	2 270	750	11 770
1995-96	8 583	2 261	714	11 558
1996-97	7 908	2 086	645	10 639
1997-98	7 390	1 993	613	9 996
1998-99	7 165	1 855	548	9 568
1999-00	7 056	1 807	516	9 379
2000-01	7 167	1 950	509	9 626
2001-02	7 191	1 903	532	9 626
2002-03	7 177	1 819	546	9 542
2003-04	7 243	1 847	530	9 620
2004-05 ¹	7 579	1 794	502	9 876
2005-06	7 641	1 771	500	9 911
2006-07	7 668	1 766	511	9 945
2007-08	7 448	1 733	494	9 676
2008-09	7 755	1 781	494	10 030
2009-10	7 837	1 793	468	10 099
2010-11	8 130	1 948	468	10 546
2011-12	8 029	1 907	461	10 397
2012-13	7 785	1 826	460	10 072

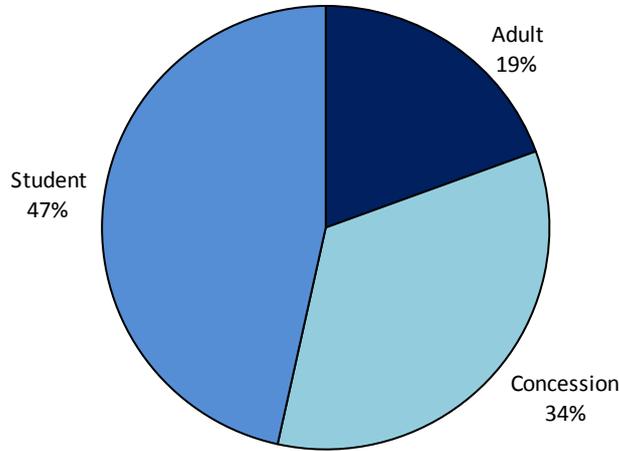
Source: Metro's Preliminary Submission p.28 and Metro Annual Reports.

Note 1: 2004-05 to present includes numbers for the Kingston/Blackmans Bay Service which was introduced in March 2004.

Figure 2.1 illustrates Metro's first boardings (7.91 million passengers) in 2012-13, broken down by passenger type. As shown in Figure 2.1, just 19 per cent related to Adult full fare passengers.

⁸ 'Total boardings' relates to the number of times a passenger boards a Metro operated bus during their journey from point A to point B. In making their journey, a passenger may alight part way through to either board a bus on a different service route or to board a bus on the same service route at a later time, in order to complete their journey. Under Metro's ticketing system, tickets permit 'free' subsequent boardings for passengers during their journey provided such boardings are completed, for Hobart and Launceston, within 90 minutes of the first boarding, and in Burnie, within 60 minutes of the first boarding. In relation to 'first boardings', only the first (initial) boarding during the passenger's journey is counted, unless the passenger makes a subsequent boarding during their journey outside the relevant time limit for free subsequent boardings.

Figure 2.1: First Boardings in 2012-13



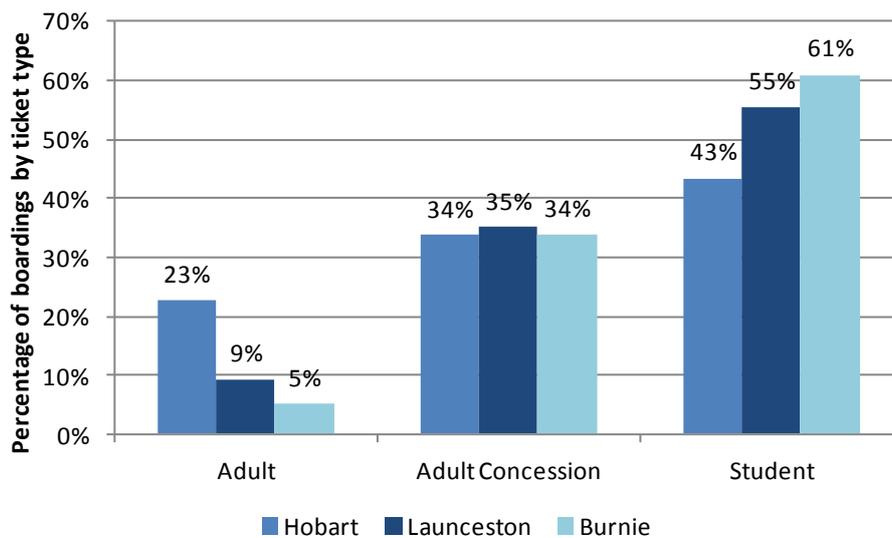
Source: Metro's Preliminary Submission, p.28.

Note: Adult Concession includes tertiary students, as tertiary students are able to access adult concession tickets for all travel.

2.4.1.1 Passengers by ticket type

Figure 2.2 summarises the number of passengers by ticket type in the three urban centres serviced by Metro in 2012-13. Figure 2.2 shows that the majority of patrons on Metro buses are students, with Hobart having by far the largest percentage of Adult full fare passengers.

Figure 2.2: Passengers by ticket type in 2012-13



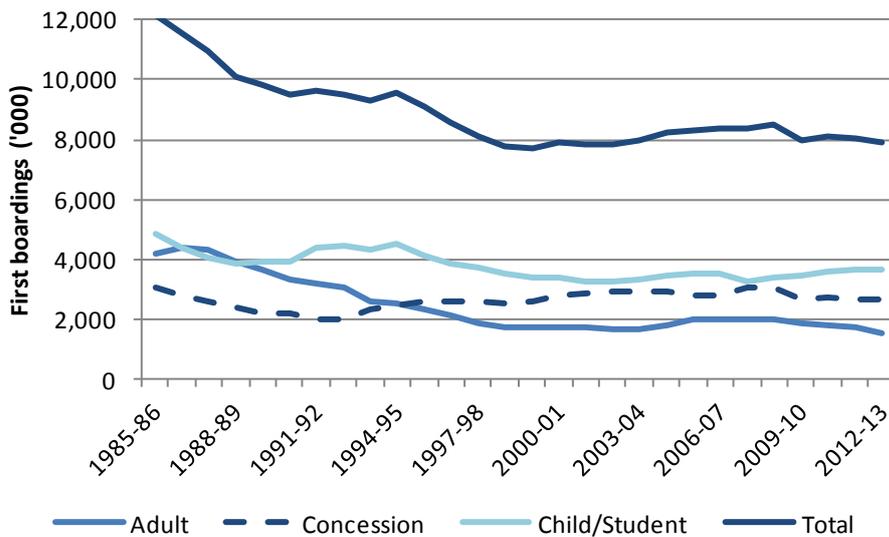
Source: Metro's Preliminary Submission p.28.

Notes: Adult Concession includes tertiary students, as tertiary students are now able to access adult concession tickets for all travel.

2.4.2 Patronage trends

Figure 2.3 depicts first boardings by category. It shows that total first boardings has gradually declined, with stronger declines between 1985-86 to 1998-99 and a more moderate downward trend to present. Figure 2.3 also shows that there was an increase in patronage following the inclusion of Kingston/Blackmans Bay boardings in 2004-05.

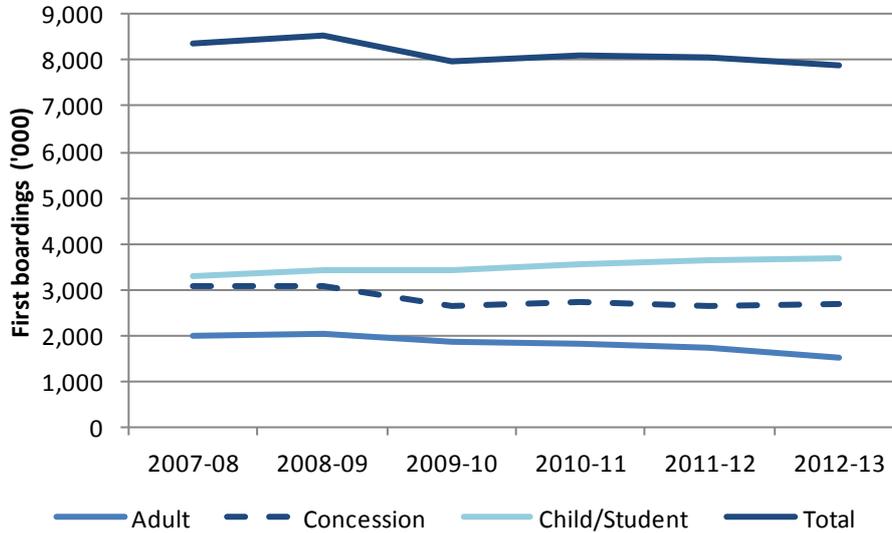
Figure 2.3: First Boardings 1985-86 to 2012-13



Source: Metro's Preliminary Submission p.28 and Metro annual reports.

Figure 2.4 depicts first boardings since the previous investigation. As can be seen, patronage has continued to fall during the period to 2012-13. This has been primarily driven by declines in Adult and Concession passengers, partially off-set by increases in Student passengers.

Figure 2.4: First Boardings 2007-08 to 2012-13



Source: Metro’s Preliminary Submission p.28 and Metro annual reports.

Table 2.3 shows that Metro’s Adult Full-Fare patronage fell from approximately 24 per cent of total first boardings in 2008-09 to the current level of 19 per cent of total first boardings. This is the lowest Adult Full-Fare passengers first boarding as a percentage of total first boardings in Metro’s history.

Table 2.3: First boardings (excluding transfers, charter and contract services) by passenger category

Passenger category	Number of trips '000					Patronage per category %		
	2008-09	2009-10	2010-11	2011-12	2012-13	2008-09	2010-11	2012-13
Adult	2 018	1 878	1 811	1 728	1 535	23.7	22.4	19.4
Adult Concession	3 087	2 649	2 715	2 658	2 691	36.2	33.6	34.0
Student	3 422	3 437	3 563	3 658	3 680	40.1	44.0	46.5
Total ^(Note1)	8 527	7 964	8 089	8 044	7 906	100.0	100.0	100.0

Source: Metro’s Preliminary Submission p.28.

Note 1: Figures may not add up exactly due to rounding.

The Regulator notes the continual declining trend in Adult Full-Fare passenger first boardings. Adult Full-Fare paying passengers are the primary component of fare revenue such that a significant decline in Adult Full-Fare passengers means a significant decline in fare revenue and, in turn, a reduction in Metro’s ability to cover its costs. This also means that Metro’s fixed costs are effectively spread over a shrinking customer base that necessitates higher fares, higher contract payments, a reduction in services or a combination of these measures.

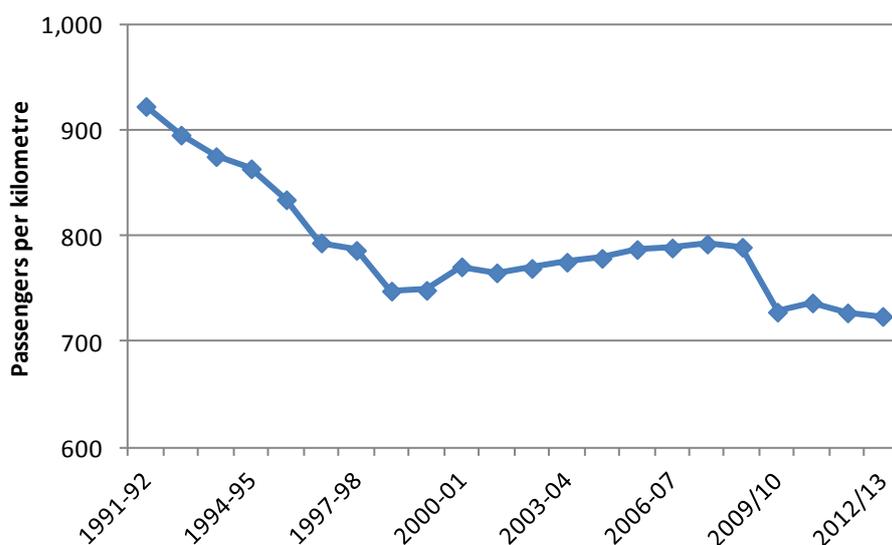
In its preliminary submission, Metro noted that it has implemented a number of initiatives to encourage more people to use Metro’s services including:

- a campaign promoting the benefits of the Greencard ticketing system;
- greater services for the Channel regions south of Hobart;
- a fare free weekend promotion; and
- undertaking market research to identify, and develop strategies to address, the reasons for the declining patronage.⁹

2.4.2.1 Change in patronage compared to changes in bus kilometres

Figure 2.5 illustrates the change in first boardings per kilometre by Metro buses since 1989-90. It shows that whilst Metro's first boardings per kilometre declined significantly over the period 1989-90 to 1999-00, patronage generally has stabilised since that time. That said, first boardings per kilometre dropped sharply in 2009-10 commensurate with the decline in first boardings presented in Table 2.3 above. First boardings per kilometre have declined by around 9 per cent since 2007-08 and are now the lowest observed for the available data.

Figure 2.5: First boardings per kilometre since 1989-90



Source: Metro

2.4.3 Factors influencing public transport patronage

In its preliminary submission, Metro outlined a number of factors that it considers influence its patronage including:

- the cost of fuel - a rise in bowser prices usually sees an increase in bus usage;

⁹ See Metro's Preliminary submission, p.29.

- mortgage rates - a rise in mortgage rates puts pressure on household income and may encourage people to use the bus;
- weather – a wet winter can result in decreased usage as passengers seek the comfort of door-to-door travel by car;
- the unemployment rate – if people lose their jobs Metro can lose regular passengers, replaced by intermittent users. Alternatively a person who never caught the bus when employed may choose to use the bus for economic reasons whilst without a job; and
- the number of children attending school and tertiary institutions – in 2012-13, students constituted 47 per cent of all passengers. The number of overseas students also impacts on patronage (ie overseas students usually come from countries where using passenger transport is the norm and when they arrive they do not have access to any other form of transport¹⁰).

2.4.4 Journey to work

Information in relation to the method of transport to work is collected regularly as part of the Australia Bureau of Statistics (ABS) Census. Table 2.4 below indicates that, of the 175 000 households surveyed on 2011 census day, only 3.1 per cent of Tasmanian workers used buses as their sole means of travel to work compared with over 78 per cent who used cars as their sole means of travel to work.¹¹

The use of cars as sole means of travel to work remained relatively static between 1996 and 2011, with 86 per cent, 84 per cent, 85.5 per cent and 86.9 per cent of workers in 1996, 2001, 2006 and 2011 respectively relying on cars (as either driver or passenger). Bus use has also remained relatively static between 2006 and 2011.

¹⁰ See Metro's Preliminary Submission, p.14.

¹¹ A further 2 000 Tasmanians surveyed noted that they used two or more means of transport to travel to work on Census day in 2011. For ease of computation, these numbers have not been included in the above analysis.

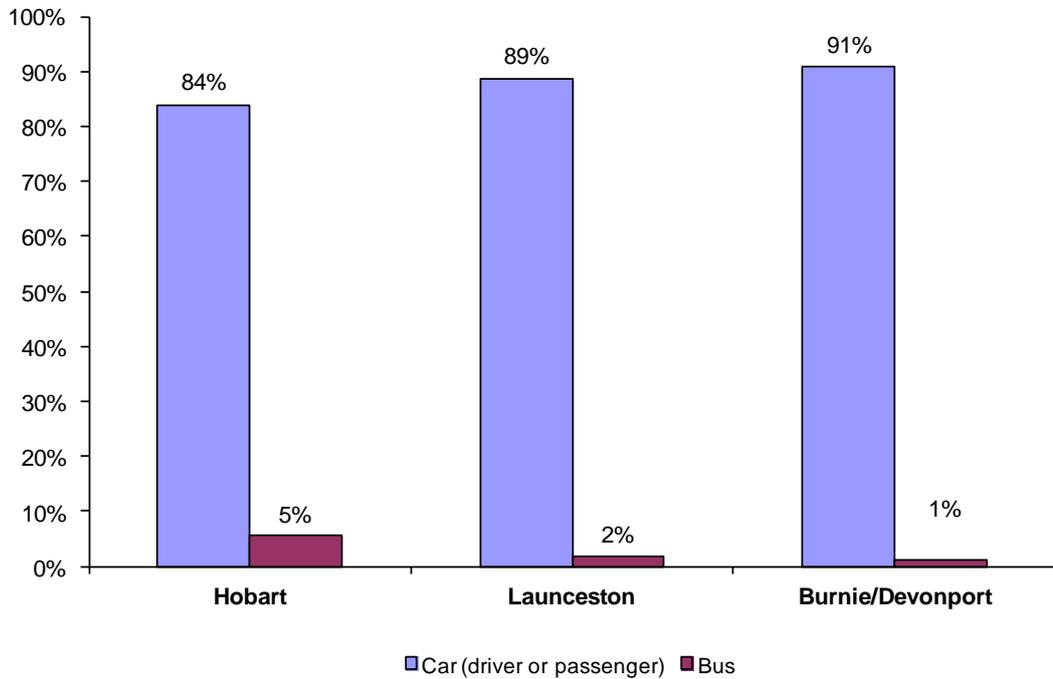
Table 2.4: Method of transport to work on Census day 1996, 2001 and 2006 - Tasmania

Method of transport	1996 %	2001 %	2006 %	2011 %
Car (driver)	76.0	75.5	76.6	78.4
Car (passenger)	10.0	8.5	8.9	8.5
Walking	6.6	10.3	7.1	6.2
Bus	3.6	2.6	3.1	3.1
Truck	-	-	1.6	1.2
Bicycle	-	1.1	0.9	0.8
Motorbike/scooter	-	0.4	0.7	0.7
Taxi	-	0.4	0.3	0.3
Train, ferry or tram	-	0.6	0.1	0.1
Other method	2.0	0.6	0.8	0.8

Figure 2.6 shows the proportion of workers in Hobart, Launceston and Burnie/Devonport¹² using buses and cars as their sole method of transport to work on 2011 Census day. It was found that five per cent of workers in Hobart, 1.8 per cent in Launceston, and 1.2 per cent in Burnie used a bus to travel to work. Over the three regions, 86 per cent of workers chose to travel to work by car. This highlights the importance of the car as the principal means of transport in Tasmania for workers.

¹² Hobart refers to Greater Hobart (Statistical Subdivision), Launceston refers to Greater Launceston (Statistical Subdivision), and Burnie/Devonport is the Statistical Subdivision of Burnie/Devonport.

Figure 2.6: Employed persons' method of travel to work



Source: ABS Census

2.4.5 Metro patronage initiatives

In its preliminary submission, Metro outlined initiatives it has undertaken to address declining patronage. These include a detailed market research project in 2010 focusing on existing passengers, people who used to use Metro services and non-bus users. The findings included recommendations on what services Metro should be providing and where resources should be allocated to improve customer service and attract more people to catch the bus rather than use their motor vehicle. In addition, in June 2013, Metro undertook further qualitative research that has provided guidance on communications and marketing campaigns to increase patronage.

2.4.6 Patronage forecasts

In its preliminary submission, Metro noted that the rate of decline in its patronage numbers will abate in 2013-14 in response to marketing and service improvements and considers that patronage levels will stabilise in 2014-15. Patronage is forecast to grow by slightly less than one per cent per annum thereafter as shown in Table 2.5.

Table 2.5: Recent and forecast urban patronage levels 2010-11 to 2018-19

	Year	First boardings '000	Change from previous year %
Actual	2010-11	8 089	
	2011-12	8 043	-0.57
	2012-13	7 905	-1.72
Forecast	2013-14	7 829	-0.96
	2014-15	7 867	+0.49
	2015-16	7 929	+0.79
	2016-17	7 969	+0.50
	2017-18	8 036	+0.84
	2018-19	8 104	+0.85

Source: Metro's Preliminary Submission.

2.5 Key developments since the 2009 Investigation

Since the 2009 Investigation Metro has undertaken widespread implementation of its Greencard ticketing system. The Greencard is a smart card system whereby passengers pre-pay credit onto the card that is used to pay for tickets on buses. The system was progressively introduced throughout Metro's services in 2009 commencing with Burnie, followed by Launceston and Hobart.

In its preliminary submission, Metro notes that the system provides the following key features:

- GPS vehicle tracking to permit on-time performance management;
- faster loading times for many passengers as concession status is pre-registered on the smartcard, eliminating driver verification of entitlement;
- convenience of cashless travel via the Greencard 'purse' that can be recharged online, at Metro outlets or on-board any Metro bus;
- the security of being able to protect credit if a registered card is lost or stolen and then transfer the credit to a replacement card;
- the ability to activate a 'pass' for free student travel to and from the place of education for eligible students; and
- integrated ticketing across all Metro services (urban and urban fringe) and the possibility of integration with other bus operators.

Metro notes that there are currently over 107 000 active Greencards covering 59 per cent of all Metro journeys and Metro continues to market the benefits of Greencard to further improve take-up.

Metro is also investigating extending Greencards to other bus operators. Metro notes that in January 2012 when O'Driscoll Coaches took over the Bothwell - Hobart service a Greencard system was installed on O'Driscoll Coaches' vehicles. This allows existing passengers to continue to use the Greencard system and marked the first non-Metro service to use Greencard. Metro has prepared a business case that considers the merits of further extension to other non-Metro services.

In its preliminary submission, Metro outlines an alternative fare proposal that it states reflects the recommended ticketing products and fare pricing principles from previous investigations undertaken by the Commission and issues identified during a recent Financial Sustainability Review (FSR) process undertaken by DIER. Metro has indicated that its Greencard system can accommodate the proposed changes to its fare structure, including the re-introduction of multi-ticket options. Metro's fare proposal is addressed in detail in Chapter 7.

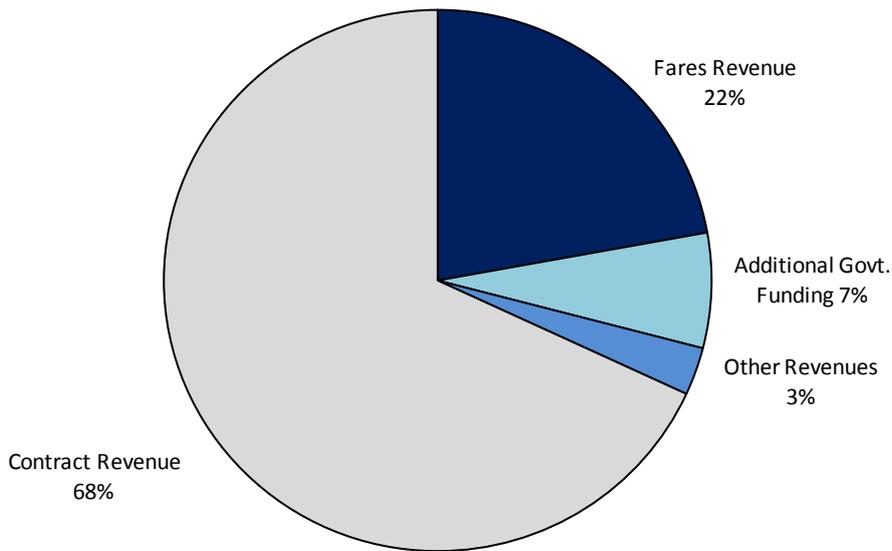
3 METRO REVENUES

3.1 Sources of revenue

This Chapter provides an overview of the sources of Metro’s revenue and the Government’s funding arrangements in relation to the NSC.

Metro’s revenue comes mainly from two sources – fares revenue and Government funding for services Metro provides in Hobart, Launceston and Burnie. The composition of Metro’s revenue for 2012-13 is illustrated in Figure 3.1. Figure 3.1 shows that Metro receives approximately 75 per cent of its funding from the Government through a mix of contract payments and additional funding. Based on current information the current ratios are expected to continue in the future.

Figure 3.1: Metro revenues in 2012-13



Source: Metro Preliminary Submission, p. 55.

3.2 Government funding

3.2.1 Contract payments

Under the various contractual agreements that have applied since corporatisation, Metro’s services have been funded on a break-even basis. The break-even approach was derived from the funding model previously applied to the MTT, whereby the Government paid Metro the difference between the costs of operating the services and the revenue obtained from fares and other activities. The last

Community Service Activity (CSA) Agreement expired on 8 October 2007 and was replaced by the Interim Service Contract, and subsequently the NSC.

Under the NSC Metro is required to provide a set of services specified in the agreement in three service areas; Hobart; Launceston and Burnie. The payments for these services are separately identified and are adjusted quarterly for movements in the Metro Index.¹³

Metro has received the following Government funding payments in each of the last five financial years:

- 2008-09: \$29.15 million;
- 2009-10: \$29.72 million;
- 2010-11: \$30.07 million;
- 2011-12: \$30.54 million; and
- 2012-13: \$32.36 million.

