

MAXIMUM  
OPAL FARES

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2020-24



Issues Paper

April 2019

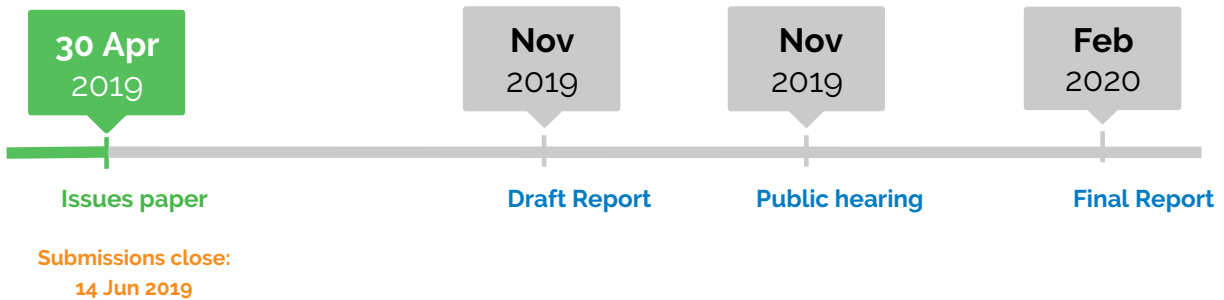
# IPART WILL SET MAXIMUM OPAL FARES TO DECEMBER 2024

The NSW Government has asked the Independent Pricing and Regulatory Tribunal (IPART) to conduct a major review of public transport fares in Sydney and surrounding areas.

We will spend the next nine months conducting research and analysis and consulting on what the Opal fares should be. In February 2020 we will publish the maximum fares that will apply in each year until December 2024.



We are seeking feedback by 14 June 2019 on our issues paper which sets out our proposed approach to setting fares.



## Which services are covered by this review?



We have also been asked to look at the pricing arrangements for on demand services.

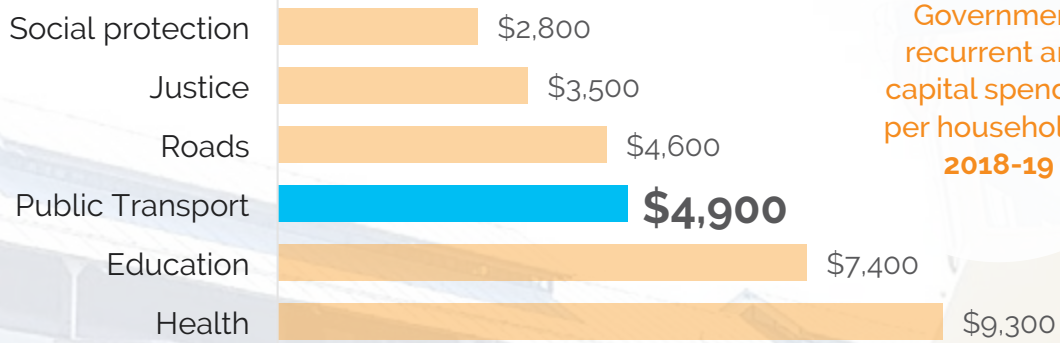


We are setting maximum fares for all services where an Opal card can be used, and are operated under a passenger service contract or bus service contract with Transport for NSW (TfNSW):

- **Train services** operated by Sydney Trains, NSW Trains and Sydney Metro.
- **Bus services** operated under a Sydney Metropolitan Bus Service Contract with TfNSW or an Outer Sydney Metropolitan Bus Service Contract with TfNSW, and bus services operated by Newcastle Transport.
- **Light rail services** operated by Sydney Light Rail (including Inner West and CBD and South East light rail) and Newcastle transport, and light rail services in Parramatta.
- **Ferry services** operated by Sydney Ferries and Newcastle Transport.

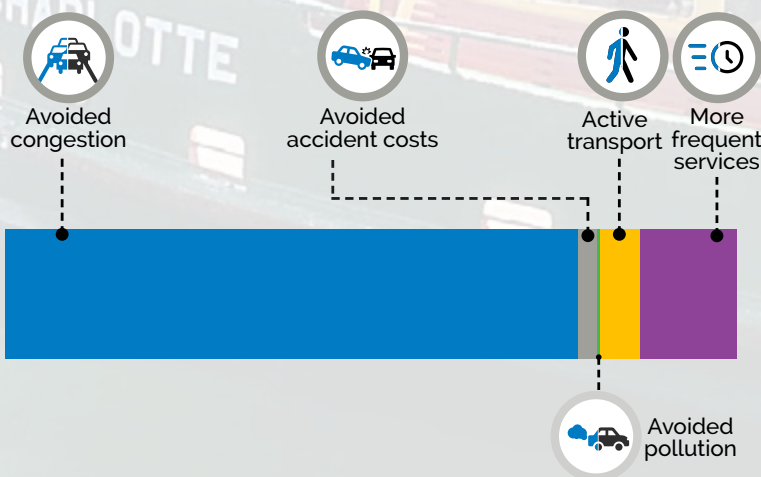
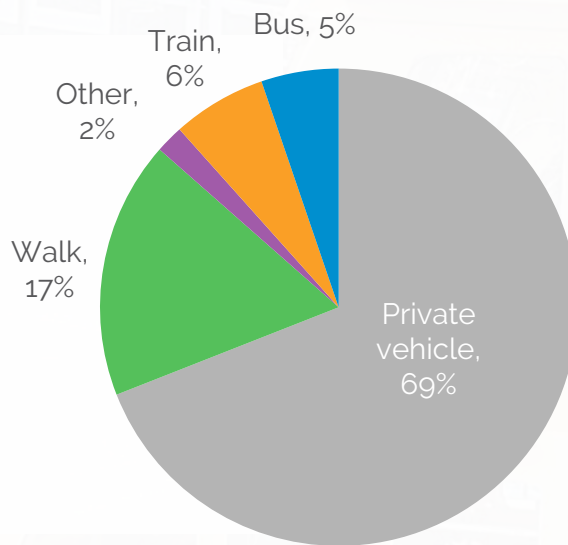


This year the NSW Government will spend **\$4,900** per household on **public transport**



Government recurrent and capital spending per household in 2018-19

Around **12%** of all trips in Sydney are made using public transport



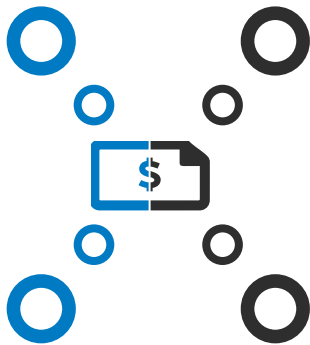
**Non-users** benefit from Government spending on public transport mainly through **reduced road congestion**



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# PASSENGERS PAY A SMALL SHARE OF PUBLIC TRANSPORT COSTS

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## Public transport is the third largest cost to taxpayers

Public transport benefits both users and non-users of the services. The main benefit for non-users is reduced congestion on city roads.

However, the cost of providing public transport services is increasing significantly, and public transport is currently the third largest cost to taxpayers after health and education.

Passengers pay around a quarter of the costs of providing these services. Patronage has grown significantly, with around 12% of all trips in Sydney being made on public transport. But the growth in revenue from these additional passenger journeys has not kept up with the increase in costs. At the same time, fares have fallen in real terms.

One of the key parts of IPART's role is to provide transparency around whether the funding for public transport is sustainable into the future to ensure both taxpayers and passengers receive value for money. We need to balance the costs and benefits of public transport and we are interested in people's views on how much should be paid through fares, and how much non-users should pay.

## Our approach to setting fares

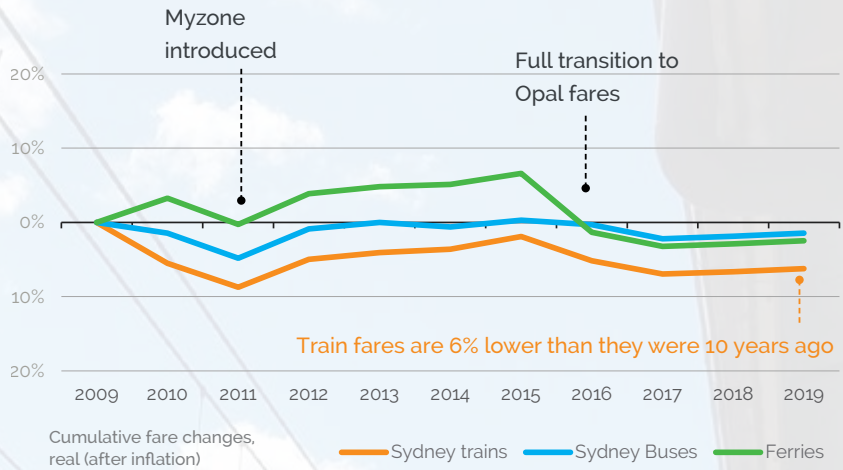
We will explore different overall fare changes, as well as the relativities between individual fares for trains, buses, ferries and light rail, different length journeys, journeys at different times of the day, and for infrequent and frequent travel.

For the various fare options, we will consider which provides the best balance between affordability, the impact on patronage—and what this would mean for crowding and road congestion—and the level of cost recovery.

<p><b>We set maximum fares under the <i>Passenger Transport Act</i>, which sets out the list of matters we must consider</b></p> 	<p><b>IPART last reviewed fares in 2016</b></p> 	<p><b>The NSW Government usually changes fares each year</b></p> 	<p><b>The NSW Government can set fares below IPART's maximum fares, but <b>cannot</b> exceed them</b></p> 
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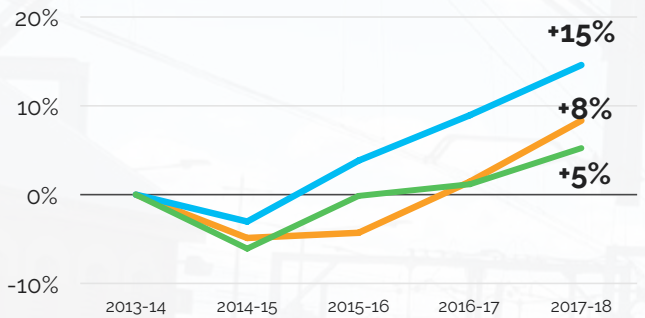
## Fares have changed by less than inflation

in the transition to electronic ticketing



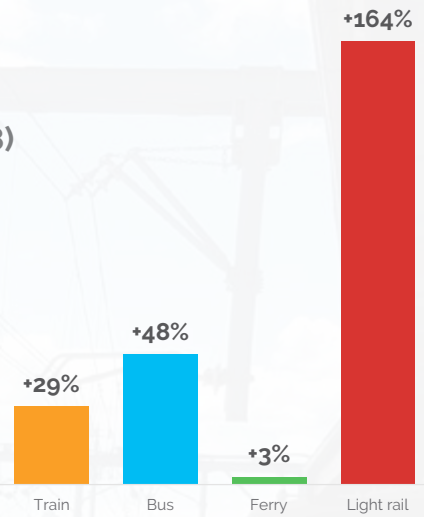
## Revenue is rising due to higher patronage growth

Revenue growth over 4 years (cumulative to 2017-18)



Cumulative, real (after inflation). Light rail revenue has grown by 140%, due to expanded services (not shown on chart).

Train Bus Ferry



Patronage growth over 4 years (cumulative to 2017-18)

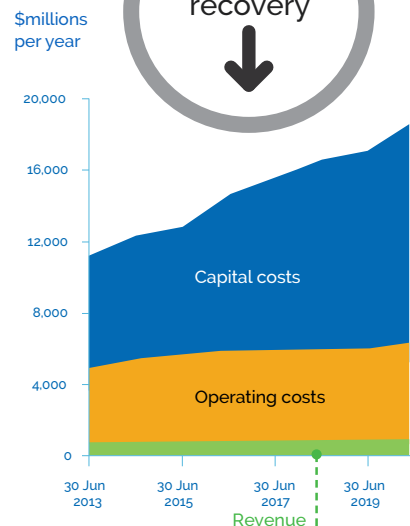
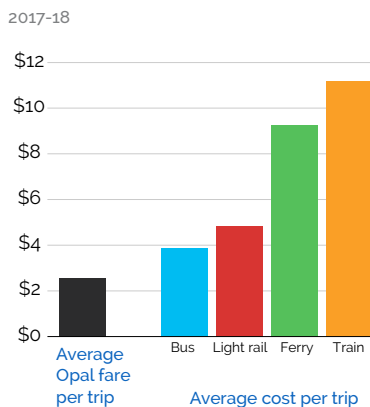
## But higher costs are reducing cost recovery overall

**\$50bn +** construction planned over the next ten years

**1500** extra train services per week since the 2017 timetable changes

**2000** extra weekly bus services in 2019

**Sydney Metro North West** to commence in 2019



# We have also been asked to consider pricing for **ON-DEMAND TRANSPORT**

Transport for NSW is currently funding a range of on-demand trial services across NSW to determine whether they should be included as part of the state's public transport network.



On-demand services are shared booked services, which often have flexible departure/arrival points.



On-demand services could form part of the public transport network by replacing existing fixed route services, providing new services with a flexible route or timetable, or taking people to join regular timetabled services at stations and wharves.

Because they are more flexible, on-demand services typically cost more to provide than regular fixed-route services but in some cases they can be more cost effective. For some types of services there may be an existing on-demand option, such as taxis and ride-share, community transport and private courtesy buses, many of which operate without government funding.

We are proposing to identify where on-demand services should receive taxpayer funding as part of the public transport network, and consider the pricing arrangements that should apply. Pricing options are likely to be different for different types of on-demand services depending on what they offer, the cost of providing them and their value to the community.



## We are seeking comment

We are aiming to set fares that help deliver a financially sustainable public transport network, encourage people to use public transport, maximise the benefits of public transport use to the community, remain affordable for public transport users, and that are predictable and stable over time.

- 1 Are these objectives the right ones to focus on?
- 2 Are any of the objectives more important than others?

### Which fare changes should we focus on

- 3 Should light rail and metro services have their own mode-specific fares? Or should light rail continue to be set in line with bus fares, and metro fares set in line with rail fares?
- 4 Should the \$2 discount for transferring between different modes of transport be higher or lower?
- 5 Do we currently have a good balance between fares for short distance and long distance travel? Should fares increase more gradually and smoothly as the distance travelled increases?
- 6 Should we make changes to when and where peak fares apply? Should all modes have peak and off peak fares?
- 7 Are the current suite of discounts available on Opal services appropriate? Do you support IPART reviewing these discounts?
- 8 Should contactless payment cards and devices attract the same discounts as the Opal card?
- 9 What other methods of payment are likely to become available over the next five years?
- 10 Are there any issues regarding fare discounts or concessions that we should consider?

