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GEELONG NIGHT LINK TAXIS – A PILOT PROGRAM

REPORT TO MINISTER FOR PUBLIC TRANSPORT

JULY 2013

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GLOSSARY

Brisbane NightLink taxi scheme	A share-ride taxi service for Brisbane’s suburbs departing from three points in central Brisbane. Introduced in 2005, it operates Friday and Saturday nights, from 11pm til 5am.
Commission	Essential Services Commission — Victoria’s independent economic regulator of certain prescribed services as determined by Government. The Commission advises the Minister for Public Transport on taxi fares.
Fare	The price (or fee or cost) of a taxi trip, i.e. the amount paid by the passenger(s).
‘Fare boundary’	The boundary implied by a share-ride fare level, which shows where the share-ride fare switches from being more to less expensive than the standard taxi fare. It provides an indication of the attractiveness of a share-ride fare across the area covered by the pilot.
Fare structure	Refers to the system under which fares are applied to calculate the fare of a trip. For example, fares could have a fixed and variable component, or differing amounts based on travel destination (travel zone).
Fare zones	A geographic division of a given area with corresponding fares applicable to each zone. A one fare zone structure implies a single fare applies to the whole area.
Farebox revenue	The total fare for a taxi trip, i.e. the total revenue. Usually this is calculated via a meter, however for a share-ride taxi a flat fare is to be paid per passenger, with the farebox revenue equal to the sum of passengers’ fares.
Geelong Night Link taxi pilot	The proposed share-ride taxi pilot operating from the rank at 95–113 Moorabool Street Geelong with passengers organised into groups per taxi according to destination.
Geelong Taxi Network	A licensed provider of network taxi services in the Geelong urban taxi zone and operator of the Geelong taxi pilot.
High occupancy vehicle (HOV)	A class of taxi which can carry up to 11 passengers. Higher taxi fares apply to HOVs if carrying at least five passengers or if the hirer requests a HOV. The higher rate

	does not apply when the hirer is a wheelchair passenger.
Metered fare	The taxi fare for a journey as displayed on a taxi's meter. The fare rates (e.g. flagfall, distance rate etc) are determined by the Minister for Public Transport.
Multiple hire	Occurs when unacquainted people agree to share a taxi from a common starting point to their respective destinations. Under current fares, each hirer pays no more than 75 per cent of the metered fare at their drop-off point.
Rank marshals	For share-ride taxis it is proposed rank marshals will be responsible for explaining the service to potential customers and organising passengers into groups travelling in the same general direction to share a taxi.
Taxi Industry Inquiry (Inquiry)	Established by the Government in March 2011 to investigate and report on the functioning of the Victorian taxi and hire car market. The Inquiry provided its final report to Government in September 2012, and is available from www.taxiindustryinquiry.vic.gov.au .
Taxi zone	Taxi licences are attached to certain geographic areas (zones) in Victoria, limiting their operability. A taxi may only pick up from within its relevant zone. The four zones of Victoria are Metropolitan (Melbourne), Outer Suburban, Urban and Country. Geelong is an urban taxi zone.
Victorian Taxi Association (VTA)	The primary taxi industry body of Victoria, representing industry participants including licence holders, operators and network service providers.
Victorian Taxi Directorate (VTD)	Previously a division of the Department of Transport, Planning and Local Infrastructure responsible for the regulation of Victoria's taxi and hire car industry. From 1 July 2013 the Taxi Services Commission was established as the new regulator.
Wheelchair Accessible Taxi (WAT)	Taxis with WAT licences are designed to transport people in wheelchairs and must serve clients in wheelchairs as a priority before taking other fares. WATs may also operate as high occupancy vehicles (HOVs) that can carry up to 11 passengers when not carrying people in wheelchairs.

Key messages

- The Commission has balanced operator and passenger incentives in developing its recommended fare structure. It has also considered simplicity in developing the structure.
- The analysis shows that Geelong Taxi Network’s proposal of a \$15 zone 1 fare and \$30 zone 2 fare compensates operators well — on the assumption that the pilot can attract passengers at these fares. However, the attractiveness of the scheme from a passenger perspective is limited — the Commission’s analysis indicates that the pilot is unlikely to succeed at the fares proposed by Geelong Taxi Network.
- The Commission has applied Geelong Taxi Network’s two zone fare structure. The analysis finds that zoning makes the share-ride scheme more attractive for more passengers while ensuring that operators have a strong financial incentive to participate in the scheme.
- To improve on the \$15/\$30 proposal to make it more attractive to passengers, the Commission has analysed other fare levels.
- The Commission’s recommended fare structure is presented below.

	Zone 1	Zone 2
Flat fare (inc \$2 marshal levy)	\$8	\$17
Flat fare (exc \$2 marshal levy)	\$6	\$15

- Some case studies at the end of this overview (see section 1.5) demonstrate how the Commission’s recommended fare structure benefits passengers and taxi operators.

1.1 About this review

On 14 May 2013, the Essential Services Commission (the Commission) received a referral from the Minister for Public Transport to conduct a review and provide a report within nine weeks recommending a fixed fare, per head, pricing structure for the proposed Geelong late night, share-ride taxi pilot. The full terms of reference of the review are at appendix A and details on the review process at appendix B.

The Commission's role in this review

The Commission's role is to advise on the fare structure for the taxi pilot only.

This report does not cover the policy and operational details of the pilot. The operational details (for example: safety issues, supply of drivers and taxis, employment and cost of marshals etc.) have been developed by Geelong Taxi Network in consultation with the Victorian taxi industry regulator — the Victorian Taxi Directorate (VTD)¹, and are outside the Commission's terms of reference. Appendix C sets out a summary of how the proposed pilot is intended to operate.

The Commission understands that the Victorian Government may review the pilot, with the potential for the service to be continued if the pilot is a success.

The Commission's consultation process

In the time frame provided for the review (nine weeks), the Commission developed its recommendations and report, and also undertook a consultation process.

The Commission advertised the review in the *Herald Sun* and *The Geelong Advertiser*, released an issues paper and called for submissions by 21 June. The Commission engaged with Geelong Taxi Network throughout the review. No submissions were received from stakeholders. Moreover, the Commission was not able to test customer preferences in relation to various aspects of the proposed share-ride scheme. The pilot will provide an important opportunity to test customer preferences.

Contact Details

For further enquiries about this report please contact Nick Hague on 9032 1344 or Patrick Ho on 9032 1351.

¹ From 1 July 2013, the Taxi Services Commission was established as the regulator of the taxi and hire car industries in Victoria.

1.2 Methodology

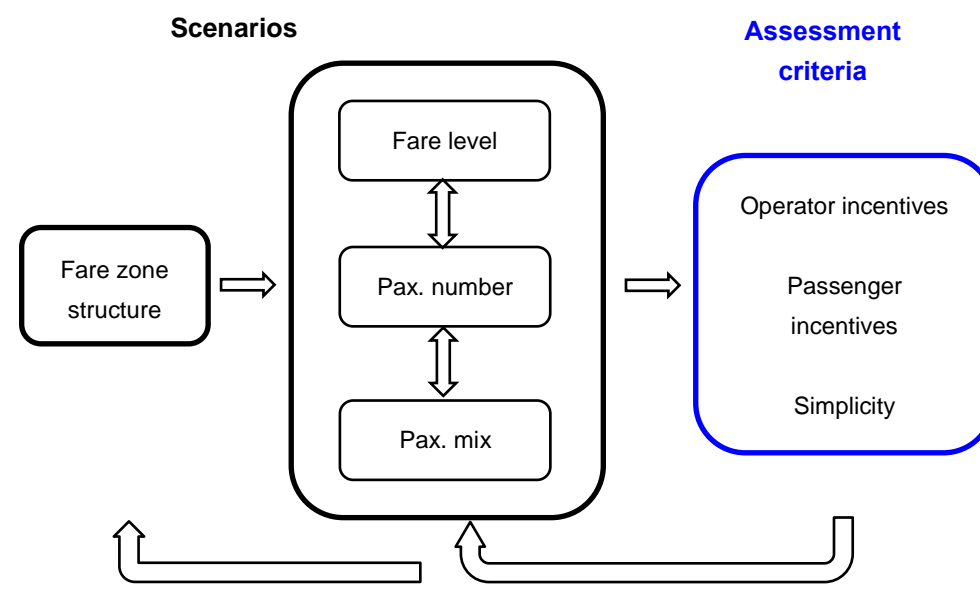
The Commission's methodology for developing a share-ride taxi fare structure is based on scenario analysis — that is, modelling the expected farebox revenue² from a late night, share-ride service assuming specific changes in the variables that affect the farebox revenue. The four key variables that affect farebox revenue are:

- zone structure (i.e. the number of zones) — refers to the separation of Geelong and its surrounding areas subject to the pilot into fare zones
 - one and two zone fare structures were analysed, with the Commission applying a two zone structure as proposed by Geelong Taxi Network
- share-ride fare — the fare payable by a passenger given their destination
 - fare structures could involve single fares only or have 'discounts' for groups travelling to the same destination. To keep the pilot simple the Commission determined that only single fares would be available as proposed by Geelong Taxi Network
- passenger numbers — the number of passengers being carried in a share-ride taxi
 - Geelong Taxi Network sets a minimum of six passengers — the Commission's analysis models outcomes for six to 11 passengers, and
- passenger mix (where there are multiple zones) — refers to the split of passenger destinations across zones
 - the Commission's analysis models outcomes for all potential passenger mixes.

Figure 1.1 illustrates the Commission's methodology for determining the share-ride fare structure. It illustrates the iterative process required to develop the fare structure (as indicated by the arrows, e.g. for a given fare zone structure, fare level, passenger number and passenger mix scenario, the assessment against the Commission's criteria may be such that an alternative scenario, or scenarios, is tested). The scenario analysis approach has allowed the Commission to test and consider a wide range of options.

² Farebox revenue is the total fare for a taxi trip, i.e. the revenue derived for each particular trip. Usually this is calculated via a meter; however under the share-ride pilot a flat fare is to be paid per passenger, with the farebox revenue equal to the sum of passengers' fares.

Figure 1.1 The Commission’s fare structure methodology



Assessment criteria

Three criteria were also developed by the Commission to assess the scenarios generated. These were:

- **Operator incentives** — operators of the share-ride service should receive payment equal to, or greater than, the comparable taxi fare calculated by a taximeter according to time and distance. The Commission’s assessment of operator incentives included:
 - consideration of what constituted a comparable fare, and
 - identification of benchmarks to compare against share-ride farebox revenue.
- **Passenger incentives** — the share-ride service should present a viable alternative to users who individually may seek a lower cost taxi trip than hiring a taxi exclusively for their own use.³ The Commission’s assessment of passenger incentives involves the concept of a ‘fare boundary’:

³ The Commission’s approach to meeting this aspect of the terms of reference results in the analysis of passenger incentives being based on responses to different price levels. What is not easily assessed is how potential passengers will respond to the extra travel time likely to be associated with a share-ride trip (compared to catching a standard taxi and travelling direct to your destination) and the prospect of sharing a taxi with strangers.

- for an individual, this refers to the trip distance from the Geelong CBD where catching a standard taxi switches from being cheaper to more expensive than the share-ride fare.
- **Simplicity** — the more zones and fare options, the more complexity. As complexity makes the scheme more difficult to understand and implement, the Commission has considered simplicity as a criterion.

The marshal levy

In meetings with the Commission, Geelong Taxi Network indicated that the City of Greater Geelong may fund the costs of the marshal for the six months of the trial. If the marshal is not funded by the Council, a marshal levy would be included in the share-ride fare to fund the marshal – Geelong Taxi Network has indicated the marshal levy will be approximately \$2.⁴

While the Commission was not required to calculate the level of the marshal levy (see appendix C for a description of rank marshals), the levy impacts on operator and passenger incentives. The Commission has assumed a \$2 levy as part of its analysis. To properly reflect its impact on incentives, the Commission’s analysis:

- excludes the levy from consideration of operator incentives (since the levy is not retained by the operator), and
- includes the levy when considering passenger incentives (since the levy is included in the total cost paid by each passenger).

Balancing operator and passenger incentives

An important task for the Commission in developing a share-ride fare structure was the balancing of operator and passenger incentives because:

- if operator incentives were favoured over passenger incentives, fewer passengers would be attracted to the service, adversely affecting the pilot’s success and the returns available to operators,
- conversely, if passenger incentives were favoured over operators, operators would be unwilling to supply the share-ride service.

To assess operator incentives to provide the share-ride service, farebox revenue from share-ride scenarios were compared to farebox revenue that operators would otherwise receive from standard taxi fares and HOV fares.

Similarly, to assess passenger incentives, share-ride fares were compared to standard fares. In particular the Commission focussed on passenger incentives for

⁴ Commission consultation with Geelong Taxi Network, 27 June 2013.

passengers travelling in groups of two, as late night taxi trip in Geelong carry on average 2.1 passengers.⁵ In this way, the Commission's assessment was able to consider the competitiveness of share-ride fare levels against standard late night fares.

However, in the time available for the review, the Commission was not able to directly consider a potential passengers' willingness to pay for a share-ride taxi. This analysis would indicate what value passengers place on sharing a taxi as well as the extra time associated with a share-ride trip.

1.3 Fare structure analysis and findings

In applying the methodology, the Commission's analytical process involved:

- analysing a single fare zone structure to find a benchmark single zone flat fare, and
- analysing a two fare zone structure to find the recommended fare structure. This was conducted in two parts:
 - first, zone 1 was considered by itself, to set a zone 1 fare that sufficiently provides for share-ride trips entirely within zone 1.
 - second, the two fare zone structure was considered (incorporating the zone 1 fare) and compared to the single fare zone benchmark to find the recommended fares.

The Commission's findings are summarised below.

Single fare zone analysis

The Commission's single fare zone analysis assumes a single fare zone for all of Geelong and surrounding areas intended to be serviced in the pilot. This single fare zone scenario was analysed in order to find an appropriate single zone flat fare that could be used as a benchmark for determining the Commission's recommended two zones fares.

A number of single zone fare scenarios (from \$5 to \$30) were assessed, with the discussion focusing on fares of \$13, \$14, \$15 and \$20.

The Commission found that a single zone share-ride fare of \$20 would favour operator incentives, as all share-rides would provide farebox revenue exceeding the 50 kilometre standard fare benchmark (a share-ride trip of this distance being unlikely), and even approximating or surpassing the extremely unlikely 65 kilometre worst case scenario with seven or more passengers. Conversely, passenger

⁵ Calculated from data provided by Geelong Taxi Network on taxi trips from 1am to 6am Sunday mornings.

incentives would be relatively low. On the other hand, a \$13 fare would provide much better passenger incentives, but could disadvantage operators, with the minimum farebox revenue being lower than the 35 kilometre standard fare benchmark for a trip to the outskirts of the area covered by the service.

The Commission found that a \$14 single zone flat fare provided the best balance between operator and passenger incentives. A \$14 fare would provide minimum farebox revenue equal to the 35 kilometre standard fare, and comparable or higher than the 50 kilometre standard fare benchmark with eight passengers or more. The farebox revenue range would extend just above the 65 kilometre worst case scenario (without significantly exceeding this extremely unlikely benchmark). Passenger incentives for individuals and groups of two or three would be well provided for, and even a substantial proportion of groups of four would benefit from taking a share-ride taxi.

As such, the Commission found that a fixed fare of \$14 was the appropriate single zone benchmark.

Two fare zone analysis

The Commission's two fare zone analysis was conducted in two parts, first determining a zone 1 fare, and second considering the appropriate two zone fare structure.

Determining a zone 1 fare

The Commission's zone 1 analysis considered share-rides entirely within the proposed inner zone (zone 1). This ensures that the zone 1 fare is sufficient to cover share-rides with only zone 1 passengers.

