# INDEPENDENT TOLL REVIEW

# **Motorists First**

## **Final Report**

July 2024

# Acknowledgement of Country

The Independent Toll Review acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of New South Wales.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

The Independent Toll Review is committed to honouring Aboriginal peoples' cultural and spiritual connections to the lands, waters and seas, and their rich contribution to society.

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# Preface

The NSW Government requested us to review tolls and to consider reforms that would improve their efficiency, fairness, simplicity and transparency. As well we were asked to consider relevant competition and regulation questions.

In our Interim Report we proposed a significant reform agenda.

That report set out proposals for a better system and we promised a Final Report that would include an implementation path.

Responses to the Interim Report indicated strong community and toll road user support for the direction proposed. There was acknowledgement from concessionaires that a move to network tolling was appropriate, but less agreement on the detail of what that looked like, and on the path to get there.

Consultations and other work since the Interim Report confirm our view that significant reforms are needed. Further, as we said in the Interim Report, reforms are achievable in a way that respects contracts and honours the reasonable expectations of the concessionaires.

Key elements of our reform proposals remain as follows:

- First, as far as possible, the interests of motorists and the public should be put first. In particular, a more unified, fairer, consistent, simpler and improved system of tolls that contribute to a better functioning toll network should be adopted.
- Second, the NSW Government should take back control of tolls. It should establish a Stateowned entity NSW Motorways to drive toll reform and to deliver overdue consumer and administrative reforms. It should also focus on opportunities to provide competition (especially for new roads) and better regulation, and to consider whether any fundamental reforms in the system (such as a better 'allocation of traffic risk') should occur. The NSW Government announced its intention to establish such a body in the NSW Budget 2024-2025 and in this report we refer to the new entity as NSW Motorways (rather than 'State TollCo' as we had indicated in the Interim Report). The government role in toll decision-making should be overseen by the Independent Pricing and Regulatory Tribunal (IPART), which should also have a broader role of monitoring the impact of reforms and of promoting greater transparency in relation to tolls.
- Third, legislation will be needed as soon as possible to enable the establishment of NSW Motorways and to give the government power to make timely and final decisions on tolls, and provide for the Revenue Adjustment Mechanism. This mechanism is needed to protect concessionaires from losses and to prevent windfall gains for them from the reforms. Within this framework there should be full consultation with and full participation by concessionaires and other stakeholders in delivering the reforms.

In formulating this Final Report, we have considered submissions and responses to our Interim Report including responses by concessionaires and their investors. Concessionaires and their investors did not make substantial proposals for reform prior to our Interim Report. Following the publication of that report and consultations initiated by us, we received in mid-May, a letter indicating that concessionaire owners wished to cooperate with the NSW Government in delivering network reforms.

After follow-up discussions with the concessionaire owners, we received a further letter which suggested a broad process that concessionaire owners would seek to follow with the government to agree a way forward. It provided some indication of what their model of network tolls might look like. In significant ways this departed from the carefully considered reforms we had proposed. It did not support a unified network approach to tolls, but rather indicated support for an untested 'corridor approach', the details of which were not outlined. They rejected a key idea of fairness which we recommend in our report – a declining distance charge. They did, however, suggest that in principle agreements on new tolling methodology between the State and individual concessionaires could be reached by the end of 2024. Contracts could then be re-negotiated on an individual basis and compensation be provided if necessary to keep them in a value neutral position. The government could request them to identify other funding sources. They suggested implementation of new tolling arrangements could begin by late 2025.

We are not confident that such an approach would yield an outcome in the public interest. Rather there is a danger that this would put the interests of concessionaires first. Under this process, the government itself would be held hostage to the agreement of all the concessionaires and investors involved. It would be a process where nothing could be agreed until all agreed.

We consider that an attempt to adopt this process should occur, but the government should in the meantime legislate to enable it, if necessary, to reach timely and final decisions that would achieve reforms in the public interest and take full account of concessionaire entitlements. We have developed principles and approaches for a Revenue Adjustment Mechanism to protect the interests of concessionaires which could provide a basis for those negotiations.

The question of setting new tolls is the feature of our Interim Report which brought most public attention – understandably – although our view is that the most important part of our Review relates to long-term reforms of the system.

Regarding tolls, we have since done a small amount of additional modelling – the most we could do in the time available. Once again, we have modelled 'bookend' scenarios with each bookend being an 'unlikely' finishing point and with an 'actual' likely to be along the spectrum. It should be appreciated that the **Network Tolling A** bookend in the Interim Report – despite much emphasis on it by the Transurban response – is unlikely. **Network Tolling A** assumed that the current injection of taxpayer subsidies of around \$400 million in toll relief is returned to Treasury. As a consequence, the tolls modelled under that scenario do not show many winning motorists. The main winner would be the taxpayer!

In our Final Report we have focused on two 'bookends' – and as well have considered the status quo under which no tolls change.

The first of the two models – the **Network Toll Restructure** model – involves the introduction of network tolls (and the injection of revenues from two-way tolling). We do not favour its adoption without adjustments (that take it closer to the second model below).

The second model – **Network Toll Restructure and Reduction** – combines a restructure and a general reduction in tolls drawing upon funding sources from within the tolling system discussed in the report. We do not propose moving all the way towards the end of this spectrum, but we favour an outcome closer to it than to the restructure only option. Further refinement of this model will take account of funding source constraints and traffic effects as needed.

Some features of the Network Toll Restructure and Reduction scenario include:

- most motorists and trips are winners
- the main losses are for persons crossing Sydney Harbour who are caught by the introduction of two-way tolling and catch-up tolling

- the broad aim of bringing a degree of relief to Western Sydney motorists is realised, especially regarding longer trips; the model outcomes have been driven in part by the application of a number of additional funding sources not identified or included in the Interim Report. These are discussed in the Final Report and will require further analysis and negotiation
- the modelling results have highlighted the flexibility of the declining distance-based approach coupled with infrastructure charges to respond to different conditions on the network, including congestion hotspots.

We consider it has been of public value to include the results of the preliminary modelling in the Interim Report and now this report. The aim of publicising this was to enable people to learn about the kinds of changes and outcomes, including redistributions, that would be achieved with the introduction of network tolls. The modelling work can be further developed before new network tolls are introduced.

We conclude with the following points:

First, the reform will take some time to implement. We consider first steps could be delivered to the public in 2027 with some of the reforms being transitional and with a further set of changes with the establishment of the Western Harbour Tunnel in 2028 and with yet later changes on the path to a final outcome. A considerable effort is required over that period, and it should be led by NSW Motorways in close consultation with concessionaires and other stakeholders.

Second, we emphasise that during that time some consideration should be given to whether there is a better way of operating the tolling system. Under the present system traffic risk is borne by concessionaires. In other words, if traffic exceeds forecasts – they win and if it is less than the forecast – they lose. To take this risk/opportunity they demand a high toll. There are different approaches to dealing with traffic risk which do not have such a high cost. We consider there is much to be said to a different approach to traffic risk. But this will require time to decide and negotiate.

We consider that reform is especially needed because the present system has diminishing legitimacy in the minds of motorists. The burden of tolls on motorists is likely to grow significantly in coming years and Sydney is already showing signs of toll saturation. Our reforms will deliver greater legitimacy and a better social licence for the system.

Finally, we want to acknowledge the considerable help we received from representatives from NSW Treasury and Transport for NSW (TfNSW) in preparing this report and also the submissions and contributions of many other participants.

Maher

**Professor Allan Fels AO** Chair

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**Dr. David Cousins AM** Deputy Chair

# Executive summary

## A: An introduction and background

#### 1. About this Review

This Review has examined the operation of motorway tolling in Sydney. The Review was established by the NSW Government, in line with its election commitments, to consider options for reform. It has been led independently by Professor Allan Fels AO (Chair) and Dr. David Cousins AM (Deputy Chair) supported by NSW Treasury and TfNSW. Views expressed in the report are those of the Chair and Deputy Chair and not necessarily the NSW Government. The government has indicated that it will respond to the report's recommendations in 2024.<sup>1</sup>

The context for the Review is the increasing community concern about the growing prevalence of tolls as the motorway system continues to expand in Sydney. About \$2.5 billion a year is currently spent on tolls by Sydney motorists. Concerns have especially been expressed about the impact of tolls on residents in Western Sydney who have fewer public transport alternatives and often longer distances to travel for work and other activities.

Over the past three decades a comprehensive network of motorways has been developed primarily by governments entering into Public Private Partnership (PPP) agreements with private sector firms to finance, design, build, operate and maintain the motorways. Tolls have been levied by the private concessionaires to recover the costs involved.

The Review was specifically asked to consider the efficiency, fairness, simplicity and transparency of tolls as well as the impact of competition and regulation on tolls.

#### 2. Consultation

The Review has engaged significantly with the public and stakeholders to gather insights and test ideas.

Following the release of the Discussion Paper in June 2023, we conducted extensive public consultation sessions between 14 June and 28 July. We engaged over 700 groups and individuals, including the general public, businesses, academics, local councils, government agencies, peak bodies, local business chambers, member organisations, interest groups and industry stakeholders. We held three public hearings in Sydney, Parramatta and Penrith which featured presentations from key stakeholders like Transurban, NRMA and various local councils. In total we received 1120 submissions from the public and 51 from stakeholders alongside 21 private meetings.

After the Interim Report was released in March 2024, we initiated a further round of consultations to gather feedback on our findings and recommendations presented in the report. This phase of consultation received 117 written submissions from diverse groups, including the general public, academics, think tanks, private consultants and toll road operators. We also held an academic roundtable in April 2024 and multiple meetings and interactive sessions with stakeholders, concessionaires, investors and debt financiers to discuss emerging concepts and gather additional insights. The NSW Government's 'Have Your Say' portal enabled us to gather feedback from the public on the key recommendations and findings from the Interim Report.

<sup>&</sup>lt;sup>1</sup> NSW Government. NSW Budget 2024-25, Budget Paper No.01, p.1-11.

The Review acknowledges the contribution of all participants in the consultation process throughout the review period. Submissions and discussions have been carefully considered, informing the Final Report.

#### 3. The current tolling landscape

As shown in the figure below, toll roads comprise nearly one-half of the motorway network in Sydney. The motorway network consists of 320 km of roads; the toll roads cover 156 km. Sydney has more toll roads now than any other capital city in Australia. Comparisons with overseas cities are difficult as the nature of tolling schemes can vary significantly. For example, the cordon tolling schemes operating in London, Singapore, Stockholm and Milan effectively cover many roads within their cordon areas. Despite its coverage of tolled motorways, Sydney is also regarded as the most congested capital city in Australia. It is also relatively high up in the rankings of congested cities in the world.





Source: Independent Toll Review

There are now 10 private motorway concessions in operation with three of these under the WestConnex banner. Transurban has a dominant role in these concessions with at least a 50% equity investors and debt providers that have entitlements and rights. The complexity is highlighted in the chart below as just one example – it provides an overview of the structure of contracts and relationships associated with the Lane Cove Tunnel project upon completion of its sale to Transurban in 2010.

Figure 0.2 Overview of the structure of the Lane Cove Tunnel project contracts at time of sale to Transurban on 9 August 2010



Source: Lane Cove Tunnel, updated summary of contracts, incorporating summaries of contract changes to 9 August 2010, p.14

In addition, there are two publicly-owned toll roads in operation, the Sydney Harbour Bridge and Sydney Harbour Tunnel (the Sydney Harbour Crossings). The bridge has been tolled since it commenced operation in 1932. Of modern motorway investment, the Tunnel was the first of the toll roads constructed under a PPP arrangement and, following 30 years of operation, reverted to public ownership in 2022. There are two motorways under construction which are planned to be publicly owned toll roads – the Western Harbour Tunnel and M6 Stage 1.

Tolls are set in line with schedules attached to the concession agreements, or by regulation in the case of the Sydney Harbour Crossings. There is no consistent basis on which these tolls are set. Some tolls are set as fixed amounts, some vary by distance, some have flagfall charges and caps that apply after a certain distance, and some operate in only one direction. Various different toll relief schemes, which have been implemented over time to try to relieve the burden of tolls for motorists, have added complexity to the tolling landscape.

There is variation in how tolls are adjusted. Some roads have their tolls adjusted quarterly or annually, depending on the concession agreement. More than half the private concessions also have a minimum rate of increase, regardless of inflation. For example, tolls on NorthConnex, the Hills M2 and the Eastern Distributor increase by a minimum rate of 1% each quarter. The maximum rate of increase is mostly based on the Consumer Price Index (CPI), but for one road – the Eastern Distributor – this is used in conjunction with Average Weekly Earnings. On seven private motorways, the tolls cannot go down.

The length of the concession agreements determine the period of time in which the concessionaires can collect tolls. Contract durations have generally been 30–40 years but in a number of cases, including the Hills M2 and Westlink M7, contract extensions have occurred following further capital investment works.

## B: Evaluation of tolls

#### 4. Public Private Partnerships and toll roads

NSW has been a leader in the use of PPPs. Governments at different ends of the political spectrum have been attracted to the use of PPPs by a range of factors including the desire to bring forward the funding and construction of roads and other infrastructure than may otherwise be possible if relying just on government funds; by perceptions that government funds were limited, and government debt needed to be restrained; and by perceptions that the private sector could provide necessary functions more efficiently than the public sector. Risks associated with the design, delivery and operation of roads were often considered to be better managed by private sector entities than by the State. User charging through tolls, though not restricted to private ownership, was seen to be an attractive way to fund new roads.

The Review has identified weaknesses in the setting of tolls under PPP arrangements.

- Firstly, it has not always been the case that the use of PPPs has been the best approach to provide new roads. Governments can borrow more cheaply than private sector entities and may be as efficient in providing some services associated with the delivery and operation of new road infrastructure. Typically, where governments provide infrastructure services, they engage private contractors to assist. Public Sector Comparators have been developed to compare the costs of government and private sector provision. We have identified at least one case the Eastern Distributor where a private sector road concession had not been deemed to be as cost effective as a public sector led approach.
- Second, under PPP arrangements, competition for concessions has not clearly been based on the level of tolls that bidders proposed to set. Rather, tolls have been determined in advance by governments and bids have been framed on this basis and been determined on other grounds. Ideally, competition should have been harnessed to ensure that firms willing to charge the lowest tolls, subject to appropriate minimum performance standards, were selected.
- Third, the setting of tolls administratively by governments raises questions about the basis on which this was done. Financial considerations, the need to recover costs over a reasonable time, were more in mind than the desirability of setting tolls which reflected economic efficiency and fairness considerations. Tolls have also been set more with considerations of what motorists would be willing to pay. Estimates of value of travel time savings (VTTS) have had a prominent role in this process.
- Fourth, there has been inadequate transparency in the setting of tolls to understand fully the details of how they have been determined and whether they have been set at appropriate levels. This has been a long-standing source of complaint. Over time governments have gradually released more details of concession contracts to the public, but not the essential financial data needed to assess tolls. We reviewed the Base Case Financial Models (BCFMs) applicable to the concession agreements, which have never been made public. We analysed the rates of return that would be obtained by the concessionaires if the assumptions relating to traffic and factors affecting projected revenues and costs were realised. Legal confidentiality reasons prevent us from publishing those rates or a description of them. Projected rates of return were boosted by the risks that concessionaires were perceived to have taken on, in particular that traffic forecasts may not be realised.

- Fifth, a clear indication that tolls were often set above what may be considered competitive market levels, was that for some concessions additional payments were committed by bidders beyond actual project costs. For example, the government sought upfront payments for the Cross City Tunnel, Westlink M7 and Lane Cove Tunnel agreements from the winning bidders to offset expenses incurred by the government in developing the projects and associated works. Although the nature of these additional payments has varied, they are essentially monopoly returns being captured by the government.
- Sixth, over time, governments have followed an approach of trying to minimise their own contributions to the cost of PPP road projects. 'No cost to government' has been a mantra espoused by governments in the past. This may save taxpayers, but it has the consequence for motorists of placing greater reliance on tolls to recover costs. Tolls either have had to be higher or remain in place for longer.
- Seventh, toll schedules, which cover the life of the concessions make no provision for regular reviews of the appropriateness of tolls given changing demand and supply conditions. A re-set of tolls would be costly. It would need to be negotiated with the government and may require compensation to keep the concessionaires 'whole'.

#### 5. The structure and level of tolls

Sydney's toll motorway network has been developed over time through individual concession agreements. Concession agreements reflected the relevant considerations affecting each project, but not the desirability of having consistency across the network. There has been no overall system of tolls. One aspect of this is the limited use of time-of-day tolls to help manage traffic across the toll network. Only the Sydney Harbour Crossings have had variable charges of this nature.

As well as being differently structured, the tolls vary in levels so that when considered on an equivalent per kilometre basis, for example, similar trips on the network are charged at different rates. Concerns also were identified with the level of tolls that different types of vehicles have to pay. In some cases, for example motorcycles and small trucks, toll multipliers do not seem to reasonably reflect the cost impacts of their travel on the motorways. The Review found that these differences were adding to perceptions that tolls were unfair. Further, tolls were perceived as encouraging trucks to use non-toll roads as alternatives to the readily available toll roads, with consequent adverse impacts on local amenity, safety and the environment. Issues concerning the use of the Stoney Creek Road and Forest Road were highlighted in this regard.

Evidence on the pattern of congestion on Sydney roads was considered. We looked at traffic speeds across the road network. Operating speed ratios varied across the day and by type of road. As expected, tolled motorways had the highest operating speed ratios. This analysis tended to confirm the potential to relieve congestion across the whole network by attracting more traffic to the toll roads. A concern was identified that high tolls were discouraging many from using the toll roads.

The Review has identified strong community concerns about the continuing escalation of tolls at the rates of general inflation, or higher in the case of WestConnex (minimum of 4% or general inflation), and about the increasing prevalence of toll roads. Survey research conducted for the Review found that most drivers think tolls are too high and unfair. Eighty-seven per cent of Sydney residents strongly or somewhat were of the view that tolls were too high and 73% considered them to be unfair. These results were supported by other survey research provided to the Review. Academic commentators refer to the notion of toll saturation, where people have limited budgets to expend on tolls, in helping to explain driver reluctance to use the toll roads.

The future burden of tolls has been highlighted by NSW Treasury data. The estimated likely future toll collections up to 2060 when the last concession expires, on conservative assumptions, was \$123 billion in today's dollars. Over half of this would come from the WestConnex concessions.

The impact of high and rising tolls is felt particularly in Greater Western Sydney. On a per kilometre basis, tolls are already relatively low on the M7, but the evidence was that people from Western Sydney suburbs spend more on tolls per week than people from elsewhere do.

The Review examined available data on the financial performance of Transurban, which has at least a 50% ownership share in all concessions. Concessionaires' return of and return on investment form a component of tolls and to assess the level of tolls, the rates of return concessionaires receive need to be considered.

Actual rates of return may vary from those projected at the start of concession agreements given the uncertainties involved, including of traffic. Actual rates of return realised on particular projects will vary over time, given the pattern of expenditures and revenues with construction costs being paid off, and tolls and traffic projected to rise over time. It is only at the end of a concession that projected rates of return can be assessed against actuals. The cost of capital to a firm is an important consideration, as a project must at least cover this to be viable. Over time the cost of capital has changed. It is lower today, even with interest rate increases over the past two years, than it was at points in the past when some of the concession agreements were entered into. Higher costs of capital in the past have been reflected in the expected rates of return in BCFMs at the time, and they continue to be incorporated in tolls today.

Risk is an important element affecting the cost of capital and expected rates of return. Traffic risk is a major consideration here. If concessionaires accept traffic risk, they will seek a higher rate of return as compensation. This will cause tolls to be higher relative to if government were to take traffic risk and finance projects at its lower cost of capital.

Generalisation is difficult, and legal restrictions imposed on us prevent greater precision, but we conclude that for older projects entered during periods of higher interest rates, the expected rates of return projected at the time the concession agreements were signed may be perceived as generous in comparison to the expected rates of return in lower interest rate environments, including today. Transurban has paid over \$6.5 billion in dividends to its shareholders over the past five financial years and appears to be regarded as an attractive long-term investment by its major institutional investors. On the face of it, Transurban's returns on total assets over the past five years do not seem excessive. But given the general pattern of cost and revenue growth associated with toll roads, this may grow over time.

Under current tolling arrangements, the toll cap concessionaires operate under does not change to reflect efficiency improvements, so they have every incentive to pursue them. There is no requirement to share any efficiency gains with motorists in the form of lower tolls. It is possible that concessionaires could have predicted some efficiency improvements at the time they bid for concessions, which may have influenced what they were prepared to bid. If so, some efficiency gains may have been captured by governments. In our view, the absence of an efficiency sharing mechanism in toll setting could have been a factor encouraging the continued expansion by Transurban across the industry. It has gained advantages of economies of scale and scope in doing so. The Review considers there is a role for independent monitoring of concessionaire performance against BCFM forecasts and of reported financial performance of concessionaires. This will help the public determine whether tolls are set at appropriate levels in terms of the concessionaire profitability component built into them. The issue of whether tolls are too high or not is ultimately a matter of judgement based on all the relevant considerations. The background and circumstances of each road are different and this needs to be considered. Experiences with the earlier concessions are different from later ones as past learnings have influenced new practice. However, the tolls motorists are paying today all derive from the concession agreements signed in the past. So, whilst the level of concern about tolls on the individual roads may differ, we have reached the general conclusion that tolls are higher than they need to be and higher than desirable. There has been a failure to put motorists first in the tolling of toll roads. This has been reflected in matters such as the over-reliance on tolls as a funding source for the roads, rather than the use of general government revenues or borrowings; weaknesses in the selection criteria used to assess bids from

potential concessionaires, in particular not applying the minimum toll criteria as paramount; concern to extracting maximum value from motorists rather than charging efficient tolls; locking into tolls rates of return for concessionaires that have been significantly higher than current costs of capital; locking into tolling schedules with high and compounding escalation rates which did not require a sharing of efficiency gains with motorists. We note the political attractiveness of setting tolls initially at lower rates and deferring pain to future generations of motorists. The pattern of road congestion across Sydney with toll roads being relatively less congested than other ancillary and local roads, indicating to us that the toll roads may be tolled too highly to attract sufficient traffic to ensure they are used to the optimum extent.

The dissatisfaction of Sydney motorists with the level of tolls is also linked to the emphasis placed on tolls as financial rather than economic instruments. Tolls should be used more to manage the traffic. Motorists are right to consider that the tolls they are paying are too high when they are stuck in congested traffic on toll roads. More flexible tolls would help to overcome these situations.

#### 6. Competition

Competition is the process of rivalry between firms in the supply and acquisition of goods and services. Effective competition occurs from an economic perspective when rivalry produces good market performance in terms of efficiency and progressiveness.

We can distinguish two aspects of competition in toll roads. These can be referred to as 'competition in the market' and 'competition for the market'. The latter refers particularly to the competition between bidders for the rights to a concession.

Transurban is by far the dominant player in toll collection and operation, owning at least 50% of all the concessions in the Sydney market and owning the toll retailer Linkt. Other minority equity owners and partners may provide some countervailing power to the influence of Transurban, but direct competition between them is very limited. With the orbital network now essentially complete, there is the possibility of some motorists having some choice in the toll roads they take to get to their destinations. However, for the most part, the individual toll roads have the characteristics of natural monopolies where it is not sensible or economic to have directly competing motorways.

Past governments have allowed Transurban to become a dominant player in the Sydney toll market. NSW governments and the Australian Competition and Consumer Commission (ACCC) have not opposed Transurban's acquisition of other concessions. The ACCC's approach to acquisitions by the company now seems to be changing given their recent opposition to Transurban's proposed acquisition of a majority ownership of Horizon Roads, the operator of EastLink, a Victorian toll road.

Transurban has benefited significantly from its road acquisitions. They have further enhanced its advantages of incumbency and its ability to acquire new concessions, including through Unsolicited Proposals. Transurban's political influence has been enhanced by its market position.

Concession agreements provide for the regulation of tolls through contract. The toll schedules specify what the tolls should be, at least what maximum tolls should be. In practice discounting below maximum levels does not occur. This is not surprising when the impact of toll changes on demand is very limited, but it also possibly reflects the lack of real competition between roads.

The toll schedules limit the use of any market power that Transurban may have but they do not necessarily remove all concerns about tolls being set at undesirably high levels, as previously noted. If this happens, governments, Transurban or both could be the beneficiaries.

Any market power Transurban may have had in competing for concessions is likely to have been weakened by the impact of the undertakings it was required to give to the ACCC at the time of its 51% WestConnex acquisition in 2018. These undertakings required it to publish information about the traffic on its roads. This aimed to offset Transurban's traffic modelling superiority, which gave it an advantage in bidding for new toll road concessions.

Public perception of Transurban's competitive position in the marketplace often does not appear to align with reality. Some comments to the Review suggested that Transurban was an unregulated monopolist setting unreasonably high tolls to maximise profits. The reality is that maximum tolls have been set by governments and vary over time according to rigid pre-determined patterns.

Transurban needs to acquire from the Sydney community a social licence to operate. The company is well aware of this but may have further to go to achieve it. We consider that a good step forward would be for the company to fully engage in the process to reform tolls and to work to further empower motorists.

#### 7. Toll transparency and toll relief

There is much that could be done to better enable, inform and educate motorists about tolls to assist in their decision-making. Motorists need to have the ability to plan their travel routes and understand their own costs of using toll roads. It can help them to know how often they have used the toll roads in the past. Education to help motorists better understand how tolls are calculated is also necessary. Motorists need also to understand their financial rights and responsibilities as users of toll roads.

Toll relief schemes have been in place in different forms for many years. They suggest that tolls were not considered to be set appropriately to reflect the concerns of the community in relation to affordability and equity. These concerns may change over time having regard to factors such as general economic circumstances, the growth and distribution of population and so on, but toll determination under the concession contracts continues to be rigidly determined.

Toll relief schemes currently operating or having recently ceased to operate are shown in the table below.

	202	20			202	21			2022			2023			2024			2025						
Relief scheme	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
M5 South- West Cashback*																								
Registration Relief (TR1)																								
Large Towed Recreational Vehicle Toll Rebate																								
Toll Relief Rebate (TR2)																								
\$60 Toll Cap (TR3)																								

#### Figure 0.3 Available toll relief schemes from 2020 to 2025

	2020		2021			2022		2023			2024			2025										
Relief scheme	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Truck Multiplier Rebate																								

#### Source: Independent Toll Review

#### \*From 1997 to 2010 the Cashback Scheme also applied to the M4.

The M5 Cashback scheme has been operating for over a quarter of a century and the government has committed to retain this scheme at present. The \$60 Toll Cap (TR3) and Truck Multiplier Rebate schemes were introduced by the current government as temporary schemes pending the more fundamental review of tolls being conducted by this Review.

Toll relief rebates add complexity to the tolling system. Many motorists are not fully aware of the rebates they are entitled to or how to claim them and find the administrative arrangements tedious to deal with. For these reasons there have been relatively low claim rates. For example, TfNSW estimates that 35% of trips eligible for the M5 Cashback scheme will not be claimed.

Toll relief is becoming increasingly expensive with \$561 million being budgeted for TR3 in the 2024-25 Budget over two years. Costs of the schemes increase as tolls rise and the number of claimants increases. It can be difficult to replace these schemes as motorists come to expect they will continue and become used to them.

Toll relief schemes are not necessarily fair when considered from a broader perspective, especially when they are just applied to particular parts of the toll network. The total toll burden does not change because of toll relief, only the distribution of who pays changes. It is not always the case that those who receive toll relief need it. The evidence available to the Review suggested that higher income earners not only use toll roads more, but also are more likely to seek toll relief. Toll relief schemes need to have clear objectives in relation to who they are seeking to benefit and to be appropriately targeted in doing so. Current schemes focus on account holders but not household or family income or other relevant socio-economic considerations affecting need. Previous efforts to develop a means tested toll relief approach have fallen short due to difficulties in obtaining required information.

Concessionaires are unintended beneficiaries of toll relief given that motorists' demand to use the toll roads will be enhanced by its availability. The upside sharing provisions contained in the concession agreements are an imperfect way of capturing this benefit for the community. Community views on toll relief are mixed. Many recognise its limitations, but many also consider that it is a very important part of the tolling system which should be retained. Our general view is that toll reform, if it can be achieved, is preferable to toll relief and toll relief should be applied to directly reduce the toll a motorist sees.

### C: Recommended overhaul of tolls

#### 8. Tolling principles

In considering possible reforms to tolls it is necessary to have regard to the objectives of toll setting and to the operation of existing tolling schedules attached to the concession agreements.

As to the objectives of toll setting, we have been particularly mindful of our terms of reference which draw attention to the importance of efficiency, fairness, simplicity and transparency in tolling. The economic principles of efficient pricing have been well developed over time, but their application in particular contexts, such as road tolls, can be complex. The financial imperative of concessionaires to recover costs, including an appropriate rate of return, in fixed concession time periods is a particular constraint. It has been said that fairness is what is in the eye of the beholder! Fairness has horizontal aspects (treating people in similar circumstances the same way) and vertical aspects (treating people differently according to their capacities or needs). Simplicity can be seen in the narrow context of an individual road or in a broader system context covering the network of toll roads. Transparency can relate to the openness of the toll setting process and to the visibility of tolls once determined to motorists.

In 2014, the NSW Government agreed a set of principles to guide the setting of tolls on new toll roads. This was a first step toward articulating a more coherent approach to toll setting even though the principles were not explicitly directed to existing roads. The Review carefully considered these principles and has further developed them to reflect a greater emphasis on:

- consistency across the whole tolled network;
- economic efficiency pricing principles including the importance of tolls reflecting costs as well as benefits; and of demand management pricing, including time-of-day and dynamic pricing; and
- fairness especially by the use of declining distance-based tolls.

Our terms of reference also required us to consider the impact of competition and regulation on tolls and these issues are also reflected in the new tolling principles we are proposing.

#### **Proposed new Tolling Principles**

#### Principle 1: Level and structure of tolls

Toll setting should be guided by the objectives of efficiency, fairness, simplicity and transparency.

- a. Tolls should have regard to the costs associated with the provision of toll road services as well as benefits. Declining distance-based tolls are consistent with the principle and have efficiency and equity advantages over fixed distance-based tolls or variable zonal distance-based tolls.
- In general, it is appropriate that beneficiaries pay for toll roads, for example, where benefits flow to the broader community then government contributions are appropriate. The extent of cost recovery achieved through tolls should reflect the extent to which a toll road's benefits are enjoyed directly by motorists.
- c. The process for setting tolls should be transparent to the public to promote understanding and allow for informed comment.
- d. The methodology for determining tolls should, so far as possible, be applied consistently across the entire network.
- e. Tolls should allow toll road owners/concessionaires to recover their costs incurred in financing the construction of the toll road including an appropriate (i.e. risk adjusted) return, and efficient operating and maintenance costs where relevant. It may be appropriate to apply specific charges to individual parts of the network to allow for cost recovery, for example infrastructure charges to cover the additional costs associated with constructing tunnels or bridges.

#### Principle 1: Level and structure of tolls

- f. Tolls should not be set at a level which would allow excessive, monopoly profits, or inefficient cost levels to prevail over time.
- g. Maintaining flexibility to adjust tolls over time in response to demand and supply changes is important.
- h. Toll setting should take into account fairness as well as efficiency considerations, bearing in mind that other more direct policy approaches may be preferable forms of intervention in relation to fairness.
- i. The different vehicle categories for tolls should balance impactor pays (the extent to which vehicles impose costs on the network and other users due to their weight and size set against the costs imposed by such vehicles on ancillary roads) and beneficiary pays considerations (a higher willingness to pay for travel time savings). For example, under this principle setting higher tolls for heavier and larger vehicles is consistent with efficient tolling.
- j. The structure of tolls should be simple enough to be readily understood by users and avoid creating perverse incentives for the use of the road network. Inconsistent approaches to the tolls of toll roads can cause distortions to traffic flows.
- k. Tolling information should be communicated in real time to inform customer journeys and enable improved decision-making.

#### Principle 2: Consistency with competition policy

Toll road financing arrangements for motorways should be designed and implemented in a way that is consistent with the promotion of competition.

- a. Competitive pressure should be harnessed when setting tolls and assessing concessionaire bids (competition for the market) and when regularly reviewing tolls (competition in the market). Bidding for concessions should focus on ensuring tolls are set at competitive levels.
- b. Unsolicited proposals for toll road extensions should not be considered in isolation of the possibility of first modifying tolls to better manage traffic flows.
- c. Restrictions should not be imposed on the use of any road or public transport in order to enhance the financial viability of a toll road.
- d. Tolls should only apply where motorists have reasonable and effective untolled road options, including arterial roads, or public transport alternatives, except where community benefit may necessitate restriction on access to alternatives.

#### 9. Toll reforms

#### Concerns about tolls

The evaluation of tolls has highlighted a number of significant concerns about tolls which impact on both efficiency and fairness. Tolls are generally considered to be too high. Motorists are paying more than is necessary and desirable. Although demand for toll road services is relatively unresponsive or inelastic to toll changes, high tolls cause a loss of economic welfare overall and adversely affect motorists struggling to meet the costs involved.

The absence of a consistent network approach to setting tolls is also a source of inefficiency, unfairness and complexity. The significant variations, which now exist between the way tolls are calculated on individual toll roads, impacts on the use of those roads by users. Some roads, such as the Cross City Tunnel, have significantly higher charges, expressed on a per-kilometre basis, than others, for no clear economic rationale. One-way tolling on the Sydney Harbour Crossings and the Eastern Distributor, and toll relief have distorted traffic flows on some toll roads as well as adjacent ancillary and local roads. Zero tolls which effectively apply when toll caps operate after certain distance points or with some toll relief schemes also distort traffic flows.

A further source of inefficiency with tolls is their lack of flexibility in reflecting demand conditions on the toll roads. There needs to be a capacity to change tolls over time and to better manage traffic flows across the network during the day.

Users of the toll roads should have a clear idea of the basis of charging from wherever they join the toll road network. The methodology by which tolls are set should be coherent and economically rational in line with agreed tolling principles.

Current tolls and toll relief lack fairness when they apply unevenly across the whole network. Also, despite the fact that per kilometre rates are lowest on the M7, motorists from Western Sydney appear to be most disadvantaged by current tolls (vertical inequity). Surveys and submissions of stakeholders indicate the financial impact of tolls is greatest in Western Sydney. These areas of Sydney have the highest number of motorists who will be eligible for the government's \$60 Weekly Toll Cap<sup>2</sup>, who report a lack of alternatives to toll roads, and report high use of toll roads. Analysis shows that these areas of Sydney have comparatively lower public transport access. Risks of mobility-related social exclusion, that is, of being unable to access essential services and opportunities due to transportation barriers are also higher.

Tolls can be complex but widespread availability of information about the basis of their calculation can help to deal with this issue. But when the basis of their calculation varies significantly between roads, as it does at present, simplicity is replaced by complexity.

The Review considers that a coherent network tolling approach to setting tolls can help to restore simplicity for users.

The Review is concerned about the lack of transparency generally in toll setting and sees the need for a much more open process for setting tolls to help detailed understanding by the public of the basis on which tolls have been set. The transparency of tolls for motorists once tolls have been determined also could be enhanced.

<sup>&</sup>lt;sup>2</sup> Minister for Roads (2023, December 8). \$60 weekly toll cap to provide cost-of-living relief to 720,000 motorists. NSW Government. <u>https://www.nsw.gov.au/media-releases/toll-cap-cost-of-living-relief</u>

The Review considers that a stronger competition lens is needed by governments when granting concessions and when considering the terms of concession agreements, including setting tolls and concession length. Regulatory improvements to toll setting arrangements embedded in concession agreements are needed, including enabling tolls to better reflect changes in traffic conditions over time. Independent oversight of the impact of toll setting on motorists and concessionaires is necessary.

#### Key tolling reforms proposed

Our key reforms are to:

- a. Introduce a new network approach to tolling to provide for a uniform tolling methodology to apply across the whole tolled network so far as possible and to better manage traffic flows.
- b. Reduce the level of tolls to allow for greater use of the toll roads and relieve congestion on ancillary and local roads to improve overall travel times.

#### Network tolls restructuring

The transition to network tolls as proposed in our Interim Report was supported by industry stakeholders, representative bodies, academic commentators, and the general public. It was recognised that the tolled motorway system had developed to the point that this approach was desirable.

There are major issues to consider and determine before a network approach to tolling can be introduced: what will this look like, what are the implications for making it work, and how can it be implemented?

#### What network tolling will look like and why

Existing tolling methodologies used for individual toll roads in Sydney vary. There has in recent years been an increased emphasis on distance-based tolls and most discussions of road pricing by experts support this methodology. There seems no reason in principle why a different system for toll roads could not operate in conjunction with distance-based tolls on ordinary roads. Distance-based tolls is consistent with a user pays system, but it has weaknesses in that by itself it does not accurately reflect costs associated with providing toll roads. It does not adequately recognise the fixed cost associated with road construction; nor accurately reflect the marginal costs associated with operating the roads which are likely to decline with distance and vary according to the state of traffic on the roads. Fixed distance-based tolling applies a set toll per kilometre to each kilometre travelled. This is not appropriate in our view to a network approach to tolling for the Sydney orbital network where many people from the outer West still need to travel to the CBD for employment or other purposes and are relatively disadvantaged when it comes to public transport options. This is a fairness consideration that needs to be taken into account. This issue is recognised but is dealt with inappropriately in some concession toll schedules where at a particular kilometre distance a cap is placed on tolls so that beyond that point no tolls are charged.

Fixed costs are often reflected in fixed access charges. For toll roads this could be a charge to enter the network with distance-based charges being set on top of this. A fixed access charge may have the desirable effect of discouraging short trips on the network, which can disrupt smooth traffic flows. However, if there is plenty of available spare capacity on a road it seems inefficient to do this. The level of the charge is critical in this context, and it may be appropriate that it varies according to time-of-day/traffic flows.

The design of any new system of network tolls will need to take account of the significant per kilometre variation in existing tolls as well as the need to reflect efficiency, fairness, and transparency considerations.

A network tolling system should address anomalies associated with one-way tolling on the Eastern Distributor and on the Sydney Harbour Crossings. Also, the latter charge the same tolls for all vehicles, cars as well as trucks. The Sydney Harbour Crossings are the only toll roads to apply time-of-day tolling, and tolls on the crossings and have only been increased once since 2009, this was in October 2023.

The previous government's toll review considered a scheme involving a fixed access charge and zonal fixed distance-based charges. We examined this proposal in detail and the modelling conducted in relation to it, but ultimately concluded that it was not appropriate to meet the objectives set for our Review. Zones were arbitrarily determined and set more in the light of existing road tolling differences than from the objective of achieving network uniformity or reflecting significant variations in cost of specific parts of the network. The preferred model required significant government subsidy to be acceptable.

Our response has been to design a tolling methodology that better reflects our specific objectives and current circumstances. Our preferred tolling system incorporates a uniform declining distancebased component to the toll and a fixed infrastructure charge relevant to the part of the network being travelled on. Declining distance tolls reduces the per-kilometre cost as journey length increases, a variant of distance-based tolls. The infrastructure charge varies according to the tunnel or bridge it relates to but has not been set on a strictly cost reflective basis. It enables the total toll to reach the necessary point where all tolls charged reflect the target of matching concessionaire revenues under the existing system.

The initial block of the declining distance rate is higher than the remaining blocks giving it the feel of an access charge, but it is considerably lower than the proposed access charge set by the previous government's review. The declining distance-based change applies uniformly on the network and does not depend on where the network is entered onto or where trips occur. In this sense it is fairer. The infrastructure charge more closely aligns with the cost of the infrastructure provision. Where more expensive tunnels or bridges exist the charges will apply, otherwise they will not. Whilst at first blush the declining distance-based charge may appear more complex, when seen in the context of the network as a whole this is much less so. The charge applies uniformly across the whole network unlike other options with different zonal distance-rates. Combined, the declining distance-based and infrastructure components of network tolls provide a fairer toll outcome for motorists in Western Sydney.

A further important aspect of our network approach to tolling relates to the application of demand management of time-of-day or dynamic pricing. We consider this should be an integral part of a network system. The network should be managed to ensure all parts of it operate efficiently in terms of the flow of traffic avoiding persistent under and over utilisation as far as can be achieved.

#### What are the implications for making network tolls work

There are significant enabling works to be undertaken to allow for the operation of network tolls. These include upgrades to existing tolling infrastructure and systems development. Figure 0.4 below indicates the network-level toll reconstruction engine (C2.5) which will need to be developed and where it fits in the current process of capturing tolls and calculating tolls, managing customer accounts and compliance. The declining distance-based approach adds no more cost in this regard than any other methodology would do. These costs are an investment for the future and are small in relation to the benefits a new network tolling system could bring for motorists.

#### Figure 0.4 Network toll reconstruction engine

	C1 Capture	C2 Calculate	(C2.5) NSW Motorways	C3 Customer	C4 Compliance
Purpose	To detect and capture the details of vehicles utilising the toll roads (tags, LPN etc.).	To validate, construct and rate trips from vehicle details captured (toll road, entry point, exit point, time-of-day, vehicle classification).	To apply business rules to day-based toll road usage such as: 1. Construct single concession tolls as multi- concession tolls. 2. Applying distance-based tolling rules. It also manages non arranged travel/unpaid toll recovery.	To manage customer accounts, toll products and the collections of tolls and fees.	To manage the processing of toll and penalty notices including nominations and objections.
Tech	<ol> <li>Gantry (new exit points required).</li> <li>Vehicle Detectors.</li> <li>Front Camera Image.</li> <li>Rear Camera Image.</li> <li>Optical Character Recognition (OCR)/Licence Plate Number (LPN) Reader.</li> <li>TAG Sensors.</li> </ol>	TfNSW: 1. TRARM: Trip, Reconstruction And Rating Module. 2. TIRMS: Toll Incident Recovery Management System. Other: 1. Foreign Toll Operator/Tolling Back Office.	New C2.5 system: 1. Construct Multi- concession Tolls. 2. Apply distance-based tolling rules. 3. Apply associated business rules. 4. Manage non- arranged travel/unpaid toll recovery.	1. Etoll – TfNSW. 2. LinkT – Transurban.	1. Toll Compliance Management System.
Functions	<ol> <li>Detect vehicle.</li> <li>Capture vehicle photo (front).</li> <li>Capture vehicle photo (rear).</li> <li>Capture LPN.</li> <li>Capture TAG details.</li> </ol>	<ol> <li>Accounts receivable.</li> <li>Finance movement.</li> <li>Asset management.</li> <li>BI (Business Intelligence) reporting.</li> <li>Trip reconstruction.</li> </ol>	<ol> <li>Construct single concession tolls as multi- concession tolls.</li> <li>Output these as network toll charges to customers via retailers.</li> </ol>	<ol> <li>Tolling web portal.</li> <li>CRM.</li> <li>Tag logistic management.</li> <li>Interoperability (car rental companies, MOU).</li> </ol>	<ol> <li>Process enforcement requests.</li> <li>Obtain vehicle owner details.</li> <li>Letter distribution.</li> <li>Enforcement acknowledgements and updates.</li> </ol>

C1 Capture	C2 Calculate	(C2.5) NSW Motorways	C3 Customer	C4 Compliance
		3. Reconcile inputs and	5. Product management.	5. Nominations management.
		output toll charges to make good	6. Debt management.	6. Objections management.
		variances to concessions.	7. Bl reporting. 8 Financial	7. Penalty notice updates.
		4. Manage Non- Arranged Travel/recovery management.	accounting.	8. Registration for Information Disclosure Agreement (RIDA)/
		5. Compliance management.		Additional Request for Information (ARI) processing.
		6. Toll notice payment portal.		

#### Source: Independent Toll Review

Under network tolling we would want to see motorists being billed just once for each trip, not separately for the components of the trip provided by different concessionaires. There may be opportunities to phase in aspects of network tolling before it is fully implemented. For example, two-way tolling on the Sydney Harbour Crossings may be feasible before the full network system can be implemented; time-of-day trials may be appropriate or changes to toll relief consistent with network tolls could be implemented. Network tolling will have significant impacts for concessionaires depending on how it is implemented. Existing concession agreements outline current tolling arrangements for motorists as well as having provisions affecting the financing of those roads. Financiers will likely also be impacted by any change in tolling arrangements. The contracts protect concessionaires from changes which may adversely affect their financial position. This could be the case unless they were to agree to make changes and likely were compensated for doing so. It was on this basis that we indicated clearly again in the Interim Report that we would respect the contracts and honour the reasonable expectations concessionaires had of them. It was why we have also modelled options for network tolls on the basis that the revenues generated by network tolls were the same as the revenues that would be generated under the existing individual concession agreements in total.

There are a number of ways concessionaires could be kept 'whole' in any move to network tolls. The Interim Report outlined an approach involving network tolls being set by a government-owned tolling company, NSW Motorways, with a Revenue Adjustment Mechanism operating to ensure concessionaires were squared up so as to obtain approximately the same revenues as they would have received under the old tolling approach. A more recent proposal from concession owners, discussed below, is that network tolls could be recognised in the concession contracts after negotiations with the government and identification of funding gaps and sources to keep them 'whole'.

The adoption of network tolls will involve restructuring of tolls across the network with some tolls increasing and some declining. We have assumed that additional revenues from the Sydney Harbour Crossings will be utilised to assist in this restructure and transition to network tolls. It is a policy decision for government as to whether this occurs.

An aim with the initial restructure to network tolls also is to minimise the size of the changes in tolls for individual trips as far as is possible, both when tolls increase or decrease. We consider that once the network system is in play and has had time to settle down, that further adjustments could be made to tolls. This tolling reform is likely to generate more traffic itself. But we also envisage further reforms to concession arrangements could be achieved over time to allow further overall reductions in tolls to be achieved.

Network tolling will result in traffic changes which may not always be readily accommodated by the existing road infrastructure. Changes will need to be anticipated and carefully managed. In some cases, modifications or enhancements may have to be made to existing roads. Demand management tolling initiatives may be required.

The impact of network reforms will need to be monitored and refinements adopted as considered necessary. We consider community acceptance of the new network tolls and their perception of their fairness is essential to the success of this reform.

As regards to what it would look like, the Review has carefully considered what tolling methodology would best meet the objectives of efficiency, fairness, transparency and simplicity. We have examined the previous government's Tolling Principles and approach adopted by the previous government's tolling review as well as other related approaches, including a corridor-based approach as recently suggested by concessionaires, and other approaches such as section tolling, but have not been convinced that these are adequate to meet our objectives.

#### How can network tolls be implemented

In our Interim Report, we expressed the view that the government needed to take the lead in toll reform through legislation and the setting of network tolls. This view reflected our perception that the large number of counterparties to the concession agreements and associated financiers would make it difficult to reach agreement between them in a timely manner, that Transurban would inevitably dominate such negotiations, and that competition law prohibited competitors from reaching agreement on matters which are likely to fix or maintain tolls. It was also a reflection of the fact that we had had no substantive proposals for reform of tolls from concessionaires up to that point of time.

In line with these views, we proposed a government-led reform process which included the establishment of a government-owned tolling body (NSW Motorways) which would set network tolls and operate a Revenue Adjustment Mechanism to ensure concessionaires were kept whole in relation to their existing contracts. Motorists would pay network tolls but the concessionaires would still receive around the same expected revenue that they would have received had their existing tolling schedules been operative. Whilst led by government, it was anticipated that NSW Motorways would work in close co-operation with concessionaires and other relevant stakeholders.

In response to our Interim Report a letter was sent to us on 14 May 2024 signed by NSW Toll Road Partners, a group of eight toll road investors, 'noting the Interim Report's concerns over timing and complexity and a desire for 'early reform' ' and indicating a '...willingness to work with the NSW Government to expeditiously develop a suitable network-wide solution'. They suggested '...the principles of such a solution could be agreed within a short period of time, and in advance of the conclusion of the government's existing rebate schemes in December 2025'.

The Review's Chairs immediately responded seeking more details of this commitment and met with representatives on 22 May 2024.

Following this meeting, the NSW Toll Road Partners further formally responded to the Reviewers on 4 June 2024. The substantive content of this letter is reproduced in the box below.

#### Figure 0.5 NSW Toll Road Partners letter content

'As noted in our discussions, we each remain committed to working with the Toll Review and the NSW Government to examine options in relation to delivering toll reform in NSW.

We recognise the importance of developing a solution that achieves the objectives of fairness, efficiency, simplicity and transparency that the Review was asked to consider by the NSW Government.

Therefore, in order to progress the objectives, using building blocks of a distance-based pricing regime as proposed in the Interim Report, it is each out our view that the NSW Government should further develop and work with concessionaires to model the impact of a distance-based per kilometre rate (DBR) regime across the road network. In such modelling, the per kilometre rate could vary between the motorway corridors, reflecting the level of congestion and availability of alternative transport modes in each. We each believe a corridor-based DBR has the potential to deliver the most benefits by providing greater operational efficiency across the network and a better community outcome. These could be coupled with the appropriate Infrastructure Charges to better reflect the cost of delivering and operating complex tunnel infrastructure, as well as two-way tolling should the Government choose to implement this. Noting that Infrastructure Charges could be incorporated into the DBR for the tunnels.

It is each of our view that the NSW Government is best placed to set the tolling pricing parameters and this could be implemented through a renegotiation of the concessions rather than alternative regimes proposed by the Review such as ongoing revenue adjustments. This would ensure the parameters balance key outcomes such as transport network performance and value for money for taxpayers and motorists.

With an understanding of the impact of the proposed regime and toll pricing parameters, the NSW Government could then seek feedback from each concessionaire to quantify the resulting funding deficit or surplus created as a consequence of implementing the proposed DBR so that the parties can engage on mechanisms to compensate the concessionaires, if required to achieve a value neutral outcome for each concessionaire. This would include the impact of other potential toll parameters prescribed by the Government such as Infrastructure Charges and/or escalation rates.

As part of this engagement, the Government could also request for each concessionaire to detail other value sources that may be able to contribute to assist in the funding of the proposed reforms. This will provide a basis for the Government to achieve in-principle agreement with the individual concessionaires by the end of 2024. These principles will then be used to amend individual concession deeds, targeting completion and execution of all documentation by the second half of calendar year 2025, prior to scheduled conclusion of the NSW Government's toll rebate programs.

Should the NSW Government prefer an alternate approach to that outlined above, we each welcome engagement from the NSW Government on their preferred solution.'

#### Source: NSW Toll Road Partners Letter to the Interim Report, 2024

The letter raises some doubts in relation to network tolling. It suggests it will use the building blocks of a distance-based regime as proposed in the Interim Report, but then talks about a corridor-based scheme where the per kilometre rate could vary between corridors. This was explicitly not the preferred option of the Reviewers and not one that we would now support. In our early modelling work we did explore the option of corridor tolls as a close variant of zonal tolls but did not proceed with it. In essence it seeks to maintain the status quo.

However, we welcomed these indications of willingness to work with government to achieve toll reforms (albeit late in the day for this Review) and see positive elements to the proposal we would wish to pursue. The idea of amending the concession contracts to incorporate network tolls determined by NSW Motorways in consultation with concessionaires is a good one; but such an outcome is still likely to be extremely challenging as far as reaching agreement is concerned. There is a risk that toll reform outcomes become defined by minor contractual changes that reflect the lowest common denominator positions held by each individual concessionaire, and in so doing fail to achieve the significant toll reform that is required. Identification of funding needs and sources will involve significant negotiation between government and the concessionaires. The proposal, if successful, will likely eliminate the need for a Revenue Adjustment Mechanism to keep concessionaires whole, as they would now do this as part of the negotiations behind agreeing to the new tolling regime. Rather than a government-led process, this option would be a concessionaire-government negotiation process, one that would not be fully transparent to the public.

Whilst we do not doubt the good intentions of concessionaires and their owners to now work towards toll reform, we still consider this will be a difficult path forward. We consider strongly, if this approach was supported by the government, that clear milestones would need to be set for the resolution of matters like funding source discussions and that a target date be set for the introduction of network tolls. There also needs to be in place a sound legislative framework and pathway as outlined in our Interim Report to operate as a backstop should negotiations be delayed, or not result in achieving the objectives underpinning the vision for network tolling.

#### Network tolls restructuring and toll reduction

The move to network tolls based on a uniform methodology for their calculation will involve some restructuring of tolls. There will also be some reduction in average tolls, essentially because of the introduction of two-way tolling and other reforms affecting the Sydney Harbour Crossings, but the key focus is the restructuring.

A second element of toll reform considered to be necessary by the Review is achieving a reduction in the level of tolls. We have outlined previously why we consider tolls to be generally too high. This judgement is not linked to current cost-of-living pressures being experienced by many in the community, though toll reductions would no doubt be welcomed from this perspective as well. Toll reform will take several years to be fully achieved and hopefully cost-of-living pressures will be eased by then.

In order to achieve toll reduction as well as toll restructuring it will be necessary to identify funding sources that can be applied to reducing tolls.

#### Funding sources to achieve reductions in tolls

The Review has identified potential funding sources within the tolling system that could potentially be used to achieve reductions in tolls. Some of these sources could come from government and others from concessionaires. Some are essentially of a one-off character, and some are on-going. To achieve sustained reductions in tolls it is necessary to identify ongoing funding sources.

One potential source of funding identified in our Interim Report is the balance of toll relief funding not committed to continue at this stage by government. We note here the current commitment for Cashback to continue on the M5. If toll relief was removed, up to around \$250 million per annum could be diverted into reducing tolls. This could amount to a drop in average tolls of around 10%. Alternatively, if toll relief continued at this level, government should continue to pursue from concessionaires the benefit they obtain from the impact this toll relief has on induced traffic on the tolled motorways.

Transurban has suggested a range of potential funding sources which it considered could be tapped into to help support network tolls and to achieve reductions in tolls. These sources related to existing concession contracts and were considered to have a potential value of around\$1.5 billion to \$2.0 billion. Negotiations with government were flagged as being necessary to unlock this potential.

Given commercial sensitivities and the potential for government-concessionaire negotiations, we will not comment specifically on them. However, this does point to the potential to tap into funding sources to achieve lower tolls. In general, funding sources from concessionaires may be created by initiatives which increase revenues or decrease costs for concessionaires. In our Interim Report we commented on the suggestion that tolls today could be reduced by allowing the length of concessions to increase. We pointed out that this would not amount to real reform if it was just an intertemporal transfer of toll burden. However, if it was accompanied by genuine reforms to tolling arrangements it would be more acceptable. The benefits to concessionaires of extension of contracts cannot be measured on the basis that a single dollar lost today is worth a single dollar in the future. Obviously, market based discount needs to apply to the value of the future dollar. But the discounting should take into account what seems to be a significant revealed preference of investors and Transurban for long-term concessions. There is an intertemporal efficiency case for extending the duration of tolls because the long life of motorway infrastructure (say over one hundred years) exceeds the life of concessions (say thirty years). This point however requires caution and deeper consideration than it has been given in this report, including for example, the competition issues and the reform issues referred to elsewhere in this report. We are also mindful that the potential competition impacts of possible funding sources will need to be considered. This is again a relevant consideration in relation to increasing concession lengths as increasing the lengths of concessions would defer the time when other potential entrants could bid against an incumbent for a renewal of a concession contract. We would be less concerned about this if there was an effective toll oversight mechanism in place over the existing contract. A major issue that should be considered in relation to funding sources is whether traffic risk could be better mitigated than is now the case. Concessionaires and financiers act on the basis that concessionaires have this risk. Their required returns are, therefore, higher than otherwise and accordingly so are tolls. A better system for managing traffic risk is needed. One proposal here, which we call the Net Present Value Revenue Approach (NPVR), which essentially allows concessionaires the time needed to recover their NPVR expectation built into the BCFM attached to their contract. When this NPVR is achieved, the concession ends. Traffic risk is avoided in this process. We consider the merits or otherwise of this approach and its possible implications for new and for existing contracts should be more fully explored by the NSW Government.

Current toll regulation through contracts gives significant incentive for concessionaires to seek improvements in efficiency and lower costs so they are unlikely to want to give any of this away. But contracts may impose restrictions which entail unavoidable costs and removal of the restrictions may enable the costs to be avoided. Some restrictions on financing arrangements may be in this category. Whether the benefits of doing this outweigh the costs is a matter that should be considered.

#### Reforms to toll relief

Toll relief may contribute to the objectives of toll reform. It may deal with concerns about tolls that may not otherwise be able to be rectified. It may provide transitionary assistance until reforms are put into place. It may attempt to deal with issues that are really beyond the scope of tolls but provide some comfort or support to the recipients. Whatever the objective, it is desirable that it be clearly articulated and addressed in a least cost way. Our general presumption is that the government should aim for tolls to be set as efficiently, fairly, transparently and simply as possible and avoid the need for toll relief. Significant benefits could be achieved by the whole community if funding was diverted from existing toll relief schemes into reducing tolls. The review considers that toll relief could be reformed by applying the following principles.

If toll relief is considered necessary, it should:

- be targeted to those most in need, to the extent practicable
- the assessment of need would take account of whether the motorist has viable alternative travel options, such as public transport
- avoid unnecessary distortion to tolls •
- apply to travel over the whole toll network; and
- have clear objectives, be monitored and transparently evaluated.

#### Vehicle classifications and multipliers

Tolls currently vary by class of vehicle based largely on vehicle dimensions. Class A covers vehicles of 2.8 metres or less in height and 12.5 metres in length. There are a few variations to this affecting the Eastern Distributor and M5 South-West motorway, which should be removed for consistency.

Class A dimensions cover ordinary vehicles mainly and class B covers all vehicles exceeding Class A dimensions. Toll charges for Class B are generally a multiple of those in Class A. There are significant variations between roads as to what this multiple is. On the Sydney Harbour Crossings the multiple is 1 (one-way only); on the Cross City Tunnel and Eastern Distributor (one-way) it is 2; on Lane Cove Tunnel it is 3.4 and on the other five toll roads it is 3. The Review is proposing a modified vehicle classification structure and uniform definitions and multipliers across all the tolled motorways, consistent with the network tolling uniformity objective. Summary of recommended changes to vehicle classes and multipliers provided below.

8	1 1								
gure 0.6 Recommended future vehicle multiplier arrangements.									
	Definition	Multiplier	Current toll classification	Proposed new classification					
Motorcycle (a new class)	A two wheeled motor vehicle, including motor vehicles with a trailer or side car.	0.5	А	1					
Car (Class A)	<ul> <li>A vehicle that is:</li> <li>not a motorcycle</li> <li>is 2.8 metres or less in height</li> <li>and 12.5 metres or less in length.</li> </ul>	1	А	2					
Vid Class Heavy Vehicle	A vehicle that is • not Class 1 or 2 and	2	В	3					

	<ul> <li>and 12.5 metres or less in length.</li> </ul>			
d Class avy hicle	<ul> <li>A vehicle that is</li> <li>not Class 1 or 2 and</li> <li>3.3 metres or less in height and</li> <li>12.5 metres or less in length.</li> </ul>	2	В	3

	Definition	Multiplier	Current toll classification	Proposed new classification					
Other Heavy Vehicle (Class B)	A vehicle that is not Class 1, 2 or 3	3	В	4					
Notes:	Vehicle dimensions include the din recreational vehicles, as registered The classifications based on axle o	icle dimensions include the dimensions of loads and trailers, except towed eational vehicles, as registered, which will be rated on the towing vehicle only. classifications based on axle counts are superseded.							

#### Source: Independent Toll Review

The Review considers that the impact of these changes should be closely monitored to assess whether the reduction in multiplier for Mid Class Heavy Vehicles achieves the objective of encouraging more of these trucks to use the toll motorways rather than ancillary and local roads. If not successful, the higher multiplier may need to be restored to better balance toll revenues.

We consider that the multiplier on very heavy, high productivity vehicles could be increased based on costs imposed on the roads but have not recommended it at this stage given the impact of other network toll changes affecting these vehicles. Higher productivity vehicles will also have greater capacity to pay.

We note that NSW Government has announced a Freight Policy Reform Program to improve the safety, sustainability and productivity of freight transport, which is currently engaging with industry and the public. Our recommendations should be considered alongside the work of this program, and the outcomes of the current two-year trial offering rebates on current Class B multipliers to vehicles travelling on the M5 East and M8.

#### 10. Assessment of toll reforms

The Review has undertaken traffic and modelling of relevant scenarios relating to the introduction of network tolling. Sensitivity testing of key assumptions has also been undertaken.

We have tried different ways of applying our declining distance and infrastructure charging approach, and improved it based on the results. Through modelling we considered how changing and lowering the tolls will affect the drivers' benefits, such as paying less in tolls and travelling faster; and how it will affect the road network, such as more cars using the toll roads, and reduced congestion on toll roads, ancillary and local roads. We anticipate this work continuing and being further refined after the Review and before network tolls are introduced.

The traffic models used have been developed by TfNSW and independent experts over time to world class standard. The key inputs for the traffic modelling process included:

- Traffic Demand: inputs were based on 2022 forecast land use and demographics for Sydney (which determines the size of the travel market) and spatial distribution of employment which significantly shapes travel patterns across the city.
- Transport Network: inputs were based on the physical transport infrastructure and services (including the road network and public transport services), as well as monetary costs (e.g. tolls, parking and public transport fares) which influence travellers' options to travel.
- Economic and Behavioural: Sydney toll roads use various measures to determine toll increases and affordability. These include the Consumer Price Index (CPI) and Average Weekly Earnings (AWE). Updated Value of Travel Time Savings (VTTS) inputs, based on 2023 surveys, were used to estimate users' willingness to pay for travel time savings.