### Pricing for on-demand services

- 11 Do you agree with our proposed approach to establishing appropriate fares for on-demand services?
- 12 Which groups of people are most likely to use on-demand services, and how could this change over time?
- 13 How much would you be willing to pay for on-demand services?

## Making a submission

We prefer to receive submissions electronically via our online submission form <[www.ipart.nsw.gov.au/Home/Consumer\\_Information/Lodge\\_a\\_submission](http://www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission)>.

You can also send comments by mail to:  
Review of Maximum Opal fares  
Independent Pricing and Regulatory Tribunal  
PO Box K35  
Haymarket Post Shop NSW 1240

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <[www.ipart.nsw.gov.au](http://www.ipart.nsw.gov.au)> as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed in this paper.

We may choose not to publish a submission - for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. However, it could be disclosed under the Government Information (Public Access) Act 2009 (NSW) or the Independent Pricing and Regulatory Tribunal Act 1992 (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.





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The Independent Pricing and Regulatory Tribunal (IPART) provides independent regulatory decisions and advice to protect and promote the ongoing interests of the consumers, taxpayers and citizens of NSW. IPART's independence is underpinned by an Act of Parliament.

## The Tribunal Members for this review

Dr Paul Paterson, Chair  
Mr Ed Willett  
Ms Deborah Cope

Enquiries to this review should be directed to a staff member:  
Ineke Ogilvy (02) 9290 8473  
Jessica Robinson (02) 9290 8405



# 1

## Proposed objectives for the review

### Opal fares should:



maximise the benefits of public transport use to the community



help deliver a financially sustainable public transport network



encourage people to use public transport



remain affordable for public transport users



be predictable and stable over time

Under the [Passenger Transport Act](#) and our [terms of reference](#), we are required to consider a number of factors when setting fares. Our proposed objectives above summarise these factors. These are the outcomes that we should aim to achieve or influence through our decisions on fares.

To some extent these objectives compete with each other. For example, to encourage people to use public transport, fares may need to be lower. However, to help deliver a financially sustainable public transport network, fares may need to be higher than the current fares. Therefore, no set of fare decisions can meet all the proposed objectives to the same degree. This means that we will need to consider how well different sets of fares or fare changes meet the individual objectives.

The chapter discusses our proposed objectives in turn, and why we think they are the right objectives to focus on in this review.

### IPART seeks comments on the following

- 1 Are our proposed objectives the right ones to focus on?
- 2 Are some of those objectives more important than others?



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When people use public transport, the main benefit they create for others is reducing congestion on roads



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### 1.1 Opal fares should encourage people to use public transport

The Government's Future Transport 2056 strategy seeks to increase the share of travel that is made using more environmentally sustainable modes of transport, including public transport. The NSW Government is making significant investment in new services in order to encourage this.

We consider that fares should encourage use of the available infrastructure, including the new capacity created by the additional investment. The transport network will run more smoothly with a balance between road, active transport, such as cycling and walking, and public transport. They should also be set to encourage the use of new services (such as, on-demand services) and new payment technologies. The price of each of these is likely to impact the uptake of these technologies.

The NSW Government's Future Transport strategy states that economic productivity will grow as the network moves people more efficiently to jobs centres and provides firms with access to the right workers, skills and customers.<sup>1</sup> This balance is aided by fares that encourage more people to use public transport in a way that promotes an efficient use of the available resources.

### 1.2 Opal fares should maximise the benefits of public transport use to the community

Like any other good or service, people who use public transport do so because the benefit they receive from using it exceeds or is equal to the fare they need to pay. Unlike many other goods and services, when people use public transport, they also generate benefits for and impose costs on others. Economists call these 'externalities' or external costs and benefits because they are impacts that are not considered by the person when they decide whether and how to travel.

Overall, the external benefits from public transport use tend to outweigh the external costs. Our previous analysis of transport externalities has found that, on average, each additional journey made by public transport generates a net benefit for society. These net benefits provide a justification for taxpayer subsidisation of public transport fares.

If fares do not fully take account of the relevant external benefits, they are likely to be too high – which could lead to lower public transport use and higher road congestion than is ideal. On the other hand, if fares over-account for these benefits, they are likely to be too low – which could lead to higher public transport use which requires more taxpayer funding to be spent on

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<sup>1</sup> Future Transport 2056, Chapter 2 <<https://future.transport.nsw.gov.au/plans/future-transport-strategy/a-vision-for-transport>> accessed 10 April 2019

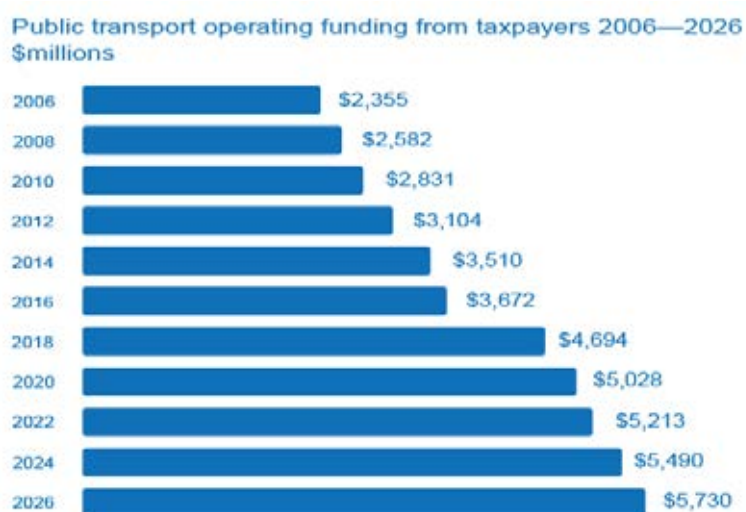


public transport when society would prefer that money to be spent funding other services. Our previous analysis suggests that while the external benefits of public transport use are significant, they primarily arise from avoided road use.<sup>2</sup> This means that it is important to take account of the impact of fares on people's choice between using public transport and driving their own car when considering the benefits of public transport use to the community.

### 1.3 Opal fares should help deliver a financially sustainable public transport network

The NSW Government is investing heavily in additional public transport services. It has committed more than \$26 billion in capital expenditure on public transport projects between 2018-19 and 2021-22.<sup>3</sup> As these projects come on line, Transport for NSW has projected that the funding required from taxpayers to operate public transport services will increase significantly over time (Figure 1.1).

**Figure 1.1 Transport for NSW: Public transport operating funding from taxpayers**



**Note:** The assumptions underlying these figures were not published

**Data source:** Transport for NSW, *Future Transport Strategy 2056*, p 137.

The fares for regular Opal services are used to cover some of the costs of providing public transport services. This ongoing source of revenue is an important part of ensuring that public transport services can continue to be provided into the future. The remaining costs are funded by taxpayers. Transport for NSW estimates that the level of cost recovery in 2017-18 is around 25%.<sup>4</sup>

<sup>2</sup> IPART review of public transport fares in Sydney and surrounds, July 2015-July 2016, Information Papers on Final Report, *External benefits and costs – Public Transport Fares Final Report IP 7*, 10 May 2016.

<sup>3</sup> NSW Government, Infrastructure Statement, 2018-19, Budget Paper No.2, p 2-9.

<sup>4</sup> Cost recovery estimate for 2017-18 provided by Transport for NSW.

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Transport for NSW  
estimates that fares  
currently recover  
25% of costs

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The different fares for the different modes of transport, and for different times of the day/week would have some influence over when and where demand for public transport occurs. Fares that encourage the use of public transport where capacity is already available to accommodate that demand improves the efficiency of the network and would help deliver a more financially sustainable public transport network. On the other hand, fares that promote public transport use at times when capacity is constrained (for example, on peak train services through the CBD) are likely to bring forward the need for additional expensive investment and as a result, would not support this objective.

#### **1.4 Opal fares should remain affordable for public transport users**

Access to public transport is a fundamental government priority for people in NSW.<sup>5</sup> Physical accessibility is only part of this. Affordability of public transport is also important in ensuring that people are able to continue to use public transport.

The fare for travelling on public transport varies for different types of journeys, including distance travelled, time and day of travel and modes of transport used. As a result, affordability is affected by the combination of fares that apply, how and when people use public transport and the characteristics of public transport users.

The NSW Government has a concession program aimed at ensuring that low income earners have access to affordable public transport services. Concession fares (except for Gold Opal) are typically set as a discount to full adult fares.

#### **1.5 Opal fares should be predictable and stable over time**

In our view, it is important that fare structures and levels are logical, predictable and stable over time. Fares that reflect these principles provide a fairer system, allow people to work out whether they are being charged correctly, and encourage more people to travel on public transport.

Fares that reflect these principles are also better at meeting some of the other assessment criteria. For example, price signals regarding how and when to travel will not be effective unless travellers understand them. If peak fares are higher to reflect the higher costs of providing services in the peak, customers need to understand the time periods that they will apply, and the savings they could make by shifting their travel to off-peak times.

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<sup>5</sup> Future Transport 2056, Chapter 2 <<https://future.transport.nsw.gov.au/plans/future-transport-strategy/a-vision-for-transport>> accessed 10 April 2019



# Our proposed fare setting approach



## Select fare change options

How much does the average fare change by?

What are the relativities between fares for different journey types and users?



Differences between modes



Short versus long distance



Time of day



Frequent or occasional use



Payment method



User characteristics



## Measure impacts

Number of journeys taken -

- ▶ congestion on the road
- ▶ pollution
- ▶ accidents on the road
- ▶ active transport trips (walking/cycling)
- ▶ time savings if more frequent services are added
- ▶ crowding
- ▶ on-time running
- ▶ resulting changes in the cost of providing services

Cost recovery

How much more/less will individuals pay for a journey or over a week

How does this compare to other places?

How does this compare to historical fare levels?



## Assess against objectives

Do the fares encourage people to use public transport?

Do the fares maximise the community benefits of public transport use?

Do the fares deliver a financially sustainable public transport network?

Are they affordable for public transport passengers?

Are they predictable and stable over time?

We will make a judgement about which fare option produces the best mix of outcomes

There are trade-offs between the objectives - so fare options will not meet all of the objectives to the same degree

# 2

## Choose which Opal fare changes to focus on

The first step in our proposed approach is to select a set of fare change options to assess against our objectives. These options will include changes to overall fares – such as increasing the current average fare by different percentages

The options may also include changes to elements of the current fare structure – for example, adjusting the rate at which fares increase as the distance increases, or changing the difference between fares for peak and off-peak journeys. We will decide on these changes after considering stakeholders' responses to this paper.

### Elements of fare structure we are proposing to analyse



#### Mode of transport

how fares are calculated if the journey includes more than one trip (eg, three bus trips) and/or more than one mode of transport (eg, a train and a ferry trip).



#### Distance travelled

if and how fares vary based on the origin and destination of the journey (eg, if there is a distance or zonal fare structure).



#### Time of travel

if and how fares vary by the time-of-day or day-of-week the journey is undertaken (eg, if there are peak and off-peak fares).



#### Frequency

if and how fare discounts or caps apply after a certain number of journeys have been paid for within a defined period.



#### Payment method

if and how fares vary by method of payment, such as use of reloadable Opal card, single use Opal card or tap and go payment using a credit or debit card.



#### User characteristics

if and how fares vary by customer characteristics, such as age and eligibility for concession fares.



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We propose to continue to charge different fares for different modes



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## 2.1 Mode-specific fares

Currently, Opal fares are different for bus, train and ferry services. Fares for light rail services are set in line with those for bus services. New metro services are due to commence later this year with fares for these services initially set in line with train fares. For each mode, fares for shorter distances are more expensive per kilometre travelled than fares for longer distances. This means that making a journey using two or more individual trips would typically cost more than travelling the same distance in a single trip. To address this, fares for journeys where the user makes more than one trip using the same mode (eg, to transfer from one bus service to another) are calculated as if they were one trip so the user does not pay more for switching services. However, fares for journeys where the user makes more than one trip using different modes (eg, to transfer from a bus service to a train service) are charged separately for each trip. To bring the fare closer to what it would be if the journey was made as a single trip, Opal card holders receive a \$2 discount on their fare each time they transfer modes within the same journey.

In our last review, we found that the fares for the different modes of transport that make up the Opal system should be different. This is because:

- ▼ **The financial costs of providing services and the external costs and benefits generated differ significantly for each mode.** For example, ferry services per trip are more expensive to provide than bus services and generate fewer external benefits per trip.
- ▼ **The way people use services on each mode, and thus the value they obtain and their willingness to pay for the services differ significantly for each mode.** For example, a significant proportion of ferry trips are made by infrequent users such as tourists, whose willingness to pay tends to be higher. Train services are generally used to travel into and out of the CBD, so most trips are made by frequent users such as commuters. Bus services often travel across suburbs and stop frequently providing access to local facilities.

We propose to retain the mode-specific element of the fare structure and consider two potential changes to this element:

- ▼ Establish separate mode-specific fares for light rail trips and metro trips<sup>6</sup>
- ▼ Adjust the fare discounts for journeys that use more than one mode.

### 2.1.1 Establish separate mode-specific fares for light rail and metro

We did not set mode-specific fares for light rail trips at our last review as we had insufficient information to analyse the financial costs and external

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<sup>6</sup> Metro services refer to train services that will operate from the north west region under Sydney Harbour through new underground stations in the CBD and beyond to the south west.



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We will consider if light rail fares should continue to be the same as bus fares



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Should metro fares be the same as train fares?

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Should the \$2 discount for switching modes within a single journey be higher or lower?



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benefits associated with this mode of transport. However, the Sydney light rail network is currently being expanded and will become a more significant part of the transport network. In addition, the new metro service is expected to commence operation later this year. We propose to consider whether to set new mode-specific maximum fares for each of these modes, or whether we should set maximum fares for light rail equal to bus fares and maximum fares for metro services equal to train fares.

We understand that these services would replace existing bus and train services in some instances. If this is the case, we would need to consider the cost impact of setting different fares for passengers based on their new mode.

### 2.1.2 Adjust fare discounts for journeys by more than one mode

As noted above, because of the way fares for journeys that use more than one mode of transport are calculated, these fares are typically more expensive than those for journeys that use a single mode over the same distance. In recognition of this, adult Opal card holders currently get a \$2 discount every time they transfer between modes as part of the same journey (ie, within 60 minutes from the last tap off). Child/Youth, Gold Senior/Pensioner and Concession Opal card holders get a \$1 discount for every transfer between modes. Once you reach the Weekly Travel Reward of half-price travel, the Opal Transfer Discount is also reduced by 50%.