Geelong Taxi Network proposed a \$15 fare for zone 1. The Commission assessed a number of zone 1 fare scenarios (from \$5 to \$30), with the discussion focusing on fares of \$7, \$8, \$9 and \$10.

The Commission found that a zone 1 share-ride fare of \$10 or more would strongly favour operator incentives, as all share-rides would provide farebox revenue exceeding the 20 kilometre standard fare benchmark (a share-ride trip of this distance being unlikely), and even surpassing the extremely unlikely 30 kilometre worst case scenario for zone 1 with eight or more passengers. Conversely, passenger incentives would be relatively low. On the other hand, a \$7 fare would provide much better passenger incentives, but could disadvantage operators, with the minimum farebox revenue being lower than the 15 kilometre standard fare benchmark for a trip to the outskirts of zone 1.

The Commission found that an \$8 single zone flat fare provided the best balance between operator and passenger incentives. An \$8 fare would provide a minimum farebox revenue exceeding the 15 kilometre standard fare benchmark, and comparable or higher than the 20 kilometre standard fare benchmark with seven

passengers or more. The farebox revenue range would extend just above the 30 kilometre worst case scenario for zone 1 (without significantly exceeding this extremely unlikely benchmark). Passenger incentives for individuals and groups of two or three would be well provided for, and even some groups of four would benefit from taking a share-ride taxi.

As such, the Commission found that a zone 1 fare of \$8 was appropriate.

Determining a two zone fare structure

Having determined a zone 1 fare of \$8, the Commission then considered the appropriate fare for zone 2.

Geelong Taxi Network proposed a \$30 fare for zone 2. The Commission assessed a number of fare scenarios (with zone 2 fares from \$15 to \$30), with the discussion focusing on fare scenarios of \$8/\$16, \$8/\$17, \$8/\$18, \$8/\$19 and \$8/\$20.

In particular, the Commission's analysis sought to find a two zone fare structure that provided a farebox revenue range proportionate to the \$14 single zone flat fare, with an increase in the maximum farebox revenue similar to the decrease in the minimum farebox revenue (compared to the zone 1 fare) – hence the average fare available to operators would be similar. In effect, this provides an equivalent two fare zone farebox revenue range, and therefore provides a similar balance between operator and passenger incentives.

The Commission found that a fare structure of \$8/\$17 provides a farebox revenue range expanded proportionately relative to the \$14 single zone flat fare benchmark (with an increase in the maximum farebox revenue of \$33 and a decrease in the minimum farebox revenue of \$36). Therefore, \$8/\$17 was found to be the two fare zone equivalent of the \$14 single zone flat fare benchmark.

Overall, the Commission found that the \$8/\$17 fare scenario provides strong earnings potential for operators, meeting the likely fare benchmarks of 35 kilometres up to 50 kilometres under reasonable passenger mixes. It also noted that under certain passenger mixes of seven to 11 passengers, farebox revenue would exceed any HOV fare an operator could otherwise take, and with nine to 11 passengers, operators have the potential to receive very high levels of farebox revenue that exceed even the extremely unlikely worst case scenario benchmark of 65 kilometres.

Furthermore, under the \$8/\$17 fare scenario, operators will receive hourly earnings from taking a share-ride trip that are higher than the estimated average hourly earnings rate of \$50 for regular tax trips.⁶ The \$8/\$17 fare scenario provides very

⁶ Geelong Taxi Network has indicated a standard 'off road cleaning charge' of \$50 per hour or per incident – this has been estimated from average shift earnings, and represents an estimate of the average hourly earnings potential for a taxi.

strong passenger incentives for passengers travelling alone or in groups of two, while also providing a benefit for some groups of three or four passengers travelling to both zones.

Therefore the Commission found that a \$8/\$17 fare provides an appropriate balance between operator and passenger incentives (and equivalent to the \$14 single zone flat fare benchmark).

On this basis, the Commission recommends a fare structure of \$8/\$17 for the Geelong share-ride taxi pilot.

Comparison with Geelong Taxi Network's proposed fare structure

In analysing the Geelong Taxi Network's proposal for a \$15/\$30 fare structure, the Commission concluded that the proposed fares represent an imbalance between operator and passenger incentives. Specifically, in the event that they are able to find enough demand for a share-ride, theoretically operators would be very well compensated. However, at these fares the attractiveness of the scheme from a passenger perspective would be limited — it is therefore unlikely that operators would receive the farebox revenue outcomes (compensation) suggested by Geelong Taxi Network's fare proposal because few potential passengers would be willing to take a share-ride taxi. This means that demand for the service would be low.

For example, the \$15/\$30 fare proposal results in:

- **operators being well compensated (theoretically) for a share-ride**, with a farebox revenue range from \$78 – \$308:
 - the minimum share-ride farebox revenue for a share-ride within zone 1 exceeds the worst case scenario standard fare benchmark for zone 1.
 - the minimum share-ride farebox revenue for a share-ride to zone 2 is significantly higher than any standard fare an operator could otherwise take. In all but one case of passenger mix, the farebox revenue would exceed the 50 kilometre standard fare benchmark and would also be higher than any HOV fare an operator could otherwise take.
 - under the majority of passenger mixes, farebox revenue would exceed even the worst case scenario benchmark for zone 2 (in some cases far exceeding this extremely unlikely benchmark).
- **people travelling together will find the fare unattractive** (i.e. these people are effectively excluded from the share-ride service):

- only a small proportion of passengers travelling in groups of two (in either zone) would benefit from taking a share-ride (noting that the average number of passengers for a late night taxi trip in Geelong is 2.1).⁷
- no passengers travelling in groups of three or more (in either zone) would benefit from taking a share-ride.
- **low patronage of the share-ride service** due to limited attractiveness to passengers (low demand):
 - marshals would find it difficult to group enough passengers into a share-ride trip.
 - operators would be unlikely to pick-up share-ride fares, and instead would pick-up (less profitable) standard fares.
 - passengers who would benefit from taking a share-ride would be unlikely to find a share-ride, and instead would take a (more expensive) regular taxi.

Therefore, while the \$15/\$30 fare proposal theoretically results in operators being well compensated (for any share-rides they are able to pick-up), the limited appeal to passengers would result in low demand and low patronage of the service. This limits the benefits of the service and the likely success of the scheme.

Given the Commission's terms of reference require it to consider *both* operator and passenger incentives, the Commission believes the \$15/\$30 fare proposal can be improved upon to make the scheme more attractive for more travelers going to more destinations. The Commission's analysis indicates that improvements to passenger incentives can be achieved while maintaining a strong level of operator incentives.

As discussed above, under the Commission's recommended fare structure of \$8/\$17, operators will still be provided with strong financial incentives to participate in the scheme (with the potential to earn attractive farebox revenues), while the lower fares will increase the attractiveness of the service to potential passengers. This means that patronage will increase — thereby improving the likely success of the pilot scheme, and increasing the likelihood that operators will benefit by picking up a (more profitable) share-ride fare. Increased patronage also increases the 'efficiency' of the scheme because more passengers will enable the marshals to group passengers more efficiently – thereby increasing operator returns.

The substantial increase in passenger incentives is demonstrated in table 1.1, which shows that the fare boundaries for the passenger groups of different sizes is

⁷ Calculated from data provided by Geelong Taxi Network on taxi trips from 1am to 6am Sunday mornings.

significantly reduced under the Commission’s recommended fare structure (meaning more passengers would find the share-ride service attractive). The Commission notes that no groups of three or four passengers would benefit from taking a share-ride under the \$15/\$30 fare proposal.

Table 1.1 Passenger outcomes: fare boundary (distance of travel for which share-ride is cheaper than standard taxi)
(Commission recommended and GTN fare structures)

<i>No. of passengers travelling together</i>	<i>GTN \$15/\$30 fare structure</i>	<i>Commission \$8/\$17 fare structure</i>
<u><i>Zone 1 fare boundaries (km)</i></u>		
1 passenger	4.4	0.7
2 passengers	12.5	5.0
3 passengers	20.5 ^a	9.2
4 passengers	28.6 ^a	13.5
<u><i>Zone 2 fare boundaries (km)</i></u>		
1 passenger	12.5	5.5
2 passengers	28.6	14.6
3 passengers	44.7 ^b	23.7
4 passengers	60.8 ^b	32.9

^a Fare boundary is beyond the zone 1 boundary (with extends approximately 15 kilometres at the furthest point). No groups with this number of passengers will benefit from taking a share-ride under this fare structure.

^b Fare boundary is beyond the zone 2 boundary (with extends approximately 35 kilometres at the furthest point). No groups with this number of passengers will benefit from taking a share-ride under this fare structure.

Therefore, the Commission believes that its recommended \$8/\$17 fare structure provides a more appropriate balance between operator and passenger incentives, and will improve the likely success of the pilot scheme.

1.4 The Commission’s recommended fare structure

The Commission recommends that a two fare zone structure be applied to the Geelong late night, share-ride taxi service. The Commission’s recommended fares are set out in table 1.2.

Table 1.2 Recommended share-ride fare structure

	Zone 1	Zone 2
Flat fare (inc \$2 marshal levy)	\$8	\$17
Flat fare (exc \$2 marshal levy)	\$6	\$15

Data should be collected

To assist the Victorian Taxi Directorate and Geelong Taxi Network to assess the pilot at its conclusion, there would be benefit in collecting information on the number and nature of share-ride trips undertaken.

The Commission recommends that the following data are collected for each share-ride taxi trip during the pilot:

- number of passengers in total
- number of passengers by destination zone
- number of drop off destinations
- farebox revenue
- destination suburb, and
- data from the meter (to be left on during the share-ride trip).

The availability of data on the use of the share-ride service during the pilot will be useful in analysing the success of the pilot, and potentially refining the fare structure in the future.

1.5 Case studies

To illustrate the practical application of the recommended fare structure and to illustrate the savings that would be offered to passengers and the returns available to operators through the recommended share-ride fare, four case studies are presented (tables 1.3 to 1.6).

For each case study, the savings made by single passengers or groups of passengers travelling together in relation to the standard taxi fare are presented. Also presented are the returns made by the operator compared to a standard taxi fare to the final destination of the share-ride trip, as well as compared to the fare to the final destination including a 40 per cent 'inefficiency' allowance to recognise the indirect nature of a share-ride trip.⁸

Case study 1 – Trip to the north of Geelong's CBD

This case study involves a share-ride trip taking:

- one passenger to Bell Park
- two passengers travelling together to Norlane
- one passenger to Lovely Banks
- two passengers travelling together to Corio, and
- two passengers travelling together to Lara.

Table 1.3 (below) indicates that:

- the single passenger travelling to Bell Park makes a saving of \$12
- the two passengers travelling together to Norlane make a saving of \$5
- the single passenger to Lovely Banks makes a saving of \$18
- the two passengers travelling together to Corio make a total saving of \$12
- the two passengers travelling together to Lara make a total saving of \$4, and
- the taxi operator makes additional revenue of \$28 from the share-ride trip relative to the standard fare (or \$15 with a 40 per cent allowance for 'inefficiency').

⁸ 'Inefficiency' refers to the additional distance potentially travelled by a share-ride taxi in reaching its final destination given the intermediate drop offs it will make.

Table 1.3 Case study 1: passenger savings and operator returns

<i>Passenger outcomes</i>		Standard fare	Share-ride cost	Saving
1 pax	Bell Park	\$20	\$8	\$12
2 pax	Norlane	\$21	\$16	\$5
1 pax	Lovely Banks	\$26	\$8	\$18
2 pax	Corio	\$28	\$16	\$12
2 pax	Lara	\$38	\$34	\$4
<i>Operator outcomes</i>		Standard fare	Share-ride farebox	Additional return
Lara		\$38	\$66	\$28 (74%)
+ 40% 'inefficiency'		\$13	–	
Comparable fare		\$51	\$66	\$15 (29%)

Note: Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. 'Share-ride cost' is the individual fare for singles not travelling with others, or the total group cost where groups of two or more people are travelling to the same destination. An assumed \$2 marshal levy is included in the share-ride cost to passengers, but is excluded from share-ride farebox revenues received by operators.

Case study 2 – Trip to the west of Geelong’s CBD

This case study involves a share-ride trip taking:

- two passengers travelling together to Fyansford
- two passengers travelling together to Hamlyn Heights
- two passengers travelling together to Bell Post Hill, and
- one passenger travelling to Batesford.

Table 1.4 indicates that:

- the two passengers travelling together to Fyansford make a total saving of \$2
- the two passengers travelling together to Hamlyn Heights make a total saving of \$2
- the two passengers travelling together to Bell Post Hill make a total saving of \$5
- the single passenger travelling to Batesford makes a saving of \$10, and
- the taxi operator makes additional revenue of \$24 from the share-ride trip relative to the standard fare (or \$16 with a 40 per cent allowance for ‘inefficiency’).

Table 1.4 Case study 2: passenger savings and operator returns

<i>Passenger outcomes</i>		Standard fare	Share-ride cost	Saving
2 pax	Fyansford	\$18	\$16	\$2
2 pax	Hamlyn Heights	\$18	\$16	\$2
2 pax	Bell Post Hill	\$21	\$16	\$5
1 pax	Batesford	\$27	\$17	\$10
<i>Operator outcomes</i>		Standard fare	Share-ride farebox	Additional return
	Batesford	\$27	\$51	\$24 (89%)
	+ 40% ‘inefficiency’	\$8	–	
	Comparable fare	\$35	\$51	\$16 (46%)

Note: Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. ‘Share-ride cost’ is the individual fare for singles not travelling with others, or the total group cost where groups of two or more people are travelling to the same destination. An assumed \$2 marshal levy is included in the share-ride cost to passengers, but is excluded from share-ride farebox revenues received by operators.

Case study 3 – Trip to the south of Geelong’s CBD

This case study involves a share-ride trip taking:

- one passenger to Wandana Heights
- one passenger to Marshall
- two passengers travelling together to Torquay, and
- three passengers travelling together to Jan Juc.

Table 1.5 indicates that:

- the single passenger travelling to Wandana Heights makes a saving of \$14
- the single passenger travelling to Marshall makes a saving of \$11
- the two passengers travelling together to Torquay make a total saving of \$13
- the three passengers travelling together to Jan Juc make a total saving of \$2, and
- the taxi operator makes additional revenue of \$34 from the share-ride trip relative to the standard fare (or \$15 with a 40 per cent allowance for ‘inefficiency’).

Table 1.5 Case study 3: passenger savings and operator returns

<i>Passenger outcomes</i>		Standard fare	Share-ride cost	Saving
1 pax	Wandana Heights	\$22	\$8	\$14
1 pax	Marshall	\$19	\$8	\$11
2 pax	Torquay	\$47	\$34	\$13
3 pax	Jan Juc	\$53	\$51	\$2
<i>Operator outcomes</i>		Standard fare	Share-ride farebox	Additional return
	Jan Juc	\$53	\$87	\$34 (64%)
	+ 40% ‘inefficiency’	\$19	–	
	Comparable fare	\$72	\$87	\$15 (21%)

Note: Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. ‘Share-ride cost’ is the individual fare for singles not travelling with others, or the total group cost where groups of two or more people are travelling to the same destination. An assumed \$2 marshal levy is included in the share-ride cost to passengers, but is excluded from share-ride farebox revenues received by operators.

Case study 4 – Trip to the east of Geelong’s CBD

This case study involves a share-ride trip taking:

- one passenger to Newcomb
- three passengers travelling together to Leopold
- two passengers travelling together to Ocean Grove, and
- three passengers travelling together to Queenscliff.

Table 1.6 indicates that:

- the single passenger travelling to Newcomb makes a saving of \$7
- the three passengers travelling together to Leopold make a total saving of \$5
- the two passengers travelling together to Ocean Grove make a total saving of \$17
- the three passengers travelling together to Queenscliff make a total saving of \$13
- the taxi operator makes additional revenue of \$35 from the share-ride trip relative to the standard fare (or \$12 with a 40 per cent allowance for ‘inefficiency’).