3.2.2 Additional government funding

Since 2009-10 Metro has also received an additional \$3.25 million per annum. This funding has primarily been used by Metro to replace buses and on road infrastructure such as stops, bus shelters and seats. Smaller amounts have been spent on initiatives to grow patronage; generate efficiencies within the business, replace systems and equipment; and accommodation modifications. Should it continue to receive such funding, Metro expects to spend it in on similar expenditure in the future primarily focussed on new bus purchases with smaller amounts on auxiliary vehicles; office equipment; plant and equipment; building and facilities; and information technology equipment.¹⁴

3.3 Own source revenues

3.3.1 Fare revenue

The Metro fare structure comprises three main fare types (single, Greencard and Greencard cap) and three fare categories (adult, concession¹⁵, and child/student). Adult single trip and Greencard fares vary according to the number of sections

¹³ Refer to Chapter 8 for a discussion of the Metro Index.

¹⁴ See Metro's Preliminary Submission, pp.51-52.

¹⁵ Concession includes healthcare/pensioner card holders, seniors, full time Tas Uni and Polytechnic students 19 years and over.

travelled. Greencard holders are charged no more than a daily cap which differs in prices between peak and off-peak periods.¹⁶

Since the release of the Commission’s 2009 Final Report there have been five increases in Metro’s adult fares.¹⁷ These are outlined in Table 3.1.

Table 3.1: Metro’s percentage fare increases

Ticket type	Payment method	October 2009	January 2011	January 2012	January 2013	January 2014
Adult						
Short	Cash	9.1	4.2	4.0	7.7	7.1
Short	Greencard	9.1	4.2	4.0	7.7	7.1
Medium	Cash	9.1	2.8	2.7	5.3	5.0
Medium	Greencard	9.1	2.8	2.7	5.3	5.0
Long	Cash	8.0	3.7	3.6	3.4	3.3
Long	Greencard	8.0	1.9	5.5	3.4	3.3
Day rover	Cash	2.3	2.2	4.3	4.2	6.0
Peak cap	Greencard	0.0	2.2	16.8	4.7	6.7
Off peak cap	Greencard	0.0	2.2	16.8	4.7	6.7
Concession						
All sections	Cash	0.0	0.0	5.6	0.0	0.0
All sections	Greencard	0.0	0.0	5.6	0.0	0.0
Day tripper	Cash	3.4	0.0	6.7	0.0	0.0
Peak cap	Greencard	0.0	0.0	17.2	0.0	0.0
Off peak cap	Greencard	0.0	0.0	20.8	0.0	0.0
Student						
All sections	Cash	0.0	0.0	8.3	0.0	0.0
All sections	Greencard	0.0	0.0	8.3	0.0	0.0
Day tripper	Cash	3.4	0.0	6.7	0.0	0.0
Peak cap	Greencard	0.0	0.0	17.2	0.0	0.0
Off peak cap	Greencard	0.0	0.0	20.8	0.0	0.0

Source: Metro’s Preliminary Submission

Fare revenue received by Metro in each of the last five financial years was as follows:

- 2008-09: \$10.40 million;

¹⁶ Off-peak means travel commenced after 9.00 am Monday to Friday, all day Saturday, Sunday and public holidays.

¹⁷ Derived from Metro fares schedules and Metro’s Preliminary Submission.

- 2009-10: \$10.01 million;
- 2010-11: \$10.39 million;
- 2011-12: \$10.66 million; and
- 2012-13: \$10.53 million.

In Chapters 6 and 7 of this Report the Regulator discusses the issues relating to fares, including an assessment of Metro's fares in comparison with both interstate private and public sector public transport operators.

3.3.2 Other revenue

As illustrated in Figure 3.1, Metro also receives three per cent of its revenue from other sources, principally from:

- advertising receipts (eg from advertisements placed inside or on the outside of its buses and on bus shelters);
- charter operations;
- property rentals; and
- investment income.

In its preliminary submission, Metro noted that income from these sources has been excluded from any analysis in its submission as it is not related to providing Metro's urban services.

4 COMPARATIVE PERFORMANCE

4.1 Introduction

The ToR required the Regulator to investigate and report on the efficient cost of delivering the services required of Metro and recommend the appropriate maximum prices.

More specifically, the Regulator was required to:

- 1) Investigate and report on the efficient cost of delivering the services required of Metro for the period 1 July 2014 to 30 June 2019;
- 2) In making a recommendation on the efficient cost of delivering the service required of Metro, the Regulator is to:
 - i. have regard to costs of compliance with the *Disability Discrimination Act 1992 (Cth)*;
 - ii. have regard to Metro's sustainable management of its capital base; and
 - iii. investigate and report on the potential for Metro to secure operational efficiencies.

As in previous investigations, the Regulator interpreted the efficient cost of delivering services as meaning the costs incurred (including an allowance for a commercial rate of return), by an efficient operator in the Tasmanian market to provide the same level and quality of services as required by Metro under its contract with the Government.

This Chapter examines Metro's financial and non-financial performance since the 2009 Investigation and for the regulatory period to 30 June 2019. It also examines the potential for Metro to secure operational efficiencies.

4.2 Metro's forecast financial performance

Table 4.1 shows Metro's actual financial performance (in nominal terms) with forecasts to 30 June 2019 based on the expected level of fares, contract revenue, trends in passenger numbers and Metro's own assumptions regarding costs and efficiencies.

Table 4.1: Summary statement of Metro's actual and forecast financial performance (nominal\$)

	2008-09 Actual \$'000	2009-10 Actual \$'000	2010-11 Actual \$'000	2011-12 Actual \$'000	2012-13 Actual \$'000	2013-14 Projected \$'000	2014-15 Budget \$'000	2015-16 Budget \$'000	2016-17 Budget \$'000	2017-18 Budget \$'000	2018-19 Budget \$'000
Revenue											
Fare-box	10 404	10 014	10 393	10 656	10 531	10 390	10 869	11 169	11 422	11 723	12 029
Contract revenue	29 148	29 718	30 067	30 538	32 363	33 517	34 158	35 080	36 034	37 115	38 228
Additional govt. funding	0	3 250	3 250	3 250	3 250	3 250	3 250	3 250	3 250	3 250	3 250
Other	1 475	920	1 974	1 353	1 352	886	885	908	932	960	989
Total Revenue	41 027	43 902	45 684	45 797	47 496	48 043	49 162	50 407	51 638	53 048	54 496
Less unregulated revenue	1 238	941	1 170	1 069	920	778	775	794	815	839	865
Revenue - regulated activities	39 789	42 961	44 514	44 728	46 576	47 265	48 387	49 613	50 823	52 209	53 632
Expenses											
Operating expenses	38 010	40 142	40 461	39 633	41 579	42 649	43 880	45 352	46 857	48 277	49 740
Interest	0	6	1 363	1 328	1 045	1 000	1 000	1 000	1 000	1 000	1 000
Depreciation	3 564	3 964	4 265	4 734	4 605	4 732	4 578	4 352	4 354	4 567	4 752
Total Expenses	41 574	44 112	46 089	45 695	47 229	48 381	49 458	50 704	52 211	53 844	55 492
Less unregulated expenses	217	336	362	434	332	283	293	302	310	320	329
Expenses - regulated activities	41 357	43 776	45 727	45 261	46 898	48 098	49 165	50 402	51 900	53 525	55 163
Net profit/loss from regulated activities	-1 568	-815	-1 213	-533	-322	-833	-778	-789	-1 077	-1 316	-1 532
Total net profit/loss	-547	-210	-405	102	267	-338	-296	-297	-573	-796	-996

Source: Metro's Preliminary Submission p.55.

Metro is forecasting losses on passenger transport operations after taking account of its expected revenues from Government for services in the defined urban areas, as shown by its net profit/loss from regulated activities over the forecast period.

Forecast revenues and costs from charters, advertising, rent and investments have been netted off and shown separately. These partially offset the net operating losses from Metro's passenger transport operations as shown by its total net profit/loss.

4.2.1 Capital costs

Metro's non-current asset base currently comprises intangible assets (licences and computer software), a deferred tax benefit, as well as property, plant and equipment. Metro's property, plant and equipment includes:

- buses (which account for approximately 50 per cent of the total value of property plant and equipment);
- land and buildings;
- electronic ticketing and communication equipment;
- route infrastructure;
- office equipment;
- plant and equipment; and
- auxiliary vehicles.

As discussed in previous investigation reports, sourcing funds to sustain its capital base and grow it to meet its *Disability Discrimination Act 1992 (Cth)* (DDA) obligations continues to be a concern for Metro. This is discussed in detail in section 5.2.

4.2.2 Operating and maintenance costs

Salaries, wages and on-costs, and fuel costs comprise the majority of Metro's operating costs. As discussed in more detail in Chapter 8, Metro's single largest cost item relates to labour, ie drivers' wages and other wages and salaries. Bus running costs, of which fuel is becoming a proportionately larger percentage as diesel costs rise, are the next most significant cost item. Metro is forecasting a three per cent per annum increase in its operational costs over the regulatory period.

Metro's preliminary submission identified a range of areas where it felt it could make operational efficiencies to directly reduce the cost of operations or to enable better utilisation of resources. These are discussed in the following sections.

Enterprise agreements

Metro has recently negotiated a number of enterprise agreements with its workers, specifically with:

- bus operator employees;
- engineering employees; and
- administrative employees.

These agreements have led to wage increases of around two per cent per annum including some other entitlement allowances.

Changeover of schedule planning and rostering software

Metro has recently switched its scheduling supplier from Trapeze Austrics to INIT which is Metro's ticketing system supplier. Metro considers that there will be major benefits from the integration of these systems and the removal of previous interfaces between different software packages. This includes reduced lead time and complexity in rolling out other projects such as real time information and the Greencard to other bus operators.

Bus prioritisation measures

In its preliminary submission, Metro noted that traffic congestion and increasing constraints on bus movements are making it more costly to operate Metro services. Furthermore, Metro notes that if buses become slower they become less attractive for passengers which, in turn, leads to more cars on the road and more congestion. Metro considers that it needs to work co-operatively with DIER and councils in a co-ordinated fashion to develop a strategic plan for giving priority to passenger transport where appropriate.

Metro's preliminary submission also noted that DIER approved its proposal for a bus priority lane on the Southern Outlet in 2009 which it considers has been successful through improved patronage and on-time running. Metro has identified a number of other possible bus priority initiatives that it considers would improve its efficiency including (but not limited to):

- extending the Southern Outlet bus priority lane by utilising the Macquarie Street clearway in the morning peak and additional bus priority lanes on the Brooker Highway and Tasman Bridge;
- further analysis and implementation of bus priority measures proposed in the final Main Road Transit Corridor Plan¹⁸;
- more Park 'n' Ride developments at key trip attractor locations;
- implementing traffic switch technology to prioritise bus movements; and
- the development of other transit corridor plans in Hobart.¹⁹

¹⁸ The Main Road Transit Corridor Plan is being developed by the state government to improve public transport on the Main Road Corridor which links Glenorchy to the Hobart CBD.

¹⁹ See Metro Preliminary Submission, pp.60-61.

Changes to Metro fleet mix and reliability

As raised as part of the previous investigation, Metro notes that a more streamlined fleet mix (fewer different types and sizes of buses) reduces training requirements, allowance payments to drivers for extra large vehicles, expenses associated with bus parts, accident incidences and improves efficiency of the maintenance team through less specialisation. In this regard, Metro's bus replacement program requires purchases to be either standard 12.5m buses or articulated buses.

Depot optimisation

Following recommendations from Metro's Greater Hobart Passenger Network Plan (GHPTNP) study, Metro undertook a business case for the optimisation of bus depots in the Greater Hobart area. The study recommended that Metro retain the existing Hobart depot located in Moonah and progressively implement satellite bus depots with overnight bus storage, refuelling, bus wash, driver meal facilities and administration buildings at Bridgewater and Hobart CBD and new larger satellite depot bus yards at Rokeby and Kingston. Whilst Metro has identified target sites for these satellite depots, due to a lack of additional funding, it has not been able to progress these proposals.

Service availability

In its preliminary submission, Metro noted that it will be shortly developing a service availability policy to provide a framework for a consistent and fair evaluation of both existing and proposed services. Metro notes that there will be an intrinsic link between the service availability policy and Metro's budget in that the level of service and amount of services it can provide will have a direct impact on Metro's capital and operating budgets. Metro also notes that it will need to monitor existing services so that service levels match demand through service expansion and reduction. Metro also claims that the service availability policy will enable it to rationally evaluate service changes and make adjustments within the constraints of its budget and resource availability.

Fleet procurement

Metro is investigating more efficient methods to procure its fleet including through procurement partnerships with other bus operators that may lead to more competitive pricing and considering leasing options instead of outright purchases.

Fare restructure

Finally, Metro considered that its proposed alternative fare structure will increase the uptake of Greencard as well as increase patronage.

4.2.2.1 Regulator's conclusions

The Regulator notes that many of the actions taken by Metro and proposed initiatives would appear to be sensible business practices undertaken in a competitive market aimed at improving efficiency. However, the Regulator notes that many of these proposals are still in the development phase. The Regulator understands Metro has not implemented some initiatives partly due to a lack of additional capital funding.

In Metro's submission on the draft report, Metro added that any decision to pursue an efficiency saving measure is taken within an integrated planning framework that takes account of service delivery needs, corporate objectives, financial and budgetary constraints and Metro's overall resource allocation objectives. Generally, this process occurs through the preparation of a business case. Metro notes that this structured approach allows for greater control over the project selection process to facilitate the allocation of funds consistent with Metro's strategic business plans. Furthermore, Metro noted that it must also plan the implementation of efficiency saving measures in a manner that does not jeopardise the delivery of the contracted level of service.

Despite this, as noted by the Regulator in its draft report Metro has not quantified the benefits of such proposals and factored these into its proposed operating costs. Given this, it is difficult to assess the robustness of the proposal and their impact on Metro's efficiency in the future.

As such, the Regulator has decided to retain its draft report conclusion that it considers that, in assessing efficient cost, for the purpose of setting fares, it should have regard to an efficient competitive market operator. Given this, in assessing Metro's efficiency for the purpose of setting fares, the Regulator considers it most appropriate to compare Metro's performance with respect to a benchmark efficient operator as was done in previous investigations.

4.3 Comparative performance

As in previous investigations, Metro provided the Regulator with the results of a benchmarking study in which it was a participant. In previous investigations, Metro has separately engaged Indec Consulting Pty Ltd (Indec) to provide a detailed report specific to Metro. For the current investigation, rather than engage Indec separately, Metro is now a participant of a broader benchmarking exercise undertaken by Indec for all jurisdictions in Australia, including public and private operators²⁰. This new benchmarking approach contains less detailed information on specific Metro financial performance however it includes more comparable information for operators that are submitted annually (as opposed to data from other jurisdictions in previous reports that were not for the same year and which, therefore, required assumptions on indexation for comparison purposes). Furthermore, the new report includes other non-financial indicators on operational and service performance.

In developing its recommendations on maximum allowable revenues, the Regulator took into account the information provided by Metro, including the Indec Report, in assessing the efficiency of Metro's operations.

4.3.1 Metro's performance over time

The benchmarking reports measure Metro's performance against a number of key performance indicators. These include financial, operational and service criteria.

²⁰ Indec Reports are provided to the Regulator on a commercial-in-confidence basis.

4.3.1.1 *Financial indicators*

The financial indicators include:

- bus hourly costs – direct wages including on-costs per kilometre;
- kilometres costs – fuel, maintenance, cleaning, bus running expense per kilometre;
- overhead costs - administration salaries including on-costs and other indirect expense per kilometre; and
- capital costs payment – capital cost per bus.

Indec notes that all performance comparisons by unit are made for in-service kilometres and hours only. Variations in performance from year to year and between operators are therefore unlikely to arise from differences in the quantum of dead running (kilometres driven to and from a depot that are not part of a service route).

Table 4.2 presents Metro's historical performance with respect to these financial indicators. As can be seen, all per unit costs measures have increased since 2007-08, which may be expected with general inflation. Relatively large increases in annual costs have occurred for non-labour overhead costs, administration and salaries, maintenance costs and per bus capital costs. In its submission on the draft report, Metro noted that as with any analysis between periods there can be a number of reasons for the increases such as classification issues and/or changes in operations.

In its submission on the draft report, DIER raised concerns about the substantial increase in overhead costs since 2009 and considers that it will be essential for Metro to address these increases going forward over the next regulatory period.

Table 4.2: Metro's historical performance against financial indicators

Performance measures	2007-08	2008-09	2009-10	2010-11	2011-12	Total change (%)	Average Annual change (%)
Bus hourly costs							
Driver costs (\$/km)	1.94	2.04	2.17	2.13	2.15	10.8	2.6
Kilometre costs							
Maintenance staff costs (\$/km)	0.18	0.21	0.21	0.22	0.24	33.3	7.5
Other kilometre costs (\$/km)	0.30	0.31	0.36	0.37	0.38	26.7	6.1
Fuel cost per kilometre	0.63	0.63	0.55	0.62	0.67	6.3	1.6
Total kilometre costs	1.11	1.15	1.11	1.22	1.29	16.2	3.8
Overhead costs							
Administration and salaries (\$/km)	0.48	0.52	0.55	0.59	0.65	35.4	7.9
Non-labour overhead costs (\$/km)	0.38	0.38	0.42	0.65	0.68	78.9	15.7
Total bus overhead costs (\$/km)	0.86	0.90	0.97	1.23	1.33	54.7	11.5
Total operating costs (\$/km)	3.91	4.08	4.25	4.58	4.77	22.0	5.1
Capital costs - Bus							
Capital costs – Bus (\$/Bus)	14 605	16 127	18 182	19 043	21 522	47.4	10.2

Source: Indec

4.3.1.2 Operational and service indicators

The operational and service indicators reported by Indec include:

- operational indicators – average kilometres per bus, average hours per bus, average speed per bus and patronage boardings per kilometres per annum;
- fleet indicators – average fleet in years and a bus spares ratio (total fleet – peak buses)/(total fleet); and
- service quality and delivery – percentage of annual services run on-time and complaints per million passengers per annum.

Table 4.3 presents Metro's historical performance with respect to these operational and service indicators. As Table 4.3 shows, with respect to the operational indicators, the average in-service kilometres and in-service hours for Metro's buses have all decreased. However, patronage boardings per kilometre have increased up to 2011-12. Furthermore, the average age of Metro's fleet has also risen despite annual purchases of new buses. In its submission on the draft report, Metro noted that the changes to its operational service indicators (aside from patronage

boardings per kilometre) are due to increases in its fleet size through the purchase of new buses. However Metro also noted that its fleet size has since decreased due to more recent decommissioning and sale of older buses.

The Regulator notes the sharp deterioration in performance with respect to the reported service indicators. Table 4.3 shows that the percentage of services running on-time on an annual basis has almost halved since 2007-08. Furthermore, the number of complaints per annual patronage has risen 609.5 per cent between 1 July 2007 and 30 June 2012. Metro have indicated that this is likely due to the different method in which data was reported by Metro and submitted to Indec during 2010-11 and 2011-12.

Specifically, for on-time running Metro advised the Regulator that, due to data limitations at the time, the 2008-09 and 2009-10 data was based on one month of data for first stop departures for each depot. Metro also noted that the inclusion of the first stop only would be expected to yield a high percentage of on-time running. For more recent years Metro stated that a technical fault had not allowed Metro to collect data with respect to first stops. In its submission on the draft report, Metro noted that it is currently undertaking a project that will eliminate the requirement to exclude first boardings.

With respect to complaints, Metro notes that the jump in complaints between 2009-10 and 2010-11 is related to a change in the method of compiling complaint statistics. Since 2010-11 all complaints are disclosed. In previous financial years only recorded and substantiated complaints were disclosed.

Given the issues raised above, in its submission on the draft report Metro noted that care needs to be taken when comparing Metro's performance against other operators.

Nonetheless, the Regulator notes that the information provided in the Indec report is the best information available to the Regulator in considering Metro's efficient cost. The Regulator thus compares these statistics with other operators in the next section.

Table 4.3: Metro's historical performance on operational and service indicators

Performance measures	2007-08	2008-09	2009-10	2010-11	2011-12	Total change (%)	Average Annual change (%)
Operational							
Average kilometres per bus (km p.a.)	44 542	42 342	43 163	41 194	41 708	-6.4	-1.6
Average hours per bus (hrs)	1 620	1 540	1 565	1 467	1 506	-7.0	-1.8
Average speed per bus (km/hr)	27.5	27.5	27.6	28.1	27.7	0.7	0.2
Patronage boardings per kilometre	1.06	1.08	1.07	1.14	1.13	6.6	1.6
Fleet							
Bus spares ratio	12.3%	9.4%	13.5%	9.8%	14.0%	13.8	3.3
Average fleet (years)	14.1	14.0	14.4	14.6	14.9	5.7	1.4
Service quality and delivery							
% of annual services run on-time	95.8%	95.9%	95.8%	64.0%	56.3%	-41.2	-12.4
Complaints per annual patronage	24.3	24.3	23.0	119.7	172.4	609.5	63.2

Source: Indec

4.3.2 Public sector comparisons

The Indec Report compared Metro's performance with that of the other major public sector bus operators in Australia. Table 4.4 and Table 4.5 present the raw data for those other operators and the weighted average for both financial and operational and service indicators respectively. As can be seen from Table 4.4, Metro outperforms the other public operators on all but one of the non-capital financial indicators, which is consistent with Indec's previous findings. However, Metro demonstrates mixed performance on the operational indicators by outperforming the weighted average on kilometres and speed per bus but underperforming with respect to patronage. Furthermore, Metro underperforms on the service quality indicators.

Table 4.4: Public sector bus operators – financial indicators

Performance measures	Metro	A	B	Weighted Average
Bus hourly costs				
Driver costs (\$/km)	2.15	4.08	2.91	3.68
Kilometre costs				
Maintenance staff costs (\$/km)	0.24	0.59	0.52	0.55
Other kilometre costs (\$/km)	0.38	0.55	0.39	0.51
Fuel cost per kilometre	0.67	0.66	0.60	0.65
Total kilometre costs	1.29	1.80	1.51	1.70
Overhead costs				
Administration and salaries (\$/km)	0.65	1.16	0.73	10.3
Non-labour overhead costs (\$/km)	0.68	1.03	0.62	0.92
Bus Overhead costs (\$/km)	1.33	2.19	1.35	1.95
Total operating costs (\$/km)	4.77	8.07	5.78	7.33
Capital costs - Bus				
Capital costs – Bus (\$/Bus)	21 522	31 921	10 634	27 658

Source: Indec

Table 4.5: Public sector bus operators – operational and service indicators

Performance measures	Metro	A	B	Weighted Average
Operational				
Average kilometres per bus (km p.a.)	41 708	34 677	43 772	36 704
Average hours per bus (hrs)	1 506	1 805	1 573	1 744
Average speed per bus (km/hr)	27.7	19.2	27.8	21.0
Patronage boardings per kilometre	1.13	2.18	0.93	1.85
Fleet				
Bus spares ratio	14.0%	6.1%	24.8%	6.1%
Average fleet (years)	14.9	-	11.9	13.4
Service quality and delivery				
% of annual services run on-time	56.3%	92.8%	0.0%	74.6%
Complaints per annual patronage	172.4	176.9	-	176.6

Source: Indec

4.3.3 Private sector comparisons

The Indec Report also compared Metro's performance to that of private sector bus operators in Australia. Table 4.6 and Table 4.7 present the raw data for private operators together with the weighted average for both financial and operational and service indicators respectively. As can be seen from Table 4.6, Metro has mixed results with respect to the financial indicators. Metro outperforms the private operators for bus hourly costs which is consistent with previous results presented by Indec. However, Metro underperforms with respect to total kilometre costs (largely due to fuel costs) and also with respect to overhead costs. As shown in Table 4.7, with respect to the operational and service indicators, Metro generally underperforms relative to the private operators.

Table 4.6: Private sector bus operators – financial indicators

Performance measures	1	2	3	4	5	6	Weighted Average	Metro
Bus hourly costs								
Driver costs (\$/km)	2.58	1.10	1.74	1.79	2.41	2.67	2.27	2.15
Kilometre costs								
Maintenance staff costs (\$/km)	0.36	0.27	0.28	0.17	0.29	0.24	0.28	0.24
Other kilometre costs (\$/km)	0.39	0.21	0.36	0.29	0.28	0.60	0.37	0.38
Fuel cost per kilometre	0.44	0.51	0.56	0.51	0.40	.075	0.51	0.67
Total kilometre costs	1.19	0.99	1.20	0.97	0.97	1.59	1.15	1.29
Overhead costs								
Administration and salaries (\$/km)	0.54	0.20	0.34	0.17	0.32	0.34	0.36	0.65
Non-labour overhead costs (\$/km)	0.71	0.34	0.76	0.27	0.42	0.18	0.49	0.68
Bus Overhead costs (\$/km)	1.26	0.54	1.10	0.44	0.74	0.51	0.85	1.33
Total operating costs (\$/km)	5.03	2.63	4.04	3.19	4.12	4.78	4.27	4.77
Capital costs - Bus								
Capital costs – Bus (\$/Bus)	26 801	-	39 613	-	29 732	38 115	31 807	21 522

Source: Indec

Table 4.7: Private sector bus operators – operational and service indicators

Performance measures	1	2	3	4	5	6	Weighted Average	Metro
Operational								
Average kilometres per bus (km p.a.)	38 716	68 582	40 097	52 072	56 542	46 470	46 414	41 708
Average hours per bus (hrs)	1 467	2 628	1 709	2 053	2 526	1 852	1 896	1 506
Average speed per bus (km/hr)	26.4	26.1	23.5	25.4	22.4	25.1	24.5	27.7
Patronage boardings per kilometre	0.92	-	-	1.03	1.07	1.41	1.07	1.13
Fleet								
Bus spares ratio	11.5%	8.5%	8.5%	13.5%	8.5%	12.8%	10.7%	14.0%
Average fleet (years)	-	-	-	10.6	8.5	9.9	9.7	14.9
Service quality and delivery								
% of annual services run on-time	96.8%	0.0%	92.9%	85.1%	0.0%	85.1%	87.7%	56.3%
Complaints per annual patronage	162.6	-	-	94.0	-	88.0	114.9	172.4

Source: Indec

4.3.4 Normalised comparison and best practice comparator

In previous years Indec compared Metro’s performance with a weighted average of a selected sample of ‘best practice operators’ (the Benchmark Operator). However, under the revised benchmarking framework Indec has not prepared a specific Benchmark Operator to compare with Metro. Rather, Indec has normalised the data provided by other jurisdictions for differences with Metro to provide a more meaningful comparison. These adjustments are as follows.