We are interested in stakeholder views on whether we should review the level of this discount.

#### IPART seeks comments on the following

- 3 Should light rail and metro services have their own mode-specific fares? Or should light rail continue to be set in line with bus fares, and metro fares set in line with rail fares?
- 4 Should the \$2 discount for transferring between different modes of transport be higher or lower?

## 2.2 Distance-based fares

Fares for a single journey are currently calculated based on the distance travelled.<sup>7</sup> For each mode, distances are grouped into several bands, and fare levels increase as the number of bands travelled increases. There are five distance bands for train journeys, three for buses and two for light rail and ferries.

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<sup>7</sup> The two exceptions to this are on Sunday, where passengers pay no more than \$2.70 for travel all day on any mode, and for any distance and the Opal Gold for seniors and pensioners, which has a daily cap of \$2.50.



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The length of these bands also increases with distance travelled, so fares for shorter distances cost more per kilometre than those for longer distances. In addition, fares for longer distances are capped at:

- ▼ \$8.69 in the peak (and \$6.08 in the off peak) for train journeys longer than 65 km
- ▼ \$4.71 for bus journeys longer than 8 km
- ▼ \$7.51 for ferry journeys longer than 9 km.

Train journey distances are also measured in a different way to other modes. Since introducing the Opal card, journey distances for bus, light rail, and ferry journeys are measured using the straight line between where the passenger taps on and taps off. However, for train journeys, distance is measured using the track distance between tap on and tap off. And for journeys that run through the Sydney CBD, 3.21 km is added to this journey.

Our previous analysis has found there is a strong case for fares to increase with the distance travelled.<sup>8</sup> This is because:

- ▼ The financial costs of providing longer distance services are higher than those of providing shorter distance services
- ▼ Fewer people use longer distance services (so fewer passengers contribute to these costs) and people are generally willing to pay more the further that they travel
- ▼ The external benefits of using public transport instead of driving are lower further from the CBD as roads tend to be less congested.

However, the relationship between the fare level and the distance travelled is not straightforward. For example, it can be economically efficient to cap fares once a certain distance travelled is reached in some circumstances, particularly where investments have already been made to provide long distance services and there is spare capacity on these services.

It can be more equitable to charge more for travelling longer distances in that it means all users pay a similar price per kilometre travelled, and those who only ever travel short distances do not pay more as a result of the Government's decision to provide more expensive longer distance services. However, it can also be less equitable if those required to pay higher fares for longer distance journeys are predominantly people on lower incomes.

We propose to retain the distance-based element of the fare structure and consider two potential changes to this element:

- ▼ Adjust relative prices for shorter and longer distances
- ▼ Review the distance bands.

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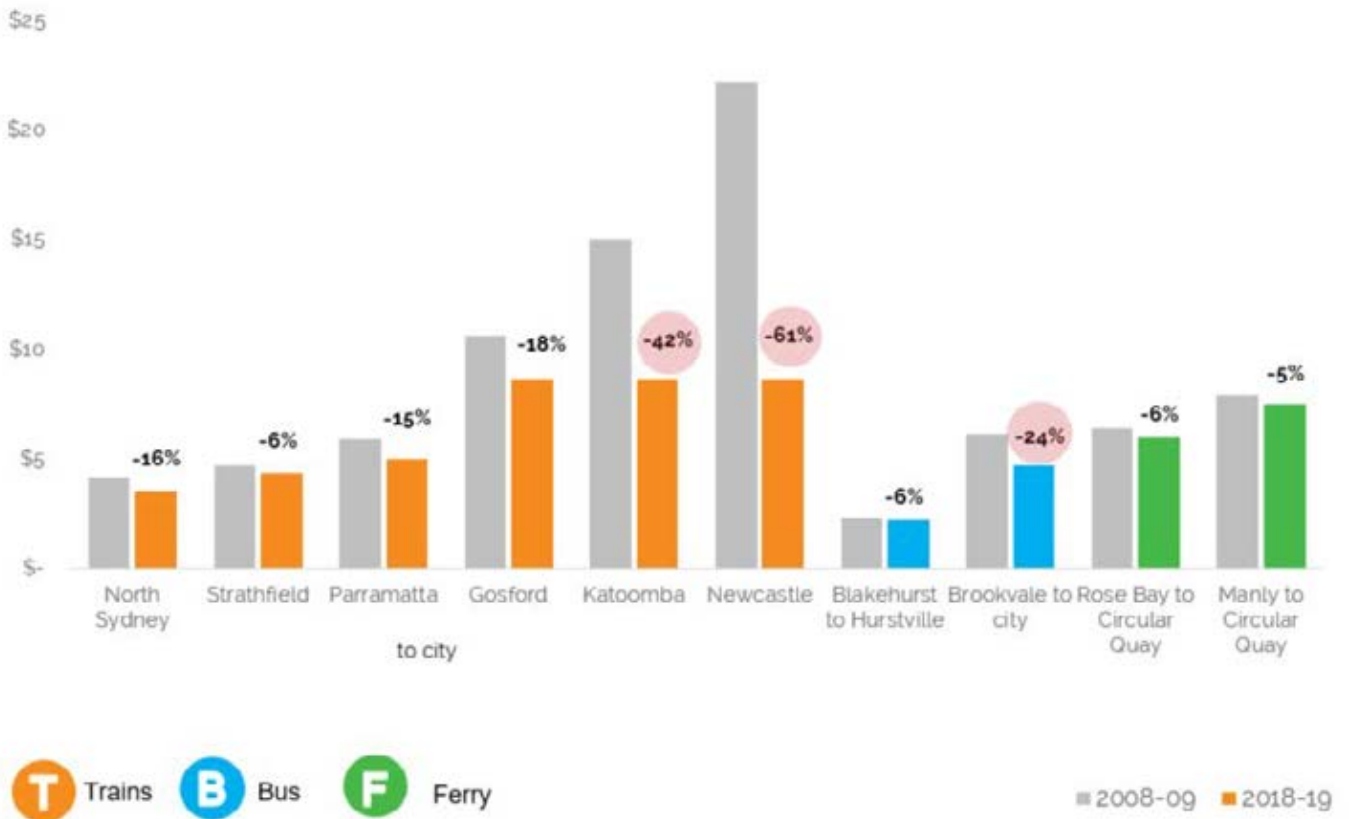
<sup>8</sup> IPART, *More efficient, more integrated Opal fares*, Final Report, May 2016, p 40.

### 2.2.1 Adjust relative prices for shorter and longer distances

Fares for short distance journeys have remained roughly constant during the past two decades, while fares for train journeys longer than 65 km and bus journeys longer than 25 km have fallen significantly. For example, the single fare to Newcastle (around 160 km from the Sydney CBD) has fallen by around 60% in real terms over the past 10 years.

Getting the right balance between fares for shorter and longer distances is important. If long distance fares are relatively low, either the taxpayer subsidy required to pay for these services needs to be higher or passengers travelling shorter distances need to pay more. Either way, the result of spending more money to provide lower fares for passengers who travel longer distances is that there is less money available to spend on other parts of the public transport network than there would otherwise be. There is a trade-off between providing lower fares for passengers who travel longer distances and spending on service quality improvements that would benefit a larger proportion of passengers, such as more frequent city and suburban services.

Figure 2.1 Change in fares 2008-09-2018-19 (real \$2018-19)





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We propose to continue to have higher fares for longer distances



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Low, heavily taxpayer subsidised fares for long distance public transport journeys also make it difficult for private transport operators to compete, entrenching Government provision and subsidisation of these services.<sup>9</sup> For example, following the introduction of the direct train from Bathurst to Sydney in 2012, the private coach company running services between Bathurst and Sydney suggested that their revenue for this route had reduced by around 75%. The train fare for travelling the 200 kilometre journey between Bathurst and Central is currently \$6.08 in the off-peak and \$8.69 in the peak, significantly below the fare offered by private coach operators on this route (for example, the current price for a one way coach trip from Bathurst to Sydney on Australia Wide Coaches is \$43).<sup>10</sup>

To decide on an appropriate balance between fares for long and short distance services, we will consider the costs and benefits of providing each type of service. This will include analysing how responsive the users of short and longer distance services are likely to be to price changes, taking into account:

- ▼ How use of services has changed as fares have fallen in the past 20 years
- ▼ How likely users of different services are to switch to making the journey by car, taking into account the cost of driving, the duration of the journey, and the levels of car ownership in different parts of the public transport network.

### 2.2.2 Review the current distance bands

Under paper ticketing, distance bands were used to reduce the complexity of fares for passengers and limit the number of different tickets. However, under electronic ticketing, there is no longer any practical need for this.

The main drawback of the current broad distance bands is that they produce boundary effects. These are the significant jumps in fare levels that occur when the passenger moves from one distance band into the next. These effects mean that passengers who travel distances at the lower end of the distance band pay a higher price per kilometre than those who travel distances at the higher end of the band. They can also lead to parking problems at boundary stations, as passengers try to avoid the fare impact of travelling into the next distance band.

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<sup>9</sup> *Bus versus 'Bullet' battle heats up*, 18 March 2014 <<http://www.abc.net.au/local/stories/2014/03/18/3966401.htm>> accessed 10 April 2019.  
<sup>10</sup> Australia Wide Coaches <<https://www.austwidecoaches.com.au/bathurst-to-sydney-express-coach-service/>> accessed 10 April 2019.

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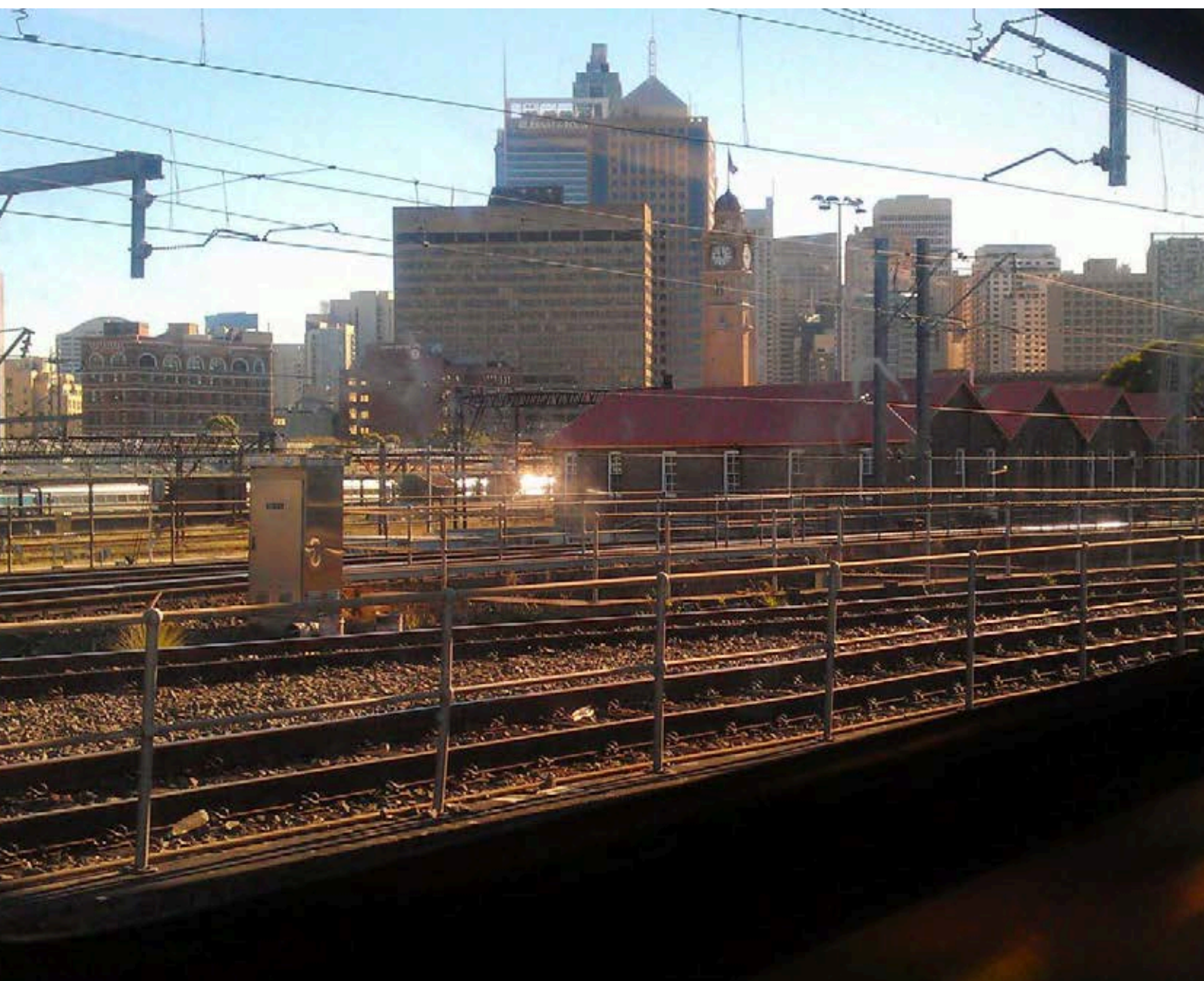
Do we have the right balance between fares for short and long distance travel?

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Increasing the number of distance bands and reducing their length would reduce the boundary effects, by resulting in smoother, more gradual increases in fare levels as the distance travelled increases. Alternatively, the distance bands could be removed altogether and fares could be based on a fixed flag fall plus a per kilometre charge for the distance travelled. One issue with this approach is that passengers might not know the exact fare for their journey before they travel. However, this is not as important under electronic ticketing, as long as the passenger can estimate the fare. Information can be provided (for example at train stations or via the Transport information website and transport apps) on the fares for different distances and to different stations to estimate the fare for particular trips.

IPART seeks comments on the following

- 5 Do we currently have a good balance between fares for short distance and long distance travel? Should fares increase more gradually and smoothly as the distance travelled increases?



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## 2.3 Differences in fares at peak and off-peak times

Currently train fares are 30% lower in off-peak periods than they are in peak periods. Off-peak periods include weekends and public holidays and the times before and after the morning and afternoon peak-periods on weekdays, which are:

- ▼ 7am-9am and 4pm-6.30pm in the Sydney Trains network area
- ▼ 6am-8am and 4pm-6.30pm in the NSW TrainLink network area.<sup>11</sup>

The rationale for a price differential between peak and off-peak periods relates to the higher costs of delivering public transport services in periods of peak demand. The financial costs of providing these services generally include high capital investments in infrastructure (eg, rail lines, trains, buses, ferries) and relatively low operating costs (electricity, fuel, drivers).