Table 1.6 Case study 4: passenger savings and operator returns

<i>Passenger outcomes</i>		Standard fare	Share-ride cost	Saving
1 pax	Newcomb	\$15	\$8	\$7
3 pax	Leopold	\$29	\$24	\$5
2 pax	Ocean Grove	\$51	\$34	\$17
3 pax	Queenscliff	\$64	\$51	\$13
<i>Operator outcomes</i>		HOV fare	Share-ride farebox	Additional return
	Queenscliff	\$64	\$99	\$35 (55%)
	+ 40% ‘inefficiency’	\$23	–	
	Comparable fare	\$87	\$99	\$12 (14%)

Note: Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. ‘Share-ride cost’ is the individual fare for singles not travelling with others, or the total group cost where groups of two or more people are travelling to the same destination. An assumed \$2 marshal levy is included in the share-ride cost to passengers, but is excluded from share-ride farebox revenues received by operators.

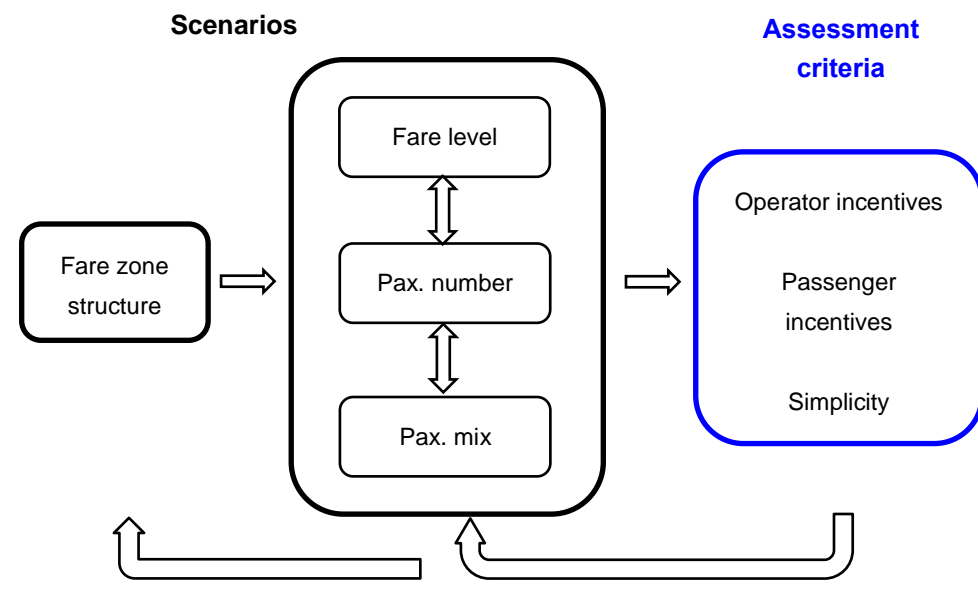
2 THE COMMISSION'S METHODOLOGY AND FARE ZONE STRUCTURES

This chapter presents the Commission's methodology for determining the recommended fare structure for the share-ride taxi pilot.

2.1 The Commission's methodology

The Commission's methodology is summarised in figure 2.1. It indicates that scenarios were based on four key variables: fare zone structure (i.e. number of fare zones), share-ride fare level, passenger number per share-ride taxi, and passenger mix. The outcomes of these scenarios were compared and assessed in terms of their impact on operator incentives, passenger incentives, and the simplicity of the proposal.

Figure 2.1 The Commission's fare structure methodology



The following sections discuss the Commission’s selection of scenarios and the assessment criteria.

2.2 The assessment criteria

Table 2.1 summarises the assessment criteria applied by the Commission in assessing scenarios and making its recommendation on the share-ride taxi fare structure.

Table 2.1 The Commission’s assessment criteria

<i>Criteria</i>	<i>Measurement/considerations</i>
Operator incentives	Level of share-ride fares and farebox revenue Level of standard fares Level of HOV fares 'Indirectness' of trips
Passenger incentives	Level of share-ride fares Level of standard fares 'Fare boundary'
Simplicity	Number of zones Fare type options (e.g. single, group, negotiated discounts)

Three key criteria were considered by the Commission to assess the large number of scenarios it tested. These were operator incentives, passenger incentives, and simplicity. These are discussed in turn.

Operator incentives

To guide the Commission, the terms of reference contain some principles to be taken into account. One is that: *'The service should be supported by taxi drivers on the grounds that they will receive payment equal to or greater than the comparable taxi fare calculated by a taximeter according to time and distance'*. This principle looks to ensure that drivers and operators see a benefit in providing the service compared to standard taxi services.

The Commission’s methodology includes the calculation of farebox revenue for each share-ride trip scenario. These can be compared to the *'comparable taxi fare calculated by a taximeter...'*. However, the Commission notes that the phrase *'comparable taxi fare'* can be interpreted in a number of ways, for example, should:

- the comparable taxi fare be the standard taxi rate (given most HOVs would not be operating at the higher HOV rate because they are carrying less than five passengers)

- the comparable taxi fare be the HOV rate (to reflect the best case fare for a HOV taxi)
- the route for the 'comparable trip' begin in the Geelong CBD and travel direct to the last drop-off point (i.e. ignore the intermediate stops that would be made under a share-ride scenario because in the absence of a share-ride scheme, a taxi trip involving 6–11 passengers as envisaged under the pilot is an infrequent occurrence), or
- the route for the 'comparable trip' follow the potential route of a share-ride trip, i.e. the route is 'indirect' to the last drop-off point since the share-ride journey will first drop off multiple passengers before reaching its final destination?

The Commission's methodology takes account of each of these possibilities by:

- considering both standard and HOV taxi fare rates in its model of fares
- calculating metered farebox revenue based on a direct journey to the last drop-off point, and
- calculating the metered farebox revenue based on a range of 'indirect' share-ride routes.

On this last point, the Commission's analysis included the development of 'worst case' scenarios for each share-ride trip scenario. This recognises that share-ride trips, while heading in one general direction, could involve significantly more travel distance compared to a direct trip to the last drop-off point given share-ride passenger destinations that are widely dispersed.⁹

In summary, the Commission considered operator incentives by comparing the range of share-ride farebox revenue scenarios to a range of 'comparable' taxi fares – the fare benchmarks (discussed below).

⁹ As noted in the next subsection, in some cases a 'worse case' scenario could double the distance travelled compared to a direct (standard) taxi trip. The Commission considers that such outcomes are very unlikely to normally occur, and use of rank marshals to group passengers into share-ride trips should actively avoid such outcomes.

Selecting fare benchmarks

In considering the outcomes for share-ride farebox revenue under different fare level scenarios, the Commission has selected a range of fare benchmarks for comparative purposes.

- 9 kilometres – the average late night taxi trip (e.g. a trip to Grovedale or Waurn Ponds), calculated from data provided by Geelong Taxi Network on taxi trips from 1am to 6am Sunday mornings.¹⁰
- 15 kilometres – a trip to the approximate boundary of zone 1 (e.g. a trip to Leopold). This represents the longest standard fare within zone 1 that an operator could otherwise take.
- 20 kilometres – a 33 per cent distance allowance (to recognise that share-ride trips are not direct to the last drop-off, but will involve ‘detours’ to drop off other passengers) over the 15 kilometre trip benchmark. This represents the upper bound of realistic distances for a share-ride trip within zone 1, but is considered unlikely to occur.
- 30 kilometres – a ‘worst case scenario’ share-ride trip within zone 1 that provides a 100 per cent distance allowance over the 15 kilometre trip benchmark. This represents the absolute longest share-ride trip that could potentially occur within zone 1. A share-ride trip of this distance (within zone 1) is extremely unlikely to occur.
- 35 kilometres – a trip to the approximate boundary of zone 2 (e.g. a trip to St Leonards or Queenscliff). This represents the longest standard fare within zone 2 that an operator could otherwise take.
- 50 kilometres – a 43 per cent distance allowance over the 35 kilometre trip benchmark. This represents the upper bound of realistic distances for a share-ride trip within zone 2, but is considered unlikely to occur.
- 65 kilometres – a ‘worst case scenario’ share-ride trip over both zones that provides an 86 per cent distance allowance over the 35 kilometre trip benchmark. This represents the absolute longest share-ride trip that could potentially occur. A share-ride trip of this distance is extremely unlikely to occur.

While these benchmarks provide a broad range for comparative purposes, the Commission believes that the great majority of share-ride trips are likely to be within the 15 kilometre fare benchmark (for zone 1) and within the 35 kilometre fare

¹⁰ The Commission was also provided with trip data from the Victorian Taxi Directorate – this and the Geelong Taxi Network data give a consistent outcome for the average early Sunday morning taxi trip distance in Geelong.

benchmark (for zone 2). The 20 kilometre and 50 kilometre fare benchmarks (for zone 1 and 2 respectively) provide distance allowances for significantly indirect trips.

An appropriate comparator – standard or HOV fares?

The benchmarks above can be calculated for standard or HOV fares. The Commission's analysis has considered *both* the standard and HOV fares.

However, the Commission is of the view that an emphasis on standard fares is appropriate. During the hours of operation of the share-ride taxi scheme, the vast majority of fares taken by HOVs are at standard taxi rates carrying 4 or fewer passengers.¹¹

Passenger incentives

For share-ride taxis to be attractive to passengers, they need to offer benefits compared to a standard taxi ride. The terms of reference state: '*The service should present a viable alternative to taxi users who individually may seek a lower cost taxi trip than hiring a taxi exclusively for their own use*'. This establishes that passengers should make a saving in a share-ride taxi compared to a standard taxi service.

As noted in the Commission's issues paper, it is not possible to develop a share-ride fare structure that results in cheaper fares compared to a standard taxi for all destinations across Geelong and surrounding areas. Instead, in considering passenger incentives the Commission has:

- used its model of standard taxi fares to calculate the cost of a late night trip to the suburbs and surrounding population centres of Geelong
- compared the standard taxi fare for each suburb to the various share-ride fare scenarios tested by the Commission, and
- for each share-ride fare scenario, calculated the 'fare boundary', for one, two, three and four people travelling together.

As part of the Commission's assessment process, these measures of passenger incentives have been compared to operator incentives for the various share-ride fare level scenarios tested by the Commission.

Simplicity

The Commission notes the share-ride concept is being tested via a pilot. The Commission has therefore been mindful that its fare structure recommendations

¹¹ Commission consultation with Geelong Taxi Network, 27 June 2013.

should be consistent with this stage of concept development. Simplicity has therefore been applied as an assessment criterion.

This means the Commission has not attempted to develop a fare zone structure equivalent to Brisbane's NightLink share-ride taxis, which has 12 fare zones. This simplicity factor has been balanced against the other criteria applied by the Commission.

Balancing operator and passenger incentives

An important task for the Commission in developing a share-ride fare structure was the balancing of operator and passenger incentives because:

- if operator incentives were favoured over passenger incentives, fewer passengers would be attracted to the service, adversely affecting the pilot's success and the returns available to operators, and
- conversely, if passenger incentives were favoured over operators, operators would be unwilling to supply the share-ride service.

The Commission's approach was able to compare operator and passenger incentives under various fare scenarios. However, in the time available for the review, the Commission was not able to directly consider a potential passengers' willingness to pay for a share-ride taxi. This analysis would indicate what value passengers place on sharing a taxi as well as the extra time associated with a share-ride trip.

2.3 Should there be multiple zones?

The Commission's issues paper canvassed whether the area covered by the share-ride service (Geelong and its surrounding areas) should be separated into fare zones, noting that public transport fares (e.g. rail, bus and ferry fares) in Australia and overseas are frequently based on travel zones (also called sectors).

The issue is to what extent the fare structure should reflect the distance travelled and therefore have some degree of cost reflectivity.

Geelong Taxi Network has proposed a two zone fare structure based around Geelong's inner suburban areas (the inner zone) and areas beyond this (the outer zone) — the Commission labels these as zone 1 and zone 2 respectively.

Commission's analysis

In determining the number of zones, there are a number of trade-offs and issues that the Commission considered.

- **Simplicity and insufficient gradation** — fewer zones provides for a simpler fare schedule: simpler to administer and simpler for the travelling public to understand. However, fewer zones and a lack of gradation are likely to imply a

greater degree of averaging in the level of fares within each zone, which could raise cross-subsidy issues (see below).

- **Complexity and cost reflectivity** — the higher the number of zones, the more complex the fare schedule: this may increase the costs of administering the schedule and may be more difficult for the public to understand. However, as the number of zones increases, fares may become more cost reflective.
- **Cross-subsidies** — since fares are averaged within each zone, people in the inner parts of each zone may be seen to be subsidising those who live in the middle and outer parts of the zone. As the number of zones decreases, the extent of subsidisation increases.

The issue of fare zones was considered by the Commission in its report on the Melbourne share-ride taxi pilot. In its final report, the Commission recommended a two fare zone structure based on the balance between simplicity and cost reflectivity. This two fare zone structure recommended by the Commission was adopted by the Government and the VTA for the Melbourne share-ride taxi pilot. The Commission notes that the area to be covered by the Geelong share-ride taxi service is smaller than that covered by the Melbourne pilot, and therefore going beyond two fare zones is not considered necessary for the Geelong pilot.

While acknowledging the benefits of simplicity, the Commission considers that adopting a single zone would not be sufficiently cost reflective, resulting in less patronage. Separating the service into two fare zones will increase the cost reflectivity of the share-ride fare structure, with the potential to make the share-ride pilot attractive to a greater percentage of potential travellers. This will increase the likelihood of success for the pilot.

Therefore, the Commission believes that a two zone fare structure, as proposed by Geelong Taxi Network, is appropriate. Having two zones promotes cost reflectivity in the fare structure (compared to a single zone), which has the potential to make the share-ride pilot attractive to more users.

Recommendation – Zones

The Commission recommends that a two zone fare structure be applied to the Geelong late night, share-ride taxi pilot.

2.4 Should there be discounted fares?

The Commission's issues paper canvassed whether fares should vary with group size (e.g. couples or groups of five or more). The Commission noted that the Brisbane scheme provides for a single fare, double fare and a group fare of five or more and applies this to 12 zones.

Under Brisbane's NightLink taxi scheme, couple and group fares provide for a discounted per person fare compared to the single fare. While providing couple and group fares potentially increases the complexity of the fare schedule, this complexity does not appear to have reduced the success of the Brisbane scheme.

Commission's analysis

By providing increased options and flexibility for potential share-ride taxi users, discounted fare options for people travelling together can promote the success of share-ride taxis. Discounted fares can also be supported based on:

- groups of two or more being able to split a standard (or HOV) taxi fare, thereby paying a lower per head fare than if they were travelling alone
- efficiency gains associated with taking passengers to the same destination, i.e. passengers travelling to the same destination will reduce the number of stops to be made for a share-ride trip (for the same number of total passengers) and increase the directness of the route. This benefits drivers through shorter trip distances and additional time to earn other fares, and
- late night taxi users tending to travel with a partner/friend.

However, discounted group fares will add to the complexity of the two zone fare structure. This will require greater effort in explaining the fare structure to potential users, and add to the workload of rank marshals. For the purposes of this initial pilot, the Commission is not convinced that group fares are warranted. Geelong Taxi Network may be in a position to assess the need for such fares following the pilot's conclusion.

Negotiated discounts and maximum fares

The Commission notes that the Taxi Industry Inquiry made a final recommendation that taxi fares be set as maximums (rather than prescribed rates) to allow for discounting — that is, negotiated discounts. The Victorian Government supports this recommendation.

The Commission also notes that Brisbane's NightLink taxis allow the rank marshal to discount the set fare for passengers when agreed by the driver.