- Observed traffic behaviour: The traffic model has been calibrated and validated using a range of observed datasets which describe the use of the Sydney road network. This includes traffic counts at around 1,000 locations across Sydney, travel time data for key corridors and travel patterns from the Household Travel Survey.
- Modelling was conducted for 2026, considered the earliest possible year for implementing toll reform, and for 2031, 2041 and 2051 when all committed toll roads and major motorway upgrades, such as the Western Harbour Tunnel, M6, Sydney Gateway, M12, and M7 widening, are expected to be operational. However, as the future trends largely mirror those of 2026, the focus of discussion in the Report is 2026.

Three scenarios were modelled, which we refer to as Status Quo; Network Toll Restructure; and Network Toll Restructure and Reduction. These are described in <u>Figure 0.7</u>. The network toll scenarios can be compared to the Status Quo and to each other. The network scenarios are presented as bookends of what we anticipate could apply. On the spectrum of possible outcomes between these 'bookends', our preference would be to see something closer to the Network Toll Restructure and Reduction scenario end than the Network Restructure scenario alone.

	Status Quo	Network Toll Restructure	Network Toll Restructure and Reduction
Tolling structure	Based on the continuation of existing tolling arrangements into the future individual concessions	<ul> <li>Declining distance and infrastructure charge.</li> <li>Total tolls paid is equal to Status Quo (2026).</li> <li>Reduction in tolls through reinvestment of additional revenue flowing to government from a) two-way tolling to lowering tolls, and b) the introduction of heavy vehicle multipliers on the Sydney Harbour Crossings.</li> </ul>	<ul> <li>Declining distance and infrastructure charge.</li> <li>Total tolls paid by motorists is equal to the Status Quo 2026, less \$650m per year (real 2026) of additional funding sources within the tolling system.</li> <li>Reduction in tolls through reinvestment of additional revenue flowing to government from a) two-way tolling to lowering tolls, and b) the introduction of heavy vehicle multipliers on the Sydney Harbour Crossings.</li> </ul>
Toll relief	Assumes continuation of M5 Cashback.	Assumes continuation of M5 Cashback.	Assumes continuation of M5 Cashback.
Two-way tolling	One-way tolling continues on the	• Two-way tolling is in place on the ED and the SHC from 2026.	• Two-way tolling is in place on the ED and the SHC from 2026.

Figure 0.7 The network scenarios compared to the Status Quo and each other

	Status Quo	Network Toll Restructure	Network Toll Restructure and Reduction
	<ul> <li>Eastern Distributor (ED).</li> <li>Two-way tolling is in place on the Sydney Harbour Crossings (SHC) from Western Harbour Tunnel (WHT) opening assumed to be in 2028.</li> </ul>	<ul> <li>WHT is assumed to be part of the SHC from 2028.</li> </ul>	<ul> <li>WHT is assumed to be part of the SHC from 2028.</li> </ul>
Vehicle classes	Two vehicle classes: Class A and Class B as per the current arrangements.	Four vehicle classes: Class A and Class B, a new class for motorcycles, and a new class for MCHV.	Four vehicle classes: Class A and Class B, a new class for motorcycles, and a new class for MCHV.

Source: Independent Toll Review

Inputs for modelling Network Toll Restructure and Network Toll Restructure and Reduction scenarios

Figure 0.8 Indicative Network Toll Restructure and Network Toll Restructure and Reduction structures in nominal 2026 dollars

	Network Toll Restructure	Network Toll Restructure and Reduction
Declining distance rate components		
Toll for first distance segment	\$0.65/km	\$0.50/km
Distance segment length	4 km	4 km
Declining percentage	15%	15%
Infrastructure charges		
Sydney Harbour Bridge, Sydney Harbour Tunnel (Western Harbour Tunnel assumed to be aligned from 2028)	\$4.70 (peak) \$1.70 (off-peak)	\$4.20 (peak) \$1.60 (off-peak)
Cross City Tunnel	\$5.00	\$3.00
Eastern Distributor	\$6.00	\$3.00
Lane Cove Tunnel	\$4.00	\$2.00
NorthConnex	\$5.00	\$2.00
WestConnex – M8	\$2.50	\$0.50

	Network Toll Restructure	Network Toll Restructure and Reduction
WestConnex – M4-M8 Link (Haberfield to St Peters)	\$4.00	\$1.00
WestConnex – M4-M8 Link and Rozelle Interchange (Haberfield to Rozelle)	\$1.50	\$0.50
WestConnex – M4-M8 Link and Rozelle Interchange (St Peters Interchange to Rozelle)	\$2.50	\$0.50
WestConnex M4 East Tunnels	\$1.50	\$0.50
WestConnex M5 East Tunnels	\$1.50	\$0.50
M6 Stage 1	\$0.50	\$0.50
Vehicle class multipliers		
Motorcycles	0.5x	0.5x
Light Vehicles	1.0x	1.0x
Mid-Class Heavy Vehicles	2.0x	2.0x
Large Heavy Vehicles	3.0x	3.0x
Point toll		
Military Road E-Ramps	\$2.15	\$2.15

Source: Independent Toll Review

#### **Modelling outputs**

Analysis suggests that changes in tolls and travel times under network tolling, when considered together, are favourable for motorists in Sydney's outer north, south and west. Most travellers across the network will enjoy faster journey times and lower toll costs. Benefits to motorists are greater under the Network Restructure and Reduction scenario than the Network Restructure scenario. Importantly significant travel time savings occur on ancillary and local roads with diversion to the toll roads especially under the Network Restructure and Reduction scenario.

The analysis suggests that two-way tolling on the Eastern Distributor, and the Sydney Harbour Crossings are the changes that are contributing most to some motorists experiencing unfavourable outcomes, not the general structure of network tolls.

The introduction of network tolls is anticipated to alter motorist behaviour. Traffic impact analysis (shown below) indicates forecast changes in traffic patterns for an average school day in 2026. In some areas (marked orange to red), a reduction in traffic volumes is expected. This reduction is likely to lead to increased network speeds, thereby contributing to overall travel time savings. In contrast, other areas show a forecast increase in traffic volumes (marked in blue). This could mean better use of roads with available capacity. Conceivably there could be added pressure on parts of the road network, requiring further study of options at a more detailed level, including modifying tolls or adjustment of the parameters available in the proposed tolling system, to address this.

#### Network Toll Restructure scenario

The Volume Difference Plot illustrates an increase in the volume of trips on tolled roads around the M2, M4, and M5 East sections of the network compared to the Status Quo. Along these corridors, there are often reductions in volume on alternative road routes.

Conversely, traffic is expected to be diverted from motorways such as the Sydney Harbour Bridge and Tunnel, Eastern Distributor, and M8. For the first two, this is primarily due to the introduction of two-way tolling, with the Sydney Harbour Bridge and Tunnel also incorporating time-of-day tolls. Traffic modelling estimates that the modelled time-of-day tolls will reduce traffic volumes on the Harbour Crossing during peak periods and increase traffic during off-peak times. This results in a net decrease in demand for the Harbour Crossings. As a result, alternative routes like the Iron Cove Bridge and Anzac Bridge will experience increased traffic during peak periods and decreased traffic during off-peak times. Whilst this may demonstrate the impact of the changes to peak and off-peak tolls on the Sydney Harbour Crossings that were modelled, this is not an outcome we would want to see. Further adjustments to model inputs can be made to deal with this and optimise network traffic flows.





Source: Independent Toll Review
#### Network Toll Restructure and Reduction scenario

Traffic volume increases are forecast for the M2, M4, M5 East and M5 South-West, and M7 compared to the Status Quo due to the reduction in tolls under this option. Conversely, traffic reductions are forecast for the Sydney Harbour Crossings and the southbound direction of the Eastern Distributor. The implementation of two-way tolling is again expected to add pressure to roads nearing capacity. A review of daily traffic changes suggests that some mitigation options will need to be investigated to alleviate any potential decrease in road user experience on the M2, M7, and M5 South-West toll roads, as well as key roads such as River Road, Victoria Road, and James Ruse Drive. However, with the opening of the Western Harbour Tunnel, traffic forecasts indicate that traffic may divert from River Road and Victoria Road to the Western Harbour Tunnel.

Figure 0.10 Daily Traffic Volume Difference Map – Status Quo vs. Network Toll Restructure and Reduction



#### Source: Independent Toll Review

As a snapshot of the outcomes from network tolling, the average toll has been calculated and compared to the Status Quo. This has been completed for Class A vehicles and all vehicles.

#### Figure 0.11 Average toll by scenario in 2026

Vehicle type	Status Quo	Network Toll Restructure	% reduction: Network Toll Restructure compared to Status Quo	Network Toll Restructure and Reduction	% reduction: Network Toll Restructure and Reduction compared to Status Quo
Class A	\$9.02	\$7.62	16%	\$5.43	40%
All vehicles	\$11.18	\$9.11	19%	\$6.48	42%

Source: Independent Toll Review

Average tolls are lower in both network toll scenarios, for all vehicles, as compared to the Status Quo scenario, but especially with the Network Toll Restructure and Reduction scenario.

A significant factor in the lower average tolls in the network tolling scenarios is that more trips in these scenarios involve paying a toll. This is largely due to the introduction of two-way tolling on the Sydney Harbour Crossings and the Eastern Distributor. With more trips paying a toll, the average toll per tolled trip reduces. Another factor is the introduction of multipliers for heavy vehicles, including the proposed MCHV class on the Sydney Harbour Crossings, which will generate additional revenue.

The reductions in average tolls are significant. For Class A vehicles, average tolls compared to the Status Quo drop by 16% with the Network Toll Restructure scenario and 40% with Network Toll Restructure and Reduction scenario. The equivalent changes for the All Vehicles are 19% and 42% respectively.

Neither of the network toll scenarios we have presented is the final or optimal solution. A more realistic scenario would be somewhere between them, in the direction of the Network Toll Restructure and Reduction scenario, balancing the trade-offs between revenue generation, traffic management, equity and affordability.

The tables below show the proportion of Class A trips (by trip length band) where tolls are expected to increase and decrease under each of the network toll scenarios.

Class A, Toll difference, Network Toll Restructure compared to Status Quo, 2026							
Trip distance	\$3+ lower	\$1–3 lower	\$0–1 lower	\$0–1 higher	\$1–3 higher	\$3+ higher	Total % of trips
<10 km	3%	10%	6%	14%	3%	16%	52%
10–25 km	3%	9%	5%	7%	4%	3%	32%
>25 km	4%	4%	3%	1%	4%	1%	16%
All trips	11%	23%	14%	22%	10%	20%	100%

Figure 0.12 Class A, indicative toll difference, Network Toll Restructure compared to Status Quo, 2026

Source: Independent Toll Review

Class A, Toll difference, Network Toll Restructure and Reduction compared to Status Quo, 2026							
Trip distance	\$3+ lower	\$1–3 lower	\$0–1 lower	\$0-1 higher	\$1-3 higher	\$3+ higher	Total % of trips
<10 km	10%	13%	10%	2%	3%	14%	52%
10–25 km	17%	7%	4%	0%	0%	2%	32%
>25 km	14%	1%	1%	0%	0%	0%	16%
All trips	41%	22%	15%	2%	3%	17%	100%

Figure 0.13 Class A, indicative toll difference, Network Toll Restructure and Reduction compared to Status Quo, 2026

#### Source: Independent Toll Review

The tables indicate:

- The shares of trips by distance bands are consistent across both network toll scenarios, and most trips are shorter trips of less than 10 km (52%).
- With the Network Toll Restructure scenario, the proportion of trips with lower tolls (48%) and higher tolls (52%) is relatively similar.
- The Network Toll Restructure and Reduction scenario has more and bigger trip toll reductions; around 78% of trips pay less tolls.

The Final Report contains a geographic representation of the average toll change for private vehicles under the Network Toll Restructure scenario and Network Toll Restructure and Reduction scenarios relative to the Status Quo (Figures 10.10 and 10.11).

Also in the Final Report are details of tolls for selected trips under the Network Toll Restructure and Network Toll Restructure and Reduction scenarios compared to the Status Quo (Fig. 10.12). They show many routes where vehicle classes experience lower tolls under the network tolling scenarios.

The selected trip toll data indicates network tolling maintains a correlation between distance and tolls, but the declining distance kilometre rate generally results in lower tolls for long-distance trips compared to the Status Quo.

Network tolling also offers motorists clear benefits on the M2 and M5 South-West, where currently drivers incur charges when they pass fixed toll points. Under network tolling motorists pay instead a declining distance charge for the actual distance they travel (and infrastructure charges as applicable), leading to lower tolls.

There are routes where tolls are forecast to increase. Introducing two-way tolling on the Eastern Distributor and Sydney Harbour Crossings along with higher infrastructure charges on these routes, increases tolls for certain trips, such as those from the CBD or north of the Harbour Bridge to Sydney Airport.

Additionally, the cumulative nature of infrastructure charges raises tolls for routes involving multiple ventilated tunnels and/or the Sydney Harbour Bridge, despite the individual charges being relatively low.

There are some routes where the effects of both two-way tolling and multiple infrastructure charges are evident, resulting in higher tolls.

The introduction of the MCHV class generally leads to lower toll costs across the network for this vehicle class, as it has a multiplier of 2x under network tolls, compared to 3x under the Status Quo.

Heavy Vehicles also generally have a lower set of tolls under network tolls. Exceptions, where tolls are higher for Heavy Vehicles and the MCHV class, occur mainly where tolling has been expanded (northbound tolling on Sydney Harbour Crossings and southbound tolling on the Eastern Distributor) or charging by vehicle class introduced (Sydney Harbour Crossings).

## Sensitivity analysis of results

Sensitivity analysis assists in understanding how modelled travel behaviour changes in response to changes in input assumptions. For example, if we lower the toll per kilometre by a small amount, does the model predict a large or small change in the number of vehicles using toll roads? By doing this kind of analysis we can identify which assumptions are most influential on the modelled outcomes.

Results of sensitivity testing undertaken for the Review on the Network Toll Restructure scenario 2026 are shown below. In general, changes to the VTTS parameters resulted in a larger proportional shift to the number of toll road users. Average tolls were more sensitive to changes in the initial distance segment toll, as opposed to alterations to the segment distance or declining rates. An initial distance segment reduction from \$0.65/km to \$0.60/km increased daily traffic on the network by approximately 23,000 vehicles but resulted in \$120 million less in annual total tolls paid.

Sensitivity test	Change in average school- term weekday toll road users	Change in annual total tolls paid	Change in average toll
Decrease initial segment toll from \$0.65/km to \$0.60/km	+2.0%	-3.6%	-5.5%
Decrease segment distance from 4km to 3km	+0.8%	-4.6%	-5.3%
Increase declining distance rate from 15% to 20%	+0.4%	-3.9%	-4.4%
Decrease all infrastructure charges by 10%	+0.6%	-1.8%	-2.3%
Increase VTTS parameters for all trip purposes and vehicle classes by 20%	+5.9%	+6.6%	0.6%
Decrease VTTS parameters for all trip purposes and vehicle classes by 20%	-7.6%	-8.4%	-0.9%

Figure 0.14 Modelling sensitivity tests, per cent change from Network Toll Restructure, 2026 all vehicles

#### Source: Independent Toll Review

The sensitivity analysis demonstrates the flexibility of the declining distance and infrastructure charging approach, and how small adjustment to tolling components result in different outcomes. The initial segment toll, segment distance block sizes, declining distance rate and variable fixed infrastructure charges can all, either separately or in combinations, be varied as required to achieve different traffic and tolling outcomes across the network as a whole and importantly at particular parts of the network. For example, increasing the declining distance rate from 15% to 20% generally attracts more trips along corridors that enable long-distance travel, such as the M2 and M7. Conversely, reducing some infrastructure charges has larger impacts on the east side, especially on the Eastern Distributor.

## 11. Institutional reforms

The introduction and operation of network tolls and related reforms will require new institutional arrangements. This will be the case irrespective of the precise way in which network tolls are implemented. Implementation could be either through government-concessionaire negotiation or be government-led.

The Review has proposed the establishment of a State-owned tolling body (NSW Motorways) to lead the reform process and be responsible for determining network tolls in consultation with concessionaires and other stakeholders. It is also recommending IPART have a significant role in oversighting tolls and contributing to the understanding of tolling issues. Legislative change will be necessary to underpin the change to network tolls.

## **NSW Motorways**

The Review considers that the NSW Government should take control of motorway tolls and the motorist experience through NSW Motorways. It should have responsibility for driving the toll reform agenda. NSW Motorways should be a separate and dedicated State-owned entity with full day-to-day independence over the operational and commercial decisions it takes to achieve the expectations placed upon it by government. Its objectives should align with the long-term interests of NSW motorways and motorists. One of its objectives should be the promotion of competition where feasible and desirable. NSW Motorways should apply a pro-competition focus to every aspect of its decision-making. NSW Motorways would be expected to engage staff with the necessary expertise to perform its functions. With investment over time, NSW Motorways will build strong public sector capability and expertise in its tolled motorways providing government and motorists with enhanced value for money.

NSW Motorways will operate the network trip reconstruction engine (C2.5). It will receive the data collected and processed by individual toll roads and determine the value of each individual trip across one or more separate toll roads based on the new network tolling model. NSW Motorways will provide the necessary trip data to toll retailers to ensure the right amounts are charged to motorists and remitted to toll road operators.

It is proposed that the E-Toll toll retailer business could transfer from TfNSW to NSW Motorways. NSW Motorways, as a dedicated body with greater autonomy, is expected to be able to provide a stronger user focus and be a more proactive competitor.

TfNSW currently issues toll notices (on behalf of toll road operators) to motorists who have not arranged to pay their tolls within 72 hours. It is proposed that this 'fee-for-service' function also transition to NSW Motorways. NSW Motorways would take over from TfNSW in relation to toll notice improvements (e.g. digitised toll notices, immediate notifications and renaming 'toll notices' to 'invoices').

Richer customer-level data will assist NSW Motorways in assessing and modelling the customer impact of toll adjustments and reforms. NSW Motorways will be in a position to understand the characteristics, circumstances and preferences of all toll road users regardless of their choice of toll retailer.

NSW Motorways will work with industry and relevant government agencies to lead the implementation of motorist experience improvements. It will do this as a toll retailer and through a significant customer advocate role.

The Review sees potential merit in a broader role for NSW Motorways as: (i) an operator of government-owned toll roads, and/or (ii) the government counterparty for concession agreements with the private sector. Transferring road ownership would make NSW Motorways a more conventional roads authority, taking a direct role in the development and operation of the toll road network, and directly managing concession contracts. It may also be empowered to undertake direct borrowings and investment if required.

There appears to be significant potential benefits to be achieved by bringing public toll road assets and PPP contract management responsibilities into NSW Motorways. However, there is the potential for conflicts of interest if NSW Motorways was both the network toll setter as well as the operator of some toll roads. These potential conflicts would need to be addressed in appropriate ways, such as ring-fencing governance of regulatory functions from market functions. The involvement of IPART in overseeing toll setting (discussed below) may also assist in dealing with any potential conflicts, real or perceived, if government wished to proceed with a vertically integrated operating model for NSW Motorways.

## Concessionaire negotiations and revenue adjustments

Under the current system the tolls paid by motorists are set out in toll schedules in concession agreements. The introduction of a unified system of tolling will change the tolls motorists pay from what is currently in place. This change in tolls is likely to change traffic volumes and toll revenue on each individual toll road – some toll road operators would receive more toll revenue, and some less revenue, than expected under existing contractual arrangements.

A government-concessionaire negotiated approach to establishing network tolls may be possible, with concession agreements then being amended to encompass the new network tolls, as concession owners have shown a willingness to achieve network reform. However, to ensure the deliverability of toll reform outcomes, a Revenue Adjustment Mechanism should be developed where, as far as possible, toll road operators receive a similar amount of revenue as they would have received had motorists been charged under existing toll arrangements in the event that a negotiated outcome is not achievable.

## Principles for a Revenue Adjustment Mechanism

Different assumptions, criteria, models and processes can be adopted to achieve revenue adjustment. As a starting point, the Review assumed, as a minimum, that revenue available from two-way tolling on existing toll roads that are currently only tolled one-way, could be injected into the setting of new network tolls. Additional funding sources identified by government and concessionaires can also be applied to support toll reduction as well as restructure.

This will enable some trips to be cheaper for motorists than under Status Quo tolls and, without revenue adjustment, result in some toll road operators collecting less toll revenue relative to the Status Quo. It is proposed that any additional toll revenue earned by operators, together with the toll revenue raised from two-way tolling and other funding sources, be used to 'true-up' the revenue shortfall of those operators that receive less revenue under new network tolls.

Our approach at this stage in considering revenue adjustment is primarily focused on the system as a whole. At the level of each individual toll road operator, we expect a similar approach can be adopted.

We considered potential options for revenue adjustment that were aimed at achieving as far as possible the following principles:

- 1. Motorists pay, in aggregate, no more than they would under the current tolling regime.
- 2. There is no cost to the government, other than the implementation cost to establish network tolling and the contribution of revenue raised from two-way tolling.
- 3. Toll road operators should receive a similar amount of expected revenue as they would have received had motorists been charged under existing toll arrangements (the 'status quo').

In the event that agreement to amend the concession agreements cannot be reached, the NSW Motorways entity should have powers to apply revenue adjustment principles to resolve the revenue adjustment outcome. A centralised independent issue resolution process would support the process.

It is expected that there will be close consultation with toll operators, and all interested parties, in establishing this framework. Enabling the implementation of revenue adjustment via legislation will ensure a timely, effective and equitable outcome for all stakeholders, and transparency for the public who can see where their toll revenue is going.

To support the Revenue Adjustment Mechanism, it is proposed that a toll operators' fund be established to enable the distribution of network toll revenue (including two-way toll revenue and other funding sources) between toll road operators and ensure that each toll road operator is paid the amount due for vehicles travelling on its toll road.

## Principles for revenue adjustment

Two options were developed for preliminary consultation with toll road operators and their investors:

**Option 1 – status quo traffic forecast:** Under this option, toll road operator revenue would be determined by the application of tolls under existing contracts (being the tolls that would have applied if network tolling were not introduced) to forecast traffic volumes expected to have occurred had there been no change to tolls for motorists. The toll road operator's status quo traffic is forecast by modelling the traffic expected under existing contract tolls. The toll road operator's revenue is determined as a calculation of contract toll multiplied by the modelled traffic volume. Conceptually, this keeps toll operators 'whole' from a revenue perspective. A significant side effect of this approach is that it allocates traffic risk and opportunity to the government.

**Option 2 – price elasticity of demand:** This approach works off actual traffic volumes rather than by forecasts. At the aggregate level, the actual traffic volume would be discounted to the extent that the volume was boosted by the lower tolls brought about by support from funding sources (the elasticity adjustment). The elasticity coefficient would initially be determined by forecasting the elasticity coefficient discount. After a period of time under network tolling, the forecast elasticity coefficient could be updated to reflect actual traffic volumes observed from the change in tolls. Under this option, toll road operator revenue remains a function of actual traffic volume and therefore toll operators remain exposed to underlying traffic demand risk and opportunity. This option avoids the problem of traffic risk transfer in option 1.

The preference of concessionaires is to work in partnership with government on potential solutions that could be implemented as a one-off adjustment or reset to support implementation of network tolling rather than having a Revenue Adjustment Mechanism applied. The Review supports a government-concessionaire negotiated approach as long as it meets the end 2024 target timeline but would still want to see motorists being billed once for each trip, not separately for the components of the trip provided by different toll road operators. A statutory-backed Revenue Adjustment Mechanism would be an important backstop to this.

## There are opportunities for IPART to contribute to reform

The involvement of independent regulators such as IPART in NSW is common in industries where substantial investments and inelastic demand are present, including where there is private ownership. These include water, energy, rail and airports.

IPART is established through the *Independent Pricing and Regulatory Tribunal Act 1992* (IPART Act), which sets out its primary functions and governance. IPART's involvement in network tolling issues would bring expertise and greater transparency to the consideration of tolling issues and the impacts of reform.

Industry participants did not generally favour a toll regulation role for IPART as was promoted by academic commentators and strongly supported by other groups and motorists, including the NRMA.

Any involvement of IPART would need to have regard to the provisions in concession contracts as well as its own Act and any other relevant legislation. In current circumstances we do not consider IPART needs to have a role of determining network tolls, but we would not rule out this possibility for some time in the future. We see three important roles for IPART at the current time:

- Price monitoring
- Investigation or analysis of specific tolling issues
- Recommendations on tolls

Annual monitoring would support transparency and public confidence in tolls. It could assist in monitoring the impacts of reforms and related concession-related matters, including progress of concessionaires in realising their BCFM expectations. It could usefully assess the operation of toll relief schemes.

IPART should commence an investigation as soon as possible into the appropriate methodology for assessing tolls. In referring this matter to IPART, the relevant Minister should request that IPART take the Proposed New Tolling Principles into consideration.

IPART could provide input and advice to NSW Motorways on tolls, including advice on time-of day-tolls.

## Legislation

Legislation is needed to provide the framework for the reforms proposed by the Review. Preliminary consideration has been given to what the legislative package should include. It is acknowledged that significant further review and consultation is required to develop the draft legislation.

It is anticipated the reforms would be implemented through a toll reform bill which would include changes to the *Transport Administration Act 1988* (TAA) (to establish NSW Motorways and any statutory functions) and to the *Roads Act 1993* (Roads Act) and *Roads Regulation 2018* (Roads Regulation). The Roads Act and Roads Regulation would be the vehicle for reform of tolls.

A new division would be introduced into the Roads Act, largely replacing the existing tolling provisions.

The proposed bill (together with revised Roads Regulation) would:

- enable efficient, fair, simple and transparent tolls for motorists
- strengthen consumer rights through the establishment of the tolling customer advocate
- improve transparency of decision-making about tolling
- provide for any necessary revenue adjustment principles
- simplify compliance and enforcement
- protect the interests of road owners and lessees in a network tolling scheme
- clarify, as necessary, respective roles and responsibilities of NSW Motorways and TfNSW.

## Establishing NSW Motorways

NSW Motorways would be established under a new part inserted into the *Transport Administration Act 1988* (TAA). NSW Motorways would have the functions conferred on it under the TAA, the Roads Act, and any other relevant Act. A list of suggested functions, powers and obligations is as follows:

Asset owner functions

• Commission infrastructure and systems to facilitate network tolling (including powers to acquire and enter land).

- Operate the network-wide tolling back office for trip processing to ensure the right amounts are charged to motorists and credited to the appropriate road owners.
- Service provider to toll road operators and motorists.
- Manage the toll operators' fund.
- Conduct a business using the assets and staff of NSW Motorways.

**Retailer functions** 

• Conduct the E-Toll business of the State on an inter-operable basis.

**Regulator functions** 

- Set the toll road network tolls in consultation with concessionaires and in consideration of any recommendations from IPART.
- Promote and drive reform of tolling to enhance transparency and improve the experience for motorists.
- Make revenue adjustment determinations.

The legislation would set out the requirement for NSW Motorways to be overseen by a board of independent directors to be appointed by the relevant Minister.

## Establishing IPART role

The IPART Act provides the framework for the role of IPART. The new legislation would empower IPART (by Ministerial referral) to oversee tolls by providing for three roles:

- price monitoring
- investigation or analysis of specific tolling issues
- recommendation on tolls.

The legislation would also allow IPART to give advice to the Minister on the appropriate maximum roaming fee or mechanism for regulating roaming fees.

Toll road operators and toll retailers will be required to provide information to IPART to enable it to oversee tolls and roaming fees. The legislation would provide IPART with effective information gathering powers to perform this task – equivalent to those the ACCC has for this type of work.

## Phasing

Toll reforms can be seen as occurring over three phases including the establishment of NSW Motorways and new legislation, implementation of network tolls and then identification of further broader reforms. It could be two years before a network system of tolls can be initiated but there are things we recommend that can occur before then, especially reforms to improve the motorists' experience in using toll roads. The Reviewers understand that many will be frustrated about the length of time required to achieve substantive toll reform, however, we are dealing with a legacy of several decades and without these changes this legacy will continue until at least 2060, when the last of the current concessions are due to expire.

## Phase 1

Phase 1 involves legislation being passed by the government to:

• Provide clear authority, and set criteria, for tolls to be set on a more uniform basis across the network.

- Establish NSW Motorways to assume responsibility for setting network tolls in the future. It would be expected that NSW Motorways would initially move to implement the network structure recommended by the Review.
- Establish a role for IPART to assist network toll setting by NSW Motorways.
- Provide a mechanism to resolve expeditiously and fairly, issues relating to the distribution of network revenues to individual toll road operators to maintain the current status quo in this regard in the event that this may be required to progress toll reform.

## Phase 2

Phase 2 will see the implementation of toll reforms to reduce tolls, including the introduction of new network tolls.

The Review supports negotiation as the first avenue for implementing network tolls. In the event the negotiations fail to deliver true reform, the legislation will be ready to invoke.

## Phase 3

Phase 3 of tolling reform might involve consideration of other ways to reduce the toll burden on motorists by, for example:

- Removing tolls from some roads if the State had the financial capacity.
- Broadening the tolling base by incorporating motorways that are now part of the continuous network but remain untolled. Exemptions from the tolled network create distortions and complicate operation of the tolled network. Including them within the tolled network would be consistent with the efficiency, fairness, simplicity and transparency criteria used to evaluate existing tolls. This may be appropriate in the longer-term particularly with the likelihood of broader road pricing reforms being introduced. However, as it would be contrary to existing government policy to impose tolls on currently untolled roads and also road pricing is not within our terms of reference, we have made no recommendation on these particular matters.
- Amending the approach to PPP agreements to enhance competition. This may involve taking a stronger approach to designing contracts which are consistent with the promotion of competition and improving toll setting processes.

## 12. Competition reforms

Transurban's high toll road market share is likely to give it significant incumbency advantages over other competitors in the market, and over potential competitors. This is despite the requirements imposed on the company by court-enforceable undertakings in 2018 to publish traffic data useful in modelling for concession bids. The company has been able to capture efficiency gains from its growth in market share over time. Through its partnership with the government across the toll road industry, it has been able to garner significant political influence. The company is in a position where it can have considerable influence over transport planning and policy matters, including toll reform.

Transurban's view about toll reform is critical because of its influence in the market. If the market was less concentrated with more competitors toll reforms might be easier. This is not to suggest, however, that there would not have been similar difficult issues to deal with.

Nevertheless, toll reform may itself provide opportunities for other measures to be considered that may help to enhance competition in the longer term. Ensuring that IPART is able to monitor prices and concession performance, report publicly on its work, and provide expert commentary to NSW Motorways and government would be an important step to enhance the transparency of tolls.

There may also be potential for government-owned toll roads to have greater influence on the industry as new roads and tunnels are constructed and remain in government ownership. There are steps that could be taken to achieve better outcomes from competition for the market when new concession agreements become available or extensions to existing agreements are in contemplation. The government could look to revamp tender processes to better reflect the importance of promoting effective competition for the market. This may involve:

- ensuring that there are always a number of competing bids
- ensuring that the bidders are all well informed about the operation of the network, traffic flows and volumes and financial performance of roads that make up the network
- ensuring that bid evaluation criteria focus on the importance of minimising tolls (or adhering to network tolls where these apply) and costs subject to achieving other relevant quality and service outcomes
- ensuring that bid evaluation criteria include consideration of the impact on industry concentration.

An important consideration in relation to concessions concerns the allocation of risks between the contracting parties. This allocation can have significant competition consequences, as well as consequences for tolls. Transurban's in depth knowledge and management of demand risk arguably still gives it an advantage over potential rivals. Not having traffic risk, as for example is the case with availability PPPs, would likely attract new classes of investors who are looking to invest in more stable and certain income streams.

Concession length is related to the issue of traffic risk. Concession length could be determined according to when revenue, including traffic forecasts, determined at the start of the concession were fully realised. Setting concession length in this way may lead to longer or shorter lengths than would have been set in the more traditional way.

Reduced concession lengths may be more conducive to the promotion of competition and toll reform as they give opportunity to renew contract terms more frequently to better reflect these objectives and bids can be assessed with these objectives more sharply in focus. Conversely, longer concession lengths involve great loss of control for the government and less flexibility to respond to technological and other factors affecting supply and demand over time.

Whilst there are competition benefits from shorter concession lengths, we also recognise the potential strategic benefits than can be obtained by trading off increases in concession length for real reforms to competition and tolls.

An Unsolicited Proposal (USP) arises when a proponent independently approaches the government with a commercial proposition, without any prior request from the government. They are a separate pathway for procurement and involve negotiations with one party rather than competitive bidding. USPs have been significant in the growth of Transurban in the Sydney market. The ACCC has argued they advantage incumbent toll operators and that competitive processes offer better value for money. Under network tolling, stronger consideration to demand management tolling measures could be expected. This consideration should be taken into account when assessing any USP to increase network capacity.

Potential regulation of roaming fees provides a safeguard for new entrants concerned about the possibility that a vertically integrated incumbent concessionaire may use its market power to competitive detriment. IPART involvement in this regulation, rather than NSW Motorways, would overcome concerns about possible conflict of interest here.

## D: A better system for motorists

## 13. Improving the motorist experience

Setting uniform network tolls which are efficient, fair, transparent and simple should significantly improve the motorists' experience of using toll roads, but there are other aspects of this experience which also need to be improved. These relate to trip planning, travelling on the roads, dealing with retailers and receiving toll notices, making complaints and responding to unpaid bills.

Most of the government focus on toll roads seems to have been on the financial aspects of concession deals. The individual experiences of motorists seem to have had lesser priority. Our aim in this Review has been to ensure motorists are put first.

## **Transparency issues**

Transparency is an important issue for motorists and the proposals in our Interim Report to improve online resources, signage, and user-specific information through retail accounts were strongly endorsed by motorists.

The Review considers there are opportunities to:

- revamp statements to be more informative and user-friendly, including:
  - fee breakdowns and links to fee information
  - historical usage data so that motorists can understand how much they spend on tolls
- provide predictions of toll road use for motorists based on factors such as historical use, seasonality, and personal factors
- improve information on retailer websites to improve access to existing toll calculators and content which is currently hard to find
- improve information about cashback and rebates with more prominence to each
- provide personalised reminders and notifications to motorists about their eligibility to claim toll relief
- increase convenience by moving from physical tags to tagless technology.

Transitioning E-Toll's customer base and capabilities to NSW Motorways would position E-Toll to take advantage of these opportunities.

Signage should be improved and incorporate electronic signage where practicable showing tolls, travel times and hazards at key decision points as well as along toll routes. Peak/off-peak tolls and dynamic pricing will only prevent congestion from occurring, or encourage motorists to use an underutilised road, if motorists are informed of the higher or lower pricing in advance of the toll road access point.

TfNSW, NSW Motorways and Linkt should work together to develop a 'one stop shop' holistic transport application and corresponding website that provides a single 'source of truth' for motorists and facilitates trip planning. It should also offer features such as trip information and statements, historic spending breakdowns, predictive spend, cost comparisons, rebates and notifications.

Third-party navigation applications should be further customised to be more personalised for the motorist by allowing them to choose which toll roads they are comfortable travelling with as well as showing emissions usage and fuel consumption data for their specific vehicle type, and further integrating tolls within these apps. Relevant apps include Google Maps, Apple Maps, and Waze.

Non-digital education options should be provided to motorists for tolling-related topics. This could include hardcopy pamphlets and brochures distributed at Service NSW Centres and via direct mail when a motorist receives their first toll notice, their first licence or an E-Toll tag.

## Appointment of a customer advocate

An important recommendation of this Final Report is the appointment of a customer advocate within NSW Motorways.

This position is intended to bring a dedicated focus to motorist experience improvements. Cooperation across TfNSW, Service NSW and industry will be required to implement our proposed initiatives. NSW Motorways' involvement will help ensure that those key players appropriately prioritise the motorist experience.

The customer advocate will be a contact point for motorists unable to resolve complaints satisfactorily with concessionaires or publicly-owned operators. The customer advocate will seek to investigate and resolve systemic issues raised by complaints. The position will provide a high-profile central point of contact for motorists' complaints and issues of concern.

The customer advocate will champion network-wide improvements based on customer feedback and education programs to improve outcomes for customers.

The customer advocate will monitor progress in implementing transparency reforms proposed by the Review to benefit motorists. Many of these proposals have been suggested before but not acted on.

The transition to network tolling will necessitate an overhaul of the toll collection process. From the customer perspective, there will be a single network toll per trip which may involve multiple toll roads. In the background, via the Revenue Adjustment Mechanism, that toll will be paid to multiple toll road operators. Some aspects of this overhaul will be addressed prior to network tolling when consolidated toll notices are introduced. New 'pain points' are anticipated to emerge with this change. The customer advocate will have a critical role in quickly identifying new issues that arise and working across organisations to resolve them.

The customer advocate should be required to report annually on activities undertaken during the year.

## Industry Ombudsman

Our Interim Report contained a preliminary recommendation that the external dispute resolution function for the toll road industry should be established within NSW Motorways. Our final recommendations in relation to toll complaints are to establish a customer advocate role within NSW Motorways and commence discussions with other States to establish a nation-wide external dispute resolution function.

As a customer advocate, NSW Motorways will be able to have a higher impact in promoting positive reform than it could as an external dispute resolution body which would mostly handle disputed debts.

We commented on the role of the Tolling Customer Ombudsman (TCO) in our Interim Report. Our view remains that there is currently no clear external dispute resolution body resolving complaints in relation to tolling in NSW. The TCO is now funded by Transurban as its only customer. The dominance of Transurban raises questions about the independence of the TCO. The TCO suggested, however, there may be merit in a single, statutorily approved external dispute resolution body for tolling across NSW, Queensland and Victoria. Under this model toll road operators and retailers would be required by law to be members of the new scheme. This model has similarities to that adopted for the Australian Financial Complaints Authority and the Telecommunications Industry Ombudsman. Further work is required to assess the justification for such a legislative scheme. The number of complaints relating to toll roads is significantly lower than the financial and telecommunications services industries. Tolling is also largely a state regulated activity, and the laws in each state differ to a degree.

## Unpaid tolls and debt recovery

Improvements to the toll collection process must start with simplifying and modernising toll notices. The Minns government's election commitments to consolidate toll notices and reduce administration fees are an important first step. Consolidated toll notices will save motorists millions of dollars per year in administration fees. In addition, the government should look at:

- digitising toll notices and introducing immediate notifications
- renaming 'toll notices' to 'invoices' to more clearly communicate their purpose
- removing toll notice administration fees and introducing late payment fees to improve fee transparency and provide better incentives for motorists to not delay payment.

Transurban noted its support and advocacy for improvements to the toll notice processes in its submissions to the Review.

Toll notices should also be accompanied by motorist-centric information. For example, motorists should be provided with helpful advice about how the most common underlying causes for inadvertent toll non-payment (e.g. flat E-Tag battery and the licence plate number is not linked to a retail account, insufficient credit card balance) so motorists can act to resolve the problem from causing further unpaid tolls.

Debt recovery can commence if the motorist had no valid arrangement in place (in most cases this will be a working e-tag) and the toll remains unpaid following the specified notice period (typically 14 days) for the second toll notice. We estimate that there is no valid arrangement in place for about \$125 million worth of trips in NSW each year.

Toll road operators can elect to pursue debt through civil proceedings against the registered operator of the offending vehicle or refer toll offences to the State to enforce. Under the criminal enforcement process, issuing the penalty notice is at the discretion of authorised officers within TfNSW.

In most cases, toll road operators elect to pursue civil debt recovery. Criminal enforcement is a regulatory action, not designed for achieving commercial outcomes for toll road operators.

When pursuing civil debt recovery, private toll road operators are bound by Australian and state consumer protection laws. The ACCC and the Australian Securities and Investments Commission have jointly published the *Debt collection guideline: for collectors and creditors*.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> ACCC. (2021, April). Debt collection guideline: for collectors and creditors April 2021. ACCC. <u>https://www.accc.gov.au/system/files/Debt%20collection%20guideline%20for%20collectors%20and%20cred</u> <u>itors%20-%20April%202021.pdf</u>

The existence of these two pathways can be confusing for motorists. Whether the toll road operator elects one pathway or the other can create a very different experience for the motorist. These issues were highlighted by the Aboriginal Legal Service.

There are good policy reasons for encouraging the use of civil debt recovery wherever possible for toll collection. Civil debt recovery should be encouraged as it allows for more effective customer engagement (including compliance education to prevent non-payment issues arising) and removes commercial incentives from the exercise of regulatory discretions.

There are significant opportunities to improve civil debt recovery practices. The Aboriginal Legal Service's comment that civil debt recovery can be less clear and transparent than the criminal enforcement process highlights the scope for improvement in this area. NSW Motorways, through the customer advocate, can encourage the use of best practice debt recovery practices by toll road operators supported by appropriate government policies. Opportunities include:

- Each toll road operator developing and publishing a customer charter.
- Reviewing any legislative constraints on civil debt recovery. The legislation currently only recognises that the debt can be recovered against the owner of the vehicle. The legislation should potentially be expanded to recognise that the debt may be owed by the driver.
- Strategies to improve the accuracy of contact information available for registered vehicle owners.

## The time is right for major reform of toll roads

This is the first major independent review of tolls in New South Wales. It comes at a time when the State now has a fully developed network of toll roads and when the emphasis on private delivery of this major infrastructure is no longer seen as an imperative. We have no doubt however that new roads will continue to be built over time and that the private sector will continue to have an essential role in this.

The legacy of past decisions made within the context of PPP arrangements is what we now have to deal with. Professor John Quiggin (University of Queensland) describes the problem as 'unscrambling the toll road egg'.<sup>4</sup> Past decisions have left an uncoordinated and inconsistent system of tolls, unsustainable long-term burden for users, underutilised toll roads and continuing problems of congestion on other roads.

Action to deal with these problems will not be easy, but we have painted a realistic vision for the way forward and are encouraged by the responses we have recently received from concessionaires. We recognise that toll roads are unique in significant respects, which justifies the initiatives proposed.

Tolls are regulated under long-term PPP contracts, which have significantly different features to most other infrastructure regulatory schemes. Other schemes have independent regulators, regular reviews of prices, consideration is given to the distribution of efficiency improvements and greater public transparency and accountability applies.

The PPPs affecting toll roads also have unique features and have evolved over time in the light of experience. They are a type of PPP which includes private financing, allocating risks in particular ways and affecting tolls in particular ways.

It would be wrong to suggest that the policy responses we have proposed to deal with the identified problems associated with tolls in anyway suggest a precedent for how we or the NSW Government consider infrastructure investment should be regulated in other circumstances.

<sup>&</sup>lt;sup>4</sup> Quiggin, J. & Wang, I. (2019). Unscrambling the toll road egg. Economic Analysis and Policy, 61.

Our public interest assessment is that these arrangements now need to be reformed and that unique measures need to be taken to do this. In particular, to establish a proper network system of tolls, it is necessary to replace the existing contractual provisions relating to the setting of tolls with new provisions. And the new institutional arrangements we have proposed will ensure toll roads operate to the benefit of motorists, as well as concessionaires and the State.

In undertaking reforms, the government should respect the contracts it has with concessionaires and the reasonable expectations of concessionaires. In our view, concessionaires should be constructively engaged in the reform process.

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Toll transparency	<b>Finding 14:</b> Current tolling information fails to adequately enable, inform, and educate motorists, thus reducing user empowerment and efficient decision-making.	<u>152</u>
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	<b>Finding 16:</b> Concessionaires are an unintended beneficiary of the current approach to toll relief. Increased traffic and patronage of toll roads, through induced demand created by toll relief, directly benefits operators by increasing their revenues.	<u>164</u>

Recommendations:		Page. No.
Tolling principles	<b>Recommendation 1:</b> The NSW Government should adopt the Proposed New Tolling Principles.	<u>166</u>
The opportunity for reform: moving to network tolling	<b>Recommendation 2:</b> The NSW Government should adopt network tolling. Implementation will require detailed planning, investment in infrastructure and close monitoring of impacts.	<u>171</u> , <u>196</u>
	<b>Recommendation 3:</b> The NSW Government should adopt declining distance-based tolls as the foundation of network tolling. This would lead to a simpler, more consistent and coherent system of tolls which aligns more closely to the criteria the Review has been asked to consider, namely efficiency, fairness, simplicity and transparency.	<u>171, 196</u>
	<b>Recommendation 4:</b> The NSW Government should consider ways to reduce the level of tolls for Sydney motorists and explore funding sources, especially from within the tolling system, as a pathway to enable lower tolls.	<u>171, 196</u>
	<b>Recommendation 5:</b> The Review recommends that the NSW Government further explore the possible application of the NPVR approach to determining concession lengths and removing traffic risk from concessionaires.	<u>171, 196</u>

Recommendations:		Page. No.
	<b>Recommendation 6:</b> The NSW Government should consider the role of toll relief in supporting the transition to network tolling. Significant changes in toll relief may need to be phased over time.	<u>171, 196</u>
	<b>Recommendation 7:</b> If the NSW Government chooses to extend or phase out toll relief, it should be with consideration of the following principles:	<u>171, 196</u>
	<ul> <li>Toll relief should be targeted to those that are most in need to the extent practicable through means-testing.</li> </ul>	
	ii. The assessment of need would take account of whether the motorist has viable alternative travel options, such as public transport.	
	iii. Toll relief should avoid distorting price signals (e.g. they should not make trips on the tolled network free unless there are good policy reasons for doing this).	
	iv. Toll relief should apply network-wide.	
	v. Toll relief scheme design should support data collection for post-implementation evaluation of scheme performance against policy objectives. Publication of scheme performance against policy objectives could be contemplated as part of broader transparency measures for tolling, for example price monitoring.	
	<b>Recommendation 8:</b> In the transition to network tolling there may be a case for continuing toll relief schemes like the current TR3 (\$60 toll cap), which offer some relief and certainty to motorists. The NSW Government should however consider increasing the cap, for example to \$70, to ease the pressure on government finances. Over time there should also be a move towards means testing in line with our toll relief principles.	<u>172, 196</u>
	<b>Recommendation 9:</b> When the M5 South-West becomes part of WestConnex concession in 2026, if the government still wishes to reform the rebate scheme it should fix the ongoing amount of the rebate at the then nominal rate. The scheme should be reviewed in five years time and reformed to align with principles in Recommendation 7.	<u>172</u> , <u>197</u>

Recommendations:		Page. No.
Future opportunities: using pricing to influence demand	<b>Recommendation 10:</b> Flexible pricing techniques including peak/off-peak tolls, and dynamic pricing should be available as part of a network tolling system.	<u>172, 202</u>
	<b>Recommendation 11:</b> The NSW Government should consider an initial focus on freight operators for peak and off-peak tolls.	<u>172</u> , <u>202</u>
Updating vehicle classifications and charges	<b>Recommendation 12:</b> The NSW Government should further explore refining tolling classes in New South Wales, adopting a uniform definition for Class A vehicles, and a fairer classification for towed recreational vehicles and motorcycles.	<u>172</u> , <u>211</u>
	<b>Recommendation 13:</b> The NSW Government should continue to apply toll multipliers to vehicles exceeding Class A vehicle dimensions.	<u>172</u> , <u>211</u>
	<b>Recommendation 14:</b> The NSW Government should investigate a new classification for mid-class heavy vehicles to incentivise these vehicles to use toll roads.	<u>172</u> , <u>211</u>
	<b>Recommendation 15:</b> Vehicle multipliers should be applied consistently across the toll road network.	<u>172, 211</u>
	<b>Recommendation 16:</b> The NSW Government should simplify the arrangements allowing public bus services to be exempt from tolls to ensure consistency across the network.	<u>172</u> , <u>211</u>
Expanding toll coverage	<b>Recommendation 17:</b> Consistent two-way tolling should be part of the network tolling system. Practical issues with the implementation should continue to be investigated.	<u>172</u> , <u>214</u>
	<b>Recommendation 18:</b> The NSW Government should investigate the scope of the tolled network in Sydney to achieve greater consistency, efficiency, and fairness.	<u>172</u> , <u>215</u>
Initial assessment of toll reforms	<b>Recommendation 19:</b> The NSW Government should note the modelling conducted by the Review. Modelling will need to continue prior to the introduction of any network tolling.	<u>216, 241</u>

Recommendations:		Page. No.
NSW Motorways entity	<ul> <li>Recommendation 20: The NSW Government should establish a government-owned special purpose entity (NSW Motorways) with responsibility for improving outcomes and transparency for motorists to strengthen governance and accountability over NSW toll roads.</li> <li>The NSW Motorways entity will drive and implement toll reforms: <ul> <li>a. The NSW Motorways entity will drive and implement toll reforms:</li> <li>a. The NSW Motorways entity will, in consultation with toll road operators, establish network tolls payable by motorists. The NSW Motorways entity will have the power to set network tolls and in doing so it would take full account of the existing interests of toll road operators.</li> <li>b. The NSW Motorways entity will seek to improve competition outcomes.</li> </ul> </li> </ul>	<u>243</u> , <u>250</u>
	<ul> <li>c. The NSW Motorways entity will absorb current TfNSW toll collection functions (E- Toll retail business and issuing toll notices).</li> <li>d. The NSW Motorways entity will have an ongoing focus on constantly innovating to improve the toll road experience for</li> </ul>	
	motorists in New South Wales.	
	<b>Recommendation 21:</b> The NSW Government should consider options for the contract management of privately operated toll roads, including whether to bring them under the NSW Motorways entity from TfNSW.	<u>243</u> , <u>253</u>
	<b>Recommendation 22:</b> The NSW Government should consider options for administrative arrangements concerning public toll roads, including whether to bring them under the NSW Motorways entity from TfNSW.	<u>243</u> , <u>253</u>
Concessionaire negotiations	<b>Recommendation 23:</b> The NSW Government should seek to obtain in principle agreement with concessionaires to implement network tolling by the end of 2024. If agreement is unlikely to be reached to the satisfaction of the government within this timeframe, the legislative package referred to in Recommendation 27 should be activated.	<u>243</u> , <u>257</u>

Recommendations:		Page. No.
Independent oversight of toll setting	<b>Recommendation 24:</b> The NSW Government should introduce a legislative framework for toll oversight by IPART. The framework should allow for IPART to monitor prices, undertake investigations and recommend tolls on Ministerial referral.	<u>243</u> , <u>264</u>
	<b>Recommendation 25:</b> The relevant Minister should make a referral to IPART to work with TfNSW and the NSW Motorways entity to monitor prices including:	<u>244</u> , <u>264</u>
	a. The financial and traffic impact of network tolls.	
	b. The operation of toll relief schemes.	
	c. The need for and operation of time-of-day tolling.	
	d. Concessionaire performance in relation to their BCFM expectations.	
	<b>Recommendation 26:</b> The relevant Minister should make a referral to IPART to undertake an investigation into the methodology IPART could adopt in future to make recommendations in relation to tolls.	<u>244, 264</u>
Setting tolls – legislative package	<b>Recommendation 27:</b> If in principle agreement is not reached with concessionaires to implement network tolling by the end of 2024, in addition to establishing the NSW Motorways entity and IPART roles, the legislative package should also:	<u>244</u> , <u>269</u>
	a. Enable network tolls to be set independently of contractual frameworks if necessary.	
	<ul> <li>b. Provide for a Revenue Adjustment Mechanism to enable appropriate sharing of network toll revenues between toll road operators if necessary.</li> </ul>	
	c. Provide for an independent toll issue resolution mechanism.	
	d. Modernise the legislative framework for NSW toll roads.	
Competition measures	<b>Recommendation 28:</b> The NSW Government should ensure future procurement processes have greater regard for the desirability of maintaining a competitive industry structure.	<u>271</u> , <u>275</u>
	<b>Recommendation 29:</b> The NSW Government should review existing concession agreements with the aim of enhancing competition.	<u>271, 276</u>

Recommendations:		Page. No.
	<b>Recommendation 30:</b> The NSW Government should place a greater focus on long-term implications for control and competition rather than short-term benefits in the approach to future procurement of toll roads.	<u>271</u> , <u>276</u>
	<b>Recommendation 31:</b> As with other aspects of toll setting, there should be clear public transparency in relation to determining the length of concession agreements. The concession period should be based on clear public interest considerations, including maintaining competitive industry structures.	<u>271, 277</u>
	<b>Recommendation 32:</b> The NSW Government should favour competitive tender processes over unsolicited proposals for new toll road concessions.	<u>271</u> , <u>279</u>
	<b>Recommendation 33:</b> The NSW Government should regulate roaming fees to promote competition for future toll road PPPs.	<u>271</u> , <u>279</u>
	<b>Recommendation 34:</b> Full details regarding the setting of tolls should be disclosed to the public. The Review recommends that the NSW Government with concessionaires seek to remove impediments to the disclosure of relevant BCFM information in this regard	<u>271</u> , <u>281</u>
Transparency for motorists	<b>Recommendation 35:</b> Improve the retail experience for motorists by providing personalised insights into past and projected toll spend.	<u>283</u> , <u>290</u>
	<b>Recommendation 36:</b> The NSW Government should improve decision-making and trip planning information available to motorists online, on the road and through Service NSW.	<u>283</u> , <u>290</u>
Tolling customer advocate	<b>Recommendation 37:</b> The NSW Government should establish a tolling customer advocate function within the NSW Motorways entity to:	<u>283</u> , <u>294</u>
	<ul> <li>Consider systemic complaints affecting motorists and, where relevant, refer complaints to other relevant agencies.</li> </ul>	
	<ul> <li>b. Influence improvements to systems, processes and legislation to minimise future customer complaints and improve toll compliance.</li> </ul>	
	c. Manage customer education and awareness campaigns.	

Recommendations:		Page. No.
	d. Resolve new 'pain points' which arise from the transition to network tolling.	
	e. Ensure customer complaints are escalated, and responded to within appropriate timeframes and that responses are thorough and fair.	
	f. Publish regular reports on the implementation of toll reform by government and industry.	
	<b>Recommendation 38:</b> The NSW Government should ensure that toll road operators are required to suspend debt recovery action while the NSW Motorways entity in its customer advocate role is assisting a motorist with a disputed debt.	<u>283</u> , <u>294</u>
Industry ombudsman	<b>Recommendation 39:</b> The NSW Government should work with the Victoria and Queensland Governments to investigate co-operative legislation requiring toll road operators and retailers to be members of a statutorily approved independent dispute resolution scheme.	<u>283</u> , <u>295</u>
Toll notice	<b>Recommendation 40:</b> The NSW Government should simplify and modernise toll notices.	<u>283</u> , <u>300</u>
Debt recovery – criminal enforcement	<b>Recommendation 41:</b> The NSW Government should review legislation and policies relating to toll default offences, including:	<u>284</u> , <u>300</u>
	a. Prior to the introduction of network tolling, amending the offence to ensure there is only one offence for non-payment for a trip for those roads where aggregated trip tolls are used (currently WestConnex).	
	<ul> <li>b. As part of the introduction of network tolling, amending the toll default offence so that only one offence can occur for each trip.</li> </ul>	
	<ul> <li>Ensuring the offence applies to either the driver or registered vehicle owner in the most optimal and fair way.</li> </ul>	

Recommendations:		Page. No.
Debt recovery – civil	<b>Recommendation 42:</b> Through its customer advocate role the NSW Motorways entity should pursue further opportunities to improve civil debt recovery practices including:	<u>284</u> , <u>300</u>
	a. Each toll road operator developing and publishing a best practice customer charter.	
	<ul> <li>Reviewing any legislative constraints on civil debt recovery.</li> </ul>	
	c. Developing strategies to improve the accuracy of contact information available for registered vehicle owners.	

## Glossary

Term	Description
2014 Principles	A broad set of principles approved by the NSW Government in 2014 to guide future tolling decisions on Sydney's motorway network.
ACCC	Australian Competition and Consumer Commission.
AWE	Average Weekly Earnings.
Availability PPP	A Public Private Partnership (PPP) model where the private sector is responsible for delivering specified assets and services (including financing of those services) through an outcome-based contract. The government retains demand risk and the primary form of revenue for the private sector is a regular periodic service payment for making the asset available and providing services to the required performance standard i.e. based on key performance indicators.
BCFM	Base Case Financial Model. A financial model referred to in a concession contract containing initial forecasts of a concessionaire's cash flow, including revenue and expenditure, over the term of a concession.
Class A	A tolling class which includes cars and motorcycles.
Class B	A tolling class for vehicles which exceed the Class A dimensions.
Concessionaire	For the purposes of this report, the holder of a toll road concession. Concessionaires are typically granted the right to finance, build, operate, toll and maintain a motorway for a set term, before returning the motorway back to Transport for NSW in the required condition.
CPI	Consumer Price Index.
Declining distance	For the purposes of this report, a toll calculation method that involves a variable charge based on travel distance on toll roads. This variable charge is declining, that is, motorists pay a lower rate on a per kilometre basis the longer they travel on tolled motorways. Declining distance is a specific type of distance-based toll.
Distance-based toll	A toll calculation method based on the distance travelled on a toll road or network of toll roads.
Dynamic pricing	For the purposes of this report, real-time adjustments to a toll to maintain traffic flow.

Term	Description
Economic PPP	A Public Private Partnership (PPP) model where the primary revenue stream is in the form of third-party user charges and not service payments from government. The financial impact to government is significantly less for an Economic PPP than for an Availability PPP.
Environmental Impact Statement	For the purposes of this report, a report prepared by a proponent for the development of a new toll road (or toll related infrastructure or activity) and exhibited for public consultation under the <i>Environment Planning and Assessment Act 1979</i> (NSW).
Escalation	For the purposes of this report, a regular (quarterly or annual) increase in the toll provided for under a concession contract.
Flagfall	A fixed fee component of a toll. Also referred to as an 'access charge'.
Fixed toll	A toll which is constant and not dependent on other variables, e.g. distance travelled or time of day.
GIPA Act	Government Information (Public Access) Act 2009 (NSW).
GSF Act	Government Sector Finance Act 2018 (NSW).
IPART	Independent Pricing and Regulatory Tribunal.
IPART Act	Independent Pricing and Regulatory Tribunal Act 1992 (NSW).
Independent Reviewers	Professor Allan Fels AO and Dr David Cousins AM appointed by the NSW Government in April 2023 to identify reform options for the NSW tolling network.
MCHV	Mid-Class Heavy Vehicle.
	A potential new tolling class considered by this Review.
Means-tested	Where eligibility for financial assistance is based on income/asset levels.
Motorway	A distinct type of road that has a pure mobility function with minimal or no access to adjoining land. Motorways provide for major regional and inter-regional traffic movement.
Multiplier	A method for calculating a toll for one tolling class based on the toll for another tolling class.
NPVR	Net Present Value of Revenue
Network tolling	A toll pricing structure that is consistent across the toll road network.
NSW Motorways	A new entity proposed by this review to drive toll reform in NSW. The Interim Report referred to this entity as 'State TollCo'.

Term	Description
NSW Toll Road Partners	<ul> <li>A group of toll road investors in NSW who jointly provided feedback to the Review on the Interim Report: <ul> <li>Australian Super</li> <li>Caisse de dépôt et placement du Québec</li> <li>Canadian Pension Plan Investment Board</li> <li>IFM investors</li> <li>Queensland Investment Corporation</li> <li>Platinum Tawreed Investments, a wholly owned subsidiary of the Abu Dhabi Investment Authority</li> <li>Transurban</li> <li>UniSuper.</li> </ul> </li> </ul>
Peak/off-peak tolls	A form of variable toll where the toll differs based on the time of day.
Proposed New Tolling Principles	The Independent Reviewers' proposed tolling principles to guide toll setting in future, detailed at <u>Chapter 8</u> .
PTAL	Public Transport Accessibility Level. A measure of a location's connectivity by public transport. Based on walking distance to nearest stations/stops, waiting times at nearest stations/stops, number of services passing through nearest stations/stops, whether there are major rail stations nearby.
PPP	Public Private Partnership. The creation of an infrastructure asset through private sector financing and private ownership for a concession period (usually long-term). The government may contribute to the project by providing land or capital works, through risk sharing, revenue diversion or purchase of the agreed services.
Review	The independent review led by the Independent Reviewers to identify reform options to overhaul the toll network.
RMS	Roads and Maritime Services. RMS merged with Transport for NSW on 1 December 2019.
Roads Act	Roads Act 1993 (NSW).
Roads Regulation	Roads Regulation 2018 (NSW).
Roaming fee	A fee paid by toll road operators to toll retailers for collecting tolls from motorists.

Term	Description
Status quo	A strategic traffic modelling scenario which retains the current tolling regimes, escalation rates and tolling classes. This scenario is used as a comparator for the analysis of alternative options.
STP	Sydney Transport Partners. A Transurban-led consortium which owns 100% of the WestConnex concessionaires.
Sydney Harbour Crossings	The Sydney Harbour Bridge, Sydney Harbour Tunnel and, from its opening, the Western Harbour Tunnel.
ТАА	Transport Administration Act 1988 (NSW).
тсо	Tolling Customer Ombudsman.
TfNSW	Transport for New South Wales.
Toll	A charge imposed for traffic using a toll road.
Toll relief	A government policy to reduce the financial impact of tolls to motorists. Most toll relief schemes have been provided as a rebate.
Toll retailer	A service provider which issues motorists with an account to enable them to pay their tolls. There are currently two toll retailers in NSW, Linkt (owned by Transurban) and E-Toll (owned by Transport for NSW).
	The Roads Regulation and the Road Transport (Vehicle Registration) Regulation 2017 refer to toll retailers as 'toll service providers'.
Toll road	A road (or bridge or tunnel forming part of a road) whose use requires the payment of a toll. Includes both the Sydney Harbour Bridge and tollways established under the Roads Act
Toll road network	A collective description for the toll roads in Sydney. They are not a network in a conventional sense as they are commonly separated by sections of public (untolled) roads.
Toll Road Operator	Operators of toll roads whether private or public. The toll road operators in New South Wales are the concessionaires and TfNSW. Referred to as 'toll operators' in the Roads Act and other legislation.
Toll Road Pricing and Relief Reform Review	A review which commenced in December 2021, under the previous Coalition government to consider longer term tolling reform.
USP	Unsolicited Proposal. An Unsolicited Proposal is an approach to government from a Proponent with a proposal to deal directly with the government over a commercial proposition, where the government has not requested the proposal. This may include proposals to build and/or finance infrastructure, provide goods or services, or undertake a major commercial transaction.