Much of this infrastructure is required to meet the demand for services in peak times – for example, to get commuters to and from work on weekday mornings and afternoons. In off-peak times, such as the middle of the day and weekends, the infrastructure may have spare capacity. The external costs of public transport use are also higher in peak periods, as the high levels of crowding reduce passenger comfort and create boarding delays that lead to late running services.

Providing fare discounts in off-peak periods can encourage more people to use public transport in these periods, to achieve more efficient use of the existing capacity. It can also encourage people to switch their time of travel from the peak to the off-peak where this is an option for them, to spread the passenger load and reduce external costs of passenger crowding and boarding delays. In addition, it can encourage people who are not regular users of public transport to use the network in off-peak times.

We have previously found that the financial costs and the external benefits<sup>12</sup> of providing rail services in the morning and afternoon weekday peak periods differs significantly from the costs and benefits outside those times.<sup>13</sup> We recommended an off-peak discount of 40% on train services to reflect these differences.<sup>14</sup> We also found that there was not a strong case for an off-peak discount on other modes.<sup>15</sup>

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The difference in train fares between peak and off-peak periods reflects differences in costs and community benefits.

It also encourages people who can travel outside the peak to do so

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<sup>11</sup> Opal website [https://www.opal.com.au/en/fares-and-benefits/fare\\_information\\_train](https://www.opal.com.au/en/fares-and-benefits/fare_information_train)

<sup>12</sup> The external benefits of train travel are higher in peak periods because road congestion is greater, so use of train services in peak periods leads to greater reductions in road congestion. See IPART, *Review of external benefits of public transport – Draft Report*, December 2014, p 37.

<sup>13</sup> IPART, *More efficient, more integrated Opal fares*, Final Report, May 2016, p 44.

<sup>14</sup> IPART, *More efficient, more integrated Opal fares*, Final Report, May 2016, p 45.

<sup>15</sup> IPART, *More efficient, more integrated Opal fares*, Final Report, May 2016, p 45.



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Should peak fares  
only apply on services  
to and from the CBD?



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We propose to retain a price differential between maximum fares for peak and off-peak train services. We also propose to consider a number of possible changes to this fare structure element:

- ▼ The size of the differential, that is, whether it should be smaller or larger than 30%
- ▼ Whether it should only apply to trips in particular locations (such as CBD train stations in periods where overcrowding is a major problem)
- ▼ Whether the current peak times are the right ones
- ▼ Whether there should also be different peak and off-peak fares on other modes.

### 2.3.1 Changes to when and where peak fares are charged

The periods of peak demand for train services are between 6:00am and 9:30am and between 3:00pm and 6:30pm on weekdays. 36% of morning peak train travel occurs in the hour between 8:00am and 8:59am, and 38% of afternoon peak train travel occurs in the hour between 5:00pm and 5:59pm.<sup>16</sup>

Periods of peak demand for train services are generally limited to travel in one direction – towards the CBD in the mornings and away from the CBD in the evenings. CBD train stations, specifically Central, Town Hall and Wynyard, are the busiest in NSW. CBD stations are particularly congested in the peak and have limited capacity to accommodate more trains. Between 2004 and 2013, CBD travel grew significantly faster than patronage on other parts of the train network.<sup>17</sup> However, in recent years this trend has reversed with CBD travel growing at a slower rate than the network average.<sup>18</sup>

Different trips that arrive at the CBD at similar times are categorised inconsistently, as a result of their departure time. For example, the fare for travelling 200 kilometres from Bathurst to Central (\$6.08 off-peak) arriving just after 9.30am is lower than the fare travelling around 50km from Mount Druitt to Central (\$6.76 peak) even though the trains arrive at approximately the same time.

This suggests that it is worth reviewing whether the current peak periods are the right ones. In addition, it may be better to limit peak fares to journeys made in the peak direction – that is, towards the CBD in the morning peak, and away from the CBD in the afternoon peak – or to journeys where the user taps on or off at specific locations, for example, CBD train stations during periods when overcrowding is a problem.

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<sup>16</sup> Information provided by Transport for NSW, 17 April 2019.

<sup>17</sup> BTS, Rail Station Barrier Counts 2004-2013, 2013.

<sup>18</sup> Between 2016 and 2018, the number of passengers travelling by train to and from the CBD across all times of day increased by an average of 8%, compared to an overall patronage increase of 11% across greater Sydney. Information provided by Transport for NSW, 17 April 2019.



Should there be a difference in peak and off-peak fares for buses, light rail and ferries?

### 2.3.2 Extend the peak/off-peak price differential to other modes

Extending differential fares for peak/ off-peak trips to bus, light rail and ferry fares would lead to more efficient use and delivery of public transport services, if like trains, those other modes also experience congestion in periods of peak demand that necessitates costly investment. If they don't, providing this kind of time-of-use price signal is not likely to be beneficial.

Information on demand for different services shows that the patterns of use for rail and bus are very similar, light rail is somewhat similar and the pattern of use for ferries is quite different:<sup>19</sup>

- ▼ For rail, more than 50% of journeys occur during the morning and afternoon peak periods, and around 17% occur on the weekends.
- ▼ For buses, 47% of journeys occur during weekday peaks and 18% on weekends
- ▼ For light rail, 41% of journeys occur during weekday peaks and 23% on weekends
- ▼ For ferries 33% of journeys occur during weekday peaks and 36% on weekends (14% on Saturday and 22% on Sunday<sup>20</sup>).

Data on demand for bus or light rail services at different times of the day is not publicly available. However, our preliminary view is that the efficiency gains from a peak/off-peak price differential are likely to be lower for buses than they are for rail. This is because:

- ▼ There are differences in the way people tend to use the rail and bus networks. Because the rail system tends to converge on the CBD, it is predominantly used by commuters travelling to and from work during the weekday peak periods. The bus network is more dispersed, so people use it for a wider range of purposes.
- ▼ The Government can respond to peak congestion on buses by increasing service frequency or investing in more buses. This response is less costly and requires less lead time than increasing the supply of train services.

IPART seeks comments on the following

- 6 Should we make changes to when and where peak fares apply? Should all modes have peak and off peak fares?

<sup>19</sup> Information provided by Transport for NSW, 17 April 2019.

<sup>20</sup> One reason for this is that users can travel all day on a Sunday and pay no more than \$2.70, which means that the cost of ferry travel is substantially cheaper than on other days of the week. Gold Opal card holders continue to pay up to \$2.50 on Sundays. <https://transportnsw.info/tickets-opal/opal/opal-card-benefits>, accessed 16 April 2019.

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Discounts for frequent public transport use are available in most cities

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## 2.4 Fare discounts for frequent travel and weekly and daily caps

Currently, Opal offers passengers several discounts and caps, including:<sup>21</sup>

- ▼ The Weekly Travel Reward – with an Opal card, when you have paid for eight journeys in one week (Monday to Sunday), you reach the Weekly Travel Reward. For the rest of that week, your fares will be half price. You must tap on and tap off each time to receive the discount.
- ▼ Daily and weekly fare caps – after \$15.80 in fares have been paid with an Opal card in a day (or \$63.20 in a week) passengers get free travel for the rest of the day (or week).<sup>22</sup>
- ▼ On Sundays, Opal passengers can travel on all modes for a discounted, capped price of \$2.70.

Most cities offer some form of frequency discount on public transport. Some of the reasons for providing frequency discounts and caps are:

- ▼ **Provide efficiency benefits.** By reducing the price of travel for passengers who use the system often, frequency discounts encourage those passengers to make additional trips by public transport that they otherwise would not have made. This could improve cost recovery if they are paying at least as much for those trips as it costs to provide them as well as generating positive external benefits by encouraging people to use public transport rather than drive (eg, by reducing road congestion). It could also improve network efficiency, provided the additional trips are made on services with spare capacity.
- ▼ **Make fares more affordable for passengers.** Frequency discounts and caps can provide certainty about the maximum amount passengers will pay in a period when fares for individual trips vary by mode and distance travelled. By reducing the total price for those who use the system often, they also make public transport more affordable for these passengers.
- ▼ **Encourage a minimum weekly spend on public transport.** By encouraging people to make at least a certain level of financial contribution every week, the frequency discount acts like a two-part tariff where passengers contribute towards the provision of capacity on a weekly basis and in return are able to make additional trips at a discounted rate.

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<sup>21</sup> Opal website <<https://transportnsw.info/tickets-opal/opal/opal-card-benefits>> accessed 11 April 2019.

<sup>22</sup> Lower daily and weekly caps apply to concession and Gold Opal card holders.



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## Poorly designed frequency discounts can create additional costs



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Frequency discounts and fare caps can have unintended consequences if they are poorly designed. For example, they can:

- ▼ Increase demand for services that are reaching capacity. The efficiency benefits of these discounts will be maximised where they encourage people to use public transport for trips where they would otherwise have driven and to make those trips at times and on modes that are not already crowded.
- ▼ Reduce the level of cost recovery and increase the amount of taxpayer subsidy required for public transport services. This can reduce the capacity of governments to provide concessional travel to those with limited capacity to pay.
- ▼ Dampen the price incentives created by other elements of the fare structure because of the way they interact with these elements. These include incentives to travel on different modes or at different times of day.

In addition, if frequency discounts and fare caps are too generous, they can also create additional financial costs. The current Sunday fare cap of \$2.70 across all modes provides a clear example of this effect. This cap results in substantially lower fares for ferry services on Sunday than at other times. Since cheaper Sunday travel was introduced, there have been significant increases in the demand for ferry services on weekends, which in turn have necessitated significant increases in spending to meet demand and ease crowding:

- ▼ Extra services were provided along the Parramatta River on Sundays (when demand is at its highest)<sup>23</sup>
- ▼ The number of services provided between Circular Quay and Manly on weekends was more than doubled.<sup>24</sup>

At our last review we recommended that the then \$2.50 cap on Sundays be increased to 40% of the weekday cap and apply on Saturday as well as Sunday, to help spread demand across the weekend rather than concentrating it on Sundays.<sup>25</sup>

If frequency discounts and fare caps are provided as a means of making public transport more affordable for certain types of users (such as those who travel longer distances to work or study), then care needs to be taken to ensure they target this group. For example, lower weekday caps are likely to benefit passengers who commute to work on the ferry as well as those who

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<sup>23</sup> Minister for Transport Media Release, *Sydney's Ferry Future: new vessels, new wharves and more services* <<http://www.transport.nsw.gov.au/sites/default/files/b2b/releases/130522-sydneys-ferry-future.pdf>> accessed 10 April 2019.

<sup>24</sup> Transport for NSW, *Cheaper fares, more services and new vessels for Many Fast Ferry customers* <<https://www.transport.nsw.gov.au/newsroom-and-events/media-releases/cheaper-fares-more-services-and-new-vessels-for-manly-fast-ferry>> accessed 10 April 2019.

<sup>25</sup> IPART, *More efficient, more integrated Opal fares*, Final Report, May 2016, p 65.

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We are not proposing to review the current suite of discounts and caps

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travel frequently on long distance rail services. Lower weekly caps without corresponding reductions in daily caps is likely to benefit people who are employed full-time and commuting for work but not casual or part time workers who might have lower incomes.

#### 2.4.1 Review the current suite of discounts and caps

We have not specifically been asked to consider the current frequency discounts and daily/weekly caps and Sunday caps. However, we are interested in stakeholder views on whether we should review them.

Although these discounts and caps affect what passengers pay for public transport services, we do not typically examine them as part of our fare reviews. As we determine maximum fares and the Government decides on the actual fares to charge, we have typically considered the available fare products and discounts as given and set maximum fares within that context.

However, we are seeking stakeholder views on whether these should be included in our determination of maximum fares and if so, how we should determine the value of these.

[IPART seeks comments on the following](#)

- 7 Are the current suite of discounts available on Opal services appropriate? Do you support IPART reviewing these discounts?



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You can now tap on and off Opal services using a contactless bank card or mobile device

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The price difference between payment methods will affect the uptake of new technologies

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## 2.5 Fare differences by payment method

In Sydney, the Opal electronic smartcard is now the primary method of payment for public transport. Opal cards are either single use or reloadable.

Since our last review, paper tickets have now been withdrawn entirely. In addition, it has become possible for passengers to tap on and off most Opal services using credit/debit cards or other mobile devices with a contactless payment option, and this is likely to be expanded to remaining services in the future.

Currently, single trip Opal card fares are higher than reloadable Opal card fares for all journeys. Fares paid for via contactless bank cards or mobile devices are set at the same level as Opal fares. However, contactless payment cards and devices can only be used to purchase adult tickets; off-peak fares, daily and weekly caps are applied, but the weekly travel reward is not.<sup>26</sup> As a result, contactless payment cards and devices are likely to be primarily used by tourists and other infrequent users, as they eliminate the need to purchase and add credit to an Opal card.

In the future, contactless payment cards and devices could replace Opal cards as the primary method of payment. But this is likely to depend on the pricing of fares purchased using the different payment methods. In particular, unless the same frequency discounts are made available, payment via contactless cards and devices will continue to be a more expensive option for five-day-a-week commuters.

Over time, there is potential for new technologies to expand the payment methods available (see Box 2.1). Each type of payment method has different costs and may allow different levels of price differentiation (eg, a monthly subscription could replace mode-specific, distance-based fares). Mobility as a service (MaaS) is the most prominent of these innovative approaches.

By combining travel options, including both public and commercially provided transport, into a single interface MaaS can provide customers with a better quality of service. In order to be commercially successful MaaS services would need to attract public transport users away from the existing payment options. Allowing this type of competition to develop is important because it promotes innovation and higher service quality and protects consumers from overpricing more effectively than price regulation.

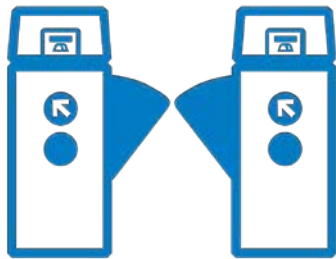
### IPART seeks comments on the following

- 8 Should contactless payment cards and devices attract the same discounts as the Opal card?
- 9 What other methods of payment are likely to become available over the next five years?

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<sup>26</sup> <https://transportnsw.info/tickets-opal/opal/contactless-payments>





### Box 2.1 Paying for public transport

The ability to pay using a credit card, debit card or linked device (phone, tablet, watch or other wearable device) was launched in July 2017 for ferry trips between Manly and Circular Quay, before being rolled out to rail and light rail, with contactless payment expected to be introduced to buses in 2019.