For the purposes of implementing the share-ride taxi pilot in Geelong, the Commission finds that negotiated discounts off the applicable share-ride fare are not warranted for the following reasons:

- the pilot should avoid further complexity — providing for negotiated discounts would add complexity to the scheme and the role of rank marshals
- the pilot should be used to test the fundamental aspects and popularity of the share-ride concept — complexities such as additional discounts could be considered if the service becomes permanent

- for a large number of potential passengers, the recommended share-ride fare already provides a reasonable discount compared to a standard taxi
- there do not appear to be clear guidelines on the application of discounts for the Brisbane scheme — this makes assessment of discounts difficult as there are limited examples to consider, and
- there is potential for confrontation between rank marshals, drivers and potential passengers on whether a discount should be provided, and the level of that discount.

While the Commission finds negotiated discounts should not apply, it does see merit in setting the share-ride fares as maximums (rather than prescribed rates). In the event that the pilot is not attracting sufficient passengers, setting fares as maximums gives Geelong Taxi Network the ability to adjust fares down. This flexibility is particularly important for the pilot since it is unclear what level of share-ride fares is required to attract passengers to share a taxi with strangers and potentially have a longer trip home.

Recommendation – Maximum fares

The Commission recommends that fares for the Geelong pilot be implemented as maximums, rather than prescribed rates.

2.5 The selection of scenarios

Fare structure scenarios

The Commission's fare zone scenarios

For scenario testing, the Commission has considered the following fare zone structures:

- A single fare zone — the combined area to be covered by the proposed pilot (i.e. urban Geelong and the surrounding country areas). The Commission has recommended a two zone fare structure for the pilot and does not support a single zone structure, however it has analysed a single zone structure as a benchmark for setting its recommended two zone fare structure.
- Two fare zones — an inner zone (zone 1) encompassing urban Geelong, and an outer zone (zone 2) approximately bounded by Lara, Bannockburn Central, Torquay and the Bellarine Peninsula (as proposed by Geelong Taxi Network). Analysis of the two zone fare structure was conducted in two parts:
 - first, zone 1 was considered by itself, to set a zone 1 fare that sufficiently provides for share-ride trips entirely within zone 1.

- second, the two fare zone structure was considered (incorporating the zone 1 fare) and compared to the single fare zone benchmark to find the recommended fares.

Scenarios for fare levels

In considering fare levels, the Commission’s scenario approach allowed a wide range of options to be evaluated. Generally, the starting point for fare levels was the \$15/\$30 fare structure proposed by Geelong Taxi Network. A range of other fare levels were then tested (for simplicity, the Commission has restricted its analysis to discrete dollar amounts), and the results considered against the assessment criteria considered by the Commission (see section 2.2). This initial consideration informed further scenario analysis and adjustment to potential fare levels.

The following summarises the fare level scenarios that have been considered by the Commission:

- Single fare zone — fare levels between \$5 and \$30.
- Two fare zones:
 - For zone 1 — fare levels between \$10 and \$20.
 - For zone 2 — fare levels between \$15 and \$30.

Table 2.2 Fare level scenarios tested by the Commission

	<i>Zone 1 fare</i>	<i>Zone 2 fare</i>
<u>Single zone fare structure</u>		
Single zone analysis		\$5 - \$30
<u>Two zone fare structure</u>		
GTN proposed fare structure	\$15	\$30
Zone 1 analysis	\$10 - \$20	na
Two zone analysis	\$8 ^a	\$15 - \$30

^a As determined under the zone 1 analysis.

Share-ride trip scenarios

In considering operator incentives, the Commission analysed the potential farebox revenue under different fare scenarios. However, the farebox revenue that would be received by the operator from a share-ride is dependent on the number of share-ride passengers and the mix of passengers travelling to different zones. Therefore the Commission was required to consider passenger number scenarios, as well as passenger mix scenarios (for the analysis of two fare zones).

Scenarios for passenger numbers

The number of passengers in each share-ride trip influences the calculation of farebox revenue, and therefore is important when considering operator incentives.

The terms of reference state that the Commission's '*investigation, report and recommendations should be consistent with... the appropriate passenger numbers per share-ride taxi trip to ensure the service is both viable for the taxi industry and attractive to taxi users*'.

Geelong Taxi Network has set a six passenger minimum for each share-ride trip. The Commission has used this as a starting point in its analysis. Noting that the majority of HOVs can carry up to ten or eleven passengers, the Commission's scenario analysis tested passenger numbers ranging from six to eleven.

Scenarios for passenger mix

For the two zone fare structure scenarios, it was necessary to consider variations in passenger mix (the number of passengers travelling to each zone) because different fare levels apply to each fare zone. Passenger mix therefore impacts farebox revenue and operator incentives.

Note: For the single fare zone analysis and zone 1 analysis, passenger mix scenarios were unnecessary, as all passengers are travelling to the same zone. Therefore, the Commission tested passenger number scenarios only (six to 11 passengers).

For the two zone fare structure analysis, the Commission's scenario analysis tested all possible passenger mixes for:

- 6 passengers (seven different passenger mix combinations)
- 7 passengers (eight different passenger mix combinations)
- 8 passengers (nine different passenger mix combinations)
- 9 passengers (ten different passenger mix combinations)
- 10 passengers (11 different passenger mix combinations), and
- 11 passengers (12 different passenger mix combinations).

Summary of scenarios

In summary, the range of share-ride trip scenarios tested by the Commission covered:

- two different fare zone structures — a single fare zone structure (as a benchmark) and a two zone fare structure
- various fare levels for each fare zone structure

- passenger numbers of six to 11 passengers per share-ride trip, and
- all possible passenger mixes for the two fare zone scenarios.

3 DETAILED ANALYSIS OF FARE STRUCTURES

This chapter presents the Commission's analysis of fare structure options. In addition to consideration of Geelong Taxi Network's \$15/\$30 fare proposal, detailed analysis of two fare structure options is presented: a single fare zone (which has been considered as a benchmark) and two fare zones (the Commission's recommended fare structure).

3.1 Geelong Taxi Network's \$15/\$30 fare proposal

Geelong Taxi Network has proposed a two fare zone structure for the Geelong share-ride taxi pilot, with fares of \$15 for zone 1 and \$30 for zone 2. The first step in the Commission's fare analysis was consideration of Geelong Taxi Network's \$15/\$30 fare proposal.

The Commission's issues paper presented an initial application of its methodology to the \$15/\$30 fare proposal. This initial analysis illustrated the impact of different share-ride fare levels on passenger and operator incentives, and showed passenger incentives can only be improved at the expense of operator incentives (and vice versa).

Balancing passenger and operator incentives is crucial to ensuring any proposed fare structure is commercially attractive to operators while also being attractive to passengers (and therefore improving the likely success of the pilot).

Commission's analysis

The Commission has assessed Geelong Taxi Network's \$15/\$30 fare proposal by considering the passenger incentives and operator incentives, as per the Commission's methodology outlined in chapter 2.

Passenger incentives

Passenger incentives under Geelong Taxi Network's \$15/\$30 fare proposal are summarised in table 3.1. In considering the incentives for passengers to use a share-ride taxi, the key consideration was the comparison between the cost of using a share-ride taxi rather than paying the fare charged in a metered, standard taxi.

Table 3.1 Summary of passenger incentives

Standard fare scenarios		
Std fare 5 – 15km trip (zone 1) ^a	\$16 - \$35	
Std fare per head		
2 passengers	\$8 - \$17	
3 passengers	\$5 - \$12	
4 passengers	\$4 - \$9	
Std fare 10 – 35km trip (zone 2) ^a	\$25 - \$72	
Std fare per head		
2 passengers	\$13 - \$36	
3 passengers	\$8 - \$24	
4 passengers	\$6 - \$18	
Share-ride fare scenarios		
	<u>GTN fare proposal</u>	
	\$15	\$30
	(zone 1)	(zone 2)
Fare boundary ^b (if 1 pax)(km)	4.4	12.5
Fare boundary (if 2 pax) (km)	12.5	28.6
Fare boundary (if 3 pax) (km)	20.5	44.7
Fare boundary (if 4 pax) (km)	28.6	60.8

^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard taxi trip.

^b The ‘fare boundary’ is calculated for a particular share-ride fare and number of passengers travelling together, and shows the boundary where the share-ride fare switches from being more to less expensive than the standard taxi fare.

Based on the information presented in table 3.1, the Commission notes that under Geelong Taxi Network’s proposal:

- in zone 1, passengers travelling in groups of two will only benefit from taking a \$15 share-ride trip if travelling more than 12.5 kilometres from the Geelong CBD (with the boundary of zone 1 extending only 16 kilometres at the furthest point).
- in zone 2, passengers travelling in groups of two will only benefit from taking a \$30 share-ride trip if travelling more than 28.6 kilometres from the Geelong CBD (with the boundary of zone 2 extending only 36 kilometres at the furthest point).

- no passengers travelling in groups of three or more (in either zone) would benefit from taking a share-ride.

This analysis indicates that at fares of \$15/\$30 the share-ride service would not be very attractive to people travelling with others. Given that the majority of late night taxi passengers are likely to be travelling in groups of 2 or 3 passengers¹², the Commission believes that a fare structure of \$15/\$30 provides a low level of passenger incentives and may struggle to generate demand.

Operator incentives

Table 3.2 summarises information relevant for assessing operator (i.e. driver) incentives. Here, the total fare revenue received by the share-ride taxi operator under the fare scenarios and different passenger numbers is compared to the total fare that would be received under a standard taxi trip (of different distances).

Based on this summary information, the Commission notes that under the \$15/\$30 fare proposal:

- the farebox revenue for each share-ride trip would range from \$78 – \$308 (based on a minimum of 6 passengers to zone 1 and a maximum of 11 to zone 2).
- the minimum share-ride farebox revenue of \$78 (from six passengers travelling to zone 1) equates to additional revenue of 123 per cent compared to the maximum of \$35 for a standard fare trip within zone 1.
 - The minimum farebox revenue even exceeds the worst case scenario fare for zone 1 (a \$63 fare for a 30 kilometre trip) – a share-ride trip of such distance being extremely unlikely.
 - At an estimated average hourly earnings rate of \$50¹³, the minimum farebox revenue of \$78 for six passengers travelling to zone 1 represents over one and a half hours — a share-ride trip within zone 1 is expected to take a lot less time than this, and therefore the share-ride trip would represent a much higher rate of hourly earnings than the estimated average (i.e. operators are expected to earn more than \$50 per hour by taking a share-ride).

¹² The average taxi trip from 1am to 6am Sunday mornings has 2.1 passengers (calculated from data provided by Geelong Taxi Network).

¹³ Geelong Taxi Network has indicated a standard 'off road cleaning charge' of \$50 per hour or per incident – this has been estimated from average shift earnings, and represents an estimate of the average hourly earnings potential for a taxi.

Table 3.2 Summary of operator incentives

Standard and HOV fare scenarios ^a

	<i>Std fare</i>	<i>HOV fare</i>
5 – 15km trip (zone 1)	\$16 - \$35	\$21 - \$49
9km trip	\$24	\$32
20km trip	\$44	\$63
30km trip	\$63	\$91
10 – 35km trip (zone 2)	\$25 - \$72	\$35 - \$105
50km trip	\$100	\$147
65km trip	\$128	\$189

Share-ride farebox scenarios (\$15 zone 1 fare, \$30 zone 2 fare) ^b

	<i>GTN \$15/\$30</i>	
	<i>Min</i>	<i>Max</i>
6 pax farebox	\$78	\$168
7 pax farebox	\$91	\$196
8 pax farebox	\$104	\$224
9 pax farebox	\$117	\$252
10 pax farebox	\$130	\$280
11 pax farebox	\$143	\$308

^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard or HOV taxi trip.

^b Note that the farebox amounts are calculated with respect to the amount received by the driver after the assumed \$2 marshal levy is removed.

The Commission also notes that at fares of \$15/\$30, for share-rides travelling to zone 2 (with at least one passenger in zone 2):

- the minimum farebox revenue is \$93, which is significantly higher than any standard fare an operator could otherwise take (up to \$72 from a 35 kilometre standard fare to the outskirts of zone 2).
- aside from a share-ride with five passengers to zone 1 and one passenger to zone 2, in all other cases of passenger number and passenger mix the farebox revenue would exceed the 50 kilometre standard fare benchmark of \$100 (which provides a 43 per cent distance allowance over the 35 kilometre benchmark trip to the outskirts of zone 2) – share-ride trips of such a distance being unlikely.

- Farebox revenue would also be higher than any HOV fare an operator could otherwise take (up to \$105 from a 35 kilometre HOV fare to the outskirts of zone 2).
- under the majority of passenger mixes, farebox revenue would exceed (and in some cases very significantly exceed) even the worst case scenario benchmark of \$143 for a 65 kilometre trip – a share-ride trip of this distance is extremely unlikely.

This suggests very strong incentives for operators to supply share-ride services at the proposed fares of \$15/\$30. However, this comes at the cost of passengers (especially those travelling in groups), which are provided with low incentives to use a share-ride taxi. If patronage of the service is low (due to low demand), then operators will not benefit from picking up (more profitable) share-ride fares.

Balancing of passenger and operator incentives

There is a trade-off between operator and passenger incentives. Increasing returns to operators for a share-ride fare comes at the detriment of users — with higher fares resulting in fewer areas having the share-ride taxi as the cheaper taxi option. However fares set too low would result in drivers opting not to provide the share-ride service.

In order to ensure the participation of both taxi drivers and passengers, the fare structure must provide both with suitable incentives. Drivers must receive higher farebox revenue under a Geelong Night Link taxi trip compared to a comparable standard fare, and passengers will need to face a lower Night Link fare compared to a standard taxi fare.

The Commission's analysis indicates that the proposed fares of \$15/\$30 are skewed heavily towards operators, with operators provided with very strong incentives at the expense of passenger incentives (with low passenger incentives also limiting the ability for operators to benefit from picking up share-ride fares). As such, the Commission sought a fare structure that more appropriately balances passenger and operator incentives, to increase the likelihood of the Geelong share-ride service being successful.

3.2 One fare zone analysis

This analysis assumes a single fare zone for all of Geelong and surrounding areas covered by the pilot. Undertaking this simpler one fare zone analysis allows the Commission to identify a farebox revenue benchmark, which has been used in analysing fare structures with two fare zones.

The Commission has assessed a number of single zone fare scenarios and compared operator and passenger incentives under these scenarios. The Commission ran scenarios from \$5 to \$30. The following discussion focuses on four fare scenarios: \$13, \$14, \$15 and \$20.

Passenger incentives

Passenger incentives under the single zone fare scenarios are summarised in table 3.3. The key consideration was the comparison between the cost of using a share-ride taxi rather than a metered, standard taxi.

Table 3.3 Summary of passenger incentives

Standard fare scenarios					
Std fare 5 – 15km trip (Geelong urban) ^a		\$16 - \$35			
Std fare per head					
2 passengers		\$8 - \$17			
3 passengers		\$5 - \$12			
4 passengers		\$4 - \$9			
<hr/>					
Std fare 10 – 35km trip (surrounding areas) ^a		\$25 - \$72			
Std fare per head					
2 passengers		\$13 - \$36			
3 passengers		\$8 - \$24			
4 passengers		\$6 - \$18			
<hr/>					
Share-ride fare scenarios		<i>Fare scenario</i>			
(includes \$2 marshal levy)					
		\$13	\$14	\$15	\$20
Fare boundary ^b (if 1 pax)	(km)	3.3	3.9	4.4	7.1
Fare boundary ^b (if 2 pax)	(km)	10.3	11.4	12.5	17.8
Fare boundary ^b (if 3 pax)	(km)	17.3	18.9	20.5	28.6
Fare boundary ^b (if 4 pax)	(km)	24.3	26.4	28.6	39.3

^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard taxi trip.

^b The 'fare boundary' is calculated for a particular share-ride fare and number of passengers travelling together, and shows the boundary where the share-ride fare switches from being more to less expensive than the standard taxi fare.