- Bus hourly costs and fuel costs for other jurisdictions have been adjusted for the speed and fuel costs²¹ of Metro.
- Bus overhead costs for each jurisdiction were firstly separated into fixed and variable costs. The variable costs were normalised to the average speed of

²¹ Indec note that average speed has a major influence on total unit cost per kilometre because lower speed (through higher congestion) translates into more bus hours per kilometre which in turn increases driver costs per kilometre and a significant portion of overhead costs.

Metro in the same way that bus hourly costs are normalised. The fixed overhead costs were normalised to the kilometres per peak bus for Metro, calculated by determined each jurisdictions fixed costs per peak bus then dividing that cost by the kilometres per peak bus for Metro.

Table 4.8 presents the normalised financial indicators comparing Metro with the weighted average of both public and private operators. Table 4.8 demonstrates that Metro still out performs the public operators based on the normalised data. Furthermore, Metro outperforms the private operators with respect to kilometre costs after normalisation. However, Metro's overhead costs remain relatively high compared to private operators and Metro's bus hourly costs are higher than private operators after normalisation. Furthermore, Metro's service standards would appear to be relatively poor compared to private sector operators.

Table 4.8: Normalised financial indicators

Performance measures	Metro	Public weighted average	Private weighted average
Bus hourly costs			
Driver costs (\$/km)	2.15	2.84	2.00
Kilometre costs			
Maintenance staff costs (\$/km)	0.24	0.58	0.28
Other kilometre costs (\$/km)	0.38	0.52	0.37
Fuel cost per kilometre	0.67	0.67	0.67
Total kilometre costs	1.29	1.77	1.32
Overhead costs			
Administration and salaries (\$/km)	0.65	0.73	0.30
Non-labour overhead costs (\$/km)	0.68	0.99	0.43
Bus Overhead costs (\$/km)	1.33	1.73	0.73
Total operating costs (\$/km)	4.77	6.33	4.06
Operational			
Average kilometres per bus (km p.a.)	41 708	36 704	46 414
Average hours per bus (hrs)	1 506	1 744	1 896
Average speed per bus (km/hr)	27.7	21.0	24.5
Patronage boardings per kilometre	1.13	1.85	1.07
Fleet			
Bus spares ratio	14.0%	6.1%	10.7%
Average fleet (years)	14.9	13.4	9.7
Service quality and delivery			
% of annual services run on-time	56.3%	74.6%	87.7%
Complaints per annual patronage	172.4	176.6	114.9

Source: Indec

Indec notes that care should be made in interpreting the results due to differences in operating models and conditions that could not be normalised. These include differences in charter activities, tolls, spread of service, requirements in service contracts, specific operator requirements, levels of traffic congestion, passenger density, in fleet composition and geographical topography. Indec suggests an error margin of plus or minus ten per cent should apply to its analysis.

4.3.5 Summary and conclusions - Indec Report

The Regulator recognises that data integrity issues can arise with benchmarking studies, and adjustments to the data to take account of operational differences can

never be completely objective. Additionally, it is not the Regulator's role to review in detail the methodology used by Indec. The Regulator also notes that benchmarking is designed as a comparative exercise only and to indicate areas where improvement may be possible, ie benchmarking is not a substitute for undertaking a detailed assessment of the operations of a business in order to identify areas where real efficiencies can be achieved. Metro is best placed to undertake such a review.

That said, the information provided in the Indec reports is the best information available to the Regulator to assess Metro's efficiency for fare setting purposes. Given this, the Regulator has used this information in determining its efficiency factor for assessing Metro's costs in Chapter 5.

In terms of considering a Benchmark Operator, the Regulator notes that at the previous investigation Indec created the comparator based on a sample of 18 Sydney Metropolitan private bus operators. The Regulator understands that this was on the basis that operators in this region were the most efficient in Australia. Given this, and for consistency, the Regulator considers that comparison with the normalised private sector operator weighted average is the most appropriate basis to use in assessing Metro's efficiency for fare setting purposes.

In its submission on the draft report, Metro contended that if a Benchmark Operator is to be used for the purposes of determining an efficiency adjustment, this benchmark operator should be based on an efficient public sector operator. This is due to the additional costs that public sector operators face compared to private sector operators as discussed above. Given this, Metro considers that the normalised public sector operator weighted average should be used for benchmarking purposes.

The Regulator notes that the normalised public sector operator weighted average is based on two public sector operators in Australia. Whilst the data has been normalised for the conditions faced by Metro the weighted average does not necessarily provide an estimate of efficient cost for a public sector operator. Rather it is a weighted average of actual costs of two public sector operators that may not be efficient. Given this, the Regulator does not consider the normalised public sector weighted average is an appropriate estimate for the Benchmark Operator.

As discussed in the draft report, the Regulator acknowledges, as noted in the Indec reports, that government operators tend to face additional costs and restrictions on their ability to be as efficient as private operators. These include different driver awards, procurement and tendering restrictions (including access to capital) and governance costs. However, the Regulator considers its role is to determine efficient costs. The Regulator also considers that the normalised private sector operator weighted average is the best available information to use in estimating an efficiency target for a bus operator.

Furthermore, as discussed in the draft report and in previous investigations, the Regulator applies the efficiency factor only to cost items that it considers Metro can influence. In this way, the Regulator discounts the efficiency factor of the Benchmark Operator to make it more appropriate for public sector operators such as Metro.

Based on the information available, the Regulator considers, for the purpose of estimating full cost fares, this is the most appropriate approach for determining the costs of a Benchmark Operator for Metro. As such, the data in Table 4.8 for Metro and private sector operators is used in determining any required efficiency adjustment to Metro's proposed costs in section 5.3.

5 REGULATOR'S ASSESSMENT OF EFFICIENT COSTS AND MAXIMUM REVENUE NEEDS

The ToR required the Regulator to make recommendations as to the efficient cost of Metro providing urban passenger transport services in Hobart (including services to Kingston/Blackmans Bay), Launceston and Burnie.

This Chapter provides the Regulator's assessment of Metro's efficient cost of delivering those services and provides a recommendation of maximum revenues.

5.1 Approach

It is common regulatory practice to calculate the revenue requirement for a regulated monopoly business by means of a building block approach. Under this approach allowable revenues are equal to the sum of the assessed efficient operating and maintenance costs plus an allowance for depreciation (return of capital) and a risk adjusted return on capital for each year of the regulatory period. The risk adjusted return is calculated by multiplying the approved asset base by an appropriate weighted average cost of capital (weighted to reflect the proportions and relative cost of debt and equity). This approach is designed to provide the business with a sustainable asset base. The asset base is rolled forward each year by adjusting for additions to the asset base, less depreciation and any capital contributions received from third parties.

The above approach was adopted for the previous investigation and the Regulator considers it to be the most effective means of determining Metro's efficient costs for fare setting purposes for the current investigation. Furthermore, as per previous investigations, the Regulator has assumed there have not been any changes to Metro's services for the purpose of fare setting. Changes in service may lead to an increase or decrease in costs for Metro. Whilst this will have implications for Metro's level of required contract payments the implication for fares is likely to be minimal.

5.2 Capital costs

To assess the efficiency of Metro's capital expenditure in previous investigations Metro's base year capital costs were adjusted using benchmark indicators from the Indec reports. These costs were then to be indexed each year using the Metro Index. However, in the 2009 Investigation in making a recommendation on the efficient cost of delivering the service required of Metro, the Commission was required to have regard to Metro's sustainable management of its capital base. Given this and the evidence put forward by Metro during the 2009 Investigation, the Commission decided to adopt a more standard regulatory approach to determining the capital costs to be included in the calculation of maximum revenues for Metro.

The Commission was also required to have regard to the costs of compliance with the DDA requirements.

The Regulator has a similar obligation under its 2013 ToR and, therefore, has adopted the same regulatory approach.

5.2.1 DDA compliance costs

Table 5.1 details public bus passenger transport companies' compliance obligations under the DDA.

Table 5.1: Percentage targets for compliance with DDA requirements

Year ended	2007 %	2012 %	2017 %	2022 %
General access by services delivered by accessible buses		55	80	100
Bus stops and infrastructure	25	55	90	100

Source: Metro's Preliminary Submission, p.45.

In its preliminary submission, Metro stated that it is providing 65 per cent of its services statewide with DDA compliant vehicles. This excludes dedicated school trips which Metro notes are excluded from the DDA requirements. Metro has achieved this percentage through the use of 85 DDA compliant vehicles out of a fleet of 217. These vehicles are distributed around the state with 63 vehicles in Hobart, 16 in Launceston and six in Burnie. At present Metro is, therefore, meeting its obligations with respect to DDA services based on the 2012 requirements outlined in Table 5.1.

Metro also noted that it has obligations to use its younger buses for its urban fringe contract services to meet average age and maximum age requirements. This means that Metro must prioritise DDA compliant buses to urban fringe areas which typically have lower frequency and often require overnight lay-over in outlying satellite yards. These restrictions appear to restrict Metro's ability to improve its DDA compliance using its existing bus fleet. Metro considers that a significant investment in purchasing of new buses is necessary to meet the 2017 and 2022 requirements of the DDA Act.

With respect to compliance with bus stops and infrastructure, Metro's preliminary submission notes that currently 20 per cent of poles, signs and timetables at bus stops are compliant with this figure expected to reach an anticipated 25 per cent by December 2014. Between 2010-11 and 2012-13 Metro has indicated that it has spent \$635 428 on street infrastructure upgrades sourced from the additional annual government funding of \$3.25 million. As for the investment in new buses, Metro notes that a significant investment in upgrading bus stop infrastructure is necessary to meet the 2017 and 2022 DDA requirements of 90 and 100 per cent respectively.

5.2.1.1 Financing future DDA compliance costs

In its preliminary submission, Metro has outlined its suggested plan to meet its DDA requirements with respect to its bus replacement program. Table 5.2 summarises Metro’s suggested bus replacement program and cost to meet the DDA requirements for bus services as outlined in Metro’s preliminary submission. As can be seen, Metro considers it needs to replace 133 buses at a total cost of almost \$61 million.

Table 5.2: Metro’s suggested bus replacement program to meet DDA and average age contract compliance

Year	New Std.	New Artic.	Total New	Bus cost (\$'000)	Std. Fleet	Artic. Fleet	Total Fleet	Max Age	Avg Age	% DDA Buses	% DDA Services
2012-13	0	4	4	2 756	199	18	217	27.5	14.9	41.0	53.2
2013-14	13	4	17	8 502	199	18	217	27.5	13.9	48.8	61.4
2014-15	13	4	17	8 502	201	16	217	24.5	12.9	56.7	68.8
2015-16	15	0	15	6 630	201	16	217	24.8	12.2	63.6	75.0
2016-17	14	0	14	6 188	201	16	217	25.0	11.5	70.0	80.3
2017-18	14	0	14	6 188	201	16	217	25.0	10.9	76.5	85.0
2018-19	14	0	14	6 188	201	16	217	25.0	10.2	82.9	89.5
2019-20	14	0	14	6 188	201	16	217	25.5	9.6	89.4	93.7
2020-21	14	0	14	6 188	201	16	217	25.9	8.9	95.9	97.6
2021-22	14	0	14	6 188	201	16	217	19.8	8.3	100.0	100.0
Total	125	8	133	60 762							

Source: Metro’s Preliminary Submission, pp.47-48.

Note:

Std. = Standard (non-articulated) bus

Artic. = Articulated bus

Table 5.3 outlines the difference between Metro’s suggested funding requirement and its actual funding available until 30 June 2016. Metro’s available funding is sourced from the additional \$3.25 million that the government currently provides Metro each year on top of its contract payments. Metro noted in its submission that this funding has not been guaranteed after 2015-16 such that the analysis in Table 5.3 does not go beyond 20 June 2016. Metro considers that it will have an accumulated funding shortfall of \$13.9 million by 2015-16 in terms of meeting its DDA requirements. Metro provided the Regulator with a copy of its budget submission for the 2013-14 state budget in which it sought this additional funding.

Table 5.3 Current available funding for Metro's bus replacement program

Year	New Standard	New Articulated	Total New	Bus cost (\$'000)	Funding available (\$'000)	Shortfall (\$'000)
2012-13	0	4	4	2 756	2 756	Nil
2013-14	13	4	17	8 502	3 220	5 282
2014-15	13	4	17	8 502	3 220	5 282
2015-16	15	0	15	6 630	3 220	3 410
Total	41	8	49	23 634	9 660	13 974

Source: Metro's Preliminary Submission, p.48.

To address the funding shortfall Metro has suggested four possible funding mechanisms. These include:

- Increased contract payments – this has been Metro's preferred option in the past as it attempts to match the cash flow with the need to expend the capital expenditure in its balance sheet and provide a revenue stream in the profit and loss statement to offset the increased depreciation following the acquisition of the asset. Metro considers the benefit of this option is that contract payments provide a return on assets and provides for capital replacement now and into the future for ongoing capital replenishment. Metro considers future certainty would be required to provide confidence to the Metro Board to enter into bus supply contracts knowing that the funds would be available.
- Equity injections – Metro notes that it has previously explored this option with its shareholders through a fixed up-front amount or an amount equal to its capital expenditure each year. Whilst Metro would welcome an equity injection it is cautious about matching the receipt of additional funds with the depreciation expense since the additional funds would not be recorded in the profit and loss statement (the increased depreciation expense would further Metro's operating losses). Metro is also concerned about the shorter term focus of an equity injection which deals with the immediate issues at hand but not the longer term ongoing need for bus replacement. Metro considers future certainty would be required to provide confidence to the Metro Board to enter into bus supply contracts knowing that the funds would be available.
- Debt – Metro has had a history of little debt and is restricted by its long term borrowing limits with TASCORP and its ability to service the debt. Metro considers that its contract payments would need to be restructured to allow for interest and debt repayments as they are inadequate to provide surety of cash flow to meet these payments in future years.
- A combination of the above.

The Regulator considers that the deadlines for Metro to meet its DDA requirements and average age fleet requirements and the funding required to meet those obligations are policy issues for the Government to consider. This is particularly in

light of the fact that around 75 per cent of Metro’s revenue is sourced from the Government through contract payments and additional funding as outlined in Figure 3.1.

5.2.2 Capital expenditure

Excluding the capital expenditure Metro requires to meet its DDA obligations, and ways of meeting those obligations as discussed above, Metro’s actual and projected capital expenditure based on current funding and its current corporate plan is presented in Table 5.4 below. As this table shows, the majority of expenditure is expected to be on bus replacement with additional out year funding on electronic ticketing and communications.

Table 5.4: Metro’s actual and forecast capital expenditure

	Actual 2012-13 \$'000	Projected 2013-14 \$'000	Budget 2014-15 \$'000	Budget 2015-16 \$'000	Budget 2016-17 \$'000	Budget 2017-18 \$'000	Budget 2018-19 \$'000
Land and buildings	19	5	50	50	50	50	50
Buses	56	3 220	3 220	3 220	3 220	3 220	3 220
Route infrastructure	242	100	100	100	100	100	100
Office equipment	130	401	200	200	200	200	200
Electronic ticketing and Communications	2	28	-	-	-	-	3 500
CCTV equipment	-	-	-	-	-	820	820
Plant and equipment	31	49	50	50	50	50	-
Auxiliary vehicles	260	104	125	125	140	125	100
Work in Progress	1 055	-	-	-	-	-	-
Total	1 795	3 907	3 745	3 745	3 760	4 565	7 990

Source: Metro’s Preliminary Submission, p.57.

Metro considers that its current method of funding is not sustainable and should be reviewed. In particular, Metro considers the process for adjusting its contract payments, and the uncertainty surrounding the additional \$3.25 million per annum government funding, should be reviewed. Metro’s preference is for more of an output based contract in regards to service and contract payments than that which is currently provided. Metro considers that this would provide more flexibility in meeting the requirements under the NSC and its DDA obligations.

In this light, Metro’s preliminary submission refers to a number of reviews that are being undertaken with regards to Metro’s finances. These include:

- A financial sustainability review undertaken between Metro, DIER and the Department of Treasury and Finance. Recommendations from this review will include building a more sustainable business model and an appropriate governance structure to monitor progress on agreed actions and impact on Metro’s financial position.

- A strategic asset management plan (SAMP) being conducted by Metro to ensure that Metro meets its service delivery objectives efficiently and effectively. This includes maximising the service potential of existing assets, reducing demand for new assets; achieving greater value for money through procurement; eliminating unnecessary acquisition and holding of assets; and improving accountability and responsibility in relation to asset management.
- Developing a new corporate plan which reflects the budgetary impact of new goals, strategies and actions which are currently under development.

The estimates presented in Table 5.4 above do not reflect any potential outcomes of these reviews/plans being undertaken/developed by Metro and the Government. Given this, and the uncertainty surrounding both Metro's future funding sources and the Government's appetite for DDA compliance from Metro, it is difficult to determine what is an appropriate efficient capital expenditure program moving forward.

In the previous investigation it was noted that businesses cannot be sustainable if assets are not renewed and replaced on a regular systematic basis. However, replacement and refurbishment of existing assets or investments in new assets will only be warranted where a business case can be established. Whilst Metro has now conducted a business case for its proposed bus investments to meet its DDA obligations, funding has yet to be provided by Metro's primary funding source (the Government). As such the Regulator does not consider it prudent to include potentially unfunded capital expenditure in determining fares. To do so would mean that the revenue used to determine full cost recovery levels included a contribution to capital investment that may not be undertaken because the Government may not provide funding for it.

Based on the above, the Regulator considers it prudent to only include the funding that has been approved by the Government as outlined in Table 5.4. This would be sourced through a combination of contract payments and additional government funding discussed earlier. Furthermore, the Regulator considers it reasonable to include this amount out to 2018-19 despite the fact that Metro has yet to secure the funding beyond this period. This is effectively a no policy change assumption with the Government yet to make a decision on whether to continue (or discontinue) this funding beyond its current budget estimates that finish in 2015-16.

The Regulator does not consider that it is in a position to assess the efficiency of Metro's investment proposal with respect to meeting its DDA obligations given the information it has been provided. The Regulator, therefore, notes that the approval of this capital expenditure, for the purpose of fare setting, has not necessarily considered the efficiency of that expenditure. However, based on Metro's DDA obligations it is likely that current funding would be at the lower end of funding required by Metro. Allowance for Metro's current annual capital estimates, therefore, would not appear excessive. That said, the Regulator considers that it is the role of the Government and Metro, through the reviews discussed above, to ensure arrangements are in place to enable Metro to achieve value for money in its capital expenditure program and operations more broadly. This may include more efficient

procurement outcomes and/or balancing the objectives of DDA obligations and average fleet requirements.

5.2.3 Return on capital

As discussed in section 5.2, under the building block approach, a return on capital is calculated by multiplying the approved asset base by an appropriate weighted average cost of capital (weighted to reflect the proportions and relative cost of debt and equity). This section discusses the approach adopted by the Regulator in deciding on the appropriate cost of capital to apply to determine the cost of capital.

The basis for the establishment of the commercialisation and corporatisation models under the Council of Australian Government's National Competition Agreements was that government businesses would be set up and funded along the lines of a private sector operator. It was expected, therefore, that prices for services would be set taking into account the full cost of service delivery including providing for allowance for the return on assets. In addition, any community service obligations (CSOs) were to be funded through explicit payments.

However, as noted in the previous investigation, public passenger transport companies across all Australian jurisdictions appear to have very low rates of return and many, like Metro, have been 'deficit funded'. That is, their CSO obligations have not been fully funded on a commercial basis ie the funding does not reflect full costs including a return on capital. Consequently many public transport companies have low and in some instances negative rates of return. As noted by the Productivity Commission in its 2008 Report²²:

... all of the urban transport GTEs²³ had a return on assets that was less than the risk-free rate of return. The highest rate of return on assets recorded over the past three years was by STA [State Transit Authority, NSW] (5.5 per cent in 2005-06). SFC [Sydney's Ferry Corporation] had negative returns on assets in 2005-06 and 2006-07 (-38.8 per cent and -0.1 per cent respectively).

This suggests that the operations of urban transport GTEs might not be commercially sustainable at current levels of performance. For example, an urban transport GTE that does not achieve a commercial rate of return might be unable to adequately invest in, or maintain, its capital assets.

Governments might not require a commercial rate of return from urban transport GTEs because urban transport provides external benefits not captured on the balance sheet. Examples include reductions in road user cost, environmental benefits and access for the young, elderly and poor. However, the approach of not explicitly funding CSOs is inconsistent with the commercialisation model, the central focus of the reform process.

²² Productivity Commission, *Productivity Commission Research Paper: Financial Performance of Government Trading Enterprises 2004-05 to 2006-07*, Productivity Commission, July 2008, p.210.

²³ Government Trading Enterprises

The Commission has previously included a return on capital in recognition that a private operator undertaking Metro's services on contract would require a commercial return on capital employed in the business. Such an allowance should reflect a risk adjusted weighted average cost of capital (WACC). The WACC recognises both the debt and equity components of the capital investment in a business. On this basis, no separate allowance needs be made for debt servicing costs as these are already factored into the return on capital.

In its preliminary submission, Metro noted that its shareholders do not expect Metro to achieve a commercial rate of return on capital under its service contracts. Furthermore, Metro is not expecting to pay any dividends to the Government. This position was noted in previous investigations where it was recognised that as the Government has the dual role of purchaser of Metro services and shareholder, the provision of a return on capital in its contract payments would effectively result in the profit component in these payments passing through a 'revolving door', and being returned to the funding source. In its submission on the draft report, DIER noted that, whilst Metro is expected to replenish or replace its capital stock, a return on capital as reward for the assumption of commercial risk is not considered relevant under Metro's funding model and Metro is not required to pay a dividend.

Consistent with previous investigations, the Regulator accepts that an explicit payment for a commercial rate of return cannot be accommodated under the current arrangements. However, the Regulator considers that 'full cost recovery' necessarily includes a return on capital. The Regulator considers, therefore, that in order to provide advice on 'what changes would be necessary to the full adult fare structure to achieve full cost recovery and peak cost recovery', the calculation of maximum revenues taking into account a return on capital is required. Furthermore, the calculation of maximum revenues based on full costs including a return on capital will also assist the Government in any future consideration of whether to make an explicit payment to Metro of a commercial rate of return 'equivalent' in making any changes to Metro's capital structure and funding arrangements.

5.2.3.1 Cost of capital

In considering the WACC rate to apply, the Regulator has had regard to the decision from the previous investigation, the average debt to equity ratio for public transport in Australia and benchmarking with the Independent Pricing and Regulatory Authority (IPART) in NSW in its recent investigation for metropolitan buses.

For the 2006 Investigation a seven per cent real return on the cost of capital was applied to Metro's capital assets. This estimate was based on a weighted average rate of return that took account of the risks faced by Metro, a commercial debt to equity ratio (assumed to be 60 per cent) and commercial costs of debt.

In the 2009 Investigation this estimate was updated to take into updated estimates of the parameters that make up the WACC and consideration of the appropriate debt to equity ratio to apply to Metro. This is because in its 2008 report the

Productivity Commission observed the debt to equity ratios in other similar public transport businesses are relatively low.²⁴ The Commission at the time retained the seven per cent real pre-tax WACC based on the mid-point of the Australian Energy Regulator's (AER's) estimate at the time using a benchmark debt to equity ratio of 60:40 (6.29 per cent) and also applying the Productivity Commission's estimated average debt to equity ratio for public transport in Australia (7.34 per cent).

In November 2013 IPART released its final report with respect to the maximum fares metropolitan and outer metropolitan buses can charge from January 2014 in NSW. For its determination, IPART adopted a real post-tax WACC of 5.3 per cent which converts to a real pre-tax WACC of 6.47 per cent.²⁵ This was based on a benchmark debt to equity ratio of 60:40 and the mid-point of short term and longer term estimates of parameters (such as the risk free rate, inflation rate and market risk premium). The Regulator has also calculated the WACC using IPART's parameter's but adjusted the debt to equity ratio by applying the Productivity Commission's estimated average debt to equity ratio for public transport in Australia as per the previous investigation discussed above. This yields a result of 8.9 per cent with the average of the two estimates being 7.67 per cent.