In Sydney, to pay using a linked device you use an app such as Google Pay or Apple Pay. In other cities, there can be dedicated public transport apps such as Mobile myki introduced at the end of March 2019 in Victoria. Mobile myki is an app which allows users to use their Android smartphone in lieu of a myki card, to view their myki balance in real time, top up their account, touch on and off public transport and view their travel history.<sup>a</sup>

Payments using smart devices create the opportunity for new innovative fare structures, of which mobility as a service (MaaS) is the most prominent. MaaS generally refers to the delivery of transport services through a single interface that combines different transport modes. MaaS includes some combination of trip planning, booking and payment on a digital platform. MaaS provides a user with:

- ▼ Information on the availability and comparative cost of different transport modes, such as public transport, car sharing and bike sharing
- ▼ Technology to facilitate booking and payment for each of the available options.

Several MaaS pilots have been undertaken in recent years, however there is little data on the performance of these programs.<sup>b</sup> One of the more established commercial MaaS providers is Whim, which has a presence in Helsinki, the West Midlands of the UK and Antwerp. In Helsinki, where the app was first launched, three payment options are offered: pay-as-you-go, a monthly subscription and a premium monthly subscription.<sup>c</sup> The service in Helsinki covers public transport, bike share, taxi, car share and rental car.

No integrated full service MaaS currently exists in Australia but there are some apps which provide MaaS style information. For example, for a given trip Google Maps recommends several modes, including the price of ride-hail and bike share, option providing links to external apps.

There are a range of challenges to implement MaaS, the most significant of which is the integration of transport services. This would require different transport operators to share information and agree on how services can be packaged together and the appropriate fares and fees to charge. Assuming these can be overcome, MaaS has the potential to provide a more user centred transport system.

<sup>a</sup> <https://www.ptv.vic.gov.au/tickets/myki/mobile-myki/>

<sup>b</sup> For more information on these programs and others see ITS Australia 2018. "Mobility as a Service in Australia Customer insights and opportunities." Appendix A.

<sup>c</sup> <https://whimapp.com/plans/>

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## 2.6 Discounted or concession fares for particular types of users

The Government offers discounted (concession) fares to a range of passengers. This policy makes public transport services more affordable for people with lower incomes, and makes these services more accessible to vulnerable groups. We do not typically determine the level of these concession fares, or consider which groups should be eligible for them as part of our fare reviews. We determine the maximum fares and the Government decides on the actual fares to charge. We have typically considered the available concession fares as given, and set maximum fares within that context.

However, at the last Opal fare review we were specifically asked to provide recommendations on fare structure in the transition to Opal. Our conclusion at that review was that the current daily cap of \$2.50 for holders of the Opal Gold did not support efficient use of the network and should be set at 40% of the concession Opal weekday cap (currently that concession cap is \$7.90). We have not been asked to look at concession arrangements this time around but are seeking views on whether there are particular issues that stakeholders would like us to consider.

[IPART seeks comments on the following](#)

- 10 Are there any issues regarding fare discounts or concessions that we should consider?





# 3

## Assess the impacts of proposed fare changes

The next step in our proposed approach for deciding on the fares for regular Opal services is to then model the outcomes of our selected fare options. We will use the predicted outcomes we have modelled to develop indicators that allow us to see how well the fares meet the objectives.



Impact on the use of public transport

Impact on the benefits of public transport use to the community



Impact of transport use on other transport users



Impact on financial sustainability



Impact on affordability



### 3.1 Impact of a change in Opal fares on the use of public transport

We will estimate the expected number of public transport journeys of different types that would be made under proposed Opal fares. In order to do this, we will factor in what we know about the relationship between fares and transport use.

#### Box 3.1 Relationship between fares and transport use

People will use public transport when the private benefit they receive from it is above or equal to the cost of the fare. Different people place different value on their use of public transport services. One way we can gauge this value is by observing the demand for Opal services – how many people are using each mode of transport at different times of the day – and what fares they are paying.

We commissioned a consultant – Cambridge Economic Policy Associates and the Hensher Group (CEPA/Hensher Group) – to review Opal usage data to see how people respond to changes in Opal fares (price elasticity of demand). CEPA/Hensher estimated the likely change in adult journeys in response to an increase in fares for different user groups, different distances, times of the day, days of the week and on different modes. The table below shows the estimated reduction in journeys from a 10% increase in Opal fares using the demand elasticities estimated by the study.

#### Estimated reduction in journeys from a 10% increase in fares – adult weekday journeys by mode and distance travelled

Mode	0-3 km	3-8 km	8-20 km	20+ km
Train pre-peak	0.0%	0.1%	0.2%	0.4%
Train peak	0.7%	1.0%	1.5%	2.0%
Train post-peak	2.2%	3.7%	6.4%	6.0%
Bus	1.8%	4.1%	2.9%	3.4%
Multimodal pre-peak	n/a	0.0%	0.1%	0.2%
Multimodal peak	n/a	1.2%	2.5%	3.3%
Multimodal post-peak	n/a	1.5%	3.3%	4.2%

**Note:** Based on multiplying the demand response to a 1% fare increase by 10.

The CEPA/Hensher Group study found that there is a significant difference between the switching behaviour of people who travel short distances and long distances using public transport.

**Source:** Cambridge Economic Policy Associates and the Hensher Group, *Elasticity of demand for Sydney Public Transport*, 9 October 2018

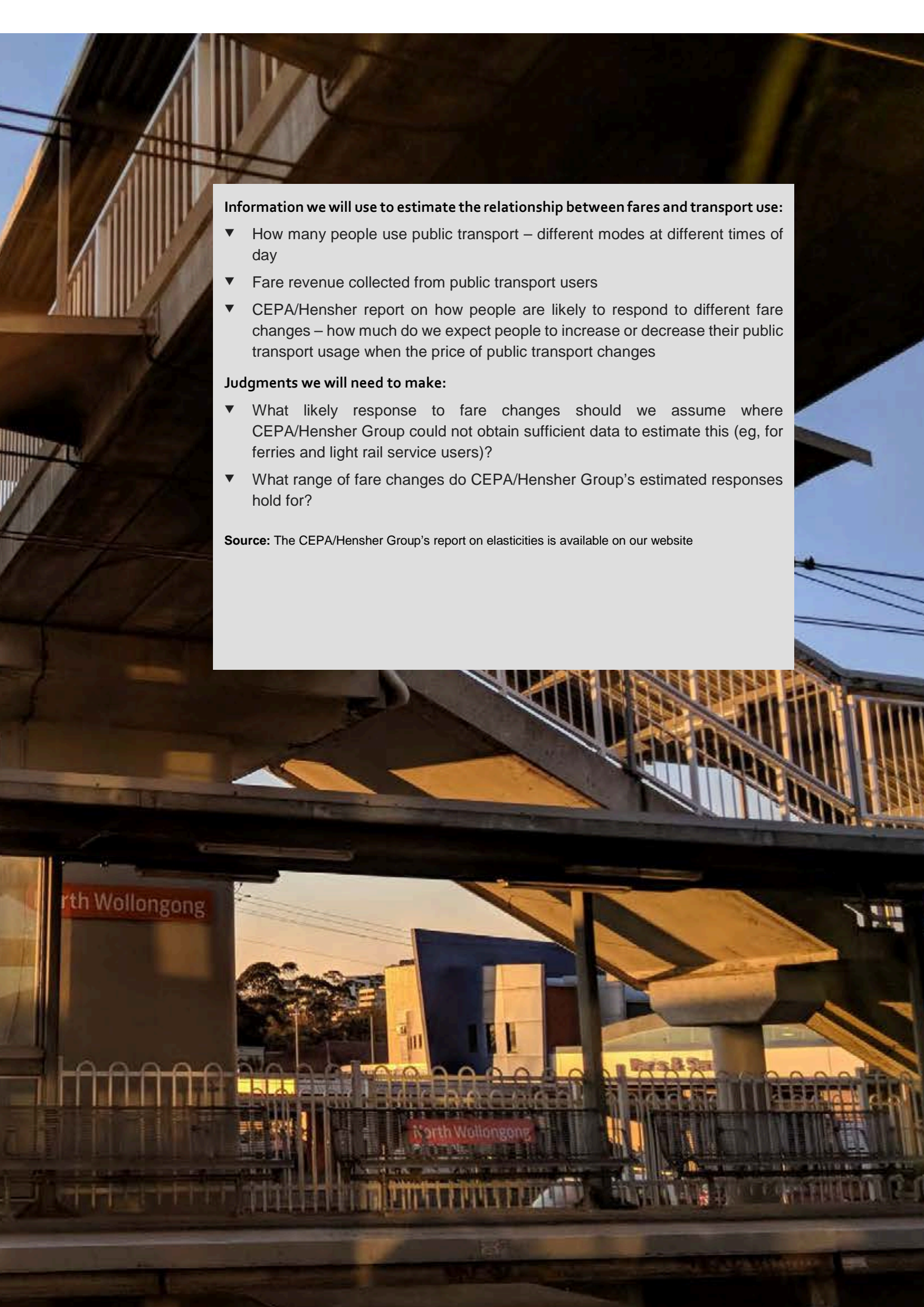
**Information we will use to estimate the relationship between fares and transport use:**

- ▼ How many people use public transport – different modes at different times of day
- ▼ Fare revenue collected from public transport users
- ▼ CEPA/Hensher report on how people are likely to respond to different fare changes – how much do we expect people to increase or decrease their public transport usage when the price of public transport changes

**Judgments we will need to make:**

- ▼ What likely response to fare changes should we assume where CEPA/Hensher Group could not obtain sufficient data to estimate this (eg, for ferries and light rail service users)?
- ▼ What range of fare changes do CEPA/Hensher Group's estimated responses hold for?

**Source:** The CEPA/Hensher Group's report on elasticities is available on our website



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We will use our estimate of demand to value the benefits of transport use to the community



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Externalities also affect other users of public transport services



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### 3.2 Impact of a change in Opal fares on the benefits of public transport use to the community

Once we have predicted the number of public transport journeys that would be made by mode and time of day, we can use this information to estimate the value of the benefits of that use to the community. We can compare the outcomes under different fare options to see how different fare changes affect the projected value of each of the external benefits. We can also consider how fares compare to our estimate of the marginal social cost (cost of production minus external benefits).

For the broader community, the external benefits and costs of public transport use that we propose to value include:

- ▼ the congestion cost saving – predicted in terms of the difference in average time spend on the road for those travelling in cars
- ▼ pollution reduction – the net improvement in the cost from traditional air pollution (eg. particulate pollution) and greenhouse gas pollution that results from the predicted combination of public transport journeys
- ▼ reduction in accident costs – the net improvement in the cost from accidents that are imposed on others and not covered by insurance
- ▼ active transport benefits – public transport journeys are typically associated with a higher level of physical activity as people need to access a stop or station and potentially an interchange; we can estimate the value of this change in ‘active transport’ as the number of public transport trips change.

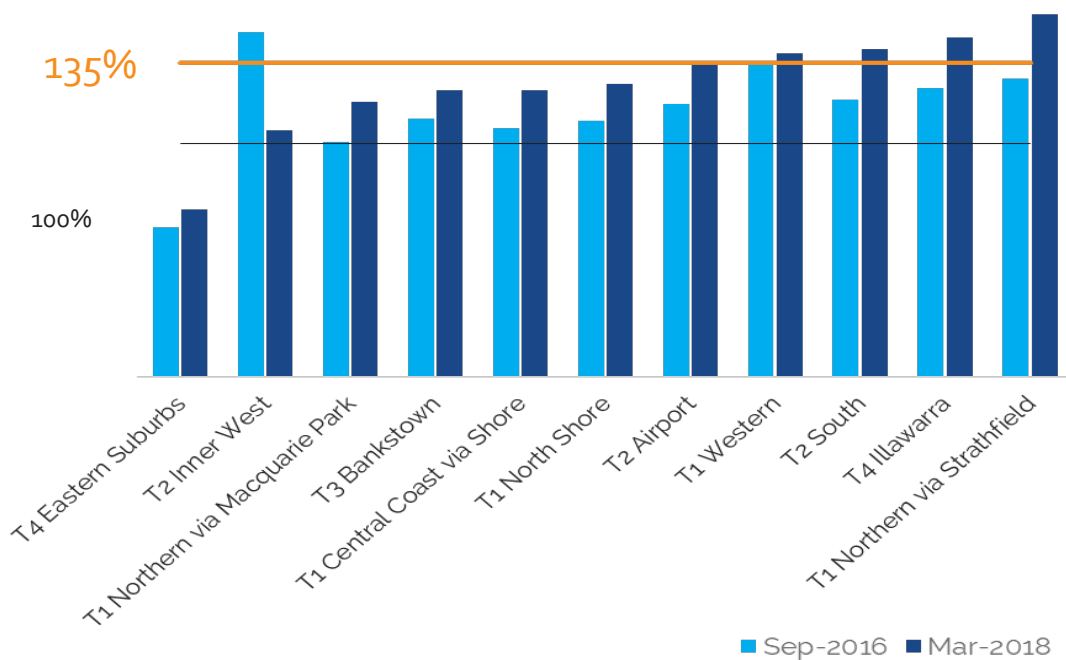
There are also externalities that existing public transport users experience for example when additional passengers start using the network. Where additional public transport use is predicted, those externalities include:

- ▼ worsening service standards from overcrowding if the additional patronage is met through adding passengers to existing services
- ▼ time savings from improved service frequency if the additional patronage is met through an increase in the number of services.

For almost all lines an increasing number of passengers are standing on morning peak services (Figure 3.1). As the trains fill up, on-time running can deteriorate as it takes longer for passengers to board and exit trains at stations (Figure 3.2).



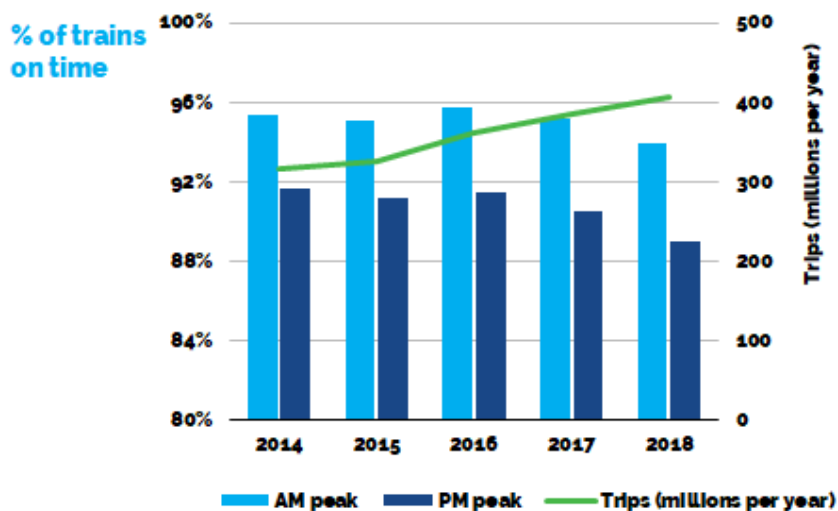
**Figure 3.1 Proportion of train seats full (AM peak) (September 2016 and March 2018)**



**Note:** In 2017 new train line definitions were created. The analysis endeavours to match the old and new definitions as closely as possible, but not all new lines have been included, and data is not directly comparable. Different survey methodologies have also been used between years.