Based on this summary information, the Commission notes:

- at a \$20 share-ride fare, passengers in groups of two will only benefit from taking a share-ride when travelling distances greater than 17.8 kilometres

(noting that the average number of passengers for a late night taxi trip in Geelong is 2.1)¹⁴.

- The fare boundary is reduced to 10.3 kilometres at a fare of \$13.
- the share-ride taxi would not be a cheaper option at \$20 per person for groups of four passengers (as the fare boundary is beyond the boundary of the serviced area).
 - Some groups of four passengers would benefit from taking a share-ride at a fare of \$15 or less.

As expected, with lower share-ride fares, passengers in more areas will be better off taking a share-ride taxi rather than a standard taxi, as reflected in a smaller fare boundary.

Operator incentives

Table 3.4 summarises information relevant for assessing operator incentives. Here, the total fare revenue received by the share-ride taxi under different fare scenarios and passenger numbers is compared to the total fare that would be received under a standard or HOV taxi trip (of different distances).

Based on this summary information, the Commission notes at a fare of \$20:

- farebox revenue for share-rides would range from \$108 – \$198.
 - This would drop to \$66 – \$121 at a fare of \$13.
- the minimum share-ride farebox revenue is \$108 – this equates to additional revenue of at least 50 per cent over a standard taxi fare within the area to be covered by the service (up to \$72 for a 35 kilometre trip).
 - This would drop to \$66 at a fare of \$13 (less than the 35 kilometre benchmark).
- in all passenger scenarios, the share-ride farebox revenue (at a fare of \$20) is higher than the standard taxi fare for a 50 kilometre trip (\$100).
 - ten or more passengers would be required to meet the 20 kilometre standard fare at a fare of \$7.

The Commission notes that during the hours of operation of the share-ride taxi scheme, the vast majority of fares taken by HOVs are at standard taxi rates carrying four or fewer passengers (picked up from the streets or taxi ranks), rather

¹⁴ Calculated from data provided by Geelong Taxi Network on taxi trips from 1am to 6am Sunday mornings.

than operating at HOV rates.¹⁵ Therefore, the Commission has chosen to focus on standard fares as the appropriate comparator rather than HOV fares.

Table 3.4 Summary of operator incentives

Standard and HOV fare scenarios ^a

	<u>Std fare</u>	<u>HOV fare</u>
5 – 15km trip (Geelong urban)	\$16 - \$35	\$21 - \$49
9km trip	\$24	\$32
20km trip	\$44	\$63
30km trip	\$63	\$91
10 – 35km trip (surrounding areas)	\$25 - \$72	\$35 - \$105
50km trip	\$100	\$147
60km trip	\$128	\$189

Share-ride farebox revenue scenarios ^b

(excludes \$2 marshal levy)

	<u>Fare scenario</u>			
	<u>\$13</u>	<u>\$14</u>	<u>\$15</u>	<u>\$20</u>
6 pax farebox	\$66	\$72	\$78	\$108
7 pax farebox	\$77	\$84	\$91	\$126
8 pax farebox	\$88	\$96	\$104	\$144
9 pax farebox	\$99	\$108	\$117	\$162
10 pax farebox	\$110	\$120	\$130	\$180
11 pax farebox	\$121	\$132	\$143	\$198

^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard or HOV taxi trip.

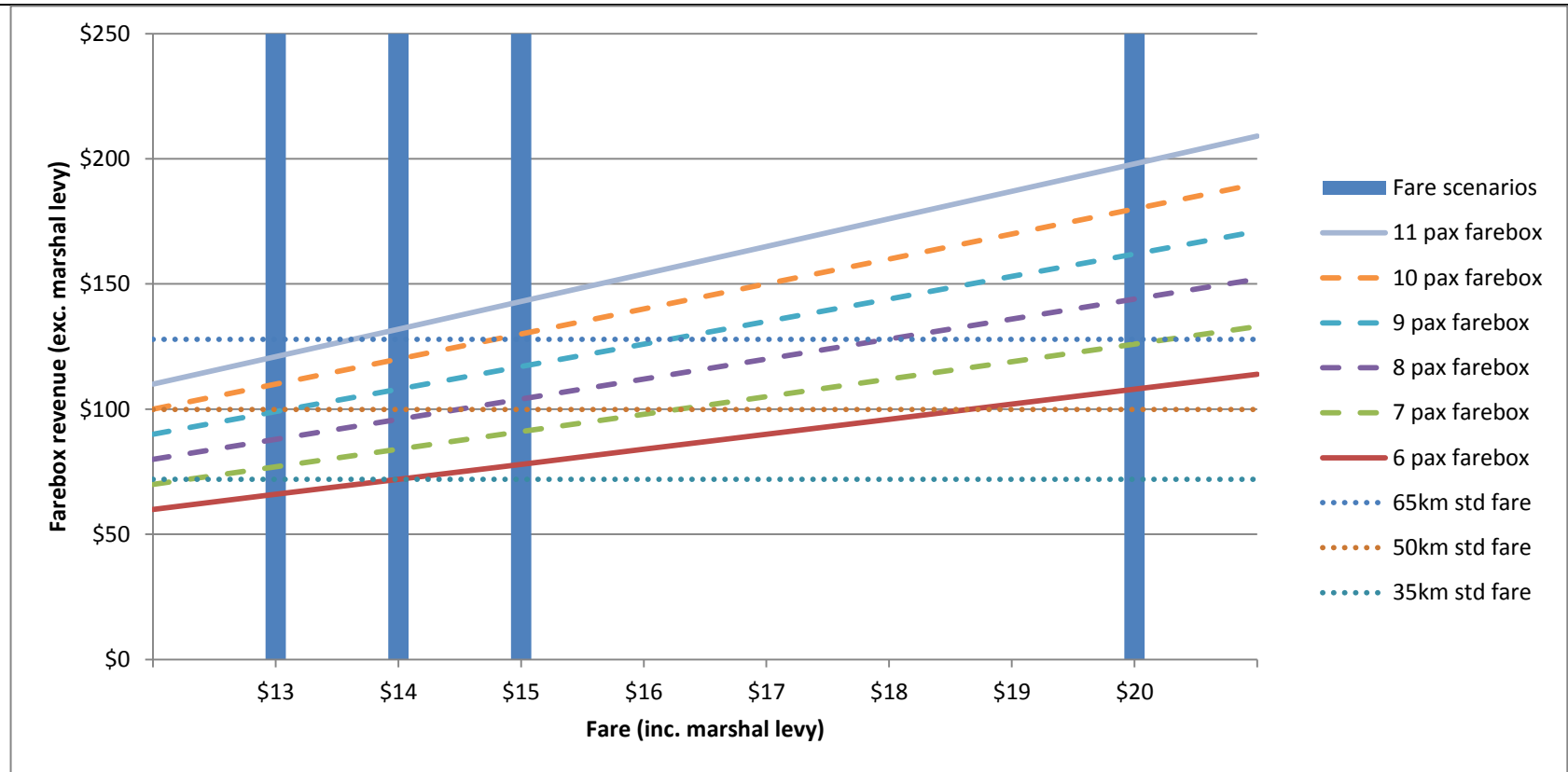
^b Note that the farebox amounts are calculated with respect to the amount received by the driver after the assumed \$2 marshal levy is removed.

Similar information from table 3.4 is presented in figure 3.1. The share-ride fare of \$14 results in farebox revenue:

- equalling \$72 (a 35 kilometre trip at the standard fare) with six passengers.
- exceeding \$104 (a 50 kilometre trip at the standard fare) with nine or more passengers.
- exceeding \$128 (a 65 kilometre trip at the standard fare) with 11 passengers.

¹⁵ Commission consultation with Geelong Taxi Network, 27 June 2013.

Figure 3.1 Operator incentives: farebox revenue scenarios



Determining a single zone fare – balancing of passenger and operator incentives

To appropriately balance passenger and operator incentives, the level of the share-ride fare can be minimised in order to minimise fare boundaries, while ensuring that the fare is high enough to provide sufficient farebox revenue for operators. In effect, consideration of passenger incentives applies a downward pressure on the level of fares, while a balancing needs to be applied by setting the fare high enough to ensure sufficient operator incentives.

At a fare of \$20, driver incentives appear to be very high. The farebox revenue from any share-ride would exceed the 50 kilometre standard fare benchmark (trips of this distance being unlikely), and in some scenarios significantly higher (i.e. the farebox revenue from a share-ride with eight to 11 passengers is comparable or higher than the Commission's 'worst case scenario' fare, which is extremely unlikely to occur). This suggests that farebox revenue would be significantly higher than what a taxi could otherwise earn.

Conversely, passenger incentives at a \$20 fare are relatively low: the service would be unattractive to passengers travelling alone within a fare boundary of 7.1 kilometres (which would exclude a large proportion of urban Geelong from the service) and groups of two passengers travelling less than 17.8 kilometres (which would exclude all passengers within Geelong Taxi Network's inner zone from the service).

Therefore, the Commission finds that a \$20 share-ride fare does not appropriately balance operator and passenger incentives.

In comparison, a fare of \$14 will provide operators with minimum farebox revenue of \$72, which meets the 35 kilometre benchmark (the approximate boundary of the area covered by the service). Therefore, the share-ride will be as profitable as any standard fare the operator could otherwise take. Farebox revenue will also be comparable or higher than the 50 kilometre standard fare benchmark with eight or more passengers, providing a 43 per cent buffer over a 35 kilometre benchmark – journeys of this length being unlikely to occur. With eight or more passengers, farebox revenue would be comparable or higher than any HOV fare that an operator could otherwise take.

The potential farebox revenue range would extend beyond the 65 kilometre standard fare benchmark with 11 passengers, providing revenue to operators that surpasses even the worst case scenario share-ride trip (which is extremely unlikely to occur).

On the passenger side, a \$14 fare would provide good passenger incentives, with a fare boundary of 3.9 kilometres for passengers travelling alone, and 11.4 kilometres for two passengers travelling together – significantly more attractive than a \$20 fare (as well as Geelong Taxi Network's proposed \$15/\$30 fares). This

increase in attractiveness is likely to increase patronage, leading to share-rides carrying more than 6 people, and allowing the rank marshal to select passengers more efficiently — both of which increase driver returns.

At a fare of \$13, the minimum farebox revenue would not meet the 35 kilometre standard fare benchmark, and ten or more passengers would be required to meet the 50 kilometre benchmark. Therefore, the Commission is concerned that a \$13 single zone fare would not provide sufficient operator incentives. Conversely, a fare of \$15 would provide minimum farebox revenue that exceeds the 35 kilometre benchmark, and farebox revenue from nine or more passengers that significantly exceeds the worst case scenario for a share-ride trip. Therefore a \$15 fare would favour operator incentives.

As such, the Commission believes a \$14 share-ride fixed fare will provide operators with appropriate incentives, while also balancing passenger incentives.

3.3 Two fare zone analysis

In order to find an appropriate two zone fare structure, the Commission has conducted its analysis in two parts: it has first set a zone 1 fare reflecting share-ride trips that occur entirely within zone 1. This ensures that the zone 1 fare is sufficient to cover share-rides with only zone 1 passengers.

The Commission has then analysed different fare levels for zone 2 (incorporating the zone 1 fare), and compared the outcomes to its optimal single zone fare benchmark determined in section 3.2.

Analysis of share-rides within zone 1

Geelong Taxi Network has proposed a \$15 fare for zone 1. The Commission ran zone 1 fare scenarios from \$5 to \$20.¹⁶ The following discussion focuses on four fare scenarios: \$7, \$8, \$9 and \$10. Geelong Taxi Network's \$15 proposed zone 1 fare is also included for comparison.

As in the single zone analysis (section 3.2), the Commission has considered passenger and operator incentives under the fare scenarios.

Passenger incentives

Passenger incentives under the zone 1 fare scenarios are summarised in table 3.5. The key consideration was the comparison between the cost of using a share-ride taxi rather than a metered, standard taxi.

¹⁶ For simplicity, the Commission has restricted its analysis to discrete dollar amounts.

Table 3.5 Summary of zone 1 passenger incentives

Standard fare scenarios

Std fare 5 – 15km trip (zone 1) ^a	\$16 - \$35
Std fare per head	
2 passengers	\$8 - \$17
3 passengers	\$5 - \$12
4 passengers	\$4 - \$9

Share-ride fare scenarios

		<u>Fare scenario</u>				<u>GTN \$15</u>
		<u>\$7</u>	<u>\$8</u>	<u>\$9</u>	<u>\$10</u>	
Fare boundary ^b (if 1 pax)	(km)	0.1	0.7	1.2	1.7	4.4
Fare boundary (if 2 pax)	(km)	3.9	5.0	6.0	7.1	12.5
Fare boundary (if 3 pax)	(km)	7.6	9.2	10.9	12.5	20.5
Fare boundary (if 4 pax)	(km)	11.4	13.5	15.7	17.8	28.6

^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard taxi trip.

^b The ‘fare boundary’ is calculated for a particular share-ride fare and number of passengers travelling together, and shows the boundary where the share-ride fare switches from being more to less expensive than the standard taxi fare.

Based on this summary information, the Commission notes at a zone 1 fare of \$10:

- passengers in groups of two will only benefit from taking a share-ride when travelling distances greater than 7.1 kilometres (noting that the average number of passengers for a late night taxi trip in Geelong is 2.1).
 - The fare boundary is reduced to 3.9 kilometres at a fare of \$7.
- the share-ride taxi would not be a cheaper option in zone 1 for groups of four (as the fare boundary is beyond the boundary of zone 1).
 - Some groups of four passengers would benefit from taking a share-ride at a fare of \$8 or less.

As is the case in the single zone analysis, a lower fare increases passenger incentives making a share-ride more attractive to potential passengers.

Operator incentives

Table 3.6 summarises information relevant for assessing operator (i.e. driver) incentives. Here, the total fare revenue received by the share-ride taxi operator under the fare and passenger number scenarios is compared to the total fare that would be received under a standard (or HOV) taxi trip (of different distances).

The key benchmarks the Commission has used for this analysis are those relevant to zone 1: the 9 kilometre, 15 kilometre, 20 kilometre and 30 kilometre standard fare benchmarks (see section 2.2).

Table 3.6 Summary of zone 1 operator incentives

Standard and HOV fare scenarios ^a

	<u>Std fare</u>	<u>HOV fare</u>
5 – 15km trip (zone 1)	\$16 - \$35	\$21 - \$49
9km trip	\$24	\$32
20km trip	\$44	\$63
30km trip	\$63	\$91

Share-ride farebox scenarios (zone 1) ^b

	<u>Fare scenario</u>				<u>GTN \$15</u>
	<u>\$7</u>	<u>\$8</u>	<u>\$9</u>	<u>\$10</u>	
6 pax farebox	\$30	\$36	\$42	\$48	\$78
7 pax farebox	\$35	\$42	\$49	\$56	\$91
8 pax farebox	\$40	\$48	\$56	\$64	\$104
9 pax farebox	\$45	\$54	\$63	\$72	\$117
10 pax farebox	\$50	\$60	\$70	\$80	\$130
11 pax farebox	\$55	\$66	\$77	\$88	\$143

^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard or HOV taxi trip.

^b Note that the farebox amounts are calculated with respect to the amount received by the driver after the assumed \$2 marshal levy is removed.

Based on this summary information, the Commission notes at a zone 1 fare of \$10:

- farebox revenue for share-rides within zone 1 would range from \$48 – \$88.
 - This would drop to \$30 – \$55 at a fare of \$7.
- the minimum share-ride farebox revenue is \$48 – this equates to additional revenue of at least 37 per cent over a standard taxi fare within zone 1 (up to \$35 for a 15 kilometre trip).
 - This would drop to \$30 at a fare of \$7 (less than the 15 kilometre benchmark).
- in all passenger scenarios, the share-ride farebox revenue (at a fare of \$10) is higher than the standard taxi fare for a 20 kilometre trip (\$44).