However, the Regulator notes that these estimates are based on a gamma estimate²⁶ of 25 per cent as opposed to the 65 per cent used for the previous Investigation. The 65 per cent gamma estimate was based on what the AER was using for its electricity revenue determinations at that time. If the same gamma is used as last investigation then the WACC estimates change to 5.8 per cent and 7.5 per cent for a 60:40 debt to equity ratio and the average debt to equity ratio for public transport in Australia respectively. This equates to a mid-point estimate of 6.7 per cent.

The Regulator notes that there is much debate surrounding the parameters with respect to the estimation of WACC and different positions can lead to substantially different outcomes. For its upcoming water and sewerage investigation the Regulator plans to undertake a thorough analysis on the appropriate level of those parameters and ultimately the WACC as is appropriate for Tasmania.

However, for this particular investigation the Regulator considers that there is insufficient evidence to move away from the seven per cent WACC estimation used for the previous two investigations (given the mid-point estimates of 7.67 per cent and 6.7 per cent presented above). This is particularly in light of the fact that Metro

²⁴ The Productivity Commission identified that debt to assets for the public transport sector decreased from 46.3 per cent to 22.4 per cent in 2006-07, *Ibid*, p.197.

²⁵ IPART has recently moved to a post-tax WACC methodology. Under the post-tax approach, tax liability is estimated separately from the WACC, based on revenue and expenses of regulated business activities. The current approach adopted by the Regulator is a pre-tax approach.

²⁶ Gamma in the WACC formula represents the market value of every dollar of the tax credit associated with a franked dividend distributed to the shareholder. There has been much debate over the value of this parameter in WACC decisions for utility pricing investigations in Australia in recent times with a trend toward assigning a lower gamma value than was previously the case.

recovers less than a quarter of its revenue from fares, such that greater precision with respect to the WACC is not likely to materially affect its cost recovery.

In its submission on the draft report, Metro noted its support for the proposed WACC.

5.2.4 Depreciation

In its 2012-13 annual report Metro outlines its method of depreciation for its different asset classes. This includes:

- the straight line method for each part of an item of property, plant and equipment based on their relative useful lives;
- an accelerated depreciation method for buses using the 'Fleet Depreciation Profile' with an effective life of 25 years as recommended by its independent valuer; and
- not depreciating land.

The Regulator understands that, in its preliminary submission, Metro has calculated depreciation on the same basis.

In previous investigations the Commission's stated preference was for the application of straight-line depreciation, which is standard regulatory practice in setting maximum allowable revenues in other regulated businesses. The application of straight-line depreciation (return of capital) combined with a return on the depreciated value of the assets (return on capital) can be shown to deliver the appropriate total return on investment over the life of the assets. By adopting other methods, such as declining balance depreciation, the entity may over-recover in net present value terms as the returns are weighted higher in the early years, unless the acquisition and disposal of assets is uniform over the expected life of the assets. Similarly, there is potential for cash flow fluctuations with higher returns in the early years and lower returns in the later years where the acquisition and disposal of assets is not uniform over the expected life of the assets.

That said, the Regulator understands that Metro's bus purchases will remain relatively steady over the regulatory period and total depreciation as a percentage of total assets will be relatively stable over the period, which is consistent with the findings of the previous investigation. This suggests that there may be limited value in Metro preparing a separate set of regulatory accounts that take account of straight line depreciation in conjunction with its current accounting accounts as is currently the case with regulated entities in other industries. Given this, and that straight line depreciation is applied to its other assets, the Regulator has not made any adjustments to account for the difference between straight line depreciation and the declining balance approach adopted by Metro.

Both Metro and DIER were supportive of this approach as outlined in their respective submissions on the draft report.

5.2.5 Alternative approaches to capital allowances and valuation of assets

The Regulator understands that the opening and closing asset balances reported in Metro's preliminary submission (and in its annual report) are based on their 'fair value'. Another method that is commonly considered in regulation is valuing assets based on their replacement value (such as the written down replacement cost (WDRC) or depreciated optimised replacement cost (DORC)). Under this approach, assets tend to be valued much higher as older assets that are worth less for sale cost much more to be replaced. Metro has provided an independent valuation of its assets which suggests that the WDRC value of its bus fleet is more than four times the current fair value. If this approach was adopted, fares would need to rise significantly to recover the higher depreciation and return on capital costs.

An alternative approach, as discussed in the previous investigation, is for Metro's revenue requirement to be based on efficient operating and maintenance costs plus an amount based on the annualised cost of replacing and, where justified, augmenting its asset base. A similar approach has been adopted in the Tasmanian urban water sector, where revenue recovery is required to fall between an upper and lower bound. The upper bound is based on the building block approach including an allowance for a return on capital as well as depreciation, similar to that discussed above. The lower band represents the 'minimum business viability' requirement. At this limit, prices are set to satisfy a basic test of business viability in which all costs are met, including a provision for asset refurbishment/replacement, but without allowing for a return on the cost of capital other than actual interest costs incurred and dividends paid. This approach proposes that the allowance for the consumption of fixed assets be based on the future cash requirements for asset refurbishment and replacement. That is, the annual annuity amount required to provide for the refurbishment and/or replacement of fixed assets is determined on a discounted cash flow basis from a condition assessment of existing assets.

The Regulator has not modelled these approaches. To model the lower limit would require a fully approved capital expenditure program that extended over a minimum period of 20 years or, preferably, over the full life cycle of its assets. Furthermore, to model the upper limit the Regulator would be required to undertake a detailed assessment of the depreciated optimised replacement value considering the efficiency of use of Metro's asset base in meeting its service requirements. Under both approaches it is likely that maximum revenues would substantially rise, particularly with the upper limit. To fund these maximum revenues both fares and contract payments may need to rise substantially (the increase in fares may, in turn, lead to further falls in patronage). Based on the information available, the Regulator considers that Metro's contract payments are unlikely to rise in the near term. Given this, the Regulator considers it inappropriate for it to recommend an increase in fares to cover the increased cost if contract payments will not increase proportionally. Furthermore, the Regulator considers that this is essentially a policy issue for the Government given that it funds 75 per cent of Metro's costs.

5.2.6 Capital allowances

Based on the above analysis, the Regulator has adopted:

- Metro's forecast capital expenditure based on its current funding arrangements;
- a rate of return commensurate with that expected of a commercially operated company being a seven per cent pre-tax WACC; and
- Metro's depreciation method and its current fair valuation of its assets.

5.3 Operating and maintenance costs

To assess the efficiency of Metro's proposed operating and maintenance costs the Regulator has relied upon the outputs of the benchmarking undertaken by Indec Consulting. As noted in section 4.3, the new benchmarking approach contains less disaggregated information on specific Metro financial performance compared to previous Indec reports. However, it includes more comparable information for other operators that are submitted annually for the same period (as opposed to data from other jurisdictions in previous reports that were not for the same year and thus required assumptions on indexation for comparison purposes). Furthermore, it includes other non-financial indicators on operational and service performance. Given this, the Regulator considers that the use of the Indec benchmarking still provides a reasonable basis to assess Metro's efficiency.

As indicated in previous investigations, in applying the benchmarking approach to Metro's costs, when considering specific benchmarking items the Regulator recognised that, in some instances, there may be trade-offs between categories. For example, there can be trade-offs between maintenance and capital expenditures (Metro could reduce maintenance costs, but it may then have to increase the rate of asset replacement). Furthermore, there may be trade-offs: between other cost categories; for example, if bus maintenance is undertaken in-house rather than being outsourced. In previous investigations to overcome these issues, whilst sub-categories of costs were analysed, a weighted average efficiency factor was applied to total costs. The Regulator has also adopted that approach for the current investigation.

Given the above, the Regulator based its assessment of efficient costs (excluding capital costs) on the following basis:

1. The efficiency factor for each operating cost category was determined as the percentage difference between Metro's actual unit costs and the weighted average of private operator costs unit costs in 2010-11. In previous Indec reports the Benchmark Operator was calculated based on the weighted average of private operators in Sydney. However, in the most recent report Indec has provided data on the weighted average of both public and private bus operators. As noted section in 4.3.4, for consistency with previous investigations the weighted average of private operators was used as the Benchmark Operator.
2. The efficiency factors referred to in point one above were then applied to the 2011-12 actual costs submitted to Indec to determine the weighted average efficiency factors for bus hourly, bus kilometre and bus overhead costs.

However, where the Regulator considered that a cost variation was not within Metro's control, efficiency adjustments were not made; that is, the Regulator provided Metro with its actual unit costs.

3. The weighted average efficiency factors were applied to the total budgeted operating expenditure for all urban passenger transport services for each year of the regulatory period. That is, Metro's operating expenditure for each year was adjusted by the weighted average efficiency factor.
4. The Regulator's assessment of Metro's new efficient operating cost base, which is provided in section 4.3, is expressed in real terms.

In the instances where Metro's costs were higher than those of the Benchmark Operator, the resulting efficiency factor would be less than one, indicating that Metro may need to improve its costs in this area by this magnitude. However, as noted previously, there are potentially differences in both classification and trade-offs between categories of expenditure. Therefore, efficiency factors of less than one for individual cost categories should not be seen as achievable targets *per se*, but rather should be treated as general indicators. The key issue is whether the overall outcome is reasonable, rather than the precision of each line item.

As noted above, the Regulator has made a separate allowance for capital costs, which includes an allowance for depreciation and a return on capital based on a benchmark real rate of return on capital.

5.3.1 Bus hourly costs

Bus hourly costs comprise direct wages (base pay, overtime and allowances) and on-costs (including workers' compensation, payroll tax and superannuation) of bus drivers as a proportion of total bus hours of the organisation. Bus hourly costs are a significant cost component for Metro, representing around 45 per cent of its total operating costs in 2011-12.

In section 4.2.2 the Regulator presented the efficiency measures noted by Metro in its submission which include some items related to driver costs. In particular Metro has recently negotiated a new enterprise bargaining agreement with its drivers. Whilst the wage increases themselves would appear to be efficient by industry standards, in considering the efficiency of bus hourly costs the Regulator notes that it is important to consider overall labour costs rather than specific salary adjustments. This is because efficiencies can be made in how workers are utilised to provide more output whilst still providing for wage increases. In this case a more efficiently utilised workforce would generally lead to a decline in \$/kilometre costs (in real terms). In this sense, comparison to a Benchmark Operator is useful in considering the how Metro achieves efficiencies in its workforce compared to other operators.

Table 5.5 compares Metro's 2011-12 per kilometre bus hourly costs with averages of private operators in other Australian jurisdictions. As can be seen, Metro's performance is under the simple average of the raw data supplied by other jurisdictions however it is above that of the weighted average. After taking into

account normalisation factors (adjusted for bus speed and Metro's fuel costs) Metro appears to be less efficient than private operators. Using this measure, the Regulator has calculated an efficiency factor of 93 per cent for Metro with respect to bus hourly costs.

Table 5.5: Bus hourly costs (driver wages per hour)

Components	Metro	Simple average private operators	Weighted average private operators	Normalised weighted average private operators	Efficiency factor %
Total driver costs (\$/km)	2.15	2.05	2.27	2.0	93%

Source: Indec

The Regulator considers that Metro may have difficulty in reaching this target efficiency factor. This is particularly in light of the fact that the Regulator understands that Metro may have less flexibility under its enterprise bargaining agreement compared to private operators in the employment methods it pursues, such as the balance between full-time and casual staff (as discussed in previous investigations).

That said, the Regulator considers its role is to set the efficient cost of operating Metro's services so that passengers are charged no more than required to recover those efficient costs. Given this, the Regulator considers that (at least for fare setting purposes), strong efficiency targets should be set commensurate with those applying in an efficient competitive market.

5.3.2 Bus kilometre costs

Metro's bus kilometre costs including fuel, maintenance, cleaning and bus running expenses. Bus kilometre costs represent approximately 27 per cent of overall operating costs in 2011-12.

Table 5.6 compares of Metro's 2011-12 per kilometre bus kilometre costs with averages of private operators in other Australian jurisdictions. As can be seen, Metro's performance is under the simple and weighted average of the raw data supplied by other jurisdictions. However, after taking into account normalisation factors (adjusted for the speed and fuel costs of Metro) Metro appears to be relatively similar in efficiency when compared to private operators.

The Regulator notes that caution must be exercised when considering this category. This is particularly given the ability of operators to switch costs between capital and maintenance activities and between internal staff and outsourcing. The Regulator considers this to be the case not only for Metro's data but also for that of other operators that constitute the Benchmark Operator. Furthermore, differences in fuels costs have been normalised to allow for a more direct comparison of other cost categories. This means that a comparison of how efficiently operators use fuel to provide services cannot be made under the normalised approach.

Furthermore, the Regulator notes that whilst this is based on the available data, this may appear somewhat generous to Metro given that the data from Indec for the

previous Investigation (under the previous methodology) provided an efficiency factor of 77 per cent and a weighted average efficiency factor 91 per cent once applied to the cost categories the Regulator considered that Metro could influence (which excluded fuel and other bus running costs).

That said, the Regulator considers that what matters is the overall efficiency factor rather than the accuracy of the individual factors. Given this, the Regulator has adopted the calculated efficiency factor of 102 per cent for Metro.

Table 5.6: Bus kilometres

Components	Metro	Simple average private operators	Weighted average private operators	Normalised weighted average private operators	Efficiency factor %
Maintenance staff costs	0.24	0.27	0.28	0.28	117%
Other kilometre costs	0.38	0.35	0.37	0.37	97%
Fuel costs	0.67	0.53	0.51	0.67	100%
Total kilometre costs	1.29	1.15	1.15	1.32	102%

Source: Indec

5.3.3 Bus overhead costs

Metro’s bus overhead costs are divided into two components:

- ‘administration salary and wages’ (administrative salary costs including payroll on-costs); and
- ‘non-labour’ overhead costs.

The latter comprises a large number of individual cost elements such as advertising/marketing, information technology, insurance and bus registration. Bus overhead costs constituted 28 per cent of Metro’s overall operating costs in 2011-12.

Table 5.7 compares Metro’s 2011-12 bus overhead costs per kilometre with averages of private operators’ bus overhead costs per kilometre in other Australian jurisdictions. As can be seen from this table, Metro performs poorly against all measures of efficiency with respect to bus overhead costs provided in the Indec report.

In determining the adopted efficiency factor, as discussed in section 5.3 the individual category efficiency factors were then applied to the 2011-12 actual costs submitted to Indec to determine the weighted average efficiency factor bus overhead costs. However, where the Regulator considered that a cost variation was not within Metro’s control, no efficiency adjustments were made, and the Regulator provided Metro with its actual unit costs. On that basis, an efficiency factor of:

- 46 per cent was applied to 2011-12 costs related to administrative salaries and wages;

- 63 per cent was applied to non-labour overhead costs that the Regulator considered were in Metro's control such as accounting, consulting and legal fees, communications, advertising and other bus overhead costs; and
- 100 per cent (so no efficiency factor) was applied to cost items the Regulator considered were outside Metro's control such as utilities, registration, insurance rates and stationery. Furthermore, the Regulator applied a 100 per cent efficiency factor to repairs and maintenance (office depot). In previous investigations it was noted that Metro's had potentially higher costs than private operators as it must operate separate offices/depots in the three main regions of the state. As a consequence in previous investigations Metro's costs were not adjusted for this category. The Regulator has maintained this approach.

After applying the efficiency factors to Metro's cost data based on the approach outlined above the recommended efficiency factor is 67 per cent for bus overhead costs.

Table 5.7: Bus kilometres

Components	Metro	Simple average private operators	Weighted average private operators	Normalised weighted average private operators	Efficiency factor %
Administrative salaries and wages	0.65	0.32	0.36	0.30	46%
Non-labour overhead costs	0.68	0.45	0.49	0.43	63%
Total overhead costs	1.33	0.76	0.85	0.73	55%
Recommended total efficiency factor					67%

Source: Indec

5.3.4 Summary of Regulator's conclusions on operating costs

Table 5.8 provides a summary of the Regulator's assessment of efficiency adjustment factors that it has applied to Metro's costs, as discussed in the previous subsections of this chapter. Table 5.8 also present the efficiency factors from the previous two investigations. The Regulator notes each line item is quite different compared to the previous investigation, notably the switching in the results between bus hourly costs and bus kilometres costs. However, as noted in the previous investigation the key issue is whether the overall outcome is reasonable, rather than the precision of each line item.

In this regard, the Regulator notes that whilst the efficiency factor is much lower than in previous investigations it highlights Metro's declining efficiency. This declining trend has also been mirrored in the declining patronage numbers. Furthermore, Metro's service standard performance in terms of on-time running and number of complaints is substantially poorer compare to private sector operators as outlined in Table 4.7. Given these elements, the Regulator considers that the 88.2 per cent efficiency target is not unreasonable, for fare setting purposes.

Table 5.8: Weighted average efficiency factors

Cost components	2006 Investigation Efficiency factor (weighted average)%	2009 Investigation Efficiency factor (weighted average)%	2014 Investigation Efficiency factor (weighted average)%
Bus hourly costs	99.4	99.6	93.0
Bus kilometre costs	96.8	91.0	102.0
Bus overhead costs	88.2	84.5	66.6
Total	96.1	93.75	88.2

In its submission on the draft report, Metro noted that there are significant differences between a private sector operators functions and those of a public sector operator such that the calculated efficiency factor is neither reasonable nor achievable (particularly for Bus Overhead Costs). Metro also noted its additional functions of outsourced security costs, advertising, marketing, promotions, timetable and customer information, ticketing systems, Metro shop and call centre functions, the regulatory oversight associated with being a state owned company and its planning and development functions which were normally the responsibility of Government. Metro noted that there is always room for improvement but is of the strong view that the calculated efficiency factor is inappropriate. Metro also raised concerns that the efficiency factor had been set in light of the Regulator's view that Metro's efficiency is declining and is mirrored by declining passenger patronage and other non-financial performance indicators that are poorer than other private sector operators (which it considered are not directly comparable).

Whilst the Regulator appreciates Metro's perspective on this issues, the Regulator reiterates that it sees its role as determining efficiency targets commensurate with those applying in an efficient competitive market (at least for the purposes of estimating full cost fares). That said, in adopting the methodology discussed in this chapter the Regulator has not adjusted a third of Metro's Bus Overhead Costs. This is consistent with the approach adopted in previous investigations. Furthermore, the substantial reduction in the efficiency factor observed for Bus Overhead Costs would appear to be consistent with the general trend of Metro's rising overhead costs reflected in Table 4.2. In its submission to the draft report, DIER noted its concern with Metro's rising overhead costs since 2009 and considers it will be important for Metro to address this over the next regulatory period. The Regulator agrees with view. However, the Regulator also notes that to the extent that these increases may have occurred due to government obligations outside Metro's control the Regulator does not consider it appropriate that these should be recovered from passengers through fares. Rather, recovery of these costs should be negotiated with DIER through contract payments.

Given this, as noted in its draft report, whilst the Regulator has adopted this efficiency factor for fare setting purposes the Regulator is of the view that benchmarking is not a substitute for undertaking a detailed assessment of a business' operations in order to identify areas where real efficiencies can be achieved. Such an assessment is for Metro to undertake and is not within the scope

of this investigation. Metro supported this position in its submission on the draft report.

Based on the weighted average efficiency factor of 88.2 per cent, as shown in Table 5.8, the Regulator has calculated efficient operating costs to be \$37.49 million for 2014-15. Table 5.9 provides a comparison of Metro's actual and forecast costs and the Regulator's efficient cost base allowance.

Table 5.9: Metro forecast operating expenditures compared to proposed maximum allowances (real 2013/14\$)

Component	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Metro actual and forecasts	42 279	42 366	42 524	42 879	43 223	43 447	43 672
Proposed allowance	37 271	37 347	37 487	37 800	38 103	38 301	38 499
Difference	-5 008	-5 018	-5 037	-5 079	-5 120	-5 146	-5 173

5.4 Recommended maximum revenues

Under the ToR, the Regulator was required to recommend maximum prices for the provision of scheduled route services by Metro in Hobart, Launceston and Burnie. The Regulator has recommended 'maximum prices' for Metro's services in the form of 'maximum revenues'. This is consistent with section 4 of the ER Act which sets out a number of ways in which maximum prices may be expressed.

Other activities undertaken by Metro including charter work and bus advertising are not regulated by the Regulator and costs and revenues associated with these activities were excluded from the Regulator's assessment of maximum allowable revenues.

In making its recommendation for this final report, the Regulator notes the following.

- The maximum revenues have been recommended based on the amount the Regulator considers sufficient for an efficient operator to earn a commercial return. Payments under the Government contract have, in the past, not incorporated a return on capital and, as such, have left Metro little headroom to accommodate adverse events.
- The methodology used to determine the Benchmark Operator to compare with Metro for efficiency assessment has changed from the previous investigation. The Regulator has adopted the normalised weighted average operational benchmarks from private operators in Australia (as opposed to public operators) as an indication of average best practice as it appeared to be more closely related to the benchmarking methodology used in other investigations. Whether Metro can achieve this target for all of its costs may be debateable,

however for fare setting purposes, the Regulator considers this to be the most appropriate target based on the available information.

- The Regulator has made its assessment based on its understanding of Metro’s current funding levels from the Government, particularly with regards to meeting DDA obligations and current service level requirements. If the Government changed its level of funding and/or service requirements this would have implications for Metro’s capital expenditure program and the calculation of maximum revenues under the building block approach methodology adopted.
- The Regulator recognises that the Government will determine the level of fares for all passenger classes in the Metro Pricing Order and in the New Service Contract. In determining fares and contract payments to the maximum revenue, calculations will need to take account of the differences between the patronage forecasts provided in this report and the prospective response to any changes in fares proposed by the Government.
- As in the previous investigation, the forward assessment of maximum revenues was predicated on a set of assumptions regarding future input costs. The Regulator notes that there is the potential for some input costs to rise more quickly or fluctuate in real terms such as the cost of bus acquisitions as a result of a change in the value of the Australian dollar and fuel prices. The maximum revenues presented in Table 5.10 therefore reflect the Regulator’s best estimates of real changes in input costs. Any changes in real input costs not taken into account in the Regulator’s assessment or not appropriately reflected in the Metro Index are discussed in more detail in Chapter 8.

The recommended maximum revenues and their respective components are presented in the following table:

Table 5.10: Recommended total maximum allowable revenues by year (real 2013-14\$)

Component	2014-15 \$'000	2015-16 \$'000	2016-17 \$'000	2017-18 \$'000	2018-19 \$'000
Operating	37 487	37 800	38 103	38 301	38 499
Depreciation	4 578	4 352	4 354	4 567	4 752
Return on capital	3 125	3 068	3 019	2 991	3 098
Total	45 190	45 220	45 476	45 858	46 350

6 ADULT FARES

6.1 Introduction

Under section 25 of the ER Act, and as specified in the ToR, the Regulator was required to recommend appropriate maximum prices to be charged in respect of the monopoly services supplied by Metro. As for previous investigations, the Regulator interpreted this as requiring a recommendation of the maximum total revenues that Metro may earn in providing these services.

In addition, the ToR required the Regulator “to identify what changes would be necessary to the full adult fares structure to achieve full cost recovery”.

This Chapter firstly outlines Metro’s current fares and discusses the general principles for setting metropolitan bus fares. It then discusses the Regulator’s considerations with regards to what changes would be necessary to the full adult fares structure to achieve full cost recovery.

Factors that the Regulator considers relevant in developing appropriate adult fares include:

- the comparison of costs and revenues for particular groups of Metro services, by location and time period;
- the comparison of Metro fares and those charged by private operators in Tasmania;
- the comparison of Metro fares and interstate fares;
- the economic benefits of public transport which may justify, in economic terms, the contribution of funds by the Government to Metro’s operations; and
- social policy factors.

However, with respect to these last two dot points, the Regulator was also mindful of recommendations of the previous Government’s Core Passenger Services Review (CPSR) in regards to fares and other matters as discussed in the report for the previous investigation in 2009. Specifically, the CPSR recommendations placed the responsibility for determining any subsidies for full adult passengers to reflect externalities such as congestion with DIER.²⁷ The Regulator also considers it the Government’s role to determine the level of subsidy for concession passengers to meet its social policy objectives. The focus, therefore, of the Regulator in this

²⁷ Recommendation 3.10 of the CPSR recommended that DIER, prior to this Metro Investigation, explicitly establish the level of subsidy that is provided to Metro and Merseylink to meet identified congestion and environmental outcomes.

investigation and Final Report is, as required by the ToR, to determine the level of full adult fares to achieve full cost recovery and peak cost recovery.

6.2 2009 Investigation findings

In the 2009 Investigation it was found that maximum adult fares would need to increase by around 135 per cent in real terms to achieve full cost recovery and by more if elasticity impacts were taken into account.