**Data source:** Transport Performance and Analytics (TPA), Peak Train Load Estimates, <https://opendata.transport.nsw.gov.au/dataset/peak-train-load-estimates>, accessed March 2019.

**Figure 3.2 Proportion of trains running on time in the AM and PM peak**



**Note:** A train is punctual if it stops at the stations it was listed to stop in the timetable (i.e. no skipped stops), and it arrived at its destination no later than its arrival time as listed in the timetable plus an on-time tolerance (5 mins for suburban services and 6 minutes for intercity services)

**Data source:** Transport for NSW, Historical trains punctuality performance, <https://www.transport.nsw.gov.au/data-and-research/passenger-travel/sydney-trains-and-nsw-trainlink-intercity-performance-reports>, accessed March 2019, Transport for NSW, All modes historical patronage - Top Level Chart, <https://www.transport.nsw.gov.au/data-and-research/passenger-travel/all-modes-patronage-historical/all-modes-historical-patronage>, accessed 15 April 2019.

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### Box 3.2 External costs and benefits from public transport journeys

When people use public transport, they impose costs on and generate benefits for other people. These are known as ‘externalities’ or the external costs and benefits of public transport use. We will identify and value the externalities that are relevant to deciding on appropriate Opal fares, and that increase with greater usage.

Those external costs and benefits include:

- ▼ **Avoided road congestion** – In previous reviews, we have found that the biggest source of external benefits is avoided road congestion.
- ▼ **Avoided pollution (emissions)** – like avoided road congestion, this benefit arises from avoiding the negative impact of car use so it matters what people who use public transport would do if they didn’t travel by their preferred mode of transport.
- ▼ **Active transport benefits** – the health benefits from walking or cycling to and from public transport stops and stations
- ▼ **Differences in service standards and trip time** – these are externalities for existing public transport users when the number of people using public transport changes.

Agglomeration benefits are external benefits that we have previously considered and decided should be assessed for transport planning rather than for fares:

- ▼ they are broader economic benefits that arise when a transport system is provided that helps connect places, for example, by allowing businesses that require workers with similar skills to locate near each other.
- ▼ they don’t increase for every additional passenger journey that is made so don’t justify lowering fares to increase use of the Opal network

Social inclusion benefits come from providing opportunities for people who would not otherwise travel to be more involved in society. Concession fares provide a 50% discount to low-income customers and school children. Seniors have their travel capped at \$2.50 per day. These lower fares recognise the benefits of social inclusion for the customers. As a result of these discounts, many of these customers are able to make more trips than they would otherwise.



**Information we will use to estimate external costs and benefits:**

- ▼ IPART's previous analysis on public transport externalities (external benefits)<sup>a</sup> and updated data sources where available
- ▼ How people switch between different modes of transport, including non-public transport trips, and times of day when the price of public transport changes (elasticity study by CEPA/Hensher Group)

**Judgments we will need to make are:**

- ▼ Which external benefits matter for deciding on appropriate fares for Opal services
- ▼ How to allocate external benefits to different modes of transport, journey lengths and times of day
- ▼ How to estimate and account for externalities associated with a change in the number of people using public transport and whether these vary for different modes.
  - When more people use public transport this can create time-saving benefits to other users if more services are added and services become more frequent.
  - It may be possible to add more buses, but not more train services due to network capacity constraints. In this case more usage is likely to lead to delays—which is a negative external benefit.
- ▼ Do marginal external costs change as public transport usage changes? Previously we have assumed they are constant but the impact on congestion in particular might be significantly different for different overall levels of public transport usage.

<sup>a</sup> IPART has previously reviewed the relevant external benefits and costs for inclusion in its public transport reviews and set out an approach to valuing these. For more information see IPART reviews: External benefits for public transport (August 2014- September 2015) and Public transport fares in Sydney and surrounds (July 2015-July 2016) at [www.ipart.nsw.gov.au](http://www.ipart.nsw.gov.au)



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We will estimate the expected revenue from fares by modelling how many public transport journeys of different types would be made



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The cost of providing public transport depends on the services provided, the use of those services and how efficiently they are delivered

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### 3.3 Impact of a change in fares on the financial sustainability of the public transport network

For each fare change we can estimate the expected revenue from fares, the total direct financial costs of providing public transport services (including factoring in any efficiency savings that could be made) and the level of cost recovery. Together these elements provide a picture of the impact of proposed Opal fare changes on the financial sustainability of the public transport network.

#### 3.3.1 Expected revenue from fares

We will estimate the expected revenue from fares by modelling how many public transport journeys of different types would be made under a particular set of fares and the fares paid for those journeys. The estimated revenue from fares will need to take into account changes in demand as a result of changes in fares for different journeys as well as factoring in any discounts that would apply, such as the discount for making multi-modal journeys and the daily and weekly caps.

#### 3.3.2 Expected costs of providing Opal services

The financial cost to Government of providing Opal services depends on the services provided and what scope there is for making efficiency savings in providing them.

Different combinations of fares lead to different patterns of demand and potentially changes to the cost of providing services. For example, lower fares in peak times is likely to bring forward the need for costly investment in public transport services. Fares that encourage some people to travel outside of the peak is likely to push back that need and lower the overall cost.

Some of the costs are essentially locked-in by existing contracts with service providers and are unlikely to vary over the next 4 years (the determination period). Nevertheless, we consider that improving the efficiency of service delivery is important for public transport as it promotes the long term financial sustainability of the public transport network. We consider that IPART has an important role to provide transparency around whether services are being delivered efficiently. Regular public reporting can incentive efficiency improvements.

For many regulated industries, a key part of the regulatory framework is to set prices that provide incentives to businesses to increase their efficiency. However, as the bulk of funding for public transport comes from consolidated revenue, this strategy is more likely to lead to higher taxpayer subsidies than provide an incentive to lower costs.

### Box 3.3 Financial costs of providing public transport

We will estimate the financial cost of production and delivery of public transport in each year of the determination period. We will look at:

- ▼ The total cost of providing the services for each mode of transport, including ongoing operating and maintenance costs and the new investments being made in the public transport network.
- ▼ The cost of adding extra public transport journeys (marginal financial cost). These costs include for example bus drivers, or more buses.

We will also consider whether there are efficiency savings that can be made to ongoing operations and maintenance costs.

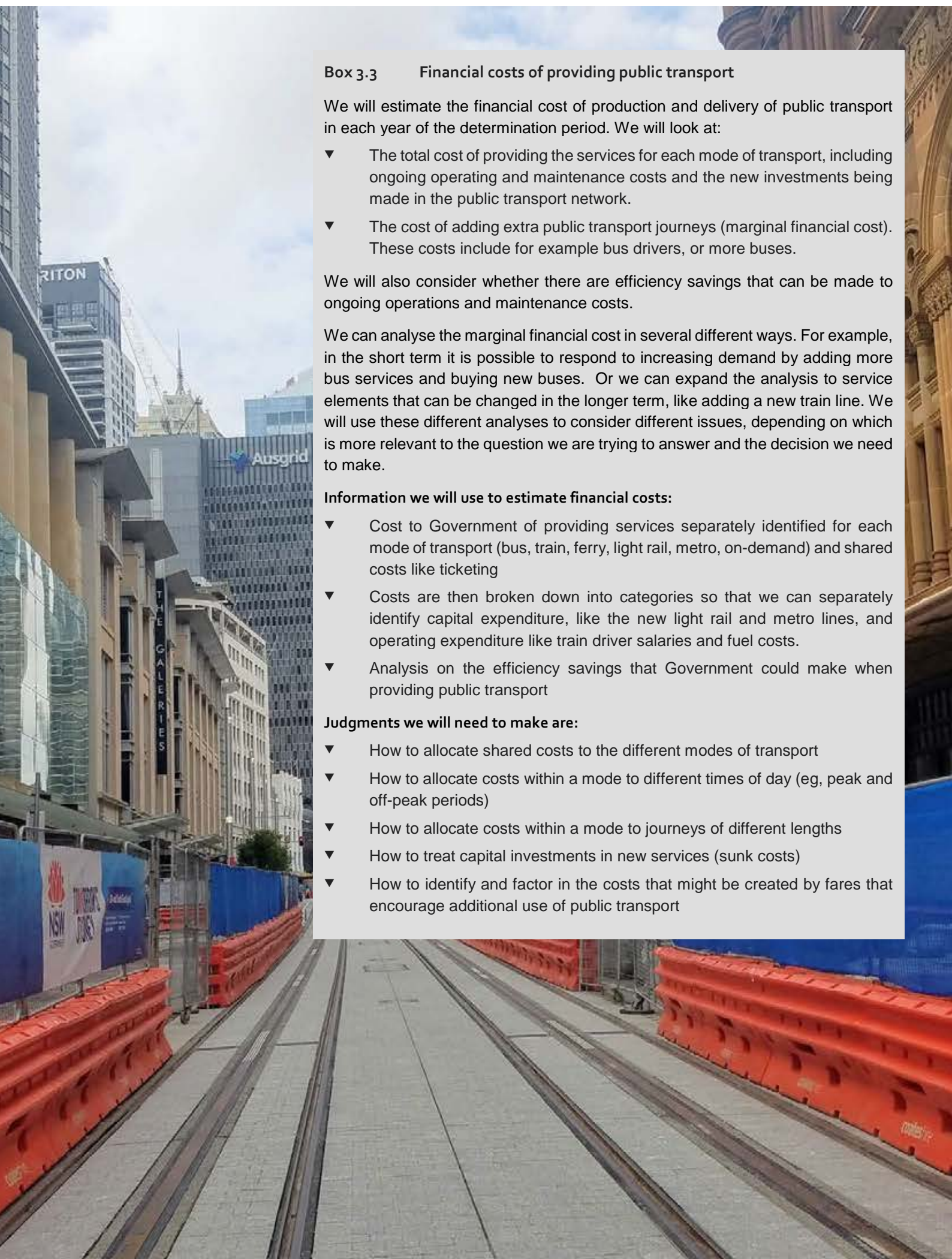
We can analyse the marginal financial cost in several different ways. For example, in the short term it is possible to respond to increasing demand by adding more bus services and buying new buses. Or we can expand the analysis to service elements that can be changed in the longer term, like adding a new train line. We will use these different analyses to consider different issues, depending on which is more relevant to the question we are trying to answer and the decision we need to make.

#### Information we will use to estimate financial costs:

- ▼ Cost to Government of providing services separately identified for each mode of transport (bus, train, ferry, light rail, metro, on-demand) and shared costs like ticketing
- ▼ Costs are then broken down into categories so that we can separately identify capital expenditure, like the new light rail and metro lines, and operating expenditure like train driver salaries and fuel costs.
- ▼ Analysis on the efficiency savings that Government could make when providing public transport

#### Judgments we will need to make are:

- ▼ How to allocate shared costs to the different modes of transport
- ▼ How to allocate costs within a mode to different times of day (eg, peak and off-peak periods)
- ▼ How to allocate costs within a mode to journeys of different lengths
- ▼ How to treat capital investments in new services (sunk costs)
- ▼ How to identify and factor in the costs that might be created by fares that encourage additional use of public transport



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One of the key indicators of financial sustainability is the level of cost recovery from fares over time



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We propose to benchmark operational costs (both over time and with other appropriate comparators) to consider the scope for efficiency savings. In determining fares we would estimate the efficient costs of providing public transport. As in our previous reviews, we are not proposing to review the efficiency of capital expenditure, which is subject to the NSW Government Procurement Policy<sup>27</sup>.

### 3.3.3 Cost recovery

One of the key indicators of financial sustainability is the level of cost recovery from fares over time. The difference between expected costs and revenue reflects the amount of money that the Government needs to allocate from taxpayer revenue to providing public transport.

There are currently a number of different measures of cost recovery from public transport. These tend to reflect the structure of contracts with service providers, for example, contracts with bus operators include funding for buses but with rail operators, the costs of trains is not included. The contract for light rail services incorporates network construction as well as the ongoing costs of service delivery. These differences make it difficult to compare cost recovery for different modes of transport and track changes in cost recovery over time.

We are proposing to develop a fit for purpose measure of public transport costs to provide a consistent view of cost recovery. This would include reviewing the total annual costs of providing each mode of public transport in NSW to provide a consistent measure.

## 3.4 Impact of a change in Opal fares on the affordability of public transport

Once we have estimated the expected number of public transport journeys (for example, by mode of transport and time of day), we will model the predicted impact of fare changes on the costs faced by public transport users.

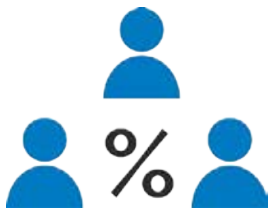
Affordability is related to both the overall cost of fares and the change over time. It will vary depending on the particular trips being made, the discounts that apply (for example, whether daily fare caps are reached) and the circumstances of public transport users (for example, whether a user is a five day a week commuter or a tourist).