Term	Description
VTTS	Value of Travel Time Savings. The benefits provided by reductions in the amount of time spent on travel. <sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Victoria Transport Policy Institute. (2023). Transportation Cost and Benefit Analysis II – Travel Time Costs. <u>https://www.vtpi.org/tca/tca0502.pdf</u>.



# Introduction and background

## 1. About this review

# The NSW Government is conducting an independent review of toll roads

The NSW Government has established an Independent Toll Review (also referred to as the 'Toll Review' and 'Review') to identify reform options to overhaul the toll network. This Report does not represent approved policy directions of the NSW Government.

The Premier, The Hon. Chris Minns MP; the Treasurer, The Hon. Daniel Mookhey MLC; and the Minister for Roads, The Hon. John Graham MLC announced the Review on 5 April 2023.<sup>6</sup> They appointed Professor Allan Fels AO ('Professor Fels') to lead the Review as Chair and Dr David Cousins AM ('Dr Cousins') as Deputy Chair.

Professor Fels and Dr Cousins are being supported by NSW Treasury and Transport for NSW (TfNSW). The views expressed in the report are those of the Chair and Deputy Chair.

Sydney has more toll roads than any other city in Australia and is one of the most tolled cities in the world<sup>7</sup>, with the Minns government describing the current situation as 'toll mania'.<sup>8</sup>

This is the first independent review to have looked comprehensively at Sydney's tolls. Numerous other inquiries have considered aspects of tolling and toll road concessions, but none have had the opportunity to examine in detail tolling in the context of the well-established network now in place. Figure 1.1 below provides a timeline of relevant past reviews in the context of the development of the network and <u>Appendix A</u> provides a summary of recommendations from previous reviews.<sup>9</sup>

<sup>&</sup>lt;sup>6</sup> Premier, Treasurer, and Minister for Roads. (2023, April 5). Professor Fels starts work on Toll Review. NSW Government. <u>https://www.nsw.gov.au/media-releases/work-to-start-on-toll-review.</u>

<sup>&</sup>lt;sup>7</sup> Watson, T. (2019, March 11). New road pricing system needed after years of political neglect. The University of Sydney. <u>https://www.sydney.edu.au/news-opinion/news/2019/03/11/new-road-pricing-system-needed-after-years-of-political-neglect.html.</u>

<sup>&</sup>lt;sup>8</sup> Minister for Roads (2023, December 8). \$60 weekly toll cap to provide cost-of-living relief to 720,000 motorists. NSW Government. <u>https://www.nsw.gov.au/media-releases/toll-cap-cost-of-living-relief.</u>

<sup>&</sup>lt;sup>9</sup> The terms of reference of the Parry Review were broader than toll roads and covered the whole NSW transport system.

Figure 1.1 Significant toll road reviews and inquiries since the year 2000



Motorists First Final Report – July 2024 Sydney's toll roads have mainly been developed through PPPs under which governments have entered into agreements with private sector entities to finance, build and operate motorways and recover their costs and a return on investment through toll revenue. Figure 1.1 shows that Labor and Coalition governments have employed the toll road PPP model to expand the motorway network. While the structuring of these PPP arrangements and procurement approach has evolved over time, the core toll road PPP model has essentially remained the same. Despite all these previous reviews, the key financial details underpinning toll road PPP contracts have not been published.

This Review has a strong mandate to shine a light on the tolling system and, if necessary, to propose substantial reforms for improvement.

# The Review has examined the basis for setting motorway tolls and the impact of toll relief measures

The following Terms of Reference for the Review were publicly released on 11 May 2023.

- The Review will examine the basis for setting motorway tolls in Sydney and the impact of toll relief measures.
- Specifically, the Review will consider the appropriate structure and level of tolls for the future, having regard to their efficiency, fairness, simplicity and transparency, the historical concession agreements with providers, and the interface with all modes of transport.
- It will take into account the extent to which tolls should reflect the capital and operating costs of road provision, the impact different users have on road sustainability, and the use of roads throughout the day.
- Toll relief measures help to ensure the affordability of tolls for motorists. The Review will consider the appropriate targeting of relief, fairness for the whole community in funding relief, and how to ensure the community rather than toll road owners benefit from toll relief measures.
- Tolls need to be readily understandable, simple to pay by motorists and administratively efficient to collect.
- The Review will consider the scope for competition and regulation to influence road tolls and the efficiency of service performance by providers.

# The Review has considered information from a variety of sources

In developing the Interim Report, the Review incorporated input from various sources, including:

- feedback and submissions from the public and other stakeholders in response to a Discussion Paper
- evidence provided at three public hearings
- market research to understand the experiences of motorists on toll roads
- subject matter expertise provided by the NSW Government
- strategic traffic modelling to understand the implications of the status quo and alternatives
- a review of competition and regulatory aspects of toll road concessions
- a review of opportunities to improve the transparency of tolling.

Following the release of the Interim Report on 11 March 2024, the Review opened its second round of consultation to the public and other stakeholders for response.

- General public engagement (Have Your Say Campaign) was open for submission between 11 March and 30 April. It was open to everyone including the key stakeholders and academics. An extension to 14 May 2024 was provided for those who requested an extension.
- The second round of consultation received 117 submissions between Have Your Say portal responses and direct written submissions via email from the public and stakeholders.
- The Review met with interested parties during this period, varying from engagement with freight industry, toll road operators, investors and academics. An intensive round of discussions was held with major concessionaires.
- Deep dive workshops were organised in May 2024 to test ideas and concepts from the Interim Report with concessionaires and investors. These workshops identified stakeholder issues, concerns, and potential roadblocks, which were then considered in the report's final recommendations.

## The Review to date

Four documents have been published since the Review commenced in April 2023 (see <u>Figure 1.2</u>). Figure 1.2 Documents released since commencement of the Review

## Four key documents released since April 2023:

- 1. A Summary Report of work completed prior to election of the Minns Labor Government was released by the Minns Government in June 2023 to summarise 2022's Toll Road Pricing and Relief Reform Review, the previous tolling review.
- 2. A Discussion Paper providing background on motorways and the use of tolls in New South Wales and on issues being considered by the Review was released in June 2023. It also poses questions relating to the terms of reference to be used as a guide by interested people and organisations as to the sort of matters on which feedback would be welcomed.
- 3. A Public Consultation Summary Report was released in August 2023. This report provides an overview of the Review's public consultation process, which involved a Have Your Say portal that received more than 1,100 submissions between 14 June and 28 July 2023 and three public hearings for members of the public, businesses, and industry stakeholders between 11 and 13 July 2023 in the Sydney CBD, Parramatta, and Penrith. The Review summarised what it heard from industry stakeholders and the public into ten key themes found in the Public Consultation Summary Report.<sup>10</sup>
- 4. An Interim version of this report was published on 11 March 2024, which represented the progress of work to date, including initial findings and recommendations for the toll reform. The Interim Report presented a new system of network tolling within a framework that allows for regular resets of tolls, while addressing competition and transparency concerns.

Source: Independent Toll Review

## Road user charging

Tolls are a form of road user charging for a specific category of road. While the focus of this Review is to reform Sydney's current tolled road network, we are aware Australian jurisdictions have, from time to time, considered broader road user charging as a source of road funding. With fuel excise revenue declining, this is likely to become a higher priority in the future.

The interaction between toll roads and untolled roads is extremely important. The Review considers alignment between how tolls and future general road user charges are calculated would be desirable. If they are both calculated on a distance per kilometre basis, it will reduce potential distortions on the network.

<sup>&</sup>lt;sup>10</sup> Independent Toll Review. (2023, August). Public Consultation Summary Report. <u>https://www.treasury.nsw.gov.au/sites/default/files/2023-08/202308\_toll-review-public-consultation-</u> <u>summary-report.pdf</u>.
In 2022, as part of the NSW Electric Vehicle Strategy, the then NSW Government announced its intention to introduce a distance-based road user charge for eligible electric vehicles of \$0.0025/km (indexed to CPI) from 1 July 2027 or when electric vehicles reach 30% of new vehicle sales, whichever comes first. Victorian experience on the Vanderstock & Anor v The State of Victoria Case (Case M61/2021) indicates a tax of this kind (on use of a particular type of vehicle) may constitute an excise, which is an Australian Government responsibility.

Regardless of the legalities, an initiative such as road user charging would likely require a multi-jurisdictional approach, consistent with other land transport reforms.

# 2. Consultation on the Interim Report

Consultation on the Interim Report presented an opportunity for stakeholders and members of the public to directly have their say about the findings and recommendations presented in the Interim Report and share their views on proposed toll reform.

### Who we heard from – a snapshot

The Review received 117 written submissions. There were 92 submissions from the general public and 25 submissions from academics, think tanks and private consultants, toll road operators, associations and member organisations including the NRMA, freight groups and others. Four stakeholders wished for their submission to remain confidential. Full submissions to those who provided permission to publish are available on the NSW Treasury website.

The Review held multiple meetings with interested parties in addition to an academic roundtable in April 2024. This report does not summarise the content of these meetings, but many of the attendees went on to make formal submissions to the Review.

### How we engaged

Following the release of the Interim Report, the Review invited feedback and commentary in two ways:

- Firstly, we invited the public and all interested parties to respond via a 'Have Your Say' (HYS) portal, a NSW Government online platform that supports consultation related to government projects, services, and policies.
- Secondly, the Review also held interactive sessions with groups of interested parties, including concessionaires, investors and debt financiers, and academics, during this period. These sessions were an opportunity for interested parties to ask questions about concepts in the Interim Report, and for the Independent Reviewers to further test emerging concepts. Many of these stakeholders followed up with written submissions to the Review. The date for submission was extended by the Review to 14 May 2024 in response to requests from interested parties.

More detail is provided on these approaches in the following sections.

### **Public consultation**

We invited the public and all interested parties to respond via the HYS portal, a NSW Government online platform (<u>nsw.gov.au/have-your-say</u>) that supports consultation related to government projects, services, and policies.

The HYS portal for tolling was open between 11 March 2024 and 30 April 2024 with a series of questions grouped into themes, most of which were optional. The respondents also had the option to submit a response by attaching a separate written submission. They were encouraged to structure their submission with reference to the findings and recommendations tabled in the Interim Report.

The questions covered topics such as: toll reform (network tolling), the NSW Motorways entity structure and functions, IPART's role in reform, determination of tolls, competition and regulation, tolling principles, toll relief and improving motorist experience.

Screenshots from the HYS portal are illustrated in Figure 2.1.

#### Figure 2.1 HYS portal

NSW	Q Oliquist- Namilari	
Living in NEW Working and basiness What's happening. How your say: COVID-10 Connectivity		Complete a survey
Have your say Toll Review		Com Tolling review General feedback 5. Do you have any feedback on the Interim Report? Please structure your response with reference to the findings and recommendations of the Int
Thank you for your feedback. This consultation is now closed and we are reviewing what you told us.	Timeline	
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Source: Independent Toll Review, Have Your Say Portal

### Interested parties: concessionaires, investors and debt financiers

As part of the consultation on the Interim Report, the Reviewers met with concessionaires, investors and debt financiers immediately after the release of the Interim Report and on several other occasions. These key interest groups were invited to 1:1 meetings and deep dive workshops (see more details below) and provided ongoing written correspondence.

The Reviewers also met with Transurban representatives at various points leading up to and after the release of the Interim Report to discuss the concepts and recommendations outlined in the Report. The Reviewers met with senior Transurban representatives on numerous occasions to discuss reform proposals. The Review's engagement process with concessionaires and investors has ranged from general briefing sessions through to bespoke sessions to test concepts and ideas for the implementation of toll reform.

In July 2023, as part of the Review's initial public consultation process, Transurban provided a submission responding to questions posed by the Reviewers, including where it saw opportunities to discuss further enhancements to the toll setting and to deliver the Review's aims of greater efficiency, fairness, simplicity and transparency. The submission addressed the complexities of the current tolling regime and advocated for a more consistent, fair, and transparent system. It supported proposals for distance-based tolling, geographic zones, and time-of-day tolls to manage demand and improve network efficiency.

Following the release of the Interim report on 11 March 2024, Transurban submitted a written response on 14 May 2024, providing further feedback on the reform recommendations outlined in the Interim Report. NSW Toll Road Partners, comprising eight investor owners of the toll roads including Transurban, wrote to the Review on the same day indicating their support of reform that delivers greater efficiency and simplicity for motorists and the wider network, and their willingness to work towards a solution, demonstrating their commitment to engaging in the process.

NSW Toll Road Partners again wrote to the Review on 4 June 2024 expressing a commitment to working with the NSW Government to develop fair, efficient, and transparent toll reform options. They advocated for a distance-based per kilometre rate (DBR) regime, varying rates by motorway corridors to reflect congestion and alternative transport availability. The letter advocated for the NSW Government to negotiate tolling parameters with individual concessionaires to achieve value-neutral outcomes. The Toll Road Partners expressed an openness to alternative approaches and emphasised collaboration to achieve in principle agreement with individual concessionaires by the end of 2024 and execution of final contracts by the second half of 2025.

### Academic roundtable

The Review invited prominent academics with expertise in transport networks and pricing, regulation, land use and competition for a roundtable discussion in April 2024. The academics were broadly supportive of the key recommendations presented in the Interim Report.

The academics discussed the need for a network-wide tolling solution to ensure road user efficiency and equity. They highlighted the significant impact of toll saturation on commuters' value of travel time savings (VTTS), advocating for a simpler, more equitable tolling system. Professor David Hensher (University of Sydney) supported a two-part tariff model combining an access charge with a distance-based charge for fairer cost distribution and stakeholder buy-in. Professor Martin Locke emphasised transitioning to a regulated utility model for Sydney toll roads, as proposed in the Interim Report. Most of the academics critiqued the current lack of transparency and the unintended financial benefits to concessionaires.

### What we heard

### Analysis of submission themes

The key themes in responses from the general public and the key stakeholders were:

- 1. Network tolling.
- 2. Declining distance tolls.
- 3. Introduction of legislation, the NSW Motorways entity and IPART involvement.
- 4. Toll relief.
- 5. Improving motorist experience, transparency and external dispute mechanism.
- 6. Vehicle classification.

Stakeholder perspectives on each of these themes are discussed in turn.

### Network tolling

The majority of responses from the general public (78%) addressing the network tolling reform recommendation in the Interim Report expressed that network tolling would assist towards reducing the complexity of the current tolling system, getting heavy vehicles off local roads, reducing toll costs and be a step towards congestion reduction.

There was also widespread in principle support for network tolling reform from the key stakeholders. Most submissions were supportive of a unified network tolling principle, although some stakeholders presented different views about its implementation feasibility.

Those who were not supportive of network tolling, presented a view that network tolling will have little impact on tolls in Sydney due to Transurban's dominance in the toll road market in NSW.

During the academic roundtable in April 2024, all participating academics expressed support for a unified network-wide tolling principle.

#### Associated commentary from the submissions:

- 'The toll review should ideally be positioned to transition to a network-wide solution encompassing all roads. This transition should be part of a long-term commitment to ensuring road use efficiency and should include equity rules to ensure that no one is financially disadvantaged, including ensuring that the Treasury is not adversely affected.' – Professor Hensher
- 'NorthWestern Roads Group supports the recommendation of network tolling to the extent that it can be achieved whilst maintaining the value of our investment and honouring contracts.' NorthWestern Roads Group
- 'We each confirm our willingness to work with the NSW Government to expeditiously develop a suitable network-wide solution ... ' NSW Toll Road Partners
- 'NRMA supports the implementation of network tolling and tolling reform to streamline the system, enhance network efficiency, and lessen the financial impact on motorists. NRMA believe a network pricing approach, backed by public opinion and collaborative efforts with key stakeholders, has the potential to simplify tolling for motorists while ensuring fairness and transparency.' – NRMA

- 'Adopting network pricing for toll roads in Sydney offers a promising approach to reforming the current toll system to make it more equitable, understandable, and efficient. However, the success of such a transition will heavily depend on thoughtful implementation, widespread stakeholder engagement, and careful consideration of economic, social, and privacy implications.' Greg (submission ID 259611)
- 'Without a unified pricing system, the current structure is quite complex. I would recommend adopting a pricing system similar to that of the train system. This would include peak and off-peak pricing, with shorter distances priced slightly higher. However, as the distance increases, the price increment should decrease.' Albert (submission ID 256843)
- 'I fully support a unified system of toll pricing across Sydney.' Vince (submission ID 256510)
- 'Network pricing or per Km charge might be a better alternative than current set pricing.' Forugh (submission ID 255892)
- 'I strongly support the implementation of a consistent and fair network price. The further you travel, the cheaper it should be. But it should be consistent across all motorways, easy to understand, and communicated easily.' Aaron (submission ID 254079)
- 'Infrastructure Partnerships Australia welcomes the broad reform direction of the Interim Report, including its call for NSW to move to a unified network tolling model that is simpler, fairer and more efficient for motorists.' Infrastructure Partnership Australia

#### **Declining distance tolls**

Of the general public's submissions responding to the declining distance tolls recommendation in the Interim Report, 61% supported the model. Submissions noted that this toll model encourages more efficient use of the road network by reducing the marginal cost of travel as distance increases, which is fairer to those with limited public transport options that are located far from the city, and can encourage public and active transport for shorter trips.

Out of the 25 key stakeholder submissions, some respondents viewed distanced based tolls as a step in the right direction. However, some expressed concern that declining distance would reduce toll transparency for motorists and add complexity in calculating toll costs before a journey. Some stakeholders raised concerns about the impact on commuters in some parts of Western Sydney, such as those using the M7, and unintended congestion impacts from induced demand while penalising motorists who are located closer to the city. These concerns were based on preliminary modelling results which were at one extreme of the indicative options presented in the Review's Interim Report. They were not recommendations made by the Review. See <u>Chapter 11</u> for details of the further modelling conducted by the Review.

Transurban noted the additional costs involved in extensive new roadside tolling infrastructure (gantries) and timing and cost implications of planning and environmental approvals. The Review acknowledges the need for additional roadside infrastructure, systems and to ensure consistency with planning approvals which are considered in the implementation discussion in <u>Chapter 9</u>.

#### Associated commentary from the submissions:

- 'Declining distance based charge seems fair and incentivises the right journeys.' Jonathan Ward (submission ID 254149)
- 'This is more fair. Shorter trips which may be achievable on public transport should be penalised if they are driven. Those living the furthest away from their destination should pay less as the alternatives are reduced.' Aaron (submission ID 254079)

- 'The success of this model hinges on careful implementation and clear communication. It's crucial that the tolling authorities provide detailed, understandable information about how tolls are calculated and how revenue is used. This transparency is essential not only for gaining public acceptance but also for ensuring that the toll system is seen as fair and justifiable.' Greg (submission ID 259611)
- 'Complex pricing models seem to go against the basic goal of keeping tolls as low as possible and taking into account what taxpayers thought was the case – ie governments have responsibility to spend some tax money on providing good transport options for society – roads, public transport and assistance to those who need it.' – John (submission ID 252528)
- 'I think this is a logical approach. Particularly penalising those who would use a toll road for just a few short km – treating the Motorways as local road. These are wasted trips straining that network – remove these by charging more you pick up efficiency. If you are travelling long distance it should be in your best interest to see value of a toll road.' – Peter (submission ID 252111)
- 'Unnecessarily complex. Declining distance-based tolls, which are proposed to form the basis of a proposed new network structure, do not provide clear charges to motorists.' – Infrastructure Partnership Australia
- 'The review's suggestion of a declining distance-based system for toll structure is a step in the right direction. This methodology of charging tolls could benefit heavy vehicle drivers, as they travel network lengths greater than that of a typical commuter on a daily basis. Additionally, the suggestion of peak/off peak pricing could also prove to be beneficial for freight operations at night time.' – Transport Workers Union

#### Introduction of a NSW Motorways entity and IPART involvement

The feedback received on the recommendation was mixed. While the general public and academics welcomed the involvement of IPART and the NSW Motorways entity, some key stakeholders expressed concerns.

Of the general public who responded to this recommendation, 71% supported the involvement of IPART, viewing its role as fair and beneficial due to its extensive knowledge and public processes. A smaller number of submissions noted that IPART's involvement could be an additional and unnecessary layer of bureaucracy and red tape. As the NSW Motorways entity was not specifically prompted in the HYS questions, only 12 public submissions mentioned the NSW Motorways entity, with 83% of these comments being positive.

The academics supported the introduction of legislation, setting up the NSW Motorways entity and IPART's involvement. Adjunct Professor Martin Locke emphasised the need to transition to a regulated utility model for Sydney toll roads. Most of the academics critiqued the current lack of transparency and the unintended financial benefits to concessionaires of current tolling arrangements.

The NSW Toll Road Partners considered they could reach an agreement on a network tolling model without the need for legislation, the creation of the NSW Motorways entity, or price regulation through IPART.

All key stakeholder submissions emphasised the importance of the NSW Government honouring contracts established in good faith with concessionaires. They noted that unilateral changes to investment structures and returns during the term of existing toll road concessions, would impact the State's reputation as a safe and stable region for investment, introducing 'sovereign risk' and negatively impacting future private infrastructure investment in NSW.

Some key stakeholders viewed the NSW Motorways entity and price regulation through IPART as an 'additional bureaucracy' offering no meaningful benefit for toll users. They also sought clarity on the actual roles of the NSW Motorways entity and IPART in future reforms. Respondents were also uncertain about the Revenue Adjustment Mechanism and its implementation.

The Review reiterates the position stated in the Interim Report that the government should respect the contracts it has with concessionaires and the reasonable expectations of concessionaires. However, the primary focus of the Reviewers remains the public interest and toll reform necessary to serve the public. The Review has carefully considered whether the major reforms to tolling, including a shift to proposed network tolling, could be implemented through negotiated changes to existing concession agreements (see <u>Chapter 11</u>).

In May 2024, the Review also hosted workshops with concessionaires and NSW Toll Road Partners to discuss potential options for revenue adjustment and IPART involvement. The Review sought feedback on options presented at the workshops to inform the Final Report (see <u>Chapter 11</u> for more details on the options presented).

#### Associated commentary from the submissions:

- 'There is also a need to ensure that the function, processes and operation for IPART and TollCo are clear.' Australian Super
- 'Using a legislative process to now override these contracts unilaterally presents a real and tangible case of sovereign risk. Even the perceived threat that this is a live option will undermine confidence in doing business with the NSW Government.' Business Council of Australia
- '...solutions can be reached that achieve these goals while protecting the commercial and contractual interests of toll road owners and operators, preserving value and the existing balance of risk vs. return.' Infrastructure Partnership Australia
- 'We think that this body [NSW Motorways] could play a vital role in planning Sydney.'
   Anonymous (ID 259768)
- 'Involving IPART in setting toll prices is likely to be seen as a fairer approach, enhancing the legitimacy and acceptability of toll charges through independent and expert oversight. However, for IPART's involvement to be effective, it must be backed by a strong mandate, clear regulatory frameworks, and sufficient resources to handle the complexities of toll pricing. By ensuring that toll rates are set in a transparent, consistent, and economically sound manner, IPART can help achieve a balance between the financial sustainability of toll road projects and the affordability concerns of road users.' – Greg (submission ID 259611)
- 'Assigning the responsibility of setting and adjusting network tolls to State TollCo could provide a structured and centralized approach to managing tolls, which could enhance overall system efficiency and fairness. However, the effectiveness of this approach will heavily depend on the entity's ability to operate independently, transparently, and in alignment with the public interest, while also being responsive to dynamic traffic patterns and economic changes. It's a promising model that requires careful implementation and ongoing oversight to realize its full potential.' Greg (submission ID 259611)
- 'Bandaid solution which still requires excess amounts being paid to the toll road company Transurban.' Richard Talbot (submission ID 254143)
- 'This would seem fairer but again as long as they are truly independent.' Anonymous (submission ID 259536)

 'NSW Government should establish a government-owned special purpose entity ('State TollCo') with responsibility for improving outcomes and transparency for motorists to strengthen governance and accountability over NSW toll roads.' – Associate Professor Phillip Laird, UOW (submission ID 259172)

### Toll relief

Toll relief received mixed responses with 42% of the general public respondents who addressed the Review's recommendations here calling for toll relief to be phased out. Rationale for phasing out toll relief included it being considered a 'bandaid solution', not financially sustainable and the funds better put towards other critical infrastructure projects and the improvement of public transport infrastructure.

Alternative options were offered by some respondents which included targeted discounts, vouchers, means testing toll relief, and investing in toll road efficiency.

A number of respondents supported toll relief as it is seen as fair and will enhance equity and accessibility for motorists, foster political and social goodwill, and will significantly alleviate the financial burden/cost-of-living pressures on frequent toll road users. Comments were general and not made in relation to any specific toll relief scheme.

Responses from the key stakeholders on the toll relief recommendations were also mixed. Most respondents supported the measures to alleviate cost-of-living pressures. Transurban noted it had not identified any significant traffic increases due to toll relief schemes. Research by Bastion Insights (commissioned by Transurban) demonstrates that toll rebates and cashbacks are seen as beneficial. This research found 95% of those who claimed the \$60 weekly cap felt it made a real difference to them financially, while 87% felt these initiatives increase fairness of toll road costs.

#### Associated commentary from the submissions:

- 'Toll relief is actually Poll relief. It may be politically effective but it has no beneficial effect on the use of roads.' Harry Barber (submission ID 259772)
- 'Toll relief should be means tested.' Bruce (submission ID 259374)
- 'I don't like the toll relief system too much paperwork people do NOT have time. Get the toll
  pricing right and keep it lower or use e-tag data to toll based on concession eligibility not
  rebate money after the fact via long-winded forms and online processes.' Andrea Jackson
  (submission ID 259247)
- 'Toll relief should be phased out.' Associate Professor Phillip Laird, UOW (submission ID 259172)
- 'Transurban has not identified any significant traffic uplift due to toll relief schemes.'
   Transurban
- 'Toll relief removes the best thing about a toll a price signal which reduces congestion. Instead, a voucher for people experiencing high cost of living would allow them to spend the money on other uses and modes, while retaining a price signal to keep traffic low.'
   Committee for Sydney

#### Motorist experience, transparency and external dispute mechanisms

The vast majority (83%) of respondents who addressed this reform supported enhancing the motorist experience through various measures. These include online trip planning, improved signage, mapping historical and future toll usage, and increasing the visibility of toll information. These improvements were viewed as crucial and well-targeted to address the key areas of the public's concerns regarding accessibility, user-friendliness and transparency, which will in turn create a more informative, inclusive motorist experience.

Other respondents either had no comment or saw these improvements as unnecessary and money wasters, which should be used to improve public and active transport.

A significant 95% supported improved transparency in setting the tolls, viewing it as beneficial for enhancing trust and fostering greater accountability in toll management. The challenge of balancing transparency with commercial sensitivity and regulatory compliance was noted.

Additionally, 75% of the responses who addressed the independent external dispute mechanism were supportive, considering it a means to increase consumer trust, increase efficiency in dispute resolution accountability, transparency and information available. However, a small number of respondents expressed concerns that it might never achieve true independence.

All key stakeholder submissions supported the recommendations concerning increasing oversight, transparency, competition measures, enforcements and debt recovery, and complaints handling. Stakeholders also supported on-road signage improvements to help drivers make informed decisions.

TCOL (Tolling Customer Ombudsman Ltd) suggested that the creation of the NSW Motorways entity as a dispute resolution scheme to resolve less than 250 complaints per year is not economically viable, nor is it an efficient use of government and industry resources and proposed that a more effective and lower cost mechanism would be the establishment of a co-operative legislative scheme by the three tollway states of NSW, Victoria and Queensland.

#### Associated commentary from the submissions:

- 'Fully support this. Perhaps we could arrange for toll reductions when a suitable level of service (eg average travel speed) is not provided to motorists. We should also specify a higher level of road riding quality, with legally enforceable maintenance standards to be observed.' – Vince (submission ID 256510)
- 'Good, there should be one [independent external dispute mechanism, the] problem would be the funding for it and the difference between independent and impartial.' – Jovi (submission ID 254038)
- 'My question is how will it be ensured that the Minister is accountable to the Independent governing board & that the people on that board will be serving in the interest of toll-users. An independent EDR would also be good but the above questions still apply.' Anonymous (submission ID 259536)
- 'Is it ever independent?' Anonymous (submission ID 259420)
- 'An independent dispute resolution body works in other areas, why not toll roads.' Rob (submission ID 252051)
- 'People need to be able to see the data that the decisions are based on.' Harry Barber (submission ID 259772)
- 'I support better use of modern data sources to provide improved trip planning and journey time information.' Vince (submission ID 256510)
- 'I support improved signage and better indications of toll pricing on entry to the tollway. It's not good enough to force people to check the website to see the tolls. The toll information should be reinforced during driving, not simply left until the credit card statement arrives.'
   Vince (submission ID 256510)
- 'Transparency is needed for users to have faith and trust in the system.' Aaron (submission ID 254079)
- 'Some transparency is a good idea but we don't need to know all the detail, too cumbersome and inefficient.' Anonymous (submission ID 254046)

- '... the public needs to know how these prices are determined.' Ambrosu De Silva (submission ID 254034)
- 'This should be the case so the public can see justification in the prices and also force governments to sign fairer contracts.' Elki (submission ID 252193)
- 'Revenue NSW often facilitates clearer communication and provides greater transparency for road users regarding unpaid tolls compared to the Linkt civil debt recovery process.'
   Aboriginal Legal Service
- '... supportive of simplified and consistent communications to motorists, and for fees and charges to be transparent and reflective of the actual costs incurred.' Aboriginal Legal Service
- 'The BMWTCNSW supports the recommendations concerning increasing oversight, transparency, improving competition measures, enforcements & debt recovery, and complaints.' BMW Touring Club NSW
- 'The Interim Report includes ideas that we've long advocated for, such as recommended changes to the NSW enforcement process regarding toll notices. We also support on-road signage improvements to help drivers make informed decisions. We have already taken steps and will continue to invest in and work on initiatives to improve this experience for our customers.' – Transurban

### Vehicle classification

While some respondents (Motorcycle Council NSW, BMW Touring Club NSW, Transport Workers Union) supported the introduction of new vehicle classes for mid-sized trucks and a 0.5 multiplier for motorcycles, Transurban noted potential drawbacks. These drawbacks included disincentivising the use of more productive vehicles, administrative challenges in implementing additional classes, the need for licence plate lookups, potential revenue impacts, increased risk of toll leakage due to complexity, and the costs associated with tolling equipment and system upgrades. As vehicle classification was not specifically prompted in the HYS questions, none of the submissions from individual members of the public commented on the proposed introduction of new vehicle classes.

#### Associated commentary from the submissions:

- 'The 0.5 factor of Class A vehicles for motorcycles (as per <u>Recommendation 8</u>) [<u>Recommendation 12</u>] ought to be applied to all elements of the pricing model and calculated on the total price, determining a final price.'- BMW Touring Club NSW
- 'The cost of catering for motorcycles in the toll network likely exceeds the benefit of including them at all. Motorcycles represent only 3.7% of registered vehicles in NSW (Transport for NSW, 30/6/22) and not all motorcycles are used on the toll network.' – BMW Touring Club NSW
- 'NorthWestern Roads Group supports fairer tolling classes and believes that the classes should reflect the value of benefits received.' NorthWestern Roads Group
- 'Consideration of new tolling classes for larger, higher productivity vehicles (AB-Triples and B-Triples) to address lost motorway capacity and increased safety and maintenance costs.' NorthWestern Roads Group
- 'Consideration of a new vehicle classification, relevant to mid-sized heavy vehicles, is very welcome.' Transport Workers Union

### Overview of responses of the general public – positive/negative/neutral

Figure 2.2 Summ	nary statistics c	of the general	public responses:
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Торіс	No. of responses addressing the issue	Positive	Negative	Neutral
Network tolling	64	78%	11%	11%
Declining distance tolls	51	61%	31%	8%
NSW Motorways entity	12	83%	-	17%
External dispute mechanism	63	75%	21%	5%
IPART	58	71%	21%	9%
Toll relief	52	42%	58%	-
Motorist experience	46	83%	15%	2%
Transparency	76	95%	4%	1%

Source: Independent Toll Review, Have Your Say Portal

\*Note: Percentages positive/negative/neutral are based only on respondents who answered that specific question.

# 3. The current tolling landscape

### On tolling

### Tolling for use of roads has a long history and can serve multiple objectives

The fundamental principle of tolling is that motorists pay to access and use the designated toll roads. Historically, tolls have been used to help fund the construction and maintenance of roads, bridges, and other essential transport infrastructure, ensuring that those who benefited directly from these facilities contributed to their establishment and upkeep.

Tolls have a long history in New South Wales. In 1802, Andrew Thompson, a private citizen, constructed the first toll bridge at South Creek in Windsor. Thompson financed the construction and maintenance of the bridge in exchange for the right to collect tolls for 14 years. This arrangement marked the first private sector contribution to the development of Sydney's road infrastructure.<sup>11</sup> Tolls were imposed by the NSW Government on the Sydney Harbour Bridge when it was completed in 1932.<sup>12</sup> Sydney Harbour Bridge is still publicly-owned with tolls going to the government.

Tolls have two main purposes in road transport. The first is to help pay for the roads – motorway tolls are used for this purpose but where revenues are collected by governments can also be used for other purposes. For example, toll revenue is often re-directed to fund improvements on the untolled highway network and to fund public transport. The second main purpose of tolls is to manage the traffic – this is particularly important where roads are subject to high congestion. In the United Kingdom (UK), for example, Transport for London have set managing traffic levels on the new Silverton Tunnel (opening 2025) and the existing Blackwall Tunnels as the primary tolling objective.<sup>13</sup>

### The practical argument for charging tolls

In Australia, state governments have often stated that their purpose in introducing tolls is to enable infrastructure provision, including bringing forward investment for the benefit of motorists. This applies regardless of the delivery method:

- Government builds then recoups costs through tolls
- Government enters into a private-public partnership and either avoids financing the cost of the road or recoups it as a lump sum sale of its interest in the toll road concession entity.

Tolls on the Sydney Harbour Bridge were directly linked to costs of delivering the bridge. The same rationale was used when the Sydney Harbour Tunnel commenced operation in 1992.

The continuation of tolls on the bridge beyond 1988, when the borrowings which financed it were repaid, and on the tunnel after 2022 when the concession agreement under which it was built concluded, indicates that other tolling objectives have become important. In both cases construction costs have been recovered from the tolls set, but significant ongoing maintenance and operating costs still have to be met. These costs are not insignificant.

<sup>&</sup>lt;sup>11</sup> Road tolling in New South Wales, Legislative Council, Portfolio Committee No. 2 – Health and Community Services, 2017

<sup>&</sup>lt;sup>12</sup> Bureau of Infrastructure and Transport Research Economics. (2016, September 2). <u>Toll roads in Australia.</u> <u>https://www.bitre.gov.au/publications/2016/is\_081.</u>

<sup>&</sup>lt;sup>13</sup> Transport for London. (n.d.). Silvertown Tunnel. <u>https://tfl.gov.uk/travel-information/improvements-and-projects/silvertown-tunnel</u>.

However, tolls are now also needed to help manage traffic flows on these crossings. If there were no charges, the demand to use the crossings, particularly at peak times in the weekday mornings and evenings, is likely to be so great as to cause severe congestion. Tolls help to ration use of these facilities and manage the traffic flows.

## Including tolls in the funding strategy for infrastructure is appropriate alongside direct government funding

State governments have limited funds and capacity to borrow to supply all essential services the state needs. As a user charge, tolls avoid taxpayers having to bear the full costs of road construction.

User charging for motorway use aligns to the benefit principle of public finance, motorists are the users and beneficiaries of motorways. However, there are also likely to be non-user beneficiaries from the toll roads, including the community generally. For example, the broader community may benefit from the diversion of traffic from local areas, reductions in vehicle emissions and so forth associated with these roads. Tunnels can be especially important in this regard also, in helping to preserve and create new environmental benefits.

Government contributions to road projects can be a way to recognise these non-user benefits in the recovery of overall costs. Even here though, government funded contributions may not be well targeted or desirable. For example, where government contributions are used, people outside Sydney who may not use the Sydney roads also effectively contribute to them.

### Toll roads and the NSW motorway network

Transport planners have indicated to the Review that motorways have been designed to support long distance travel between major urban centres at high speeds, generally greater than 80km/per hour, with usually two or three lanes in each direction. Access is restricted to grade separated interchanges. Motorways have some of the highest movement function on the road network and provide a safer and more time-efficient connectivity, boosting the productivity of a region. The focus is on encouraging key customer groups to use the motorway network in preference to other parts of the road network, while reducing demand for non-essential journeys. The customers are:

- Freight and services freight operators, delivery vehicles, construction vehicles, service vehicles.
- Public transport coaches and express bus services, tourism operators.
- Private vehicles making long distance journeys within and beyond Sydney.

Motorways provide other benefits such as enabling adjacent road networks to prioritise active and public transport, local access, and successful place outcomes. They also improve access to places that are not served by public transport.

The motorway network in Sydney is largely complete. Future investment will shift from network expansion towards targeted customer outcomes like safety, affordability, resilience, and ease-of-use. At the same time there is a need to consider how any future investment will impact the rest of the road network and the places they pass through.

There are opportunities to improve the efficiency of the motorway network by reducing network access from residential precincts that attract local trips, in places well served by public transport, and focus instead on providing access only at arterial roads, employment lands and ports. The use of demand management mechanisms could influence their use through tolling or the reallocation of road space away from general traffic (e.g. bus or truck lanes).

Motorways are one of the three main types of roads in the road network, alongside arterial roads, such as Paramatta Road, which distribute traffic across urban areas, and local roads, which serve neighbourhoods. Because of their cost to deliver and maintain, and patterns of use, globally tolling has most often been applied to motorways, as well as specific assets like bridges and tunnels.

Over the past 30 years, the decision to use tolling as a source of road funding for urban motorways combined with private sector financing has significantly contributed to the development of Sydney's motorway network. Private sector financing has covered the short-term costs particularly associated with the design and construction of motorways whilst the tolls have enabled these costs to be repaid over the longer term. This motorway network has been developed over time, with each of the toll roads treated as a standalone procurement although aligned to evolving visions for the motorway network as a whole, set out in planning documents. As illustrated in <u>Figure 3.1</u>, the current now well-established urban motorway network comprises 320 km<sup>14</sup> of roads, including 156 km of toll roads, integrated into Sydney's broader road and public transport system.





Source: Independent Toll Review

- the M4 west of the M7
- any of the Hume Motorway
- any of the Pacific Motorway.

<sup>&</sup>lt;sup>14</sup> The June 2023 discussion paper stated that the Sydney motorway network comprises about 179 km of motorway roads. The discussion paper figure did not include:

As <u>Figure 3.1</u> illustrates, motorways create unique connections across and around Greater Sydney. Arterial roads and public transport provide complementary and more affordable options for less time-sensitive travellers, and those whose destinations are not serviced by toll roads.

Motorways have natural monopolies characteristics in that it is generally not economically efficient, or sensible from land use and transport planning perspectives to construct multiple competing motorway corridors. Motorways have high fixed-to-variable cost ratios and are associated with long asset lives. Once constructed, the expectation is that multiple generations of NSW residents will benefit from their use. These characteristics are also true, but to a lesser extent, of arterial roads. Due to these characteristics NSW Government leads motorway planning and investment decisions.

The extensive network of toll roads in Sydney, illustrated in <u>Figure 3.1</u>, is relatively unique in terms of the number of toll roads and the extent of their coverage of the urban motorway network.

### How toll roads are used

To better understand how toll roads help people move around Sydney, the Review has analysed data from the Household Travel Survey (HTS). The HTS is the most comprehensive source of personal travel data in Sydney and has been in operation since 1997. The HTS is designed to provide insight on long run trends in travel behaviour.

<u>Appendix B</u> provides background on the methodology for the HTS, and a detailed analysis of results. Key observations include:

- Travellers in higher income brackets are considerably more likely to use toll roads than those from lower income brackets.
- Toll roads are used in only a small share of all journeys, ~4%, between 2007–20 (pre-COVID-19) and 2020–23 (during COVID-19 and post-COVID-19).
- Focusing specifically on journeys involving car drivers, toll roads featured in 7.6% to 8.8% of trips during 2007–20. Data from the COVID and post-COVID periods show greater volatility compared to the pre-COVID period.
- Examining the choice of transport modes for journeys intended for commuting or work-related travel, trips by 'car drivers' represent the largest share. The share of journeys involving toll roads was relatively consistent from 2007–20, suggesting that toll roads have not significantly increased or decreased in attractiveness to travellers making work or work-related journeys. Again, data from the COVID and post-COVID periods show greater volatility compared to the pre-COVID period.
- Additionally, car driver journeys that involve toll roads are significantly more likely to be for commuting or work-related purposes compared to those where tolls are not used.

### Toll road industry structure

The provision of toll roads and collection of tolls in Sydney encompasses the functions of road design and construction, road asset management, toll road operation, the interface with toll customers (retail), and collection of tolls in the case of non-compliance. Multiple parties are involved in providing these functions across the 10 private toll road concessions (three of which are under the WestConnex banner) and two public toll roads. This is illustrated in <u>Figure 3.2</u>, which highlights the dominant influence of Transurban, high degree of outsourcing of functions, trip and retail market share distributions.

Transurban has an ownership interest in every private toll road operator in Sydney. Transurban and its subsidiary Tollaust also provide asset management, operations, toll data processing and toll collection services to concessionaires.

With respect to the toll retailer market, there are two providers, the NSW Government owned E-Toll (56% of the market) and the Transurban owned Linkt (44% of the market) The NSW Government manages tolling compliance services on behalf of all toll road operators (see <u>Figure 3.2</u>).

#### Figure 3.2 Overview of toll road operators and service providers



Source: Independent Toll Review. Market shares for Tag Customer/Retail based on market shares contained in Independent Inquiry into the Regulation of Toll Road Roaming Fees: Issues Paper (2019)

### Toll road concessions and concessionaire ownership

There are currently 10 private toll road concessions (three of which are under the WestConnex banner) and two government toll roads in NSW. These are listed in <u>Figure 3.3</u>, alongside their current share of toll road traffic and revenue. Two additional government owned toll roads are expected to be open to traffic by 2028, being the M6 Stage 1 and the Western Harbour Tunnel.

Figuro	33	MSW	toll	roade	hv	rovonuo	2022	23
Iguie	0.0	11311	ισιι	TUaus	Dy.	revenue.	2022-	-20

Toll road/s	Financial year 2022–23 revenue (\$ million)	Share of revenue	Share of traffic (April – June 2023)
WestConnex (M4, M5 East, M8, M4-M8 Link, Rozelle Interchange)	648	26.4%	26%
Westlink M7	485	19.8%	18%
Hills M2	367	15.0%	12%
M5 South-West	334	13.6%	15%
Eastern Distributor	169	6.9%	5%
NorthConnex	161	6.6%	4%
Sydney Harbour Crossings (SHC)	107	4.4%	10%
Lane Cove Tunnel	104	4.2%	7%
Cross City Tunnel	77	3.1%	3%

Source: Independent Toll Review. Private concession revenue figures sourced from Transurban FY23 Investor Presentation, page 50

As <u>Figure 3.3</u> shows, WestConnex, which encompasses M4, M5 East, M8, M4-M8 Link, Rozelle Interchange, earns the largest share of toll revenue in NSW.

Each toll road is operated by a concessionaire. <u>Figure 3.4</u> sets out the relevant concessionaires per road and their ownership structure.

#### Figure 3.4 Concessionaires and revenue

Toll road	Concessionaire	Concession end			
Sydney Harbour Bridge	N/A - publicly operated toll roads				
Sydney Harbour Tunnel					
WestConnex (M4, M5 East, M8, M4-M8 Link, Rozelle Interchange)	WCX M4 AT Pty Ltd,STP Consortium:15 100%IWCX M4 PT Pty Ltd,2WCX M5 AT Pty Ltd,2WCX M5 PT Pty Ltd,2WCX M4-M5 Link AT Pty Ltd,2And WCX M4-M5 Link PT2Pty Ltd2		December 2060		
Cross City Tunnel	Transurban CCT Pty Ltd   Transurban: 100%   Image: 2		December 2035		
Eastern Distributor	Airport Motorway Ltd Transurban: 75.1% IFM: 14.4% UniSuper: 10.5%		July 2048		
Hills M2	The Hills Motorway Limited	Transurban: 100%	June 2048		
Lane Cove Tunnel	LCT-MRE Pty Ltd	Transurban: 100%	June 2048		
NorthConnex	NorthConnex Company Pty Ltd	mpany Pty Transurban: 50% Jun QIC: 25% CPPIB: 25%			
Westlink M7	WSO Co Pty Limited	Transurban: 50% S QIC: 25% CPPIB: 25%			
M5 South-West	Until 10 December 2026, Interlink Roads Pty Ltd From 11 December 2026, WCX M5 AT Pty Ltd and WCX M5 PT Pty Ltd	Until 10 December 2026, Transurban: 100% From 11 December 2026, STP Consortium: 100%	December 2060		

Source: Independent Toll Review

<sup>&</sup>lt;sup>15</sup> STP is a consortium which consists of Transurban, AusSuper, Canadian Pension Plan Investment Board (CCPIB), Caisse de dépôt et placement du Québec (CDPQ) and Tawreed. Tawreed is a wholly owned subsidiary of Abu Dhabi Investment Authority (ADIA).

#### Complex commercial arrangements underpin each concession agreement

The concessionaires listed in <u>Figure 3.4</u> are parties to the head concession agreement for each toll road PPP. Each toll road PPP involves a number of related contracts and interested parties. For example, the Lane Cove Tunnel contract structure in August 2010 is depicted at <u>Figure 3.5</u>. This provides an illustration of the number of arrangements which are in place for each concession. Some of these arrangements could be affected by changes to the concession agreements (e.g. rights may be triggered under the Financiers Tripartite Deed).

Figure 3.5 Overview of the structure of the Lane Cove Tunnel project contracts from a public sector perspective upon the completion of the sale of the Lane Cove Tunnel project to Transurban on 9 August 2010



### Source: Lane Cove Tunnel, updated summary of contracts, incorporating summaries of contract changes to 9 August 2010, p.14

### Current tolls and toll escalation rates

### **Private concessions**

For the 10 private concessions (three of which are under the WestConnex banner), PPP agreements set the maximum toll the concessionaires can charge.<sup>16</sup> The tolling schedule, including base tolls and escalation rates over time, are included in the concession agreement and applies over the concession term. These are set out in Figure 3.6.

Currently all concessionaires charge the tolls provided by their respective contract. There have been instances in the past where the M4 Widening, Cross City Tunnel and Lane Cove Tunnel have had reduced or zero toll periods. In some cases, the government has paid the concessionaire to implement reduced or zero tolls, in other cases the concessionaire has borne the financial impact. There is currently no specific mechanism in the PPP agreements to periodically review the appropriateness of the tolls. There have been some changes to toll schedules negotiated as part of widening and upgrade projects. Concessionaires could submit a proposal to amend the PPP agreement if they wanted to change tolls, which would need to be considered by government.

### Government toll roads

Government sets the toll for the Sydney Harbour Crossings. Toll changes have occurred infrequently compared to the other toll roads which escalate annually or quarterly. In August 1992 the Sydney Harbour Bridge toll increased to \$2 when the Sydney Harbour Tunnel opened. Since then, there have been just three toll changes – occurring in March 2004, January 2009 and October 2023.

<sup>&</sup>lt;sup>16</sup> For NorthConnex, only discounts which apply at certain times of day would require TfNSW agreement.

#### Figure 3.6 Current tolls (as at April 2024)

Toll road	Direction charged/ tolling method	Class A Toll <sup>17</sup>	Class B Toll <sup>18</sup>	Class B Multiplier	Escalation rate
Sydney Harbour Bridge Sydney Harbour Tunnel	Southbound/ time-of-day	<ul> <li>\$2.67:</li> <li>weekdays from</li> <li>weekends from</li> <li>\$3.20:</li> <li>weekdays off</li> <li>weekends from</li> <li>\$4.27:</li> <li>weekday peak</li> </ul>	m 7pm to 6:30am m 8pm to 8am -peak m 8am to 8pm < <sup>19</sup>	1x	Determined by TfNSW (Roads Act s215 requires TfNSW to consider CPI when setting tolls for Sydney Harbour Bridge.)
WestConnex (M4, M5 East, M8, M4-M8 Link, Rozelle Interchange)	Two-way/ flagfall + distance- based	\$1.67 flagfall + \$0.62/km \$11.78 cap	\$5.00 flagfall + \$1.85/km \$35.33 cap	Зx	Until 31 December 2040: The greater of CPI or 4% per annum From 1 January 2041: CPI per annum
Cross City Tunnel	Two-way/ fixed	Main tunnel: \$6.85 Sir John Young Crescent: \$3.23	Main tunnel: \$13.69 Sir John Young Crescent: \$6.46	2x	CPI per quarter
Eastern Distributor	Northbound/ fixed	\$9.38	\$18.76	2x	Greater of (37.5% x CPI + 62.5% x AWE) and 1% per quarter
Hills M2	Two-way/ fixed	North Ryde: \$9.56 Pennant Hills Rd: \$4.79	North Ryde: \$28.68	Зх	Greater of CPI and 1% per quarter

<sup>&</sup>lt;sup>17</sup> For Eastern Distributor and M5 South-West: A vehicle that is 12.5 metres or less in length and either a 3-axle vehicle under 2.0 metres, or a two-axle vehicle under 2.8 metres in height. For Hills M2, Lane Cove Tunnel, Cross City Tunnel, M5 East, NorthConnex, Westlink M7, WestConnex: A vehicle that is 2.8 metres or less in height and 12.5 metres or less in length.

<sup>&</sup>lt;sup>18</sup> Scheduled bus passenger services are toll free on all toll roads except for the Hills M2, Sydney Harbour Crossings.

<sup>&</sup>lt;sup>19</sup> Frequent motorcycle customers with an E-Rider account are able to access a discount.

Toll road	Direction charged/ tolling method	Class A Toll <sup>17</sup>	Class B Toll <sup>18</sup>	Class B Multiplier	Escalation rate
		Windsor Rd: \$3.39 Lane Cove Rd: \$2.83 Herring and Christie Rds: \$4.77 M2-NCX: \$4.79	Pennant Hills Rd: \$14.34 Windsor Rd: \$10.15 Lane Cove Rd: \$8.48 Herring and Christie Rds: \$14.33 M2-NCX: \$14.34		
Lane Cove Tunnel	Two-way/ fixed	Main tunnel: \$3.97 Military Road E- Ramp: \$1.99	Main tunnel: \$13.43 Military Road E- Ramp: \$6.72	3.4x	For Class A vehicles: Greater of CPI or 0% per quarter For Class B vehicles: Greater of CPI or 1% per quarter
NorthConnex	Two-way/ fixed	\$9.56	\$28.68	Зх	Greater of CPI and 1% per quarter
Westlink M7	Two-way/ distance- based	\$0.4853/km Capped at \$9.71	\$1.4559/km Capped at \$29.13	Зх	CPI per quarter
M5 South- West	Two-way/ fixed	\$5.62	\$16.85	Зх	CPI per quarter

Source: Independent Toll Review

### Observations on one way tolling

As <u>Figure 3.6</u> details, most toll roads in Sydney are tolled in both directions, except for the Sydney Harbour Crossings and Eastern Distributor.

One-way tolling on these roads pre-dates the introduction of full electronic tolling in New South Wales which was achieved in July 2013 (see <u>Figure 1.1</u>). Tolls were imposed in one direction to avoid the congestion caused by making all vehicles stop or slow down in both directions. It also reduced the number of staff required to operate toll booths. Tolls apply in the citybound direction on these three roads. Motorists who use the Eastern Distributor in conjunction with either of the Sydney Harbour Crossings pay one toll in each direction.

Despite the recommendation from the December 2003 Parry Report to 'take steps to facilitate the introduction of electronic road pricing, such as introducing two-way tolling and harmonising tolls across existing and new tolled arterials', the Sydney Harbour Crossings and Eastern Distributor continue to be tolled in one direction only.

As a result of one-way tolling, traffic flows are not balanced in each direction on the Sydney Harbour Crossings and Eastern Distributor. Traffic volumes on these three roads are significantly higher in the untolled direction.



# Evaluation of tolls

# 4. Public Private Partnerships and toll roads

Draft findings:	
Process for setting tolls	Finding 1: The process for setting tolls has been flawed.
Toll road PPPs	<b>Finding 2:</b> The important details of PPP arrangements relating to toll setting are not disclosed to the public, reducing the information available to assist public understanding.
	<b>Finding 3:</b> Toll road users bear a disproportionately high proportion of the cost of toll roads.

### An overview of Public Private Partnerships (PPPs)

Apart from the Sydney Harbour Bridge, all existing toll roads in Sydney have seen significant private sector involvement in their design, construction, operation, maintenance, and financing.

This involvement has occurred through PPPs. A PPP is broadly understood as a long-term arrangement between the public and private sectors for developing, delivering, operating, maintaining, and financing of service-enabling public infrastructure.

The revenue source for the private sector in a PPP can vary depending on the sector and type of PPP model. It could come solely from regular government payments or include alternative sources such as user charges. The main types of PPPs are:

- Economic Infrastructure (or user-charge) PPP: Here, the primary revenue stream for the private sector partner is user fees, and the private party bears the demand risk. These projects are commercially viable with limited financial support or contribution required from government. User charges are generally determined under a concession contract but could be determined by an independent regulator, for example as is the case in the UK with the roads and Thames Tideway Tunnel.
- Availability PPP: In this model, the government makes service payments to the private sector partner for the development, operation, maintenance, and availability of an asset and associated services. The private party finances the infrastructure and bears construction, operation and maintenance risks over the concession term. It receives payments for making the infrastructure available for use irrespective of the actual volume of its use. In other words, the private partner bears no demand risk. Availability PPPs are more common in delivering social infrastructure in the health, education, and justice sectors, but have been used to deliver toll roads in other Australian jurisdictions (Peninsula Link in Victoria and Toowoomba Bypass in Queensland).

PPPs usually have the following features:

- 1. Design and construction of public service-enabling infrastructure assets through public and/or private sector financing.
- 2. Engaging the private sector for a specified period to deliver related services through the operation or management of services.

3. Contributions by the NSW Government, which can include land, capital works, availability payments, other payments, risk sharing, revenue diversion, or other supporting mechanisms.<sup>20</sup>

### Toll road PPPs and motorway delivery

Modern use of PPPs to deliver motorways (toll road PPPs) in Sydney dates to the late 1980s with the Sydney Harbour Tunnel being the first to be developed in this way. Governments were attracted to PPP financing because of perceived limitations of their capacity to fund this infrastructure from existing taxation revenues and external borrowings. In part, this was both a reaction to the scale of demands for infrastructure investment generally, not just for roads, and also a reaction to political pressures to limit the size of government and provide more scope to allow the private sector to participate in service provision. This particularly followed the neoliberalism philosophy which had become dominant in the UK and United States of America (USA) at the time.

A feature of toll road PPPs in Australia has been that they generally take the form of economic PPPs, where revenue to finance the costs of private sector parties is raised mainly through tolls collected from users. Governments have leased land and contributed to the capital costs of most of the roads, but the bulk of financing has come from the private sector. Special Purpose Vehicles have been established to undertake and fund the necessary works and in return been given the right to levy tolls on users at rates essentially determined by governments.

The PPP agreements have of necessity been set to last for long periods of time, generally between 30–45 years. This reflects the size of the investments made by the private sector partners and expectations of how much revenue tolls could generate each year to recover costs, including returns on the capital involved.

The design of these agreements is critical to the outcomes obtained from them. For toll road users, weaknesses in the agreements can occur if the objectives of government do not closely align with the needs of users. For example, does government seek to maximise the financial outcomes of the agreements for the state or do they seek fair and efficient tolls for users? If both objectives are sought, where does the balance lie? Contracts underpinning these agreements are inevitably incomplete in various ways.<sup>21</sup> Not all future events can be predicted accurately despite the best of intentions. And the mechanisms designed to deal with situations where the unanticipated occurs may be less than perfect. This can give rise to costly disputes and pressures to renegotiate contracts. It can cause unnecessary costs for the parties involved.

<sup>&</sup>lt;sup>20</sup> Content in this section is based on the NSW Public Private Partnership Policy and Guidelines:

NSW Treasury. (2022). NSW Public Private Partnerships Policy and Guidelines. *Infrastructure & Structured Finance Unit*. <u>https://www.treasury.nsw.gov.au/sites/default/files/2022-10/tpg22-21\_nsw-public-private-partnership-policy-and-guidelines.pdf</u>.

<sup>&</sup>lt;sup>21</sup> The Noble prize-winning economist Oliver Hart has written extensively on incomplete contracts including in relation to PPPs. See: Hart, O. (2003, March). Incomplete Contracts and Public Ownership: Remarks and an Application to Public Private Partnerships. *The Economic Journal*, 113(486).

Certainty for concessionaires under these contracts has been provided by locking in the basis for determining tolls for the life of the concession agreements and by providing processes able to be pursued by the private sector partners should major adverse events occur which had not been assumed when the agreements were signed. However, no provision has been made in the contracts for tolls to be reviewed if there are significant changes from what had been expected when the agreements were concluded. Further, if a dispute arose about tolls it would need to be resolved by mediation, arbitration or by the courts – mechanisms which are very effective when it comes to deciding what are appropriate tolls. Any flaws in the way tolls have been set in these agreements at the outset will have continued to impact over time. This is particularly important for this Review, since the tolls that exist today are essentially what had been agreed to when the PPP agreements were signed. It also highlights the need to understand as much as possible the processes followed at the time in determining tolls. Governments have been able to avoid costs, and the community has benefited from early access to the roads, but the cost of achieving these benefits is borne by the users of the roads now and in future for the life of the PPP concession agreements.

### Observations on risk allocation in toll road PPPs

An important consideration in PPP agreements relates to the sharing of risks. There are many risks associated with the design, construction, maintenance, operation and financing of roads. Where responsibility for managing these risks lies is important in determining realisation of costs and benefits overall. In general, it is preferable that risk lies with the parties best placed to manage it at lowest cost.

In terms of construction and operating risks, having a dedicated concessionaire vehicle to manage a road project is typically better than having this done by a government department or body with a broader focus. Private partners tend to have stronger motivation and ability to manage construction operation and budgets more successfully than government bodies do. Managing both construction and operations together may provide a stronger incentive to ensure the quality of the road is such that maintenance costs over the period of the maintenance contract are minimised.

In terms of demand risk, governments can significantly influence the traffic on individual roads through general transport policies, including in relation to public transport and through planning, population and other policies. Placing the traffic risk fully on the private operators is likely to cause them to seek higher rates of return, higher escalation of tolls, and/or longer concessional periods than otherwise to offset this risk. The better outcome is likely to be one when the risk is at least shared between the parties.

Traffic risk is however very much a consequence of the way PPPs are designed. With economic PPPs traffic risk lies with the concession holders essentially because of the pre-determined length of the concession agreements. Concession lengths could be made variable and dependent on when the concessionaires' expected traffic and revenue was realised. This would internalise demand shocks and avoid an extensive process and costs associated with any renegotiating of concession lengths.

### Evolution of toll road PPPs

Over time there has been a significant evolution in PPP agreements reflecting the experience with each earlier agreement, the motivations of the parties and the particular circumstances relating to the new road being developed. The parties involved have sought as much certainty as possible in relation to agreed arrangements, to minimise their risks and to maximise their benefits. While governments could in general be expected to have regard to the interests of the wider community in negotiating these agreements, the desire to attract private finance and to conclude the deals has also influenced outlooks. There has been and remains inadequate transparency in relation to commercial arrangements within PPP agreements, which has adversely affected the public accountability associated with them.

The early agreements provided significant assurances to the private sector partners in relation to revenues. This was particularly important given the significance of traffic risks in relation to new roads. The recovery of costs over time through tolls is dependent on the traffic attracted to the roads. The difficulties of accurately forecasting demand can, however, be significant especially with new 'greenfield' developments where there is no previous traffic experience to help guide the forecasts. In fact, the experience over time with some new toll roads (for example CCT and LCT) has been that underlying traffic forecasts have been significantly overstated.

The agreements surrounding some of the earlier roads included provisions which guaranteed the revenues of the private sector partners so that if the traffic was less than had been expected the operator was topped up by governments. More than \$1 billion was paid over time to the operator of the Sydney Harbour Tunnel in consequence of such a guarantee. In 2008, the Auditor-General was highly critical of this aspect of the agreement.<sup>22</sup>

Later agreements moved more of this traffic risk onto the private operators. Consequently, when traffic fell well short of forecasts in relation to the Cross City and Lane Cove tunnels, the private sector operators had to bear this cost. The financial difficulties experienced caused them to exit from the concession arrangements and new operators took over these roads.

Not surprisingly this experience dented the willingness of private sector operators to enter into PPP arrangements of this kind. The WestConnex project followed a different approach which helped to overcome this problem. The WestConnex concessions for Stages 1 and 2 incorporated greenfield and brownfield traffic risks. For example, at the time of the first WestConnex sale, bidders had access to actual tolled traffic data on the WestConnex M4 Widening and the M5 South-West, and untolled traffic data for the M5 East.