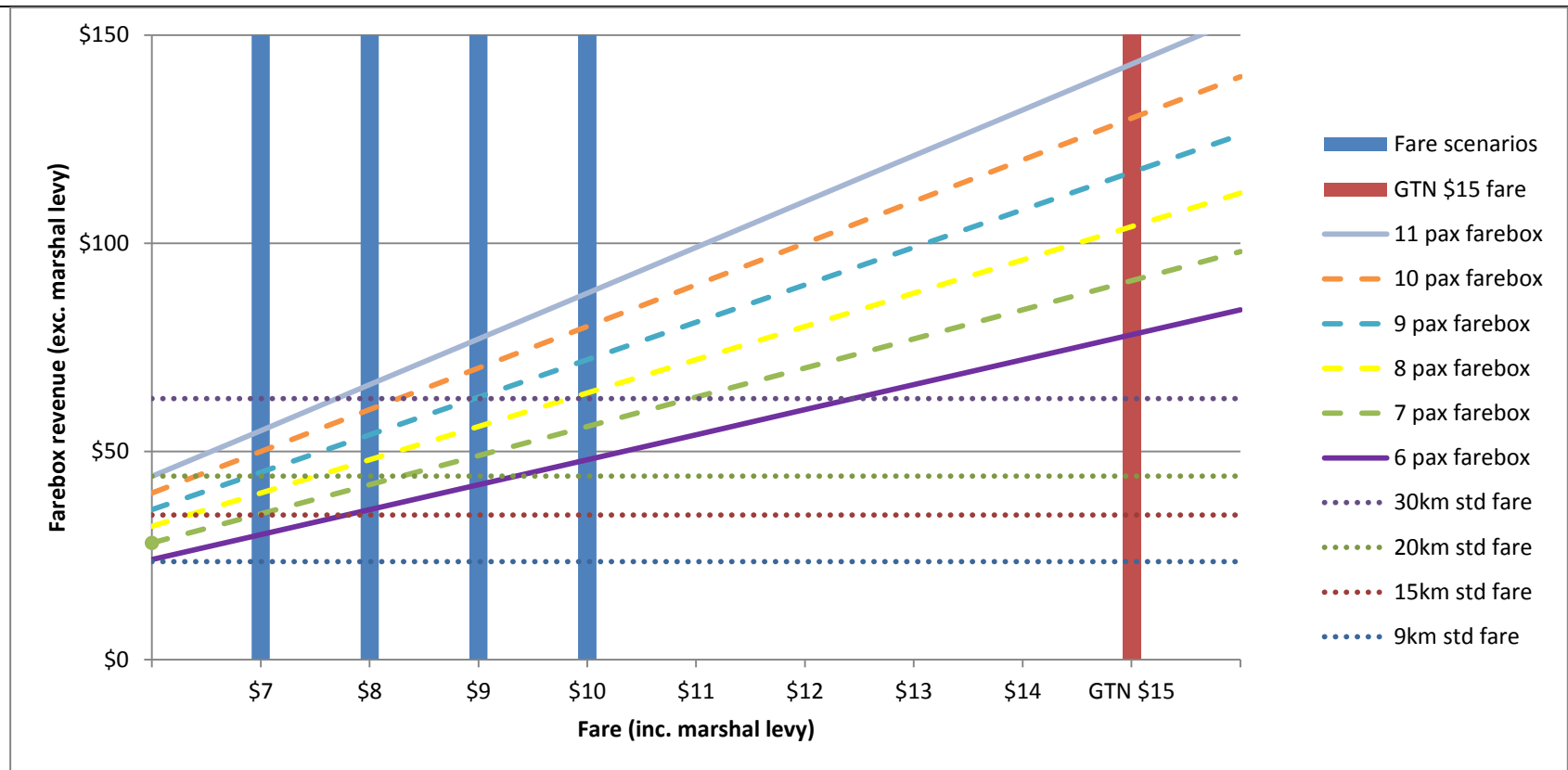
- 9 or more passengers would be required to meet the 20 kilometre standard fare at a fare of \$7.

Equivalent information on operator incentives from table 3.6 is presented in figure 3.2. Figure 3.2 more clearly illustrates that a share-ride fare of \$8 or more would provide farebox revenue exceeding:

- \$35 (a 15 kilometre trip at the standard fare) with 6 or more passengers.
- \$44 (a 20 kilometre trip at the standard fare) with 8 or more passengers.
- \$63 (a 30 kilometre trip at the standard fare) with 11 passengers.

The Commission also notes that at a share-ride fare of \$8, eight or more passengers would provide comparable or higher farebox revenue to the longest HOV fare within zone 1 that an operator could otherwise take (a 15 kilometre HOV fare to the outskirts of zone 1 provides a fare of \$49).

Figure 3.2 Zone 1 operator incentives: farebox revenue scenarios



Determining a zone 1 fare – balancing passenger and operator incentives

At a fare of \$10 or more, the share-ride farebox revenue is higher than the 20 kilometre benchmark fares (a trip of this distance being unlikely), and in some scenarios significantly higher (i.e. the farebox revenue from a share-ride with eight to 11 passengers exceeds the Commission's 'worst case scenario' fare within zone 1, which is extremely unlikely to occur). This suggests that farebox revenues are likely to be significantly in excess of what could otherwise be earned.

Conversely, passenger incentives at a \$10 zone 1 fare are relatively low: passengers travelling in pairs would only use the share-ride service if they are travelling more than 7.1 kilometres from the Geelong CBD (which would exclude a large proportion of urban Geelong from the service). For groups of three, only those travelling more than 12.5 kilometres (a small proportion, given that the boundary of zone 1 extends only 16 kilometres at the furthest point) would benefit from taking a share-ride, while no groups of four would benefit. This represents a relatively low level of passenger incentive for the share-ride service.

Therefore, the Commission believes that a \$10 zone 1 share-ride fare would not appropriately balance operator and passenger incentives.

In comparison, a zone 1 fare of \$8 will provide operators with a minimum farebox revenue of \$36, which meets the 15 kilometre benchmark (the approximate boundary of zone 1). Therefore, the share-ride will be as profitable as any standard fare the operator could otherwise take. Farebox revenue will also meet the 20 kilometre standard fare benchmark with eight or more passengers, providing a 33 per cent buffer over a 15 kilometre benchmark – journeys of this length within zone 1 being unlikely to occur. With eight or more passengers, an \$8 fare would also provide comparable or higher farebox revenue than any HOV fare within zone 1 that an operator could otherwise take.

The potential farebox revenue range would extend beyond the 30 kilometre standard fare benchmark with 11 passengers, providing revenue to operators that surpasses even the worst case scenario share-ride trip within zone 1 (which is extremely unlikely to occur).

In terms of passenger incentives, an \$8 zone 1 fare would be attractive to passengers travelling more than 700 metres (effectively all potential zone 1 passengers), as well as passengers travelling in pairs that are travelling more than 5 kilometres – making an \$8 fare more attractive than a \$10 fare and significantly more attractive than the Geelong Taxi Network's proposed \$15 fare (which would only be attractive to pairs travelling more than 12.5 kilometres). This increase in attractiveness is likely to increase patronage, leading to share-rides carrying more than six people, and allowing the rank marshal to select passengers more efficiently — both of which increase driver returns.

At a fare of \$7, the minimum farebox revenue would not meet the 15 kilometre standard fare benchmark, and nine or more passengers would be required to meet the 20 kilometre benchmark. Therefore, the Commission is concerned that a \$7 would not provide sufficient operator incentives. Conversely, a fare of \$9 would provide minimum farebox revenue that exceeds the 15 kilometre benchmark, and farebox revenue from nine or more passengers that significantly exceeds the worst case scenario for a share-ride trip within zone 1. Therefore a \$9 fare would favour operator incentives.

As such, the Commission believes an \$8 zone 1 fare will provide appropriate operator incentives, while also balancing passenger incentives.

Analysis of share-rides over two zones

Having determined a zone 1 fare of \$8, the Commission has then considered the appropriate fare for zone 2.

Geelong Taxi Network has proposed a \$30 fare for zone 2. The Commission ran scenarios with zone 2 fares from \$15 to \$30.¹⁷ The following discussion focuses on five fare scenarios: \$8/\$16, \$8/\$17, \$8/\$18, \$8/\$19 and \$8/\$20. Geelong Taxi Network's \$15/\$30 proposal is also included for comparison.

These fare scenarios are compared against the single zone benchmark flat fare of \$14 (see section 3.2).

Passenger incentives

Passenger incentives under the zone 2 fare scenarios are summarised in table 3.7 (note: as the Commission has set the zone 1 fare at \$8 for all two fare zone scenarios, the zone 1 passenger incentives are unchanged from the zone 1 analysis). Again, the analysis compares the cost of using a share-ride taxi rather than a metered, standard taxi.

Based on this summary information, the Commission notes at a zone 2 fare of \$20:

- passengers travelling in groups of two in zone 2 will only benefit from taking a share-ride when travelling distances greater than 17.8 kilometres (noting that the average number of passengers for a late night taxi trip in Geelong is 2.1).
 - The fare boundary is reduced to 13.5 kilometres at a fare of \$16.
- the share-ride taxi would not be a cheaper option in zone 2 for groups of four (as the fare boundary is beyond the boundary of zone 2).
 - Some groups of four passengers would benefit from taking a share-ride, at a fare of \$18 or less.

¹⁷ For simplicity, the Commission has restricted its analysis to discrete dollar amounts.

- no groups of three or more passengers would benefit at Geelong Taxi Network's \$30 fare.

As is the previous analysis, a lower fare increases passenger incentives making a share-ride more attractive to potential passengers.

Table 3.7 Summary of zone 2 passenger incentives

Standard fare scenarios

Std fare 10 – 35km trip (zone 2) ^a	\$25 - \$72
Std fare per head	
2 passengers	\$13 - \$36
3 passengers	\$8 - \$24
4 passengers	\$6 - \$18

Share-ride fare scenarios (zone 2)

	<i>Fare scenario</i>					<i>GTN \$30</i>
	<i>\$16</i>	<i>\$17</i>	<i>\$18</i>	<i>\$19</i>	<i>\$20</i>	
Fare boundary ^b (if 1 pax) (km)	5.0	5.5	6.0	6.6	7.1	12.5
Fare boundary ^b (if 2 pax) (km)	13.5	14.6	15.7	16.8	17.8	28.6
Fare boundary ^b (if 3 pax) (km)	22.1	23.7	25.4	27.0	28.6	44.7
Fare boundary ^b (if 4 pax) (km)	30.7	32.9	35.0	37.2	39.3	60.8

^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard taxi trip.

^b The 'fare boundary' is calculated for a particular share-ride fare and number of passengers travelling together, and shows the boundary where the share-ride fare switches from being more to less expensive than the standard taxi fare.

Operator incentives

Table 3.8 summarises information relevant for assessing operator (i.e. driver) incentives. Here, the total fare revenue received by the share-ride taxi operator under the fare scenarios and different passenger numbers is compared to the total fare that would be received under a standard taxi trip (of different distances).

Based on this summary information, the Commission notes:

- the minimum farebox revenue for a share-ride (from a share-ride with six passengers within zone 1) under the five fare scenarios is \$36.
 - This is \$36 less than the minimum farebox revenue (\$72) under the single zone \$14 flat fare benchmark.

- the maximum farebox revenue (from a share-ride with 11 passengers in zone 2) ranges from \$154 (under the \$8/\$16 fare scenario) to \$198 (under the \$8/\$20 fare scenario).
 - This is \$22 to \$66 more than the maximum farebox revenue (\$132) under the single zone \$14 flat fare benchmark.

Table 3.8 Summary of two fare zone operator incentives

Standard and HOV fare scenarios ^a

	<u>Std fare</u>	<u>HOV fare</u>
5 – 15km trip (zone 1)	\$16 - \$35	\$21 - \$49
9km trip	\$24	\$32
20km trip	\$44	\$63
30km trip	\$63	\$91
10 – 35km trip (zone 2)	\$25 - \$72	\$35 - \$105
50km trip	\$100	\$147
65km trip	\$128	\$189

Share-ride farebox scenarios ^b

	<u>Fare scenario</u>						<u>GTN</u> <u>\$15/\$30</u>
	<u>\$14 flat</u> <u>fare</u>	<u>\$8/\$16</u> <u>(zone 1/2)</u>	<u>\$8/\$17</u> <u>(zone 1/2)</u>	<u>\$8/\$18</u> <u>(zone 1/2)</u>	<u>\$8/\$19</u> <u>(zone 1/2)</u>	<u>\$8/\$20</u> <u>(zone 1/2)</u>	
Min farebox	\$72	\$36	\$36	\$36	\$36	\$36	\$78
Max farebox	\$132	\$154	\$165	\$176	\$187	\$198	\$308

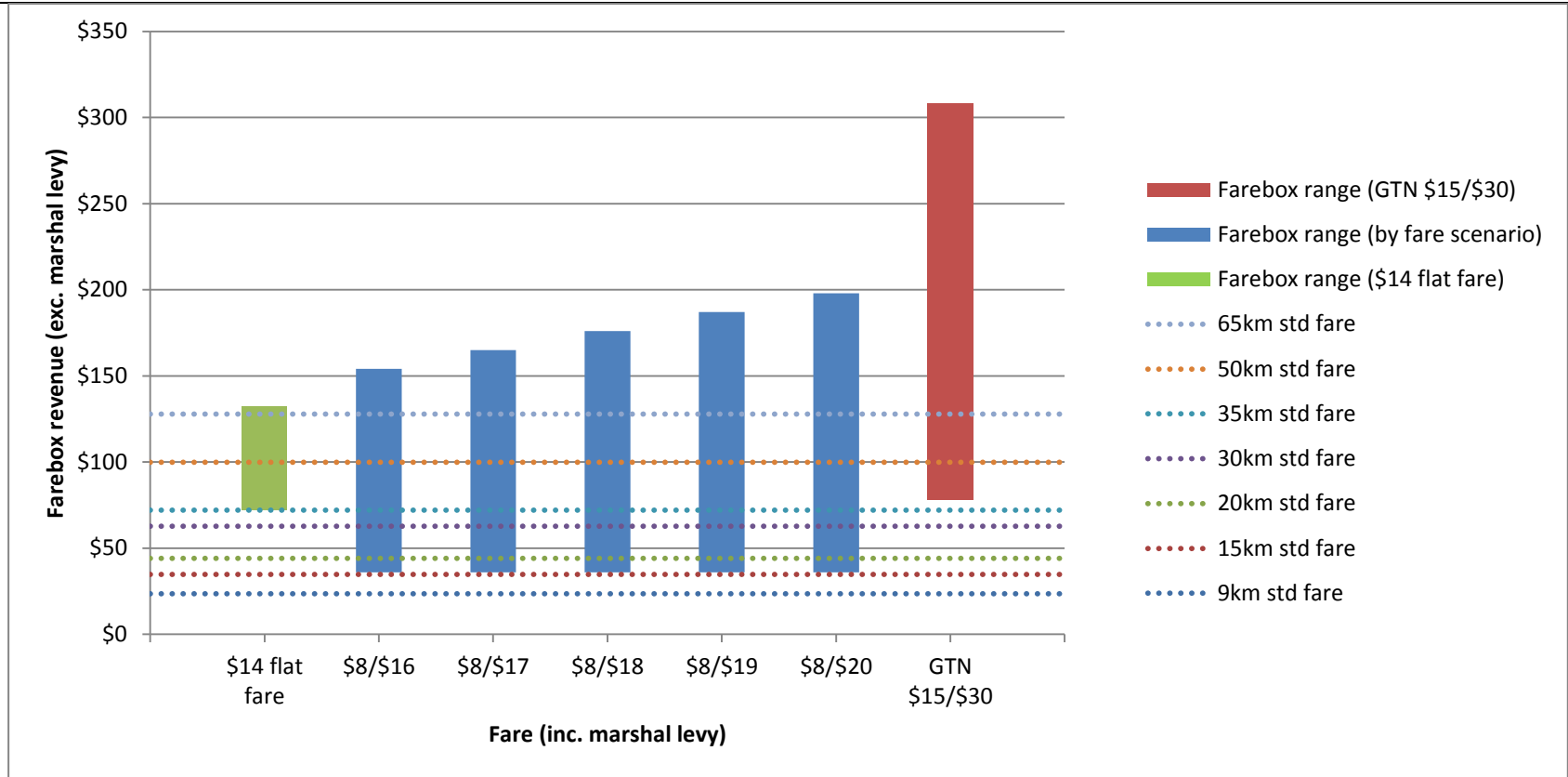
^a Fare estimates include flagfall, distance charge, the late night surcharge and an allowance for waiting time, and have been rounded to the nearest dollar. Further, the fare range is the same regardless of the share-ride fare level, as the range applies to a standard or HOV taxi trip.