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<sup>27</sup> NSW Procurement Policy Framework for NSW Government Agencies, July 2015, [https://www.procurepoint.nsw.gov.au/system/files/documents/procurement\\_policy\\_framework\\_-\\_july\\_2015\\_0\\_1.pdf](https://www.procurepoint.nsw.gov.au/system/files/documents/procurement_policy_framework_-_july_2015_0_1.pdf)



We will look at how different Opal fare changes affect affordability by looking at a range of affordability measures

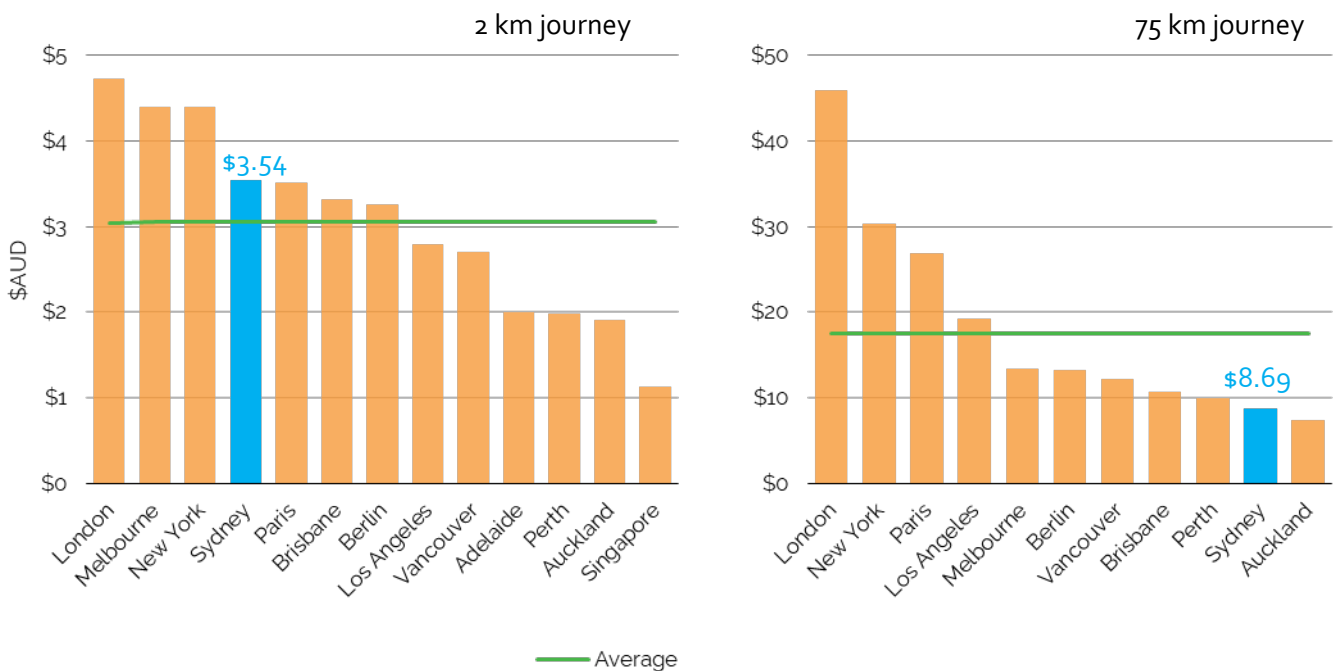


There are a number of different ways we can consider affordability. We will develop a range of different indicators and consider how well a proposed Opal fare change measures up on each of these. At this stage, we propose to quantify and consider at least the following indicators of affordability:

- ▼ The change in fares by mode, distance travelled and time of day expressed as a percentage and dollar value
- ▼ The change in the cost of weekly travel for regular users (for example, five day a week commuters, three day a week commuters) expressed as a percentage and dollar value
- ▼ An estimate of the cost of weekly travel relative to average weekly earnings
- ▼ A comparison of fare changes relative to changes in income
- ▼ Whether there are predicted cost impacts for particular journeys or passengers
- ▼ How fares compare to other places.

Figure 3.3 shows that fares in Sydney are comparable to other cities for shorter journeys, but are relatively low for longer distance journeys (train fares are capped at \$8.69, and bus fares are capped at \$4.71).

**Figure 3.3 International comparison of fares –Train and metro (Peak, March 2019, \$AU)**



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### 3.5 Ensuring predictable and stable Opal fares over time

This objective will guide our selection of what fare changes to consider as part of the review. We will select Opal fare changes for analysis that we consider promote the objective of being predictable and stable over time.

# 4

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## Determine maximum fares over the determination period

The sections below discuss how we propose to:



decide what fare changes provide the best balance between the various objectives



set maximum fares for each year of the determination period





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We will decide what fare changes provide the best balance between the objectives

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We will publish information on how different fare changes measure up against the objectives to highlight the trade-offs

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#### **4.1 Decide what fare changes provide the best balance between our proposed objectives**

Each of the proposed changes to Opal fares we assess will have different consequences and therefore, be different in terms of how well it meets each of our proposed objectives. As previously discussed, it is unlikely that any one set of fare changes will clearly be better at satisfying all of the objectives than another.

We propose to publish information on how well each proposed set of Opal fare changes measures up against the objectives for the review so that it is clear where the trade-offs are between the various objectives. This will inform our own decision on the maximum fares we determine and will provide valuable information to the NSW Government when deciding what fares to charge for Opal services (the Government must set actual fares at or below the value determined by IPART).

We will publish a draft report and determination with proposed maximum fares and consult on these, as well as consulting on how we have considered the various fare options, as part of our draft report.

#### **4.2 Set maximum fares for regular Opal services for each year of the determination**

Once we decide on the fares for Opal services that we consider would deliver the best combination of outcomes against the objectives of the review, we will draft a fare determination that sets out the maximum fares that will apply in each year of the determination. The determination will run until 30 June 2024 and will remain in place until it is varied or replaced.

We have a number of different options for drafting a fare determination to set maximum fares including:

- ▼ a more prescriptive approach – such as, specifying a maximum fare for each trip type (for example, the maximum fare for a 0-3km train trip in the peak is \$X) in each year of the determination period
- ▼ a simplified approach – such as, specifying a maximum per kilometre charge for each mode of transport in each year of the determination, with or without including the current discounts
- ▼ an average fare approach – such as, a formula that is used to calculate the maximum change in average fares over the whole four-year period (the current approach).

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Our determination will then set the maximum fares that apply for the next four years

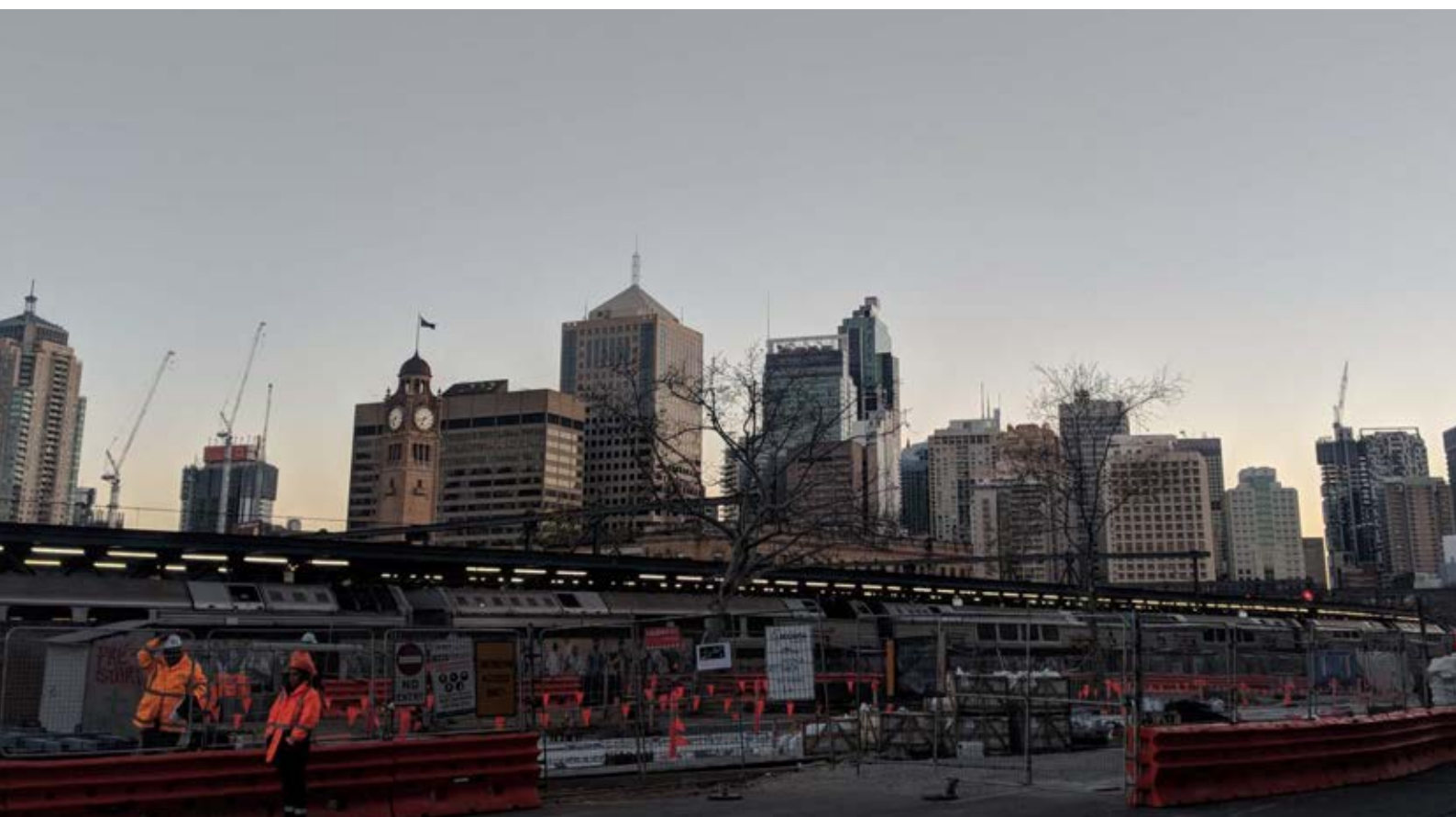
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In our past two reviews, we set maximum fares by determining a weighted average price cap (WAPC). This meant that Transport for NSW was able to set Opal fares as it saw fit, provided that the average fare change was no higher than a specified percentage, weighted by fare types. Our main reason for using this approach was to provide Transport for NSW with flexibility during the roll-out of the Opal card and the integration of the various modes into the single Opal system.

For this review, we propose to consider different approaches. We consider that whatever approach we adopt should meet the following criteria:

- ▼ **Be simple to implement.** The current Opal fare structure is relatively complex – some fares change according to the time and day of travel, and multiple layers of fare discounts and fare caps are in place. This makes a WAPC approach difficult to implement, particularly to ensure compliance with the determination.
- ▼ **Foster innovation in fares and changes in payment technologies.** The current fare structure has evolved over time, and we expect this to continue as technology improves. Given the determination will apply for the next four years, it is important that the approach we use to determine maximum fares can accommodate these changes.
- ▼ **Be aligned to our approach for deciding what fare changes provide the best balance between the various objectives.** How well a set of Opal fares meets the fare setting objectives will depend on the different prices that make up the fares (by mode/distance/time of day) and not purely on the average level of fares. As different fare structures lead to different outcomes, expressing the maximum fares as an average price limit may lead to outcomes that are significantly different from expected.



# 5

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## Pricing on-demand services

On-demand services are shared booked services, which often have flexible departure/arrival points.

Transport for NSW is currently funding a range of on-demand trial services across NSW to determine whether they should be included as part of the state's public transport network.

These services can be more cost effective than providing a regular route service where the demand for public transport is low, the supply of traditional public transport is costly, and trip patterns are dispersed. However, on demand services need to be carefully designed to ensure that high-cost, low-patronage fixed route transport services are not simply replaced by even higher cost on demand services.

IPART has been asked to consider appropriate pricing arrangements for on-demand services across NSW. Our steps for doing this analysis are set out below.

Identify the relevant types of on-demand transport services

Identify the costs, benefits, and willingness to pay for each type of service

Consider how it relates to other public transport services and whether the price should be regulated





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On-demand services can supplement or replace fixed route public transport or can take people to and from stations and wharves

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Taxis, ride share and community transport provide on-demand services that operate alongside the public transport network

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We will consider what types of on-demand services could sit within the public transport network

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## 5.1 Identify the relevant types of on-demand transport services

On-demand services provide more flexibility than regular route services and as a result, can be better at meeting particular transport needs within the community. For example, a more flexible on-demand service could be a good way of ensuring that people with limited transport options (such as those who can't drive, can't access regular route services or can't afford a car or taxi service) can access local services such as medical facilities or shops. They may supplement or replace fixed route public transport, or they could complement them by taking people to and from regular route services, such as train stations, where there is limited commuter parking and/or significant traffic congestion.

Including on-demand services in a public transport service contract is only one way of providing these services to the community. On-demand services are already widely available outside of public transport service contracts, with some being provided on a commercial (for profit) basis and others operating with some level of Government funding. Examples include:

- ▼ Point to point transport services including taxis and ride share services, which are typically provided by private operators on a commercial basis without government subsidy. The NSW Taxi Transport Subsidy Scheme provides some government funding to reduce the cost of these services for passengers with a disability.
- ▼ Community transport services, which assist people who are transport disadvantaged due to physical, social, cultural and/or geographic factors.<sup>28</sup> The NSW Government contracts and funds a range of operators to provide these services.
- ▼ Private services such as courtesy buses and employer sponsored buses, which take people to and from their home to particular venues.

On-demand services delivered as part of the public transport offering could range from services that supplement or replace an existing fixed route service to a fully flexible service that takes a passenger from their origin to their destination within a specified area (a point to point service) (Box 5.1).

As the likely costs and community benefits of these services will be different, it is important to identify the ones that will be most suitable for inclusion in a public transport service contract and to consider pricing arrangements for each of these services. Part of this consideration would include an assessment of when on-demand services are likely to be more efficient and effective at meeting a community need than the available alternatives (such as, taxis, ride share or community transport).

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<sup>28</sup> Transport for NSW, Community Transport Operators <<https://www.transport.nsw.gov.au/operations/community-transport-operators>> accessed 10 April 2019.

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Market-driven solutions to providing transport services can deliver innovative operating models that provide a better quality of service for passengers in a cost-effective manner. Competition – both for the market and in the market, encourages operators to reduce costs, improve their services and innovate. A market-based approach could also be used to create competition for the availability of any government subsidy.

**Box 5.1**      **Examples of different on-demand transport services**

**Fixed route plus deviations** – for example, a fixed route bus service that deviates from its route to pick up booked customers from pre-arranged stops with drop-off at fixed stops or pre-arranged destinations.

**Fixed route plus roam zones** – for example, a fixed route bus service that can pick up booked customers from many possible pre-arranged stops (including their home) within a defined roam zone, and drop them at just one or a few destinations at the other end.

**Demand responsive loop or roam zone** – for example, a service that travels around a fixed loop or within a defined zone and stops only to pick up booked customers at pre-arranged places and drops them at pre-arranged locations on that route or within a defined zone.

**Fully flexible point to point** – for example, a service that picks up a passenger at the location and time of their choice to a place of their choosing (such as a taxi or ride share service).

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Passengers may value a flexible on-demand service more than a regular route service



But these services also cost more to provide

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## 5.2 Identify financial costs, community benefits and willingness to pay

The costs, community benefits and willingness to pay of on-demand transport services will vary according to the design and purpose of the service. Typically, the greater the flexibility of the service, the higher the cost of providing that service is likely to be and the more passengers will be willing to pay for it.

In our most recent review of bus services in rural and regional areas we undertook some analysis of the additional costs of certain types of on-demand services and passengers' willingness to pay for them. We propose to build on that analysis in this review.