One undesirable feature of the M2 agreement signed in 1994 was a specific provision to protect the concessionaire from adverse impacts arising from a competitive public transport development. The Review understands that this provision was removed in 2010, but its legacy effects may have continued beyond then. The agreement also notes that TfNSW must recognise the position of the M2 as the principal arterial road servicing the north-west regions of Sydney and the connections to it. As with the Eastern Distributor agreement, the concessionaire must be consulted on proposed extensions to the motorway.

A number of agreements have provisions relating to connections to the toll roads, the aim of which seem to be to protect the financial position of the concessionaires not necessarily to prevent change.

<sup>&</sup>lt;sup>22</sup>Robins, B. (2008, December 11). *Harbour tunnel a \$1b black hole*. The Sydney Morning Herald. <u>https://www.smh.com.au/national/harbour-tunnel-a-1b-black-hole-20081211-gdt64w.html.</u>

The more recent NorthConnex agreement includes a non-compete clause concerning the possibility of a new motorway not owned by the concessionaire project company connecting the M1 to the M7 being opened.

The PPP agreements contain detailed provisions about lease payments and financing arrangements which go toward reducing the financing risks for concessionaires. Again, these have changed over time.

There are also provisions which potentially could moderate abnormally high concessionaire returns in some cases. <u>Appendix C</u> provides an overview of these provisions. More recent concession agreements (e.g. WestConnex) have included revenue rather than profit sharing arrangements, profits being less transparent. Details of any upside sharing that has actually occurred are considered by TfNSW to be commercially confidential.

### Finding 1: The process for setting tolls has been flawed.

The PPP concession agreements specify the basis on which tolls are set. Tolls are specified in schedules to the agreements which indicate base tolls and a method of escalating the tolls over the length of the concession.

They have been determined administratively by governments and generally provided as indicative to inform bidders.

### **Public sector comparators**

While it is generally recognised that governments can borrow more cheaply than private sector entities, it was also considered that private sector entities might be able to perform some tasks more efficiently than governments.

Decisions on whether or not to construct a new road should be based on an assessment of the community benefits and costs involved. Funding decisions should be subsidiary to these fundamental benefit cost assessments. Public sector comparators have been developed to compare the costs of government and private sector provision, but we are aware of at least one case where it appears that this has not been adhered to when assessing the relative efficiency of government and private sector funding (see Figure 4.1). Given the perception that government funding was constrained, this is, perhaps, not surprising.

Figure 4.1 Case study: Assessment of a public sector comparator and toll setting for the Eastern Distributor

On 23 May 1994, the Roads and Traffic Authority (RTA) issued invitations to private sector parties to submit preliminary proposals that would deliver the Eastern Distributor as an economic PPP. The RTA provided the rights to design, construct, operate, maintain and finance the ED under a long-term concession.

By receiving the right to toll, the private sector parties would assume the risks of construction, operations, traffic and financing.

Bidders were assessed on various items, notably, an upfront payment, concession period and the tolling regime. On December 1996, Airport Motorway Limited (AML), a company backed by a consortium of Leighton Contractors and Macquarie Bank was selected as the preferred proponent. AML's proposal would originally provide the RTA with an 'upfront payment' of \$163 million which would fund other RTA works at the time. However, RTA-initiated modifications, alongside additional modifications following feedback from the Environmental Impact Statement resulted in the 'upfront payment' becoming 'absorbed' into partly funding these modifications. The modifications were also funded by increasing the base toll from \$2.50 to \$3.00 on tunnel opening for cars and the concession term increased from 38 to 48 years. It was estimated that these two changes to the toll would raise an additional \$43 million for the project.

On 16 August 1997, financial close was achieved. The estimated total project cost for the Eastern Distributor was \$700 million.

Analysis from the RTA conducted in November 1995, based on the same scenarios as those proposed by AML indicated that a government funded toll road would provide a marginally higher return than the privately bid proposals. This analysis also involved a \$20 million premium to the government-funded proposal to allow for the 'increased efficiency and incentive expected to be displayed by a private venture proponent'. This was despite a Government policy guideline issued in 1995, which stated that private sector involvement must offer a more cost effective solution, if it is to be favoured above the traditional public sector approach.

The Government's decision to proceed with a privately financed toll road was influenced by several policy considerations:

- 1. The government would need to raise more than \$600 million debt if it was to implement a government funded toll road strategy. This would not comply with the intent of the government's *General Government Debt Elimination Act* 1995.
- 2. The government funded toll road strategy would have had an interest coverage ratio of under one over the first five operating years, that is, the revenue generated (not including the costs of operating and maintaining the toll road) would be insufficient to cover the interest cost of the project. This would require equity injections from government, which would not achieve the government's policy objective of delivery of the Eastern Distributor at 'no net cost to government'.
- 3. The government toll funded strategy would take on traffic and interest rate risk, which present a material risk to the government's financial exposure to the project. Under the privately financed option, these risks are taken by the private sector.

### Sources: Performance Audit Report: Review of Eastern Distributor (July 1997), Eastern Distributor: Summary of Contracts (September 1998)

Proponents point to the significant benefits PPPs have provided by enabling roads to be built much sooner that they would have otherwise been if they had to be funded by governments. They also suggest that PPPs have enabled governments to fund other necessary projects and/or retire debt sooner than otherwise. These claims hinge on whether the roads have been appropriate investments in the first place and whether it was, in fact, better that they were introduced earlier than otherwise. Some people claim that toll roads do little in the long-term to overcome congestion since they act to induce further traffic and prevent further investment in public transport. We do not need to judge these competing claims here, but we do in this report highlight the importance of efficient pricing and how its application can help to manage traffic and delay further road capacity expansions.

There is no doubt that the use of PPPs has enabled the development of a network of roads in Sydney that provides major benefits to many motorists and to the community generally, including by facilitating the efficient movement of freight around the city. The roads provide significant opportunities to save on travel times, improve safety and reduce vehicle emissions. The roads and tunnels are magnificent feats of engineering which will serve the city for many years.

PPPs have also generally been successful in ensuring projects were built within set timeframes and in line with designated budgets.

# Government procurement processes did not prioritise using competitive pressure to set the lowest tolls for motorists

Governments have pursued a range of objectives when deciding to build new roads and fund them partially or wholly through user contribution. The methodology used to determine the toll schedules incorporated in concession agreements has not been fully transparent. However, in most cases it can be said that governments have had the dominant influence in determining tolls. Indicative toll schedules have been provided to bidders based on factors such as what user contribution was considered necessary to help fund a project and what view was taken of user willingness to pay. Estimates of the Value of Travel Time Savings have been utilised in this regard.

It is important to understand that competition has not had a direct influence on the setting of tolls. While competitive bidding has underpinned the PPP process, the bidding has essentially been based on elements other than tolls. Rather the tolls have been set administratively by governments. Given the rigidity associated with the concession agreements, any mistakes in setting toll levels from an efficiency or fairness perspective would have consequences which extended over long periods of time.

The results of a competitive process will depend on the basis on which the process is conducted, including the criteria for assessment of bids. If bidding takes place in the context where tolls are already determined, then the criteria for evaluation will need to relate to other things. For example, the required length of the concession could be the focus with the bidder seeking the shortest term, all other things being equal, the winner. If tolls were set at a high level, bidders would be likely to propose shorter concession lengths and vice versa. Alternatively, bids could be decided on the basis of how much the bidders were prepared to pay to get the concession. If the government wished to capture the potential monopoly rents the concession could, provided it would set higher tolls and seek bids on this basis.

It would be more desirable if the competition for the concession was determined on the basis of the level of tolls, or a related indicator such as the proposed Net Present Value of Revenue of each bidder. The winning bidder on this basis would be the one proposing the lowest tolls. Economists have long recognised that this 'Chadwick bidding' can be an effective way to avoid excessive, inefficient and unfair prices being set by monopoly service providers.<sup>23</sup>

Over time, the precise approach followed in New South Wales has changed but the general conclusion that past approaches did not prioritise using competition to achieve the lowest possible toll for motorists remains.

For the M5 South-West, the Hills M2 and the Eastern Distributor, which opened to the public in 1992, 1997, and 1999 respectively, it appears that participants have some ability to bid on tolls as part of the procurement process, but this was not a decisive element of the process.

<sup>&</sup>lt;sup>23</sup> Chadwick, E. (1859, September). Results of Different Principles of Legislation and Administration in Europe; of Competition for the Field, as Compared with Competition within the Field, of Service. *Journal of the Statistical Society of London*, 22(3), pp. 381–420.

For the Westlink M7 and Lane Cove Tunnel, which opened to the public in 2005 and 2007 respectively, competitive pressure was again not used to get the lowest tolls for motorists.

The Richmond Review<sup>24</sup> noted that in advance of going to tender, the then Roads and Traffic Authority set the toll based on a benefit cost analysis, and tendering consortia bid on that basis. As the 2010 post implementation review for these roads observed, 'The toll level for each of the subject motorways was set based on financial modelling, which utilised a public sector comparator model assuming minimal or no cost to government. The toll level considered capital costs and operating costs over the concession period, with due regard to public willingness to pay and a reasonable return on investment to the private consortia during the concession period'.<sup>25</sup> The report further noted 'Historically, the toll level has not been based on prevailing tolls on other roads or maximising the usage of the new toll road'.<sup>26</sup>

In the example of the Cross City Tunnel, which opened to the public in 2005, the toll continued to evolve and increase after the initial tendering process (see <u>Figure 3.6</u>).

With WestConnex and NorthConnex, competitive pressure was also not used to arrive at the toll. In the case of WestConnex, proponents in the equity sale were not invited to bid lower tolls. The tolls were predetermined by government, based on the M7's per-kilometre rate with certain adjustments: a \$1 flagfall, a minimum escalation of 4% per annum until December 2040, and a cap after 16 km instead of 20 km.

In the case of NorthConnex, the process was an unsolicited proposal from the owners of Westlink M7, with competitive procurement for design and construction. The NorthConnex toll was set to be the same as the M2 main plaza tolls, rather than by reference to the specific characteristics of NorthConnex.

The basis for the administrative determination of tolls is not entirely clear because of the lack of transparency surrounding the key financial data affecting the agreements and impacting tolls. Early agreements built in what now appear to be quite generous rate of return assumptions, as interest rates were historically high at the time they were negotiated.

Possibly also reflecting available rates of return for other assets at the time these deals were entered into, upside share becomes payable at quite high rates of return. For example, payments of rent for land in cash were not required to be made by the concessionaires under the M2 and Eastern Distributor agreements until post tax real rates of return on equity were 12.25%<sup>27</sup> and 10%<sup>28</sup> respectively.

<sup>&</sup>lt;sup>24</sup> Infrastructure Implementation Group. (2005). Review of Future Provision of Motorways in NSW.

<sup>&</sup>lt;sup>25</sup> Roads and Traffic Authority. (2010). Post Implementation Review, M7 Motorway, Cross City Tunnel and Lane Cove Tunnel. <u>https://www.treasury.nsw.gov.au/sites/default/files/2017-</u>

<sup>02/</sup>Lane\_Cove\_m7\_motorway\_cct\_lct\_post\_implementation\_review\_report\_dnd.pdf

<sup>&</sup>lt;sup>26</sup> Roads and Traffic Authority. (2010). Post Implementation Review, M7 Motorway, Cross City Tunnel and Lane Cove Tunnel. <u>https://www.treasury.nsw.gov.au/sites/default/files/2017-</u>

<sup>02/</sup>Lane\_Cove\_m7\_motorway\_cct\_lct\_post\_implementation\_review\_report\_dnd.pdf

<sup>&</sup>lt;sup>27</sup> Roads and Maritime Services. Updated summary of M2 motorway contracts including motorway upgrade contracts as at 28 May 2013, p. 69. <u>https://www.treasury.nsw.gov.au/sites/default/files/2017-</u>02/M2\_contracts\_summary\_28May2013.pdf

<sup>&</sup>lt;sup>28</sup> Roads and Traffic Authority. (1998). Eastern Distributor: Summary of contracts, P.23 <u>https://www.treasury.nsw.gov.au/sites/default/files/2017-</u> 02/01\_Attachment\_for\_Eastern\_Distributor\_Roads\_Contract\_Summary.pdf

Returns underlying the tolls were high under the original M2 agreement.

'The internal rate of return that the private sector equity investors expect from the M2 is expressed in the Base Case Model in the following (nominal per annum) terms: 18.5% pre-tax cash return or 16% post tax return which is the pre-tax equivalent of 24.4%. These can be compared to the nominal rate of 18.7% per annum pre-tax developed using the normal cost of capital model'.<sup>29</sup>

Under the Cross City Tunnel, Westlink M7 and Lane Cove Tunnel agreements, the government sought upfront payments of \$96.8m, \$193m and \$479m respectively from the winning bidders to offset expenses incurred by the government in developing the projects and associated works.

Nearly one-half of the payment made for the Cross City Tunnel was for a 'Business Consideration Fee' which was a payment for the right to levy tolls. The concessionaire was selected on the basis that this was the upfront payment bidders were willing to provide. In doing this, the government in effect promoted and captured the benefits of monopoly pricing on the toll road. Subsequent history has readily served to confirm that tolls on this road have been set at too high a level resulting in significant underutilisation.

Where toll roads have been sold, the existing toll schedules contained in the PPP concession agreements have continued to apply. Prices paid for the assets involved by the new owners have no doubt been influenced by what these tolls were and by actual experience with regard to traffic.

The biggest sale of toll roads occurred with the WestConnex project. This project essentially involved government procuring the major contractors (including design and construction), the subsequent 51% sale to the private sector, use of funds generated to help complete the project and sale of the remaining 49% of the project. The term asset recycling was used to describe this form of infrastructure delivery. Funds from the sale of WestConnex were able to be channelled into other areas of government priority.

<sup>&</sup>lt;sup>29</sup>Performance Audit Report: The M2 Motorway, The Audit Office of NSW (1995), p.10, available at <u>https://media.opengov.nsw.gov.au/pairtree\_root/2c/89/d1/55/dc/65/46/57/95/72/80/b0/3e/12/cc/71/obj/Report\_t\_No\_16\_M2\_Motorway\_January\_1995.PDF</u>

#### Figure 4.2 Case study: WestConnex equity sales

The WestConnex project had a number of stages and involved three separate concessions:

- Stage 1 being the M4 East (a new 6.5 km tunnel) and 7.5 km widening of the M4 between Parramatta and Homebush.
- Stage 2 being the 11 km M8 tunnel. The Stage 2 concession includes the right to toll and obligations to operate and maintain the existing M5 East (from opening of the M8 tunnel) and the existing 21.5 km M5 South-West Motorway (from December 2026).
- Stage 3 being the 7.5 km M4-M8 Link connecting Stages 1 and 2. The Stage 3 concession includes the right to toll and obligations to operate and maintain the Rozelle Interchange (with the Iron Cove Link portion of the Rozelle Interchange untolled).

The sale of the concessions occurred in parallel with the delivery of different stages of WestConnex. The Sydney Motorway Corporation, a non-guaranteed private limited company 100% owned by the NSW Government, was established to fund, deliver and operate the project. Subsidiaries were established by Sydney Motorway Corporation for each of the project stages. These Special Purpose Vehicles entered into project deeds with Roads and Maritime Services (RMS), which set out the terms of the concessions and the right to toll the roads until 2060.

The WestConnex structure in Stages 1 and 2 combined greenfield and brownfield traffic risks. Ensuring integrated operations across stages of WestConnex was also an important risk to be managed. Some economies on major costs like electricity were able to be achieved across the project. Coordination on tolling arrangements has also been achieved. An access (flagfall) and distance-based charge, capped after 16 km applies across all the WestConnex roads. The tolls will be escalated at the greater of 4% or the CPI per annum, until 2040 and after that by the CPI.

The government ran a sale process for the equity in the headline corporate entity (Sydney Motorway Corporation) on an 'as is' basis. The concessionaire vehicles were wholly owned subsidiaries of Sydney Motorway Corporation. This meant that the management of the ongoing construction activities for Stages 1 and 2 and the procurement of the design and construction contractor for Stage 3 could proceed in parallel with the sale process.

The initial 51% equity in WestConnex was sold in August 2018 to the consortium Sydney Transport Partners (STP), led by Transurban, for \$9.26 billion. This consortium later also acquired the remaining 49% government stake when this was sold in September 2021 for \$11.1 billion.

Source: Independent Toll Review

# Decision-makers have placed significant emphasis on short-term benefits and undervalued long-term impacts

Governments face strong incentives to reduce immediate fiscal outlays and gain positive community recognition for new projects. This suggests two things. First, that there will be a preference for using external funding, including user charges, to meet the cost of new infrastructure; and second, toll schedules are likely to include a significant element of deferral of cost recovery to the future, rather than in the early years of a project.
Toll road PPP transactions appear to have been influenced by such considerations, both on single toll road deals and also where toll revenues from one toll road cross-subsidises another toll road. Cross-subsidisation can cause inefficiencies in pricing and investment decision-making but may also be seen as promoting greater fairness. These considerations may be different in the context of network tolls. Cross-subsidisation has been justified on the basis that it aligns with the 2014 Principles that 'Tolls charged reflect the cost of delivering the motorway network' and 'Tolls can continue while they provide broader network benefits or fund ongoing costs'.

### Figure 4.3 Cross-subsidisation case studies

### NorthConnex

Tolls on the Westlink M7 help to pay for NorthConnex. In January 2015, an amendment to the Westlink M7 concession was signed as part of the funding model for NorthConnex. Under the amendment, the heavy vehicle multiplier for the M7 increased from 2x to 3x and the M7 concession was extended from February 2037 until June 2048. This was done in preference to increasing tolls for light vehicles.

### WestConnex

Tolls on existing roads – the M5 East, the M5 South-West, and the M4 (from Parramatta to Homebush) – help fund other parts of WestConnex which were not financeable on a standalone basis. Incorporating 'brownfield' assets (i.e. roads with a proven traffic history) into the concession arrangements was a critical component of the funding strategy for WestConnex, particularly given traffic forecasting issues on prior 'greenfield' toll roads (i.e. the Cross City Tunnel and Lane Cove Tunnel).

- The M5 East opened in December 2001 and operated until July 2020 as an untolled part of the Sydney motorway network. The WestConnex concessionaires for the M8 tunnel have the right to toll the M5 East (and the obligations to operate and maintain it) from July 2020 to December 2060.
- 'Stage 1' of the M5 South-West opened in August 1992. The WestConnex concessionaires for the M8 tunnel have the right to toll the M5 South-West (and the obligations to operate and maintain it) from December 2026 to December 2060.
- The M4 Widening section of WestConnex opened in July 2017 with a total capital cost of about \$500 million spent on widening the existing M4.<sup>30</sup> At the time of the sale of the State's 51% interest in WestConnex, traffic forecasts for this section were significantly de-risked as the M4 Widening was already open to traffic and it had a tolled traffic history with the previous toll removed in February 2010.

#### Source: Independent Toll Review

### Observations on specific contract features: concession length, contract incentives and allocation of demand risk

Governments have opted for higher escalation rates and longer concession terms to reduce starting tolls and government contributions, pushing more of the funding burden onto future motorists.

<sup>&</sup>lt;sup>30</sup>O'Sullivan, M. (2017, August 15). New M4 toll funnels more motorists onto Sydney's Parramatta Road. The Sydney Morning Herald. <u>https://www.smh.com.au/national/nsw/new-m4-toll-funnels-more-motorists-onto-sydneys-parramatta-road-20170815-</u>

gxwaob.html#:~:text=The%207.5%2Dkm%20section%20of,%2416.8%20billion%20WestConnex%20motorwa y%20project.

Governments have structured contracts so that concessionaires take the risk of costs in the delivery or operation of toll roads (to agreed service standards). However, this has meant that the concessionaires receive the full benefit of any cost savings they can achieve, rather than share these motorists in the form of lower tolls.

In more recent PPP agreements traffic risk has been allocated to the concession holders. This means that if traffic does not meet their expectations, which are built into Base Case Financial Models attached to the concession agreements, they suffer financially – but if the traffic exceeds expectations they benefit. Accordingly, when toll road use declined during the COVID-19 pandemic the revenue consequences were borne by the concessionaires, not government. In the long-term as traffic builds on the roads and tolls continue to escalate it is likely that concessionaires will benefit significantly. Some of this benefit may go to governments through sharing arrangements built into the concession agreements (refer to <u>Appendix D</u>). The benefits shared with government to date have not been significant.

Demand for toll roads is influenced by government actions. These include measures to increase the attractiveness of the city to new businesses, residents and visitors as well as improvements to roads and linkages to the motorways. The concessionaires are the beneficiaries of these measures.

# Finding 2: The important details of PPP arrangements relating to toll setting are not disclosed to the public, reducing the information available to assist public understanding.

There is currently no legislated guidance as to the factors to be considered in setting tolls, although there is provision for regulations to be made regarding maximum tolls and charges. As a policy position, the NSW Government has adopted the 2014 Tolling Principles to guide toll setting for new toll roads. The level of openness, clarity, and accessibility of data and information about PPP agreements influences public confidence in tolling. This includes how much information is shared, how easily it can be accessed by the public, and how comprehensible it is to non-specialists.

Over time, as the use of PPPs has evolved, relevant guidelines have been progressively updated to promote transparency by making information public about the rationale for investment, and key aspects of the agreements NSW Government enters with concessionaires. The current arrangements are outlined in Figure 4.4.

#### Figure 4.4 Current transparency arrangements for PPPs

Currently, the following key information is provided to the public:

- As projects are developed, the Environmental Impact Statement process is designed to 'help the community, government agencies, and the approval authority make informed submissions or decisions on the project', providing 'information on the economic, environmental, and social impacts of the project'.
- Infrastructure NSW prepares Business Case Summaries for projects exceeding \$100 million where the government has announced an investment decision for that project. These summaries provide information about the strategic context, the project need, project objectives and design, options identification and assessment, economic evaluation and deliverability. The Business Case Summaries also include feedback on the business case provided by Infrastructure NSW.
- After an agreement for a PPP is reached, the redacted contracts are released on the Transport for NSW website (transport.nsw.gov.au) in accordance with the Act.
- After an agreement for a PPP is reached, the NSW Public Private Partnership Policy and Guidelines requires Project Summaries to be publicly released within 90 days of the contract becoming effective. The Project Summary must have two distinct parts. The first is the Project Overview, including a summary of, and rationale for, the project, its value and the parties involved. The second part is the Key Commercial and Contractual Features, which summarise the key aspects of the Project Contracts.

### Source: Independent Toll Review

The amount and type of information that is made public about the original agreements varies based on the applicable disclosure obligations that applied at the time.

While there is a variety of information available, any limitations in disclosure have the effect of eroding public confidence and reducing the ability of the community to fully understand how tolls are set, and the financial underpinnings of these projects. Some stakeholders noted this in their submissions, detailed in <u>Figure 4.5</u>.

Figure 4.5 Stakeholder feedback on transparency of agreements

**City of Sydney:** The current tolling system is complex and has evolved over time in parallel with the development of the motorway network. Road tolls have been set by government without community consultation or involvement, and with limited sense of overall network or journey pricing. Given the lack of available data about either costs or revenues it is impossible for the community to meaningfully comment on the benefits of simplicity. To understand the impacts of any proposed changes to the tolling system, the Government (and Transport for NSW) and Transurban would need to disclose the financial details of the various motorway deals and current motorway patronage.

**Canterbury-Bankstown Council:** It is unclear, given Transurban's reluctance to release traffic data and the opaque nature of commercial and contractual agreements between previous State Governments and Transurban, how much control and influence the State Government can exert over the determination of tolls, noting concession arrangements for the M4, M5, M8 and the M4-M8 link are locked in until 2060.

Source: Public Consultation Submissions, 2023

The Review notes that over many years there have been calls for greater transparency of details relevant to the setting of tolls, but these calls have only been responded to in partial ways. Generally, it has been claims of commercial confidentiality which have been the basis for maintaining the secrecy of important details regarding tolls.

### Base Case Financial Models (BCFMs)

The Base Case Financial Models (BCFMs) present forecasts of project and equity cash flows, including revenues and costs, based on assumptions made at the time the concession agreements were entered into or renegotiated. An Internal Rate of Return (IRR) expected at the time of financial close can be calculated using this data. This calculation can be made for the project as a whole or just for the equity component of the project. To be considered a worthwhile investment, the IRRs should exceed the weighted average cost of capital in the case of the project as a whole and the cost of equity in the case for the equity investor(s).

IRRs are subject to varying degrees of uncertainty due to the different risks involved in projects, both due to their physical nature and commercial structure. For example, typically, greenfield projects would have greater traffic risks than a brownfield project with known traffic history. However, a brownfield project could have greater risks associated with asset condition. Investors in availability PPP (as opposed to economic PPP) projects do not have to worry about traffic risk. Investors invest on the basis that they are prepared to accept the risks involved and seek returns commensurate with these risks.

The Review sought and was provided access to the BCFMs held by TfNSW. The documents are regarded as highly confidential and commercially sensitive to TfNSW's contractual counterparties and have not been publicly disclosed. We are obligated not to disclose specific details relating to each BCFM.

In our Interim Report we described the returns as generous. Older roads had higher forecast IRRs at the outset reflecting in part higher costs of capital at the time. IRRs on newer roads are lower, again in part a reflection of the lower costs of capital when they were entered into. Since then, there have been increases in the cost of capital. We would have liked to have disclosed the average long-term forecast IRRs contained in the BCFMs for NSW toll roads in this Final Report. However, legal confidentiality reasons prevent us from publishing this information.

IRRs incorporated in concession agreements can be expected to have been influenced by the cost of capital at the time of contract close. Investors would not undertake an investment if it was not expected to at least recover the cost of capital. If the cost of capital was relatively high at the time of financial close, as is likely, the IRRs can also be expected to be relatively high and tolls will reflect this. The concession agreements 'lock in' tolls at this point for the length of the concession and irrespective of changes in the cost of capital over time. In other infrastructure industries subject to rate of return or price cap regulation, adjustments for changes in the cost of capital would normally be made.

Risks present in individual projects will tend to decrease over time, especially construction risks and traffic ramp-up risk. Whilst revenues are generally expected to grow over time reflecting toll escalation and traffic growth. Better than expected performance associated with finance, operation and maintenance costs can also contribute to increases in IRR achieved. Noting that the concessionaires take traffic risk, events such as COVID-19 have an impact on revenue growth and IRR recovery trends.

The BCFM IRRs do not necessarily reflect actual experience after financial close. For example, actual revenue will be affected by actual traffic on the toll roads, which is not likely to match exactly the forecasts built into the BCFM. This will impact the achieved IRRs at any point in time. Overestimation of traffic has been a feature of some Australian toll road projects particularly in the early years.<sup>31</sup> We would have liked to have disclosed the cumulative difference between actual revenues and the BCFM forecasts over the past five years. However, legal confidentiality reasons prevent us from publishing this comparison. The Review considers that monitoring of actual performance against the BCFM estimates is essential to understanding whether tolls have been set at appropriate levels, what the impact of tolls on traffic has been, and the financial performance of the operators. Monitoring requires expertise in financial evaluation skills as well as an understanding of the economics of pricing. We note that this additional monitoring may not have been contemplated by the existing concession arrangements and the BCFMs were not designed for. However, given the growth in toll roads in NSW and the cumulative impact to motorists, we consider monitoring is now desirable. Monitoring can occur without changing the tolling schedules attached to the concession agreements.

The Reviewers have concerns about the sustainability of tolls for motorists in the longer term with the compounding effects of escalation rates in excess of the CPI. Will tolls be affordable for most people needing to use the motorways? What impact will continually escalating tolls have on the profitability of concessionaires? Will concessionaires be able to make excessive profits, beyond the levels already built into the forecast IRRs, or will their long-term viability be threatened? These are all relevant questions potentially impacting on the social licence of concessionaires as well as the broader community. Will the public accept these impacts?

In the Interim Report we suggested we could see no justified reason for not disclosing the BCFMs. This information could be released publicly after the bidding process for new projects was completed, and this was especially important given the industry was highly concentrated.

Concerns have been raised with us, however, that the BCFMs can be easily misinterpreted and not understood and that their disclosure may negatively impact on bidding processes for any future roads. We are not convinced that either of these reasons is sufficient to deny the public access to information which is critical to understanding the financing of toll roads. In essence these roads are essential public infrastructure, albeit provided by private sector firms. Accountability requires an informed public.

A way to solve these divergent views is to just make available to the public key data contained in the BCFMs, including the expected Internal Rates of Return and summary data on traffic forecasts. Formal monitoring of performance against the BCFMs could be undertaken by a respected, independent public entity able to access the required cost, revenue and profitability information, and the BCFMs, and to report on the relative performance of toll roads and their concessionaires to the public. In NSW the appropriate body for this would be IPART. We make recommendations on these matters in <u>Chapters 11</u> and <u>12</u>.

<sup>&</sup>lt;sup>31</sup> Toll Roads in Australia: An Overview of Characteristics and Accuracy of Demand Forecast, Zheng Li Xi'an Jiaotong University, David A. Hensher The University of Sydney, 2010.

### Value of Travel Time Savings (VTTS) and willingness to pay

In setting the level of tolls governments have had some regard to the VTTS for users and how much time they may save in using a toll road rather than an untolled alternative. While it is unclear to the Review exactly how important this data has been in practice in setting tolls, there are potential weaknesses in relying too much on this data. Estimates of VTTS vary widely depending on the techniques and approaches adopted. Common techniques include stated preference, revealed preference and calculation based on wage rates. How samples are selected, interviews are conducted, vehicles segmented, the data handled, and the models used to describe the data can all impact the results obtained.

VTTS can be produced on a per vehicle, per driver and per occupant basis. Different users are likely to apply different VTTS depending on their own circumstances, level of wage and so on. A VTTS for a higher income earner may be greater than for a lower income earner. A toll set in line with the VTTS for a high-income earner may then be too high for a low-income earner.

The actual time saving from a toll road is also likely to change over time as traffic builds up on the toll road or changes occur to other transport alternatives. Tolls are likely to be perceived to be too high if the toll roads become more congested.

Significant work was undertaken to estimate VTTS associated with the WestConnex scheme. This followed the earlier failures to set tolls to generate enough traffic and revenue to allow the Cross City Tunnel and Lane Cove Tunnel to operate viably in the years after opening. The initial operators were replaced by new operators, but the tolls remained at the same levels.

Toll saturation is another factor which may mean VTTS does not reflect willingness to pay for toll roads. Leading transport economist Professor David Hensher (University of Sydney) has referred to the notion of toll saturation as likely to be applying in Sydney. He hypothesises that as more and more toll roads have been added to the network some motorists may have run up against a toll budget barrier causing them to economise on their use of these roads.

Notably, in 2005 the Richmond Review warned governments to exercise caution when using VTTS:

# 'The [Richmond] Review does not accept that the implicit valuation of time-savings is the same as whether a toll represents value for money from the user'<sup>32</sup>

Prior to determining tolls on any motorway, there should be significant and genuine public discussion about the appropriate level of tolls. This includes consideration of VTTS issues. Reviews of the VTTS should be made public and provide the basis for public discussion, not decision-making without detailed public input. There is a significant history of tolls on new roads in Australia being set at levels which have not appropriately reflected willingness to pay with consequent impacts on demand and road utilisation.<sup>33</sup> In nearly all cases it seems the tolls have been set at too high a level. This problem has been compounded by the rigidity of the tolling schedules over the life of the concession agreements.

<sup>&</sup>lt;sup>32</sup> Infrastructure Implementation Group. (2005). Review of Future Provision of Motorways in NSW.

<sup>&</sup>lt;sup>33</sup> Bureau of Infrastructure and Transport Research Economics & Department of Infrastructure, Transport, Regional Development. (2016). Toll Roads in Australia. Information sheet 81. <u>https://www.bitre.gov.au/publications/2016/is\_081</u>.

New estimates of VTTS have been developed during this Review and these have been incorporated into our modelling work. Sensitivity tests have also been conducted to show the impact of varying the estimates of VTTS. The results confirmed that different VTTS estimates will alter average tolls, traffic and toll revenues forecasts.

# Finding 3: Toll road users bear a disproportionately high proportion of the cost of toll roads.

Governments have in the past followed a policy of 'no cost to government'. This means that as much of the costs of toll roads as possible is recovered from the private concession holders and ultimately tolls, rather than from government itself. With the Cross City Tunnel, the government proposed capital works changes to maximise revenues for the concessionaire amounting to \$110 million. These costs were, however, covered by significant changes made to the base tolls and the escalation rates in the concession agreement, which were implemented when the tunnel was opened, not by any contribution from the government.

Placing full reliance on tolls or user charges to recover the costs associated with new roads suggests that there are no other beneficiaries of these roads. Clearly this was not the case with the Cross City Tunnel. It was expected that the road would bring significant amenity benefits to residents nearby and to visitors generally to the CBD, including pedestrians. There would seem to be a reasonable case that these beneficiaries should also help to meet the costs associated with the new infrastructure, if not through direct beneficiary charges, then through general State and local government funding for the tunnel.

Figure 4.6 Case study: evolution of tolling approach for the Cross City Tunnel

The Request for Proposals for the Cross City Tunnel project indicated to proponents that 'a maximum base toll level of \$2.50 would be levied on all vehicles, but a lower toll, or different tolls for heavy and light vehicles, would be considered'.<sup>34</sup> The Request for Proposals also indicated that tolls would be adjusted according to CPI only. In the procurement process for the Cross City Tunnel, there were three shortlisted proponents, with Cross City Motorway consortium (CCM) selected as the preferred proponent. CCM's bid proposed Class B tolls at double the Class A toll. CCM offered the RTA an upfront payment of \$100.1 million for the winning bid. The two unsuccessful proponents did not offer an upfront payment.

Two changes were made to the tolling regime before the tunnel opened. The first change was to the toll escalation mechanism and funded \$75 million of additional work. This related to an increase in the tunnel length to 2.1 km (which is its current specification), with the east entrance and exit further to the east of the Kings Cross Tunnel.<sup>35</sup> Minimum escalation rates of 4% per annum until 2012 and 3% per annum from 2012 to 2018 were agreed with escalation reverting to CPI only from 2018 onwards. This change was negotiated prior to the concession agreement being signed.

The second change was agreed after the concession agreement was signed and funded \$35 million of additional work. The parties agreed to increase the maximum base toll for cars by 15 cents to \$2.65 (in 1999 dollars) for Class A and 30 cents to \$5.30 for Class B. The Roads and Traffic Authority advised the Joint Select Committee on the Cross City Tunnel that the three main projects funded by this change were: (i) the redevelopment of William and Park Streets, (ii) the extension of the land bridge at the eastern end of the Kings Cross Tunnel, and (iii) a requirement to change the Tunnel Control Centre for the Cross City Tunnel to ensure the capacity of the roof of the Eastern Distributor was sufficient to carry the Tunnel Control Centre.

Source: Performance Audit Report: The Cross City Tunnel Project, NSW Auditor-General, May 2006

<sup>34</sup> NSW Audit Office. (2006). Auditor-General's Report Performance Audit: The Cross City Tunnel Project. <u>https://www.audit.nsw.gov.au/sites/default/files/pdf-</u>

downloads/2006\_May\_Report\_The\_Cross\_City\_Tunnel\_Project.pdf

<sup>&</sup>lt;sup>35</sup> Parliament of New South Wales. (2006). Cross City Tunnel (1). Joint Select Committee, 23-110. <u>https://www.parliament.nsw.gov.au/lcdocs/inquiries/2144/CCT\_First%20Report\_FULL.pdf</u>

### 5. The structure and level of tolls

The Review has been asked to consider both the structure and level of tolls. The structure covers such things as the methodology underlying the calculation of the tolls including who and how they are set, while the level concerns the overall amount of the tolls. Key considerations with the structure are whether tolls continue to be set for individual concessionaires or alternatively are set for the network of toll roads as a whole, and the basis for determining these tolls. User behaviour is particularly affected by the level of tolls.

Draft findings:	
Structure of tolls	Finding 4: There is no overall system of tolls.
	<b>Finding 5:</b> The lack of a unified tolling system creates complexity, inefficiency, inequities and unfairness.
	<b>Finding 6:</b> Tolls are too rigid and are locked-in for decades without options for review.
	<b>Finding 7:</b> On most toll roads, time-of-day tolling is not used to improve traffic management.
	Finding 8: The financial impact of tolls is greatest in Western Sydney.
	<b>Finding 9:</b> Available evidence suggests that Transurban's profitability has not been excessive in recent years. Profitability of its toll roads is likely to increase over time in line with traffic and toll rate escalation and declining construction costs.
The level of tolls	<b>Finding 10:</b> The level of tolls appears to be higher than necessary and desirable.

### Finding 4: There is no overall system of tolls.

The current tolling arrangements have been considered in isolation of one another over time as each concession is entered into, and therefore have provided a myriad of different arrangements, that differ in their value and their effectiveness.

When choosing when and how to travel, travellers consider a range of factors. Key amongst them are the time it will take to make the journey, the reliability of the journey time and the direct costs of the journey (for example, tolls or public transport fares). Other considerations include the costs they incur such as maintaining cars, and the comfort, safety and amenity of the journey.

As has already been discussed, toll roads can offer motorists a quicker and more reliable journey, at a higher cost (the toll) than using the untolled network. The toll plays a crucial role in this decision-making process; higher tolls may deter motorists, leading them to prefer untolled alternatives. The toll serves as a 'price signal', influencing consumer behaviour.

In the context of toll roads, the toll can be used to send a signal to motorists that manages traffic flow and optimises the use of road infrastructure, for the benefit of all motorists. But it is unlikely that the current tolls are optimising these or other objectives relating to efficiency and fairness.

As an illustration, <u>Figure 3.6</u> details the range of tolling arrangements, including fixed charges, flagfall and distance-based tolls, time-of-day charges, different escalation rates, and one-way tolls for some roads. Some parts of the motorway network are also untolled. Further complicating this landscape are the several toll relief schemes (<u>Finding 14</u>), and the challenges motorists face understanding tolls (<u>Finding 14</u>).

Figure 5.1 Stakeholder perspectives

**Professor David Hensher, University of Sydney**: The current smorgasbord of toll settings in Sydney, set as part of a long-term concession for each tolled road, are adjusted based on an agreed indexation rule, which has created a distortion in the pricing of all roads, given the imposed baseline toll rate, which was often set politically. While the tolled infrastructure we have has been a net positive to users, the pricing of it has not helped the efficiency (and equity) of the entire network.

Source: Public Consultation Summary Report, 2023 Independent Toll Review. Public Consultation Submissions, 2023

# Finding 5: The lack of a unified tolling system creates complexity, inefficiency, inequities and unfairness.

Different toll regimes across the toll road network lead to different tolls for similar trips on the network. The current vehicle classification system also leads to tolls which do not appear fair or efficient.

Figure 5.2 Stakeholder perspectives

**Infrastructure Partnerships Australia:** The result is inconsistent and ultimately inefficient road network pricing, which is deeply unfair for some transport users who face disproportionate transport costs. This approach may also provide perverse incentives for other users to opt for private vehicles when other transport options may be [**sic**] better serve their needs and free up road space for those who need it. The result is more congestion, pollution and frustration for all.

The differential pricing regimes across the network also give rise to issues of equity where motorists using different sections of the network pay vastly different sums for similar functionality.

Source: Public Consultation Summary Report, 2023 Independent Toll Review. Public Consultation Submissions, 2023

This is illustrated in <u>Figure 5.3</u>, which shows the range of different tolls per kilometre across the Sydney toll road network.



#### Figure 5.3 Toll per kilometre travelled for Class A vehicles, Sydney Toll Roads (tolls at July 2024)

### Source: Independent Toll Review

Methodology: This toll per kilometre charge on each toll road assumes the maximum distance has been travelled on the toll road (and therefore the maximum toll is payable by the motorist.) This maximum toll includes a flagfall if applicable. The current toll was divided by the maximum tollable length of each toll road (i.e. the distance between the furthest two toll entry/exit points or the peak toll if there is time-of-day tolling).

### Motorcycles and towed caravans

Currently motorcycles pay the same toll as cars, and cars towing caravans can fall into the Class B category. Numerous submissions to the Review considered the current tolls for towed caravans and motorcycles to be unfair as they are paying the same toll as a higher mass/size vehicle for the same journey.

For example, the NRMA submission observes 'the NRMA supports a review of vehicle classifications and tolls associated with two-wheeled vehicles. It is widely acknowledged that toll pricing considers the costs associated with road wear and tear, however vehicle classifications and tolls across motorways in Sydney do not currently suitably consider lighter weight, two-wheeled vehicles. Tolling networks in Victoria and Queensland charge motorcycles half that of a regular passenger light vehicle, and tolls in Sydney (e.g. Sydney Harbour Bridge) have, historically, been lower for motorcycles.<sup>36</sup>

To some extent the government has recognised this unfairness by offering the Large Towed Recreational Vehicle Toll Rebate for towed caravans and the E-Rider tolling product for motorcycles using the Sydney Harbour Crossings.

<sup>&</sup>lt;sup>36</sup> NRMA submission. (2023, August). Independent Toll Review.

Figure 5.4 Stakeholder perspectives on motorcycle and caravan tolls

'As a motorcycle riding a bike less than  $\frac{1}{2}$  weight of the smallest car and far less damage to the road why should I have to pay the same as cars.'

'The cost to take a caravan on the tollway is the same as a B Double Semi weighing around 10 times heavier than a car-caravan combination. This does not seem fair as weight is a major factor in road damage.'

'I feel charging caravans as heavy vehicles is wrong. We are not heavy vehicles and chewing up roads like trucks. We are also not a business, and most are retired self funded retirees or pensioners.'

Source: Public Consultation Submissions, 2023

### Tolls are unduly discouraging use of the motorways by small trucks

A two-axle rigid truck which just exceeds 2.8 metres in height is charged the same toll as a heavy vehicle. Stakeholder feedback indicates this is discouraging use of the toll road network by smaller trucks where alternative routes are readily available.

Stakeholders shared perspectives with the Review that Class B are avoiding toll roads, especially since the introduction of the M5 East toll as part of WestConnex. Smaller trucks tend to have lower operating costs and consequently obtain reduced benefits from travel time savings when using the toll roads. This diversion generates significant costs including increased noise, emissions, reduced safety, and increased travel times on alternative routes. Examples of stakeholder comments are in Figure 5.5.

Figure 5.5 Stakeholder perspectives on heavy vehicle impacts under the current tolling regime

'All the trucks that are avoiding toll roads are causing damage to residential roads and causing major traffic delays.'

'Truckies are avoiding using the M8.'

'Stop the trucks from using Stoney Creek and Forest Roads, Bexley to avoid the toll.'

Source: Public Consultation Summary Report, 2023 Independent Toll Review. Public Consultation Submissions, 2023

The government has recognised the specific problems created at Stoney Creek and Forest Roads (alternative route to tolled M8 and M5 East) by introducing a temporary Truck Multiplier Rebate scheme. Under the Truck Multiplier Rebate, motorists can claim a rebate of a third of their toll on Class B vehicle trips on the M5 East and M8. A more sustainable longer term solution would be to ensure that appropriate tolls are set for smaller trucks.

## Finding 6: Tolls are too rigid and are locked-in for decades without options for review.

The level of tolls increase according to the provisions of the particular concession agreements, and do so at a rate that is generally ahead of the Consumer Price Index (CPI). This means that toll costs for motorists in general are growing faster than other expenses and wages.

As <u>Figure E.3</u> illustrates, 86% of respondents to our representative survey of motorists strongly agreed or agreed with the statement 'the financial burden of toll fees has increased over time'. This result likely reflects the interaction of two factors – the relative cost of toll increases and the expansion of the tolled motorway network.

This is illustrated in <u>Figure 5.6</u>, which compares a price index comprised of all the toll roads in Sydney (with equal weights) to the CPI.

Figure 5.6 Price index for toll roads (index = 100 in 2020)



Nominal toll price index from 2020 to 2060

### Source: Independent Toll Review

Notes:

- CPI from 2024 onwards assumed at 3% (top of RBA target range).
- AWE from 2024 onwards assumed at 3.57% (the 20 year average)
- Maximum toll used for all toll roads with distance-based tolls.
- All toll roads with multiple exits are averaged into one escalation figure.
- All toll roads are weighted equally.
- Tolls removed from toll index at concession expiry.

### The basis of toll increases may contribute to perceptions of 'unfairness'

Tolls increase according to the terms of concession agreements, which set out the maximum toll the concessionaire can charge at a given point in time. The concession agreement includes a tolling schedule that is agreed upfront, which applies starting toll rates and a formula for increasing tolls over the concession term. As noted by Professor Martin Locke (University of Sydney) at a public hearing session:

'When a toll road contract is negotiated, a base case financial model becomes the foundation of the agreement. In simple terms, the financial model projects costs and revenues over the entire term of the concession and it calculates a return on equity as the key output, the concession forecast revenue based on patronage assumptions and the prescribed toll and escalation provisions.'<sup>37</sup>

The pricing of regulated monopoly infrastructure assets such as energy and water within a regulatory period is typically adjusted based on the Consumer Price Index (CPI), or CPI minus an X factor relating to productivity improvement. This approach aims to safeguard consumers and give incentive to regulated companies to enhance operational efficiency. The escalation by CPI also makes these infrastructure assets appealing to investors who want inflation protection, for example superannuation funds. In inflationary environments where prices are rising, such investors benefit from the protection of CPI-linked pricing.

For some of Sydney's toll road concessions, toll escalation is linked to the CPI, often with a 'floor', preventing tolls from decreasing when CPI is negative (as happened during COVID-19).

For WestConnex (M4, M5 East, M8, M4-M8 Link, Rozelle Interchange), toll escalation is steeper, the greater of 4% per annum or CPI, meaning in some years tolls on WestConnex have grown ahead of CPI. WestConnex is a large part of the network, accounting for about 25% of revenue in 2022, so the impacts are tangible to many motorists. The arrangements for individual roads are set out in Figure 3.6.

As <u>Figure 3.6</u> shows, toll escalation is quarterly for Sydney's toll roads (ED, CCT, Hills M2, LCT, NorthConnex, M5 South-West).<sup>38</sup> Quarterly adjustments to tolls mean that when CPI is increasing, as it has since mid to late 2021, motorists experienced higher tolls more quickly due to quarterly toll adjustments (compared to annual). Annual toll adjustments may provide increased pricing certainty for motorists, but potentially involve larger 'one-off' adjustments when the tolls adjust at the end of the year.

### The impacts of toll increases on motorists

The observed strategy of toll road operators has been to charge the maximum tolls permitted under their contracts. This approach is based on the objective to maximise revenues and indicates that motorists will continue to find value in using these tolled routes and are able to pay the higher toll fees. That is, overall demand is relatively unresponsive or inelastic to tolls.

However, as the Toll Survey responses to the question 'are toll prices too high' indicate, increases in tolls may have undermined the value of using tolled motorways for some groups of motorists. They may be less able to absorb toll increases, especially when wage growth is slower than CPI. The economic conditions since 2021 have made toll impacts more acute. This period has been characterised by high CPI growth (with corresponding high toll escalation), which has outstripped growth in wages and average weekly earnings. This is also reflected in the feedback from public consultation, excerpted in Figure 5.21, where the level, setting and escalation of tolls was raised as the most common issue.

<sup>&</sup>lt;sup>37</sup> Independent Toll Review. (2023, July). Public Hearing Transcripts.

<sup>&</sup>lt;sup>38</sup> Notable exceptions include the Sydney Harbour Bridge which is managed by Government.

### Under the current arrangements, tolls will continue to escalate without review

In general, there is no mechanism to change toll levels or escalation if they become inappropriate over time. There is limited scope to change tolls, if as the Independent Toll Review Survey (see <u>Appendix E</u> for further information) and other research shows, motorists perceive tolls as too high, or as the network, land use and transport patterns evolve. Concessionaires could submit a proposal to amend the concession agreement if they wanted to change tolls. However, as Transurban noted in its 2017 submission to the NSW Legislative Council Inquiry into Road Tolling:

'Beyond the initial agreement there is no pricing flexibility in the concession. Any revision to pricing requires a renegotiation of the concession agreement, and the only circumstances in which this has taken place has been in the context of major enhancements and upgrades to the network.'

This differs from the approach for most public utilities, where economic regulation often allows for periodic review (every 4–5 years) of prices. For example, such a review could consider tolls in the context of current economic conditions or objectives relating to network efficiency and fairness. By contrast, in the current arrangement tolls will continue to increase, at rates agreed sometimes decades earlier and not taking into account present day or future conditions.

### The future burden of tolls on motorists is significant

According to models developed by NSW Treasury and Transport for NSW, using a conservative set of assumptions, motorists will face a toll burden estimated at \$123 billion in today's dollars over the next 37 years to 2060.<sup>39</sup> Of this, \$64 billion is from WestConnex alone. <u>Figure 5.7</u> details the breakdown of the forecast toll burden by toll road.

Toll road	Toll burden from 2024–2060
M2	\$15.95 billion
M5 South-West*	\$18.87 billion
Lane Cove Tunnel	\$3.75 billion
Cross City Tunnel	\$1.25 billion
Eastern Distributor	\$6.09 billion
М7	\$20.05 billion
NorthConnex	\$5.80 billion
Sydney Harbour Bridge/ Sydney Harbour Tunnel	\$4.01 billion

Figure 5.7 Toll burden

<sup>&</sup>lt;sup>39</sup> Treasurer and Minister for Transport. (2023, November 13). Sydney's combined toll bill is \$120 billion-plus to 2060. NSW Government. <u>https://www.nsw.gov.au/media-releases/sydney-toll-bill.</u>

Toll road	Toll burden from 2024–2060
WestConnex M4	\$24.60 billion
WestConnex M5 East and M8	\$18.30 billion
WestConnex M4-M8 Link	\$3.37 billion
M6 Stage 1	\$0.62 billion
Western Harbour Tunnel	Assumed as part of Sydney Harbour Crossings
Total	\$122.66 billion

\* The M5 South-West will be incorporated into the WestConnex M5 East and M8 concession from December 2026, but has been kept separate in Figure 5.7.

Source: Independent Toll Review

Given the significant amount projected to be paid in tolls, and the length of time motorists will be paying tolls for, it is crucial to ensure that there are opportunities to review tolls and confirm that their levels are appropriate.

# Finding 7: On most toll roads, time-of-day tolling is not used to improve traffic management.

Currently, only the Sydney Harbour Crossings have variable tolls. The tolls for all other toll roads do not change based on actual demand for the road or the time of day. We see not having the ability to set variable tolls for other roads as a potential source of inefficiency.

When utilisation of toll roads is low there are strong economic grounds for setting tolls at lower levels to attract further traffic away from untolled alternatives. However, the financial incentives for concessionaires to do this conflict with the more important objective of optimising use of the transport network. Lowering tolls when a toll road is underutilised will increase traffic volumes on the road, however, it will decrease revenues overall (in economic terms when demand is price inelastic). The changes in operations and maintenance costs to the concessionaire from changed traffic volumes is not material.

On the other hand, if a road is congested, there is a case for rationing demand by raising tolls for a time to ensure traffic can flow more freely. While this makes sense from an efficiency perspective, it may not be perceived as fair by all motorists. It would mean that some motorists pay more than the normal toll in order to meet their expectation of travel times. Other motorists who consider it to be unfair that they do not receive the level of service they expect when the road is congested are likely to be less concerned. Raising tolls in this way is currently precluded by the PPP agreements which set inflexible maximum tolls.

Peak and off-peak tolls are currently only set for the Sydney Harbour Crossings. The toll varies by up to \$1.60. This variation may now be too small to influence travel choices, particularly for this corridor with limited untolled arterial road alternatives. The variation is small because Sydney Harbour Crossings tolls have only increased once (by 6.8%) in the past 14 years. The impact of variable tolls for the Sydney Harbour Crossings is further diminished by the lack of a heavy vehicle multiplier on these toll roads. The difference of up to \$1.60 applies to all vehicles.

# Finding 8: The financial impact of tolls is greatest in Western Sydney.

The current structure of tolls is producing geographically inequitable results, with motorists from Western Sydney spending the most and having fewer alternative options. We refer to Western Sydney broadly – including the North-West and South-West.

Western Sydney suburbs have the highest number of motorists who spend over \$60 per week on tolls and will be eligible for the government's new \$60 Weekly Toll Cap.<sup>40</sup> Service NSW estimates 60,000 motorists in Lakemba, Kellyville, Baulkham Hills, Winston Hills, Greystanes, Moorebank and Blacktown will be eligible for rebates under the policy.<sup>41</sup>

The Independent Toll Review Survey also asked toll road users about weekly spend, with response options ranging from \$0 to >\$200 per week. The survey found that around 74% spend less than \$20/week, around 16% spend between \$20-\$49.99/week, around 7% spend between \$50-\$99.99/week, and only around 3% spend over \$100/week.

<sup>&</sup>lt;sup>40</sup> Minister for Roads (2023, December 8). \$60 weekly toll cap to provide cost-of-living relief to 720,000 motorists. NSW Government. <u>https://www.nsw.gov.au/media-releases/toll-cap-cost-of-living-relief.</u>

<sup>&</sup>lt;sup>41</sup> Service NSW. (2024, January 1). Cost-of-living support starts today with \$60 toll cap for 720,000 motorists. NSW Government. <u>https://www.service.nsw.gov.au/news/cost-of-living-support-starts-today-with-60-toll-cap-for-720000-motorists</u>.

Figure 5.8 Share of toll road users that spend \$20 or more per week, by Statistical Area Level 3



% toll road users that spend \$20 or more per week by SA3

### Source: Independent Toll Review Survey 2023

As <u>Figure 5.8</u> illustrates, of motorists surveyed who used toll roads, 40 to 50% of toll road users in Rouse Hill-McGraths Hill, Baulkham Hills, Liverpool, and Hurstville spend \$20 or more a week on tolls.

The Department of Customer Service (DCS) survey also found that Western Sydney residents who used toll roads more than once a month had a high claimed monthly spend. Residents in Blacktown, South-West, and Parramatta who used toll roads more than once a month (respectively 37%, 53% and 45% of those surveyed) spent respectively \$95.90, \$87.63 and \$84.35 a month on average. This was higher than the Greater Sydney average of \$60.70 spent by motorists who used toll roads at least once a month.

In their submissions to the Review, Councils located within Western Sydney outlined the unique financial and geographical disadvantages their constituents experience with toll roads in comparison to those in other parts of Sydney, who are generally less reliant on toll roads. The financial burden of tolls for Western Sydney, the Councils argued, is impeding equitable access to infrastructure, jobs and services.

Figure 5.9 Stakeholder feedback on geographic advantage/disadvantage in relation to toll roads

The Hills Shire Council: Hills residents shouldn't be consigned to paying higher tolls simply because the NSW Government has not historically delivered sufficient development outcomes or transport networks in the metropolitan Sydney region, forcing residents to commute further to work.

**NRMA**: Primarily due to geographic location, NRMA members in Western Sydney ... the Southwest, Northwest and the Blue Mountains feel most disadvantaged by toll roads.

Western Sydney Regional Organisation of Councils Ltd: With relatively fixed capacity to pay, people make trade-offs which (in general) see those with the least capacity to pay for homes (on land) forced to accept the compromise of less amenity (i.e. distance from the CBD and in Sydney's case the harbour and the coast) in order to get cheaper land. The workplaces which can afford the highest rents inevitably offer high value jobs and are located close to CBDs ... Those with the least capacity to pay, who have been forced to compromise with the lowest cost homes located furthest from the CBD are subjected to the highest costs to travel to gain high value employment closest to Sydney CBD.

**Transport Workers' Union**: While Transurban and the previous NSW Government maintain that free alternative roads are available for travel to, from and between Western Sydney, too often small business operators in transport have little choice in using toll roads, typically due to variables beyond their control, such as a run which cannot be completed within the allocated timeframe through the use of free alternative routes.

Source: Public Consultation Summary Report, 2023, Independent Toll Review. Public Consultation Submissions, 2023

Public submissions in response to the Interim Report agreed that the cost-of-living pressures and financial impact of tolls is greatest in Western Sydney, as there is often no alternative travel option for residents to travel to work.

Figure 5.10 Public feedback on geographic advantage/disadvantage in relation to toll roads

**Cihan:** The Interim Report comprehensively acknowledges the concerns of Sydney's motorists regarding the high cost of tolls, noting that tolls amount to around \$2.5 billion annually for Sydney's motorists. This significant expense contributes to the cost-of-living pressures faced by individuals and businesses in Sydney. The report's findings align with the general sentiment that tolls are perceived as overly expensive and unfairly burden users, particularly those in Western Sydney (Findings 8 and 9).

**Submission 251888:** Excellent general recommendations in particular, the structure of the tolls (<u>Findings 4–8</u>) and the disproportionate impact on those living in my postcode and further west (<u>Finding 8</u>) who have no other option but to take a toll road in order to arrive in the city centre in time to start work.

Source: Public Consultation Submissions 2024

### Public transport alternatives to toll roads vary by geography

Public transport access is important as it offers individuals a viable alternative to toll roads.

The Public Transport Accessibility Level (PTAL) measures public transport accessibility based on walking distance and travel time to nearby stops, frequency of services at each stop, and proximity to major rail stations.<sup>42</sup> Figure 5.11 shows strong access to public transport in the Sydney central business district (CBD) and densely populated urban zones. Public Transport Accessibility Levels tend to reduce as you move away from the Sydney CBD and key hubs such as Parramatta, Chatswood and Liverpool.

<sup>&</sup>lt;sup>42</sup>Open Data. (2023, August 21). PTAL (Public Transport Accessibility Level). <u>PTAL (Public Transport Accessibility Level)</u> - Dataset - TfNSW Open Data Hub and Developer Portal.





Source: Transport for NSW

### Some drivers do not perceive any other feasible transport alternatives to toll roads

Although the 2014 Tolling Principles include a policy position for new toll roads that untolled alternative arterial routes remain available for motorists, this is not the perception of some motorists. For example, Transurban's submission to the Independent Toll Review included survey research indicating that 11% of respondents in Sydney use toll roads because 'there are no other available transport options, like untolled roads and public transport'.<sup>43</sup>

This result came back slightly higher for the Independent Toll Review Survey, which surveyed a representative sample of drivers across Greater Sydney, with 14% of toll road users saying they use toll roads because they have no other feasible transport options. The NRMA Survey found 20% of toll road users use toll roads because they have no other option.

The Independent Toll Review Survey found that these users reporting no other feasible transport options are most likely to live in the Northern Beaches, City and Inner South and predominately use the Sydney Harbour Crossings. This aligns with the NRMA survey, which found that, within Sydney, these users are most likely to live on the Northern Beaches. These results may reflect the importance of tolled harbour crossings. However, as <u>Figure 5.11</u> shows, these areas have relatively strong public transport options.

Of some concern is the Rouse Hill-McGraths Hill region in Sydney's North-West, where more than 20% of toll road users reported having no feasible transport options as this result overlaps with relatively high usage and toll expenses, and lower public transport access levels.

Figure 5.12 Public feedback on transport alternatives

**Submission 252103:** Appreciate people in regional, outer and western suburbs do not have as many transport options and or services, but then let's focus our efforts on improving travel options and services for these communities.

Source: Public Consultation Submissions 2024

Finding 9: Available evidence suggests that Transurban's profitability has not been excessive in recent years. Profitability of its current portfolio of NSW toll roads is likely to increase over time in line with traffic and toll rate escalation and declining construction costs.

A significant component of tolls is the profit component or rate of return obtained by the concessionaires. We focus here especially on the profitability of Transurban given that it has at least a 50% ownership stake in all the toll road private concessions in Sydney.

<sup>&</sup>lt;sup>43</sup> Based on Transurban commissioned research, conducted by Nature, 1,008 respondents across Sydney, July 2023.

Transurban has grown rapidly in the twenty-eight years since it was first listed on the Australian Stock Exchange and its first toll road, City Link in Melbourne, was opened. In addition to this concession, Transurban now operates ten concessions in Sydney, six in Brisbane, three in Virginia and Greater Washington DC in the USA and one in Montreal Quebec, Canada. It has other projects still at the construction stage including the West Gate Tunnel in Melbourne and two extensions in the USA. The company has maintained its sole focus on toll roads and has not diversified outside this sector.

Sydney is now Transurban's largest market accounting for around 41% of total traffic on its roads and 50% of its toll road revenue. Linkt, Transurban's motorway tags business, is also the largest provider of motorway tags in Australia.

Major owners of Transurban are superannuation funds, investment managers and investment banks. These include UniSuper (11.4%), Blackrock (8%), State Street (7.3%), Vanguard Group (5.6%) and Norges Bank (1.5%). These organisations are generally looking for longer term investments with good growth prospects and sound returns.

Data from Transurban Holdings Limited financial statements are provided in the tables below. The company's statutory revenues grew steadily to reach \$4.166 billion in 2019 prior to the COVID-19 disruptions. <u>Figure 5.13</u> shows that revenues recovered in 2022 and 2023 to approximately reach the 2019 level.

This table also shows the major cost items incurred by the company as a proportion of its revenue for each financial year from 2019 to 2023.

FY	2019	2020	2021	2022	2023
Revenue (\$m)	4,166	3,169	2,886	3,406	4,157
Major expense categories (% revenue)					
Road operating costs (%)	9.0	10.1	11.4	10.1	9.4
Construction costs (%)	34.4	24.1	16.6	26.7	27.5
Amortisation (%)	21.2	31.4	35.2	29.2	23.1
Depreciation (%)	2.7	4.7	4.3	3.3	3.6
Net finance costs (%)	20.8	24.5	30.1	13.6	15.5
(Loss)/profit for the year (\$m)	170	(153)	3,272	16	92
Total comprehensive profit (loss) (\$m)	(95)	(158)	3,398	1,156	(203)

Figure 5.13 Transurban Holdings Limited Consolidated Income Statement highlights

### Source: Transurban Holdings Limited Corporate Reports various years

Road operating costs have generally been around 9% to 11% of revenues; construction, amortisation and depreciation costs have generally been well above 60% of revenues and net financing costs have averaged around 20% of total revenues.