^b Note that the farebox amounts are calculated with respect to the amount received by the driver after the assumed \$2 marshal levy is removed.

Equivalent information on operator incentives from table 3.8 is presented in figure 3.3, which more clearly illustrates how the farebox revenue range expands under the fare scenarios when compared to the \$14 single zone flat fare benchmark.

Figure 3.3 shows that a fare structure of \$8/\$17 provides a farebox revenue range where the maximum farebox revenue has increased (relative to the \$14 single zone flat fare benchmark) by a similar amount as the minimum farebox revenue has decreased (\$33 and \$36 respectively). Hence the average fare available to operators between the two scenarios is similar. In effect, the \$8/\$17 fare structure provides an equivalent two fare zone farebox revenue range to the \$14 single zone flat fare benchmark (and therefore provides a similar balance between operator and passenger incentives).

Figure 3.3 Two fare zone operator incentives: farebox revenue scenarios



Determining a two zone fare structure

A fare scenario of \$8/\$17 gives a minimum fare revenue outcome of \$36 for six passengers travelling to zone 1, which meets the 15 kilometre standard fare of \$35 for a trip to the boundary of zone 1 – the highest standard fare within zone 1 an operator could otherwise take. With additional passengers, the farebox revenue increases to \$48 for eight passengers and \$66 for 11 passengers to zone 1. This gives operators a premium over the 20 kilometre and 30 kilometre standard fare benchmarks (\$44 and \$63 respectively) for a trip confined to zone 1. The Commission notes that the farebox revenue from eight or more passengers is also comparable or higher than any HOV fare within zone 1 that an operator could otherwise take.

If a share-ride covers both zones, the passenger mix required to meet the fare benchmarks would differ depending on passenger numbers. Table 3.9 shows the minimum number of zone 2 passengers (and maximum number of zone 1 passengers) required to meet the 35 kilometre, 50 kilometre and 65 kilometre ('worst case scenario') fare benchmarks.

To meet the 35 kilometre standard fare benchmark, a share-ride would need four or more passengers travelling to zone 2 for a six or seven passenger share-ride. This decreases to three or more passengers travelling to zone 2 for an eight passenger share-ride, or two or more passengers travelling to zone 2 for a nine or ten passenger share-ride. All share-rides travelling to zone 2 with 11 passengers will meet the \$72 fare benchmark.

Similarly, the \$100 fare benchmark for a 50 kilometre standard fare trip would be met by seven passengers all travelling to zone 2, six passengers travelling to zone 2 with a total of eight or nine share-ride passengers, five passengers travelling to zone 2 with a total of ten share-ride passengers, or four passengers to zone 2 with a total of 11 share-ride passengers. The Commission notes that the 50 kilometre standard trip benchmark is generous (with a 43 per cent allowance over the 35 kilometre standard fare trip to the boundary of zone 2, to account for an indirect route), and a share-ride trip of that length is unlikely to occur.

Furthermore, at an estimated average hourly earnings rate of \$50¹⁸ the minimum farebox revenue of \$36 for six passengers travelling to zone 1 represents approximately 45 minutes, while the maximum farebox revenue of \$165 represents approximately three and a half hours. Share-ride trips are unlikely to take 45 minutes (within zone 1) or three and a half hours (for the worst case scenario), and therefore share-ride trips represent a higher rate of hourly earnings than the

¹⁸ Geelong Taxi Network has indicated a standard 'off road cleaning charge' of \$50 per hour or per incident – this has been estimated from average shift earnings, and represents an estimate of the average hourly earnings potential for a taxi.

estimated average (i.e. operators will earn more than \$50 per hour by taking a share-ride).

Overall, the \$8/\$17 fare scenario provides strong earnings potential for operators, meeting the likely fare benchmarks under reasonable passenger mixes.

Table 3.9 Passenger mix required to meet benchmarks

<i>Share-ride pax</i>	<i>6 pax</i>	<i>7 pax</i>	<i>8 pax</i>	<i>9 pax</i>	<i>10 pax</i>	<i>11 pax</i>
<i>Pax mix to meet \$72 (35km) standard fare benchmark</i>						
Zone 1 pax (max)	2 pax	3 pax	5 pax	7 pax	8 pax	10 pax
Zone 2 pax (min)	4 pax	4 pax	3 pax	2 pax	2 pax	1 pax
Farebox revenue	\$72	\$78	\$75	\$72	\$78	\$75
<i>Pax mix to meet \$100 (50km) standard fare benchmark</i>						
Zone 1 pax (max)	N/A	0 pax	2 pax	3 pax	5 pax	7 pax
Zone 2 pax (min)	N/A	7 pax	6 pax	6 pax	5 pax	4 pax
Farebox revenue	N/A	\$105	\$102	\$108	\$105	\$102
<i>Pax mix to meet \$128 (65km) 'worst case scenario' standard fare benchmark</i>						
Zone 1 pax (max)	N/A	N/A	N/A	0 pax	2 pax	4 pax
Zone 2 pax (min)	N/A	N/A	N/A	9 pax	8 pax	7 pax
Farebox revenue	N/A	N/A	N/A	\$135	\$132	\$129
<i>Maximum farebox revenue (all pax zone 2)</i>						
Farebox revenue	\$90	\$105	\$120	\$135	\$150	\$165

As discussed above, the \$8/\$17 fare scenario is also consistent with the single zone benchmark flat fare of \$14, since the decrease in the minimum farebox revenue and increase in maximum farebox revenue are of a similar magnitude and hence the average fare available to operators between the two scenarios is similar (see figure 3.3).

The Commission therefore believes an \$8/\$17 fare structure is the most suitable fare scenario when considering operator incentives.

On the passenger side, the \$8/\$17 fare scenario sets a zone 1 fare boundary of 0.7 kilometres for a passenger travelling alone (effectively all potential zone 1 passengers), and a fare boundary of 5.0 kilometres for a group of two. In zone 2, the fare boundaries are 5.5 kilometres for a passenger travelling alone (effectively all potential zone 2 passengers), and 14.6 kilometres for a group of two. The \$8/\$17 fare scenario also provides a benefit for some groups of three or four passengers travelling to both zones. Therefore the Commission finds that a \$8/\$17 fare provides an appropriate balance between operator and passenger incentives.

3.4 The Commission’s recommended fare structure

Given the Commission’s detailed analysis presented in sections 3.1 to 3.3, the Commission recommends the following two zone share-ride fare structure (table 3.10).

Table 3.10 Recommended share-ride fare structure

	<i>Zone 1</i>	<i>Zone 2</i>
Flat fare (inc \$2 marshal levy)	\$8	\$17
Flat fare (exc \$2 marshal levy)	\$6	\$15

APPENDIX A | TERMS OF REFERENCE



**Minister for Public Transport
Minister for Roads**

Ref: MBN017051R

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Dear Dr Ben-David

**REVIEW OF TAXI FARES – NOTICE OF REFERENCE UNDER SECTION 186
OF THE TRANSPORT (COMPLAINE AND MISCELLANEOUS) ACT 1983**

Under Division 9 of Part VI of the *Transport (Compliance and Miscellaneous) Act 1983* (the Act) the Minister administering the Act may, by written notice, refer any matter relating to taxi-cab fares or hiring rates to the Essential Services Commission for the Commission to conduct an investigation into that matter.

As required by the Act, the Minister for Finance has been consulted in relation to a proposal that the Commission investigate a specific matter relating to taxi fares as set out below. The Minister for Finance has endorsed this proposal.

Consequently, I now ask the Commission to investigate and report to me on an appropriate 'fixed fare per head' pricing structure for late-night, share-ride taxi trips in high occupancy taxi-cabs operating from the Safe City Taxi Rank at 95 – 113 Moorabool St in Geelong, on Friday and Saturday nights.

The core objective of the late-night share-ride taxi service is to both grow the taxi market **and to maximise taxi occupancy by providing an incentive for passengers to share a high occupancy taxi with others travelling in the same general direction.** This will relieve pressure on the conventional taxi fleet from patrons of late night entertainment venues in the Geelong central business district.

The Commission's investigation, report and recommendations should be consistent with the following:

- the service should present a viable alternative to taxi users who individually may seek a lower cost taxi trip than hiring a taxi exclusively for their own use, but who require door to door transport not facilitated by other late-night transport services,
- the service should be supported by taxi drivers on the grounds that they will receive payment equal to or greater than the comparable taxi fare calculated by a taximeter according to time and distance,

- the late-night share-ride taxi service is initially proposed to operate from the Geelong Safe City Taxi Rank on Moorabool Street in Geelong to Geelong urban areas and to townships up to and including Lovely Banks and Lara (to the north), Mount Duneed, Breamlea, Torquay, and Jan Juc (to the south), Ocean Grove, Point Lonsdale, and Queenscliff (to the east), Drysdale, Clifton Springs, and Port Arlington (to the North East), and Bannockburn Central (to the west),
- the appropriate passenger numbers per share-ride taxi trip to ensure the service is both viable for the taxi industry and attractive to taxi users, and
- any levy to recover the operating costs of the rank (for example, taxi marshals or security personnel) will be an add-on to the Commission's recommendations on the 'fixed fare per head' pricing structure, and hence the Commission does not need to incorporate any 'marshal levy' into its recommended fare structure.

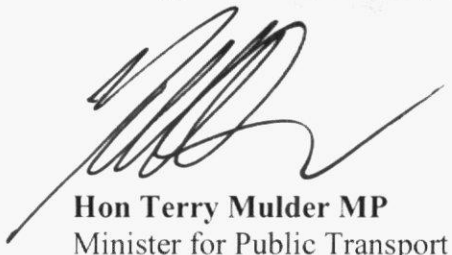
Further, the Commission is to have regard to:

- the findings contained in the draft and final reports of the Taxi Industry Inquiry, both entitled *Customers First: Service, Safety, Choice*,
- relevant findings of the recent Essential Services Commission report *Late night, share ride taxis – a pilot program*, dated 23 November 2012, and
- the operational details in relation to the service as developed by Geelong Taxi Network (see **Attachment A**).

The following directions have been given under section 186(4) of the Act:

- The Commission is to conduct the investigation in a manner as described in section 187 of the *Transport (Compliance and Miscellaneous) Act 1983*, and
- The Commission is to provide its report and recommendations to the Minister for Public Transport within nine weeks after receipt of these terms of reference.

If the Victorian Taxi Directorate can be of any assistance to the Commission during this review, please contact Mary Benson on telephone (03) 8683 0712



Hon Terry Mulder MP
Minister for Public Transport

13 / 01 / 2013

Att A: Operational details – Geelong Taxi Network

GTN NIGHT LINK MAXI SERVICE GEELONG 2013 - A PILOT PROGRAM

Introduction

Geelong Taxi Network support the principle of operating a "Late Night Share-ride Taxi" on a fixed-fare per head pricing structure for late night passengers travelling from the Geelong City Urban taxi zones. The principles contained and offered to the Victorian State Government for the operation of the late night share-ride taxis have been well demonstrated and supported in Brisbane. The longevity of the program is clear evidence of the success of the program which will be easily replicated in Geelong as a similar program.

Geelong Taxi Network have for a number of years been consulting with the City of Greater Geelong and Victoria Police in order to operate a "Night Link Maxi Service" in the Geelong Urban and Torquay and Bellarine Country Taxi Zones. Geelong does not have a suburban train service nor does it have late night bus service. The current "Night Rider Service" has been reported to not be sustainable due to low usage and shortfall funding by Council. Our proposal in principle and detail is similar to the late night, share-ride taxi service proposed for the Melbourne pilot with shuttle differences to ensure taxi pickup even if a share-ride service is not required..

In saying that, simplicity is the key to the success of the service and a sustainable late night share-ride program beyond the pilot. Simplicity is necessary for all stakeholders and we would suggest would be more efficient and successful without some of the added complications of the Brisbane model e.g. multiple zones, passenger groups and discounts.

General Information

- The service is known as "**Geelong Night Link Maxi**".
- The "**Geelong Night Link Maxi**" will be serviced by the WAT maxi fleet operated by Geelong Taxi Network in the Geelong Urban Taxi Zone.
- It will operate between set times, similar to the Safe City Taxi Rank, which currently operates from 1.00am to 6.00am on Sunday mornings and is situated in Moorabool Street, Geelong CBD.
- It will not rely on a timetable and a direction.
- The Night Link Maxi disperses people from the Safe City Taxi Rank progressively at the time they are ready to travel using the next Maxi available at the Safe Rank.
- Passengers are not reliant on a timetable based departure.
- The "Safe City Rank to Door Service", overcomes another issue which the current Night Bus faces and that is the issue of dropping a number of people at a set destination which often leads to destructive vandalism of both commercial and private properties e.g. the bus travelling to Ocean Grove had to change its destination to the Ocean Grove Police Station in order to overcome that type of vandalism.
- A taxi marshal is essential to co-ordinate the orderly queuing of passengers waiting to travel in respective directions in order to provide an efficient dispatch service.
- The taxi marshal will be provided by City of Greater Geelong (potentially under contract from a selected security company) and must be a person with full understanding of the taxi industry rules and regulations and preferably with a vocational taxi background as

well as the ability to safely organize passenger groups of travelers and co-ordinate Maxis to deliver the service.

- The simplicity of this system is that if there are no passenger groups ready to travel on the Night Link Maxi, then the maxi that has then arrived ready to travel through the Safe City Taxi Rank will be given a standard fare, or normal HOV group fare.
- This is encouragement for the maxi drivers to then return to the Safe City Taxi Rank for the next Night Link Maxi or standard fare pick-up when the previous fare is completed.
- Geelong is somewhat unique compared to Melbourne CBD as it does not have late night public transport services e.g. it does not have late night bus services and it does not have a metro rail style service across town at any time.
- Consequently passengers are heavily reliant on taxi-cab services and even more so with a successful Night Link Maxi Service providing a far frequent and user friendly alternative to the normal taxi-cab services, if the passenger prefers to use the service.

Operational Procedure

- The “**Geelong Night Link Maxi**” service will operate through the existing Safe City Taxi Rank situated in Moorabool Street, Geelong CBD.
- As groups were organized by the security team, the next maxi travelling through the Safe City Taxi Rank will take that passenger group to the destination area of where the group was ready to travel.
- A Taxi Rank Marshal will be responsible for co-coordinating groups travelling together in the same direction.
- The group will be based on a group of six or more passengers travelling in one direction.
- It is also essential that additional security is required to assist to organize the groups.
- The taxi marshal will collect the fare and pass the fare to the driver, also communicating the destination plan of the passengers to the driver. (refer “Fares” & “Ticket System”)
- When a Maxi arrives at the Safe Rank it will be loaded by the Taxi Marshal and Security and dispatched in one direction.
- If there are not sufficient passengers for a Night Link Maxi Service the passengers can choose to:-
 - travel in a Maxi as a group at metered rates or
 - travel in separate taxis at metered rates or
 - wait until there is a larger group ready to travel as a Night Link Maxi fixed fare.
- The Night Link Maxi will drop passengers at the door or at a designated point along the route e.g. the corner of a street if the passenger felt more secure, or at another determined destination even relying on the meeting of other friends or parents to collect or escort the passenger’s home.
- The Night Link Maxi Service does not apply to inbound trips.
- All Taxi inbound trips will be treated as a standard booking or hail at metered fare rates.