### 5.2.1 Cost of providing on-demand services compared with regular route services

We will consider the costs of delivering the different types of on-demand services. These costs vary with the design of the service and the level of flexibility of the service. The greater the flexibility of the service, the higher the cost of providing that service and the more uncertain the number of service kilometres. Since on-demand services are booked services there are also additional costs of managing and responding to bookings. The current trials of on-demand services are testing different service models such as app based customer booking systems.

We propose to model the costs of providing different on-demand services. To do this, we will consider the costs of on-demand service trials and the cost of services that have already been included in current bus service contracts. We will also build on a bus route cost model, which we developed to examine the costs involved in providing on-demand services in regional NSW.<sup>29</sup>

We have previously reviewed the costs of providing on-demand services that modify or add-on to existing fixed route services. We found that they are significantly more expensive to operate than fixed route services. Our consultant, AECOM found that the fixed costs for a new on-demand service could range from around 150% to 180% of the costs to provide a fixed route service, depending on the booking process in place.<sup>30</sup> There are also likely to be additional running costs (such as fuel costs, driver costs and maintenance costs). The more an on-demand service deviates from a fixed route, the greater the running costs are likely to be.<sup>31</sup>

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<sup>29</sup> This model estimates the efficient costs of operating an additional on-demand service on a fixed bus route. <https://ipart.shinyapps.io/bus-marginal-cost-calculator/>

<sup>30</sup> IPART, *Maximum fares for rural and regional bus services from 5 March 2018*, December 2017, p 71.

<sup>31</sup> IPART, *Maximum fares for rural and regional bus services from 5 March 2018*, December 2017, p 70.



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On-demand public transport needs to be carefully designed and well-marketed if it is to be good value for money

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We will consider the same set of external benefits for on-demand services as we will for other Opal fares

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Despite these higher costs, there are situations when these services could represent good value for money. Our analysis in rural and regional areas found that on-demand services can be more cost effective than a regular route service where:

- ▼ The demand for public transport is low
- ▼ The supply of traditional public transport is costly
- ▼ Trip patterns are dispersed
- ▼ On-demand services are well marketed to ensure the community is aware of what is available and understands how they work.<sup>32</sup>

However, on-demand services need to be carefully designed to ensure that high-cost, low-patronage fixed route transport services are not simply replaced by even higher cost on-demand services. Because of the potentially significant costs involved, it is important that where on-demand services are introduced as public transport they can be clearly identified as a more cost effective option for meeting a community need than the alternatives.

### 5.2.2 Community benefits

The community benefits from on-demand services will depend on the type of service and the community need that it is designed to meet. The wider benefits of investing in on-demand services could include benefits of social inclusion, such as ensuring transport disadvantaged people have access to basic services. However, like the broader public transport network these benefits are more relevant to the decision to fund particular services and the concession arrangements that apply.

The relevant community benefits to consider when looking at the appropriate pricing of on-demand transport services are those associated with the use of the service, including avoided car use (for example, avoided road congestion, pollution, accident costs). The community benefits of on-demand services will also be affected by the number of passengers using the services, the time of travel and how they would have travelled had the on-demand service not been available.

### 5.2.3 Passengers' willingness to pay for on-demand services

Some on-demand services may provide a higher quality of service than a regular route service, such as picking customers up from their home. For these types of services people are likely to be willing to pay more for the higher level of service provided than for a traditional regular route service. This type of premium service is in effect competing with point to point transport – such as ride share and taxis. Other on-demand services may

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<sup>32</sup> IPART, *Maximum fares for rural and regional bus services from 5 March 2018*, December 2017, p 71.

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provide a similar level of service as fixed route services and would be expected to have a lower willingness to pay.

The willingness to pay for on-demand services will also depend on a number of other factors including income and access to other transport options.

We have previously surveyed regional customers to understand how much extra they would be willing to pay for on-demand bus services that supplement an existing fixed route service. TfNSW has commissioned Woolcott Research and Engagement to survey customers about their experience in using on-demand services. Customers can also provide online feedback on fares and ticketing arrangements. We have requested this information from TfNSW and will consider whether we need to commission further studies.

### **5.3 Consider how the price of on-demand services relates to other public transport services and whether the price should be regulated**

We will also consider how the services fit into the broader public transport network and the price and availability of alternative services such as ride share.

We will also consider the extent to which regulation of prices is required. As noted earlier, market-driven solutions to providing transport services can deliver innovative operating models that provide a better quality of service for passengers in a cost-effective manner. A market-based approach could be used to ensure that the pricing for on-demand services is competitive, as well ensuring that they are provided in a cost-effective manner.

#### **5.3.1 How the on-demand service integrates into the surrounding public transport services**

To determine the appropriate pricing arrangements for on-demand services we need to consider both the structure and the level of fares. The fare structure refers to the elements that determine how the fare for a particular on-demand transport journey is calculated and includes elements such as distance travelled, time of travel, payment method, frequency discounts and discount for switching modes.

Where on-demand services form an integral part of the Opal network, for example, by providing feeder services for the broader public transport network, then we need to consider the level of integration between on-demand services and other Opal services, for example, whether the transfer

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We will consider the structure and level of fares for on-demand services as well as the need for integration with other Opal fares

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We will also consider whether there is scope for the market to deliver appropriate pricing for on-demand services

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discount should be available for switching between on-demand and other public transport services.

For regional areas, we have previously recommended that bus operators be able to set a surcharge for on-demand services of up to \$5 per trip. See Box 5.2.

**Box 5.2 Pricing approach for on-demand bus services in regional areas**

We have previously recommended that bus operators be able to set an optional surcharge on top of the fixed route fare.

The level of the surcharge was based on a survey of customer's willingness to pay for on-demand services in regional areas. Customers were surveyed and approximately half of respondents were moderately willing to pay an extra \$5 for on-demand bus services.<sup>a</sup>

We considered that fares for on-demand components should reflect the higher level of service delivered to passengers and recommended that:

- ▼ Bus operators be able to charge customers who book an on-demand service an additional surcharge of between \$0 and \$5 (including GST).
- ▼ Bus operators should set the level of surcharge based on customers' willingness to pay, the likely impact of the surcharge on the level of demand, and the likely impact of the design of the on-demand component and its impact on the additional delivery costs
- ▼ Bus operators should make reduced surcharges available to concession passengers.

<sup>a</sup> Orima Research, Survey of rural and regional buses and on-demand transport services, August 2017, p 2

**Source:** IPART, Maximum fares for rural and regional bus services from 5 March 2018, Final Report, December 2017 p. 84.

### 5.3.2 Scope for the market to deliver appropriate pricing

In many cases, on-demand services are likely to compete with other services. Competition could come from regular route services as well privately operated taxi and ride share services. We will consider what scope there is for the market to deliver appropriate pricing arrangements for each type of on-demand service.

For the on-demand service trials bus operators have received government funding to operate these services and have set their own fares.<sup>33</sup> On-demand services have also been included in some bus service contracts in

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<sup>33</sup> The fares for on-demand trial services can be found at <https://transportnsw.info/travel-info/ways-to-get-around/on-demand>, accessed on 18 June 2019.



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metropolitan and outer metropolitan areas.<sup>34</sup> While the current fares for each on-demand service vary, in most cases they are comparable to an Adult Opal single trip bus ticket of between \$2.80 (0-3km) and \$5.80 (8km and over) in metropolitan and outer metropolitan areas.<sup>35</sup> Many of the services in metropolitan and outer metropolitan areas have a flat fare (that is, the fare is the same irrespective of the distance travelled). The fares for services in regional areas are higher reflecting larger distances travelled.<sup>36</sup>

IPART seeks comments on the following

- 11 Do you agree with our proposed approach to establishing appropriate fares for on-demand services?
- 12 Which groups of people are most likely to use on-demand services, and how could this change over time?
- 13 How much would you be willing to pay for on-demand services?

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<sup>34</sup> On-demand services are included in the Sydney Metropolitan Bus Service Contract 6 – Transit Systems West and the Outer Sydney Metropolitan Bus Service Contract NSIC001 – Newcastle Transport. These on demand services are located in Sydney’s Inner West and Lake Macquarie.

<sup>35</sup> Adult Opal single trip bus ticket fares are at <https://transportnsw.info/tickets-opal/opal/fares-payments/adult-fares>, accessed on 18 June 2019.

<sup>36</sup> The fares for on-demand trial services and services included a bus contract can be found at <https://transportnsw.info/travel-info/ways-to-get-around/on-demand>, accessed on 18 June 2019.



# Appendices





## A Fare referral

### ***Passenger Transport Act 2014*** **Section 123(1)(a)**

#### **Referral**

I, the Hon Andrew Constance MP, Minister for Transport and Infrastructure, with the approval of the Hon Gladys Berejiklian MP, Premier of New South Wales and Minister administering the *Independent Pricing and Regulatory Tribunal Act 1992*, under section 123(1)(a) of the *Passenger Transport Act 2014*, refer to the Independent Pricing and Regulatory Tribunal (IPART) the following matter for investigation and report:

The determination of appropriate maximum fares for Opal Services.

In addition to the matters contained in s124 of the *Passenger Transport Act 2014*, in undertaking this investigation, IPART is, under s123(2)(b) of the *Passenger Transport Act 2014*, to consider:

1. The appropriate pricing arrangements for new 'on-demand' transport services in metropolitan, outer metropolitan and regional areas.
2. The relative contributions that customers and taxpayers should make to the cost of delivering Opal Services taking into account the costs and level of services.
3. The technical feasibility of any proposed changes put forward by IPART, given the features of the Opal system and the contracts in place for its implementation and operation;
4. The most appropriate method or methodology for determining maximum fares for Opal Services, including the need for sufficient flexibility to implement any changes to the current fare structure (where relevant).

For the purposes of this referral, Opal Services means the following services:

1. Train services operated by Sydney Trains under the authority of a passenger service contract with TfNSW
2. Train services operated by NSW Trains operated under the business name NSW TrainLink Intercity under the authority of a passenger service contract with TfNSW
3. Train services operated by Sydney Metro under the authority of a passenger service contract with TfNSW
4. Ferry services operated by Sydney Ferries under the authority of a passenger service contract with TfNSW
5. Buses, light rail and ferry services operated by Newcastle Transport under the authority of a passenger service contract with TfNSW
6. Bus services operated under the authority of a Sydney Metropolitan Bus Service Contract with TfNSW
7. Bus services operated under the authority of an Outer Sydney Metropolitan Bus Service Contract with TfNSW;
8. Light rail services operated by Sydney Light Rail, including Inner West and CBD and South East light rail, under the authority of a passenger service contract with TfNSW;
9. Light rail services in Parramatta, under the authority of a passenger service contract with TfNSW;
10. On demand services in metro and outer metropolitan areas operated under the authority of a passenger service contract with TfNSW.

For Opal services listed above the maximum fares are those payable using an Opal card, including Opal pay, and contactless transport payments.

IPART is to submit its final report and determination under this referral to the Minister for Transport and Infrastructure as soon as practicable but no later than 28 February 2020. A draft report and determination should also be publicly released during the course of the review to ensure adequate public consultation.

IPART is to determine maximum fares for Opal Services for the period to 30 June 2024. The determination should remain in force until it is varied or replaced.

Signed:   
Hon Andrew Constance MP  
Minister for Transport and Infrastructure

Date: 20/6/18

Signed:   
Hon Gladys Berejiklian MP  
Premier

Date: 25/6/18

## B Legislative requirements

Section 124 of the Passenger Transport Act (2014) NSW

### 124 IPART investigations and determinations

- (1) IPART is to conduct investigations and report to the Minister on the appropriate maximum fares if a referral is made under this Part.
- (2) IPART may report to the Minister on any matter it considers relevant that arises from an investigation under this Part.
- (3) IPART is to consider the following matters in making a determination or recommendation under this Part:
  - (a) the cost of providing the services,
  - (b) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers,
  - (c) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service,
  - (d) the social impact of the determination or recommendation,
  - (e) the impact of the determination or recommendation on the use of the public passenger transport network and the need to increase the proportion of travel undertaken by sustainable modes such as public transport,
  - (f) standards of quality, reliability and safety of the services (whether those standards are specified by legislation, agreement or otherwise),
  - (g) the effect of the determination or recommendation on the level of Government funding,
  - (h) any matter specified in the referral to IPART,
  - (i) any other matter IPART considers relevant.
- (4) IPART must indicate what regard it has had to the matters specified in this section in any report of a determination or recommendation under this Part.
- (5) If IPART makes a determination or recommendation to increase the maximum fare for a service provided by a corporation constituted under the Transport Administration Act 1988 or under a passenger service contract that provides (however expressed) for the payment of fare revenue to TfNSW, IPART is required to assess and report on the likely annual cost to the Consolidated Fund if the fare were not increased to the maximum permitted and compensation were paid to the corporation or TfNSW for the revenue foregone by an appropriation from the Consolidated Fund.



## C How our objectives relate to the factors we are required to consider

Review objective	Factors we are required to consider under the Passenger Transport Act and the Terms of Reference for the review
Encourage people to use public transport	<ul style="list-style-type: none"> <li>▼ The impact of the determination or recommendation on the use of the public passenger transport network</li> <li>▼ The need to increase the proportion of travel undertaken by sustainable modes such as public transport</li> </ul>
Maximise the benefits of public transport use to the community	<ul style="list-style-type: none"> <li>▼ The cost of providing the services</li> <li>▼ The need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers</li> <li>▼ The protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service</li> <li>▼ The social impact of the determination or recommendation</li> <li>▼ The impact of the determination or recommendation on the use of the public passenger transport network</li> <li>▼ The need to increase the proportion of travel undertaken by sustainable modes such as public transport</li> <li>▼ The relative contributions that customers and taxpayers should make to the cost of delivering Opal Services taking into account the costs and level of services</li> <li>▼ Standards of quality, reliability and safety of the services (whether those standards are specified by legislation, agreement or otherwise)</li> </ul>
Help deliver a financially sustainable public transport network	<ul style="list-style-type: none"> <li>▼ The cost of providing the services</li> <li>▼ The effect of the determination or recommendation on the level of Government funding</li> <li>▼ The need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers</li> </ul>

Remain affordable for public transport users	<ul style="list-style-type: none"> <li>▼ The protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service</li> <li>▼ The social impact of the determination or recommendation</li> </ul>
Be predictable and stable over time	<ul style="list-style-type: none"> <li>▼ The social impact of the determination or recommendation</li> <li>▼ The technical feasibility of any proposed changes put forward by IPART, given the features of the Opal system and the contracts in place for its implementation and operation</li> <li>▼ The most appropriate method or methodology for determining maximum fares for Opal Services, including the need for sufficient flexibility to implement any changes to the current fare structure (where relevant).</li> </ul>

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