Overall, the company has reported relatively small or negative profits after tax, 2021 being an exception when the accounts recorded the sale of 50% of Transurban's Chesapeake operation in the USA.

<u>Figure 5.14</u> indicates the company had assets valued in its books at close to \$38 billion in 2023, having grown slowly over the preceding five years as the number of concessions increased from 17 in 2019 to 22 in 2023.

The table shown that the company has significant long-term liabilities and is relatively highly geared.

FY	2019	2020	2021	2022	2023
Current assets	1,925	2,837	4,857	2,402	2,493
Non-current assets	34,032	33,713	30,814	36,563	35,227
Total assets	35,957	36,550	35,671	38,965	37,720
Current liabilities	3,791	3,857	3,064	3,494	3,248
Non-current liabilities	22,264	23,892	21,471*	20,243	21,192
Total liabilities	26,055	27,749	24,535*	23,727	24,440
Equity	9,902	8,801	11,136*	15,228	13,280
Equity/total assets (av. year) (%)	31.7%	25.8%	27.6%	35.3%	37.2%

Figure 5.14 Transurban Holdings limited consolidated balance sheet (\$m)

\*Amended figures from 2022 financial statements.

Note: Equity/Total Assets (av. year) calculated by the Review by dividing average Equity of the current and previous financial year by the average Total Assets of the current and previous financial year.

Source: Transurban Holdings Limited Corporate Reports, various years

Data for Transurban's toll roads are shown in <u>Figure 5.15</u>. Average daily traffic increased each year up to 2020 and again in 2022 which were affected by COVID-19. The effect of COVID-19 on toll revenues is less marked.

The table indicates Transurban has relatively high EBITDA (Earnings before Interest, Tax Depreciation and Amortisation) ratios. This reflects largely the nature of the business the company is involved in and is consistent with other infrastructure businesses – high capital costs, funded substantially by borrowings (resulting in high interest expense), and relatively low ongoing operating costs (as a % of revenue).

Figure 5.15 Transurban Holdings Limited Sydney roads traffic, Sydney proportional toll revenues and EBIDTA margins

FY	2017	2018	2019	2020	2021	2022	2023
Av. Daily traffic (000)	644	663	814	761	931	802	995
Proportional toll revenue (m)	872	944	1,042	1,072	1,278	1,264	1,668

FY	2017	2018	2019	2020	2021	2022	2023
Proportional EBITDA (excl. signif. items) (\$m)	702	763	856	879	1,033	976	1,328
Proportional EBITDA/ proportional toll revenue (%)	80.5	80.8	82.1	82.0	80.8	77.2	79.6

Source: Transurban Holdings Corporate Report 2023

### Note: EBITDA ratio calculated by the Review based on the data in the table provided by Transurban

Transurban has paid significant dividends to its shareholders as indicated in <u>Figure 5.16</u>. In the five years 2019 to 2023 over \$6.5 billion was paid in dividends. Distribution per security rose steadily in the years before COVID-19 and the acquisition of WestConnex. They have returned their upward trend more recently.

### Figure 5.16 Transurban Holdings Limited dividends

FY	2019	2020	2021	2022	2023
Dividends paid (\$m)	1,398	1,649	848	1,049	1,613
Cents/share	57.0	61.0	31.0	36.5	52.5

Source: Transurban Holdings Limited Corporate Reports various years

<u>Figures 5.17</u> and 5.18 provide details concerning the calculation of Rates of Return on Total Assets (ROTA) for Transurban.

These ratios indicate the extent to which the company has been able to utilise its assets to generate its revenue. The returns shown in the table do not appear to be conspicuously out of line with other highly capital intensive, regulated businesses, particularly when account is taken of the relative newness of Transurban's assets, which will have the effect of lowering the ratios.

Variations in the level of gearing affect this ratio.

Figure 5.17 Transurban Holdings Limited return on total assets

FY	2019	2020	2021	2022	2023
EBIT (\$m)	1,001	596	551	574	997
Operating cash flow adjusted for interest (\$m)	1,932	1,865	1,680	1,653	2,101
Total assets (av, year) (\$m)	31,199	36,254	36,111	37,318	38,343
EBIT/total assets (%)	3.2	1.6	1.5	1.5	2.6

FY	2019	2020	2021	2022	2023
Operating cash flow adjusted for interest/ total assets (\$m)	6.2	5.1	4.7	4.4	5.5

Total Assets (av, year) calculated by averaging the Total Assets by the current and previous financial year

EBIT/Total Assets calculated by the Review based on the data in the table provided by Transurban

Operating Cash Flow adjusted for Interest was calculated by the Review by taking Operating Cash Flow, adding interest paid and subtracting interest received.

Source: Transurban Holdings Limited Corporate Reports various years

The returns shown in these tables also do not appear excessive when considered in relation to the company's cost of capital. The Weighted Average Cost of Capital (WACC) takes account of the cost of debt and of equity to a business and weights these according to the level of gearing of the company. Transurban's reported cost of debt declined steadily over the past decade from 6.3% in 2014 to 3.9% in 2022, before rising to 4.1% in 2024. Average debt maturity for the company is around seven years. Hedging has protected the company from higher interest rates over the past couple of years caused by monetary policy tightening.

Cost of equity estimates for the company appear to range from lows of around 7% to around 10% with broker estimates being on the lower side and estimates using the Capital Asset Pricing Model (CAPM) as a guide being on the higher side.

A WACC for Transurban now may then be in the range of 6.5% to 7.5%.

We reviewed the average projected IRRs contained in the BCFMs applicable to toll road concessions and compared them to the estimated WACC for Transurban (amongst other things), taking into account the differences in what IRR and WACC represent. Legal confidentiality reasons prevent us from publishing a comparison of average projected IRR and the estimated WACC for Transurban.

We have not been able to clearly determine whether there are significant differences in the rates of return Transurban obtains on Sydney toll roads as compared to its other roads in Victoria and Queensland and in the USA and Canada. The IRRs were, however, based on expectation and actual performance can vary significantly from this.

As Transurban's toll roads mature and traffic continues its upwards path following the COVID-19 interruption, we expect toll revenues will rise strongly and be boosted also by toll escalation rates likely to often be in excess of CPI movements. Reductions in construction costs, depreciation and amortisation costs can be expected over time so that profitability ratios are likely also to increase.

The profitability of Transurban is a relevant input into considerations of the appropriateness of toll levels. Sydney motorists will be especially focused on the profitability of the concessionaires who operate the Sydney toll roads. Profitability needs to be evaluated over the longer term given the pattern of construction and operating cost and revenue recovery associated with the toll roads. We consider then that it would be appropriate and desirable for the government to ask IPART to monitor on an ongoing basis and publicly report on the profitability of the concessions and the concession holders, particularly Transurban given its high market share in the Sydney market.

# Finding 10: The level of tolls appears to be higher than necessary and desirable.

After closely examining the evidence available to us, we consider the level of tolls in Sydney appears to be very high. This finding is based on a range of factors.

First, there has been no competitive bidding for toll road PPPs on the basis of lowest toll. This factor is discussed above in <u>Chapter 4</u>.

Second, concession agreements appear to allow relatively high returns. We can see:

- Concessionaires would have access to debt finance at lower interest rates than assumed when tolls were set for many of the current toll roads. For more recent toll road assets, it would make sense that expected rates of return at certain points in time were based on low interest rates, meaning rising interest rates will put pressure on equity returns due to rising cost of debt.
- The current toll road PPPs shift traffic demand risk to the concessionaire which would be expected to attract a return premium.
- Whilst the concessionaires can drive operational efficiencies, there is no requirement for concessionaires to pass on the benefits of efficiency gains to motorists in the form of lower tolls. This risk allocation ensures that concessionaires are incentivised to drive operational efficiency to benefit motorists (e.g. through fewer toll road closures).
- Concessionaires enjoy a regulated monopoly price, safe from competitive challenge. They are free from the threat of competitors coming in at a lower price.
- Investors continue to see toll roads as attractive, with S&P Global recently saying:

'Australian toll roads are a particular beneficiary of high inflation, given tolls are linked to inflation and the historically low elasticity of traffic to price increases.'<sup>44</sup>

Third, the current toll road PPPs were established as Demand Risk PPPs at 'no net cost to government' based on characteristics of those assets, including tolls set for those assets at the time.

Fourth, the overall toll burden is high at \$122.66 billion (see <u>Figure 5.7</u>). The toll bill from WestConnex alone, is \$64 billion out to 2060.<sup>45</sup>

Fifth, the pattern of congestions across Sydney shows toll roads are relatively free-flowing and potentially underutilised (discussed further below).

Sixth, motorists overwhelmingly perceive that tolls are too high (also discussed further below).

<sup>&</sup>lt;sup>44</sup> Timbs, R., Anne Low, M., Fung, K., Vora, MN., Jia Ong, C., Wu, Y, Endo, S, Tanaka, S., & Kim, T. (2023, November 28). Asia-Pacific Transport Infrastructure 2024 Outlook: Capex Is Becoming A Credit Driver. S&P Global. <u>https://www.spglobal.com/ratings/en/research/articles/231128-asia-pacific-transport-infrastructure-2024-outlook-capex-is-becoming-a-credit-driver-12920916</u>.

<sup>&</sup>lt;sup>45</sup> Treasurer and Minister for Transport. (2023, November 13). Sydney's combined toll bill is \$120 billion-plus to 2060. NSW Government. <u>https://www.nsw.gov.au/media-releases/sydney-toll-</u> bill#:~:text=Sydney%20motorists%20are%20on%20the,Transport%20for%20NSW%20has%20established.

### Motorists perceive tolls are too high

The Review's public consultation process suggests that Sydney drivers and other stakeholders are dissatisfied with current tolls in New South Wales. This sentiment was backed up by the findings of three separate surveys of motorists — the Independent Toll Review Survey, the Department of Customer Service (DCS) Survey, and the NRMA Survey.

Figure 5.19 Three separate surveys asked NSW residents around their perceptions and use of toll roads

Three separate surveys asked NSW residents about their perceptions and use of toll roads. These were:

- The Independent Toll Review Survey was an online survey of around 1,500 Sydney residents aged 18 years and over who hold a driver licence, including both users and non-users of toll roads. The responses were collected across a representative sample of households across Greater Sydney, to account for any geographical differences. The survey was conducted in October 2023 by an independent market research company. See Toll Survey Appendix D for further details on the survey methodology and findings.
- The DCS Survey was an online survey of around 1,100 NSW residents aged 18 years and over, sourced from professional market research panels. The data is weighted to 2021 ABS Census population data to be representative of people aged 18+ who reside in NSW for age, gender and location. The survey was conducted in September and October 2023 as part of the fortnightly DCS Customer Sentiment Survey series.
- The NRMA Survey was an online survey of around 4,500 NRMA members across New South Wales and the Australian Capital Territory. The survey was conducted in August 2023.

### Source: Independent Toll Review

A key finding of the Independent Toll Review Survey is that most drivers think toll costs are too high and unfair, as illustrated in Figure 5.20.

Figure 5.20 How strongly do you agree with the statements 'The cost of toll roads is too high', 'The cost of toll roads is unfair', and 'The financial burden of tolls has increased over time'



How strongly do you agree or disagree with the

Note: Question was asked to all participants (N = 1,544)

Source: Independent Toll Review Survey 2023

As Figure 5.20 details, 87% of Sydney residents strongly or somewhat agree that the cost of toll roads is too high and 73% agree that the cost of toll roads is unfair. This aligns with the DCS Survey, which showed that 82% of NSW residents strongly or somewhat agree that the cost of toll roads is too high, and 70% agree that the cost of toll roads is unfair. The survey findings were overwhelmingly echoed in the sentiment from public consultation, detailed in Figure 5.21.

#### Figure 5.21 Tolls

The most common issue raised in submissions from the public was the overall level and setting of tolls. This also included discussion of administrative fees and charges, including fines, and regular toll escalation.

The overwhelming sentiment was that tolls in New South Wales are too expensive, particularly in light of cost-of-living pressures, high taxes – including fuel excise taxes, other costs associated with vehicle ownership including insurance, maintenance and registration; the regularity of toll increases; inequitable social outcomes arising from the overall toll pricing regime; and how the expensive nature of tolls drives user behaviour (e.g. motorists being forced to avoid using toll roads altogether due to prohibitive tolls).

Associated commentary from the submissions:

- 'Motorways are supposed to be a convenient means to travel long and complicated distances, and the current toll rates are hindering this.'
- 'The current toll charges are absolutely unfair for common and regular commuters.'
- 'The taxes we pay on car rego, licences and petrol are supposed to be going to building and maintaining our road networks, but either this isn't happening, or the government and residents are being ripped off.'
- 'Public roads should not be tolled at all. We are already charged so many times to use our cars and pay for the roads.'
- 'The government really needs to understand how much we are struggling. We don't just have money in our savings anymore.'
- 'I'm a low-income earner, working school hours to keep a roof over my kids' heads. Last financial year I paid over \$2400 in tolls, I worked a month to pay to sit in slow moving traffic.'

#### Source: Public Consultation Summary Report, 2023 Independent Toll Review

The second round of public consultation echoed these concerns and commended the Interim Report's finding that tolls are too high.

### Figure 5.22 Public commentary on tolls

**Greg:** Many drivers would appreciate that the report acknowledges the high and sometimes disproportionate cost of tolls, especially in areas like Western Sydney. This recognition might resonate with those who feel the financial strain of daily toll payments.

**Andrea:** I agree with the report's survey showing that people think tolls are excessive. They are unfair and limit those on lower incomes. They divert traffic onto toll-free roads like south dowling street, stoney creek road and bexley road which are not designed to be major transit corridors.

**Submission 259333:** Toll prices set too high, leading to crowding on the untolled surrounding areas.

### Source: Public Consultation Submissions, 2024

When motorists claim that tolls are too high, they are expressing that the cost of using the toll road outweighs the benefits they receive from it. This perceived imbalance between cost and value is crucial for understanding user satisfaction and the overall effectiveness of the toll system. The Independent Toll Review Survey asked motorists about why they used toll roads, to provide insight into their perceived value. Responses are detailed in Figure 5.23.

#### Figure 5.23 Independent Toll Review Survey – responses to 'Why do you use toll roads?'



### Why do you use toll roads?

Note: Question was only asked to participants who incur toll expenses (N = 1,404)

### Source: Independent Toll Review Survey 2023

As <u>Figure 5.23</u> shows, travel time consistency, fuel savings, enjoyable driving experience and safety were also nominated as reasons. These all relate to the 'value' that toll roads are designed to deliver. Notably, 14% of respondents indicated 'no other feasible transport options', which is discussed further in <u>Finding 7</u>.

While other surveys use different methodologies, complicating comparisons, travel time savings are a prominent reason motorists provided for using toll roads in NRMA<sup>46</sup> and Transurban<sup>47</sup> market research.

The DCS Survey had a different structure, not asking why respondents used toll roads, but asking them to agree (or disagree) with statements relating to toll roads. Of respondents, 62% agreed or strongly agreed that 'toll roads save time', 49% that 'toll roads are effective at easing traffic congestion', 45% that 'toll roads provide a superior driving experience' and 43% that 'using toll roads reduces fuel consumption and emissions'. Despite this recognition of benefits, only 28% agreed or strongly agreed that 'using toll roads is worth the cost involved'.

<sup>&</sup>lt;sup>46</sup> NRMA Toll Survey, August 2023. The NRMA survey asked respondents to 'choose your top two reasons as to why you use toll roads' and then presented results across six categories, including 'I have no other option'. The number of respondents for the question was 701.

<sup>&</sup>lt;sup>47</sup> Transurban, Urban Mobility Trend report, August 2023. Respondents were asked 'why they use toll roads, such as those managed by Transurban as well as other operators'. Respondents were given nine response options, and looking at the structure of the responses, it's likely that they were asked to identify all that applied, or their top two or three motivations.

### The perception of high tolls is adversely affecting congestion on non-toll roads

Public consultation indicated that high toll costs are impacting transportation choices, including by driving traffic onto alternative non-toll routes. The Independent Toll Review Survey found that 51% of people who do not use toll roads do so because toll costs are too expensive. It also found that most toll road users alter their transportation choices in response to toll costs, as illustrated in <u>Figure 5.24</u>. The most common way they do this is by using alternative non-toll routes and reducing the frequency of non-essential travel.

Figure 5.24 How do toll costs impact your transport choice? (select all that apply)



### Source: Independent Toll Review Survey 2023

The survey results in <u>Figure 5.24</u> relating to the use of alternative untolled routes aligns with the August 2023 NRMA Survey, which found that 39% of members residing in Sydney think local traffic has increased in their area in the last year due to toll road avoidance. For the Western Sydney areas of Canterbury-Bankstown, Liverpool, Blacktown, and Cumberland, more than 60% of NRMA members believe this to be true.<sup>48</sup>

Toll roads have not overcome Sydney's congestion problem, in part because of high tolls.

Despite the extensive toll road construction program in Sydney of the past three decades, extensive congestion problems still appear to be evident. Informed traffic commentators rate Sydney as the most congested capital city in Australia and place the city at a relatively high ranking globally.

<sup>&</sup>lt;sup>48</sup> NRMA. (2023, August). Tolling Survey Results.

INRIX Global Traffic Scorecard provides congestion rankings for 1,000 cities in over 50 countries. It calculates commute times to and from major employment centres in urban areas. Anonymised GPS probe data is used to identify the most frequented routes and destinations in the urban area. Time lost is calculated by comparing travel times of drivers during peak periods with free-flow, off-peak periods. There is a weighting for city size.

London was considered the most congested city with the average driver having lost 156 hours due to congestion in 2022. Chicago (155), Paris (138), Boston (134) and New York (117) were the other top five ranking cities.

Sydney was the highest ranked Australian city at 46 with the average hours lost being 62, up by 19% from the previous year, but still down by 48% since 2019. Melbourne's ranking was 62, with 54 hours lost, still 17% below 2019; Perth was ranked 121 with 42 hours lost; Adelaide was ranked 156 with 38 hours lost; and Brisbane was ranked 165 with 36 hours lost. Congestion levels in Perth, Adelaide and Brisbane had all increased since 2019.

TomTom also provides an analysis of traffic based on anonymously collected data from drivers covering the complete road networks of major cities across the world. Its most recent 2022 Report also reported Sydney as being the most congested city in Australia. For example, on average it took 21 minutes thirty seconds to drive 10 km in the city centre, which was an increase of 30 seconds from the previous year. It was 10 minutes more to drive this distance in the afternoon peak period. Sydney was ranked number 52 in the TomTom World Traffic Index which covered 390 cities across 56 countries. London was again the highest ranked city (36 minutes 20 seconds). Melbourne had an average city centre 10 km travel time of 21 minutes (world ranking 59) while Brisbane had an equivalent travel time of 17 minutes (world ranking 111).

### Comparing traffic speeds on toll roads and untolled roads to understand network use

Planners and policymakers use traffic speed maps to understand traffic flow patterns in a city. Traffic speed maps provide visual representations of the speed of traffic flow on roads and highways at a given moment or over a specified period. Traffic speed maps indicate areas with slow moving or standstill traffic compared to potential speeds during free-flowing conditions, and highlights congestion.

Congestion is a concern, because it increases overall travel time, reduces journey time reliability and increases vehicle operating costs (for example fuel). Congestion can reduce the number or distance of trips that motorists are prepared to make, with consequences for their social and economic participation. For example, congestion may discourage individuals from accepting new job opportunities due to prolonged commutes. Congestion can also increase operating costs for businesses that are then passed on to consumers. Finally, congestion has been found to increase the risk of road accidents and environmental pollution.

The Review initiated an analysis of traffic speeds on the motorway network (including toll roads) as compared to other major roads to understand if there are opportunities to re-distribute traffic patterns, for example, by changing the level or structure of tolls.

An operating speed ratio (OSR) is a metric used to assess congestion levels on the motorway network. It is calculated by dividing the mean speed of traffic (average speed of vehicles on a particular road during a specific time period) by the free-flow traffic speed (speed at which vehicles would travel in the absence of congestion or other disruption). By using the operating speed ratio as a proxy for congestion, we can identify areas with higher congestion levels. It should be noted that the presence of traffic lights on arterial roads which in turn require vehicles to stop will negatively affect the OSR and should be taken into consideration. The lower the operating speed ratio, the more significant the congestion. i.e. slower travel speeds relative to the free flow speed suggest higher levels of congestion on the road network.

<u>Figures 5.25</u> and <u>5.26</u> illustrate the level of congestion on Sydney's motorway network and arterial roads through both thematic speed maps and tables. It shows the network travel speed at 7:45 am, with average results obtained on weekdays in November 2022. The morning peak was selected as it represents the period when traffic reaches its peak on the Sydney road network.

Figure 5.25 Operating speed ratios, Sydney's continuous motorway network compared to other major roads, November weekdays 2022 7:45am





Source: Independent Toll Review

As illustrated in <u>Figure 5.26</u>, during the morning peak, the observed speed to free-flow ratio is higher on the continuous motorway network. This outcome aligns with expectations, given that a key value proposition for motorists on toll roads is the promise of faster and more reliable journeys.

Figure 5.26 Percentage of road length by observed speed to free-flow speed ratio band, Greater Sydney overall and Greater Sydney Regions, November weekdays 2022, 7:45 am

Region	Road type	0–50%	50-75%	75–100%
Greater Sydney	Other motorway, highway and arterial roads	6%	39%	55%
	Tolled – continuous motorway network	13%	27%	60%
	Untolled – continuous motorway network	19%	31%	50%
Eastern Harbour City	Other motorway, highway and arterial roads	10%	48%	42%
Stretching from Hornsby in the north, through the CBD, Inner West and Sydney Airport precinct to Sutherland in the south <sup>49</sup>	Tolled – continuous motorway network	40%	33%	27%
	Untolled – continuous motorway network	27%	23%	50%
Central River City	Other motorway, highway and arterial roads	8%	49%	43%
This city centres around Parramatta, which is envisioned as Sydney's second CBD <sup>50</sup>	Tolled – continuous motorway network	3%	24%	73%
	Untolled – continuous motorway network	7%	44%	49%
Western Parkland City	Other motorway, highway and arterial roads	2%	20%	78%
the Central River City to the base of the Blue Mountains <sup>51</sup>	Tolled – continuous motorway network	11%	31%	58%

Source: Independent Toll Review

As <u>Figure 5.26</u> details, in Greater Sydney, the tolled motorway has the smallest share of roads that appear to be showing signs of congestion (have a low operating speed ratio of 0–50%). The faster traffic speed on toll roads than on other roads suggests that encouraging more drivers to use toll roads could improve the flow of traffic across the network.

The exception is the Eastern Harbour City, where 40% of the tolled motorway is showing signs of congestion, a greater share than the untolled motorway of other motorway, highway and arterial roads.

<sup>51</sup> Western | nsw

<sup>&</sup>lt;sup>49</sup> https://www.mysydney.nsw.gov.au/easternharbourcity

<sup>50</sup> Central | nsw

Stakeholders in their submissions also perceived opportunities for change, as detailed in Figure 5.27.

Figure 5.27 Stakeholder perspectives

**Professor David Levinson, University of Sydney:** The existing tolled motorways are underutilised because the tolls are too high, and as a consequence local roads are over-used, compared to a social-optimum.

**Bexley Chamber of Commerce:** The clearest direct impact of toll avoidance is damage caused to roads used as free alternatives. Council controlled roads are also affected by toll avoidance and particularly by heavy vehicles, which cause the most damage to roads. Council officers have identified Parkes Street and Hassall Street in Parramatta and Rosehill as Council managed roads affected by toll avoidance. While Council does not maintain a comprehensive list of local roads that are affected by toll avoidance or estimate the cost of damage to these roads, the direct impact on the local road network is likely to be significant. In addition to direct costs for road damage, Council's community bears many indirect costs of toll avoidance. These include degradation of amenity along alternate routes due to increased traffic and heavy vehicles, health impacts due to increased emissions from this traffic, and the slowing of general traffic and public bus services along these routes. In addition to delays on alternate routes, there are secondary impacts around these 'free' alternative routes such as extra delays on cross streets.

Source: Public Consultation Summary Report, 2023 Independent Toll Review. Public Consultation Submissions, 2023
## 6. Competition

Draft findings:	
Competition	<b>Finding 11:</b> Transurban has a dominant market share in the current provision of toll roads in Sydney.
	<b>Finding 12:</b> Transurban has been dominant in the New South Wales market for acquisition of toll road concession contracts.
	<b>Finding 13:</b> The significant position of Transurban in the toll retailer market could adversely affect competition for tolling concessions.

Competition is a vital aspect of price setting in most industries. Toll roads have unique features but competition still has an important role to play. Our terms of reference required us to specifically consider this.

The presence of competition within markets is generally valued within the economy as it promotes consumer choice and enhances economic efficiency, which encompasses three dimensions:

- The allocation of resources toward highly valued uses (allocative efficiency).
- The effective conversion of inputs into outputs (productive efficiency).
- The market's ability to encourage progress and innovation (dynamic efficiency).

An examination of competition matters has been conducted, focusing on the following markets:

- Markets relating to the provision of the transport network, including untolled and tolled motorways, and public transport. These markets are likely to be local in nature, reflecting potential for competition between different roads, public transport and toll roads.
- Markets for the acquisition of toll road concession contracts, encompassing construction, operation, and toll collection for toll roads in New South Wales.<sup>52</sup>
- Markets for the supply of electronic tolling services in New South Wales.

Findings have been made based on evaluation of factors such as market structure (concentration, barriers to entry, economies of scale, vertical integration, and government influence), market conduct (strategic behaviour), and market performance (profitability).

<sup>&</sup>lt;sup>52</sup> Theoretically these markets could be national. The Australian Competition and Consumer Commission (ACCC) has historically adopted state-based definitions in considering acquisitions of private toll roads due to the knowledge gained in operating in different states.

# Finding 11: Transurban has a dominant market share in the current provision of toll roads in Sydney.

Over the past twenty years, Transurban has acquired an ownership stake in every privately operated Sydney toll road (Figure 3.2 and Figure 3.6). This has occurred through successfully bidding on new concessions, and acquisition of ownership stakes in existing concessions. The Australian Competition and Consumer Commission (ACCC) had concerns over the acquisition of the existing concessions, but ultimately did not oppose them (e.g. in the case of the NSW Government's WestConnex sales).

This dominant market share has been further reinforced through government acceptance of USPs (NorthConnex and M7-M12 Integration Project) and the extension of existing concessions to facilitate toll road capacity enhancements (e.g. M5 widening and M2 widening). We use the term dominance here to refer to the market share of the company rather than in the sense of having substantial market power.

Transurban has also been dominate in the provision of toll roads in Queensland and Victoria. However, the further extension of the company's position in the Victorian toll road sector has recently been challenged by the ACCC opposing its proposed acquisition of a majority ownership of Horizon Roads, the operator of the EastLink toll road.

Tolling concessions create a right to build and operate a road that is part of a broader transport network. Competitive pressure, valued because it provides choice for motorists and enhances economic efficiency, comes from the presence of the untolled transport network (untolled motorways and public transport), and other toll roads. The availability and quality of alternatives to toll roads, such as untolled motorways and public transport, varies for motorists across Sydney. With respect to competition between different toll roads, this was considered by the ACCC in relation to WestConnex, with the finding at that time being that there was 'unlikely to be a significant degree of substitutability of (existing) Transurban and WestConnex toll roads for any categories of road use'.<sup>53 54</sup>

Alongside competitive pressures, which may vary in their intensity, the structure of concession agreements offers some mitigations for the market power of concessionaires. For instance:

- Transurban cannot raise tolls above what is agreed upon in the contracts.
- Transurban's ability to reduce road quality is also limited, depending on the specific conditions in the contracts.
- However, these agreements do not require concessionaires to pass on the benefits of efficiency gains realised as would be expected to occur in a competitive market environment.

Transurban noted this finding in their response, disputing the Review's claim of dominance, indicating that it did not have complete control of all the assets that it holds an interest in. We have clarified our use of the word dominance in this context.

<sup>&</sup>lt;sup>53</sup> Australian Competition and Consumer Commission. (2018). Public Competition Assessment. <u>MER18+11036.pdf (accc.gov.au)</u>

<sup>&</sup>lt;sup>54</sup> We view that, despite this ACCC finding, there exists the potential for substitutability on certain journeys. For instance, drivers from the north-western suburbs have the option to choose between the M2/LCT and M4/WestConnex for travel to the Inner West, City, or east.

#### Figure 6.1 Transurban comments on their focused investments

'Transurban has a significant presence in NSW which is a function of a series of decisions by governments, and investments we have made in applicable regulatory environments. These investments have often been made in ventures with other parties, with Transurban one of several consortium members (Figure 2). Consortium participants differ across these investments and it is not accurate to treat Transurban as having complete control of all assets in which we hold an interest.'

Source: Public Consultation Submissions, 2024

## Finding 12: Transurban has been dominant in the NSW market for acquisition of toll road concession contracts.

With respect to competition for toll road concessions in New South Wales, Transurban has a perceived edge due to its ownership stakes and operating contracts with most Sydney toll roads. This increases potential incumbency advantages and barriers to entry such as:

- Access to superior traffic data and in-house modelling capabilities that are specifically attuned to the road network in Sydney. Put simply, their understanding of motorist demand elasticity surpasses that of other competitors. These advantages are more significant for new toll road opportunities (greenfield projects) because expertise in traffic data and modelling capabilities becomes particularly impactful when there is a lack of historical demand data. Additionally, the longer the concession contract's duration, the more critical it becomes to have accurate traffic data and modelling capabilities.
- Economies of scale and sunk costs from operating other roads and a well-developed electronic tolling system.
- Significant experience with bidding for toll road concessions and submitting unsolicited proposals.

Transurban again disputed the proposition that it had dominance in the market for acquisition of toll road contracts.

Figure 6.2 Transurban comments on their focused investments

'The Interim Report states that Transurban has a position of dominance and enjoys incumbency advantages that have enabled us to have a preferred position in the development, acquisition, and operation of toll-road projects in NSW. We do not consider these comments to be accurate.'

#### Source: Public Consultation Submission, 2024

Transurban has been very successful in acquiring new road assets in Sydney and with unsolicited proposals for new road developments. However, the Review acknowledges that any dominance Transurban has had in the market for the acquisition of toll road contracts has been somewhat diminished by the undertakings given by it to the ACCC in connection with the WestConnex acquisition (see below.) Nevertheless, its current position in relation to existing concessions and knowledge of the market coming from that, do in the opinion of the Review give it significant advantages over potential competitors.

We recognise also the significant countervailing power that the NSW Government could exert in relation to Transurban. This includes the power to determine bidding arrangements for any new concession and the possible competitive constraints that may be exercised by the expansion of the public sector toll roads.

The case study in <u>Figure 6.3</u> focuses on the events during the WestConnex sales in 2018 and 2021, particularly regarding the role of the ACCC.

Figure 6.3 Case study: the ACCC's response to Transurban's acquisition of for WestConnex

#### 2018 WestConnex sale

In 2018, the NSW Government sold a 51% stake in the WestConnex concessionaires to STP (a Transurban led consortium). At that time Transurban already held a majority interest in seven out of nine toll roads in Sydney. The addition of WestConnex, which includes several toll road concessions, would further entrench its position.

The ACCC did not oppose STP's acquisition following the acceptance of court-enforceable undertakings, which would reduce a key aspect of Transurban's incumbency advantage – access to data. The ACCC considered that, with the undertakings in place, competition would be sufficient for future toll roads, such that the proposed acquisition will not substantially lessen competition.

This was in light of the ACCC's findings that a majority of traffic data used for traffic modelling was publicly available and that rival bidders were able to build traffic models of comparable sophistication to Transurban but lacked the confidence in their forecasts due to disparity of traffic data quality.

#### Enforceable undertakings

The court-enforceable undertakings require Transurban to publish traffic data used in traffic modelling including 15 minute interval toll gantry data for each quarter for each toll road in which it has an interest in Sydney. <sup>55</sup> This high quality traffic data, previously only available to Transurban, would enable greater validation of all potential bidders' traffic models. A stronger reassurance of rival bidders' traffic forecasts would instil more confidence from financiers and potentially enables a stronger bid from these bidders.

#### 2021 WestConnex sale

In March 2021 ACCC did not oppose STP's acquisition of the remaining 49% interest of WestConnex. It was in the ACCC's view that this acquisition was unlikely to substantially lessen competition when the consortium currently held an existing majority of WestConnex.

Even with the enforceable undertakings providing Transurban traffic data and other measures taken by the NSW Government to attract bidders (such as an inducement fee of about \$50 million), the transaction struggled to attract other bidders to compete against Transurban.

Source: Independent Toll Review

<sup>&</sup>lt;sup>55</sup> Australian Competition and Consumer Commission. (2018, August 30). ACCC will not oppose Transurban consortium WestConnex bid following undertaking. <u>https://www.accc.gov.au/media-release/accc-will-not-oppose-transurban-consortium-westconnex-bid-following-undertaking.</u> (For a more detailed list of undertakings.)

The WestConnex sale and the acquisition by Transurban of remaining Interlink shares in 2019 have further increased the concentration of the toll road industry in NSW. There are currently four motorways under construction in Sydney (M12, Sydney Gateway, M6 Stage 1 and the Western Harbour Tunnel) and none of them are being procured as a toll road PPP. The M12 and Sydney Gateway will not be tolled. The M6 Stage 1 and the Western Harbour Tunnel are planned to be public toll roads. The net effect of these new developments will be to diminish Transurban's leading market position.

In a departure from its approach to earlier acquisitions, the ACCC has indicated that it is opposed to Transurban further consolidating its market position through a proposed new acquisition in Melbourne. This is outlined in Figure 6.4.

Figure 6.4 ACCC declines to provide informal clearance to Transurban's proposed acquisition of EastLink (Victoria)

In March 2023, the ACCC received an application from Transurban in respect of its proposed acquisition of a majority interest in Horizon Roads. In Victoria, Transurban has interests in the CityLink and West Gate Tunnel toll roads. Horizon Roads operates the EastLink toll road in Melbourne. Other than EastLink, Transurban operates all of Australia's other private toll roads.

The ACCC's primary theory of harm related to the incumbency advantages that Transurban would gain in Victoria as a result of the acquisition, relative to a counterfactual where EastLink was acquired by another owner. The ACCC stated that if Transurban did not acquire Horizon Roads, it would likely be acquired by a potential long-term rival and could be used as a platform to develop the capabilities needed to compete more strongly for other toll road concessions. Consequently, the ACCC opposed Transurban's transaction on the basis of weakening competition in future toll road concessions in Victoria.<sup>56</sup>

#### Source: ACCC and Gilbert + Tobin

The ACCC's most recent considerations indicates a concern to take stronger action to prevent it acquiring further market power. This is in line with decisions taken in other industries in Australia and by overseas competition authorities.

# Finding 13: The significant position of Transurban in the toll retailer market could adversely affect competition for tolling concessions.

Toll retailers act as intermediaries between motorists and toll road operators by deducting tolls from motorists' accounts and remitting the collected toll revenue to toll road operators. Toll retailers charge toll road operators a fee for these services, known as the roaming fee. This is illustrated in <u>Figure 6.5</u>. This fee is agreed by each toll road operator with each retailer in a bilateral agreement.

<sup>&</sup>lt;sup>56</sup> ACCC. (2023, September 21). ACCC opposes Transurban's EastLink acquisition proposal. <u>ACCC opposes</u> <u>Transurban's EastLink acquisition proposal | ACCC.</u>; Gilbert + Tobin. (2023, September 22). Taking a toll: ACCC's Transurban/Horizon call a sign of the times. <u>https://www.gtlaw.com.au/knowledge/taking-toll-acccs-transurbanhorizon-call-sign-times.</u>

Figure 6.5 Toll retailers collect roaming fees for managing the relationship between the motorist and toll road operator



#### Source: Final report: Independent Inquiry into Regulation of Toll Road Roaming Fees, December 2019

If the toll road operator and the toll retailer are part of the same group of companies, then the roaming fee for toll collection is simply an internal transfer cost. Where the toll road operator and the toll retailer are from separate unrelated companies then the roaming fee is charged to the toll road operator by the toll retailer.

In NSW, there are two suppliers for toll retailer services – Transurban (Linkt) and Transport for NSW (E-Toll). EastLink (privately owned toll retailer based in Victoria) account holders are also able to use New South Wales toll roads. Until 2019, there were four New South Wales based retailers. Roam and E-Way have both been acquired by Transurban and their customers transitioned to Linkt.

Looking to the future, the toll retailer market could adversely affect competition for tolling concessions. New entrant bidders without an associated toll retailer business may perceive they are at a disadvantage in roaming fee negotiations with Linkt. New entrants may be concerned with the risk (should they successfully acquire a toll road PPP) that Linkt could threaten to raise roaming fees and erode their equity return.

We understand these concerns were raised during the WestConnex equity sale process. In response, the NSW Government adopted the *Roads Amendment (Toll Services) Regulation 2018* which gives the Roads Minister the power to (i) set a maximum roaming fee that may be charged by toll retailers, or (ii) determine an appropriate mechanism to regulate roaming fees. The Roads Minister has not exercised this power to date and the threat of doing so may have been considered a sufficient response to date.

It may be difficult for a new entrant to enter the toll retailer market as it is currently structured. The toll retailer market is considered to be saturated (there are not many motorists without an account) and 'sticky' (motorists rarely switch toll retailers). However, barriers due to economies of scale do not appear to be significant. All toll road operators and toll retailers are currently party to a Memorandum of Understanding (MoU)<sup>57</sup> for Electronic Toll Collection. The terms of the MoU mean there must be unanimous agreement by all the members (i.e. the toll road operators) to admit a new toll retailer as an associate member.

<sup>&</sup>lt;sup>57</sup> A Memorandum of Understanding is a voluntary non-binding agreement between two or more parties.

The ACCC has considered toll retailing issues in acquisition cases in New South Wales, Queensland and Victoria. While it has been mindful of the possibility of competition concerns, it has not found them to be significant to date. It has noted the presence of alternative suppliers in some cases, the possibility of in-house development of electronic tolling collection systems, the experience of international players, the impact of concession agreement provisions and the operation of the inter-operability arrangements as offsetting factors.

#### Market share and market power

A firm with a high market share may not have substantial market power. It may have significant advantages of incumbency, but not necessarily the ability to exploit market power in ways that would cause concern. The threat posed by new entrants or by government regulation may constrain the acquisition and use of market power.

Where market power does exist it might be able to be used to exclude or damage competitors, for example, though predatory actions. It might also be used to exploit customers by charging excessive prices.

Transurban's tolls are regulated through its concession contracts. It is constrained to set tolls no higher than permitted by these contracts. As discussed previously, however, there are reasons to conclude that tolls have been set at higher levels than desirable and above competitive market levels. This may or may not be to Transurban's benefit. It would benefit Transurban if the company could capture any monopoly profits available through high tolls. But governments are also likely to capture a share of any monopoly profits that might be available. They would do this through the bidding process for new concessions. This may be through the payments concessionaires make to acquire assets or payments made to cover related costs or other benefits for government.

Our concerns about the market position of Transurban, the level of tolls and the possibility of monopoly rents being charged to motorists would be greatly reduced if there was independent, expert oversight of toll setting and monitoring of concessionaire performance. Monitoring could help to ensure tolls were set at appropriate levels and provide assurance to motorists that excessive profits were not being obtained by concessionaires.

## 7. Toll transparency and toll relief schemes

Draft finding:	
Toll transparency	<b>Finding 14:</b> Current tolling information fails to adequately enable, inform, and educate motorists thus reducing user empowerment and efficient decision-making.
Toll relief schemes	<b>Finding 15:</b> Toll reform is preferable to toll relief. The current toll relief schemes are inadequately targeted and underutilised, in part due to overly complex administration. Toll relief is not financially sustainable given the existing pattern of toll escalation and limitations on the availability of government resources to fund relief.
	<b>Finding 16:</b> Concessionaires are an unintended beneficiary of the current approach to toll relief. Increased traffic and patronage of toll roads, through induced demand created by toll relief, directly benefits operators by increasing their revenues.

#### Finding 14: Current tolling information fails to adequately enable, inform, and educate motorists thus reducing user empowerment and efficient decision-making.

There are significant deficiencies in how current tolling information enables, informs and educates motorists. This lack of transparency relates to how information is presented and the complexity of the underlying information which motorists need to understand.

<u>Figure 7.1</u> sets out a Toll Transparency Framework, which describes three elements that underpin transparency: enabling, informing, and educating. The current state performance of toll information falls short of what is required for each element.

#### Figure 7.1 Toll Transparency Framework



#### **Enabling motorists**

Providing motorists with the ability to plan their routes and understand the cost of using toll roads (tolls, time, fuel consumption, emissions used), personalised to their own characteristics (e.g. usage, car size, time of travel).

Enabling motorists to make real-time decisions for their use of toll roads, considering motorist safety and enabling through transparent pricing.



#### Informing motorists

Providing motorists with historical usage data so that they can understand how much they spend on tolls.

Identifying projected usage for motorists based on factors such as historical usage, seasonality, and personal factors to predict their usage.



#### **Educating motorists**

Educating motorists to comprehend how tolls are calculated and why costs vary between roads.

Educating users about where the revenue generated by toll providers is allocated.

Ensuring motorists understand their financial rights and responsibilities as a user of toll roads.

Source: Independent Toll Review

#### **Enabling motorists**

Motorists want access to real-time information to make informed decisions about their travel. However, this requires motorists to use multiple mobile applications and websites to determine tolling information and rebate eligibility. As <u>Figure 7.2</u> details, there is no 'one stop shop' platform providing all the key features and trip planning functionality. Furthermore, information provided via these sources is not personalised to the user. For example, a user with a vehicle which is privately registered in New South Wales should be made aware of the M5 South-West Cashback scheme if the M5 South-West is part of a possible route for their intended journey. Physical road signage providing toll cost and travel time information both before and along toll roads is limited. Signage that does exist is often in locations that do not give motorists sufficient time to adjust their route choice.

#### Figure 7.2 Existing platform features and functionality

	Opal Travel App	Transport Connect	Service NSW	Transport NSW.info	Sydney Motorways Calculator	Linkt	E-Toll	Google Maps	Apple Maps	Waze
Platform										
Mobile app	$\checkmark$		$\checkmark$			$\checkmark$		$\checkmark$	$\checkmark$	~
Website/ dashboard		~	~	~	~	~	~	~	~	~
Key features										
Notifications	$\checkmark$		$\checkmark$			$\checkmark$		$\checkmark$	~	~
Trip planner	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	~
Data displays and trip spend breakdowns	~	~				~		~		
Predictive data and recommendations										
Rebate claims			$\checkmark$							
Educational information (incl. financial rights, financial hardship info)	~	~	~			~	~			
Car registration and driver licence information			~							
Trip planner		·								
Toll spend information					~	~		~		
Public transport speed information	~	~		~						
Other transport information (cycling, walking, etc)	~	~		~				~	~	
Other travel information (emissions use, fuel consumption, hazards)						~		~		

	Opal Travel App	Transport Connect	Service NSW	Transport NSW.info	Sydney Motorways Calculator	Linkt	E-Toll	Google Maps	Apple Maps	Waze
Ownership										
NSW Government owned	~	$\checkmark$		$\checkmark$	~		$\checkmark$			

Source: Independent Toll Review

#### Informing motorists

Retailers (Linkt and E-Toll) are best placed to inform motorists about their past usage of toll roads and eligibility for rebates. The two retailers currently provide variable information about past trip data, notifications when statements are ready, eligibility for and reminders to claim toll relief, and whether an account is running low on funds. Linkt currently offers an app whereas E-Toll does not.

None of the current platforms allow motorists to project their potential future toll usage, as <u>Figure</u> <u>7.2</u> shows. Providing projected toll road usage for individual motorists (e.g. predicting how much a motorist will spend on tolls over the next six months and what rebates they will be eligible for) by considering variables including historical usage trends, seasonal variations, and individual factors would provide insights into how they could adjust their habits to save money in the future.

#### **Educating motorists**

Motorists generally do not understand the intricacies of toll calculations. Less than 10% of NRMA members say they understand how tolls are calculated. This lack of understanding is due to the current system comprising a patchwork of different mechanisms to calculate tolls and the available information being spread across various locations.

There is currently very little communication to motorists about how toll revenues are utilised. Motorists are unsure of how the money they are spending on the publicly owned toll roads (the Sydney Harbour Crossings) is being reinvested in State budgets. While privately-run PPPs are structured to directly fund the delivery and operation of the underlying motorways, there could be improved clarity on how any proceeds are applied. Finally, it is not clear who is responsible for educating motorists of their rights and responsibilities as a toll road user. The toll road operators, the retailers, Service NSW and Transport for NSW all currently play a role. In particular, administration charges (e.g. toll notice transfer fee, video matching fee) are not well understood.

Administration charges were highlighted in submissions from the NSW Ombudsman, and Canterbury-Bankstown Council, as detailed in <u>Figure 7.3</u>.

Figure 7.3 Stakeholder perspectives on administration fees

**NSW Ombudsman:** The majority of tolling-related complaints we receive are of an administrative nature, relating to issues including:

- receiving multiple toll notices for vehicles not owned by the complainant
- delays in processing refunds etc
- incorrect and unexpected debits from bank accounts.

**Canterbury-Bankstown Council:** Council questions the utility and purpose of administration fees charged by STP and Transurban, and notes submissions and findings of the 2022 Upper House Inquiry that the system is not working for individuals experiencing hardship or distress with some of Sydney's most vulnerable members in the community incurring toll debts of thousands of dollars made up largely of administration fees.

#### Source: Stakeholder submissions, 2023

#### Figure 7.4 Public commentary on admin fees

**Kevin:** Link T appear to be gouging Sydney visitors with unnecessary administration charges. A recent trip resulted in a number of toll charges. An internet investigation, over a few days, into my fee resulted in just one charge being noted and therefore paid. Several days later one fee was received by mail with admin costs (\$10.00) many days later another fee and another admin cost (\$10) was received. On the net all fees were listed and yet another fee for (\$10) was charged without a letter being sent. In essence, one letter noting all costs for a single day could have been sent. This is purely gouging.

#### Source: Public Consultation Submission, 2024

While there are several simple circumstances that can result in a motorist incurring an administration charge (for example, their tag has a flat battery so they have incurred a video matching fee to cover the toll road operator's cost to read their licence plate), it can be challenging for motorists to identify the underlying issue. Communication about the issue is not timely and is poorly structured such that the motorist may be confused about when the issue happened and if it is likely to be ongoing. Privacy issues often mean that a toll road operator's only course of action to recover an unpaid toll is to issue a toll notice via post which may seem to the customer like a heavy-handed response.

Finding 15: Toll reform is preferable to toll relief. The current toll relief schemes are inadequately targeted and underutilised, in part due to overly complex administration. Toll relief is not financially sustainable given the existing pattern of toll escalation and limitations on the availability of government resources to fund relief.

Toll relief schemes have been introduced by governments to balance the impact tolls have on household budgets. Like the toll road network itself, toll relief has evolved over time in response to specific objectives. While toll relief has served a role as issues have grown with the level and structure of tolls, toll relief is not without challenges, namely, cost to government budget, complexity for users and concerns about fairness.

The M5 South-West Cashback Scheme (M5 Cashback) is an example of an early toll relief scheme that has persisted – introduced for political objectives at a point of time when there weren't so many toll roads or pressure for more broad-based toll relief as there is currently. Ex-Premier Bob Carr has written about the genesis of the scheme, as excerpted in <u>Figure 7.5</u>.

#### Figure 7.5 The origins of the M4 and M5 Cashback Scheme

'I was elected Premier of NSW in 1995 by a one seat margin in a state assembly of 99. I was elected on a promise, among others, of lifting the tolls on two private roads built by the previous conservative government: the M4 and M5 linking the city to the western suburbs. It was not the decisive issue in the election campaign, but it was, as election promises go, a reasonably prominent one.

Within months of taking office, my government was in negotiations with the owners of the toll roads. We aimed to remove the toll gates and pay the consortia shadow tolls from the state budget based on vehicular traffic numbers. To our surprise – to everybody's – we found that the consortia would need to be compensated for an additional amount equal to the tax advantage that accrued to them from their tollway investment. This would have doubled the cost of keeping our promise.

The outcome was not happy. It involved a doleful concession by me as the new Premier that we couldn't honour this commitment, couldn't keep the promise. There was a backlash that went far wider than the communities affected by the toll. The issue became a 'character issue.' Our honeymoon poll ratings took an instant dive. There was speculation about whether we could be re-elected when our four-year term was complete.

Our political embarrassment over tolls was resolved in 1997 when we introduced a direct subsidy to owners of private motor vehicles who used the M4 and M5. They were compensated on a quarterly basis for the tolls they had paid. We called the scheme 'cashback.' This reduced the political temperature of the issue, and in the 1999 State Election I apologised to the state's voters and said we'd learnt from our mistake in making too rash an election promise and would not do it again.'

## Source: Bob Carr, Reason Foundation, Good Roads Sooner: Public-Private Partnerships in New South Wales, 29 January 2010

The scheme has characteristics that we would not recommend for new schemes, for example that it is limited to one area, and doesn't have defined points for review or evaluation. The benefits of the scheme are geographically concentrated, with the top ten postcodes of beneficiaries accounting for between ~38% to ~41% of total amounts claimed in the period 2011 to 2023. In 2023, claims by the postcode of 2170 alone were ~10% of all M5 Cashback claims.

Nevertheless, the scheme is significantly entrenched, and is likely to have influenced transport and land use decisions in the M5 corridor, and changes to the scheme would need to be sensitively managed.

#### **Current toll relief**

Four different toll relief measures are currently available for motorists to claim after tolls have been paid to toll road operators (see Appendix I). These are illustrated in <u>Figure 7.6</u>.

#### Figure 7.6 Available toll relief schemes from 2020 to 2025

	202	20			202	2021 2			2022			2023				2024				2025				
Relief Scheme	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
M5 South- West Cashback*																								
Registration Relief (TR1)																								
Large Towed Recreational Vehicle Toll Rebate																								
Toll Relief Rebate (TR2)																								
\$60 Toll Cap (TR3)																								
Truck Multiplier Rebate																								

 $^{\ast}$  From 1997 to 2010 the Cashback Scheme also applied to the M4.

Source: Independent Toll Review

This rebate approach adds another layer of complexity to the NSW system of toll roads. Many motorists are not aware of what rebates they are entitled to or how to claim them. Some rebates can only be claimed from Service NSW; others can be accessed through toll retailers and TfNSW. Due to this complexity, there are relatively low claim rates for the current schemes. For example, TfNSW estimates that 35% of trips eligible for the M5 South-West Cashback scheme will not be claimed. Analysis of TR1 uptake, included in <u>Appendix F</u>, shows that many drivers who could benefit from the toll relief scheme are not applying. For example, only 82% (average over five financial years) of eligible vehicles in the 1155–1504kg weight and 64% (average over five financial years) of eligible vehicles in the 1505–2504kg weight class applied for the scheme.

#### Toll relief is increasingly expensive

Toll relief has been very expensive. More than \$1 billion has been budgeted for relief schemes introduced in the past two years (2022 and 2023) alone. <u>Figure 7.7</u> illustrates the growth in spend on toll relief from 2017–18 to 2022–23, as the number of schemes has increased and claims within the schemes have grown.



#### Figure 7.7 Amount claimed per year by motorists, toll relief schemes, FY19 to FY23 (\$millions)

#### Source: Independent Toll Review

The sustainability of the current approach to toll relief is questionable given new toll roads, toll escalation and population growth. Two new toll roads are currently in construction (the Western Harbour Tunnel and M6 Stage 1). Tolls on WestConnex (until 2040), the Eastern Distributor, the Hills M2, the Lane Cove Tunnel (for Class B heavy vehicles), and NorthConnex all have a 4% per annum or 1% per quarter minimum escalation. Greater Sydney's population is projected to grow to approximately 6.1 million by 2041 – an increase in over one million people from 2022.<sup>58</sup> A total of \$561 million was budgeted for TR3 over a three year period from 2023-26 for toll relief.

The experience of providing the M5 Cashback demonstrates how the combination of increasing number of claimants and toll escalation results in growth in the amount of relief claimed. As <u>Figure</u> <u>7.8</u> illustrates, in 2014–15, motorists claimed \$80.8 million, and in 2022–23 this had grown to \$126.6 million. In the same period, the number of claimants increased from approximately 210,300 to 348,800. Average claims per claimant decreased over this period, but this was outweighed by higher numbers of claimants and escalation in M5 tolls.

<sup>&</sup>lt;sup>58</sup> NSW Department of Planning and Environment. (n.d.) Population projections. NSW Government. <u>https://www.planning.nsw.gov.au/research-and-demography/population-projections.</u>



#### Figure 7.8 Amount claimed per year by motorists, M5 Cashback scheme, FY14 to FY23

Note: data is presented for FY14 onwards. In FY14, an M5 Cashback online claim portal was introduced, to make it easier for motorists to claim the rebate. This may have influenced growth in amounts claimed in subsequent years. COVID related changes and related lockdowns resulted in significant disruption to travel behaviours

Source: Independent Toll Review

#### Toll relief schemes may benefit higher income earners

Toll relief does not remove the total cost of the toll burden, but transfers it from toll road users to:

- current taxpayers, if additional revenue is needed to fund the program
- government service recipients, if expenditure needs to be reduced
- future NSW taxpayers or service recipients, if funded through increased debt.

Toll relief transfers are at risk of being unfair. Whether relief makes tolls more or less fair depends on whether higher toll road users are deemed to be more in need of government assistance than other groups. What we know about toll roads is that high income travellers are more likely to use them, as illustrated in Figure 7.9.



#### Figure 7.9 Share of journeys by mode, by income band and for all travellers, Sydney 2023

car driver, toll used car driver, no toll public transport other (includes car passengers and walking/cycling)

#### Source: Household Travel Survey (HTS), TfNSW

The HTS survey includes questions about respondents' income, categorising it into groups consistent with the Australian Bureau of Statistics' approach for the Census. HTS participants reporting income are over the age of 15 and include retirees and concession holders who are more likely to have a zero or low income. Analysis has shown the income distribution of HTS respondents largely mirrors that in the Census, i.e., that of the underlying Sydney population.

Note: Negative income results from individuals who own their own businesses reporting negative income due to losses or negative gearing of rentals.<sup>59</sup> The group earning negative income is not likely to be large. Based on the 2021 census, in NSW 0.8% of respondents reported negative income, 9.1% of respondents reported nil income, and 16.3% of respondents reported between \$0 and \$20,799 per year.<sup>60</sup>

Potentially related to this pattern of use, we found that drivers from middle- and high-income households are most likely to make use of the current toll relief schemes. This is illustrated in Figure 7.10.

<sup>59</sup> Australian Bureau of Statistics. (2021, October 15). Total personal income (weekly)(INCP). <u>https://www.abs.gov.au/census/guide-census-data/census-dictionary/2021/variables-topic/income-and-work/total-personal-income-weekly-incp</u>.

<sup>60</sup> Australian Bureau of Statistics. (2022, June 28). Income and work: Census. <u>https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/income-and-work-census/latest-release</u>. Figure 7.10 Proportion of drivers who have obtained/plan to obtain toll relief for the past 12 months, by income bracket.



Note: Question was asked to all participants who were aware of toll relief schemes (N = 1,143)

#### Source: Independent Toll Review Survey 2023

As <u>Figure 7.10</u> illustrates, more than 40% of drivers with household incomes between \$80,000 and \$249,000 had obtained or planned to obtain toll relief. This increased to over 50% of drivers from households earning \$250,000 or more per year. In comparison, less than 40% of drivers from households earning under \$80,000 a year had obtained or planned to obtain toll relief.

#### Toll relief schemes have been challenging to target

There are two levers for government to improve the targeting of toll relief – addressing who gets the toll relief (e.g., what is the beneficiary cohort: individuals, households, toll accounts), and addressing why toll relief is given (changes to eligibility criteria).

In current toll relief schemes, the beneficiary cohort is the 'account'. This means a group of people who use cars registered under the same E-Toll or Linkt account. The account-based approach has several advantages:

- It is simple to administer because it uses available data.
- It reflects that groups like families share resources to use toll roads and enjoy the benefits together. By targeting accounts rather than individuals, toll relief can be distributed more equitably among all those who use the vehicle or vehicles under the same account.
- It is flexible. It allows people to share resources to use toll roads in many ways. It doesn't force people to align with definitions like 'household' or 'family' to be eligible for toll relief.

A challenge with the approach of using account data is that it is not linked to demographic data beyond gender, age of account holder and postcode. This limits the usefulness of account data for setting eligibility criteria. Previous attempts by the NSW Government to develop a means tested toll relief approach have fallen short due to:

- inability to access Australian Government income data
- the administrative burden of asking motorists to provide information on their income directly to government. This pathway could also involve longer implementation lead times than using account data and would require government to collect and manage sensitive information.

#### Evaluation and data capture of toll relief schemes could be improved

Given the growing spend on toll relief, it is becoming increasingly important to understand the outcomes of this spend.

Our analysis of toll relief schemes (see <u>Appendix F</u>) revealed gaps in data sharing between toll retailers and toll relief scheme administrators. For example, we could access information on the number and amount of toll relief claims, but not the proportion of accounts that claimed toll relief. We also note that some schemes, such as the M5 Cashback, have been operating for many years without public evaluation.

We highlight the design of the recent Truck Multiplier Rebate, and the strength of its commitment to monitoring and evaluation, as an example of what could be put in place in the future.

#### Public views on toll relief

Public submissions received in response to the Interim Report had 58% of respondents in agreement that toll relief should be phased out, acknowledging that continued relief schemes can be financially unsustainable, may discourage alternative transport options, and that the funds could be allocated elsewhere on critical infrastructure. The remaining respondents view toll relief as a priority to assist New South Wales motorists during the cost-of-living crisis.

#### Figure 7.11 Feedback on extending/phasing out toll relief

**Committee for Sydney:** Toll relief is not efficient or fair: toll relief removes the best thing about a toll – a price signal – which reduces congestion.

#### Public feedback

**Bastien:** Toll relief may need to be extended to the cohorts that have been ignored, who we are finding are relocating, quitting volunteering and finding work unaffordable in certain areas due to the toll burden.

**Submission 259536:** Phase out is fine if a significant overhaul & reduction of prices occurs. But a hybrid approach may be a good option. Funding to transition Australia away from traditional asphalt which is susceptible to frequent damage, towards a more durable, sustainable option would be a good use of money. The longer costs would get trucks on toll roads and the damage to roads can be taken care of through our other car levies and taxes – as it should.

Source: Public Consultation Submissions, 2024

Finding 16: Concessionaires are an unintended beneficiary of the current approach to toll relief. Increased traffic and patronage of toll roads, through induced demand created by toll relief, directly benefits operators by increasing their revenues.

Toll relief measures are expected to generate additional trips on toll roads and increase toll revenues for toll road operators, but concessionaires are not required to return this benefit to the government.

The government is largely reliant on 'upside sharing regimes' built into concession agreements to address any windfall gains to private concessionaires because of toll relief. These mechanisms only return funds to the government if a toll road's performance exceeds agreed levels. So, if a toll road is used more, but not enough to hit agreed levels for sharing, the government will not receive a share of the extra revenues/profits, even though private concessionaires may be earning more due to toll relief.

We understand that some value has been extracted from the M5 South-West concessionaire linked to the M5 South-West Cashback scheme. In that instance, the concessionaire may have contributed less (or not at all) to the cost of the M5 West Widening project if the cashback scheme was not in place.

Figure 7.12 Public feedback on toll relief profit

Vince: '... effectively deliver a risk-free, government-guaranteed profit to the tollway operators.'

**Submission 254079:** Toll Relief needs to be targeted, and in a manner that it should not be rebated BACK to Transurban I.E spend X amount and get X back. All this is doing is encouraging more driving and Transurban/Toll operators are getting more money. Government is essentially double gifting to operators.

Source: Public Consultation Submissions, 2024



# Recommended overhaul of toll network

## 8. Tolling principles

#### **Recommendations:**

Recommendation 1: The NSW Government should adopt the Proposed New Tolling Principles.

## 2014 Tolling Principles

In 2014 the NSW Government agreed to a set of principles to guide the setting of tolls on new toll roads (2014 Principles).

Over the previous two decades the Sydney orbital motorway network had been developed in a piecemeal fashion so that inconsistencies exist between motorways with differences in tolling methods, lengths of concessions, escalation rates, application of tolls after pay back, heavy vehicle multipliers and toll relief.

At the time major expansions of the network were occurring, including the NorthConnex, WestConnex developments and planning for the Western Harbour Tunnel, Beaches Link, Sydney Gateway, M6 Stage 1 and M12. It was considered that these developments would have significant transport and financing impacts on other orbital motorways. There was a need to avoid perverse outcomes from tolls and to have a policy basis to retain tolls on roads that provided value to users through more reliable and faster journeys for their full economic life, including after concessions had expired.

The 2014 Principles aimed to balance the financial objective of needing to continue to fund investment in the motorway network with the desire to give confidence to consumers that their interests were being considered in determining tolls; that the toll they pay reflects the benefits they receive and the reality of historical concession agreements and their tolling arrangements.

There were ten principles specified as follows:

- 1. New tolls are applied only where users receive a direct benefit.
- 2. Tolls can continue while they provide broader network benefits or fund ongoing costs.
- 3. Distance-based tolling for all new motorways.
- 4. Tolls charged for both directions of travel on all motorways.
- 5. Tolls charged reflect the cost of delivering the motorway network.
- 6. Tolls take account of increases in expenses, income and comparable toll roads.
- 7. Tolls will be applied consistently across different motorways, to the extent practicable, taking into account existing concessions and tolls.
- 8. Truck tolls at least three times higher than car tolls.
- 9. Regulations could be used so trucks use new motorway segments.
- 10. Untolled alternative arterial roads remain available for customers.