At the time of the 2009 Investigation, peak cost recovery was higher than full cost recovery largely due to relatively higher ticket sales during peak periods. To achieve peak cost recovery it was found that single adult cash fares would need to increase by around 50 per cent in real terms (after accounting for the impact of prices increases on patronage ie including elasticity impacts).

In 2009 the Commission also noted that the full cost recovery level was a hypothetical amount. It also noted that a commercial operator would look to cover its full costs in peak periods. An initial step to improve cost recovery would, therefore, be to set fares to recovery peak period costs less some level of subsidy to reflect externalities.

The price impacts above did not take into account any consideration of a subsidy for congestion or environmental outcomes. However, as discussed above, both the CPSR review and DIER indicated that this was a matter for the Government.

In establishing the pricing order arising out of the previous investigation, DIER used a pricing path consistent with real price increases for peak cost recovery.

In its initial submission to this investigation, Metro advised that it had instigated fare increases in October 2009 and January 2011, January 2012, January 2013 and, more recently, in January 2014. Metro notes that it takes into account a range of matters when considering a fare increase including:

- the impacts of fare increases on patronage;
- the latest pricing investigation report;
- the *Government Prices Oversight (Metro Bus Fares) Order 2009*;
- Metro's financial requirements; and
- Government policies.

The Regulator notes that Metro has not increased full adult fares to the maximum allowable under the Metro Pricing Order for any of the periods covered by the Order.

6.3 Metro's current fares

Whilst the Regulator is required to make recommendations to the Government on maximum prices, it is the Government that will set maximum prices through the Metro Pricing Order.

Metro’s current fare schedule is provided in Table 6.1. Where a fare is not shown Metro does not offer that ticket type.

Table 6.1: Metro adult fares 5 January 2014 (GST inclusive)

Category	Cash \$	Greencard \$	Greencard Daily cap	
			First boarding before 9am \$	First boarding after 9am \$
Adult Fares (Non Concession)				
1-4 Sections (Maximum fare under the Contract)	3.00	2.40	9.60 ^(b)	4.80 ^(c)
5-10 Sections (Maximum fare under the Contract)	4.20	3.36		
11+ Sections (Maximum fare under the Contract)	6.20	4.96		
Day Rover ^(a)	5.30			
Concession Fares				
All Sections	1.90	1.52	4.50 ^(b)	2.90 ^(c)
Day Tripper ^(a)	3.20			
Child/Student Fares				
All Sections	1.30	1.04	4.50 ^(b)	2.90 ^(c)
Day Tripper ^(a)	3.20			
Accompanied child under 5 years of age (other than to or from school or day care centre) ^(d)	No charge			

Source: Metro.

Notes:

- a. Day Tripper & Day Rover tickets permit travel after 9:00am on Monday to Friday or all day Saturday, Sunday and public holidays.
- b. Applies if the first boarding is prior to 9am Monday to Friday, excluding Public Holidays.
- c. Applies if the first boarding is after 9am Monday to Friday, all day Saturday, Sunday & Public Holidays.
- d. Children less than 5 years of age must not be a school student travelling to or from school and they must be accompanied by a person of at least 16 years of age.

The Regulator notes that:

- adult fares are distance-based, available only as either single fares (paid on the bus) or as pre-paid Greencard fares (discount of 20 per cent). Adult single trip off-peak tickets are not currently available. Further, all adult single trip and Greencard trips are priced at less than the maximum allowable under the Metro Pricing Order;
- the Day Rover and Day Tripper tickets are available only for off-peak periods (ie services other than the defined peak periods);
- there are currently no weekly or monthly tickets; and

- concessions are based on a flat fare, that is, they are not distance-based and there is no consistent relationship between the concession fare and the equivalent adult fare.

The Regulator notes that these issues have been raised in previous investigations. In particular, in previous investigations the Commission considered a number of principles in determining the appropriate fare structure and level of fares for Metro. These include a number of competing objectives including:

- financial objectives (such as reducing costs or increasing revenues);
- operational objectives and service objectives (including service reliability and safety measures); and
- social objectives, such as access to reasonable services, affordability and environmental issues.

Furthermore, the Commission took into account a number of common pricing principles including:

- efficient pricing, which supports economically efficient (sometimes called allocatively efficient) use of the bus service;
- cost recovery, which requires that each group make an appropriate contribution to the Metro services it uses; and
- simplicity in the fare structure, ie the fare structure should not be so complex that it cannot be easily understood by consumers.

The Regulator considers that these principles remain relevant.

For the current investigation, Metro, in its submission, have proposed an alternative fare structure which by and large aims to address these issues. This is discussed in Chapter 7. Given this, this chapter focuses on the appropriate prices based on the current fare structure, with considerations of an appropriate alternative fare structure considered in the next chapter.

6.4 Comparative fares

As in previous investigations, the Regulator undertook a comparison of Metro fares with fares charged by both interstate and local private sector route service providers.

6.4.1 Tasmanian private operator fares

As with each of the previous Metro investigations, the comparison of Tasmanian private operator and Metro fares was made on the basis of a sample of routes of comparable distance in the three section bands.

The Regulator notes that the fares set by private operators are directly comparable to an efficient Metro service if there is competition on the route and if the service is provided at an equivalent quality and frequency. The Regulator recognises that

there is little competition on some routes, in which case, the private operator fare may be marginally above average cost. In addition, there is not the same quality and frequency of service provided by the private sector operator as is required of Metro. Further, private operators tend to run services over longer distances. Nevertheless, the Regulator considered that the private sector operator fares acted as a useful and relevant comparator.

Comparisons were made over the range of Metro urban distances and associated bands, being Band 1 (up to 6.4 km), Band 2 (between 8 and 16 km) and Band 3 (over 17.6 km), as well as a number of trips that would be categorised as 'urban fringe'. These comparisons are provided in Table 6.2.

As shown in Table 6.2, Metro's performance is mixed in comparison with the private operator.

Table 6.2: Comparison of private operator and metro fares over equivalent routes (fares as at February 2014, GST inclusive)

Operator	Service	Distance km	Single adult fare \$	Private operator fare differential %
Cash fares				
Metro	Hobart to Moonah	6	3.0	
Private operator	Devonport short trip	6	2.8	-6.7
Metro	Hobart to Glenorchy	11	2.8	
Private operator	Devonport to Latrobe	10.5	4	33.3
Metro	Hobart to Kingston	14	4.2	
Private operator	Hobart to Kingston	14	3.6	-14.3
Metro	Hobart to Lauderdale	20	6.2	
Private operator	Hobart to Sandfly	22	6.6	6.5
Metro	Hobart to Cygnet	44	10.2	
Private operator	Hobart to Cygnet	44	12.4	22
Greencard/multi-trip fares				
Metro	Hobart to Moonah	6	2.4	
Private operator	Devonport short trip	6	2.24	-6.7
Metro	Hobart to Glenorchy	11	2.4	
Private operator	Devonport to Latrobe	10.5	3.2	33.3
Metro	Hobart to Kingston	14	3.36	
Private operator	Hobart to Kingston	14	2.63	-21.7
Metro	Hobart to Lauderdale	20	4.96	
Private operator	Hobart to Sandfly	22	4.95	-0.2
Metro	Hobart to Cygnet	44	8.16	
Private operator	Hobart to Cygnet	44	9.3	14.0

Source: Private operator websites.

6.4.2 Interstate fare comparisons

The Regulator also compared the adult fares charged by Metro to the fares of public transport operators in other Australian capital cities. The single cash, card discount and multi-trip tickets were used for comparative purposes because of the significant differences in fare structures between operators in other interstate cities. Some fare structures are zonal-based, some are distance-based, and some are time-based, or a combination of these.

Table 6.3 presents the results of the comparison of Metro's adult fares with similar fares of interstate operators. Table 6.3 shows that:

- for single cash tickets Metro fares are just under the average compared to other jurisdictions for short trips, rising to be relatively more expensive for longer trips. This is partly because Darwin and Canberra have flat fare structures that do not vary by distance; and
- for single card discount tickets (such as Greencard) Metro remains around average.

Metro currently does not sell multi-ride tickets, however has proposed to do so under its new fare proposal.

Table 6.3: Adult fare comparison – all at January 2014 (GST inclusive)

Distance	Syd \$	Melb. \$	Bris. \$	Tas \$	Adelaide \$	Perth \$	Darwin \$	Canb. \$	Avg. \$
Single cash tickets									
2 km	2.30		5.20	3.00	3.00	2.00	3.00	4.50	3.30
5 km	3.70		5.20	3.00	5.00	2.80	3.00	4.50	3.90
10 km	4.60		6.10	4.20	5.00	4.20	3.00	4.50	4.50
25 km	4.60		9.20	6.20	5.00	6.10	3.00	4.50	5.50
Single card tickets									
2 km	2.30	3.00 ^(a)	3.53	2.40	1.78	1.50	n/a	2.84	2.50
5 km	3.70	3.00 ^(a)	3.53	2.40	3.29	2.10	n/a	2.84	3.00
10 km	4.60	3.00 ^(a)	4.14	3.36	3.29	3.15	n/a	2.84	3.50
25 km	4.60	6.06	6.28	4.96	3.29	3.83	n/a	2.84	4.60
Multi-ride (10-trip) tickets price per trip									
2 km	1.84	1.83	3.18	n/a	2.85	n/a	2.00	n/a	2.30
5 km	2.96	1.83	3.18	n/a	2.85	n/a	2.00	n/a	2.60
10 km	3.68	1.83	3.73	n/a	2.85	n/a	2.00	n/a	2.80
25 km	3.68	3.40	5.65	n/a	2.85	n/a	2.00	n/a	3.50

Source: Estimates based on information provided on the various transport operators' websites.
Notes:

(a) Average of individual zone 1 and zone 2 prices to determine an average distance charge.

6.5 Regulator’s assessment

6.5.1 Relationship between costs and fares revenue

In 1997 the Commission examined in detail the relationship between costs and fares revenue for Hobart, Launceston and Burnie for services provided in peak, inter-peak, evening and weekend/public holiday periods. At that time, the Commission also estimated the fares revenue as a percentage of cost (cost recovery ratios) and the Government’s contribution per boarding. Similar analysis was also undertaken for the 2003, 2006 and 2009 Metro Investigations.

Since 1997 adult full fares have increased, usually via periodic adjustments, with some corresponding increases in adult concession fares. Student fares have increased once since 1996. Since the 2009 Metro Investigation, Metro's fares revenue has increased year-on-year, but not at the same rate as fare changes, as patronage declined for part of the period (patronage and revenue impacts are discussed in more detail in Chapters 2 and 3, respectively). Over the same period costs have been increasing at a greater rate.

For this investigation, the Regulator again examined the relationship between costs and fares using the methodology developed in 1997 as a basis for examining cost recovery from fares and as a way of assessing the full adult single fare required to achieve full cost recovery.

6.5.1.1 Cost recovery assumptions

The Regulator adopted the following assumptions and methodology in examining cost recovery:

- the Regulator updated the 1997 model by applying 2012-13 boarding data provided by Metro and fares as at January 2014 to provide the most current representation of Metro's fares revenue;
- in relation to costs, the Regulator again assumed the 1996-97 cost allocation and applied it to Metro's 2012-13 actual ring-fenced operating expenses (including depreciation) of \$45.14 million (GST exclusive). The Regulator then used these variables to align costs, fares and boardings; and
- revenue was estimated using January 2014 fares on a GST exclusive basis to be consistent with the basis on which operating costs were reported. The Regulator calculated fares revenue assuming all passengers were paying the full adult fares (using the average adult fare for the area and time period).

The Regulator acknowledges that the changes in the parameters and assumptions used could impact on the estimated cost recovery ratios. For example, travel patterns are likely to have changed somewhat since the original work was undertaken, as a consequence of the extension of shop trading hours, changes to route services and shifts in employment. The Regulator is, nevertheless, satisfied that the outcomes are indicative. However, as recommended in previous investigations, the Regulator recommends that Metro should undertake its own detailed review of its cost recovery ratios in each period to provide it with a better understanding of the relationship between fares and costs.

6.5.1.2 Cost recovery ratios

Table 6.4 shows the estimated revenue and cost allocation for each of Metro's services (by time period) in each urban region, based on fares current at the time of the this investigation (set in January 2014\$) and 2012-13 ring-fenced operating costs (indexed to 2014\$). Table 6.4 also shows the cost recovery ratios based on January 2014 fares and the cost recovery ratios if all passengers were full fare

paying passengers. Based on the results shown in Table 6.4, and the assumptions discussed above, the Regulator notes that:

- Metro is recovering around 25 per cent of its costs through fares, down from 28 per cent from the previous investigation. This decrease can largely be attributed to declining patronage numbers and, in particular a decline in the number of full adult paying passengers as discussed in section 2.4.2;
- if all passengers paid the full adult fare for their respective journey's Metro would recovery 51 per cent of its costs through fares;
- cost recovery is highest in Hobart, followed by Launceston and Burnie;
- in general, cost recovery is highest during the inter-peak and evenings on weekdays and on Sundays. These results are similar in nature to those observed in previous investigations; and
- cost recovery for dedicated school services has improved in Hobart and Launceston compared to the previous investigation, however Burnie has declined sharply due to a sharp decline in the number of paying passengers.

The Regulator also notes the apparent anomaly that the cost recovery ratio is lower and, consequently, the estimated Government contribution per boarding is higher for Saturday services compared to Sunday services. This may arise from the higher ratio of boardings per service, the passenger mix (full adult, adult concession and students) or it may arise from the cost allocation methodology that may not fully account for changes in services. Either of these factors would influence these ratios. Therefore, as noted in previous Metro investigations, these results should be considered as indicative only as there are a variety of reasonable approaches to the allocation of costs and a degree of estimation in the allocation of boarding data to service categories, particularly across time periods. For example, if some of the bus capital costs were allocated to the inter-peak period the cost recovery ratio for these services would be lower.

Table 6.4: Cost recovery proportions from January 2014 fares (real 2014\$, GST exclusive)

	Revenue based on January 2014 fare \$'000	Revenue based on full adult fare \$'000	Allocated cost \$'000	Recovery based on January 2014 fare %	Recovery based on full adult fare %
Timetabled services					
<i>Hobart</i>					
Peak	4 572	8 701	15 282	30	57
Inter-peak	2 804	5 404	6 979	40	77
Evening	373	622	1 363	27	46
Saturday	603	1 187	2 806	22	42
Sunday	259	526	601	43	87
Public holiday	54	144	292	18	49
Sub Total	8 666	16 584	27 323	32	61
<i>Launceston</i>					
Peak	636	1 441	3 671	17	39
Inter-peak	694	1 324	1 610	43	82
Evening	42	74	119	35	62
Saturday	102	193	507	20	38
Sunday	37	71	83	44	85
Public holiday	9	16	46	18	35
Sub Total	1 520	3 120	6 036	25	52
<i>Burnie</i>					
Peak	78	213	1 016	8	21
Inter-peak and evening	101	183	372	27	49
Saturday	9	17	73	13	23
Sub Total	188	413	1 462	13	28
TOTAL	10 374	20 117	34 821	30	58
Dedicated school services					
Hobart	412	1 567	2 818	15	56
Launceston	263	1 072	1 434	18	75
Burnie	65	260	572	11	45
TOTAL	740	2 900	4 826	15	60
ALL SERVICES	11 114	23 016	39 647	28	58
Unallocated			5 490		
TOTAL	11 114	23 016	45 137	25	51

6.5.2 Peak cost recovery

The ToR required the Regulator to consider what changes would be required to the adult fare structure to achieve peak cost recovery. Table 6.4 shows that if all passengers were paying the full adult fare peak cost recovery would be 57 per cent for Hobart, 39 per cent for Launceston and 21 per cent for Burnie. The weighted average over the three regions is 52 per cent. This suggests that fares would need to increase by 92 per cent (48 percentage points) to achieve cost recovery in the peak period.

The Regulator notes that this is a substantial increase over that reported in the 2009 Investigation. This is due to a sharp reduction in the calculated peak cost recovery. This reduction is partly due to the general decline in passengers however it mostly appears to be due to a switch on passengers from peak periods to interpeak periods. In fact, peak cost recovery is now at a similar level to that of total cost recovery.

The Regulator notes that the methodology used to compile patronage data during different times of the day has changed since the previous investigation. The current methodology relies on annual data collected from Metro's internal databases. However, this level of detailed data was not available for the previous investigation. As such, the previous investigation used a two week sample of data that was grossed up to an annual figure. Given this, differences in the cost recovery ratios reported in Table 6.4 and for the previous investigation may be, in part, due to differences in the methodology to collate the data.

6.5.2.1 *Submissions on draft report and Regulator's conclusion*

In its submission on the draft report, Metro submits that the application of the methodology developed in 1997 for allocating costs has reduced usefulness and relevance. Furthermore, Metro considers that the methodology should be updated to reflect current travel patterns and changes to route services that have occurred since 1997. Metro considers that any relationship between peak and full adult cost recover cannot be relied upon until the methodology is updated to reflect current travel patterns and route services.

The Regulator acknowledges that the same cost allocation assumptions have been used for each Metro investigation since the 1997 GPOC Investigation and it is likely that those assumptions have diminishing relevance over time. That said, the Regulator understands that the original cost allocation assumptions were meant to only act as a high level guide. For the Regulator to update the methodology itself it would need detailed data from Metro on the breakdown of Metro's costs between regions and across different time periods. This would also include costs data that varies in terms of the number of kilometres travelled per bus at different times of the day and the volume of hours buses are in-service at different times of the day. Unfortunately, such data was not available to the Regulator for the conduct of this investigation.

In previous investigations the Commission recommended Metro undertake its own detailed review of its cost recovery ratios in each period to provide it with a better understanding of the relationship between fares and costs. As noted above, the Regulator maintains this view and considers that Metro is in the best position to undertake this analysis. The Regulator also understands that Metro will be conducting a number of route analyses over the regulatory period aimed at improving operational efficiencies. This may change the time and frequency of bus services which would in turn change the data used to undertake cost allocation across periods. The completion of this process, therefore, may be the most appropriate time for Metro to undertake analysis on cost allocation consistent with its more efficient operating model. The Regulator considers that this approach to be consistent with the comment made in DIER's submission where it supports moving "...single ticket fares towards peak cost recovery but with the proviso of efficient route design which ensure best use of capacity in order to minimise peak cost."

6.5.3 Full cost recovery for all services

The ToR also required the Regulator to consider what changes would be required to the adult fare structure to achieve full cost recovery. As discussed in 6.5.2, peak cost recovery is now at a similar level to full cost recovery. This suggests that a similar increase in magnitude of the full adult fare that achieves peak cost recovery would also achieve full cost recovery.

6.5.4 Patronage responses to changes in fares

The price of public transport to the passenger (the fare) influences the degree to which people utilise public transport. The actual response to a change in fare is dependent on the price elasticity for public transport. Price elasticity measures the proportional change in demand with respect to a proportional change in price. As with the vast majority of products, the price elasticity of public transport is negative. This means that if the real price goes up, the demand goes down. However, generally there is little demand reduction if price increases are at or close to CPI.

The Regulator notes that in previous investigations a price elasticity of demand of negative 0.4 was assumed, which suggests a 10 per cent increase in price would lead to a 4 per cent decrease in demand. This is based on analysis and academic literature noted in previous investigation reports.²⁸

Taking into account elasticity effects, full adult fares would need to increase by substantially more than the estimates provided in sections 6.5.2 and 6.5.3 to achieve full cost recovery.

6.5.5 Subsidy of adult fares

The Regulator notes that the provision of subsidies for public transport is normally warranted, on economic grounds, if there is an implicit subsidy for other means of

²⁸ See GPOC (2009), *Investigation into the pricing policies of Metro – Final Report*, pp.102-104.

transport or if there were additional benefits (or avoidable costs) for the community by providing mass transit systems rather than private motorcars. In previous investigations the Commission concluded that some subsidy for peak period Metro travellers (ie in addition to the subsidy provided for the transport disadvantaged to ensure they have access to services) would be appropriate on the grounds of reducing congestion and providing improved public amenity by avoiding large areas of dedicated car parking.

However, for the previous investigation the ToR required the Commission to identify what changes would be necessary to the full adult fares structure to achieve full and peak cost recovery. Furthermore, at the previous investigation the recommendations of the CPRS²⁹ indicated that it is the Government's role to determine any level of subsidy.

The Regulator notes that it has a similar requirement in its ToR for the current investigation. Given this, the Regulator has not calculated a subsidy in determining maximum fares.

In its submission on the draft report, Anglicare considered that any move to cost recovery that links full fares to concession fares will have financial impacts for disadvantaged Tasmanians. Anglicare considers that the Government has a responsibility to ensure that public transport is available and affordable for low-income earners. Furthermore, Anglicare considers that the Government should take into account in budgeting for the cost savings that investing in public transport brings through decreased costs for roads, carbon emissions, car parking facilities and health as recommended at the CPRS.

The Regulator appreciates this view; however, as discussed above, the Regulator considers that these are affordability issues that are outside the scope of this investigation. These issues are best dealt with by the Government and Metro itself.

6.5.6 Maximum fares

Under the ER Act, the Regulator is required to recommend maximum prices. Under the ToR for this investigation, the Regulator is required to identify what changes would be required to the full adult fares structure to achieve full cost recovery.

The Regulator analysed the fares required to deliver full cost recovery for peak period services (section 6.5.2) and for all services (section 6.5.3).

The Regulator's recommended total maximum revenue requirement for Metro for 2018-19 is \$46.35 million (real 2013/14\$).³⁰ The Regulator estimates that a 96 per cent or 14.4 per annum real increase in weighted average adult fares would be required for full cost recovery by 2018-19, assuming all passengers were paying the full adult fare. A similar increase is required for peak cost recovery given that the

²⁹ Recommendations 3.9 and 3.10

³⁰ See Chapter 5, Table 5.10

peak and full cost recovery ratios have converged as outlined in section 6.5.2. A much larger increase is required if elasticity impacts are taken into account.

The Regulator acknowledges that this is a significant increase in fares which is likely to have a significant impact on Metro's commuter patronage. However, as noted above, the Regulator has only been asked to identify the maximum fares required to achieve full and peak cost recovery.

Furthermore, as noted earlier, the previous Government made it clear that the calculation and consideration of any subsidy for congestion or environmental outcomes was for the Government to determine. As such, the Regulator reiterates that the calculated real increase in fares does not take into consideration the impacts of any subsidies to be applied for congestion or environmental outcomes or other purposes. The Regulator also notes that if these issues were not considered, Metro's fares would likely rise to be higher than most jurisdictions in Australia as presented in section 6.4.2.

Given this, and the fact that Metro may move to a new fare structure as discussed in Chapter 7, the Regulator has decided to not publish specific maximum fares as it considers they would be unrealistic. Rather, in making Metro's pricing order, the Regulator considers that the Government should consider:

- the calculated maximum real increase for full and peak cost recovery;
- any changes to Metro's fare structure; and
- the level of subsidy it wishes to provide.

7 ALTERNATIVE FARE STRUCTURES

7.1 Introduction

The ToR required the Regulator to:

- 5) Investigate the potential for alternative fare structures giving particular attention to matters of:
 - i. simplicity and comprehensibility;
 - ii. equity;
 - iii. availability of technological capability to support those structures;
 - iv. relativities between the fare categories;
 - v. the need for a transition path while avoiding price shocks for any particular passenger group;
 - vi. consistency with Government policy; and
 - vii. other relevant matters including differentiating between peak and off-peak fares to encourage travel in low cost periods, incentivising fare pre-payment and reducing or eliminating the opportunity for underpayment.

In this regard, this Chapter considers alternative fare structures proposed by Metro and fare structures in place in other jurisdictions. These are considered in sequence below and are assessed with respect to:

- the criteria outlined above from the ToR;
- the estimated implementation costs; and
- the potential benefits to Tasmania.

7.2 Metro's proposed urban fare structure

In its preliminary submission, Metro has proposed a new fare structure that it states reflects the recommended ticketing products and fare pricing principles from the Commission's previous investigations. Furthermore, Metro has taken into account issues identified during the financial sustainability review (FSR) process undertaken by DIER. A summary of Metro's proposal is provided below. More details of Metro's fare structure proposal can be found in its preliminary submission.

7.2.1 Zonal-based fares

In its preliminary submission, Metro noted that with the emergence of four major service centres in Greater Hobart (Glenorchy, Kingston, Rosny Park and the Hobart CBD), the use of zones is considered more appropriate to the travelling needs of customers. Metro consider a zonal system would simplify the current section-based structure whilst continuing to incorporate pay-for-distance components. Furthermore, Metro noted that its proposal would align with its Greater Hobart

Passenger Transport Network Plan which involves local services connecting passengers to major bus interchanges located within each of the four service centres.