Fares

- Night Link Maxi fares will be a fixed fare.
- The Night Link Maxi Service for Geelong will have a two level fare structure being:-
 - The Inner Zone for the Geelong Urban area and
 - The Outer Zone for the outer Country areas.
- The two level fare structure will ensure simplicity and provide a vital service for those who choose to use it compared with the use of a standard taxi-cab.

- The Inner Zone will cover the greater urban zone including:-
 - Geelong, Corio and Norlane to the North
 - South Geelong, Waurin Ponds and Grovedale to the South
 - West Geelong, Belmont, Highton/and Herne Hill to the West
 - East Geelong, Moolap and Leopold to the East
- The Outer Zone will cover runs to:-
 - Lara
 - Ocean Grove, Point Lonsdale and Queenscliff
 - Drysdale and Portarlington
 - Mt Duneed, Breamlea, Torquay and Jan Juc
 - Bannockburn Township
- The fares contain a component for the supply of the Taxi Marshal and additional Safe City Taxi Rank security.
- The Inner Zone fare is \$ 15.00 per passenger
- The Outer Zone fare is \$ 30.00 per passenger
- The fares will be collected by the Taxi Marshal and given to the Night Link Maxi Driver.
- The Taxi Marshal will keep a record of the fares given to each registered Maxi along with the Maxi registration number and the time and direction dispatched (Set Form xyz).

Maxi Supply

- The “Geelong Night Link Maxi” service will be provided by Geelong Taxi Network WAT Maxi Fleet.
- Up to 10 Maxis will be utilized from the fleet with additional backup available if required.
- GTN Urban WAT Maxi fleet consists of 19 Maxis.
- Supply of the Night Link Maxi Fleet will be predetermined by the WAT Call Centre.
- Flow of Maxis will be monitored by the WAT Call Centre and the Taxi Marshal.

Ticket System

- The “Geelong Night Link Maxi” service will use the additional safety of the proposed “Safe City Taxi Voucher System” which the Victoria Police have introduced into Geelong.
- This voucher system will also provide the passenger with a receipt for the fare and passage of travel.
- The voucher system consists of a three way ticket with minimum recorded details.
- The recipients of that ticket are the Passenger, Driver and the City of Greater Geelong.
- The added bonus of adding this system to the Night Link Maxi Service as well as standard cabs travelling through the Safe City Taxi Rank is the additional security for passengers and drivers which encourage all stakeholders to work with a process that works and benefits all parties.

Conclusion

Geelong Taxi Network is prepared for implementation but understand a small number of operational issues will need to be clarified and finalized prior to commencement of the service. We understand that these items will be addressed at a discussion meeting to be held with ESC.

APPENDIX B | ABOUT THIS REVIEW

This appendix considers the terms of reference for this review and outlines the role of the Essential Services Commission and process and timelines for the review.

B.1 Terms of reference

On 14 May 2013, the Commission received terms of reference for a review of taxi fares for a late night, share-ride taxi pilot from the Minister for Public Transport (the Minister).

The terms of reference require the Commission to advise on an appropriate fixed-fare structure for a pilot program of late night, share-ride taxi trips utilising high occupancy metropolitan taxis operating from the Safe Rank at 95–113 Moorabool Street Geelong.

The terms of reference set out a number of principles the Commission's report and advice should be consistent with, including:

- the taxi driver receiving payment equal to or greater than the comparable taxi fare calculated by a taximeter according to time and distance, and
- passengers should each make a saving in comparison to hiring a taxi exclusively for their own use.

The Commission was required to conduct its review in a manner as described in section 187 of the *Transport (Compliance and Miscellaneous) Act 1983* (the Transport Act) (see section A.4). Further, the Commission was to have regard to findings contained in the Taxi Industry Inquiry's draft and final reports and the operational details proposed by Geelong Taxi Network (see appendix C of this report).

B.2 The role of the Commission in taxi fare setting

Under section 144A (2) of the *Transport (Compliance and Miscellaneous) Act 1983* (the Transport Act), the Minister for Public Transport must, before changing the schedule of taxi fares, refer the matter to the Commission and receive a report from the Commission.

B.3 Review process and key dates

The Minister's terms of reference requires the Commission to conduct its review in a manner as described in section 187 of the Transport Act. In summary, section 187 provides that the Commission: may conduct an investigation into any manner it deems appropriate; may receive written submissions or statements; may hold public hearings; and may consult with any person it considers appropriate.

The Commission conducts its reviews in an open and transparent way, inviting input from interested parties. The Commission advertised a notice on this review (in the Herald Sun and Geelong Advertiser); invited submissions on its issues paper (none were received), and liaised with stakeholders throughout the review process. Information from stakeholder meetings and the Commission's analysis were considered by the Commission before preparing this report and advice for the Minister. Table B.1 presents indicative timings of the review.

Table B.1 Review process

<i>Activity</i>	<i>Timing</i>
Terms of reference received	14 May 2013
Issues paper released	31 May 2013
Review notice advertised	31 May 2013
Submissions closed on issues paper	21 June 2013
Stakeholder meetings (as required)	June 2013
Report to Minister	5 July 2013

B.4 The Commission's role under the Transport Act

The following details the Commission's role under the *Transport (Compliance and Miscellaneous) Act 1983*.

Section 144A – Determination of taxi fares or hiring rates

- (1) For the purposes of the licence condition referred to in section 144(2)(d)(i), the Minister may from time to time determine the taxi-cab fares or hiring rates that may be charged.
- (2) The Minister cannot determine a fare or hiring rate under subsection (1) unless he or she—
 - (a) has referred the matter to the ESC for investigation under Division 9 and has received the ESC's report on the investigation; and
 - (b) has received a report from the licensing authority...

Section 186 – Reference by Minister

- (1) The ESC must conduct an investigation into any matter relating to—

- (a) licence fees for hire car licences or special purpose vehicle licences; or
- (b) taxi-cab fares or hiring rates—

that the Minister by written notice refers to the ESC for investigation under this Division.

- (2) The Minister must consult with the Minister administering the Essential Services Commission Act 2001 before referring a matter to the ESC.
- (3) The written notice must specify the terms of reference for the investigation.
- (4) The Minister referring a matter—
 - (a) may specify a period within which a report is to be submitted to the Minister;
 - (b) may require the ESC to make a draft report publicly available or available to specified persons or bodies during the investigation;
 - (c) may require the ESC to consider specified matters;
 - (d) may give the ESC specific directions in respect of the conduct of the investigation;
 - (e) may specify objectives that the ESC is to have in performing its functions and exercising its powers in relation to the investigation...

Section 187 – Conduct of investigation

- (1) Subject to this Act and any directions under section 186(4)(d), the ESC may conduct an investigation under this Division in any manner the ESC considers appropriate.
- (2) In conducting an investigation, the ESC is not bound by rules or practices as to evidence but may inform itself in relation to any matter in any manner the ESC considers appropriate.
- (3) The ESC may receive written submissions or statements.
- (4) If the ESC holds a public hearing—
 - (a) the ESC has a discretion as to whether any person may appear before the ESC in person or be represented by another person;
 - (b) the ESC may determine that the hearing, or part of the hearing, be held in private if it is satisfied that—
 - (i) it would be in the public interest; or
 - (ii) the evidence is of a confidential or commercially sensitive nature.
- (5) In conducting an investigation, the ESC—
 - (a) may consult with any person that it considers appropriate;

- (b) may hold public seminars and hold workshops;
- (c) may establish working groups and task forces.

Section 188 – Objectives not to apply

Except to the extent (if any) that the Minister otherwise determines, the objectives of the ESC under the *Essential Services Commission Act 2001* or any other Act do not apply to the functions and powers of the ESC under this Division.

This appendix discusses how the proposed pilot scheme would operate.

The proposed pilot

Geelong Taxi Network proposes to implement a late night, share-ride taxi pilot, which has been endorsed by the VTD. The pilot is to provide 'flat fare' share-ride taxis using the existing fleet of maxi taxis — van-style taxis with capacity for at least five passengers, with the majority able to carry ten or eleven passengers. The pilot is planned to operate from 1am to 6am Sunday mornings, departing from the Safe Rank at 95–113 Moorabool Street Geelong. The Network has proposed a two zone fare structure, with a \$15 fare per passenger for inner zone destinations, and a \$30 fare for travel to the outer zone. These fare levels include a levy for additional rank marshals and security.¹⁹

Under the operational details proposed by the Network, there will be no set timetable or direction for share-ride taxis. A share-ride service will depart when there is a sufficient number of passengers (the Network suggests a minimum of six) travelling in the same general direction. The next maxi taxi (participating in the pilot) through the rank will pick up the passengers. If there are no groups ready, the maxi taxi will be able to pick up a standard fare.

Operational details

The VTD has endorsed Geelong Taxi Network's operational details for the pilot. These details are summarised in box C.1 and discussed below.

¹⁹ In addition to the planned Geelong pilot, a share-ride pilot has recently been trialled in Melbourne. Following the release of the Inquiry's draft report in May 2012, the VTA outlined a proposal to trial late night, share-ride taxis similar to Brisbane's NightLink taxi scheme. The VTA's six month Melbourne pilot subsequently commenced in December 2012; however it ended in February 2013 after failing to attract any passengers.

Box C.1 Summary of proposed pilot – operational details

Frequency and routes

- Initially to run from 1am – 6am every Sunday morning.
- No set timetable or direction, but flexible based on demand.

Passenger Numbers

- A minimum number of six passengers per trip.

Ranks

- The pilot is to operate from the rank at 95–113 Moorabool Street Geelong.
- Security and rank marshals to collect fares and organise waiting passengers into groups travelling in same direction.

Fare structure and zones

- Two zones – an inner zone encompassing urban Geelong, and an outer zone approximately bounded by Lara, Bannockburn Central, Torquay and the Bellarine Peninsula. Share-ride taxis will not travel beyond the outer zone.
- Separate flat fares to apply to the inner and outer zones.

Payment mechanisms

- Payment will be cash only paid to the rank marshal, who will note down passenger destinations and pass the fares to the driver at the beginning of the journey.

Supply of drivers and vehicles

- Approximately 10 maxi taxi operators will be identified to participate in the pilot (e.g. based on willingness, industry experience, local knowledge), although the Network would like to have all maxi taxis listed as part of the pilot, and therefore able to participate if demand requires.

Rank marshals

The use of a rank marshal (or marshals) to organise passengers into share-rides is an essential element of the program. The primary role of the rank marshals is to explain the share-ride concept and flat fare to potential passengers, and arrange the passengers into appropriate share-rides.

Rank marshals will need experience in the industry and knowledge of Geelong and its surrounding areas, as well as excellent customer service skills. The role and skill of the rank marshals is also important in encouraging passengers to use the service (e.g. canvassing the taxi rank for potential share-ride passengers), minimising wait times and managing the expectations and frustration of passengers (particularly if demand for the service is greater than the supply or passengers must wait for others travelling in a similar direction in order to meet minimum passenger numbers, discussed below).

Geelong Taxi Network has suggested that rank marshals are to be user funded through a marshal levy included in the flat fare.

Fare structure and zones

One of the objectives of the pilot is to offer an appropriate fare structure to provide the right incentives for both drivers and passengers to participate in the program. An important factor in determining the appropriate fare structure is the number and boundaries of fare zones. Geelong Taxi Network is proposing an inner zone (largely corresponding to urban Geelong within the M1 and Leopold to the east) and an outer zone (which takes in the Bellarine Peninsula to the east, Torquay to the south, Bannockburn to the west and Lara to the north).

Payment

Under the proposed pilot, payment of the fare is to be made upfront to the rank marshal (in cash only), who will also record the destination details of the passengers. The fares and destination details will be passed to the driver before departure. This is consistent with existing prepayment requirements between 10pm and 5am, and decreases the risk to drivers that passengers will not pay the fare at the end of the trip.

The Commission notes that a single payment, including any marshal levy, made upfront is the simplest and may be the most suitable method of payment. For example, separate payments of the marshal levy and the share-ride fare (requiring passengers to make multiple transactions) would increase complexity and administration costs.

The Network will use the 'Safe City Taxi Voucher System' introduced by Victoria Police in Geelong. This system will provide the passenger with a receipt for the fare, with fare information also provided to the driver and the City of Greater Geelong.

Passenger numbers

For a share-ride taxi service to be attractive to drivers, it must be more profitable than a comparable trip at the standard metered fare. Whether a share-ride trip is more profitable will depend on the number of passengers, their destinations and the fare level.

The terms of reference require that the Commission's report and advice be consistent with *'the appropriate passenger numbers per share-ride taxi trip to ensure the service is both viable for the taxi industry and attractive to taxi users'*.

Geelong Taxi Network in its operational details has suggested that the minimum number of passengers be six. The Commission included this suggestion as part of its analysis.

Infrastructure

It is proposed that Geelong's share-ride taxis will operate through the existing Safe City Taxi Rank at 95–113 Moorabool Street Geelong. Hence, no new significant infrastructure will be required for the pilot. Geelong Taxi Network's operational details do not indicate whether new signage or advertising for the scheme will be provided. While there may be small costs involved in this, since they will not be recouped through fares, they do not impact on the Commission's analysis of fares.

This appendix outlines the current regulated taxi fares.

Current regulated fares

The current fare schedule for taxi services in Geelong was set in December 2008 and is presented in table D.1.

Table D.1 Geelong taxi fare schedule

<i>Fare Component</i>	<i>Tariff</i>
Booking fee (\$)	2.10
Standard taxi	
Flagfall (\$)	3.20
Distance rate (\$/km)	1.634
Waiting rate (c/min when speed < 21 km/hr)	57.2
Maxi taxi (5-11 passengers)	
Flagfall (\$)	3.20
Distance rate (\$/km)	2.451
Waiting rate (c/min when speed < 21 km/hr)	85.8
Multiple hiring	
% of metered fare at destination (maximum)	75%
Late night surcharge (midnight – 6am)	
Geelong	3.00

Of most relevance to consideration of a fare for late night, share-ride taxis are the late night surcharge and the multiple hire rate. These are discussed below.

Late night fare

In Geelong a \$3.00 surcharge applies to late night taxi fares. The surcharge applies between midnight and 6am every morning. This surcharge is levied to compensate drivers and ensure supply at times that would otherwise be less attractive to work through.

For a share-ride taxi to be attractive to potential passengers, its fare should be less per passenger than would apply for a standard taxi trip.

Multiple hire option

The current fare schedule allows for multiple hiring, i.e. for unacquainted people to share a trip from a common starting point to their specific drop-off points. It provides that at each drop-off point, the passenger(s) alighting will pay no more than 75 per cent of the metered fare at that point. Drivers clearly benefit from this. However, the discount for passengers does not appear to provide strong incentives to organise such a hiring. In the absence of rank marshals fulfilling this role or proactive drivers, the option of a multiple hire requires individuals to organise themselves into a 'multiple hire' group, and for this to be accepted by the driver. The Taxi Industry Inquiry noted:

This multiple hire arrangement is little known and is confusing to passengers... For some people, it appears that the prospect of a 25 per cent reduction in the fare is insufficient incentive to give up the privacy of not sharing a cab.²⁰

The share-ride pilot is looking to make multiple hire arrangements more attractive by providing a simplified fare structure and organising groups travelling in the same general direction.

²⁰ Victorian Taxi Industry Inquiry 2012, *Customers first: service, safety, choice*, Draft report, p. 448.