#### General observations on the 2014 Tolling Principles

The inter-dependencies between different parts of the network and the desirability of a consistent network approach to tolling were clearly recognised by the 2014 Principles. The preference for two-way tolling on all parts of the network and for distance-based tolls was highlighted. Commentary on the 2014 Principles indicated that toll escalation would be consistent with cost-of-living and/or earnings movements.

The 2014 Principles sought to provide some direction for future tolling arrangements and push for greater consistency across the network. However, the 2014 Principles were still articulated in fairly general terms and provided only limited guidance for those involved in the setting of both the level and structure of tolls.

As regards the level of tolls, there was no clear guidance as to what share of infrastructure capital and operating costs should be recovered through tolls, as opposed to general government funds. There was no clear guidance on the length of time tolls should apply for or the specific pattern of cost recovery or toll escalation. A key factor affecting the level of tolls is the cost of capital. However again, there is no articulation of principles which applies in this area. This issue is particularly important, as concession agreements specify base toll levels and their escalation over time for the entire term of the concessions, without provision for reviews during these periods.

As regards the structure of tolls, a deficiency of the 2014 Principles is the limited recognition of the importance of tolls in responding to fluctuating demand and traffic conditions throughout the day. Heavy traffic can lead to delays, unpredictable journey times, and additional costs such as decreased fuel efficiency, increased environmental emissions, and a higher risk of crashes. When traffic volumes are already high, each additional motorist using the network increases these negative impacts, and so higher tolls may be justified. Higher tolls during high demand will discourage some users from travelling on the motorway and help to relieve the congestion and other costs. Conversely, when traffic volumes are low, lower tolls may be appropriate.

Different users may have different cost impacts on motorways. While the 2014 Principles provide for higher tolls for trucks than for cars, there is no consideration that vehicle categories appropriately recognise actual cost differences.

#### **Observations on specific principles**

Principle 5 referred to tolls reflecting the cost of delivering the motorway network. It was not suggested that tolls should reflect the cost of delivering specific parts of the network covered by individual concessions. It left open the possibility of cross-subsidisation between different parts of the network. This is particularly relevant where an operator controls multiple concessions as is the case with Transurban. Cross-subsidisation was indeed a feature of the subsequent financing of NorthConnex and WestConnex.

Principle 8, the three times multiplier for heavy vehicles aimed at recognising the economic benefit for freight operators due to improved travel times as well as the higher upfront capital and ongoing maintenance costs of providing motorway infrastructure to cater to heavy vehicles.

Principle 9 states 'regulation could be used so trucks used new motorway segments'. This principle was later applied in the context of NorthConnex, where regulation requires heavy vehicles use NorthConnex instead of Pennant Hills Road, with limited exceptions.<sup>61</sup>

<sup>&</sup>lt;sup>61</sup> Transport for New South Wales. (n.d.). Pennants Hills Road regulation. NSW Government. <u>https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/heavy-vehicles/compliance/pennant-hills-road</u>.

In terms of the Pennant Hills Road restrictions, there are clearly amenity, safety and environmental considerations involved in this matter. In part, these community benefits are reflected in State and Australian Government participation in funding NorthConnex. However, based on submissions to the Review, stakeholders perceive a mismatch between who bears the costs and receives the benefits of these restrictions. As the Transport Workers Union NSW observed of NorthConnex and Pennant Hills Road, 'the answer apparently is to force truck drivers to use a toll road. There's all this spruiking about having free alternatives, and that's a very stark example of where there isn't one, and it targets a particular part of the community and the economy, and they are unfairly burdened by that additional cost'.<sup>62</sup>

Restricting access by a particular user group to an untolled alternative should only be pursued as a last resort, and with a strong policy case. For the most part, roads should be designed, and tolls set, at a level which makes them desirable to use. Otherwise, they will not achieve their intended transport planning and other outcomes. Such restrictions should only be utilised where the benefits are proportionate and focused community and user consultation has occurred.<sup>63</sup>

Principle 10 raises the issue of choice for users. If users have a genuine choice between an untolled arterial road and a toll road, they can determine whether the required toll payment actually provides them with a benefit they are willing to pay.

#### The current Review

The Review has been asked to consider the efficiency, fairness, simplicity and transparency of tolls as currently applied to motorways in Sydney. It has also been asked to consider the impact of competition and the scope for competition and regulation to influence tolls and provider service performance.

These issues in total are broader than the matters covered by the existing 2014 Principles discussed above but essentially encompass them.

The Review has examined the 2014 Principles in light of its own terms of reference and developments over the past decade, in particular the considerable further development of the Sydney motorway network. It considers that a modified set of principles, as outlined below, would be useful in guiding toll setting in the future.

We recognise that several considerations may affect the specific application of the toll principles. For example, broader public policy considerations relating to transport in general and land use, may necessitate a particular focus at a particular time. Available technology, and the practicality of administration and enforcement may also influence decision-making. Further, we recognise that tolls are a funding instrument, not just an economic instrument for influencing road use.

Tolls have distributional impacts as well as economic and financial impacts. Tolls should not discriminate between users where they access the same road services at the same time for the same trip (horizontal equity), but tolls may impact differently on users where their capacity to pay varies (vertical equity). In practice, toll setting may be limited in the extent to which it can address issues of vertical equity.

<sup>&</sup>lt;sup>62</sup> Independent Toll Review. (2023, July). Public Hearing Transcripts. <u>https://www.treasury.nsw.gov.au/sites/default/files/2023-08/202308-toll-review-public-consultation-transcripts.pdf.</u>

<sup>&</sup>lt;sup>63</sup> Infrastructure Implementation Group. (2005). Review of Future Provision of Motorways in The Premier's Department.

The Review has considered the application in practice of distance-based tolling under the 2014 principles and also a proposal coming from the previous government's Toll Road Pricing and Relief Reform Review to have variable distance-based tolls set on a zonal basis. Both options have weakness from an efficiency and fairness perspective. For reasons discussed in <u>Chapter 9</u> of the report, we favour network tolls being set on a declining distance basis. This means that the kilometre rate charged declines the further the distance travelled. This means that motorists required to travel longer trips do not have to pay as much as would otherwise be the case.

## Proposed New Tolling Principles

#### Principle 1: Level and structure of tolls

Toll setting should be guided by the objectives of efficiency, fairness, simplicity and transparency.

- a. Tolls should have regard to the costs associated with the provision of toll road services as well as benefits. Declining distance-based tolls are consistent with the principle and have efficiency and equity advantages over fixed distance-based tolls or variable zonal distance-based tolls.
- b. In general, it is appropriate that beneficiaries pay for toll roads, for example, where benefits flow to the broader community then government contributions are appropriate. The extent of cost recovery achieved through tolls should reflect the extent to which a toll road's benefits are enjoyed directly by motorists.
- c. The process for setting tolls should be transparent to the public to promote understanding and allow for informed comment.
- d. The methodology for determining tolls should, so far as possible, be applied consistently across the entire network.
- e. Tolls should allow toll road operators to recover their costs incurred in financing the construction of the toll road including an appropriate (i.e. risk adjusted) return, and efficient operating and maintenance costs where relevant. It may be appropriate to apply specific charges to individual parts of the network to allow for cost recovery, for example infrastructure charges to cover the additional costs associated with constructing tunnels or bridges.
- f. Tolls should not be set at a level which would allow excessive, monopoly profits, or inefficient cost levels to prevail over time.
- g. Maintaining flexibility to adjust tolls over time in response to demand and supply changes is important.
- h. Toll setting should take into account fairness as well as efficiency considerations, bearing in mind that other more direct policy approaches may be preferable forms of intervention in relation to fairness.
- i. The different vehicle categories for tolls should balance impactor pays (the extent to which vehicles impose costs on the network and other users due to their weight and size set against the costs imposed by such vehicles on ancillary roads) and beneficiary pays considerations (a higher willingness to pay for travel time savings). For example, under this principle setting higher tolls for heavier and larger vehicles is consistent with efficient tolling.
- j. The structure of tolls should be simple enough to be readily understood by users and avoid creating perverse incentives for the use of the road network. Inconsistent approaches to the tolling of toll roads can cause distortions to traffic flows.

k. Tolling information should be communicated in real time to inform customer journeys and enable improved decision-making.

#### Principle 2: Consistency with competition policy

Toll road financing arrangements for motorways should be designed and implemented in a way that is consistent with the promotion of competition.

- a. Competitive pressure should be harnessed when setting tolls and assessing concessionaire bids (competition for the market) and when regularly reviewing tolls (competition in the market). Bidding for concessions should focus on ensuring tolls are set at competitive levels.
- b. Unsolicited proposals for toll road extensions should not be considered in isolation of the possibility of first modifying tolls to better manage traffic flows.
- c. Restrictions should not be imposed on the use of any road or public transport in order to enhance the financial viability of a toll road.
- d. Tolls should only apply where motorists have reasonable and effective untolled road options, including arterial roads, or public transport alternatives, except where community benefit may necessitate restriction on access to alternatives.

#### Consultation feedback

Feedback received in response to the Interim Report on the Proposed New Tolling Principles were mixed. Submissions from interested parties were generally supportive, with some suggesting additional measures such as not viewing toll efficiency in isolation, and ensuring fairness is extended to local communities. Submissions from members of the general public suggested that further consideration should be made to network management and congestion issues.

Figure 8.1 Have Your Say public commentary on the Proposed New Tolling Principles

**Greg:** The proposed tolling principles appear well-designed to tackle the core issues in the current landscape. By focusing on these four key areas, they offer a holistic approach to reforming toll practices, making them more aligned with the needs and expectations of the community. However, the effectiveness of these principles in addressing the issues will largely depend on how they are implemented.

**Saravanan:** Yes – it addresses pricing, congestion, inefficiency via a via distance to cost ratio, effective network tolling, independent authority to monitor tolling principles for review and reform.

#### Source: Public Consultation Submission, 2024

In response to the feedback received on the Interim Report some modifications to the Proposed New Tolling Principles have been made. These modifications particularly emphasise the desirability of ensuring tolls are set at competitive market levels rather that at levels which would allow for monopoly profits and/or inefficiency to prevail over the long-term.

## 9. Toll reforms

Recommendations:	
The opportunity for reform: moving to network tolling	<b>Recommendation 2:</b> The NSW Government should adopt network tolling. Implementation will require detailed planning, investment in infrastructure and close monitoring of impacts.
	<b>Recommendation 3:</b> The NSW Government should adopt declining distance- based tolls as the foundation of network tolling. This would lead to a simpler, more consistent and coherent system of tolls which aligns more closely to the criteria the Review has been asked to consider, namely efficiency, fairness, simplicity and transparency.
	<b>Recommendation 4:</b> The NSW Government should consider ways to reduce the level of tolls for Sydney motorists and explore funding sources, especially from within the tolling system, as a pathway to enable lower tolls.
	<b>Recommendation 5:</b> The Review recommends that the NSW Government further explore the possible application of the NPVR approach to determining concession lengths and removing traffic risk from concessionaires.
	<b>Recommendation 6:</b> The NSW Government should consider the role of current toll relief in supporting the transition to network tolling. Significant changes in toll relief may need to be phased over time.
	<b>Recommendation 7:</b> If the NSW Government chooses to extend or phase out toll relief, it should be with consideration of the following principles:
	i. Toll relief should be targeted to those that are most in need to the extent practicable through means-testing.
	<ul> <li>The assessment of need would take account of whether the motorist has viable alternative travel options, such as public transport.</li> </ul>
	iii. Toll relief should avoid distorting price signals (e.g. they should not make trips on the tolled network free unless there are good policy reasons for doing this).
	iv. Toll relief should apply network-wide.
	<ul> <li>v. Toll relief scheme design should support data collection for post-implementation evaluation of scheme performance against policy objectives. Publication of scheme performance against policy objectives could be contemplated as part of broader transparency measures for tolling, for example price monitoring.</li> </ul>

Recommendations:								
	<b>Recommendation 8:</b> In the transition to network tolling there may be a case for continuing toll relief schemes like the current TR3 (\$60 toll cap), which offer some relief and certainty to motorists. The NSW Government should however consider increasing the cap, for example to \$70, to ease the pressure on the government finances. Over time there should also be a move towards means testing in line with our toll relief principles.							
	<b>Recommendation 9:</b> When the M5 South-West becomes part of WestConnex concession in 2026, if the government still wishes to reform the rebate scheme it should fix the ongoing amount of the rebate at the then nominal rate. The scheme should be reviewed in five years time and reformed to align with principles in Recommendation 7.							
Future opportunities: using pricing to influence	<b>Recommendation 10:</b> Flexible pricing techniques including peak/off-peak tolls, and dynamic pricing should be available as part of a network tolling system.							
demand	<b>Recommendation 11:</b> The NSW Government should consider an initial focus on freight operators for peak and off-peak tolls.							
Updating vehicle classifications and charges	<b>Recommendation 12:</b> The NSW Government should further explore refining tolling classes in NSW, adopting a uniform definition for Class A vehicles, and a fairer classification for towed recreational vehicles and motorcycles.							
	<b>Recommendation 13:</b> The NSW Government should continue to apply toll multipliers to vehicles exceeding Class A vehicle dimensions.							
	<b>Recommendation 14:</b> The NSW Government should investigate a new classification for mid-class heavy vehicles to incentivise these vehicles to use toll roads.							
	<b>Recommendation 15:</b> Vehicle multipliers should be applied consistently across the toll road network.							
	<b>Recommendation 16:</b> The NSW Government should simplify the arrangements allowing public bus services to be exempt from tolls to ensure consistency across the network.							
Expanding toll coverage	<b>Recommendation 17:</b> The Review recommends consistent two-way tolling as part of the network tolling system. Practical issues with the implementation should continue to be investigated.							
	<b>Recommendation 18:</b> The NSW Government should investigate the scope of the tolled network in Sydney to achieve greater consistency, efficiency, and fairness.							

# There are significant challenges with the current structure of tolls

Toll roads are integrated into Sydney's metropolitan road and public transport network. The functioning and management of toll roads directly affect the overall efficiency and effectiveness of the city's transport system. This in turn affects people's opportunities to access employment, social opportunity, and services they want and need. In the long-term, this influences land use through decisions about where people live and work.

As <u>Chapters 4</u> and <u>5</u> detailed, there is a series of interconnected challenges stemming from the current structure of tolls and approach to managing toll roads, namely:

- Tolling regimes differ from road to road, influenced by the procurement decisions and available technology at the time of each road's development. Motorists encounter a variety of tolling methods based on location, including one-way and two-way tolling, fixed fees, distance-based tolls, or a combination thereof. Consequently, motorists pay varying tolls for journeys of similar length and quality (<u>Finding 4</u>, <u>Finding 5</u>).
- Regarding the level of tolls, originally, tolls were not set through competitive bidding, and the emphasis in procurement was often on factors other than toll fairness and efficiency. The evidence suggests that the current set of tolls in Sydney has not been optimally set to promote efficiency and equity (Finding 1).
- Exacerbating this inequity, toll escalation levels differ by road, according to original agreements. Consequently, motorists face varying rates of toll increases. In general, escalation is linked to CPI (often with floor provisions, preventing tolls from decreasing), and in some cases, the escalation is even steeper (like in the case of WestConnex, where, until 2040, tolls escalate at floor of 4% or CPI, whichever is higher) (Finding 6).
- Compounding these issues, the current approach lacks mechanisms to review and adjust toll levels. This means that if tolls become inappropriate over time, especially under changing economic conditions and land use, they are not reset to address fairness and efficiency, and issues get worse over time (Finding 6).
- The availability of alternatives to toll roads, such as untolled roads and public transport, varies depending on where motorists live. This leads to unequal options and a heavier reliance on toll roads, for example in areas of Western Sydney, where there are fewer alternatives. This limited choice, particularly in accessing key employment centres like the Sydney CBD, further exacerbates socio-economic inequalities (<u>Finding 8</u>).

The impact on motorists is significant. Tolls do not accurately reflect the costs of road provision and are widely perceived as high, with many motorists struggling to understand the cost of their journey (<u>Finding 10</u>, <u>Finding 14</u>). This distortion, perceived high cost, and confusion lead to inefficient use of the transport network. There are specific concerns regarding arrangements for motorcycles, towed recreational vehicles, and smaller trucks (<u>Finding 5</u>).

Toll relief measures have been introduced in response, but these add a further layer of complexity for motorists trying to make decisions about transport based on journey costs (<u>Finding 14</u>, <u>Finding 15</u>). Moreover, the effort required from motorists to apply for these measures, coupled with the lack of sustainability of relief measures, poses additional challenges (<u>Finding 15</u>).

#### The opportunity for reform: moving to network tolling

Given the extent of the current challenges, reforming the structure and level of tolls provides a key opportunity to improve their efficiency, fairness, simplicity and transparency.

We recommend moving to uniform network tolling, where the same methodology is used to set tolls across the toll road network. There was strong support for this from stakeholders, commenting both on our Discussion Paper and Interim Report, as detailed in <u>Figure 9.1</u>.

#### Figure 9.1 Stakeholder support for tolling reform

Stakeholder feedback supports a move to network tolling:

Western Sydney Regional Organisation of Councils: WSROC suggests that the NSW Government consider a number of network-wide pricing alternatives to address these inequities and ensure a sustainable funding source for the future, including: Distance based tolling with a total journey cap across multiple motorway links.

**Infrastructure Partnerships Australia**: Network tolling provides a practical and short-term option for improving utilisation of the Sydney Motorway Network without placing substantial cost pressures on the state budget. Indeed, if well designed and implemented, the development of an efficient tolling regime for the network could potentially contribute a new revenue stream to fund infrastructure.

**Transurban**: With much of the Sydney network becoming well established, we recognise that there is now an opportunity to revisit the current pricing regime in terms of fairness, simplicity and transparency for customers and a more efficient road network performance.

**NorthWestern Roads Group**: NorthWestern Roads Group supports the recommendation of network tolling to the extent that it can be achieved whilst maintaining the value of our investment and honouring contracts.

**Professor David Hensher (University of Sydney)**: My suggestion is a toll road repricing model that will move seamlessly, in the future, into a network wide solution. I like the idea of a peak, shoulder, off-peak distance-based charges that can be capped.

**Professor David Levinson (University of Sydney)**: (C1-C4, F) Tolls should be set on a consistent basis, system-wide.

Phillip Laird (University of Wollongong): To be preferred to present arrangements.

Source: Public Consultation Submissions, 2023. Public Consultation Submissions, 2024

In the consultation on the Interim Report, the public agreed that the current system was too complex and favoured a network-wide system instead, as detailed in <u>Figure 9.2</u>.

#### Figure 9.2 Public support for tolling reform

Public feedback supports a move to network tolling:

**Submission 256843:** Without a unified pricing system, the current structure is quite complex. I would recommend adopting a pricing system similar to that of the train system. This would include peak and off-peak pricing, with shorter distances priced slightly higher. However, as the distance increases, the price increment should decrease.

**Submission 254586:** More holistic network pricing is a step in the right direction and makes much more sense than the current patchwork, where one piece of road is free and another tolled, on an arbitrary or circumstantial basis, but why stop at highways – extending the logic would apply a toll on every single road in the city.

**Submission 252111:** I think network pricing regardless needs to happen. Its [*sic*] a horrible system now that absolutely means i will not use these roads unless i have to.

Source: Public Consultation Submissions, 2024

Network tolling is appropriate now that Sydney has a fully integrated network of toll roads.

Tolling on one toll road influences route choice and the journeys taken on the broader toll network. Variations in the basis for tolling can distort user decision-making causing inefficiency and unfairness. A uniform approach to tolling would be easier to communicate to the public, as compared to the multiple tolling arrangements currently in play (Figure 3.6), supporting transparency.

The transition to network tolling offers a chance to improve tolling outcomes in line with the Proposed New Tolling Principles, focusing on improved road network outcomes like quicker and more reliable trips. The design of reform would seek to ensure that most motorists are better off, potentially lessening the need for toll relief. If toll relief is still offered, it could be made more effective by directly lowering tolls, providing immediate benefits to all toll road users without requiring an application process for relief.

Network tolling in combination with institutional reform (discussed in <u>Chapter 11</u>) would be part of a system that improves tolling over time and adapts to changing conditions. In the near term, in parallel to changes to tolls, updates to vehicle classifications and charges could be made consistently network-wide. This approach provides flexibility for future changes to meet government goals and adapt to transport network shifts. Over time, a network-based tolling system can direct new investments, enhancing transport planning and traffic management.

### Navigating the transition from the current state

Moving to network tolling will involve a significant transition from the current state. As we consider setting a new structure of tolls based around declining distance tolls, we are guided by the Proposed New Tolling Principles, and responding to the constraints of the current environment.

Our immediate focus is on redistributing toll charges within the network, aiming to adjust how tolls are distributed across different sections without increasing the total tolls paid by motorists. However, if it is possible to identify appropriate funding sources we are also looking to reduce the overall level of tolls for motorists. The aim is to at least maintain the financial position of concessionaires. Over time, the substantial reforms discussed in <u>Chapter 11</u> will allow for ongoing management of tolls in line with the Proposed New Tolling Principles.

#### Our objectives in the initial reform

Our Proposed New Tolling Principles, detailed in <u>Chapter 8</u> have guided our approach. Key principles include:

- Principle 1 (overarching): 'Toll setting should be guided by the objectives of efficiency, fairness, and simplicity and transparency.'
- 1.a: 'Tolls should have regard to the costs associated with the provision of toll road services as well as benefits. Declining distance-based tolls are generally consistent with this principle.' This includes consideration of the concept of 'toll saturation'<sup>64</sup> – the point at which the collective toll cost becomes burdensome for drivers, prompting them to change their driving patterns to manage expenses.

<sup>&</sup>lt;sup>64</sup> Hensher, D. A., Ho, C. Q., and Liu, W. (2014). How much is too much for tolled road users: Toll saturation and the implications for car commuting value of travel time savings? Institute of Transport and Logistics Studies. <u>https://ses.library.usyd.edu.au/bitstream/handle/2123/19506/ITLS-WP-16-03.pdf?sequence=1&isAllowed=y</u>.

• 1.e: 'Tolls should allow toll road owners/concessionaires to recover their costs incurred in financing the construction of the toll road including an appropriate (i.e. risk adjusted) return, and efficient operating and maintenance costs where relevant. It may be appropriate to apply specific charges to individual parts of the network to allow for cost recovery, for example infrastructure charges to cover the additional costs associated with constructing tunnels or bridges.'

Additionally, the Review has sought to ensure that the reconfiguration of the toll system does not result in unexpected or sharp hikes in the cost of trips for users, thereby smoothing the transition to the new toll structure.

## The design of the initial reform needs to respond to variation in existing tolling arrangements

As described in <u>Finding 4</u>, there is no overall system of tolls, presenting significant challenges for the first phase of reform. For example, <u>Figure 5.3</u> shows the wide range of tolls, from \$3.13/km in the Cross City Tunnel to \$0.25/km for the M7, attributed to historical toll setting and escalation approach differences (<u>Findings 1</u> and <u>6</u>). Addressing these disparities has made setting a unified tolling strategy difficult.

Our initial reform aims to achieve application of a consistent tolling methodology across the toll network, aligned with the Proposed New Tolling Principles and uniform vehicle classifications. The proposed institutional reforms in <u>Chapter 11</u> are designed to facilitate ongoing management of the network tolling system and promote opportunities for further reforms to achieve reductions in tolls. The impacts of reform measures will need to be closely monitored over time to be assessed and if necessary adjusted to deal with new issues.

Our approach mitigates the risk of disruptive changes to traffic patterns because of sudden and abrupt changes in tolls. As the Grattan Institute observed on navigating the transition: 'There is merit in starting with a charge that the Government believes may be a little below rather than a little above the ideal. That is because the tolling would occur not on a blank slate, but in addition to various other measures such as the CBD parking levy and public transport fares that vary by time of day. It would be prudent for the Government to leave room to learn as it goes and refine the scheme in light of the community's response'.<sup>65</sup>

While this approach prioritises fairness and reduces the risk of disruptive toll increases, we acknowledge that some motorists could be disadvantaged initially. The goal of the initial reform is to ensure as many motorists as possible benefit overall. Toll relief measures should be co-ordinated with the new tolling arrangements.

<sup>&</sup>lt;sup>65</sup> Independent Toll Review. (2023, August). Public Consultation Summary Report. <u>https://www.treasury.nsw.gov.au/sites/default/files/2023-08/202308\_toll-review-public-consultation-summary-report.pdf.</u>

#### Distinct tolling arrangements of the Sydney Harbour Crossings

Tolling arrangements for the Sydney Harbour Crossings are distinct from those on other toll roads. Key differences include:

- Tolls on the Sydney Harbour Crossings have been increased infrequently, with the last two adjustments made in 2009 and 2023. In contrast, tolls on other roads are updated annually or quarterly. The infrequent toll increases for the Sydney Harbour Crossings has not aligned with the rising costs of maintaining the infrastructure and with the value provided to motorists, The tolling of the Sydney Harbour Crossings has not been consistent with the rest of the network, raising efficiency and equity concerns. As the Committee for Sydney submission noted, the cost of travelling across the Sydney Harbour Crossings is much cheaper than public transport alternatives, costing for example \$4.27 at peak for a two-way trip, compared to \$8 for a train and \$6.40 for a bus. This assumes both the train and bus journeys are 0–10km.<sup>66</sup>
- Tolls on the Sydney Harbour Crossings are only levied on vehicles heading towards the CBD. One-way tolling has significantly affected the pattern of travel around the Harbour areas, and the adoption of uniform two-way tolling will require a significant focus on traffic management issues.
- The Sydney Harbour Crossings charge all vehicles the same rate, in contrast to other toll roads where Class B are charged more than Class A. Further, a subscription scheme exists for motorcyclists, the E-Rider, which does not apply on other toll roads.
- Currently, only the Sydney Harbour Crossings implement peak/off-peak tolls. The Review supports peak/off-peak tolls where it benefits motorists, as it appears to do on the Sydney Harbour Crossings.

Because of these key differences, moving to a more consistent network tolling system would mean bigger changes and impacts for the users of these crossings than for the users of other toll roads. The Review notes that there are significant public transport alternatives for Sydney Harbour Crossings which are set to further improve with the opening of the Sydney Metro (Chatswood to Sydenham) and with additional capacity for buses on the Western Harbour Tunnel.

Close attention to the phasing of reforms affecting Sydney Harbour Crossings will be needed and should be closely monitored. The planned delivery of Western Harbour Tunnel, scheduled to open in 2028, further adds to the need for close monitoring.

# The Review recommends network tolling based on a declining distance tolling method

The Review has considered several different tolling methods to support a new structure of tolls under network tolling. These include the current tolling structures in place on Sydney's toll roads, namely:

- fixed tolls, with or without time-of-day charging as is currently in place on the Sydney Harbour Crossings
- distance-based tolls
- distance and flagfall tolls.

<sup>&</sup>lt;sup>66</sup> Committee for Sydney. (2024). Public Consultation on Interim Report 2024.

In June 2023, the Review released a summary of the work conducted with the assistance of private consultants, for the previous government (the Summary Report). We have further considered the option recommended in that work:

• distance-based charging that could vary by 'zone' reflecting different characteristics, including cost of construction of the motorways. Five different geographic zones were proposed across Sydney.

A similar corridor-based model was proposed by NSW Toll Road Partners in a submission in response to our Interim Report.

Additionally, in the Review's Discussion Paper, we sought input on:

• distance-based tolls, with or without a flagfall.

Alongside these tolling methods, the Discussion Paper contemplated that in the future a suite of supplementary tolling strategies could be considered to manage demand. These may encompass time-of-day tolls, featuring differentiated peak and off-peak charges, or dynamic pricing, where tariffs are modulated in real-time according to fluctuations in supply and demand. These potential enhancements will be explored in subsequent sections of this report.

Considering our terms of reference, the further modelling we have been able to do since the Interim Report and responses to the Interim Report our preference for a declining distance-based tolls option remains. The following sections describe our rationale.

#### The advantages of distance-based tolls

Under distance-based tolls, motorists pay a toll that is based on the distance they travel on the toll road network in a single trip, for example cents per kilometre. So, the toll reflects the motorist's use of the road, and the basis for the toll is simple to communicate.

There are precedents for distance-based tolls already in use on Sydney toll roads, on the Westlink M7 where a cap at 20 km also applies and WestConnex which employs a fixed distance-based toll with a flagfall as well as a cap.

Distance-based tolls are consistent with the old and Proposed New Tolling Principles discussed in <u>Chapter 8</u>. It is also the methodology most likely to be used in any future general road pricing initiatives. It is consistent with efficiency and fairness considerations.

The greater use of distance-based tolling was a key theme in the feedback to our Discussion Paper. Some submissions expressed the view it is unfair for motorists who use only a small portion of a motorway to be charged the same as motorists who go greater distances, as is the case for example on the M2.

Submissions from academics (Professor David Hensher, Professor David Levinson) referenced the use of distance-based approaches in combination with other features. Submissions from the NRMA, Road Freight NSW, Western Sydney Regional Organisation of Councils, Walk Sydney and GoGet all highlighted distance-based models as worthy of consideration.

Some stakeholders, in response to our Discussion Paper, expressed concerns about the potential disproportionate impact of distance-based tolls on motorists residing further from key areas. As the Transport Workers' Union Submission noted 'The distance-based methodology does not account for the fact that Western Sydney motorists live further out from central locations, and as such, are required to travel upon the full gamut of tolled roads and pay the maximum associated toll charge in order to access their destination. In effect, charges calculated via the distance-based methodology punish motorists living, working or frequently travelling to, from and throughout Western Sydney'. These sentiments were echoed in submissions from Penrith, Liverpool and Campbelltown Councils.<sup>67</sup> Implicitly these comments were referring to fixed kilometre distance-based charges.

#### **Options for implementing distance tolls**

Two conceptual approaches for implementing distance-based tolls, were presented in the Interim Report. Both sought to retain the advantages of distance-based tolls and soften the impacts on motorists who drive long distances:

- declining distance and infrastructure (access) charges
- distance and flagfall charging.

#### Declining distance and infrastructure (access) charge (preferred approach)

In this tolling method, the toll has two components – a distance-based charge, and a charge for access to infrastructure such as the Sydney Harbour Bridge and ventilated tunnels.

#### The declining distance base charge

Declining distance tolling reduces the per-kilometre cost as journey length increases. This tolling method embodies both efficiency and fairness by offering a reduced per-kilometre rate for longer trips. Currently, fixed distance-based toll roads employ toll caps to achieve similar objectives. However, toll caps have perverse incentive effects by creating points where further travel is 'free'. In contrast, the declining distance approach values each kilometre travelled. Declining distance tolling also recognises the differential impact of journey lengths on motorway capacity. Shorter trips, involving more lane changes for entry and exit, disproportionately impact motorway capacity compared to longer journeys, which are less disruptive.

#### Calculating the declining distance charge

Four concepts underpin the declining distance tolling approach:

- Distance Travelled the total distance travelled by the motorist on the tolled motorway network.
- Distance Segment this term refers to a specific portion of the motorist's journey on a toll road; the motorist's journey is divided into multiple 'distance segments', which are tolled differently.
- Initial Segment Toll the initial \$/km rate applied to the first Distance Segment.
- Declining Distance Rate the rate at which the toll decreases for each additional segment.

<sup>&</sup>lt;sup>67</sup> Transport Workers' Union. (2023). Have Your Say submission. Independent Toll Review.

#### A worked example

Assume factors that determine the declining distance charge are:

- Distance Travelled is 18 km.
- Distance Segment is 4 km.
- The Initial Segment Toll is \$0.65/km.
- The Declining Distance Rate is 15%.

Calculating the toll:

- First Segment (4 km): \$0.65/km initial segment toll, so 4 km x \$0.65 = \$2.60
- Second Segment (4 km): \$0.65 initial segment toll reduced by 15% = \$0.55/km, so 4 km x \$0.55 = \$2.21
- Third Segment (4 km): \$0.55 reduced by 15% = \$0.47/km, so 4 km x \$0.47 = \$1.88
- Fourth Segment (4km): \$0.47 reduced by 15% = \$0.40/km, so 4 km x \$0.10 = \$1.60
- Fifth Segment (2 km): \$0.40 reduced by 15% = \$0.34/km, so 2 km x \$0.34 = \$0.68
- Adding up the costs for each segment, the base declining distance toll is \$8.96.

#### Infrastructure access charges

The toll's second component, an infrastructure access charge, applies to specific parts of the network, to recover costs of building and maintaining high-value structures such as the Sydney Harbour Bridge and ventilated tunnels.

Historically, significant costs incurred by the expansion of the motorway network, particularly in the construction of bridges and tunnels, have been recovered through tolling. This approach is deemed equitable as it ensures that users benefiting from the infrastructure contribute to its costs, and efficient pricing is reflective of costs. The proposed infrastructure access charge aligns with this approach, adhering to our reform objectives and the Proposed New Tolling Principles. It also sets a precedent for future tolling on projects by indicating that construction and maintenance costs will be reflected in tolls, supporting financial sustainability.

Factors we considered in setting the initial level of infrastructure charges include:

- Consideration of existing network tolls. For example, the infrastructure charge for the Eastern Distributor appears high when considered as a standalone, but when combined with the declining distance charge, approximates current northbound charging.
- The calibration between higher access charges and lower charges per distance when redistributing tolls. Including the infrastructure access charge in the tolling methodology means that the base declining distance charge can be kept lower, given the Review's objectives of maintaining total revenue generated from tolls in the initial reform.
- Setting charges to maintain road usage, balancing efficiency, and fairness, and avoiding traffic diversion.

#### How tolls would be calculated under the declining distance and infrastructure charge

Under this tolling method, all journeys result in a declining distance base charge, and some journeys also incur infrastructure access charges.

Consider a journey which involves travelling 2 km of toll roads, such as on the M7. The only charge that applies is the base declining distance charge. This is \$1.30 (2 km at \$0.65/km).
Conversely, consider a journey that involves travelling 2 km on toll roads and crossing the Sydney Harbour Bridge. Here, an infrastructure access charge applies as well as the base declining distance charge. Based on the tolling structure modelled in <u>Chapter 11</u> for Network Toll Restructure and Reduction, the total toll is \$6.00 in the peak period (\$1.30 declining distance charge and \$4.70 infrastructure access charge).

## Distance and flagfall charging

In this tolling method, the toll has two components. First, motorists pay a fixed flagfall component to access the toll road. This flagfall component is the same regardless of the distance travelled on the toll road network. The flagfall charge would be payable once per trip whenever and wherever the motorist enters the tolled network. Second, motorists pay a variable distance-based component calculated using the relevant per-kilometre rate. In practice, for example WestConnex, this model has involved a third component, a cap on charging after a certain distance is travelled.

A mixture of fixed (in this case flagfall) and variable tolling (in this case distance) is an accepted approach for infrastructure charge, reflecting the cost to provide the infrastructure, as well as the impacts of use. For example, flagfall and variable distance-based charges are currently in place for WestConnex.

The balance between the flagfall and distance components can be adjusted to promote efficiency and could provide flexibility for future toll setting. Higher or lower flagfall charges could for instance be combined with lower or higher per-kilometre distance charges. Higher flagfall charges will discourage some short distance trips on the tolled road network which are more disruptive to the traffic flow on toll roads than longer trips. In a similar way, the components of the declining distance-based charge could also be varied over time as considered appropriate.

## The Review considers that the concept of declining distance has advantages over distance and access tolls

While the two models take distance charging as their foundation, there are some key areas of differentiation which make declining distance and infrastructure charging more attractive:

- Declining distance and infrastructure charge is more equitable in current circumstances. Many submissions noted the challenges motorists in Western Sydney in particular face, with the need to drive longer distances to access employment centres and services. Moreover, residents in these areas have less access to public transport services.
- The infrastructure component of declining distance and infrastructure charge tolling better aligns user benefit with tolling and makes the costs of providing the network more transparent to motorists.
- The declining distance tolling model offers more flexibility to adapt to changes in conditions, both in the transition to network tolling and over time. Under declining distance, the initial segment toll, the declining distance rate, the length of distance segments, and the level of infrastructure charges can be adapted to circumstance. This is demonstrated by our sensitivity analysis in <u>Chapter 11</u>, which show how modifications to each of these tolling elements can shape network outcomes like total tolls paid, traffic volumes or average toll paid. Under fixed access, the available levers are the access fee, the constant distant charge and when the cap applies.

- The price signals from declining distance and infrastructure charge are more finely tuned and appropriate, compared to the abrupt transitions with a flagfall and distance-based charge with cap features. The cost per kilometre decreases gradually as the distance increases. In contrast, the flagfall fee model has a more abrupt cost structure –there's a higher cost for short trips due to the fixed flagfall fee, but the variable fee remains constant per kilometre until charging stops with a cap. Where there is a cap in the flagfall and distance approach, the implicit zero toll distorts motorists' behaviour.
- As the initial charge with declining distance and infrastructure charge would generally be lower than the flagfall in flagfall and distance tolls, there would be less discouragement on short trips when there is unused capacity.

#### Stakeholder views on the declining distance and infrastructure charge

Stakeholders expressed mixed views on the declining distance approach, with general support but some concerns about perceived complexity and how easy the system would be for motorists to use. Figure 9.3 Feedback on preferred tolling model

## Comments on the combined declining distance and infrastructure charge approach

**Transurban:** Transurban supports restructuring distance-based pricing coupled with infrastructure charges for major tunnel structures.

**Greg:** The declining distance and infrastructure charge model is a thoughtful approach that seeks to balance efficiency and fairness while attempting to simplify how tolls are understood by the public. However, the success of this model hinges on careful implementation and clear communication. It's crucial that the tolling authorities provide detailed, understandable information about how tolls are calculated and how revenue is used. This transparency is essential not only for gaining public acceptance but also for ensuring that the toll system is seen as fair and justifiable.

In conclusion, this model presents a forward-thinking strategy for reforming toll pricing in Sydney, aligning with broader goals of transportation equity, efficiency, and sustainability. However, ongoing evaluation and adjustment based on actual usage and economic impact will be vital to refining the model to best serve the needs of all stakeholders.

**Rob:** I think the declining distance charge can be dealt with by applying the same distance cap to all roads and adjusting the per km rate. I'm not in favour or an infrastructure charge. I think that can be adequately dealt with by setting the per km rate. An infrastructure charge just distorts the real per km rate and penalises users who travel short distances. A uniform per km rate across all toll roads provides the most efficient, simplest, most transparent and fairest outcome for all users.

#### Comments on declining distance

Many stakeholders focused on the declining distance only in their comments:

**Transport Workers Union:** The review's suggestion of a declining distance-based system for toll structure is a step in the right direction. This methodology of charging tolls could benefit heavy vehicle drivers, as they travel network lengths greater than that of a typical commuter on a daily basis.

**NorthWestern Roads Group:** NorthWestern Roads Group supports the concept of distancebased tolling. Westlink M7 was the first electronic motorway in Sydney that implemented distance-based tolling, a feature which has since been adopted on WestConnex as well as recommended by the Interim Review. **Submission 254079:** I strongly support the implementation of a consistent and fair network price. The further you travel, the cheaper it should be. But it should be consistent across all motorways, easy to understand, and communicated easily.

**Submission 259536:** I would prefer just a declining distance rate structure as it seems fairer & more efficient/simple. Having infrastructure charges runs the same risk of incentivising toll users to circumnavigate the access points incurring the additional charge leading to congestion/bottle necks of traffic else where.

Vince: I support a declining distance charge, however I would like to see it introduced in a way that encouraged more heavy vehicles to use tollways, to relieve the stress on local and arterial roads.

**Submission 254586:** Any pricing system won't be consistently understood, and I'd suggest that declining rates are harder to understand and mentally model, perhaps better expressed as analogous to volume or bulk discount. That said, rates that decline by distance travelled would be less unfair for those who need to travel long distances, and seem simpler and more efficient than the current state.

**Submission 252111:** I think this is a logical approach. Particularly penalising those who would use a toll road for just a few short km – treating the Motorways as local road. These are wasted trips straining that network – remove these by charging more you pick up efficiency. If you are travelling long distance, it should be in your best interest to see value of a toll road.

#### Source: Public Consultation Submissions, 2024

Reflecting on this feedback, it is important to remember that the declining distance approach will not be in addition to the myriad of tolling structures in place, it will replace all of them with one consistent method. This alone will make things simpler for motorists. Our proposed tolling system will introduce a consistent network-wide approach that is fairer, as discussed elsewhere in the report.

The Review has also emphasised the need for decision support tools for motorists to help them navigate the transition, addressing some of the concerns expressed. We agree that there will be a need for education and information for motorists about the new approach and have recommended enhancements in these areas. We anticipate that motorists will adjust to tolls over time. In practice, currently motorists navigate toll structures of similar complexity, for example the WestConnex toll structure of flagfall, distance charge and cap, different tolling approaches for different roads and multiple toll relief schemes.

Approaches suggested as alternatives by groups such as the NSW Toll Road Partners also involve complexity, for example different tolls for different corridors, but without the advantages of flexibility, fairness and efficiency of the declining distance approach.

Therefore, we do not agree that the declining distance approach is more complex or unfair than the existing or alternative tolling systems. On the contrary, we believe that it is a simpler and more transparent way of charging for road use, and that it will encourage more efficient and equitable use of the toll road network.

#### Indicative toll structure for the declining distance and infrastructure charge approach

We have developed indicative tolls through initial traffic modelling, which is set out in <u>Figure 9.4</u> and 9.5 below. <u>Chapter 11</u> details the traffic modelling approach.

Figure 9.4 Indicative declining distance charge components Network Toll Restructure and Reduction

Toll for first distance segment	\$0.50/km
Distance segment length	4 km
Declining percentage	15%

Source: Independent Toll Review

Figure 9.5 Indicative infrastructure charges Network Toll Restructure and Reduction

Sydney Harbour Crossings	\$4.20 (Peak) \$1.60 (Off-peak)
Cross City Tunnel	\$3.00
Eastern Distributor	\$3.00
Lane Cove Tunnel	\$2.00
NorthConnex	\$2.00
WestConnex – M8	\$0.50
WestConnex – M4-M8 Link (Haberfield to St Peters)	\$1.00
WestConnex – M4-M8 Link and Rozelle Interchange (Haberfield to Rozelle)	\$0.50
WestConnex – M4-M8 Link and Rozelle Interchange (St Peters Interchange to Rozelle)	\$0.50
WestConnex – M4 East Tunnels	\$0.50
WestConnex – M5 East Tunnels	\$0.50
M6 Stage 1	\$0.50

Source: Independent Toll Review

# The Review has considered and does not endorse tolling by geographic zones or corridors

In our Interim Report, we explained that we had considered, but would not progress, zonal tolls.

The zonal tolls option we discussed in the Interim Report was to divide Sydney into five zones and charge tolls based on the number of zones crossed. This was the preferred option documented in the Summary Report, work that was completed prior to election of the Minns Labor government.

We rejected this option due to the weak relationship between the toll zones and the actual costs of road usage and the inequity associated with users being charged different distance rates according to where they travelled on the network. Such a misalignment could potentially lead to economic inefficiencies and pose challenges in policy implementation. Zones are arbitrary and need to be amended over time. Furthermore, the zonal system was seen to add complexity, particularly when navigating across different concessions. It also raised concerns that the zones might be perceived as 'pricing access' to specific areas of the city, rather than focusing on the actual journey.

We have the same concerns with the alternative approach put forward by NSW Toll Road Partners in their submission.

Figure 9.6 Alternative tolling model provided by NSW Toll Road Partners

'It is each of our view that the NSW Government should further develop and work with concessionaires to model the impact of a distance-based per kilometre rate (DBR) regime across the road network. In such modelling, the per kilometre rate could vary between motorway corridors, reflecting the level of congestion and availability of alternative transport modes in each.

We each believe a corridor-based DBR has the potential to deliver the most benefits by providing greater operational efficiency across the network and a better community outcome. These could be coupled with the appropriate Infrastructure Charges to better reflect the cost of delivering and operating complex tunnel infrastructure, as well as two-way tolling should the Government choose to implement this. Noting that Infrastructure Charges could be incorporated into the DBR for the tunnels.'

#### Source: NSW Toll Road Partners Letter to the Interim Report, 2024

We are not convinced that the corridor-based DBR proposed by NSW Toll Road Partners is a suitable model for network tolling, noting it has not yet been specified in any detail. Our objective is to have a uniform and coherent and enduring tolling methodology applying across the toll network, which the corridor approach would not achieve.

A corridor-based DBR would be similar to zonal tolls, which we considered in developing our Interim Report, and rejected as it can be arbitrary and distort travel choices.

Furthermore, we note that the corridor-based DBR was developed in response to concerns about Network Toll Restructure in the Interim Report, which was provided for illustrative purposes, not as a preferred option of the Review. As was noted in the Interim Report our modelling was continuing and a further update on this is provided in this Final Report. We consider that our refined and updated modelling shows declining distance to be more attractive and feasible than the corridorbased DBR. We expect that the government will need to further update the modelling results before implementation of network tolls.

# We recommend that government act to reduce the level of tolls

Across our findings, we have identified significant challenges with the level of tolls, and the burden of tolls on motorists. This has been addressed to date with toll relief, but as we find, toll relief is unsustainable and has considerable challenges, as explained in <u>Finding 15</u> and <u>Finding 16</u>.

An issue with the current toll relief schemes is that they are increasingly costly, as well as complicated to administer. They also have unintended consequences, such as benefiting motorists with higher incomes who are more likely to claim rebates, according to the Independent Toll Review Survey. Moreover, they benefit toll road operators by increasing traffic volumes, while imposing additional expenses on the government. Motorists may also face difficulties in calculating their toll charges and applying for rebates.

As an alternative to toll relief, we propose government act to reduce the level of tolls and manage the transition to network tolling. To explore this concept further, we have modelled options for government to consider, namely:

- A scenario where the M5 Cashback is retained, as per existing policy commitments, and the additional revenue flowing to government from two-way tolling and the introduction of heavy vehicle multipliers on the Sydney Harbour Crossings but no further toll relief is provided (Network Toll Restructure low case toll reduction).
- A scenario where government applies funding sources directly to reduce tolls. This approach would lower tolls for the benefit of all motorists. Such a reduction in tolls would aim to increase the use of the toll road network and potentially lead to efficiency gains for all motorists by encouraging a more balanced distribution of traffic across both tolled and untolled roads and reducing travel times overall. However, this strategy may limit the government's ability to allocate funds to other priorities. In this scenario the M5 Cashback is also retained (Network Toll Restructure and Reduction).

Based on the modelling results in <u>Chapter 11</u>, we recommend government act to reduce the level of tolls motorists pay in the transition to network tolling. The Review acknowledges that a transition plan may be required to allow motorists to adjust to toll relief changes and network tolls.

## Toll system funding sources

Given government budget constraints, the Review explores 'toll system funding sources' to lower tolls. These toll system funding sources are financial opportunities that encompass cost savings and revenue streams identified across the entire toll road network which would benefit both government and concessionaires.

By developing funding sources, network tolling could be implemented in a way which is revenue neutral for concessionaires. Keeping concessionaires whole and honouring expectations were important factors underlying our approach.

Alternatively, government could regulate for lower tolls. This would, however, imply over-riding existing contracts. We have not followed this path but recognise that it is always open to the government to do so if it considers alternative approaches to toll reform are not delivering sufficient public value in a timely manner.

Implementing or realising potential funding sources will likely require revising existing concession agreements, and collaboration between government and concessionaires will be crucial to determine whether they can capture and share sufficient value they create with motorists. It is noted that the complexity and implementation timelines for each funding source will vary and should be further considered by government in the context of other budget and policy constraints.

As part of the Review, and following engagement with shareholders, a range of value sources embedded in concessions are identified that can add to an amount of \$1.5 billion to \$2 billion. This should be subject to further analysis and engagement with individual concessions and corresponding shareholders to ensure it is value for money for taxpayers and delivers value to motorists.

The Review is not inclined to support measures which would further enhance the dominance of Transurban or avoid existing contract performance requirements however we are encouraged by the shared view that funding sources exist within the system that can be used to reduce tolls.

As the value of potential funding sources will be dependent on collaboration and negotiation between government and concessionaires, our discussions have omitted any quantification of potential funding sources we have outlined below. The Review's recommendations were developed with a view to balancing funding sources that deliver the greatest quantum with broader considerations such as the impact they may have on competition, feasibility and timeliness to implement, and alignment with government policy.

Listed below are some potential opportunities that should be considered further by government.

## **Government revenue**

The first funding source considered by the Review to reduce tolls across the network was the standardisation of tolls across Sydney Harbour Crossing toll roads. As the tolls from these toll roads flow to government, this will increase government revenue through measures like two-way tolling and the introduction of heavy vehicle multipliers on the Sydney Harbour Crossings. This also ensures better alignment of Sydney Harbour Crossing tolls with the tolls on other motorways, given that Sydney Harbour Crossing tolls have not increased like the tolls on other toll roads for a long time.

Our assumption here is that government will use this incremental revenue from Sydney Harbour Crossings to cross-subsidise lower tolls on other privately concessioned toll roads. This assumption was adopted in the traffic modelling undertaken as part of the Review. Accordingly, Network Toll Restructure applies this funding source from commencement to lower tolls across the network. This means however that it is not available to further reduce tolls as a funding source in Network Toll Restructure and Reduction.

Another potential source of funding to help reduce tolls, and related to the Sydney Harbour Crossings, would be the wider use of peak/off-peak tolls across the network. This would have the added benefit of also assisting with management of traffic.

## **Government costs**

Concessionaires obtain value uplift through induced demand as a result of government providing toll relief to motorists. In effect, toll relief reduces costs for motorists and allows for greater use of the motorways. This value should be passed back to government.

Transurban has stated that 'it has not identified any significant traffic uplift due to toll relief schemes'.<sup>68</sup> It may be that toll relief is holding up demand which would otherwise have fallen. Alternatively, the modelling used may not be sufficiently precise to pick up these effects. In any event, we are not convinced that there has been no benefit to the company from the government's significant public investment in toll relief schemes.

Prioritising toll relief schemes for those that need it most can reduce government's toll relief costs and allow these savings to be repurposed to help reduce tolls for all. Further information on the future opportunities for toll relief can be found in the section titled 'Principles for Toll Relief' in this chapter below.

<sup>&</sup>lt;sup>68</sup> Transurban. (2024, May 14). Public Consultation on Interim Report 2024.

## **Concessionaire revenue**

The Review is not inclined to support measures which would further enhance the dominance of Transurban or dilute concessionaires' existing contract performance obligations. We are however favourably inclined toward initiatives which would reduce costs and we would not be opposed to increasing the length of concessions – provided that there were effective financial and traffic performance oversight measures in place, and greater flexibility to adjust future tolls as needed than is currently the case under existing concessions.

Extension of concessions provides for additional toll revenue collection post the existing concession term and enables a lower toll to be introduced now. Increasing the length of concessions can potentially generate significant value. The highest value is for extensions to concessions that are scheduled to end soon. This should only be contemplated in support of substantial reform, as is proposed in this report. Bearing in mind that the date for the end of concession contracts is somewhat arbitrary, having regard for the fact that life of asset greatly exceeds the period of tolling under current contracts. This means the contracts are designed to recover financial investment early (say over thirty years) rather than spreading the cost over the entire service life of the infrastructure (say over one hundred years). On that basis, there is an intertemporal efficiency case for extending the duration of tolls over the long-term useful life of the infrastructure assets, however this requires caution and deeper consideration than it has been given in this report, including for example, the competition issues and the reform issues referred to elsewhere in this report.

The value to concessionaires of an increase in the term of a concession cannot be measured on the basis that a dollar today is worth the same as a dollar in the future. Obviously, a market-based discount rate needs to be applied to the value of the future dollar such that its present value can be determined. It is our view that the discount rate used to calculate the present value of concession extensions should take into account what seems to be a significant revealed preference of investors and Transurban to hold long-term investments. A more comprehensive proposal to remove traffic risk from concessionaires.

The treatment of traffic risk gives rise to another potential funding source associated with concessionaire revenue. Traffic demand risk is currently allocated to concessionaires, but they have little capacity to influence traffic on the roads, in part because of the rigidity of tolls under the concession agreements. Government has greater ability to influence traffic through public investment in toll relief, as well as other economic growth, population, planning and land-use policies (the induced traffic benefits from the public investment in such policies currently flows through to concessionaires with limited opportunities for this to be shared with government or motorists). There is a case for traffic demand risk to be at least better shared between government and concessionaires. A better allocation and treatment of traffic risk could enable a reduction in the return required by concessionaires and their investors.

We acknowledge that existing concessionaires and their investors are sensitive to suggestions of change in this area and proposals to do so will need to be carefully developed by government.

Traffic risk is one of the factors which impacts on concessionaires' expected rates of return. This risk could be removed by changing the approach to determining the length of concessions. The problem now is that concessionaires only have the designated length of their concessions to recover the revenues reflected in their BCFM traffic forecasts attached to their contracts. These revenues are required to be met if the expected Internal Rate of Return (IRR) indicated in the BCFM is to be achieved.

An alternative approach which would remove traffic risk and enable the expected IRRs to be achieved would be to set the concession length according to when the concessionaire was just able to achieve the Net Present Value Revenue (NPVR) underpinning the expected IRR. This will be when the NPVR forecasted just matches the NPVR actual, which will be when the traffic forecasts are realised.

Removing traffic risk would open the door for negotiations with concessionaires on what their IRR could be reduced to whilst still leaving them whole on a risk-adjusted basis. This would translate into a lower NPVR which could in turn help fund lower tolls.

Feedback from existing investors is that their investments were predicated on specific risk and return requirements and that exposure to traffic risk was a fundamental consideration in their decision to invest. We therefore acknowledge that altering the risk and return profile of concessionaires part way through a concession term may be problematic for existing investors.

There are a range of initiatives affecting tolls that will impact on concessionaire revenues. Some of these impacts, like toll relief, have been difficult to assess but could be assessed using the NPVR approach outlined above in relation to concession lengths. If toll relief impacted on a concessionaire's traffic it will be reflected in actual NPVR and thus ultimately affect concession length.

Similarly, the introduction of network tolls could be expected to enhance overall traffic growth and impact actual NPVR. The application of time-of-day tolls at different parts of the network would be another initiative, the impact of which on concessionaires would be reflected in actual NPVRs.

## **Concessionaire costs**

There may also be opportunity for government to work with concessionaires to reduce toll road operator costs through easing unnecessary requirements under the concession agreements.

Operational consolidation across toll roads may unlock operational cost savings or synergies which increases net revenue benefits that concessionaires can provide for the benefit of motorists. However, the opportunity cost of further entrenching the market positions of incumbents would need to be weighed up with any consolidation options. Further work would be required for government, in collaboration with concessionaires, to fully understand the value (and opportunity cost) that can be derived from this.

There are also possible benefits concessionaires could gain through restructuring their existing financing arrangements such that they are more efficient. This may include consideration by government to explore amortising concessionaires' debt over a longer period than permitted under the existing concessions. For example, rather than concessionaires having to fully pay down debt by the end of a concession period, some of the debt could be paid by the State at the end of the concession, resulting in a potential cost saving for concessionaires which could be used to reduce tolls. This would enable government to facilitate more efficient debt structures which can better align debt levels with the useful life of the asset, which typically exceeds the length of the existing concessionaires' debt is likely to have financial and budgetary impacts for the State and would require careful consideration by government.

# The considerations for existing toll relief as part of the transition to network tolling

Where possible, upfront tolls should be efficient, fair, transparent and simple.

The aim of our proposed toll reform, including network tolling, adopting a declining distance and infrastructure charge tolling approach, and government acting to lower the level of tolls, is to establish tolls that reduce the necessity for toll relief or minimise the circumstances in which it is applied. In the transition to this future state, there is a consideration for government as to how to manage current toll relief programs.

In our Interim Report we outlined a set of principles to guide future government decision-making. Feedback and further analysis has led to further refinement of our suggested approach. This is reflected in the expanded discussion and evidence base for <u>Finding 15</u> and <u>Finding 16</u>, and updates to <u>Appendix E</u> Toll Relief Schemes. As part of this process, we have updated the toll relief principles to include principle v, reflecting the importance of monitoring and evaluation.

Additionally, we have removed a former principle, that 'toll relief should take into account the availability of alternative transport options, in particular, alternative non-tolled roads and public transport. Any toll relief rebates should consider public transport access levels. Relief should be scaled based on whether motorists have viable public transport options.' While we remain of the view that these are important policy considerations, the challenges of applying these principles across the network are considerable. In the strictest sense application would potentially be dynamic, which could result in motorist confusion. We also acknowledge that public transport accessibility involves both service availability and suitability for individual travellers. Some areas may have frequent public transport services, yet individuals in those areas may face access barriers that render public transport options unviable.

## Principles for toll relief

The design of specific toll relief programs (in addition to any general toll reductions) should apply the following principles.

- i. Toll relief should be targeted to those that are most in need to the extent practicable through means-testing. Targeted toll relief rebates are less simple but may be necessary to promote fairness and efficiency. Where more targeted rebate schemes are necessary, they should be means-tested, considerate of whether the motorist has viable alternative travel options such as public transport, preserve price signals and be network based.
- ii. The assessment of need would take account of whether the motorist has viable alternative travel options, such as public transport.
- iii. Toll relief should avoid distorting price signals (e.g. they should not make trips on the tolled network free unless there are good policy reasons for doing this). Tolls are an important price signal which influence how customers use the network. Toll relief rebates which make some trips on the current tolled network toll-free can change the attractiveness of toll roads relative to untolled roads and public transport. By making some trips free, there is a risk of reducing the economic benefits realised from toll roads through induced demand and increased congestion.
- iv. Toll relief should apply network-wide. Means tested toll relief rebates should apply to all parts of the toll road network. This is not the case with, for example, the cashback scheme which is currently available for travel on the M5 South-West and was previously available on the M4. Asset-specific toll relief leading to different prices for similar trips on the toll road network is not considered to be fair.
- v. Toll relief scheme design should support data collection for post-implementation evaluation of scheme performance against policy objectives. Publication of scheme performance against policy objectives could be contemplated as part of broader transparency measures for tolling, for example price monitoring.

Additionally, if government continues to provide toll relief in the form of rebates beyond 2026, they should consider the potential benefit concessionaires would receive and work with concessionaires to ensure any windfall is returned to government to fund the initiative.

## Current toll relief schemes as assessed against the toll relief principles

When we consider the design of current toll relief schemes against these principles, we see that few schemes are well aligned with the principles for future toll relief (Figure 9.7), suggesting a need for future redesign.

Further, the rationale for many of the current toll relief schemes would be lessened under our proposed reforms and there could be a phase out or redesign. Some schemes will be made redundant, for example the Large Towed Recreational Vehicle Toll Rebate would no longer be relevant if changes to vehicle classifications are enacted.

Toll relief scheme	Objective	Alignment to principles				
		i	ii	iii	iv	v
TR1: Registration Relief (not current, commenced July 2018, ended June 2023)	Reduce impact of tolls on customers who use toll roads frequently.	N	N	N	Y	Y
TR2: Toll Relief Rebate Scheme, 40% discount, (current, commenced July 2022)	Reduce impact of tolls on customers who use toll roads frequently.	N	N	N	Y	Y
TR3: \$60 Toll Cap (current, commenced January 2024)	Reduce impact of tolls on customers who use toll roads frequently.	N	N	N	N	Y
Large Towed Recreational Vehicle Toll Rebate (current, commenced June 2020)	Provide a mechanism for large recreational vehicles to be charged the same amount as a light vehicle when detected as a heavy vehicle.	N	N	N	Y	Y
M5 Cashback	Provide relief to eligible motorists using the M5, reflecting a 1995 election commitment.	N	N	N	N	N

Figure 9.7 Current and recent toll relief schemes, their objectives and alignment to toll relief principles

Toll relief scheme	Objective	Alignment to principles				
		i	ii	iii	iv	v
Truck Multiplier Reduction (current, commenced January 2024)	Stated objective: The truck multiplier rebate is aimed at reducing traffic on local roads by encouraging trucks to use toll roads and support the trucking industry by reducing cost of transportation of goods for customers. Objective in the context of the tolling principles: Balance impactor pays/beneficiary pays. Reduce truck use of local roads to benefit local communities; set tolls at levels where they are value for money for trucks.	γ*	Y	Y	Y	Y

\*The Truck Multiplier Rebate has clear eligibility criteria applied to the scheme, limiting its scope.

Of the schemes in <u>Figure 9.7</u>, there is an ongoing commitment to the M5 Cashback beyond the horizon of reform. But as <u>Figure 9.7</u> illustrates, the scheme is not well aligned to our forward-looking principles for toll relief.

We recommend conducting a review of the M5 Cashback's impact on fairness and efficiency in five years and realign the scheme with the toll relief principles we recommend. This would assess how well the scheme aligns with tolling principles and explore ways to manage its financial impact. IPART could be considered to lead the review, as part of a broader role in tolling we discuss in <u>Chapter 11</u>. As Transurban suggested, 'IPART could play an important role overseeing rebates administered by the NSW Government'.<sup>69</sup> Further we recommend that the rebate amount is fixed at the then nominal rate and does not continue to escalate in line with toll increases. This will support motorists' ability to transition away from a geographic specific scheme.

The Review observes that TR3 (\$60 toll cap) increases motorist willingness and comfort using toll roads by providing an upper limit on weekly spend. However, we suggest that keeping the cap at \$60 may not be financially viable, especially in the near term as when in the absence of toll reform tolls will continue to increase. We consider that the cap limit could be increased, which would still offer some relief and certainty to motorists, but also ease the pressure on the government finances.