Metro also noted that the placement of zone boundaries needs to take into account the demographic distribution of transport needs whilst minimising the potential price impact for customers undertaking relatively short distance travel across zone boundaries. Metro proposes five zones for Hobart:

- Brighton zone – that intersects the Bridgewater shopping district;
- Northern zone – that ends just before Glenorchy;
- Central zone – that has the boundaries of Glenorchy bus interchange, Shoreline Shopping Centre, South Hobart, Tolmans Hill, Mount Nelson and parts of Taroona;
- Eastern zone – that extends out past the Shoreline Shopping Centre; and
- Southern zone - The southern boundary intersects the Southern Outlet and a point in Taroona that is halfway between Hobart and Kingston, with Ferntree lying south of the boundary.

Metro considers that Launceston's compact nature necessitates only two zones, with the boundary separating the Meander Valley from the rest of Launceston. With Ulverstone and Wynyard classified as non-urban areas, only one urban zone is required for Burnie. The zone boundaries for Hobart are presented in Appendix A of Metro's initial submission with the proposed boundaries for Launceston and Burnie in Appendix B.

In terms of fares, Metro proposes to limit distance-based fares to three levels, being '1 Zone', '2 Zones' and 'All Zones'. Metro consider this keeps the structure simple and offering '3 Zones' and '4 Zones' would be of limited benefit due to the small percentage of passengers that makes these journeys. Furthermore, a linear pricing approach is proposed where passengers are charged for an additional zone when they pass through that zone, effectively a distance based approach, as opposed to a radial approach where a passenger may be charge a single zone ticket if they start and end in the same zone (but cross other zones).

Metro considers that its proposal would have a minimal impact on passengers and its revenue.

7.2.2 Distance-based concession fares

Metro proposes phasing in a distance-based concession fare structure whereby urban adult concession fares are eventually set to be equal to 50 per cent of the equivalent adult fare. To avoid price shocks, Metro proposes to peg short trip fares whilst longer trip fares are gradually increased until they reach 50 per cent of the equivalent adult fare. Metro considers that 70 per cent of passengers that currently travel one zone would be unaffected. Passengers travelling more than one zone

would experience a fare increase, however Metro notes that other fare options will be available including off-peak pricing and weekly and monthly passes (discussed below). Metro also considers that the revenue impact will be minimal with passengers travelling more than one zone opting for cheaper ticketing options.

7.2.3 Differentiation of the urban student flat fare

Consistent with considerations from previous GPOC investigations and DIER's FSR, Metro proposes to link flat urban student fares to 50 per cent of Adult '1 Zone' fares. This would differentiate it from the current fare structure in which all students (urban and non-urban) are charged a flat statewide \$1.30 fare. To avoid price shocks this would be phased in over time. Metro considers this would not have a material impact on student patronage or revenue.

7.2.4 Peak and off-peak fares

Metro has also proposed the introduction of peak and off-peak tickets aimed at incentivising passengers to travel during off-peak periods. Metro consider that Adult peak fares should be aimed at cost recovery whereas off-peak fares should be set to encourage use while still retaining revenue so the cost is shared by all passengers. Metro proposes a peak period of between 7:00 am to 9:00 am and 3:00 pm to 6:00 pm weekdays which are the periods within which Metro experiences the highest demand.

To further incentivise off-peak travel, Metro proposes to price the off-peak fare as a discount on to the shortest peak fare ('1 Zone') whilst permitting travel across all zones, effectively creating a flat fare for off-peak travel. Metro considers this would be attractive for passengers travelling long distances and would entice them to travel off-peak freeing up seats for multiple shorter distance travel during the peak periods. Furthermore, under Metro's proposal, concession passengers would continue to pay a flat single fare for network-wide travel. Metro proposes setting off-peak fares at 60 per cent of peak '1 Zone' fares (for adult and concession fares), combined with a transitional approach to avoid price shocks.

Metro considers that its proposal will have a gradual impact on travel patterns over time with the aim to transfer some peak travel off-peak travel and reduce Metro's need for capital. Metro expects the revenue impact to be positive as off-peak fares are pegged and peak fares are gradually increased over time. However, the new fare structure may see more concession passengers travelling during off-peak periods which may mitigate this impact over time.

7.2.5 Weekly and monthly passes

Metro proposes introducing both weekly and monthly fares. These tickets would offer the user an unlimited amount of travel based on the terms and conditions of the ticket type purchased. Metro's proposal includes the introduction of anytime weekly and monthly passes with different options of '1 Zone', '2 Zone' or 'All Zones' travel for adults and concession and 'All Zones' for students consistent with the single ticket fare options. Furthermore, Metro proposes introducing off-peak only travel

options for both adults and concessions. Metro concedes that the impact of this proposal on passengers and revenue is somewhat ambiguous. However, it is likely that passengers will adopt these tickets if they see a financial benefit to them. Furthermore, whilst revenue may decrease with a switch from full single fares, such fares reward loyalty and may stabilise passengers and revenue.

7.2.6 Modification of the Greencard daily cap

Metro proposes modifying the Greencard cap from a flat rate to a distance rate during peak periods based on the number of zones travelled. This would make it consistent with the other ticketing options it proposes. Revenue and passenger impacts are expected to be minimal with some passengers shifting travel to off-peak periods where possible based on the price incentive.

7.2.7 Cessation of cash day tickets and cash ticket transfers

Metro proposes restricting cash fares to being single-trip tickets only. This means that Day Rover, Day Tripper and cash transfers would cease to exist. Metro considers that removal of paper based cash transfers (as opposed to using the Greencard) would minimise ticket fraud, improve data integrity and value, speed up journey times and reduce cash handling. Metro proposes offering free cards during the transition away from these ticketing products. Metro consider that passengers would have ample other ticketing options and the impact on revenue may be slightly positive as some passengers may opt to pay for two single tickets rather than use Greencard transfers.

7.2.8 Summary

Table 7.1 summarises Metro's proposed target fare structure and pricing principles. To avoid price shocks Metro proposes phasing in these pricing principles over time with some fares pegged where necessary until they align with the pricing principles (see section 7.11.2 of Metro's preliminary submission).

Metro notes that the pricing of each ticket class would be linked to the Adult single cash fares that the Regulator determines would be required to delivery full cost recovery for peak period services. In its preliminary submission, Metro considers that this fare should be based on the average cost of providing services in peak periods less any subsidies that reflect the wider benefits of passenger transport. Indicatively, Metro has proposed setting the initial cash fares as the maximum allowable fares in the last year of its current pricing order. However, Metro note that any variance between this assumption and the Year 1 cost recovery fares under a zonal-based structure (as determined by the Regulator's current investigation) would have an impact on the proposed fares.

Table 7.1: Metro’s proposed target fare structure and pricing principles

	Period	No. of Zones	Cash	Greencard			
			Single	Single ¹	Daily cap	Pass ²	
						Weekly	Monthly
Adult	Peak ³	1	Cost Recovery	70% of cash	1.8 x Cash Single	9 x Greencard Single	4 x Weekly Pass
		2	1.7 x 1 Zone				
		All	2.2 x 1 Zone				
	Off-peak ⁴	All	60% of Adult Peak 1 Zone				
Concession	Peak ³	1	50% of Adult				
		2					
		All					
	Off-peak ⁴	All					
Student	Anytime	All	50% of Adult Peak 1 Zone				

Notes:

- 1 Permits free transfers within 90 minutes of Greencard boarding
- 2 Permits unlimited travel within adjacent zones.
- 3 Applies if boarding 7-9am or 3-6pm weekdays.
- 4 Applies if boarding at times outside 7-9am and 3-6pm weekdays.

7.3 Fare structures and systems in other jurisdictions

The Regulator notes that Metro’s proposal is largely based on the recommendations made by the Commission in the 2006 Investigation report. However, since this time new systems have developed in other jurisdictions that are worthy of consideration.

The fare structures in other jurisdictions are summarised in Table 7.2 below. As can be seen, these fare structures range from very simple systems with single ticket/single zone with weekly discounts such as in Darwin, systems with Greencard style discounts such as Tasmania and Adelaide, to more detailed systems with peak/off peak pricing, weekly/monthly discounts such as in Brisbane and Melbourne.

Additionally, some jurisdictions have a tag-on/tag-off system of charging in addition to their fare structures. Under this system passengers are charged based on their distance travelled as recorded on a smart card (with a micro chip). Passengers are required to tag-on when they board a bus and are then required to tag-off when they disembark. A discounted fare on a single ‘cash purchase’ ticket is provided under this system similar to the Greencard style systems, however to receive the discount

passengers must tag-off when they disembark the bus. Failing to tag-off results in passengers being charged a default fare which is higher than what their fare may have otherwise been. This system has been implemented in Brisbane, Melbourne, Perth and Canberra with Sydney currently in the process of implementing a similar system.

Table 7.2 demonstrates that there are a variety of fare structures and payment methods used in different jurisdictions. Based on this information, it would appear that, in determining an appropriate fare structure for a jurisdiction, one would need to consider:

- the trade-offs between the amount of zones considered for distance based pricing;
- whether peak/off-peak pricing is appropriate;
- should single ticket prepay discounts be provided (such as under the Greencard) and/or weekly and monthly passes;
- the benefits of implementing a tag-on/tag-off system; and
- how these options should be combined.

In its submission on the draft report, Metro contends that a tag-on/tag-off fare collection arrangement is more appropriately considered as a ticket validation system than as a component of a fare structure. Metro considers these systems are used to enforce a pre-defined fare structure rather than to define the fare structure itself. Metro notes the benefits of a tag-on/tag-off system which include eliminating the need for customers and bus operators to ensure the correct fare is paid, however Metro does not consider this a simplification of the fare structure itself but rather an automated process for applying the appropriate fare in accordance with the pre-defined fare structure. Metro also considers that its current and proposed fare structure could operate independently of a tag-on/tag-off system as could other jurisdictions' systems. Metro considers that there are many benefits to a tag-on/tag-off system (such as reduced fare evasion and richer data) and costs, the method of ticket validation should, therefore, be considered separately from the fare structure.

The Regulator appreciates Metro's comments about the distinction between a fare structure and ticket validation system. However, the Regulator considers that the choice of fare structure can be greatly influenced by the ticket validation system used. In this sense, the Regulator considers that the practical application of the fare structure, and how well it compares to each assessment criterion defined in the ToR, is dependent upon the ticket validation system used. For example, whilst the number of zones/sections of a fare structure may influence how complicated a fare structure is, the Regulator considers that the implementation of a tag-on/tag-off system greater reduces this complication for customers who do not need to calculate their actual fare (see for example Brisbane and Perth). Given this, and based on the Regulator's understanding of the requirements of the ToR, the

Regulator considers that a tag-on/tag-off system should not be considered in isolation of potential fare structure considerations.

Table 7.2: Summary of fare structures by jurisdiction

	Darwin	Canberra	Sydney	Brisbane/ Gold Coast	Melbourne	Adelaide	Perth	Metro current	Metro proposed
Cash single tickets	Y	Y	Y*	Y	Y*	Y	Y	Y	Y
Distance based charge	N	N	Y- sections 3 groups	Y-23 zones	Y-2 zones	Minimal	Y-9 zones	Y- sections 3 groups	Y-4 zones
Peak/off-peak pricing	N	Y	N	Y	Y	Y	N	N	Y
Weekly pass	Y	N	Y- travel ten	Y- free after 9 weekly trips	Y	N	N	N	Y
Monthly pass	N	N	N	N	Y	Y	N	N	Y
Greencard type system	N	N	N	N	N	Y	N	Y	Y
Tag-on/tag-off	N	Y	Proposed	Y	Y	N	Y	N	N

Source: various transport websites

* In Melbourne a ticket must be purchased at a ticketing outlet rather than on the bus. In Sydney pre-paid tickets must be purchased during peak periods.

7.4 Assessment of alternative fare structures

As discussed at the start of this Chapter, the Regulator is required to assess alternative fare proposals with respect to the criteria outlined in the ToR. In assessing how well the fare structures meet this criteria the Regulator has provided a qualitative score as follows:

- zero – if the Regulator considers it does not meet the criteria;
- one – if it partially meets the criteria; and
- two – if it meets the criteria.

In addition, the Regulator has considered the financial costs of implementing any proposal together with any other benefits.

The outcome of this analysis forms the Regulator's assessment on an appropriate fare structure for Tasmania.

In its submission on the draft report, Metro considered that the quantitative scoring system used to assess how well Metro's proposed fare structure meets the criteria outlined in the ToR to be simplistic to the extent that the results are of limited value when viewed in isolation. However, Metro acknowledges that this system was devised in the absence of a more complex framework being prescribed through the ToR.

The Regulator notes that the assessment criteria may be simplistic in nature. However, the Regulator considers it to be sufficient for the purpose of assessing alternative fare structures. Furthermore, by providing each criterion with an equal weighting, the Regulator considers the assessment criteria to be unbiased with respect to the requirements set out in the ToR. Given this, the Regulator has retained the assessment criteria for the final report.

7.4.1 Simplicity and comprehensibility

The Regulator considers that this criterion needs to be considered in light of the circumstances prevailing in each jurisdiction. For example, as mentioned in section 7.3, whilst the fare structures in Brisbane/Gold Coast and in Perth may be complicated with multiple zones, these fare structures are likely made simpler with the incorporation of a tag-on/tag-off system that automatically determines the fare. The system in Darwin would appear to be very simple with a singular flat fare, however, there would appear to be less need to be as detailed as Brisbane/Gold Coast and Perth given that buses operating in these jurisdictions cover much longer distances.

Comparing Metro's proposal to Brisbane/Gold Coast and Perth, the creation of four zones (but passengers are only charged for travelling up to three zones) would appear to be reasonably simple but appropriately detailed given Hobart's size. However, the Regulator notes that other larger jurisdictions such as Adelaide and Melbourne have less zones (two) than Metro's proposal. This would suggest that

Metro's proposal is more complex relative to those jurisdictions. Having only two zones in Launceston and one in Burnie-Wynyard would also appear to be reasonable given their relatively smaller size.

With respect to other aspects of Metro's proposal, the Regulator considers that it may be incorporating too many ticketing options leading to an over complication of the fare structure. This is because it effectively includes three different ticketing purchase options for passengers, single cash fares; Greencard system discounts; and weekly and monthly passes. This is opposed to other jurisdictions such as Perth and Canberra that provide single fares and the tag-on/tag-off system and Darwin and Sydney that provide single fares and weekly/monthly passes. That said, Adelaide has recently introduced a weekly pass in conjunction with its Greencard type system and Melbourne offers a full suite of ticketing options. Whilst Brisbane provides for a weekly pass in addition to its other ticketing options, it is based on providing an extra discount after nine trips have been undertaken during a week rather than a pre-paid weekly pass.

Based on the above, for the draft report the Regulator considered that Metro's proposal partially met this selection criterion with a score of one. The Regulator considered it would score higher if its ticketing options were simpler. This may involve a choice between the current Greencard discounts and weekly/monthly passes or merging the Greencard and cash ticket options. If the three different options were to remain then perhaps the adoption of the Brisbane system of free travel after the ninth trip in a week would appear to be a reasonable compromise.

In its submission on the draft report, Metro considered that its fare proposal was both simple and comprehensible in terms of both the number of zones and the number of ticketing options compared to other jurisdictions. Metro notes that whilst its proposed number of zones for Hobart is more than Melbourne, the Melbourne system is a radial zone system as opposed to Metro's proposed linear system. Given this, Metro considers that Melbourne's and Hobart's zonal structure are not directly comparable. Metro considers that the linear approach is more suited to Hobart's topography where there are nature barriers separating the outer zones from each other, which does not exist in Melbourne.

In terms of ticketing options, Metro considers that its proposed fare structure is no more complicated than that which exists in other jurisdictions (as outlined in Table 7.2). Metro notes that Tasmania and Adelaide have tag on systems whereas most other jurisdictions have tag on/tag off functionality. Furthermore, Metro notes that most of these jurisdictions offer cash fares as well as pre-paid passes. Metro notes that Melbourne's myki pass and Adelaide's metroCard operate in much the same way that Metro proposes to add weekly and monthly passes on to its Greencard.

However, in its submission on the Regulator's draft report, DIER supported the Regulator's conclusion that incorporating too many ticketing options may create an excessively complex fare structure. DIER considered that if complexity were to mean that the available means for adding value were to be reduced, this would not be of benefit to passengers.

The Regulator notes that, with respect to the number of proposed zones, Metro's proposal meets this criterion. That is, the Regulator agrees with Metro that, given Hobart's topography, the proposed number of zones appears appropriate.

In its draft report, the Regulator considered that Metro's proposal only partially met this criterion with respect to the number of ticketing options. This is opposed to the current fare structure which appears to be relatively simple compared to the new fare proposal. Furthermore, the proposed alternative fare structure appears to be more complicated than those observed in Darwin, Canberra and Perth as outlined in Table 7.2. That said, the Regulator appreciates that Metro's proposal would not appear to be more complicated than that observed in Sydney, Melbourne, Brisbane and now Adelaide with the recent introduction of a monthly pass. Based on the available evidence, and given Tasmania's relative size compared to other jurisdictions, the Regulator has decided to retain its draft report conclusions on this issue.

However, as noted in its draft report, the Regulator considers that whilst fewer ticketing options may simplify Metro's proposal, consideration of the implications of fare simplification methods is crucial. This is due to the likely impact on particular customer classes. For example, inclusion of weekly and monthly passes may encourage greater take-up for some passengers to use Metro throughout the week. However, those passengers that only use Metro a couple of times a week may stop using Metro services all together if single ticket fares rise too much and multi-ticket fares are not suitable. This concern was also raised by Metro in its submission on the draft report. Given that declining patronage is of particular concern to Metro, careful consideration needs to be given with respect to the likely net impact on patronage numbers (balancing more the increase in passengers from prepaid fares but potentially less passengers who travel only a couple of times per week). Hence in deciding on the appropriate fare structure, less simplicity may be desirable if other objectives are more fully met.

7.4.2 Equity

In term of equity, Metro's fare proposal would appear to be reasonably equitable compared to other jurisdictions. Metro proposes the introduction of peak/off-peak pricing which ensures that passengers in the peak period that cause additional cost to Metro through additional bus purchases are paying relatively more than off-peak passengers that only need to use existing capacity. Furthermore, the incorporation of multiple zones ensures passengers travelling longer and thus causing additional fuel and maintenance costs for Metro are contributing more to this cost compared to shorter trip passengers. Thus, if one considers distance based pricing such as for full adult fares is equitable then the introduction of distance based pricing for concession holders would also appear to be an improvement in terms of equity over the existing Metro fare system.

That said, the Regulator notes a submission it received that considers the proposed zonal boundaries, combined with the removal of cash based transfer tickets, may

disadvantage a number of existing passengers. This stakeholder notes that passengers travelling to the northern suburbs from Hobart need to change buses at Glenorchy such that not allowing transfers on paper based tickets would put these passenger at a severe disadvantage when compared to passengers from southern or eastern areas that do not have to catch multiple buses to complete their journey. This stakeholder also considered that a transitional transfer token that can be printed on board the first bus that the passenger must surrender to the second bus would alleviate this scenario until such a time as Greencard take-up is able to justify the withdrawal of a transfer token.

This stakeholder also noted that Metro's proposal would appear to benefit passengers in the eastern suburbs of Mornington, Warrane, Howrah, Bellerive, Lindisfarne, Geilston Bay and Risdon Vale along with the southern suburbs of Mt Nelson and Taroona with a move from a medium fare based on sections 5 through to section 8 to a single zone fare. This stakeholder also considered that this would considerably reduce fare revenues in medium to high socio-economic areas, whilst leaving passengers travelling from lower socio-economic areas at a marked disadvantage by having to use a '2 Zone' ticket where currently they require a medium fare under the sectional system. For example, in the Northern suburbs a resident of Chigwell (currently section 6) can travel to Moonah on a short fare, but under the proposed zone system it would require a two zone fare for the same journey, whereas a person in the eastern suburbs from Howrah (currently section 6) who currently pays medium fare to travel to the Hobart CBD would pay a '1 Zone' fare.

With respect to the consideration of the zone fare boundaries the Regulator notes that with any fare restructure there are likely to be winners and losers. The Regulator considers that in assessing the fare proposal with respect to equity the Regulator should take into account the equity of the overall system rather than specific groups of passengers. In this light, the Regulator considers that Metro's proposal for more distance based pricing leads to a more equitable outcome as individuals are paying for the costs that Metro incurs to serve with. In terms of the impact of specific passengers with the placement of fare boundaries, the Regulator considers that this is a matter for Government. In this light, as noted by the Commission in the 2006 Investigation report, the Regulator considers that the exact placement of boundaries of zones may be best determined by Metro in consultation with DIER.³¹

Based on the above, the Regulator considered for the draft report that Metro met this criterion with a score of two. A movement to a tag-on/tag-off system may improve equity in that passengers would have less ability to fare evade ensuring each passenger paid the correct fare based on their time and distance travelled. However, this would need to be balanced with the cost of such a system and its achievement of other objectives.

³¹ See GPOC (2006), *Metro pricing policies investigation 2006 – final report*, p.81.

In its submission on the draft report, Metro supported the Regulator's draft report conclusions in this respect. Specifically, Metro considered the removal of cash ticket transfers may disadvantage a number of passengers, however, this has been offset by Greencard transfers, and free Greencards being offered leading up to the removal of cash ticket transfers. Furthermore, Metro agreed with Regulator's conclusion that the equity of the overall system should be considered rather than specific passenger groups as there will always be winners and losers. Metro also considered that the proposed placement of zone boundaries has taken into account the demographic distribution of transport needs while aiming to minimise the potential price impact for customers.

However, in its submission on the draft report, Anglicare raised concerns about the proposed zonal system and its impact on low income earners. Anglicare believes that policy changes that affect the public transport system must take the needs of the low socio-economic into account. Anglicare notes that, of the low socio-economic areas in Tasmania, some of these lie outside the central zone of Hobart of Metro's proposal. Passengers in these zones would need to pay a higher fare to travel to Hobart for time critical appointments. Anglicare also noted that the majority of participants in its research said that their trips are not short trips and thus would normally attract a multi-zone fare.

Anglicare also expressed concern about the introduction of off-peak fares (and associated increase in peak fares) and the introduction of distance based concession fares. Anglicare notes that many passengers have no choice but to travel during the peak periods due to the availability of buses, the express nature of buses that save time for passengers and the fact that many appointments occur during peak periods. Anglicare also noted that many of the participants it interviewed travel long distances to get to appointments such that distance based concession pricing adversely affects some passengers.

Furthermore, Anglicare raised concerns about the withdrawal of 90-minute free transfer tickets for cash tickets and for yellow tickets it provides its workers. Anglicare is also concerned about the potential increase in its own costs as well as the transport costs facing the passengers it is trying to assist.

The Regulator notes that the concerns raised by Anglicare are affordability concerns which are outside the scope of the Regulator's investigation. Ultimately, how affordability is dealt with for specific passenger groups is a matter for the Government to consider. Furthermore, the impact of the introduction of zonal boundaries and distance based pricing for concession fares is a matter for Metro and the Government. Finally, with respect to free transfers the Regulator notes Metro's comments above. However, the Regulator suggests that Anglicare and Metro may wish to make direct contact about an appropriate solution to this issue.

Given the above, the Regulator has decided to retain its draft report conclusions on this issue.

7.4.3 Availability of technological capability to support those structures

In terms of the available technology, the Regulator understands that Metro's currently installed systems support its proposed fare structure. Given this, the Regulator considers Metro's proposal meets this criterion with a score of two.

In terms of alternative fare structures, the Regulator notes that technology is available to move to a tag-on/tag-off system as in other jurisdictions. The Regulator has been advised by Metro that the indicative cost to implement a 'tag-off' ticketing system is \$1.14 million. This assumes the installation of two readers per vehicle and the costs associated with having to change the back end software plus project management etc. Given this, the Regulator considers that at present a tag-on/tag-off system would score a lower score with respect to this criterion for Tasmania.

7.4.4 Relativities between existing fare categories

The Regulator notes that, in most cases, Metro has priced each fare category in its fare structure proposal consistent with the recommendations made by the Commission in the 2006 Investigation report. This includes:

- pricing tickets for '2 Zone' and 'All Zone' travel at 1.7 and 2.2 times the single zone fare respectively. As noted in the 2006 Investigation report this reflects the increased cost associated with operating longer routes, however there is a decrease in the average cost per kilometre reflecting the high level of fixed costs associated with operating a bus route³²;
- providing a discount on multi-trip tickets; and
- establishing a clear relativity between adult and student fares adult and concession fares.

Furthermore, Table 7.3 outlines the fare relativities and multi-ticket discounts for jurisdictions with such pricing options. The zones/sections part of the table reflects the relative increase in fares as passengers travel into more than one zone in each jurisdiction. The discount percentages at the bottom of the table reflect the percentage discount of purchasing a weekly or monthly ticket compared to 10 weekday trips on a single ticket cash basis or a single ticket discount card basis such as Greencard in Tasmania. As can be seen from the table, Metro's proposal does not appear to be significantly different to that in place other jurisdictions.

³² See GPOC (2006) "Metro pricing policies investigation 2006 – final report", p.81.

Table 7.3: Fare relativities by jurisdiction

Zones/Sections	Sydney	Melbourne ¹	Brisbane ²	Adelaide	Tasmania
1	1	1	1	1	1
2	1.6	1.7	1.17	1.76	1.7
3	2.0	2.4	1.19		2.2
Multi-ticket discount					
Weekly	20%	n.a.	10% card 38% cash	n.a.	10% card 34.5% cash
Monthly	n.a.	41%	n.a.	13.4% card 43% cash	10% card 34.5% cash

Notes:

- 1 Melbourne has different pricing depending on which zone passengers start from, thus the zone 2 and 3 relativities are actually for all zones but reflecting the incremental price relative to passengers starting zones.
- 2 Brisbane's relativities are very low for its first three zones reflecting the fact that it has 24 zones for pricing purposes.

Based on the above, the Regulator considers that Metro's alternative fare structure meets this criterion with a score of two.

7.4.5 The need for a transition path while avoiding price shocks for any particular passenger group

The Regulator notes that Metro proposes a transition path to its new urban fare structure to avoid price shocks for passengers. This transition path involves:

- providing free Greencards to minimise the impact on passengers that use transfers on cash based tickets; and
- slowly adjusting some fare rates until the proposed relativities between fares are reached.

In practice, Metro's preliminary submission noted that it proposed to set its peak '1-Zone' cash adult fare based on the Commission's recommendations for the fifth year of its current pricing order from the 2009 Investigation. However, applying the 1.7 and 2.2 multiples for '2-Zone' and 'All Zone' tickets would lead to much larger increases than in the current pricing order. Given this Metro proposed smaller initial increases. This leads to an initial increase in single trip cash fares ranging from 10 to 19 per cent. Metro notes that its fare structure would need to be updated based on any recommendations stemming from the current investigation. This is considered in section 7.6.1 below.

Based on the above, the Regulator considers that Metro meets this criterion with a score of two.

7.4.6 Consistency with government policy

Section 5 of the *Metro Tasmania Act 1997* states that the principal objective of Metro is:

“To provide road passenger transport services in Tasmania and to operate those services in a manner consistent with sound commercial practice.”

In previous investigations, DIER has noted that Metro exists to provide transport services for the transport disadvantaged. Furthermore, the ToR for this investigation outlines that:

“The Government’s primary objective in funding the contracted services is to mitigate the impact of transport and socio-economic disadvantage and by doing so meet the essential travel needs of the community.”

However, in Metro’s corporate plan and in its preliminary submission it notes that it sees its role as much broader in that passenger transport should be promoted to a much wider audience than just those classified as disadvantaged. In this light, Metro notes that it plans to extend and strengthen its partnership with other transport operators in Tasmania by working with DIER and other transport operators to improve and integrate passenger transport services, customer information and timetables, fares and ticketing.³³

The Regulator understands that, based on the above, there may have been differences in opinion on the objectives of Metro. However, any difference in opinion concerning Metro’s objectives is a matter for the Government to resolve.

In this light, the Regulator understands that Metro has recently been issued with a Member’s Statement of Expectations (MSE) by the previous Government. The Statement sets out the Government’s broad policy expectations and requirements for Metro Tasmania. The Statement outlines that Metro’s principal objective to deliver its core business objective of providing safe, reliable and efficient road passenger transport services in urban areas, consistent with the Government business principle. In doing so, Metro should:

- operate in accordance with sound commercial practice and as efficiently as possible; and
- have regard to the social and economic objectives of the State.

In its submission to the draft report, DIER reiterates this objective noting a redirection of Metro’s priorities from providing bus services that are essential for the purpose of addressing transport disadvantaged and facilitating social inclusion but

³³ See Metro’s preliminary submission, p.9.

also recognises, in addition, that there are wider benefits to the community through providing an alternative to the private car, especially for peak period travel. DIER notes that this reflects a substantially modified view of the role that Metro is taken to play in the contemporary Tasmanian transport environment.

In addition, the MSE outlines a number of strategic expectations which include:

- provide safe, reliable and efficient road passenger transport services consistent with relevant technical and customer standards and regulatory arrangements;
- provide a competitive alternative to light vehicle passenger transport on a commercial (at least break even after Government contract funding) basis in urban areas where it provides services;
- maximise fare revenue consistent with relevant economic regulation;
- maximise patronage consistent with the point above; and
- provide concession services to the transport disadvantaged and education providers in accordance with explicit Government policy.

Furthermore, the statement outlines a number of principles for Metro to follow including:

- fare transitions should occur over a manageable timeframe that avoid price shocks for customers;
- fare reviews are to occur annually to ensure that fares are at least maintained in real terms on average;
- seek to achieve growth in fare revenue as a proportion of total revenue over time;
- fare structures are to provide incentives for customers to travel in off-peak periods, and act to reduce the future capital investment required in the fleet; and
- clear relativities are to be re-established between concession and adult fare categories.

At a broad level, the Regulator does not consider that Metro's fare proposal is necessarily inconsistent with any of the principles outlined above. The proposed fare structure offers choice for several different passenger types including less expensive travel options during off-peak periods. As noted in section 7.4.2, whilst the change in fare boundaries may disadvantage some passengers relative to the current fare structure, the Regulator reiterates that in any fare structure there are likely to be winners and losers. This does not mean that it is necessarily inconsistent with the Government's objectives. That said, as noted in the 2006 Investigation report, the

Regulator considers that the exact placement of zone boundaries would be best determined by Metro in consultation with DIER.³⁴

Metro notes that its proposed concession and student fares proposals are restricted by the current terms of the NSC. The Regulator notes that it supports the linking of student and concession fares to adult fares as noted in previous investigations. This would also appear to be consistent with the MSE that outlines that “clear relativities are to be re-established between concession and adult fare categories”. As the Government has previously stated that it is its role to determine any subsidy within fares, the Regulator does not consider it is appropriate for it to comment on the appropriateness of any NSC restrictions on these fares. Once again this is a matter for DIER and the Government.

Based on the above, for the draft report the Regulator considered that Metro met this criterion with a score of two.

As discussed earlier, in its submission on the draft report Anglicare noted that it believes policy changes that affect the public transport system must take the needs of the low socio-economic into account. Anglicare notes that it encourages the Government to continue to mitigate disadvantage and ensure all Tasmanians have access to affordable transport to school, work, health and civic duties. In its submission Anglicare reference a policy statement by the Government (when in opposition) outlining a plan to “provide better integrated and coordinated transport services for Tasmanians disadvantaged through poverty, frailty, age or disability, to reduce social isolation”³⁵. Anglicare notes that it believes any changes to public transport should be considered in an integrated way that incorporates other priorities such as public health, employment opportunities, climate change, community development, urban planning and reducing disadvantage.

The Regulator notes that the views expressed by Anglicare are not inconsistent with the MSE or other available policy documents. However, this view would appear to reflect only part of Metro’s role, which includes a more commercial focus with respect to commuter passengers. The Regulator notes that these are somewhat competing priorities requiring appropriate consideration of the balance between adult full fares, concession and student fares and contract payments including the placement of fare boundaries. That said, the Regulator does not consider Metro’s fare proposal to be inconsistent with Government policy. However, the Regulator notes that the degree to which Metro meets these competing objectives is a matter for Metro and the Government to consider.

Given the above, the Regulator has decided to retain its draft report conclusions on this issue.

³⁴ See GPOC (2006), *Metro pricing policies investigation 2006 – final report*, p.81.

³⁵ Tasmanian Liberals (2014), *A hand-up for vulnerable Tasmanians*, p.10.

7.4.7 Peak and off-peak fares, incentivising fare pre-payment and reducing or eliminating the opportunity for underpayment

With respect to this final criterion from the ToR, the Regulator considers that Metro's fare proposal partially meets this criterion. It meets the criterion in terms of offering peak/off-peak pricing to incentivise travel in lower cost periods. Furthermore, it incentivises fare pre-payment by providing discounts for weekly passes.

However, it would appear to offer little in terms of eliminating the opportunity for fare underpayment compared to the current system. This is because the method of purchasing fares for Metro services is effectively an honesty based system. Once a passenger pays a bus driver or scans their Greencard and a fare is charged it is unlikely that a bus operator would check to reconcile when a passenger disembarks and whether the correct fare was paid relative to the distance travelled. This is unlikely to change in moving from the current fare structure to Metro's proposed new fare structure.

The Regulator also notes that, whilst Metro's proposed fare structure offers off-peak discounts, during its transition to this structure Metro proposes to offer limited off-peak pricing options. This occurs because Metro initially proposes to peg off-peak prices to that of '1 Zone' fares which provides no incentive for off-peak travel for 'Zone' customers in the short term. The Regulator understands that Metro has proposed this transition to maintain revenue and to smooth fare adjustments, allowing '1 Zone' fares to rise whilst keeping 'Off-peak' fares constant.

Based on the above, the Regulator considered in its draft report that Metro partially met this selection criterion with a score of one. To improve on this score Metro could introduce a tag-on/tag-off system as discussed in section 7.3. Under this system passengers are incentivised to tag-off when disembarking a bus which leads to the charging of the correct fare based on the time and distance travelled. Furthermore, the Regulator considered that Metro could offer greater 'Off-peak' discounts during its transitional period.

In its submission on the draft report, DIER contended that discounts on adult peak cost recovery fares should be applied in recognition of available capacity in the off-peak period. That is, discounts should be provided to ensure appropriate signals exist to encourage a shift to travel outside of peak periods. DIER notes that Metro's costs are significantly impacted by the capital implications associated with serving 'needle peaks' in demand and a fare structure which encourages non-peak travel to the greatest extent possible must be encouraged.

In its submission on the draft report, Anglicare noted that many participants in its research indicated that many appointments occur during peak periods (as discussed earlier) and thus cannot avoid travelling peak periods. They felt that any measures that made it more expensive for them to travel when they were trying to get to work, trying to get well, or trying to contribute to the community were 'crazy', 'discriminatory' and 'ridiculous'.

Furthermore, Anglicare noted that many passengers travel during peak periods due to the availability of buses and the express nature of buses that saved time for

passengers. Anglicare recommends that Metro provides more express buses in off-peak periods.

In its submission on the draft report, Metro clarified that, in addition to modifying the Greencard Daily cap from a flat rate to a distance rate during peak periods, it proposes adjusting how the Peak Daily Cap is triggered to take over from the default Off-Peak Daily Cap. This involves tighter restrictions so that passengers pay the Peak Daily Cap in either the morning or afternoon peak period, not just the morning period as is currently the case. Metro considers the implication of this ticketing option will act as extra incentive for off-peak travel and minimise any impacts of off-peak transitional pricing as discussed earlier.

Metro also considers that its proposed zonal-based system has the potential to reduce fare underpayment to some extent. This is because under the current sectional based system, passengers need to calculate the number of sections they intend travelling to determine the correct fare. However, under the proposed zonal-based system, fares only change once a zone boundary has been crossed which is simpler for passengers and reduces the risk of miscalculation. For this reason, Metro considers that the suggestion that introducing the alternative fare structure without a tag-on/tag-off system would improve fare compliance which Metro considers illustrates the limited usefulness of incorporating a ticket validation system when assessing different fare structures.

The Regulator notes the comments made by DIER, Anglicare and Metro with respect to off-peak fares and considers that Metro's proposed fare structure continues to meet this criterion with respect to the inclusion of peak and off-peak fares. The effectiveness of Metro's proposed fare structure to incentivise real behavioural change (as noted in DIER's submission) can only be observed once the new fare structure is in place. Whilst the Regulator notes that the incentive to travel off-peak may be lower in the first couple of years, the Regulator appreciates that this is a consequence of Metro's proposal to transition customers to the new fare structure. That said, the Regulator agrees that Metro's proposed off-peak Greencard Daily Cap proposal would appear to balance these competing objectives.

With respect to Anglicare's recommendation for more express buses during off-peak periods, the Regulator notes that such a decision would need to have regard to the patronage on these buses compared to buses operating in more suburban areas and the cost of running additional buses during off-peak periods. The Regulator notes that Metro would need to have regard to this when considering how to minimise its costs and encouraging off-peak travel. In this regard, the Regulator understands that Metro will be undertaking a number of route analyses in the future that will likely take this into account.

With respect to Anglicare's comments regarding the inability of some passengers to travel off-peak, the Regulator notes that such passengers pay a relatively higher fare in recognition of the additional costs Metro faces during peak periods is consistent with the requirements of the ToR and the MSE. However, with respect to concession passengers and the transport disadvantaged, the Regulator again

considers that these are affordability issues that are outside the scope of the investigation and should be considered by the Government.

With respect to underpayment, the Regulator considers that Metro's alternative fare proposal continues to only partially meet this criterion. Whilst the Regulator can see the potential of the zonal-based system to potentially minimise miscalculations of underpayment, the potential for deliberate underpayment would not be removed. The Regulator considers that, based on the available information, a tag-on/tag-off system appears to be the only effective mechanism currently available that significantly reduces fare underpayment. As discussed earlier, the Regulator considers this relevant as tag-on/tag-off systems appear to be integral components of fare structures in other jurisdictions.

Given the above, the Regulator has decided to retain its draft report conclusions on this issue.

7.4.8 Summary

Table 7.4 summarises Metro's proposed fare structure as assessed relative to the criteria outlined in the ToR. Furthermore, it provides a summary of fare proposals with the suggested adjustment that would improve elements of Metro's fare proposal relative to certain criteria. As can be seen, all fare proposals score the same in total recognising that there are trade-offs in the effectiveness of each fare structure in meeting different criteria. That is:

- removing weekly and monthly passes may improve the simplicity of Metro's fare proposal however it will reduce the incentive for passengers to undertake pre-payment; and
- a tag-on/tag-off system may reduce the likelihood of underpayment but, it is not a costless solution leading to it scoring lower in terms of the technology currently available to Metro.

Table 7.4: Summary fare structure assessment against ToR criteria

Criteria	Metro's proposal	No weekly/monthly passes	Tag-on/tag-off with weekly/monthly	Tag-on/tag-off no weekly/monthly
Simplicity and comprehensibility	1	2	1	2
Equity	2	2	2	2
Available technology	2	2	1	1
Fare relativities	2	2	2	2
Transition path for price shocks	2	2	2	2
Consistency with government policy	2	2	2	2
Peak pricing, fare pre-payment and reduced underpayment	1	0	2	1
Total	12	12	12	12

That said, the Regulator notes that each category has been weighted equally in coming to a total assessment of the fare structures relative to the ToR. This is because the Regulator was not instructed through the ToR to provide a relatively higher weight for any particular criterion. Should a higher weight be provided to a specific criterion/or criteria, such as the final criterion, then the final score would be higher for some options, most notably option 3 with a tag-on/tag-off system. However, as noted in previous sections, if a tag-on/tag-off system is preferred the Regulator considers that the additional costs and benefits of such a system must be taken into account.

In this light, as discussed earlier, the Regulator requested data from Metro on the likely installation costs of a tag-on/tag-off system for Tasmania. The indicative estimated cost to implement a 'tag-off' ticketing system is \$1.14 million. This assumes the installation of two readers per vehicle and the costs associated with having to change the back end software plus project management etc. Furthermore, the Regulator also understands that there would be additional operational costs faced by Metro which would need to be taken into account. These may include the requirement of real time data transfer (currently data is downloaded from buses once per day when it returns to the depot), there would be an increase in repairs and maintenance costs for the ticketing system and experience in other jurisdictions indicates that there is an increase in alighting time for passengers which flows through to increases in running times and costs. To make a positive financial return

on such an investment, the financial benefits would therefore need to be more than these costs. The most obvious financial benefit would be the reduction in the amount of fare evasion.

Under the current fare structure, fare evasion can occur for adult passengers using cash and/or Greencard fares. This is because at present this is the only fare category that charges a different price based on distance. The Regulator has calculated that to raise \$1.14 million, around 7.3 per cent per annum of existing adult passengers would have to be fare evading.³⁶ This increases to around 10.1 per cent if interest payments are taken into account.³⁷ Additional funding would also be required to fund additional operational costs.

The above assumes that all passengers should pay for the change to a tag-on/tag-off system. This may be an unreasonable assumption because at present fare revenue only covers around 22 per cent of Metro's annual costs. As an alternative the Regulator has calculated that around 1.6 per cent (2.2 per cent with interest) of existing adult customers per annum would need to be fare evading to recover 22 per cent of the installation costs. This may be a more realistic scenario. However, once again more funds would be needed to fund the additional operational costs on an on-going basis.

In addition, the Regulator understands that there are a number of indirect benefits associated with a tag-on/tag-off system. This includes greater information on the travel patterns of passengers which would assist Metro in gaining a better understanding of travel patterns than is currently the case. This information could be used to more effectively target problem areas in the bus network system that may lead to more efficient operations, reduce cost and increased patronage. Furthermore, it could be a useful tool to better understand the impact of changes from sections to zones and changes to zonal boundaries on specific passengers. In this light, Metro and DIER would be better informed about the implications of any changes to not only the fare structure but to the overall bus network. Given this, implementation of a tag-on/tag-off system but retaining the existing fare structure may be a useful first step in better understanding the most appropriate way forward.

Stakeholders had mixed views on the suggestion introduction of a tag-on/tag-off system in their submissions on the draft report.

Metro considers that this would be a very expensive and complex way to assess the potential impact that a change from sections to zones and placement of zone boundaries would have on specific passengers. Metro notes that the remaining useful life of its current ticketing system is around five years which Metro considers would be an appropriate time for investing in a tag-on/tag-off system if the Government agreed to fund such a system. Metro considers that an improved fare

³⁶ This assumes recovery over a ten year period, consistent with Metro's ten year life for its electronic ticketing system. Furthermore, it assumes that passengers only evade a fare between one ticket type – short to medium and medium to long.

³⁷ Assuming a seven per cent WACC.

structure can be implemented independently of a ticket validation system and that investment in such a system should be a separate consideration.

However, DIER strongly supported the suggestion of implementing a tag-on/tag-off system as a first step. DIER considers that a tag-on/tag-off system significantly enriches the data available which will also help Metro with the design of efficient peak services thereby addressing rising peak costs. DIER note that if a flat adult concession fare is retained, the tag-on/tag-off system functionality should nevertheless be engaged for all passenger types, in order to capture trip data which will support future reviews of fares and services.

That said, DIER notes that it supports the adoption of a fare structure which furthers the pricing principles contained in the MSE including peak cost recovery (with the proviso of efficient route design), distance based adult and adult concession fares reflecting distance travelled, off-peak fares triggering real behavioural change, a simple and understandable fare structure with easy to purchase ticket options and are justified from a commercial and customer perspective.

The Regulator notes that in its draft report it suggested Metro moving toward a tag-on/tag-off system may be a useful first step, however it did not necessarily recommend this approach. Rather, the Regulator considers that this is a matter for Metro and the Government, recognising that additional capex and on-going opex would be required to invest in, and operate, such a system. The Regulator also notes the remaining useful life of Metro's current ticketing system and the merits of waiting five years to invest in a new ticketing system. That said, the Regulator understands that the quoted costs are the incremental cost to install tag-on/tag-off now and not necessarily the full costs of replacing the existing ticketing system. The Regulator's intention was to provide information that may be of some assistance in informing that decision.

In this light, the Regulator notes that all fare structures considered received the same assessment score as outlined in Table 7.4 and discussed above. From the Regulator's perspective, all fare structures, including options for tag-on/tag-off system, equally met the assessment criteria from the ToR. The Regulator also considers that the current fare structure would likely achieve a similar score relative to the assessment criteria. This is because the Regulator considers that the current fare structure may be relatively more simple (at least based on ticketing options) compared to Metro's proposed new fare structure but would score a zero on the final criterion due to its limited peak pricing and limited capacity for fare prepayment and ability to reduce fare underpayment. However, it may score lower with respect to being consistent with Government policy and the MSE. Ultimately, the decision regarding the appropriate fare structure depends on which of the criteria the Government and Metro consider more important.

7.5 Other issues raised in submissions

In its submission on the draft report, Anglicare raised additional issues with respect to:

- the minimum top-up amounts for Greencards; and
- the perceived difficult process to apply for a Greencard.

To solve these issues, Anglicare recommends that Metro:

- not raise the minimum top-up for Greencards above \$5 and explore reducing the minimum top-up;
- engage more agents to sell Greencards; and
- simplify the Greencard application process, including taking into account the literacy level required of applicants and extending the capacity to apply over the counter.

The Regulator notes that these issues are outside the scope of its investigation but notes these issues in this report for Metro's and the Government's consideration.

7.6 Regulator's conclusion

On balance, the Regulator considers Metro's proposal broadly meets the criteria outlined in the ToR. However, the Regulator notes the following issues that both Metro and DIER should consider with respect to a final decision on the fare structure:

- the trade-off between having three ticketing types cash, Greencard and weekly/monthly pass against the simplicity of the fare structure, the incentive for pre-payment and likely impact on revenue and passenger numbers;
- the proposed zonal boundaries and their impact on passengers travelling to/from certain areas within the Hobart area relative to the current system;
- the ability of Metro to link concession and student fares to adult fares given current restrictions contained in the NSC; and
- the likely costs and benefits of implementing a tag-on/tag-off system noting that the Government would most likely need to provide the funding to implement such a system.

Ultimately, the Regulator considers that the choice of a fare structure depends on which elements of the assessment criteria in the ToR the Government and Metro consider more important.

7.6.1 Maximum fares – Metro's proposed alternative fare structure

The Regulator has recalculated the maximum fares based on Metro's proposed new fare structure. This includes Metro's forecast patronage separated into the new ticketing classes. The Regulator estimates that a 85 per cent real increase in weighted average adult fares based would be required for full cost recovery by 2018-19. This would be much more with elasticity impacts taken into account. A similar increase is required for peak cost recovery given that the peak and full cost

recovery ratios have converged as outlined in section 6.5.2. Once again this excludes any subsidy for congestion or environmental outcomes. Based on the patronage data provided by Metro, the slightly lower increase required to achieve full cost recovery (compared to the current fare structure) is primarily due to the cessation of free cash based ticket transfers and the introduction of peak fares.

To mitigate the impact of any real increases in proposed fares, any increases should be phased in over the five year regulatory period. The Regulator has calculated this to be around 13.1 per cent per annum to achieve an 85 per cent real increase by 2018-19. However, as noted in Chapter 6, in making Metro's pricing order the Regulator recommends that consideration should be given not only to this calculated real increase but also to any changes to Metro's fare structure and the level of subsidy the Government wishes to provide.

8 METRO INDEX REVIEW

The ToR specified that:

- 3) The Regulator is to investigate and report on the appropriateness of the composition and administration of the Metro Index.

This chapter discusses:

- the background to the Metro Index and recommendations from the 2009 Investigation;
- the cost drivers that make up the Metro Index and proposes new updated weightings;
- the sub-indices to index the components of the Metro Index; and
- the administration of the Metro Index.

8.1 Metro Index

8.1.1 Background

In the 2000 Metro Investigation Final Report, the Commission considered two options for indexing Metro's maximum revenues received via the Government's Community Service Agreement (CSA) payments – the CPI, or some other index which would more appropriately reflect Metro's underlying cost structures. It was noted that the choice depended, in part, on the regulatory objectives. The key issue was to understand the incentives that the chosen model or framework of regulation was providing.

The guiding premise of economic regulation is to facilitate and encourage effective competition, where it is feasible, or to provide an effective substitute for competition where it is not feasible. Regulation of monopoly services should provide the same incentives as market competition would provide in the particular industry sector.

A powerful incentive for a firm to seek efficiencies is established if the index adopted to escalate revenues is not based on the firm's own cost structure and costs, but on an external index over which the firm has no control. The choice of index is therefore principally between an industry-based index that more closely reflects cost movements for the various industry inputs and a general price index such as the CPI. The more closely the index reflects actual movements in the firm's specific costs, the less incentive there is to seek efficiencies.

The Commission concluded in each of the previous Metro investigations that neither the CPI nor the School Bus Index (SBI)³⁸ was an appropriate index for escalating the maximum revenues or fares of Metro.

In 2000 the Commission, in consultation with Metro, constructed an index that was considered to better reflect Metro's cost drivers, but still provided some incentive to improve productivity in areas where Metro had a significant degree of control. Endogenous sub-indices were used, where possible, rather than indices that Metro would be able to influence. For example, an index of Metro's award labour costs, when Metro is a significant employer under that award, was considered inappropriate as there wasn't any no incentive for Metro to curtail its input costs. However, as there was no suitable exogenous index of diesel fuel costs, the Commission accepted the actual fuel contract purchase rates. The composition of the Metro Index was reviewed, and recommendations for modification were made in each of the previous investigations.

8.1.2 Current Metro Index and 2009 recommendations

Table 8.1 presents the current Metro index and its sub-indices used to inflate each component. Previously the Commission has made a number of recommendations to update the weights in the Metro index and improve its application. For example, these include recommending that all labour related costs be included in the labour cost categories. However, many of these changes are yet to be adopted. The current weights of the Metro index are based on the Commission recommendations at the 2003 Investigation.

In the 2009 Investigation, the Commission updated its calculation of the Metro index weights. This is presented in Table 8.2 below. The Commission presented two indices, one that included a return on capital and one without. The Commission also noted if its recommended approach to capital costs is not accepted, then the recommended Metro Index sub-components and initial weightings will include a return on capital. As noted above the Metro index was not updated.