## Implementation considerations for network tolling

Moving to network tolling will offer significant benefits but will require changes to toll setting, toll collection arrangements and agreements with concessionaires, which are discussed in <u>Chapter 11</u> on implementing institutional reform.

Additionally, there will be considerations related to community acceptance, enabling infrastructure investment, and impacts on the transport network, which are discussed in the following sections.

<sup>&</sup>lt;sup>69</sup> Transurban. (2024, May 14). Public Consultation on Interim Report 2024.

## Community acceptance and perceptions of fairness

The aim of network tolls is to improve outcomes for most motorists. The reform targets a fairer and more efficient toll structure that would deliver a more efficient road network. Anticipated efficiency gains include reduced and more predictable travel times due to the overall road network operating more effectively.

The early stages of our reforms focus on implementing network tolls within the existing revenue envelope. Even with our recommended toll subsidy, it is not feasible to achieve reductions in tolls and travel times for all users at this time due to this necessary constraint. Indeed, to rebalance tolls in the network to better reflect fairness criteria, it is probable that some users will pay less, while others will pay more or approximately the same.

Ongoing assessment of impacts of the toll changes across Sydney, with a particular focus on areas experiencing relative disadvantage will be necessary. The Review has been monitoring these matters with analysis and modelling as part of the process of developing recommendations.

More broadly, all travellers (including those on public transport) may be impacted by a transition to network tolling. During this period, the adjustments in tolls will necessitate broader monitoring of the Sydney transport network including a more deliberate consideration of travel times and routes. Ongoing consultation will be crucial to refine the design and foster community acceptance. There is also an opportunity to enhance community confidence by implementing the reforms identified in <u>Chapter 13</u>, aimed at improving the motorist experience. Demonstrating early benefits of the reform for the community and visible improvements in the communication of tolling information and resolution of complaints can foster openness to more substantial reforms.

After implementation, ongoing monitoring and adjustment of tolls, in response to the emerging benefits and drawbacks of the new toll structure, will facilitate a smoother transition. This would be supported by the institutional reforms described in <u>Chapter 11</u>.

## Network enabling infrastructure

Network tolling cannot be implemented without upgrading the existing tolling infrastructure and systems. Changes to implement these tolling recommendations could include additional toll gantries at toll road entry and exit points.

A single network-level toll reconstruction engine would be required to take trips from the various New South Wales toll roads and construct a single trip, calculating the applicable toll for the purposes of charging the motorist.

Additionally, through a Revenue Adjustment Mechanism (discussed in <u>Chapter 11</u>), this engine would allocate portions of tolls charged to motorists to the relevant toll road operators. Investing in the network-level toll reconstruction engine would also have the benefit of enhancing the data relating to motorist toll road use available to government. The various rules and logic in the toll engine will be key, and it would need to be a configurable system that can handle millions of roadside transactions on any given day. This investment would be required before the transition to network tolling. Precision to a legal standard will also be a factor in the infrastructure and systems design to ensure tolls are readily enforceable.

The single network-level toll reconstruction engine is described in <u>Figure 9.8</u> under the heading 'Network Tolling C2.5', including where it fits in the current process of capturing and calculating tolls, managing customer accounts and compliance.

## Figure 9.8 Network toll reconstruction engine

	C1 Capture	C2 Calculate	(C2.5) NSW Motorways	C3 Customer	C4 Compliance
Purpose	To detect and capture the details of vehicles utilising the toll roads (tags, LPN etc.)	To validate, construct and rate trips from vehicle details captured (toll road, entry point, exit point, time- of-day, vehicle classification).	To apply business rules to day-based toll road usage such as: 1. Construct single concession tolls as multi-concession tolls. 2. Applying distance-based tolling rules. It also manages non arranged travel/unpaid toll recovery.	To manage customer accounts, toll products and the collections of tolls and fees.	To manage the processing of toll and penalty notices including nominations and objections.
Tech	<ol> <li>Gantry (new exit points required).</li> <li>Vehicle Detectors.</li> <li>Front Camera Image.</li> <li>Rear Camera Image.</li> <li>Optical Character Recognition (OCR)/Licence Plate Number (LPN) Reader.</li> <li>TAG Sensors</li> </ol>	TfNSW: 1. TRARM: Trip, Reconstruction And Rating Module. 2. TIRMS: Toll Incident Recovery Management System. Other: 1. Foreign Toll Operator/Tolling Back Office.	New C2.5 system: 1. Construct Multi- concession Tolls. 2. Apply distance- based tolling rules. 3. Apply associated business rules. 4. Manage non arranged travel/ unpaid toll recovery.	1. Etoll – TfNSW. 2. LinkT – Transurban.	1. Toll Compliance Management System.

	C1	C2	(C2.5) NSW	C3	C4
	Capture	Calculate	Motorways	Customer	Compliance
Functions	<ol> <li>Detect Vehicle.</li> <li>Capture Vehicle Photo (Front).</li> <li>Capture Vehicle Photo (Rear).</li> <li>Capture LPN.</li> <li>Capture TAG details.</li> </ol>	<ol> <li>Accounts receivable.</li> <li>Finance movement.</li> <li>Asset management.</li> <li>BI (Business Intelligence) reporting.</li> <li>Trip reconstruction.</li> </ol>	<ol> <li>Construct single concession tolls as multi-concession tolls.</li> <li>Output these as network toll charges to customers via retailers.</li> <li>Reconcile inputs and output toll charges to make good variances to concessions.</li> <li>Manage Non- Arranged Travel/ recovery management.</li> <li>Compliance management.</li> <li>Toll Notice payment portal.</li> </ol>	<ol> <li>Tolling web portal.</li> <li>CRM.</li> <li>Tag logistic management.</li> <li>Interoperability (car rental companies, MOU).</li> <li>Product management.</li> <li>Debt management.</li> <li>BI reporting.</li> <li>Financial accounting.</li> </ol>	<ol> <li>Process enforcement requests.</li> <li>Obtain vehicle owner details.</li> <li>Letter distribution.</li> <li>Enforcement acknowledge ments and updates.</li> <li>Nominations management</li> <li>Objections management.</li> <li>Penalty notice updates.</li> <li>Registration for Information Disclosure Agreement (RIDA)/ Additional Request for Information (ARI) processing.</li> </ol>

Source: Independent Toll Review

## **Transport network impacts**

Any changes to the approach to tolling will have flow-on impacts on demand for the transport network. These changes could lead to unexpected shifts in road usage behaviour and modal shifts, potentially causing difficulties for the reform process. Ongoing monitoring of impacts once the reform is implemented will also be important. Areas of concern include changing traffic patterns across the road network (tolled motorways, untolled motorways, arterial roads and local roads). For example, if tolls are lowered, motorists could change their route to use the toll road network. This could necessitate broader network enhancements or modification which might require additional capital investment and affect community benefit. Road widening and/or interchange upgrades may also conceivably be required in some locations to handle change in demand on the toll road network, in response to changed tolls. We note that concessionaires and investors in their submissions were also interested in managing congestion and working with government to find a balance between fairer and more efficient tolls, and network impacts. This will be an ongoing area of focus for toll reform.

## **Recommendations:**

**Recommendation 2:** The NSW Government should adopt network tolling. Implementation will require detailed planning, investment in infrastructure and close monitoring of impacts.

**Recommendation 3:** The NSW Government should adopt declining distance-based tolls as the foundation of network tolling. This would lead to a simpler, more consistent and coherent system of tolls which aligns more closely to the criteria the Review has been asked to consider, namely efficiency, fairness, simplicity and transparency.

**Recommendation 4:** The NSW Government should consider ways to reduce the level of tolls for Sydney motorists and explore funding sources, especially from within the tolling system, as a pathway to enable lower tolls.

**Recommendation 5:** The Review recommends that the NSW Government further explore the possible application of the NPVR approach to determining concession lengths and removing traffic risk from concessionaires.

**Recommendation 6:** The NSW Government should consider the role of current toll relief in supporting the transition to network tolling. Significant changes in toll relief may need to be phased over time.

**Recommendation 7:** If the NSW Government chooses to extend or phase out toll relief, it should be with consideration of the following principles:

- i. Toll relief should be targeted to those that are most in need to the extent practicable through means-testing.
- ii. The assessment of need would take account of whether the motorist has viable alternative travel options, such as public transport.
- iii. Toll relief should avoid distorting price signals (e.g. they should not make trips on the tolled network free unless there are good policy reasons for doing this).
- iv. Toll relief should apply network-wide.
- v. Toll relief scheme design should support data collection for post-implementation evaluation of scheme performance against policy objectives. Publication of scheme performance against policy objectives could be contemplated as part of broader transparency measures for tolling, for example price monitoring.

**Recommendation 8:** In the transition to network tolling there may be a case for continuing toll relief schemes like the current TR3 (\$60 toll cap), which offer some relief and certainty to motorists. The NSW Government should however consider increasing the cap, for example to \$70, to ease the pressure on government finances. Over time there should also be a move towards means testing in line with our toll relief principles.

**Recommendations:** 

**Recommendation 9:** When the M5 South-West becomes part of WestConnex concession in 2026, if the government still wishes to reform the rebate scheme it should fix the ongoing amount of the rebate at the then nominal rate. The scheme should be reviewed in five years time and reformed to align with principles in Recommendation 7.

## In the future, tolling strategies could be broadened to enhance congestion management, efficiency, and fairness

Although congestion does not currently appear to be a major concern on the toll road network (<u>Finding 10</u>), this could change over time with population and economic growth. Network tolling may change demand patterns which could give rise to congestion in some parts of the network which will need to be managed.

To influence travel patterns – when, where, and how people travel – and optimise traffic flow and speed for the wider road network, tolls could be adjusted under a network tolling approach. This could involve fine-tuning declining distance and infrastructure charge parameters or introducing time-of-day tolls. Tolls could also be lowered in areas with spare capacity, which has not been done under the current system.

This approach aligns with the Proposed New Pricing Principles. Moreover, by diminishing peak demand through tolls, the need for network capacity investments – such as lane additions or new toll road constructions – could be reduced or deferred. Tolling strategies should be considered to align toll road tolls to varying time-of-day demand.

This section explores peak/off-peak tolling opportunities, featuring predetermined rates that vary throughout the day, like current tolling on the Sydney Harbour Crossings, and dynamic pricing, which adjusts according to time of day and traffic conditions.

Peak/off-peak and dynamic pricing address the varying impact each additional traveller has on the transport network. The additional cost related to one more traveller using the transport network is often referred to as 'marginal cost'. This encompasses not only the individual's cost but also the external cost imposed on others. The marginal cost of travel is not constant throughout the day. It varies significantly based on the level of demand. During peak demand, when many people are using the transport network, marginal cost may be higher if each additional traveller reduces journey time and reliability for other motorists,

## Peak/off-peak tolls

Peak/off-peak tolls involves tolls that fluctuate during the day. Higher tolls may apply during peak periods, usually weekday rush hours linked to commuting. Lower tolls may apply during times of decreased demand, such as midday, evenings, and weekends or generally when roads are underutilised. This well-established tolling method is employed on the Sydney Harbour Crossings, in Sydney's public transport pricing, and in sectors like electricity.

Peak/off-peak tolls incentivise travel time adjustments. Lower off-peak tolls may entice cost-conscious motorists to use toll roads in off-peak periods, enhancing toll road capacity utilisation and offering benefits to users. Importantly, peak pricing may incentivise the use of alternatives like public transport during peak times, and so help relieve congestion on the road network, during peak periods.

In our traffic modelling for the review, we have retained peak/off-peak tolls on the Sydney Harbour Crossings by varying the infrastructure charge according to the time of day. This illustrates how the benefits offered by peak/off-peak tolls can be integrated with the declining distance and infrastructure charge approach.

## Feedback on peak/off-peak tolls

Transurban noted research they commissioned from Bastion Insights which 'found that toll road drivers are more likely (61%) to feel supportive of a peak/off-peak pricing model. This approach is perceived to be fairer, with 57% finding peak/off-peak fairer than current pricing practices.'<sup>70</sup>

Feedback to the Review from institutions was generally favourable towards peak/off-peak tolls. Responses from the general public indicated an expectation that if they were paying tolls they should not have to put up with unnecessary congestion. Congestion on toll roads lowered the value of their trips and their willingness to pay existing tolls. Comments are in Figure 9.9.

#### Figure 9.9 Institution and public perspectives

Submissions from institutions were broadly positive of peak/off peak tolls. However, many submissions from the general public supported lower, not higher, pricing when traffic builds up:

## Grattan Institute:

- 'A new scheme should set peak-period charges that vary by location and offer free or cheap use of the roads when they are not overly busy. It should build in a mechanism for updating tolling rates from time to time when road conditions change.'
- '... tolling for congestion management means tolls should vary by time of day and location, and when conditions change, toll rates should change too.'
- 'The aim should be to change the behaviour of drivers who are flexible about when, where, or how they travel.'

## Road Freight NSW:

• 'Off-peak discount tolling for trucking companies, and 'last mile' delivery, to incentivise trucking companies and others to perform work after peak times would work well and lead to safer roads because trucks and deliveries are not on the roads during light vehicle commute times.'

#### Transurban:

• 'The current capacity opportunities and congestion challenges on roads may be partly addressed through a pricing mechanism. Time of day pricing may be effective in demand and congestion management, while off-peak pricing for trucks can encourage them to drive at less busy times, providing a safer and better customer experience for daily commuters. A time-of-day travel pricing signal could prompt people to consider their travel more deliberately.'

#### NorthWestern Roads Group:

• 'NorthWestern Roads Group supports the recommendation of time-of-day tolling to achieve congestion management across the network.'

<sup>&</sup>lt;sup>70</sup> Transurban. (2024, May 14). Public Consultation on Interim Report 2024.

## Perspectives from the general public relating to peak/off peak tolls:

- 'Motorists should be discouraged to use their vehicles during peak hours and should pay a premium for tolls. This will also help reduce traffic during peak hours and promote public transport usage and ride sharing.'
- 'I don't mind paying tolls if the roads are better and less congested.'
- 'Enhance incentives for driving during off-peak hours. While peak/off-peak pricing is mentioned, offering more significant discounts or rewards for off-peak travel could help distribute traffic more evenly throughout the day, reducing congestion and incentivising shifts in travel times.'
- 'Offer deeper discounts for off-peak hours to more aggressively manage congestion. This could encourage more drivers to shift their travel times to less busy periods, enhancing overall traffic flow.'
- 'The recommendation of peak and off peak does not seem to show equity or fairness to Western Sydney residents. Due to the long distance they must travel to work, it is "peak" from 7am–10am. Unless there are flexible arrangements at workplaces, Western Sydney residents need to leave at the same time, causing a "peak" and thus higher charges.'
- 'Introducing flexible pricing, including peak/off-peak and dynamic pricing, is a forward-thinking strategy that can manage congestion and optimise road use efficiently.'

## Perspectives from the general public critical of paying tolls when faster/uncongested travel is not provided:

- 'As a user of a toll road, I'm paying to get somewhere faster than I would otherwise. As such, I believe the toll road operators need to provide discounts to tolls charged when we aren't able to travel at the normal speed.'
- 'No toll should be charged when the toll way is congested, and the average speed is below 40 km/h.'
- 'I don't mind paying tolls if the roads are better and less congested.'
- 'If road works, crashes high traffic etc. means that trip becomes longer. We shouldn't have to pay.'
- 'The toll road operators should be giving back refunds when the travel on such road exceeds the nominal time.'

Source: Public consultation submissions, 2023. Public Consultation submissions, 2024

## Case study: Singapore's approach to pricing

Singapore is widely recognised as a pioneer in road pricing and congestion management and has implemented pricing strategies since the 1970s to regulate motorway usage. In Singapore, tolls vary by set times and locations, aiming to maintain target speeds on the motorway network. Traffic conditions are continually monitored, and tolls are reviewed quarterly. The approach is further described in Figure 9.10.

#### Overview

The Land Transport Authority (LTA) of Singapore is responsible for advancing the country's land transport infrastructure and systems. LTA aims to enhance connectivity through a robust land transport network, which includes substantial investment in public and active transport as well as the road network. The LTA is involved in managing traffic congestion and providing a better overall road experience for Singapore's motorists, focusing on congestion management, not revenue generation. Parking supply is also managed in line with congestion objectives.

#### How prices are set

A 2018 OECD paper on road pricing summarises the rule-based approach used for setting prices in Singapore: 'Singapore's electronic road pricing system uses prices determined by optimisation of traffic flow. Prices are set to ensure traffic speeds are maintained at agreed levels: 20–30 km/h on arterial city roads, 45–65 km/h on expressways. Electronic Road Pricing rates are determined by a quarterly review of traffic speeds of priced roads and during the June and December school holidays. The pricing formula was developed using a traffic flow model developed by the Land Transport Authority. When speeds fall below the target levels prices are increased. When speeds rise above the target range, prices are reduced. The benefit of this rule-based methodology is transparency. This aids understanding for both the public and decision makers and underpins public support for the system. It also permits prices to be set at the level needed to contain congestion and modified when needed, without having to revert to a political decision each time changes are required.'

#### How users are charged

Motorists are charged according to their location and time of travel when they pass through motorway gantries. An example of this is a trip from Woodlands to Raffles Place via Yishun – CTE – CBD, which would cost about S\$15 during peak as the driver would pass about 5 gantries, whereas during lunchtime, it would cost about S\$2. Tolling only applies during operational hours for the gantries, which are not active during Sundays, public holidays, and the eve of major public holidays.

Tolls are set in half hour increments, and information on the real-time level of the toll is made available to motorists with on street signage to support motorist decision-making.

#### Outcomes

The Singapore Government's data shows that motorists' speeds have been able to be generally influenced by variable electronic road pricing (ERP) (i.e. speeds have improved as ERP rates have increased and vice versa). Reports published also show a decrease in road traffic by approximately 15% across Singapore's roads. The system has been credited with maintaining travel speeds of approximately 50–65 km/h on expressways and 20–30 km/h on arterial roads, despite rising traffic volumes over the years, alongside many other societal benefits, such as increases in car-pooling, public transportation use and spreading of peak hour traffic into off-peak hours.

Additionally, the ERP system has successfully managed to maintain consistent pricing over the long-term, minimising the burden of tolls on motorists. CBD ERP prices have remained the same since 2007, even though inflation and wage growth has remained positive since.

Source: Independent Toll Review. Local Transport Authority. The Organisation for Economic Cooperation and Development. OneMonitoring. Environmental Defense. The Ministry of Transport

## **Dynamic pricing**

Dynamic pricing entails dynamically adjusting tolls for specific time periods, depending on congestion levels. When traffic demand increases and threatens to reduce speeds below the desired threshold, tolls are adjusted upward to discourage more vehicles from entering the congested section. Conversely, when traffic eases, tolls may be lowered. Applications of dynamic pricing vary, ranging from entire road networks to specific roads or city areas. This report envisions its application within the toll road network. The mechanics of the pricing approach also vary, including the frequency of price resets and the advance notice given to motorists about changes.

An example of dynamic pricing is on the Express Lanes in Greater Washington (50% owned by Transurban).<sup>71</sup> A unique feature of the Express Lanes is that the dynamic toll is unrestricted, subject to vehicles travelling at a minimum speed of ~75km/h on the 495 Express Lane and ~90km/h on the 95 and 395 Express Lanes and compliance with relevant US Codes as listed in the Project Deed.<sup>72</sup> Examples of dynamic pricing in other sectors include aviation pricing in Australia, where ticket prices vary by route, time of day and date booked according to demand, and rideshare services which adjust prices dynamically based on driver supply and travel demand.

## Implementation considerations

A pre-requisite to the implementation of time-of-day or dynamic tolling is close monitoring of network traffic and analysis of tolling options. Decisions on implementation need to have regard to network impacts. Flexibility and the ability to respond quickly may also be needed. The failure to maintain the real value of peak/shoulder and off-peak tolls on the Sydney Harbour Crossings and to change them more regularly has no doubt weakened their effectiveness. Monitoring of impacts will also need to be done on a network basis. A key challenge will be to ensure that a network approach can work in conjunction with individual concession agreements.

The effectiveness of demand management pricing will depend significantly on how responsive demand is to toll changes. Elasticities of demand may vary across the network so that what may be effective in one place may not be as effective elsewhere. Again, this highlights the importance of detailed analysis, planning, monitoring and evaluation of experience. Pilot testing of demand management schemes may be necessary.

Despite growing interest, changes to road pricing can be complex to implement, especially dynamic pricing. Public perception of fairness can be a barrier, as seen in the negative reactions to Uber's surge pricing during high-demand periods. However, peak/off-peak and dynamic pricing should not just be associated with higher congestion charges. Lower tolls at other times should also be seen as appropriate.

Other implementation issues include the need for further investment in enabling technology and operational processes. This may go beyond the requirements of general network tolls depending on the exact nature of what may be proposed.

## An opportunity to trial peak/off-peak tolls for heavy vehicles

To further explore peak/off-peak tolls, a trial could be conducted with heavy vehicles. Heavy vehicles currently have reduced incentives to use the toll road network for off-peak journeys, as travel on free alternatives becomes relatively faster and more reliable. There is an opportunity to encourage heavy vehicle movements which are going to occur in the off-peak regardless of tolling policy, to use a more efficient route.

<sup>&</sup>lt;sup>71</sup> https://www.transurban.com/roads-and-projects/north-america

<sup>&</sup>lt;sup>72</sup> https://p3.virginia.gov/docs/95-395\_Third\_ARCA\_executed/95-395\_Third\_ARCA\_(Executed).pdf

Reducing tolls for heavy vehicles during off-peak hours aligns with efficiency and fairness principles. Operating costs, including external costs associated with congestion, emissions, safety issues etc. will be higher at peak times. Low tolls in off-peak times may encourage increased toll road network use, offering community benefits through less crowded arterial roads, lowering noise and other social impacts.

Due to their focus on cost efficiency, profit margins, and predictability, heavy vehicle operators may welcome a trial of this nature. Stakeholder feedback on this recommended trail was positive, with Transport Workers' Union noting the below.

Figure 9.11 Transport Workers Union commentary on peak/off-peak tolls

**Transport Workers' Union:** The suggestion of peak/off peak pricing could also prove to be beneficial for freight operations at night time. The TWU notes that Recommendation 7[11], under price reforms specifically, highlights freight operators as the subject of initial key focus for peak and off-peak pricing. The TWU would again emphasise on owner drivers who are sub-contracted under larger freight operators to be included in this. This should also be specifically mentioned.

#### Source: Public Consultation Submissions, 2024

The financial impact of this recommendation – whether it is revenue positive, neutral, or negative – will largely depend on the extent to which the increase in traffic volume on toll roads during offpeak times compensates for the reduced toll rates. It is anticipated that any incremental rise in toll road maintenance costs due to increased heavy vehicle use during off-peak periods would be minor and more than offset by a reduction in maintenance costs on arterial roads.

There would seem to be clear community benefits in encouraging more heavy vehicles to utilise the toll roads at night rather than ancillary and local roads. Whether reducing tolls will do this remains to be seen. It has been suggested that the tolls for heavy vehicles is not the determining factor influencing the timing of freight movements. Instead, other factors in the logistics and supply chain play a more significant role. Penalty rates and decisions in up and down stream markets (such as customer delivery windows and distribution centre operating hours) are suggested as having greater influence on when freight moves than do tolls.

#### **Recommendations:**

**Recommendation 10:** Flexible pricing techniques including peak/off-peak tolls, and dynamic pricing should be available as part of a network tolling system.

**Recommendation 11:** The NSW Government should consider an initial focus on freight operators for peak and off-peak tolls.

## Updating vehicle classifications and charges

Vehicle classification groups vehicles into different classes based on size, weight, or axle number. It is current practice in New South Wales to charge vehicles different amounts for the use of toll roads, based on their characteristics. The level of toll imposed is largely based on vehicle dimensions, and approaches vary slightly across toll roads. The Review understands this reflects how available technology has supported different tolling arrangements over time. Recognising these variations in classification, vehicle classes for tolling purposes could be expanded and standardised to promote a more uniform tolling system. In addition to rethinking vehicle classes, it is also timely to review vehicle multipliers and charging arrangements. This is especially pertinent considering <u>Finding 5</u>, which documents that the current tolling system for motorcycles, towed recreational vehicles like caravans, and smaller trucks does not adequately meet the principles of fairness, efficiency, and sustainability.

## Approach to setting toll multipliers

Toll multipliers, employed as a pricing strategy on toll roads, involve charging vehicles a rate that is a multiple of the base rate designated for Class A. For example, a Class B vehicle might incur a charge three times that of the base rate for Class A, reflecting its distinct characteristics and impacts.

Establishing multipliers is not an exact science and requires careful consideration of several factors:

• Road space utilisation and contribution to congestion: larger vehicles, including heavy trucks, occupy more road space and impact traffic flow. This is illustrated in <u>Figure 9.12</u>, which illustrates vehicle lengths for the vehicle classifications the Review is considering. Higher tolls for larger vehicles can also compensate the toll road operator for their impact on motorway throughput and therefore, revenue. Whereas, conversely, smaller vehicles like motorcycles occupy less space and this is a rationale for charging them lower tolls.

Figure 9.12 Length comparison for vehicle classes considered in the Review – Motorcycle (proposed new class), Car (current Class A), Mid Class Heavy Vehicle (proposed new class) and Other Heavy Vehicle (current Class B)

Motorcycle (a new class)



Car (Class A)



Mid Class Heavy Vehicle (a new class)



Other Heavy Vehicle (Class B)



#### Source: Independent Toll Review

• Proportionately aligning contributions to cost recovery to the relative costs of providing toll road infrastructure through upfront capital costs: The toll multiplier aims to align the toll charges with the actual costs imposed by different vehicle types. This includes considering the higher capital expenditure for building robust roads to accommodate heavier vehicles. To cater for repetitive heavy vehicle loading, the construction of a motorway requires higher upfront capital expenditure. Higher axle weight contributes to a higher amount of construction labour, plant and materials costs to deliver a safe road to acceptable standards. This includes higher and wider tunnels, stronger bridges, thicker pavements and lower grades. For example, to cater to heavy vehicles, NorthConnex and WestConnex were designed and constructed with lower grades. In a related example, motorcycles are not a major cost driver for the upfront capital cost of toll road infrastructure.

- Proportionately align the contributions cost recovery to the relative cost of maintaining toll road infrastructure: Motorways are designed to cater for the axle loading imposed by heavy vehicles. However, over time, heavy vehicle usage leads to greater pavement wear and tear than light vehicles. This requires more frequent repairs and higher road maintenance costs. The Equivalent Standard Axle (ESA) calculations is an Austroads method for determining a standardised wheel load using the material damage exponent theorem. A lower ESA score represents reduced pavement wear. An illustration of the relative difference in ESAs between light vehicles and rigid trucks is summarised as follows:
  - 2 axle light vehicle (Gross Mass of 4.5 tonne) = 0.06 ESA
  - 2 axle rigid truck (Gross Mass of 15 tonne) = 3.0 ESA

In this comparison, the pavement wear from a 2-axle rigid truck is 50 times greater than the light vehicle. This is an illustrative example, however there are a wide range of truck configurations and differences in ESA. Conversely, motorcycles contribute even less to road damage than cars.

- Tax Implications for Businesses: For commercial vehicle operators, tolls can be a business expense and may be tax-deductible, which effectively reduces the impact of the toll multiplier on these vehicles. For example, for a profitable business subject to a corporate tax rate of 27.5%, a 3x heavy vehicle multiplier equates to an effective heavy vehicle toll multiplier of 2.18x.
- Charging according to the benefit the motorist receives from the trip: different vehicle classes derive varying benefits from toll road usage. For instance, commercial vehicles may value time savings and reliable journeys more due to their higher operating costs. Heavy vehicle operating costs per hour (including fuel and vehicle maintenance costs) are much higher than those of light vehicles. This means they benefit more from travel time savings and more reliable journeys offered by motorways.

Balancing these factors, there are opportunities to improve the fairness and efficiency of tolling by modifying vehicle classifications and multipliers and applying these consistently network-wide.

## A consistent definition for Class A vehicles, and a more equitable classification and charging system for towed recreational vehicles and motorcycles

Building on the need for fairness and efficiency, the Review is considering an expansion of the tolling classes, adopting a unified definition for Class A vehicles (cars), creating a new classification and multiplier for motorcycles and revising the approach for towed recreational vehicles.

Classification of vehicles and charges have evolved as the toll network has expanded, in line with available technology and policy objectives. Currently across the network there are distinct Class A and Class B classifications for the M2, Lane Cove Tunnel, Cross City Tunnel, M5, NorthConnex, M7 and WestConnex, and a variation of Class A and Class B classifications in place for the ED and M5 South-West. In contrast the Sydney Harbour Crossings has a single class for tolling.

The changes described In Figure 9.13 would result in more consistent, efficient, and fairer charging.

Figure 9.13 Potential NSW	Tolling classes	and multipliers.	to apply network-wide
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	Definition Note: towed recreational vehicle are excluded from size dimensions.	Multiplier	Summary of change
Motorcycle (a new Class)	A two wheeled motor vehicle, including motor vehicles with a trailer or side car	0.5	Currently, motorcycles pay the same toll as cars, despite using less space on the road as smaller vehicles and contributing to less wear and tear as lighter vehicles. This recommendation introduces a multiplier of 0.5.
Car (Class A)	<ul> <li>A vehicle that is</li> <li>not a motorcycle, and</li> <li>2.8 metres or less in height, and</li> <li>12.5 metres or less in length.</li> </ul>	1	This change introduces a consistent definition of car across the network.

#### Source: Independent Toll Review

Refining the NSW tolling classes and excluding towed recreational vehicles from size dimensions would allow for the removal of the Large Towed Recreational Vehicle Toll Rebate and the E-Rider tolling product for motorcycles using the Sydney Harbour Crossings. It would also bring approaches for motorcycles in line with Victoria and Queensland.

By excluding towed recreational vehicles from size dimensions, any vehicle combination that includes a towed recreational vehicle will be charged based on the class of the towing vehicle. In most instances, this will be a Class A vehicle. This adjustment simplifies the tolling process and ensures consistency across state lines.

The implication of <u>Figure 9.13</u> is that vehicles not meeting the definitions of Motorcycle, Car (Class A) or towed recreational vehicle would be considered Class B. In practice, such vehicles would be majority heavy vehicles.

## Implementation considerations for the new motorcycle classification

This recommendation for an additional motorcycle class was met positively in both stakeholder and public submissions to the Review.

Figure 9.14 Stakeholder commentary on an additional motorcycle class

**Motorcycle Council of NSW:** A reduced toll is likely to result in an increased number of motorcycles using toll roads, given that motorcycles constitute a minor proportion of vehicles on toll roads, any safety and traffic management impacts will be minor.

**BMW Touring Club of NSW:** This recommendation directly solves the core inadequacy of the existing toll system concerning motorcycles. The BMWTCNSW strongly supports this recommendation, including the creation of a motorcycle class priced at a factor 0.5 of class A vehicles.

The factor of 0.5 (recommendation 10) of class A vehicles ought to be applied to the final toll, not only a component of the pricing model. Also, the recommended factor of 0.5 ought not to be adjusted depending on the pricing technique of peak/off-peak pricing/dynamic pricing.

**NorthWestern Roads Group:** NorthWestern Roads Group supports fairer tolling classes and believes that the classes should reflect the value of benefits received. Aligning vehicle class definitions with those used in Victoria and Queensland allows for consistency across eastern states. NorthWestern Roads supports this concept and notes the Review has only recommended this for the motorcycle class.

#### Source: Public Consultation Submissions, 2024

Experience in Victoria and Queensland suggests the feasibility of the Review's draft recommendation on motorcycles.

A trade-off is that introducing a new class for motorcycles is anticipated to decrease toll revenue, while being fairer for motorcyclists. This shortfall, if not compensated by other means, necessitates increased tolls for other users. Given that motorcycles constitute a minor proportion of vehicles on toll roads, the overall impact of this change is expected to be minimal.

## Directions in classification and charging for Class B (heavy vehicles)

## A note on freight and freight impacts

The Review has received numerous submissions around freight and freight impacts, and has also considered government policy objectives for freight, including mode shift from road to rail freight.

The Review notes that a two-year trial is underway, offering rebates on current Class B multipliers to vehicles travelling on the M5 East and M8.<sup>73</sup> The trial's aims are to reduce heavy vehicle congestion and amenity impacts on local areas, thereby improving the efficiency of the road network and local outcomes. This trial will assess the effectiveness of the rebate, which reduces the trip cost by a third, in encouraging Class B to use toll roads. Outcomes of this trial will be relevant to implementing our recommendations.

Additionally, we note that the NSW Government has announced a Freight Policy Reform Program to improve the safety, sustainability and productivity of freight transport, which is currently engaging with industry and the public.<sup>74</sup>

<sup>&</sup>lt;sup>73</sup> NSW Government. (n.d.). Truck Multiplier Rebate. <u>https://www.nsw.gov.au/driving-boating-and-transport/tolling/truck-multiplier-rebate.</u>

<sup>&</sup>lt;sup>74</sup> Transport for NSW. (n.d.). Freight Policy Reform Program. <u>Freight Policy Reform Program | Transport for NSW</u>.

NSW freight policy is to encourage high productivity vehicles to use toll roads and therefore to set a suitable multiplier that provides value to heavy vehicles. Encouraging high productivity vehicles is considered desirable by TfNSW for safety and environmental reasons, as it would reduce the number of heavy vehicles on the network. This is consistent with what was heard from stakeholders such as the National Road Transport Association's (NatRoad's) submission to the Reviewers:

#### Figure 9.15 National Road Transport Association's (NatRoad's) submission

'The option considered by the former government would see a new four times multiplier for 19 metre combinations and a new five times multiplier for combinations greater than 19 metres ... This revenue raising measure ignores the benefits of moving freight with fewer individual truck trips. When moving 1,000 tonnes of freight, a 12.5-metre-long truck (the maximum length that would continue under the existing three times multiplier if this proposal proceeded) requires 77 individual trips to get the freight task done. A 19 metre semi-trailer can move the same freight task in 42 individual trips, while a 26 metre B-double can get it done in 26 trips.'

#### Source: Public Consultation Submissions, 2024

The Review also considered the submission by Road Freight NSW that toll multipliers should be based on the mass of the load that a heavy vehicle is carrying. We recognise that a consideration in setting tolls is the contribution of vehicles to wear and tear on roads, and that the current approach based on size dimensions reflects available technology.

## The Review's thinking on freight vehicle multipliers

The Review recommends maintaining the current NSW Government policy position that vehicles exceeding Class A vehicle dimensions should be charged more than other vehicle classes.

Currently all heavy vehicles are grouped into one class (Class B), regardless of their size, weight, axle configuration, or environmental impact. This means that a small truck pays the same toll as a large semi-trailer, even though they have different impacts, for example on the road infrastructure, traffic flow, and air quality. The Review considers that this is not a fair or efficient way of tolling heavy vehicles, and that there should be more differentiation among them based on their characteristics and impacts. This would create a more equitable tolling structure that better aligns the toll to the costs and benefits of using the road.

## Investigating a new classification: mid-class heavy vehicles (MCHVs)

The 2022 Toll Road Pricing Relief and Reform Review considered up to four heavy vehicle groups, with multipliers considered in the range of 2.5x for the smallest group to 5x for the largest. This Review recommends moving towards two classes for heavy vehicles – Class B and a new intermediate class: MCHVs.

There is potential merit in the introduction of a new intermediate class for small Class B vehicles, to incentivise them away from local roads, resulting in improved outcomes for the community, and increasing benefits (safety, travel time savings) for operators of MCHVs. This would reflect efficiency as well as fairness, as small Class B vehicles have a lower impact on maintenance costs and the cost to deliver the original infrastructure than large Class B Vehicles.

To incentivise this shift, smaller vehicles currently in Class B, could have a reduction towards a more appropriate multiplier. As an indication, Brisbane and Victoria currently use a multiplier of 1.5x–1.6x respectively for their Light Commercial Vehicle class, which is comparable compared to the proposed MCHV class. Class A dimensions are quite generous lengthwise.

The new intermediate class could therefore target vehicles that just exceed the Class A height cutoff. The potential parameters for the class are based on currently available technology; two axles, greater than 2.8 metres and no more than 3.3 metres in height, and 12.5 metres or less in length. This is illustrated in <u>Figure 9.12</u>. These parameters would capture motorhomes and refrigerated delivery trucks. Improvements in advanced camera technology may enable different parameters to be used and reduce the costs of administering the intermediate class.

## Implementation considerations for MCHVs

Introducing a new class and lower multiplier is anticipated to decrease overall toll revenue, even if it attracts more vehicles to the toll roads. This shortfall, if not compensated by other means, necessitates increased tolls for other users. As with the case of the new class for motorcycles, the revenue impacts may not be significant, but further analysis is required.

Engagement with motorway operators and other jurisdictions would be required as part of the detailed cost/benefit assessment, including to understand how many vehicles would fall into this new category, and any lessons learned or challenges from similar intermediate categories in other jurisdictions.

There may also be administrative challenges. Similar intermediate tolling classes in other Australian jurisdictions have created complexities for the toll collection process in the transition to a wider range of classifications. Limiting the intermediate class to 2-axle vehicles (rather than purely size dimensions) may necessitate additional individual licence plate lookups to understand the make and model of the vehicle. The next phase of analysis could demonstrate that the 2-axle criterion for MCHVs is not feasible, and the criteria should be limited to size dimensions.

Figure 9.16 Stakeholder and public commentary on a mid-class heavy vehicle classification

**Transport Workers' Union:** Consideration of a new vehicle classification, relevant to mid-sized heavy vehicles, is very welcome, and remains consistent with suggestions raised by the TWU in the past. As detailed in the TWU's initial submission, the inequitable pricing structure shared by trucks varying in size and weight seemed arbitrary in its justifications.

**Transurban:** In our submission to the Review in July 2023, Transurban highlighted that largevehicle multipliers are in place to reflect the extra construction costs and impacts heavy vehicles have on road infrastructure. We also noted that while large-vehicle multiplier prices are not designed to incentivise more productive vehicle use, given operators pay the same heavy-vehicle multiplier when using larger, more productive vehicles, this pricing structure may deliver this outcome. Hence, the Interim Report proposal to introduce a mid-class heavy vehicle classification could potentially disincentivise use of more productive vehicles.

**Bexley Chamber of Commerce:** Firstly, I support recommendation 10 [13] to investigate a new classification for small trucks to incentivise such vehicles to use toll roads. However, the real issue with truck movements through Bexley Town Centre is from large heavy trucks which continue to be a major concern despite the temporary Truck Multiplier Rebate scheme. In recognition that our Town Centre's main roads are used to carry dangerous goods and oversized trucks, for which there is no current alternative route, some relief for Bexley would be to allow all other trucks to use the M8 and M5 toll free. Whilst not in the current terms of reference I believe that the passage of dangerous goods carriers across the state needs to be reviewed in some detail rather than continuing such movements through the Bexley Town Centre bottle neck.

**Submission 257822:** With regard to fairness of the Toll charges being applied to all vehicles, the current system has, as per the report clearly failed. However a system that splits vehicles into a number of predefined classes even with additional classes still adds an element of hit and miss. As an example in the proposed class MCHV you could have two vehicles one a Refrigerated truck just inside the criteria, the other a small Motorhome that just fails Class A. The Commercial vehicle being heavier on the road and then has his tolls reduced by tax.

Source: Public Consultation Submissions, 2024

## Multipliers for heavy vehicles that exceed the MCHV definition

For heavy vehicles that exceed the definition of MCHVs, we propose a general application of a 3.5x multiplier, primarily based on the cost impact of heavy vehicles on roads. This is close to the multiplier of 3x that we modelled in our assessment of toll reforms (<u>Chapter 11</u>). Increasing charges for heavier vehicles, in line with their impacts, mitigates the risk that reducing charges for smaller vehicles results in a revenue loss, or higher tolls for Class A vehicles.

We expect that further modelling and consultation with the freight industry will be undertaken as reform is further developed to confirm the appropriate range of classes for heavy vehicles and the corresponding multipliers.

## Simplifying the treatment of public bus services

Apart from classifications and multipliers, another area of focus is the tolling of public bus services, where administrative burden could be simplified for bus operators.

Currently, buses providing a public transport service are subject to tolls on the Hills M2, and Sydney Harbour Crossings. The cost of any tolls incurred providing public transport passenger services is then reimbursed under existing bus operation contracts. The Review recommends simplifying the arrangements allowing public bus services to be exempt from tolls.

This recommendation is consistent with the recommendations of the Transport Portfolio Committee Inquiry into road tolling regimes report (see <u>Appendix A</u>).

### **Recommendations:**

**Recommendation 12:** The NSW Government should further explore refining tolling classes in NSW, adopting a uniform definition for Class A vehicles, and a fairer classification for towed recreational vehicles and motorcycles.

**Recommendation 13:** The NSW Government should continue to apply toll multipliers to vehicles exceeding Class A vehicle dimensions.

**Recommendation 14:** The NSW Government should investigate a new classification for mid-class heavy vehicles to incentivise these vehicles to use toll roads.

Recommendation 15: Multipliers should be applied consistently across the toll road network.

**Recommendation 16:** The NSW Government should simplify the arrangements allowing public bus services to be exempt from tolls to ensure consistency across the network.

## Summary of recommended changes to vehicle classes

	Definition	Multiplier	Current Toll Classification	Proposed New Classification
Motorcycle (a new Class)	A two wheeled motor vehicle, including motor vehicles with a trailer or side car.	0.5	A	1
Car (Class A)	<ul> <li>A vehicle that is</li> <li>not a motorcycle, and</li> <li>2.8 metres or less in height, and</li> <li>12.5 metres or less in length.</li> </ul>	1	A	2

Figure 9.17 Recommended future vehicle multiplier arrangements

	Definition	Multiplier	Current Toll Classification	Proposed New Classification
Mid Class Heavy Vehicle	<ul> <li>A vehicle that is</li> <li>not Class 1 or 2, and</li> <li>3.3 metres or less in height, and</li> <li>12.5 metres or less in length.</li> </ul>	2	В	3
Other Heavy Vehicle (Class B)	A vehicle that is not Class 1, 2 or 3	3	В	4
Notes:	Vehicle dimensions include the dimensions of loads and trailers, except towed recreational vehicles, as registered with the NSW Motorways entity which will be rated on the towing vehicle only. The classifications based on axle counts are superseded.			

## Expanding toll coverage

Alongside implementing network tolling, and updated and consistent vehicle classifications and multipliers, there could be options to optimise toll coverage of the motorway network. This could offer a more consistent and equitable experience for motorists and achieve efficiency objectives. However, the Review is mindful of the government's commitments not to introduce tolling on existing roads not currently subject to tolling.<sup>75</sup>

Although expanded tolling coverage is not currently under consideration by the government, once the toll system is on a path to operating under a fairer and more effective regime (as proposed in <u>Chapter 11</u>), there may well be justifiable grounds to explore changes to the tolled network.

The government could consider two phases of reform. Initially, it could explore specific improvements to Sydney's existing toll network to increase consistency, equity, efficiency, and effectiveness. Subsequently, a more comprehensive integration of Sydney's motorways into the network tolling system could be examined. This would aim to enhance efficiency and fairness while possibly lowering current toll rates.

## Consistent two-way tolling to improve efficiency and fairness

Currently, the Sydney Harbour Crossings and the Eastern Distributor (ED) are tolled in one direction, while all other toll roads are tolled in both directions. These arrangements have been in place for many years, since July 1970 in the case of the Harbour Bridge and since the opening of the Eastern Distributor in December 1999, when tolls were still collected manually.

<sup>&</sup>lt;sup>75</sup> Treasurer and Minister for Roads. (2023, June 14). Fels Toll Review considers previous reform options as it outlines public stages of the inquiry. NSW Government. <u>https://www.nsw.gov.au/media-releases/fels-toll-review-considers-previous-reform-options-as-it-outlines-public-stages-of-</u>

inquiry#:~:text=Another%20option%20is%20to%20consider,contrary%20to%20Labor%27s%20election%20c ommitments.

One way tolling has had a significant impact on traffic flows over this time. Where zero tolls apply motorists can be attracted to use these roads in preference to other available options. Traffic volume differences on the roads of around 20% during peak periods are observed. Over time traffic management has had to work around the effects of these tolling arrangements. However, this becomes more complex as the network of toll roads expands and will be further challenged with the expected commencement of the Western Harbour Tunnel in 2028.

Two-way tolling on all parts of the network is necessary if uniformity and consistency is to apply. This is the Review's presumption.

The Review's modelling of two-way tolling shows that there are varied impacts to the toll network and other alternative free roads. For example, two-way tolling may reduce traffic on roads where two-way tolling is implemented (ED and Sydney Harbour Crossings) with associated increase in speeds on these roads. But there are also some negative impacts elsewhere (such as Iron Cove Bridge). As the tolling approach is refined there are several opportunities to mitigate the negative impacts, such as refining the individual elements of the declining distance and infrastructure charging approach. This is discussed further in <u>Chapter 11</u>.

## Implementation considerations

The introduction of new tolling arrangements will affect current concession agreements. Introducing tolling southbound on the ED would need to be negotiated. Introducing tolling northbound on the Sydney Harbour Crossings may trigger the Eastern Distributor material adverse effect provisions. Further analysis of the impact on traffic flow, traffic volumes, and revenue is required to assess the likelihood of reaching the materiality threshold.

As we have already discussed in relation to network tolling, changing tolls will change motorists' behaviour. This will result in many desired benefits, and could also lead to traffic diversion, where motorists opt to take an untolled route because they do not perceive benefits in the toll route. Arterial roads and local roads may experience increased traffic due to the diversion of traffic from previously untolled directions. Assessing the capacity of these roads to handle additional traffic is crucial to anticipate potential congestion issues. The Review has started to consider these risks, that will be further explored during implementation. Moreover, there is a need to evaluate whether network mitigation works will be necessary to address and alleviate any resulting congestion concerns.

Investment to put in place/remove tolling infrastructure and build new systems will be required to support the proposed changes.

Engagement with the community, industry and stakeholders, including the National Heavy Vehicle Regulator (NHVR) and trucking and motorist groups, will be required to refine the design of changes and support implementation.

Feedback on the introduction of two-way tolling was received during the second round of consultation, was generally supportive, with the only concerns centring around the cost doubling instead of halving and the possibility that the change will induce demand.

Figure 9.18 Stakeholder and public commentary on two-way tolling

**Committee for Sydney:** The Interim Report's recommendation to charge two-ways on the Harbour Crossings and Eastern Distributor – which we support as it will have the effect of encouraging sustainable modes on these routes.

It costs more to catch the train or bus two ways on some routes than it does to drive.

**BMW Touring Club of NSW:** The BMWTCNSW supports two-way tolling for the sake of consistency across the network, with an introductory pricing structure on current one-way tolled motorways.

**Dennis:** Introducing "two-way tolling on the Sydney Harbour Crossings and the Eastern Distributor" is nothing less than a slap in the face for any tax payer, both of these assets have been paid several times over. Asking the tax payer to pay for those assets yet again is outrageous.

Further, it will put even more traffic on the utterly congested Victoria Road, whose widening projects have mostly been scrapped for reasons impossible to justify.

**Submission 252193:** I support two-way tolling on the Harbour Crossing and the Eastern Distributor if it is halved for each direction, not doubled.

**Benjamin:** Consistent two-way tolling ensures equity and transparency, ensuring all road users contribute fairly, which is crucial for public trust.

Source: Public Consultation Submissions, 2024

#### **Recommendations:**

**Recommendation 17:** The Review recommends consistent two-way tolling as part of the network tolling system. Practical issues with the implementation should continue to be investigated.

## Longer term reform: optimising the tolled motorway network

The Grattan Institute's submission noted: '... it would be more consistent and intuitive if all urban motorways were included in the tolled network, not just those that happened to have been built in the past two decades as toll roads. Including all comparable corridors but setting tolls at more affordable rates would go some way to reversing the current inequitable burden of tolls.'<sup>76</sup>

Having tolled and untolled segments where the roads are interconnected and largely of the same standard and configuration creates distortions and complicates the operation of the roads as one network. Including them within a single tolled network may be consistent with the Proposed New Tolling Principles. This could mean that some roads are no longer tolled, or that other roads are brought into the network.

We note the position put by the Grattan Institute that revenues from expanding toll coverage could be 'reinvested' to lower tolls across existing toll roads. Another opportunity is to contribute to funding expansion of the toll road network, or public transport. Providing tangible benefits such as these has been crucial to gaining public acceptance of tolling.

As with the proposed near-term changes, broad consultation with the community, industry and stakeholders would support successful design and implementation of the reform.

<sup>&</sup>lt;sup>76</sup> Grattan Institute. (2023, July 25). Public consultation, Stakeholder Submission.

Any future consideration of the scope should have regard to the importance of open, effective competition.

#### **Recommendations:**

**Recommendation 18:** The NSW Government should investigate the scope of the tolled network in Sydney to achieve greater consistency, efficiency, and fairness.

# 10. Assessment of toll reforms

## **Recommendations:**

**Recommendation 19:** The NSW Government should note the modelling conducted by the Review. Modelling will need to continue prior to the introduction of any network tolling.

Transport demand models can assist in the assessment of policies that influence overall mobility, including changes to tolling arrangements.

To support the work of the Review, these models have been used to analyse the combined impact of a package of reforms, developed in response to the recommendations of <u>Chapter 9</u>. This package includes:

- A structure of tolls with a declining distance base charge and infrastructure access charges for use of bridge or tunnel toll road infrastructure.
- Reform to vehicle multipliers to introduce new classes for motorcycles and mid-class heavy vehicles, and to apply consistent definitions and multipliers for Class A and Class B across the toll network.
- Consistent two-way tolling across the toll road network, changing arrangements on the Sydney Harbour Crossings, and the Eastern Distributor.

The modelling has focused on formalising the network tolling reform package as a series of modelling assumptions and assessing the impacts of an indicative structure of tolls.

To support toll transparency, we share each iteration of our transport modelling with the public, even if it is a step towards the final design. We have done this to show the public the advantages of network tolling, and the different tolls that have informed our recommendations.

We are aware that if tolls do come down there are potential issues for congestion, and share our concerns based on what the modelling shows us so far. The flexible tolling approach we have recommended, declining distance and infrastructure charging, allows for further adjustment of tolls to balance toll reductions and traffic impacts, among other mitigations available to government like investing in network capacity. We expect that work to refine tolls will continue ahead of the introduction of network tolling, and beyond as the impacts are evaluated.

## How we have modelled the network tolling reform package

## Modelling approach

To understand the impact of reform, we have used an established suite of transport models to test and refine the tolling structure for the network tolling. The approach is described in <u>Appendix C</u>: Transport Modelling.

We have analysed the forecast changes to motorist behaviour from these models to understand the performance of the Network tolling reform compared to the current state.

## **Modelled** scenarios

Three scenarios have been modelled and are presented in this chapter – a Status Quo scenario and two reform scenarios for network tolling.
### Status Quo

The Status Quo scenario represents the current state of policies, including the continuation of existing arrangements into the future. It serves as a reference point for comparing alternative scenarios involving policy changes. Comparing the Status Quo scenario with others helps quantify the impacts of proposed changes and assess the potential benefits or drawbacks of deviating from the established policies.

Here, the Status Quo scenario involves the continuation of current concession-based arrangements for tolling as set out in <u>Chapter 2</u>. This includes toll caps for the M7 and WestConnex, as well as an approximation of the M5 South-West cashback. The Status Quo scenario was based on the current and committed toll network.

The Status Quo modelling includes the two existing vehicle classes, Class A and Class B.

#### Network tolling scenarios

The modelled options for network tolling reform package have a declining distance per-kilometre charge as the core tolling method, where the cost per kilometre decreases the further a motorist travels. The declining distance per-kilometre charge would reduce at a set percentage depending on the distance travelled, and a worked example is provided in <u>Chapter 9</u>. In addition, infrastructure access charges apply when motorists use specific parts of the tolled motorway network.

The network tolling scenarios also:

- assume that two-way tolling is in place from 2026 on the Eastern Distributor and the Sydney Harbour Crossings
- include four vehicle classes: Class A and Class B, a new class for motorcycles, and a new class for MCHV
- assume the M5 Cashback is continued.

# The initial tolling structures for network tolling are shaped by the assumption of a redistribution of tolls

The Review proposes a network structure of tolls be introduced for the initial reform, maintaining the current level of total tolls paid. A firm constraint in the transport modelling is accordingly that the total tolls paid under the network tolling scenarios is equivalent with the Status Quo scenario in 2026, which is considered the earliest possible year for implementing the reform. This constraint means that the introduction of network tolls will change toll trip relativities but not the overall level of tolls. Some tolls will go up whilst others will go down.

#### Our approach to toll relief in modelling the network tolling scenarios

For the network tolling reform, the Review has modelled two options, both of which continue the M5 Cashback. Both options involve the application of different levels of funding sources within the tolling system to reduce tolls. These two options represent illustrative extremes. The level of funding sources can be adjusted flexibly or phased out over time.

This resulted in two scenarios for network tolling:

- Network Toll Restructure: Total tolls paid by motorists is equal to the Status Quo, although the structure of tolls is different. Apart from the M5 Cashback and the additional revenue flowing to government from two-way tolling and the introduction of heavy vehicle multipliers on the Sydney Harbour Crossings, no other subsidies for tolls are provided.
- Network Toll Restructure and Reduction: Total tolls paid by motorists is equal to the Status Quo, less \$650 million per year (real 2026) of additional funding sources within the tolling system. This \$650 million is applied as a subsidy to lower tolls network-wide. As a result, this 'toll restructure and reduction' scenario has reduced tolls. The M5 Cashback also continues to apply.

#### Indicative network tolling structures

<u>Figure 10.1</u> details indicative network tolling structures developed through the modelling to date. The tolls are presented in nominal 2026 dollars, meaning they reflect the actual out-of-pocket costs for that year.

Figure 10.1 Indicative Network Toll Restructure and Network Toll Restructure and Reduction structures in nominal 2026 dollars

	Network Toll Restructure	Network Toll Restructure and Reduction
Declining distance rate components		
Toll for first distance segment	\$0.65/km	\$0.50/km
Distance segment length	4 km	4 km
Declining percentage	15%	15%
Infrastructure charges		
Sydney Harbour Crossings	\$4.70 (Peak) \$1.70 (Off-Peak)	\$4.20 (Peak) \$1.60 (Off-Peak)
Cross City Tunnel	\$5.00	\$3.00
Eastern Distributor	\$6.00	\$3.00
Lane Cove Tunnel	\$4.00	\$2.00
NorthConnex	\$5.00	\$2.00
WestConnex – M8	\$2.50	\$0.50
WestConnex – M4-M8 Link (Haberfield to St Peters)	\$4.00	\$1.00
WestConnex – M4-M8 Link and Rozelle Interchange (Haberfield to Rozelle)	\$1.50	\$0.50

	Network Toll Restructure	Network Toll Restructure and Reduction
WestConnex – M4-M8 Link and Rozelle Interchange (St Peters Interchange to Rozelle)	\$2.50	\$0.50
WestConnex M4 East Tunnels	\$1.50	\$0.50
WestConnex M5 East Tunnels	\$1.50	\$0.50
M6 Stage 1	\$0.50	\$0.50
Vehicle class multipliers		
Motorcycles	0.5x	0.5x
Light Vehicles	1.0x	1.0x
Mid-Class Heavy Vehicles	2.0x	2.0x
Large Heavy Vehicles	3.0x	3.0x
Point toll		
Military Road E-Ramps <sup>77</sup>	\$2.15	\$2.15

Source: Independent Toll Review

## Key assumptions

Key assumptions for the initial assessment included that:

- Modelling for the Status Quo was based on the current and committed toll network. Following the opening of Western Harbour Tunnel, the Status Quo scenario assumes consistent two-way tolling on all Sydney Harbour Crossings.
- Modelling for the network tolling scenarios was based on consistent two-way tolling across the toll road network. This meant:
  - Two-way tolling on Sydney Harbour Crossings (current arrangements are for southbound tolling only).
  - Two-way tolling on the Eastern Distributor (current arrangements are for northbound tolling only).
  - Status Quo point tolls at the Military Road E-Ramps.
- Toll escalation was assumed in the Status Quo, to be consistent with current concession terms. In the network tolling scenarios, tolls were also escalated, at a rate of ~3.5% per annum over time.

<sup>&</sup>lt;sup>77</sup> Military Road E-Ramps are assumed to function as toll-points, consistent with the current Status-Quo.

Additionally, the key inputs for the traffic modelling process included:

- Traffic Demand: Inputs were based on 2022 forecast land use and demographics for Sydney (which determines the size of the travel market) and spatial distribution of employment which significantly shapes travel patterns across the city.
- Transport Network: Inputs were based on the physical transport infrastructure and services (including the road network and public transport services), as well as monetary costs (e.g. tolls, parking and public transport fares) which influence travellers' options to travel.
- Economic and Behavioural: Sydney toll roads use various measures to determine toll increases and affordability. These include the Consumer Price Index (CPI) and Average Weekly Earnings (AWE). Updated Value of Travel Time Savings (VTTS) inputs, based on 2023 surveys, were used to estimate users' willingness to pay for travel time savings.
- Observed traffic behaviour: The traffic model has been calibrated and validated using a range of observed datasets which describe the use of Sydney's road network. This includes traffic counts at around 1,000 locations across Sydney, travel time data for key corridors and travel patterns from the Household Travel Survey.

# Our approach to evaluation

## The analysis we are considering

Transport models produce key metrics for the performance of the road network, like total trips, average speeds on the road network, and vehicle kilometres driven by motorists.

Building from these outputs, the Review has analysed the forecast impacts of adopting network tolling on motorists, traffic and tolls in terms of:

- Motorist impacts: Motorists are better off when journey times are shorter, and if they use toll roads, from lower tolls. This analysis considers changes in travel time and tolls forecast for Class A vehicles, identifying areas in Sydney where motorists are mostly better off or mostly worse off under network tolling.
- Traffic impacts: An analysis of changes to motorist behaviour, showing where lower/higher volumes are forecast, compared to the Status Quo. This is complementary to the analysis of changes in travel times for motorists as part of motorist impacts. It also highlights where further transport mitigations might be needed.
- Toll impacts: Analysis of changes to tolls under network tolling, as compared to the Status Quo, in terms of:
  - Average tolls: The forecast average toll paid for Class A vehicles and all vehicles.
  - Motorway network: The distribution of toll charges for Class A vehicles for all journeys involving the tolled network.
  - Select routes: Analysis of toll charges for Class A, Class B and the proposed MCHV vehicle classes for specific journeys to illustrate how the network tolling structure compares to the Status Quo.

Modelling was conducted for 2026, considered the earliest possible year for implementing toll reform, and for 2031, 2041 and 2051 when all committed toll roads and major motorway upgrades, such as Western Harbour Tunnel, M6, Sydney Gateway, M12, and M7 widening, are expected to be operational. However, as the future trends largely mirror those of 2026, the focus of discussion in this report is 2026.

## How we are thinking about equity and fairness

The aim in exploring alternate structures for tolls in Sydney is to improve network efficiency for the benefit of all motorists, while meeting fairness objectives. This involves ongoing consideration of the impacts across Sydney, especially in areas where relative disadvantage is observed. If overall benefit comes at a high cost to areas that are already vulnerable, then change may become inequitable. In this case additional policy measures could be considered.

There are several ways of looking at relative advantage and disadvantage, including its geographic distribution. Common approaches include using the Australian Bureau of Statistics' Socio-Economic Indexes for Areas (also known as SEIFA), which ranks Australian areas by socio-economic status based on five-yearly census data, focusing on factors like income, education, and employment.<sup>78</sup>

The Review has used a measure of mobility-related social exclusion as outlined by Stanley, Hensher et al. in 'Major urban transport expenditure initiatives: Where are the returns likely to be strongest and how significant is social exclusion?'.<sup>79</sup> This measure, which includes factors like income and employment also used in the Socio-Economic Indexes for Areas measure, is particularly suited for evaluating transport projects. It employs four indicators to gauge the relative risk of mobility-related social exclusion:

- The proportion of the population aged 0–19, since children and youth tend to be more reliant on others, and on public transport, to access opportunities.
- The proportion of population aged 75 or more, since older people also tend to be more dependent on others, and on public transport, for accessibility.
- The (median) family income, as those with higher incomes are more readily able to purchase mobility solutions.
- Level of unemployment since this is a common indicator of disadvantage and of risk of social exclusion.<sup>80</sup>

The risk of mobility-related social exclusion across different areas in Sydney is illustrated in <u>Figure</u> <u>10.2</u> below.

<sup>&</sup>lt;sup>78</sup> Australian Bureau of Statistics. (2023, April 27). Socio-Economic Indexes for Areas (SEIFA), Australia. <u>https://www.abs.gov.au/statistics/people/people-and-communities/socio-economic-indexes-areas-seifa-australia/latest-release#overview</u>.

<sup>&</sup>lt;sup>79</sup> Stanley, J. K., Hensher, D. A., Wei, E., & Liu, W. (2022). Major urban transport expenditure initiatives: Where are the returns likely to be strongest and how significant is social exclusion in making the case. Research in Transportation Business & Management, 43.

<sup>&</sup>lt;sup>80</sup> Stanley, J. K., Hensher, D. A., Wei, E., & Liu, W. (2022). Major urban transport expenditure initiatives: Where are the returns likely to be strongest and how significant is social exclusion in making the case. Research in Transportation Business & Management, 43.