Despite this, the Regulator has again been asked in the ToR "to investigate and report on the appropriateness of the composition and administration of the Metro Index."

The Regulator considers that to ensure an index continues to be appropriate for use in pricing and revenue decisions it needs to continually be reviewed and updated. This includes reviewing the costs weights to ensure they reflect the efficient cost structure of an industry at each investigation. To not do so runs the risk of perpetuating an inefficient cost structure that does not take into account improved operations or technology change (for example, more efficient fuel sources and uses).

³⁸ The School Bus Index was developed by DIER more than fifty years ago, although reviewed in the mid-1980s, and is used to escalate payments to contractors providing dedicated school services.

Given this, the rest of this chapter updates the Metro Index by including new data on costs and efficiencies and considers the appropriateness of the sub-indices.

Table 8.1: Current Metro Index sub-component indices and weightings

Component	Index	Weight
Fuel	Average cost per litre of diesel fuel to Metro in preceding month (net of GST and fuel rebate)	8.151
Labour	Labour sub-indexes of the School Bus (index), based on the Tasmanian Public Vehicles Award (since replaced by the Public Vehicle Transportation Award 2010): <ul style="list-style-type: none"> ▪ 78.60% Driver wage rate ▪ 13.11% Administrative Assistant wage rate ▪ 8.29% Mechanics wage rate The resulting Labour rate is adjusted by on-costs (superannuation guarantee, payroll tax and agreed supplementary superannuation)	61.336
Parts and Equipment	Average All Capital Cities CPI	13.791
Other costs	Average All Capital Cities CPI	16.722
Total		100.00

Table 8.2: 2009 Recommended Metro Index sub-component indices and initial weightings

Component	Index	Without return on capital %	With return on capital %
Fuel	The latest available index number represented by the average fuel cost net of the (then) latest GST and Federal fuel rebate	15.46	13.24
Labour	The Transport and Storage component of the ABS average of all capital cities AWOTE index	66.36	56.85
Other	Average All Capital Cities CPI	18.18	29.91
Total		100.00	100.00

8.2 Cost weights

As noted above, the Metro Index was initially designed to reflect Metro’s cost drivers. However, the sub-indices applied exogenous indices over which Metro had no control, as better incentives arise where the indices adopted are not based on the firm’s own cost structure. Further, the weights for the component sub-indices were also derived from an assessment of the efficient provider’s cost structures rather than Metro’s own cost structures.

In its preliminary submission, Metro suggested that the Metro Index be reweighted every five years (coinciding with the Regulator’s pricing investigations) based on Metro’s actual expenditure in the preceding financial year. Metro states that the

Metro Index is used to adjust contract payments under the NSC and, therefore, it is crucial that the Metro Index accurately measures movements in Metro's costs. Metro considers this is consistent with clause 3.6 of the NSC between Metro and DIER which states that:

The parties acknowledge that the Metro Index may be periodically reviewed to ensure that it continues to properly reflect movement in the costs faced by Metro.

However, the Regulator notes the following comments of the Commission during the previous investigation on this issue:

The Commission considers that if the Metro Index reflected exactly Metro's cost structures and costs, then the basis of developing and maintaining the Metro Index effectively disappears. In that instance, it would be administratively easier to simply pay Metro the difference between its actual costs and its fares revenues each year. However, such a structure would provide no incentives for Metro to seek efficiencies, or worse, it could have perverse incentives resulting in increased costs and Metro becoming less efficient over time. Thus, the Commission maintains its stance that the weightings for the sub-categories in the Metro Index should be based on the efficient provider's costs at the start of the regulatory period and held for the full regulatory period.

In its draft report, the Regulator proposed adopting this view for this investigation.

In its submission on the draft report, Metro noted that if the Metro Index is intended to drive efficiencies, then this should be undertaken through the exogenous indices applied to the sub-components of the Metro Index and not in forming the weights of the index itself. Rather, Metro considered that the weights should be periodically reweighted based on Metro's actual expenditure. Metro considered that this approach would fulfil the Regulator's desire for Metro to seek efficiencies but also satisfy the intention of clause 3.6 of the NSC.

The Regulator considers that Metro's proposal could lead to perpetuating an inefficient cost structure. For example, if the weights were based on Metro's current cost structure, and the exogenous cost index applied to that weight was relatively high compared to the other cost indices, then Metro would not have any incentive to transform its cost structure to a more efficient cost structure, reflected by the Benchmark Operator's cost weights. This is because it would receive higher contract payments based on its inefficient cost structure. Furthermore, it would limit Metro's desire to improve efficiency over a five year period, knowing that the cost weights of the Metro Index would be adjusted to align to its cost structure at the end of a five year period. By using an efficient operator's cost structure as the basis for the cost weights, Metro is incentivised to transform its cost structure to a more efficient outcome more quickly. Additionally, the Regulator considers that the updating of the weights based on costs of an efficient bus operator, of which Metro is to strive to achieve, is inconsistent with clause 3.6 of the NSC.

In its submission on the draft report, DIER noted its support for the Regulator's position on this matter and considers that the Metro Index should reflect the cost structure of the efficient operator to ensure appropriate incentives exist to pursue efficiencies rather than to reflect an individual operator's actual costs.

Based on the above, the Regulator has decided to retain its draft report conclusion and has, therefore, analysed Metro's cost drivers on this basis.

In Chapter 4 of this Final Report the Regulator assessed the efficiency of Metro's operation and applied various efficiency factors to Metro's costs based on the relevant benchmarks. Table 8.3 shows the updated weighting of each category taking into account the relevant efficiency adjustments. With respect to these updated weights the Regulator notes that:

- Metro's single largest cost item remains its labour costs, ie drivers' wages and other wages and salaries and on-costs;
- in previous investigations fuel costs were proportionately rising leading to a higher cost weight and greater contribution to the Metro Index. However, in recent years this growth has stabilised; and
- other costs have increased the most over the last five years, primarily driven by growth in non-labour overhead costs.

The Regulator has presented the Metro Index as three items consistent with the Commission's recommendations for previous investigations. The Regulator considers this appropriate as all labour related items would be represented by the one weight, with other non-labour overhead costs and bus maintenance grouped together. This allows the respected cost items to be inflated by more appropriate cost indices (see below). This is supported by Metro in both its preliminary submission and its submission on the draft report.

As in the 2009 Investigation, the Regulator has presented a Metro Index with a return on capital and without a return on capital. In the 2009 Investigation the Commission recommended the calculation of a capital allowance for each year based on a rolled-forward regulatory asset base. Under this approach to calculating maximum revenues, the Commission recommended setting the weightings for the Metro Index exclusive of capital costs and applying these to Metro's operating costs. The Commission noted that to include capital costs in the instance, where capital is treated as a separate item, would distort the Metro Index.

For the current investigation, the Regulator has again presented maximum revenue in Chapter 5. However, this is calculated based on Metro's current budgeted capital requirement. This would appear to be much lower than its required capital to meet its DDA and other obligations, however, it reflects the level of funding it currently receives from the Government.

Given the uncertainty surrounding Metro's funding and static nature of the Metro index weights since 2003, both an inclusive and exclusive return on capital Metro

Index are provided. The Regulator considers that this allows the Government to use which ever index it requires to meet its strategic objectives for Metro.

Table 8.3: Metro Index recommended weightings

Component	Weighting without a capital component %	Weighting with a capital component %
Fuel	15.98	13.18
Labour	60.75	50.09
Other costs	23.27	36.74
Total	100.00	100.00

8.2.1 Final recommendation

Given the above, the Regulator recommends retaining the use of the updated cost weights as presented in Table 8.3. The Regulator notes that it is important to update the cost weights of any index periodically to ensure its relevance for the purpose at hand. Whilst the Regulator understands that the current cost weights in the Metro Index have not been updated since 2003, despite previous recommendations from the Commission, the Regulator recommends that DIER update the weights as soon as practical to reflect the current efficient cost structure.

8.3 Sub-indices for Metro's input costs

In previous investigations the Commission recommended that bus capital and other costs be combined, as both categories were to be indexed by the same sub-index. The Commission did not recommend any other changes to the sub-indices in the Metro Index.

8.3.1 Fuel costs

In relation to fuel, Metro's preliminary submission noted that this is currently being indexed by the average cost per litre of diesel fuel to Metro in the preceding month (net of GST and the Commonwealth diesel fuel rebate). Furthermore, to address fuel price fluctuations the fuel component of the Metro Index is adjusted monthly which Metro notes has minimised the lag effect and the index is now working better to adjust Metro's contract payments for its actual fuel price. As such, Metro does not propose any substantial change required for this sub-index.

The Regulator notes that the current arrangement was negotiated between Metro and DIER over some years to address large fluctuations in fuel prices. In the draft report the Regulator did not propose any change to the current arrangements between Metro and DIER. Metro's submission of the draft report was supportive of this proposal.

8.3.1.1 *Final recommendation*

Given the above, the Regulator recommends retaining the existing arrangements with respect to fuel costs.

8.3.2 **Labour costs**

As shown in Table 8.1 labour costs are inflated by the School Bus Index (SBI) based on the *Public Vehicle Transportation Award 2010* for drivers, the *Clerks - Private Sector Award 2010* for the administrative assistance wage rate and the *Vehicle Manufacturing, Repair, Services and Retail Award 2010* for mechanics wage rates. The SBI is based on the weighted average the wages of drivers, maintenance staff and administration staff within the industry.

In the previous investigation both Metro and DIER supported replacing the SBI with the Bus Cost Model Index (BCMI). The BCMI was developed through the CPSR. All labour associated with bus cleaning, administration/customer service and drivers' wages are indexed using the Labour Price Index – Transport and Transport Support Employees and Clerical and Administrative Employees, based on the *Public Vehicles Award*. The Regulator understands that the BCMI is used by DIER across the Tasmania bus industry.

However, the Commission considered that the BCMI was not sufficiently independent of the local labour market for this industry. Given the Commission's desire for an exogenous index to apply the sub-components of the Metro Index, the Commission recommended the use of the national Average Weekly Ordinary Time Earnings (AWOTE) transport and storage component as the sub-index for the labour component of the Metro index.

Despite this, the Regulator notes that the SBI continues to be used.

In its preliminary submission, Metro noted that it had serious concerns about using a national wage index for the transport and storage industry (which is considered dominated by general road freight haulage) as a measure of Tasmanian bus industry labour costs. Metro supported the use of the BCMI which it notes will also standardise the labour sub-index being applied across the Tasmania bus industry. Metro reiterated this position in its submission on the draft report.

In its submission on the draft report, DIER noted that the BCMI index is based on the *Passenger Vehicle Transportation Award 2010* and does not apply to Metro employees, who are instead covered by an entity-specific award and enterprise agreement.

As discussed in the draft report, the Regulator notes that the choice of an index needs to appropriately balance the objectives of being exogenous and independent to drive efficiencies but not to be too unrealistic so that it is improper for the industry at hand. That said, the Regulator notes that it has not received any additional information to suggest that the Commission's recommendations from the previous investigation to use AWOTE would not be appropriate for the Metro Index.

In addition, Metro considers that the weighting of the labour sub-component should include all labour related on-costs. This includes accounting for the impact of external policy changes such as an increase in the Superannuation Guarantee Charge which impacts on the relative cost of labour. The Regulator notes that its proposed weights include all labour related costs at present which addresses the first of Metro's concerns. With respect to on-going adjustments the Regulator considers that these are likely to have an immaterial impact on the relative weights and thus are best addressed when the weights are revisited in total rather than each time there is a policy change. Metro was supportive of this position in its submission on the draft report.

8.3.2.1 Final recommendation

Given the above, the Regulator recommends the use of AWOTE (transport and storage component) as the sub-indices to apply to labour costs.

8.3.3 Other cost components

In previous investigations, the Commission recommended the application of the average of national CPI to Metro's other costs as being representative of the average general increase in prices in the economy.

In its preliminary submission, Metro noted that the national CPI tracks very closely to the Metro's actual parts and equipment costs and considers this is the appropriate index to be applied to such costs.

With respect to 'Other Costs' currently included in the Metro Index, Metro noted that the largest other costs item include workers compensation, superannuation and payroll tax. Metro further noted its support for the Commission's recommendations in previous investigations that these be included in the labour components of the Metro Index.

In terms of the remaining items in the 'Other Costs' category, Metro considers that in the absence of a better index national CPI should be used.

For the draft report the Regulator noted that it supported this position consistent with the Commission's recommendations in previous investigations. Metro also indicated its support of this view in its submission on the draft report.

8.3.3.1 Final recommendation

The Regulator recommends that the National CPI is the appropriate index for Metro's other costs (including non-labour overhead costs and bus maintenance).

The Regulator also reiterates previous recommendations made by the Commission that all labour-related costs including workers' compensation, payroll tax and superannuation should be incorporated in the labour component of the Metro Index.

8.4 Administration of the Metro Index

Administration of the Index is jointly undertaken by DIER and Metro. Calculations are performed in-house in order to make payments to Metro according to the timing set down in the NSC.

During previous investigations, it was noted that Metro had concerns regarding the lag effect created by using a three month average calculation, particularly over a period of significant fuel price increases. This produced a lag of effectively four months between fuel price increases and the adjustment flowing through to the Metro Index, and thus the NSC payments.

However, as discussed earlier, the Metro Index is now adjusted monthly to address fuel price fluctuations. In its preliminary submission, Metro noted that this has minimised the lag effect and the index is now working better to adjust Metro's contract payments in line with actual movements in fuel prices.

Metro's preliminary submission also noted that the Metro Index is used to adjust contract payments under the NSC and therefore consider it crucial that the Metro Index accurately measures movements in Metro's actual costs. As also discussed in section 8.2, Metro considers that the Metro index weights should be based on Metro's actual costs and not that of a theoretical efficient private sector Benchmark Operator, as part of a focus on building in efficiency pressures. Metro considers that an efficiency target is more appropriately dealt with through the contracting process rather than incorporating efficiency drivers through the index used for adjusting costs.

In previous investigations the Commission has considered that the weightings should be based on the efficient provider's own costs, not Metro's own costs; a position supported by DIER in previous investigations. The Commission also noted that the purpose of using an index based on exogenous variables and weightings is to ensure that Metro is provided with appropriate incentives to become more efficient.

In its draft report, the Regulator noted that it agreed with this view and did not consider it had received sufficient information to take a contrary view. As noted in section 8.2, if the Metro Index reflected Metro's exact costs then the basis for developing and maintaining the Metro Index disappears. The Metro Index is a mechanism to reflect the efficient cost structure of a competitive bus industry and the likely cost pressures faced in such an industry.

Given the above, for the draft report the Regulator proposed that the weightings as set out in Table 8.3 be used until the next investigation. Based on the discussion in section 8.2 about not wanting to perpetuate an inefficient cost structure (relative to available benchmarks), the Regulator has decided to retain this conclusion in its final report.

APPENDIX A – TERMS OF REFERENCE

ECONOMIC REGULATOR ACT 2009

INVESTIGATION INTO THE PRICING POLICIES OF METRO TASMANIA PTY LTD

TERMS OF REFERENCE – OCTOBER 2013

Under section 24 of the *Economic Regulator Act 2009*, at least 11 months before the expiration of a pricing policy order or a pricing policy determination in relation to a monopoly provider specified in the Act, the Minister for Finance is to require the Tasmanian Economic Regulator to conduct an investigation into the pricing policies of that monopoly provider in respect of each prescribed monopoly service supplied by the monopoly provider.

The current pricing Order for Metro Tasmania Pty Ltd is due to expire on 28 September 2014. Therefore, in accordance with the requirements of the Act, the Terms of Reference for the 2014 investigation into the pricing policies associated with the provision of road passenger transport services in Tasmania by Metro Tasmania Pty Ltd are outlined below, and address each of the issues outlined in section 25 of the Act.

The Functions and Other Activities of Metro

Section 5 of the *Metro Tasmania Act 1997* states that Metro's principal objective is to provide road passenger transport services in Tasmania, and to operate those services in a manner consistent with sound commercial practice.

Seventy per cent of Metro's revenue is provided through purchaser/provider contracts with Government. The New Service Contract (NSC) between Metro and the State Government is by far the largest of these contracts. The current NSC runs to 31 December 2013 with provision for renewal for a period of a further five years at the option of the Government. The NSC requires Metro to provide bus services within Hobart, Launceston and Burnie. In addition to the NSC, Metro holds a further six contracts with the Secretary of the Department of Infrastructure, Energy and Resources. These contracts provide for the delivery of services to urban fringe settlements.

The Government's primary objective in funding the contracted services is to meet the essential travel needs of the community, both by mitigating the impact of transport and socio-economic disadvantage and by providing efficient services which reduce the need for the community to rely on the private car.

Scope of Investigation

In accordance with Part 3 of the Act, the Regulator should investigate the pricing policies associated with the monopoly services supplied under the NSC.

More specifically:

- 1) Investigate and report on the efficient cost of delivering the services required of Metro for the period 1 July 2014 to 30 June 2019.
- 2) In making a recommendation on the efficient cost of delivering the service required of Metro, the Regulator is to:
 - i. have regard to costs of compliance with the *Disability Discrimination Act 1992 (Cth)*;
 - ii. have regard to Metro's sustainable management of its capital base; and
 - iii. investigate and report on the potential for Metro to secure operational efficiencies.
- 3) The Regulator is to investigate and report on the appropriateness of the composition and administration of the Metro Index.
- 4) The Regulator is to identify what changes would be necessary to the full adult fares structure to achieve full and peak cost recovery.
- 5) The investigation is to consider potential alternative fare structures giving particular attention to matters of:
 - i. simplicity and comprehensibility;
 - ii. equity;
 - iii. availability of technological capability to support those structures;
 - iv. relativities between the fare categories;
 - v. the need for a transition path to achieve implementation while avoiding price shocks for any particular passenger group;
 - vi. consistency with Government policy; and
 - vii. other relevant matters including differentiating between peak and off-peak fares to encourage travel in low cost periods; incentivising fare pre-payment and reducing or eliminating the opportunity for underpayment.

Draft Report

At an appropriate time during the investigation, the Regulator is to make available a Draft Report in accordance with section 34 of the Act.

Date of Completion

The Regulator is to provide a copy of the Final Report, as required under section 35 of the Act, in respect of the Metro investigation by 30 May 2014.

Length of Order

The length of the period for which an Order under section 36 of the Act made in relation to the maximum prices that may be charged by Metro as a result of this Investigation is five years.

Requirement for the Regulator to Make Recommendations

The Final Report provided by the Regulator under section 35 of the Act must contain recommendations in relation to appropriate maximum prices (as defined in section 4 of the Act) to enable Metro to deliver the defined services during the period of five years after the completion of the Final Report.

APPENDIX B – SUMMARY OF SUBMISSIONS

Submissions received in response to invitation for submissions	
Submitter	Key Issues
Anonymous	<ul style="list-style-type: none"> ▪ Commented on Metro’s proposed alternative fare structure. ▪ Concerned about the proposed zonal boundaries and the associated impact on different customer groups. ▪ Concerned about the removal of cash transfer tickets.. ▪ Supports a tag-on/tag-off style system.

Submissions received in response to draft report	
Submitter	Key Issues
Metro Tasmania	<ul style="list-style-type: none"> ▪ Considers that caution should be used when considering benchmarking performance statistics. Notes that changes can occur for several reasons, such as reclassification of items and changes in operations. ▪ Notes that changes in reported service standards are due to changes in the method of collecting and reporting data. ▪ Concerned with the use of the private sector benchmarking when considering efficient operating costs. Considers that the public sector benchmark should be used as government operators tend to face additional costs and restrictions compared to private sector operators. ▪ Supports the Regulator’s approach for treating capex, the WACC and depreciation. ▪ Concerned with the approach used for allocating costs to different time periods which it considers distort the relationship between peak and full cost recovery. ▪ Supportive of the overall method for calculating full cost recovery. ▪ Recognises the benefits of a tag-of/tag-off fare collection arrangement, however considers that it should be viewed as a ticket validation system and not as part of a fare structure review. ▪ Considers the number of proposed zones for Hobart to be appropriate and that the number of proposed ticketing options to not be overly complicated. ▪ Considers its proposed new fare structure to be equitable taking into account the demographic distribution of transport needs while aiming to minimise potential price impacts for customers. ▪ Does not support implementing a tag-on/tag-off system whilst retaining the existing fare structure as a useful first step. Considers its proposed fare structure to be an improvement over the existing fare structure regardless and that implementation of a tag-on/tag-off system to assess this is an expensive exercise. Considers that there are other benefits to tag-on/tag-off systems that could be implemented any time. ▪ Notes that maximum fares would be lower under its fare

	<p>proposal.</p> <ul style="list-style-type: none"> ▪ Considers the weights in the Metro Index should be based on Metro's actual expenditure. ▪ Supports inclusion of all labour related components under the one sub-index. ▪ Does not support the use of the national AWOTE Transport and storage component to inflate labour in the Metro Index. Supports the use of the Bus Cost Model Index as being locally more appropriate. ▪ Supports the Regulator's proposal with respect to fuel and other costs in the Metro Index.
DIER	<ul style="list-style-type: none"> ▪ Notes a redirection of Metro's priorities from providing bus services that are essential for the purpose of addressing transport disadvantaged and facilitating social inclusion but also recognises, in addition, that there are wider benefits to the community through providing an alternative to the private car, especially for peak period travel. ▪ Considers a return on capital to reward for commercial risk not relevant for Metro's funding model and Metro is not required to pay a dividend. ▪ Agrees with the proposed treatment of depreciation. ▪ Agrees that the Metro Index should reflect the cost structure of an efficient provider. ▪ Notes that the Bus Cost Model Index is based on <i>the Passenger Vehicle Transportation Award 2010</i> which does not apply to Metro employees. ▪ Notes that concerns expressed at the 2009 Investigation over holding the weights constant for the full five year period have not been realised. ▪ Note the Regulator's approach put forward maximum weighted average annual real increases in fares may not provide a level of information to enable a full appreciation of the degree to which the Government supports public transport. However, notes it is sufficient to note that the amount paid in fares is well below the actual cost of travel. ▪ Notes the benefits of the Greencard ticketing system including ease of updating credit. ▪ Considers that Metro's proposal may have too many ticketing options. ▪ Supports implementing a tag-on/tag-off systems with the existing fare structure as a first step. Considers this would provide richer data and reduce fare underpayment. ▪ Supports the adoption of a fare structure which furthers the pricing principles contained in the MSE including peak cost recovery (with the proviso of efficient route design), distance based adult and adult concession fares reflecting distance travelled, off-peak fares triggering real behavioural change, a simple and understandable fare structure with easy to purchase ticket options and are justified from a commercial an customer perspective.
Anglicare	<ul style="list-style-type: none"> ▪ Note several research papers that found that public transport is an essential service for Tasmanians on low incomes. ▪ Considers that the Government has a responsibility to ensure that public transport is available and affordable for low-income earners. ▪ Considers that the Government should take into account in its budgeting the cost savings that investing in public transport

brings through decreased costs for roads, carbon emissions, car parking facilities and health. Notes that this was a recommendation of the 2007 review of core passenger services.

- Notes that demand for public transport and travel by bicycle and on foot will increase with increased petrol prices, however considers Hobart is not ready for this.
 - Considers that any move to cost recovery that links full fares to concession fares will have financial impacts for disadvantaged Tasmanians.
 - Concerned about the proposed zonal system and the impact on passengers in outer suburbs.
 - Notes the fixed time of appointments for concession passengers which makes off-peak travel not possible.
 - Notes the long time for trips from the Northern Suburbs to Hobart city, particularly during off-peak periods with limited buses and no express buses. Recommends Metro provide express buses in off-peak times.
 - Notes that Metro's analysis in determining concession based distance fares is based on distance travelled on a full adult fare as they do not have data on the average distance travelled by people with a concession card. Notes that concession card holder often travel long distances to get to appointments and would be worse off under Metro's proposal.
 - Recommends setting concession fares at a flat rate regardless of time of travel.
 - Notes that many passengers use cash only 90-minute transfer tickets to save money. Furthermore, Anglicare workers buy yellow tickets which are redeemed on buses and allow for a 90-minute transfer. Notes that it would cost more for both passenger and Anglicare if the 90-minute transfers were no longer allowed. Note that application for a Greencard for its clients is not possible in the timeframes they need for assistance or because many do not have fixed addresses. Recommends continuation of the 90-minute transfer for yellow tickets.
 - Notes that whilst some clients enjoyed the benefit of Greencard discounts, others could not afford the minimum top-up amounts or to have cash tied up in a Greencard. Recommends reducing the Greencard top-up amount.
 - Notes that many of its clients had difficulty applying for a card and were not comfortable with keeping money on a card. Recommends that Metro offer more agents for the sale of Greencards and simplify the application process including the literacy level required and extending the capacity to apply over the counter.
 - Notes that any increase in fares would put pressure on families. Asks Metro, the Regulator and the Government to place the needs of low income and disadvantaged Tasmanians in the forefront of discussions about Metro's pricing policy.
-