#### Figure 10.2 Index of risk of mobility related social exclusion, Sydney

Source: Transport for New South Wales analysis, based on Stanley, J.K., Hensher, D.A. et al (2022)

As <u>Figure 10.2</u> illustrates, spatial mapping of the index for mobility-based social exclusion shows high risk areas in the southwest and west (emphasised with a pale-yellow overlay). Low risk areas include the Eastern Suburbs, Northern Beaches, and North Shore.

# Results

# Motorist impacts

Network tolling can potentially offer significant benefits to motorists by optimising journey travel times and toll expenses across the road network. A well-designed toll structure aims to strike a balance, ensuring that the benefits of reduced travel times and toll costs are not offset by increased congestion due to higher road usage or by longer travel times on alternative routes due to toll avoidance.

Analysis of network tolling outcomes suggests that changes in tolls and travel times under network tolling, when considered together, are favourable for motorists in Sydney's outer north, south and west. Most travellers across the network will enjoy faster journey times and lower toll costs, and some motorists will also benefit from a reduction in fuel and other vehicle running costs. These improvements will allow many of Sydney's motorists to access jobs, services and amenities quicker and cheaper than they otherwise would have. Benefits to motorists are greater in Network Toll Restructure and Reduction) compared to Network Toll Restructure.

Where a significant change to the system is occurring, we expect that there will always be a balance of people better or worse off. Our analysis suggests that two-way tolling on the Eastern Distributor, and the Sydney Harbour Crossings are the changes that are contributing to some motorists being worse off and not the general tolling structure of a declining distance-based regime.

# **Traffic impacts**

The introduction of network tolling is anticipated to alter motorist behaviour. We consider traffic impacts (where traffic volumes increase, where they decrease) to understand how the toll influences motorists' choice of routes and to identify areas of potential congestion that may require further intervention or adjustment of the toll parameters. Specifically, we have considered forecast changes in traffic patterns for an average school day in 2026.

In some areas, indicated in <u>Figures 10.3</u> and <u>10.4</u> in orange to red, there could be reduction in traffic volumes. This decrease in volume is likely to lead to increased network speeds, thereby contributing to overall travel time savings.

In contrast, other areas in <u>Figures 10.3</u> and <u>10.4</u> show a forecast increase in traffic volumes, illustrated in blue. This could mean better use of roads with available capacity. Conceivably, however, there could be added pressure on the road network, requiring further study of options at a more detailed level, including modifying tolls or adjustment of the parameters available in the proposed tolling system, to address this.

### Managing traffic impacts through the design and implementation of network tolling

In our work to date we have focused on modelling bookends of the potential restructure and reduction in network tolls. This has illustrated the benefits of reform for motorists and helped us understand where we need to focus in implementation.

Further assessment of network integration, in conjunction with the proposed tolling mechanisms, will be required to explore options to address any areas of concern. This is part of the ongoing iterative work of calibrating the tolling structure, balancing benefits to motorists and network impacts.

As the network tolling regime comprises several components (such as distance segment tolls, declining rates, and infrastructure charges), it offers enhanced flexibility for refining and optimising parameters to address potential network opportunities or concerns. For example, altering infrastructure charges could provide localised relief or improved utilisation, while variations to declining distance parameters may influence trip patterns for short or long journeys.

Modelling sensitivity tests showed that increasing the declining distance rate from 15% to 20% generally attracts more trips along corridors that enable long-distance travel, such as the M2 and M7. Conversely, reducing the infrastructure charge indicates larger impacts on the east side, especially on the Eastern Distributor. These results demonstrate the flexibility of the declining distance tolling structure, with the distance component influencing areas in the west and the infrastructure charge affecting the east.

### Traffic impact analysis

Traffic impacts for the network tolling compared to the Status Quo are illustrated in <u>Figure 10.3</u> and 10.4.



#### Figure 10.3 Daily traffic volume difference map – Status Quo vs. Network Toll Restructure

#### Source: Independent Toll Review

Figure 10.4 Daily traffic volume difference map – Status Quo vs. Network Toll Restructure and Reduction



Source: Independent Toll Review

#### Network Toll Restructure:

The Volume Difference Map in <u>Figure 10.3</u> illustrates an increase in the volume of trips on some underutilised sections of the tolled network, such as the WestConnex M5 East. Volumes on wellestablished toll roads like the M2 and the WestConnex M4 are also modelled to increase, with corresponding reduction in volumes on untolled arterial roads, such as Stoney Creek Road, Forest Road, Canterbury Road, Parramatta Road, and the Pacific Highway. This reduction in arterial road traffic helps to alleviate pressure and congestion on the rest of the network, benefiting motorists.

Conversely, traffic is expected to be diverted from motorways such as the Sydney Harbour Crossings, Eastern Distributor, and the WestConnex M8. For the first two, this is primarily due to the introduction of two-way tolling, with the Sydney Harbour Crossings also incorporating time-of-day tolls.

Traffic modelling estimates that time-of-day tolls could reduce traffic volumes on the Harbour Crossing during peak periods and increase traffic during off-peak times. This results in a net decrease in demand for the Harbour Crossings. As a result, alternative routes like the Iron Cove Bridge and Anzac Bridge are likely to experience increased traffic during peak periods and decreased traffic during off-peak times. Further exploration of this mechanism is necessary to optimise the network.

#### Network Toll Restructure and Reduction:

The Volume Difference Map in <u>Figure 10.4</u> shows a similar pattern to <u>Figure 10.3</u>, with more pronounced changes in traffic volume, reflecting the significant reduction in tolls under the Network Toll Restructure and Reduction scenario. Increases are forecast for the M2, all sections of the WestConnex, and the M7 compared to the current state. Similar benefits in reducing traffic on the untolled arterial road network are observed, including Stoney Creek Road, Forest Road, Canterbury Road, Liverpool Road, Parramatta Road, most sections of Victoria Road, Epping Road, and the Pacific Highway.

Traffic reductions are also forecast for the Sydney Harbour Crossings and the southbound direction of the Eastern Distributor due to the introduction of two-way tolling.

Similar to the Network Toll Restructure, the implementation of two-way tolling is expected to add pressure to roads nearing capacity, potentially increasing congestion on some roads. Our analysis to date highlights the M2, M7, and M5 South-West as areas of concern. While the Network Toll Restructure and Reduction is an upper bookend of toll changes, and so represents the most extreme traffic impacts of reform, as reform is progressed we recommend looking at different ways of managing the demand for these roads, such as further refining the components of the declining distance and infrastructure charge approach, providing alternative routes, improving public transport, or encouraging off-peak travel.

## **Toll impacts**

This analysis illustrates how the indicative Network Toll Restructure, and Network Toll Restructure and Reduction structures translates to tolls for motorists.

### Average toll

As a snapshot of the outcomes from network tolling, the average toll has been calculated and compared to the Status Quo. This has been completed for Class A vehicles and all vehicles.

#### Figure 10.5 Average toll by scenario in 2026

Vehicle type	Status Quo	Network Toll Restructure	% reduction: Network Toll Restructure compared to Status Quo	Network Toll Restructure and Reduction	% reduction: Network Toll Restructure and Reduction compared to Status Quo
Class A	\$9.02	\$7.62	16%	\$5.43	40%
All vehicles	\$11.18	\$9.11	19%	\$6.48	42%

Source: Independent Toll Review

Note: The analysis assumes motorists pay the full toll on all roads. It does not account for some motorists reducing their out-of-pocket toll costs by applying for the toll rebate from the M5 Cashback scheme.

As <u>Figure 10.5</u> details, average tolls are lower in all the network tolling scenarios, for all vehicles, as compared to the Status Quo scenario. The largest factor in the lower average tolls in the network tolling scenarios is that more trips in these scenarios involve paying a toll. This is due to the introduction of two-way tolling on the Sydney Harbour Crossings and the Eastern Distributor. This has been applied to reduce the overall level of tolls. In short, there are more trips paying a toll, and the average toll (per tolled trip) is reducing. Another factor is the introduction of multipliers for heavy vehicles on the Sydney Harbour Crossings. As all vehicles currently pay the same on the Sydney Harbour Crossings, the introduction of multipliers will generate additional revenue. This has also been applied to reduce the overall level of tolls.

Comparing the two network tolling scenarios, average tolls are lowest in the Network Toll Restructure and Reduction scenario, reflecting the assumption that \$650 million per year (real 2026) of toll system funding sources are applied as a subsidy to lower tolls network-wide.

All three scenarios – the Status Quo and the Network Tolling scenarios – assume that the M5 Cashback is continued.

# Motorway: distribution of toll charges under network tolling (for trips involving the tolled network)

To explore toll changes on journeys, we use a visualisation that compares the tolls paid by Class A motorists under network tolling to the Status Quo. The comparison is for the over 3,000 modelled journeys that include the motorway network.

The visualisation comprises:

• X-Axis (Horizontal): This axis represents the differences in tolls for daily light vehicles (Class A) under the new tolling structure compared to the Status Quo. The value is in nominal 2026 dollars. A zero value indicates no change in toll compared to the Status Quo, which could happen if the network tolling scenario toll happens to be equivalent to the Status Quo toll for the journey. A point to the left of zero means the toll has decreased under the new structure of tolls, while a point to the right indicates an increase. Trips which do not incur a toll in both the Status Quo and network tolling scenarios are excluded from the visualisation.

- Y-Axis (Vertical): This axis shows the weekday volume of light vehicles (referred to as 'weekday light vehicle ons') that use a particular route. These are average figures for a typical school weekday in the Status Quo scenario. A higher value on this axis suggests more vehicles are using that route, and therefore, the change of tolls associated with network tolling is impacting relatively more motorists. The use of a logarithmic scale (in powers of 10) allows presentation of a wide range of trip volumes and prevents the overemphasis of routes with low or high volumes.
- Dot colour: The colour of each dot on the chart represents the total motorway distance of the trip. Blue dots signify trips less than 10 km, yellow dots represent trips between 10 and 25 km, and red dots are for trips longer than 25 km.

For example, a blue point with an x axis value of -6 and a y axis value of 5,000, means it's a trip that is less than 10 km in length with 5,000 motorists benefitting from paying \$6 dollars less in tolls for that trip under network tolling compared to the Status Quo.

The analysis presented in the visualisations is complemented by summary tables. These tables break down, by trip distance bands and overall, the proportion of Class A trips where a toll decrease occurs relative to the Status Quo, and where tolls increase.

Note: If a journey is untolled in the Status Quo, and untolled in the Network Toll Restructure or Network Toll Restructure and Reduction scenarios, the trip is not shown in the visualisation.

Indicative toll changes by trip volume and trip distance for the network tolling scenarios, compared to the Status Quo, is illustrated in Figure 10.6 and 10.7.



Figure 10.6 Class A vehicles, indicative toll difference, Network Toll Restructure compared to Status Quo, 2026

Source: Independent Toll Review



Figure 10.7 Class A vehicles, indicative toll difference, Network Toll Restructure and Reduction compared to Status Quo, 2026

#### Source: Independent Toll Review

Note: The analysis in Figures 10.6 and 10.7 assumes motorists pay the full toll on all roads. It does not account for some motorists reducing their out-of-pocket toll costs by applying for the M5 Cashback scheme toll rebate.

Overall, Figures 10.6 and 10.7 show:

- In the Network Toll Restructure scenario, most trips will experience a price change within the range of ±\$8. However, under the Network Toll Restructure and Reduction scenario, price changes are expected to range from -\$14 to +\$6, with the majority of trips seeing reduced prices.
- The trips that receive the greatest benefit in toll reductions are often the longer trips (10–25 km+). This reflects the design of the declining distance charge, where the rate per kilometre reduces the further the motorist travels on the toll road network.
- Two-way tolling of the Sydney Harbour Crossings and Eastern Distributor is a key factor resulting in some <10 km trips paying more in tolls.
  - Sydney Harbour Crossings northbound trips: These trips are tolled in the network tolling scenarios. As an example, for a 2 km journey, the toll would be \$6.00 during peak periods and \$3.00 during off-peak periods in Network Toll Restructure, compared to no cost currently.
  - Eastern Distributor southbound trips: These are also tolled under network tolling. The infrastructure access charges are \$6.00 in Network Toll Restructure and \$3.00 in Network Toll Restructure and Reduction. These charges apply in addition to the per-kilometre declining distance base charge. This contrasts with the current cost of \$0.

Figures 10.8 and 10.9 present tables summarising the data in Figures 10.6 and 10.7. The tables show the proportion of Class A trips (by trip length band) where tolls are expected to decrease under network tolling, as well as the proportion where tolls are expected to increase.

Network Toll Restructure vs Status Quo												
Trip distance	\$3+ lower	\$1–3 lower	\$0–1 lower	\$0-1 higher	\$1–3 higher	\$3+ higher	Total % of trips					
<10 km	3%	10%	6%	14%	3%	16%	52%					
10-25 km	3%	9%	5%	7%	4%	3%	32%					
>25 km	4%	4%	3%	1%	4%	1%	16%					
All trips	11%	23%	14%	22%	10%	20%	100%					

Figure 10.8 Class A, indicative toll difference, Network Toll Restructure compared to Status Quo, 2026

Source: Independent Toll Review

Figure 10.9 Class A, indicative toll difference, Network Toll Restructure and Reduction compared to Status Quo, 2026

Network Toll Restructure and Reduction vs Status Quo												
Trip Distance	\$3+ lower	\$1–3 lower	\$0–1 lower	\$0-1 higher	\$1-3 higher	\$3+ higher	Total % of trips					
<10 km	10%	13%	10%	2%	3%	14%	52%					
10–25 km	17%	7%	4%	0%	0%	2%	32%					
>25 km	14%	1%	1%	0%	0%	0%	16%					
All trips	41%	22%	15%	2%	3%	17%	100%					

Source: Independent Toll Review

Note: The analysis in <u>Figures 10.8</u> and <u>10.9</u> assumes motorists pay the full toll on all roads. It does not account for some motorists reducing their out-of-pocket toll costs by applying for the M5 Cashback scheme toll rebate.

Figures 10.8 and 10.9 show:

- The shares of trips by distance bands are consistent across all the A and C scenarios, and most trips are short trips (52%).
- In the Network Toll Restructure scenario, there are similar proportions of trips with lower tolls (48%) and higher tolls (52%).
- The Network Toll Restructure and Reduction scenario, results in more trips saving motorists toll costs; around 78% of trips pay less tolls.

#### Geographic distribution of toll impacts

Across Sydney's transport network, we have modelled over three thousand different trips that involve the tolled motorway network. <u>Figure 10.10</u> and <u>10.11</u> display a map of Sydney, where dots indicate the starting points (origins) of each journey. Areas with dense clusters of dots indicate higher numbers of journeys starting during the AM peak period.

Our analysis examines whether motorists starting their journeys in different Sydney areas experience, on average, higher or lower tolls as a result of network scenarios compared to the status quo.<sup>81</sup>

By colour-coding journey origins based on the nature of the change in tolls, <u>Figures 10.10</u> and <u>10.11</u> provide a visual representation of how tolling reforms impact different areas of Sydney. Toll changes have been broken down into ranges of \$0 to \$1, \$1 to \$3 and \$3+, providing insight into the magnitude and direction of the toll changes. This complements the analysis of toll changes by trip distance detailed in <u>Figure 10.6</u>, <u>10.7</u>, <u>10.8</u> and <u>10.9</u>. Each dot on the maps represents one tolled trip under the Status Quo scenario.

Figure 10.10 Class A (private vehicles), weighted average school-term weekday toll difference by origin travel zone, Network Toll Restructure compared to Status Quo, 2026 AM peak period



Source: Independent Toll Review

<sup>&</sup>lt;sup>81</sup> These maps depict the average private vehicle toll, weighted by the number of tolled trips, by origin travel zone. Hence, if a particular zone is showing a higher toll it doesn't infer every trip originating from this zone will pay a higher toll under a network tolling regime, rather the majority will, with some users expected to incur a lower toll. This also occurs for the opposite situation, whereby, the zone shows a lower toll via the weighted average.



Figure 10.11 Class A (private vehicles), weighted average school-term weekday toll difference by origin travel zone, Network Toll Restructure and Reduction compared to Status Quo, 2026 AM peak period

#### Source: Independent Toll Review

<u>Figure 10.10</u> indicates eastern parts of Sydney are forecast to experience more expensive tolls, which may be due to factors such as the introduction of two-way tolling for the Sydney Harbour Crossings, whilst areas along the M2, M4 and M5 are forecast with lower tolls. This is consistent with other analysis presented, such as the traffic volume difference maps.

<u>Figure 10.11</u> showcases generally lower tolls are forecast across most of the network due to higher subsidisation, except for some areas of eastern Sydney generally due to the introduction of two-way tolling.

#### Toll impacts: indicative tolls for select routes

This analysis focuses on the indicative tolls of select routes, comparing them to the Status Quo.

The selected routes span a broad spectrum of trips incorporating toll roads, ensuring coverage of potential journeys across the entire motorway network. They contain a greater share of longer trips than the general trip population, as illustrated in <u>Figures 10.8</u> and <u>10.9</u>. While the select routes might not depict the most typical trip lengths, and trip tolls, they illustrate a relevant range of impacts.

Results are provided for three vehicle classes – Class A, the proposed Mid-Class Heavy Vehicle Class, and Class B. The classes are assumed to pay toll multipliers of 1, 3 and 3 respectively in the Status Quo in general, and 1, 2 and 3 respectively in the network tolling scenarios.

The select routes analysis complements the analysis in <u>Figures 10.8</u> and <u>10.9</u>. For instance, in <u>Figure</u> <u>10.12</u>, route 5 from Parramatta to the CBD demonstrates how a journey exceeding 25 km could see a toll reduction of \$0–1 for Class A vehicles under the Network Toll Restructure scenario. Conversely, route 20 from North Sydney to Petersham illustrates a potential toll increase of \$1–3 for Class A vehicles for trips ranging from 10–25 km under the same scenario (see <u>Figure 10.8</u>).

<u>Figures 10.12</u> and <u>10.13</u> provide a comparative analysis of indicative tolls for Class A and B vehicles, alongside the route distance, overall, and on and off toll roads. This comparison highlights differences between the network tolling scenarios and the Status Quo.

Figure 10.12 Comparison of indicative toll and journey composition (travel on tolled/untolled network) for representative routes, Network Toll Restructure compared to the Status Quo for peak tolls.

				Status Quo Trip				Network Toll Restructure					
#	Origin	Destination	Toll roads	length (km)	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
1	North of Hawksbury River	CBD	M2, LCT, SHB/SHT, NCX	58	26	32	\$29.90	\$83.27	26	32	\$24.90	\$49.80	\$74.70
2	Marsden Park	CBD	M2, LCT, M7, SHB/SHT	51	37	14	\$25.50	\$70.06	37	14	\$22.19	\$44.38	\$66.58
3	Penrith	CBD	M4	54	18	36	\$12.74	\$38.23	18	36	\$11.94	\$23.88	\$35.82
4	Campbelltown	CBD	M5E, M5W, ED	57	25	32	\$25.98	\$67.23	25	32	\$19.58	\$39.15	\$58.73
5	Parramatta	CBD	M4	26	18	8	\$12.74	\$38.23	18	8	\$11.94	\$23.88	\$35.82
6	Padstow	CBD	M5E, M5W, ED	28	20	8	\$25.98	\$67.23	21	8	\$17.30	\$34.59	\$51.89
7	Sutherland	CBD	M5E, M5W, ED	41	20	21	\$25.98	\$67.23	21	21	\$17.30	\$34.59	\$51.89
8	Rouse Hill	Domestic Terminal	M2, LCT, M7, SHB/SHT, ED	55	27	27	\$20.12	\$53.93	32	23	\$27.30	\$54.60	\$81.91
9	Campbelltown	Hornsby	M2, M7, NCX	74	58	17	\$26.49	\$79.49	58	17	\$20.65	\$41.30	\$61.95
10	Parramatta	Maroubra	M4, M8	32	21	11	\$12.74	\$38.23	21	11	\$15.29	\$30.59	\$45.88

				Trip	Status Quo				Network Toll Restructure				
#	Origin	Destination	Toll roads	length (km)	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
11	Rosebery	Mt Druitt	M4, M8	45	21	24	\$12.74	\$38.23	21	24	\$15.29	\$30.59	\$45.88
12	Rosebery	Blacktown	M4, M8	39	21	18	\$12.74	\$38.23	21	18	\$15.29	\$30.59	\$45.88
13	CBD	International terminal	M5E, ED	17	4	12	\$10.71	\$21.43	4	12	\$8.78	\$17.56	\$26.34
14	North Sydney	Domestic Terminal	SHB/SHT, ED	17	2	14	\$4.27	\$4.27	7	10	\$15.00	\$29.99	\$44.99
15	Leppington	Leichhardt	M8, M5W	50	29	21	\$18.67	\$56.03	29	21	\$16.96	\$33.93	\$50.89
16	Zetland	CBD	ED	7	2	5	\$10.71	\$21.43	3	5	\$7.69	\$15.38	\$23.07
17	Bondi Junction	Lilyfield	ССТ	11	2	8	\$7.40	\$14.80	2	8	\$6.40	\$12.80	\$19.19
18	Artarmon	Pennant Hills	M2, LCT	20	14	6	\$14.97	\$46.99	14	6	\$11.66	\$23.32	\$34.98
19	Ingleburn	Rockdale	M5E, M5W	38	17	20	\$13.84	\$41.54	17	20	\$11.63	\$23.26	\$34.89
20	North Sydney	Petersham	SHB/SHT	11	2	9	\$4.27	\$4.27	2	9	\$6.00	\$12.00	\$18.00
21	Haymarket	Rosehill/ Parramatta	M4	24	16	8	\$12.56	\$37.72	16	8	\$11.30	\$22.61	\$33.91
22	North Ryde	CBD	M2, LCT, SHB/SHT	16	5	11	\$8.56	\$19.24	5	11	\$11.94	\$23.88	\$35.82

			-	Trip	Status Quo	)			Network Toll Restructure				
#	Origin	Destination	Toll roads	length (km)	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
23	Epping	Domestic Terminal	M2, LCT, SHB/SHT, ED	35	14	21	\$19.23	\$51.26	18	17	\$23.71	\$47.41	\$71.12
24	Parramatta	Mascot	M4, M8	27	21	7	\$12.74	\$38.23	21	7	\$15.29	\$30.59	\$45.88
25	Glenfield	Blacktown	M4, M7	33	20	14	\$10.40	\$31.19	20	14	\$9.58	\$19.17	\$28.75
26	Glenfield	Kemps Creek	M7	24	11	14	\$5.65	\$16.95	11	14	\$6.11	\$12.22	\$18.34
27	Hornsby	Macquarie Park	M2, NCX	26	18	8	\$21.34	\$64.02	18	8	\$13.97	\$27.94	\$41.91
28	Bankstown	Blacktown	M4, M5W, M7	45	28	16	\$16.46	\$49.38	28	16	\$11.93	\$23.86	\$35.79
29	Liverpool	Revesby	M5W	15	7	8	\$6.06	\$18.19	7	8	\$4.44	\$8.87	\$13.31
30	North Parramatta	Hornsby	NCX	23	10	14	\$10.67	\$32.01	10	14	\$10.38	\$20.75	\$31.13
31	Sydney Airport	Belmore	M5E	9	7	2	\$6.28	\$18.86	7	2	\$5.58	\$11.16	\$16.75
32	Macquarie Park	Cheltenham	M2	6	4	2	\$10.67	\$32.01	4	2	\$2.68	\$5.37	\$8.05
33	Burwood	Sydney Olympic Park	M4	6	2	4	\$3.40	\$10.19	2	4	\$1.54	\$3.08	\$4.62

#	Origin			Trip	Status Quo Trip					Network Toll Restructure					
#	Origin	Destination	Toll roads	length (km)	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV		
34	Punchbowl	Kingsgrove	M5E, M5W	8	5	3	\$10.08	\$30.25	5	3	\$3.40	\$6.80	\$10.19		
35	Alexandria	Balmain	M8	9	5	4	\$5.21	\$15.64	5	4	\$5.70	\$11.40	\$17.09		
36	Marsden Park	Minchinbury	M7	12	7	5	\$3.53	\$10.58	7	5	\$4.10	\$8.21	\$12.31		
27	Green Valley	Prestons	M7	7	2	5	\$1.19	\$3.56	2	5	\$1.47	\$2.94	\$4.41		
28	North Sydney	CBD	SHB/SHT	4	2	2	\$4.27	\$4.27	2	2	\$6.00	\$12.00	\$18.00		
39	Eastern Creek	Horsley Park	M7	7	4	3	\$1.90	\$5.70	4	3	\$2.35	\$4.71	\$7.06		
40	CBD	Paddington	ED	5	3	2	\$0.00	\$0.00	3	2	\$7.69	\$15.38	\$23.07		

#### Source: Independent Toll Review

Note: Assumes motorists pay the full toll on all roads. It does not account for some motorists reducing their out-of-pocket toll costs by applying for the M5 Cashback scheme toll rebate.

Figure 10.13 Comparison of indicative toll and journey composition (travel on tolled/untolled network) for representative routes, Network Toll Restructure and Reduction compared to the Status Quo for peak tolls.

#				Trip	Status Quo	)		Network Toll Restructure and Redu					
	Origin	Destination	Toll roads	length (km)	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
1	North of Hawksbury River	CBD	M2, LCT, SHB/SHT, NCX	58	26	32	\$29.90	\$83.27	26	32	\$16.81	\$33.63	\$50.44

				Trip	Status Quo	)			Network <sup>-</sup>	Foll Restruc	ture and I	Reduction	
#	Origin	Destination	Toll roads	length (km)	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
2	Marsden Park	CBD	M2, LCT, M7, SHB/SHT	51	37	14	\$25.50	\$70.06	37	14	\$16.58	\$33.16	\$49.73
3	Penrith	CBD	M4	54	18	36	\$12.74	\$38.23	18	36	\$7.88	\$15.75	\$23.63
4	Campbelltown	CBD	M5E, M5W, ED	57	25	32	\$25.98	\$67.23	25	32	\$12.79	\$25.58	\$38.37
5	Parramatta	CBD	M4	26	18	8	\$12.74	\$38.23	18	8	\$7.88	\$15.75	\$23.63
6	Padstow	CBD	M5E, M5W, ED	28	20	8	\$25.98	\$67.23	21	8	\$11.03	\$22.07	\$33.10
7	Sutherland	CBD	M5E, M5W, ED	41	20	21	\$25.98	\$67.23	21	21	\$11.03	\$22.07	\$33.10
8	Rouse Hill	Domestic Terminal	M2, LCT, M7, SHB/SHT, ED	55	27	27	\$20.12	\$53.93	32	23	\$18.89	\$37.79	\$56.68
9	Campbelltown	Hornsby	M2, M7, NCX	74	58	17	\$26.49	\$79.49	58	17	\$14.04	\$28.08	\$42.12
10	Parramatta	Maroubra	M4, M8	32	21	11	\$12.74	\$38.23	21	11	\$9.03	\$18.06	\$27.10
11	Rosebery	Mt Druitt	M4, M8	45	21	24	\$12.74	\$38.23	21	24	\$9.03	\$18.06	\$27.10
12	Rosebery	Blacktown	M4, M8	39	21	18	\$12.74	\$38.23	21	18	\$9.03	\$18.06	\$27.10

				Trin	Status Quo				Network Toll Restructure and Reduction				
#	Origin	Destination	Toll roads	length (km)	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
13	CBD	International terminal	M5E, ED	17	4	12	\$10.71	\$21.43	4	12	\$5.14	\$10.28	\$15.41
14	North Sydney	Domestic Terminal	SHB/SHT, ED	17	2	14	\$4.27	\$4.27	7	10	\$10.50	\$21.01	\$31.51
15	Leppington	Leichhardt	M8, M5W	50	29	21	\$18.67	\$56.03	29	21	\$10.20	\$20.40	\$30.61
16	Zetland	CBD	ED	7	2	5	\$10.71	\$21.43	3	5	\$4.30	\$8.60	\$12.90
17	Bondi Junction	Lilyfield	ССТ	11	2	8	\$7.40	\$14.80	2	8	\$4.08	\$8.15	\$12.23
18	Artarmon	Pennant Hills	M2, LCT	20	14	6	\$14.97	\$46.99	14	6	\$7.89	\$15.78	\$23.67
19	Ingleburn	Rockdale	M5E, M5W	38	17	20	\$13.84	\$41.54	17	20	\$8.29	\$16.58	\$24.88
20	North Sydney	Petersham	SHB/SHT	11	2	9	\$4.27	\$4.27	2	9	\$5.20	\$10.40	\$15.60
21	Haymarket	Rosehill/ Parramatta	M4	24	16	8	\$12.56	\$37.72	16	8	\$7.39	\$14.78	\$22.16
22	North Ryde	CBD	M2, LCT, SHB/SHT	16	5	11	\$8.56	\$19.24	5	11	\$8.69	\$17.38	\$26.07
23	Epping	Domestic Terminal	M2, LCT, SHB/SHT, ED	35	14	21	\$19.23	\$51.26	18	17	\$16.13	\$32.25	\$48.38
24	Parramatta	Mascot	M4, M8	27	21	7	\$12.74	\$38.23	21	7	\$9.03	\$18.06	\$27.10

#	Origin	Destination	Toll roads	Trip length (km)	Status Quo				Network Toll Restructure and Reduction				
					Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
25	Glenfield	Blacktown	M4, M7	33	20	14	\$10.40	\$31.19	20	14	\$7.37	\$14.74	\$22.12
26	Glenfield	Kemps Creek	M7	24	11	14	\$5.65	\$16.95	11	14	\$4.70	\$9.40	\$14.10
27	Hornsby	Macquarie Park	M2, NCX	26	18	8	\$21.34	\$64.02	18	8	\$8.90	\$17.80	\$26.70
28	Bankstown	Blacktown	M4, M5W, M7	45	28	16	\$16.46	\$49.38	28	16	\$9.18	\$18.35	\$27.53
29	Liverpool	Revesby	M5W	15	7	8	\$6.06	\$18.19	7	8	\$3.41	\$6.82	\$10.24
30	North Parramatta	Hornsby	NCX	23	10	14	\$10.67	\$32.01	10	14	\$6.13	\$12.27	\$18.40
31	Sydney Airport	Belmore	M5E	9	7	2	\$6.28	\$18.86	7	2	\$3.64	\$7.28	\$10.92
32	Macquarie Park	Cheltenham	M2	6	4	2	\$10.67	\$32.01	4	2	\$2.07	\$4.13	\$6.20
33	Burwood	Sydney Olympic Park	M4	6	2	4	\$3.40	\$10.19	2	4	\$1.19	\$2.37	\$3.56
34	Punchbowl	Kingsgrove	M5E, M5W	8	5	3	\$10.08	\$30.25	5	3	\$2.61	\$5.23	\$7.84
35	Alexandria	Balmain	M8	9	5	4	\$5.21	\$15.64	5	4	\$2.96	\$5.92	\$8.88
36	Marsden Park	Minchinbury	M7	12	7	5	\$3.53	\$10.58	7	5	\$3.16	\$6.31	\$9.47

#	Origin	Destination	Toll roads	Trip length (km)	Status Quo				Network Toll Restructure and Reduction				
					Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class B	Tolled distance	Untolled distance	Toll (\$) Class A	Toll (\$) Class MCHV	Toll (\$) Class HV
27	Green Valley	Prestons	M7	7	2	5	\$1.19	\$3.56	2	5	\$1.13	\$2.26	\$3.39
28	North Sydney	CBD	SHB/SHT	4	2	2	\$4.27	\$4.27	2	2	\$5.20	\$10.40	\$15.60
39	Eastern Creek	Horsley Park	M7	7	4	3	\$1.90	\$5.70	4	3	\$1.81	\$3.62	\$5.43
40	CBD	Paddington	ED	5	3	2	\$0.00	\$0.00	3	2	\$4.30	\$8.60	\$12.90

#### Source: Independent Toll Review

Note: Assumes motorists pay the full toll on all roads. It does not account for some motorists reducing their out-of-pocket toll costs by applying for the M5 Cashback scheme toll rebate.

<u>Figures 10.12</u> and <u>10.13</u> illustrate many routes where Class A, Class B and the proposed MCHV class of vehicles will experience lower tolls under network tolling. For many long-distance routes, network tolling maintains a correlation between distance and tolls but due to the declining distance tolling structure, leads to lower tolls than the Status Quo.

Network tolling also offers motorists clear benefits on the M2 and M5 South-West, where currently drivers incur charges when they pass fixed toll points. Under network tolling motorists pay instead a declining distance charge for the actual distance they travel (and infrastructure charges as applicable), leading to lower tolls. This is illustrated by routes 4, 6, 7, 15, 19, 28, and 29.

There are routes where tolls are forecast to increase. Introducing two-way tolling on the ED and Sydney Harbour Crossings, along with higher infrastructure charges on these routes, increases tolls for certain trips, such as those from the CBD or north of the Harbour Bridge to Sydney Airport. Routes 14 and 20 are examples of this.

Additionally, the cumulative nature of infrastructure charges raises tolls for routes involving multiple ventilated tunnels and/or the Sydney Harbour Bridge, despite the individual charges being relatively low. Routes 11, 12 and 24 exemplify this impact.

There are some routes where the effects of both two-way tolling and multiple infrastructure charges are evident, for example, route 8, Rouse Hill to the Charles Kingsford Smith Airport Domestic Terminal, resulting in higher tolls. These kinds of outcomes will be a focus of further consideration.

The introduction of the MCHV class generally leads to lower toll costs across the network for these vehicle types, as they pay a multiplier of 2x under network tolling, as compared to 3x under the Status Quo.

Heavy Vehicles also generally have a lower set of tolls under network tolling. Exceptions, where tolls are higher for Heavy Vehicles and the MCHV class, occur mainly where tolling has been expanded (northbound tolling on Sydney Harbour Bridge and Sydney Harbour Tunnel, southbound tolling on the Eastern Distributor) or charging by vehicle class introduced (Sydney Harbour Crossings). For example, route 20, North Sydney to Petersham, will cost \$7.73 more for an MCHV in the Network Toll Restructure scenario, and \$13.73 more for a Heavy Vehicle, during the peak period.

#### **Recommendations:**

**Recommendation 19:** The NSW Government should note the modelling conducted by the Review. Modelling will need to continue prior to the introduction of any network tolling.

### Sensitivity analysis of results

Sensitivity analysis helps us understand how modelled travel behaviour changes in response to changes in assumptions. For example, if we lower the toll per kilometre by a small amount, does the model predict a large or small change in the number of vehicles using toll roads? By doing this kind of analysis we can identify which assumptions are most influential on the modelled outcomes.

Figure 10.14 lists all the sensitivity tests which have been undertaken and the corresponding percentage change in average school-term weekday toll road users, annual total tolls paid and average toll relative to the Network Toll Restructure scenario. In general, changes to the VTTS parameters resulted in a larger proportional shift to the number of toll road users, with a reduction in peoples' value of time forecast to be more prominent than a corresponding percentage increase. Modelling results suggest that average tolls were more sensitive to changes in the initial distance segment toll, as opposed to alterations to the segment distance or declining rates.

The table presents the percentage change for each metric, representing the traffic response occurring with changes to tolling input assumptions. For example, when the initial distance segment toll is reduced from \$0.65/km to \$0.60/km, it is forecast to reduce daily traffic on toll roads by approximately 23,000 vehicles, resulting in \$120 million less in annual total tolls paid which equates to an approximate \$0.50 cheaper average toll.

Sensitivity test	Change in average school-term weekday toll road users	Change in annual total tolls paid	Change in average toll
Decrease initial segment toll from \$0.65/km to \$0.6/km	+2.0%	-3.6%	-5.5%
Decrease segment distance from 4km to 3km	+0.8%	-4.6%	-5.3%
Increase declining distance rate from 15% to 20%	+0.4%	-3.9%	-4.4%
Decrease all infrastructure charges by 10%	+0.6%	-1.8%	-2.3%
Increase VTTS parameters for all trip purposes and vehicle classes by 20%	+5.9%	+6.6%	0.6%
Decrease VTTS parameters for all trip purposes and vehicle classes by 20%	-7.6%	-8.4%	-0.9%

Figure 10.14 Modelling sensitivity tests, per cent change from Network Toll Restructure, 2026 all vehicles

Source: Independent Toll Review

# 11. Institutional reforms

Recommendations:						
NSW Motorways entity	<b>Recommendation 20:</b> The NSW Government should establish a government-owned special purpose entity ('NSW Motorways entity') with responsibility for improving outcomes and transparency for motorists to strengthen governance and accountability over NSW toll roads.					
	The NSW Motorways entity will drive and implement toll reforms:					
	<ul> <li>a. The NSW Motorways entity will, in consultation with toll road operators, establish network tolls payable by motorists. The NSW Motorways entity will have the power to set network tolls and in doing so it would take full account of the existing interests of toll road operators. If necessary periodic adjustments will be made in consultation with toll road operators.</li> </ul>					
	b. The NSW Motorways entity will seek to improve competition outcomes.					
	c. The NSW Motorways entity will absorb current TfNSW toll collection functions (E-Toll retail business and issuing toll notices).					
	d. The NSW Motorways entity will have an ongoing focus on constantly innovating to improve the toll road experience for motorists in New South Wales.					
	<b>Recommendation 21:</b> The NSW Government should consider options for the contract management of privately operated toll roads, including whether to bring them under the NSW Motorways entity from Transport for NSW.					
	<b>Recommendation 22:</b> The NSW Government should consider options for administrative arrangements concerning public toll roads, including whether to bring them under the NSW Motorways entity from Transport for NSW.					
Concessionaire negotiations	<b>Recommendation 23:</b> The NSW Government should seek to obtain in principle agreement with concessionaires to implement network tolling by the end of 2024. If agreement is unlikely to be reached to the satisfaction of the government within this timeframe, the legislative package referred to in Recommendation 27 should be activated.					
Independent oversight of toll setting	<b>Recommendation 24:</b> The NSW Government should introduce a legislative framework for toll oversight by IPART. The framework should allow for IPART to monitor prices, undertake investigations and recommend tolls on Ministerial referral.					

Recommendations:						
	<b>Recommendation 25:</b> The relevant Minister should make a referral to IPART to work with Transport for NSW and the NSW Motorways entity to monitor prices including:					
	a. The financial and traffic impact of network tolls.					
	b. The operation of toll relief schemes.					
	c. The need for and operation of time-of-day tolling.					
	d. Concessionaire performance in relation to their BCFM expectations.					
	<b>Recommendation 26:</b> The relevant Minister should make a referral to IPART to undertake an investigation into the methodology IPART could adopt in future to make recommendations in relation to tolls.					
Setting tolls – legislative package	<b>Recommendation 27:</b> If in principle agreement is not reached with concessionaires to implement network tolling by the end of 2024, in addition to establishing the NSW Motorways entity and IPART roles, the legislative package should also:					
	a. Enable network tolls to be set independently of contractual frameworks if necessary.					
	<ul> <li>Provide for a Revenue Adjustment Mechanism to enable appropriate sharing of network toll revenues between toll road operators if necessary.</li> </ul>					
	c. Provide for an independent toll issue resolution mechanism.					
	d. Modernise the legislative framework for New South Wales toll roads.					

# Overview

In this chapter, we outline a plan for implementing substantial reforms to tolls. We propose: (i) that a new government-owned entity working in consultation with concessionaires be responsible for introducing a network approach to setting tolls and periodically resetting network tolls, and (ii) IPART provides independent oversight of tolls.

The existing system of setting tolls is not in the public interest, and we do not consider it can be adequately reformed based on current settings. We are pleased to see the NSW Government showing its commitment to toll reform by announcing the establishment of a NSW motorway entity and associated legislation for the purpose of driving toll reform in NSW in the 2024–25 State Budget. We see this as aligned with our recommendation to establish a government-owned entity and to drive toll reform. A new system will need to have legislative backing as acknowledged by government in its budget statement. In this chapter we consider necessary institutional changes to achieve an effective new system of network tolls.

Following feedback on the Interim Report, we have modified our approach to concessionaire revenue adjustments. The NSW Government should endeavour in consultation with concessionaires to amend the concession agreements to reflect the network tolls determined by the NSW Motorways entity. However, legislation should still enable a Revenue Adjustment Mechanism which can be activated if concessionaire negotiations do not reach agreement by the end of 2024.

NSW Governments have successfully worked in partnership with the private concession operators over many years and we anticipate that this will continue if all parties recognise that reform of the current toll arrangements is necessary.

# Options for implementation to achieve reform

Could the proposed reforms introducing network tolls and revenue adjustment be achieved by an agreement between the government, concessionaires, and other involved parties? The major private investors in the concessions in a cosigned letter asserted that reforms could be so achieved with agreement in principle by the end of this year. The Review invited the parties to meet and explain their ideas and proposals and later received a letter summarised elsewhere in this report. The investors did not provide a specific toll reform or revenue adjustment proposal. They indicated a preference for a corridor-based approach to tolls but gave no details, including of any corridors. Also, importantly, they do not support declining distance charges – another key element of the reforms aimed at achieving fairness. The letter focuses more on a process solution and agreed by all. We take the view that any such agreement will be difficult to achieve in timely manner or at all given the number of parties involved, the complexities of the issues not to mention the incentives for 'hold out' by individual parties to get a better deal ('no one can agree until everyone has agreed') as well. We remain concerned at the competition law problems if there are price negotiations between the parties. There is also a considerable risk that any agreement would not put the public interest first.

For this reason, we believe there needs to be immediate legislation to enable finalisation of the reforms in a timely manner if agreement cannot be reached.

The move to network tolling, creation of an entity and inclusion of IPART involvement will require legislation or legislation changes regardless of whether a negotiated outcome can be reached. If a negotiated outcome is reached, we encourage government and concessionaires to ensure the principle of transparency is at the forefront of any agreement and sufficient efforts are made to inform the public of any agreement made and the reasons supporting such an agreement.

It is our strong view that government needs to take more active steps to ensure effective reform is implemented more quickly and openly than is typically the case in negotiations between government and concessionaires. However, we acknowledge the significant investments the NSW Toll Road Partners have made in NSW toll roads and other infrastructure and are supportive of negotiations being the first avenue for implementation.

#### Figure 11.1 Public Consultation, NSW Toll Road Partners commentary

'We are each supportive of reform that delivers greater efficiency and simplicity for these motorists and the wider network.

Noting the Interim Report's concerns over timing and complexity, and a desire for "early reform", we each confirm our willingness to work with the NSW Government to expeditiously develop a suitable network-wide solution.

We each believe the principles of such a solution could be agreed within a short period of time, and in advance of the conclusion of the Government's existing rebate schemes in December 2025.

We each have a track record of variously working together and with Government, within existing regulatory frameworks, and respectful of contractual arrangements, to achieve outcomes for motorists and the people of NSW.'

Source: Public Consultation Submission, 2024

# NSW Motorways entity

We propose that through the NSW Motorways entity, government should take control and reset the NSW toll network and take charge of the motorist experience. Our model provides flexibility for government to modify tolls based on the changing circumstances of the transport network and motorists. We propose that the NSW Motorways entity be a catalyst for change and spearhead the toll reform for NSW.

We believe the NSW Motorways entity should be a separate and dedicated entity with full day-today independence over the operational and commercial decisions they take to achieve the expectations placed upon them by government. The NSW Motorways entity should be established, with a purpose aligned with the long-term interests of NSW motorways and motorists. The NSW Motorways entity would be expected to engage staff with the necessary expertise to perform its functions. With investment over time, the NSW Motorways entity will build strong public sector capability and expertise in its tolled motorways providing government and motorists with enhanced value for money.

## The NSW Motorways entity will consult with toll road operators to establish network tolls payable by motorists, with periodic adjustments as necessary. The NSW Motorways entity will have power to make final decisions.

The NSW Motorways entity model enables government to manage the toll more effectively during operations. Through regular toll review and adjustment, the NSW Motorways entity will enable the most efficient operation of the toll road network so that the investments made in the toll road network can realise the greatest possible economic benefits. This directly addresses the issues we identified in <u>Finding 3</u> and <u>Finding 4</u>.

The concession agreements would be updated to reflect network tolls determined by the NSW Motorways entity. In the event that agreement to amend the concession agreements in this way cannot be reached within the necessary timeframes, a revenue adjustments mechanism would sit behind the scenes to ensure that each toll road operator receives the applicable amount for traffic using their roads. The revenue adjustment model would aim to put the concessionaires in the same position they would be in had motorists been charged according to the existing toll schedules in their concession contracts. The NSW Motorways entity could establish a supportive dispute resolution process.

A flexible approach to tolls will allow the NSW Motorways entity to simplify toll relief schemes and make them more effective. Toll relief could, for example, be applied as a discount to the toll charged, rather than a rebate to the user. This will save motorists time in researching and applying for toll relief. It will have significant cost savings for government administering toll relief. The approach will ensure the benefits from toll relief flow to the community and motorists, without excessive returns to the concessionaires or government.

Figure 11.2 Public Consultation, Greg's feedback on benefits of a government-owned entity

#### 'Benefits

- 1. Consistency Across the Network: Centralising toll setting under State TollCo can lead to a more consistent and uniform tolling policy across the entire network. This uniformity can simplify the tolling system for users, who no longer have to navigate differing toll regimes on different roads.
- 2. Adaptability: Periodic adjustments allow for flexibility in the tolling system to respond to changing economic conditions, traffic patterns, and infrastructure needs. This adaptability can help maintain the efficiency and effectiveness of the road network, optimising traffic flow and reducing congestion.
- 3. Data-Driven Decisions: With a centralised body like State TollCo, toll adjustments can be based on comprehensive data analysis covering the entire network. This approach can enhance decision-making, ensuring that toll rates are set based on actual usage patterns, economic factors, and the overall public interest.
- 4. Strategic Traffic Management: By adjusting tolls periodically, State TollCo can use tolling strategies to manage demand on the roads. For example, increasing tolls during peak times to discourage congestion, or reducing tolls for less travelled routes to balance traffic distribution.

#### Challenges

- 1. Public Perception and Acceptance: Regular changes to toll rates may face public resistance, especially if increases are frequent or perceived as unjustified. Ensuring transparency and effective communication about the reasons for adjustments will be crucial in gaining and maintaining public support.
- 2. Complexity in Implementation: Managing periodic adjustments requires sophisticated monitoring and analysis systems to accurately assess road usage and economic conditions. The complexity of implementing these systems and ensuring they operate efficiently could pose significant challenges.
- 3. Political and Economic Pressures: State TollCo could face pressures from political entities and economic stakeholders with differing interests, potentially influencing toll setting in ways that do not align with broader public benefits. Maintaining independence and focusing on data-driven policies will be essential to navigate these pressures.
- 4. Equity Concerns: There's a risk that periodic adjustments might disproportionately affect certain demographics, particularly low-income drivers who may rely heavily on tolled roads for daily commutes. Balancing economic efficiency with equity considerations will be a critical task for State TollCo.

#### **Overall Perspective**

Assigning the responsibility of setting and adjusting network tolls to State TollCo could provide a structured and centralised approach to managing tolls, which could enhance overall system efficiency and fairness. However, the effectiveness of this approach will heavily depend on the entity's ability to operate independently, transparently, and in alignment with the public interest, while also being responsive to dynamic traffic patterns and economic changes. It's a promising model that requires careful implementation and ongoing oversight to realise its full potential.'

Source: Public Consultation Submissions, 2024

### The NSW Motorways entity will improve competition outcomes

A central objective of the NSW Motorways entity will be to promote competition. The NSW Motorways entity will apply a pro-competition focus to every aspect of its decision-making.

The NSW Motorways entity and IPART could, amongst other approaches, apply a 'yardstick' competition<sup>82</sup> to setting network tolls to mimic a competitive market situation and generate efficient outcomes.

The NSW Motorways entity will also promote competition in the market through greater transparency. For example, it will provide information to potential entrants about the framework for setting tolls and scope for cost efficiencies in the sector. It would also provide more information to the market about consumer demand, and how this changes over time.

As discussed below, it would also be appropriate for government to consider establishing a more vertically integrated entity with road operator functions. This would increase competitive tension. Toll road asset management and operations capability could be built in the NSW Motorways entity. This would provide a State-owned alternative toll road operator for any new toll roads and reduce reliance on engaging the private sector as financier and service provider.

# The NSW Motorways entity will be a major market participant in the toll collection process

The NSW Motorways entity will operate the network trip reconstruction engine.<sup>83</sup> The NSW Motorways entity will receive the data collected and processed by individual toll roads and determine the value of each individual trip across one or more separate toll roads based on the new tolling model. The NSW Motorways entity will provide the necessary trip data to toll retailers to ensure the right amounts are charged to motorists and remitted to toll road operators.

It is proposed that the E-Toll toll retailer business could transfer from TfNSW to the NSW Motorways entity. The NSW Motorways entity as a dedicated body with greater autonomy is expected to be able to provide a stronger user focus and be a more proactive competitor.

As outlined in <u>Appendix H</u>, TfNSW currently issues toll notices (on behalf of toll road operators) to motorists who have not arranged to pay their tolls within 72 hours. It is proposed that this fee-for-service function will also transition to the NSW Motorways entity. The NSW Motorways entity would take over from TfNSW in relation to toll notice improvements outlined in <u>Chapter 13</u> (e.g. digitised toll notices, immediate notifications and renaming 'toll notices' to 'invoices').

<sup>&</sup>lt;sup>82</sup> 'Yardstick competition' is a regulatory mechanism where revenue allowances are set by benchmarking the costs of similar regulated firms; Shleifer, A. (1985). A theory of yardstick competition. Rand Journal of Economics, 16(3).

<sup>&</sup>lt;sup>83</sup> This function is referred to as 'C2' in Appendix I.

This approach keeps all TfNSW tolling functions across the toll collection process together and transitions them to the NSW Motorways entity. The NSW Motorways entity will then be able to pursue process improvements over all steps in the process. As a special purpose entity, the NSW Motorways entity will be better placed to innovate in this area to drive down costs and improve the user experience.

# The NSW Motorways entity will have an ongoing focus on constantly innovating to improve the toll road experience for motorists in NSW

The establishment of the NSW Motorways entity will provide the government with greater access to richer data about how customers are using the network, across multiple toll roads. Currently TfNSW has limited customer level data about non-E-Toll motorist travel patterns. Because the NSW Motorways entity will reconstruct (C2.5) all trips on the network (see <u>Figure 9.8 Chapter 9</u>), the NSW Motorways entity will allow government to understand for all motorists how many times they access the network and what parts they are accessing.

Richer customer-level data will assist the NSW Motorways entity in assessing and modelling the customer impact of toll adjustments and reforms. The NSW Motorways entity will be in a position to understand the characteristics, circumstances and preferences of all toll road users regardless of their choice of toll retailer.

The NSW Motorways entity will work with industry and relevant government agencies to lead the implementation of motorist experience improvements outlined in <u>Chapter 13</u>. It will do this as a toll retailer and through its customer advocate role. It will become the main customer interface for tolling information. the NSW Motorways entity will work collaboratively with other providers of retail tolling information (e.g. Linkt, Google, Apple, Waze) to drive industry reform. Initiatives aimed at the retail customer include revamping toll retailer statements, projecting usage for motorists, moving away from physical tags, improved real-time road signage at key decision points, and a one-stop shop holistic transport app with a corresponding website.

# The NSW Motorways entity consultation feedback

Limited feedback was received through the consultation process on the NSW Motorways entity. The feedback that was received was varied.

Figure 11.3 Public Consultation, views on the NSW Motorways entity

**Transurban:** 'The Interim Report also raises questions about State TollCo's potential blended role as a regulator, retailer and operator, where State TollCo could be responsible for both setting tolls and adjusting revenue between concessionaires – acknowledging that 'there is potential for conflicts of interest if State TollCo was both the network toll setter as well as the operator of some toll roads.

'The impact of potential negative tax consequences for the NSW Government, State TollCo and concessionaires because of proposed changes to the way tolls are determined and State TollCo's roles in setting tolls and redistributing revenues should also be considered. There may be material tax and stamp duty imposts triggered by any changes to the operation of concession agreements and the proposed role State TollCo is to play. We expect that these material tax and stamp duty imposts would be considered in any calculation of "revenue neutrality" or compensation for concessionaires.'

**Phillip Laird:** NSW Government should establish a government-owned special purpose entity ('State TollCo') with responsibility for improving outcomes and transparency for motorists to strengthen governance and accountability over NSW toll roads.

**Anonymous:** State Toll Co will end up wasting money instead of saving it. This sounds good on a report but another government silo is not what we need. Make a department under TfNSW and get these things done there. They are already aligned with the Roads Act 1993 and can play a much stronger role in pushing toll road operator competition. If they even need to exist.

Anonymous: Good idea, take the power away from the private entities and create a TollCo.

**Rob:** I'm in favour of the TollCo replacing the current system. The adjustments to tolls should be no more frequent than annual and I guess we are stuck for 4% or inflation, whichever is the greater.

**Benjamin:** Focusing on improving management, promoting competition, enhancing transparency, and customer satisfaction is vital. Measures like establishing a State TollCo and improving the retail experience for motorists will boost user satisfaction and trust.

Anonymous: I'm highly in favour of the proposal to create State TollCo to manage the system.

Source: Public Consultation Submissions, 2024

#### **Recommendation:**

**Recommendation 20:** NSW Government should establish a government-owned special purpose entity ('NSW Motorways entity') with responsibility for improving outcomes and transparency for motorists to strengthen governance and accountability over NSW toll roads.

- a. The NSW Motorways entity will drive and implement toll reforms: The NSW Motorways entity will, in consultation with toll road operators, establish network tolls payable by motorists. The NSW Motorways entity will have the power to set network tolls and in doing so it would take full account of the existing interests of toll road operators. If necessary periodic adjustments will be made in consultation with toll road operators.
- b. The NSW Motorways entity will seek to improve competition outcomes.
- c. The NSW Motorways entity will absorb current Transport for NSW toll collection functions (E-Toll retail business and issuing toll notices).
- d. The NSW Motorways entity will have an ongoing focus on constantly innovating to improve the toll road experience for motorists in New South Wales.

# Other possible NSW Motorways entity models

The Review sees potential merit in a broader role for the NSW Motorways entity as: (i) an operator of government-owned toll roads, and/or (ii) the government counterparty for concession agreements with the private sector. Further vertical integration could be achieved in two ways – through transferring the administration of toll road concessions from TfNSW to the NSW Motorways entity, or through transferring toll road ownership from TfNSW to the NSW Motorways entity.

TfNSW currently operates the Sydney Harbour Bridge and owns and operates the Sydney Harbour Tunnel. The M6 Stage 1 and Western Harbour Tunnel are also proposed to be TfNSW owned and operated toll roads. When private concession agreements expire, the roads to which they relate will also revert to TfNSW.

Aside from TfNSW and its predecessors, other precedents for government operation of toll roads include Sydney Motorway Corporation and the Victorian Government's North-East Link State Tolling Corporation. The WestConnex concessionaires were established as wholly owned subsidiaries of Sydney Motorway Corporation before government sold Sydney Motorway Corporation to Sydney Transport Partners in two tranches; 51% in August 2018 for \$9.26 billion and the remaining 49% in September 2021 for \$11.1 billion.

The North East Link State Tolling Corporation (NELSTC) is a statutory corporation established under the *North East Link Act 2020* by the Victorian Government as part of the delivery of the North East Link project (NEL). NELSTC was established to be responsible for setting and collecting the tolls on North East Link tollway and to manage operations and maintenance of the North East Link road when it opens. This includes developing the toll collection capability for the NEL project to be flexible and scalable such that it could provide tolling services for future toll roads, returning concessions and related opportunities. In performing its role, NELSTC will be the primary interface and relationship with motorists that use the NEL toll road. In our view, NELSTC provides a relevant example of how government can take charge of the motorist experience and build capability in tolling services and asset management – what provides it with a competitive alternative to a private sector led concession model. Further information about NELSTC is provided below.

Figure 11.4 North East Link State Tolling Corporation (NELSTC)

#### Background

The North East Link project (NEL Project) is the largest road infrastructure project undertaken in Melbourne's history. Its aim is to complete Melbourne's orbital network by joining the upgraded Eastern Freeway and the M80 Ring Road. Some of the perceived advantages upon completion include removing up to 15,000 trucks off local roads and reducing travel times by up to 35 minutes through improved access. It is currently in construction and scheduled to open in 2028.

The primary package of the NEL Project is expected to cost approximately \$11.1 billion and is being delivered under a PPP contract. The Victorian Infrastructure Delivery Authority (VIDA) is overseeing NEL's construction on behalf of the Victorian Government which will hand over governance to the North East Link State Tolling Corporation (NELSTC) for the operating phase.

#### Purpose

The NELSTC is a purpose-built entity, which will allow the Victorian Government to achieve its policy objectives in relation to NEL. Its aim is to 'optimise the value of the toll revenue ... through applying commercial principles in managing the toll revenue risk ... overseeing cost-effective delivery and operations.' NELSTC can therefore be seen as a public, commercially-driven entity that has the capability within itself to address the various aspects of asset management for the NEL Project, by acting as the asset owner, investor and operator. Given its commercial focus, this will allow the Victorian Government to manage its risk and return objectives, through collecting toll revenue and managing demand risk during the delivery of this project.

#### Legislation

NELSTC is a statutory corporation under the *North East Link Act 2020*. The enabling legislation allows NELSTC to collect toll revenue for NEL and bear responsibility for the management and operation of relevant infrastructure. The power to manage and control the NEL Project was vested in NELSTC under the *Road Management Act 2004*. Control of the relevant land on which the tollway is constructed will pass to NELSTC by lease from the Crown after construction.

#### Governance

NELSTC currently operates within a major road infrastructure delivery environment where complex and timely decision-making is critical. NELSTC has a skills-based board made up of four members, is answerable to the two shareholding ministers – the Minister for Transport Infrastructure/Assistant Treasurer and the Treasurer. Together, they have vested interest in the operations of the entity, however NELSTC still operates at 'arm's length' on a day-to-day basis with relative autonomy.

#### **Operational capabilities**

At the direction of the shareholding ministers, NELSTC may be required to pay dividends to the State at the Minister's discretion. Additionally, it also required to produce annual reports and prepare/adhere to a corporate plan.

Source: Victoria State Government, Treasury and Finance. Victoria's Big Build, Australian Competition and Consumer Commission and The Hon Catherine King MP

Commensurate with its additional responsibilities, the balance sheet of the NSW Motorways entity may be significantly strengthened through granting toll road concessions or transferring ownership of current and future public toll roads to it and its expertise and understanding of toll road operational issues would be greatly enhanced. Transferring road ownership would make it a more conventional roads authority, taking a direct role in the development and operation of the toll road network, and directly managing concession contracts. It may also be empowered to undertake direct borrowings and investment if required. We set out below possible NSW Motorways entity roles (Figure 11.5).

Figure 11.5 Potential NSW Motorways entity models

1. Toll setter and toll retailer. No toll road assets.

The NSW Motorways entity could be focused principally on toll reform, customer experience, regulating tolls and facilitating the network tolling model, without itself being a toll road owner or operator.

2. Toll setter, toll retailer, and concessionaire

In addition to toll setting and toll retailer functions, the NSW Motorways entity could be a concessionaire for the Sydney Harbour Crossings and M6 Stage 1. The North East Link State Tolling Corporation and Sydney Motorway Corporation provide precedents for a government-owned concessionaire. Potential issues would need to be resolved in proper manner about the appropriateness of one concessionaire setting network tolls under this model.

#### 3. Toll setter, toll retailer, and toll road owner

The NSW Motorways entity could own all NSW toll roads. Under this model, the NSW Motorways entity would also assume wider responsibilities for the management of contracts with concessionaires. It would become the lessor (under the current legislative framework), manage refinancings (as consent agency), interface, planning and other issues concerning the operation of private toll roads and would receive the assets at concession end.
Bringing public toll road assets and PPP contract management responsibilities into the NSW Motorways entity would enhance the capability of the NSW Motorways entity. This model would replicate the current TfNSW arrangements and bring all the main touchpoints between the toll road industry and the government together to enhance collaboration and ensure the NSW Motorways entity can directly manage relationships with industry partners. With the addition of toll road ownership functions, NSW Motorways could be better positioned to manage the toll road network.

#### Source: Independent Toll Review

It would be possible to transfer other responsibilities relating to toll roads now residing with TfNSW to NSW Motorways in the long-term if considered desirable but clear delineation of responsibility and co-ordination with TfNSW would be essential for this to occur.

In summary, there appears to be significant potential benefits to be achieved by bringing public toll road assets and PPP contract management responsibilities into the NSW Motorways entity (model 3 in <u>Figure 11.5</u>). However, there is the potential for conflicts of interest if the NSW Motorways entity was both the network toll setter as well as the operator of some toll roads. These potential conflicts would need to be addressed in appropriate ways, such as ring-fencing governance of regulatory functions. The involvement of IPART in overseeing toll setting (discussed below) would also assist in dealing with any potential conflicts, real or perceived, if government wished to proceed with a vertically integrated NSW Motorways entity.

Considerations concerning the ownership and operation of toll roads are relevant to the Review's terms of reference but raise broader issues not pursued further in this Report.

#### **Recommendation:**

**Recommendation 21:** The NSW Government should consider options for the contract management of privately operated toll roads, including whether to bring them under the NSW Motorways entity from Transport for NSW.

**Recommendation 22:** The NSW Government should consider options for administrative arrangements concerning public toll roads, including whether to bring them under the NSW Motorways entity from Transport for NSW.

## Concessionaire negotiations and revenue adjustments

Under the current system the tolls paid by motorists are set out in toll schedules in the concession agreements that the State has with each concessionaire. This includes arrangements for how tolls can change over time. The introduction of a unified system of tolling will change the tolls motorists pay from what is currently in place. This change in toll is likely to change traffic volumes and toll revenue on each individual toll road – we expect some toll road operators would receive more toll revenue, and some less revenue, than expected under existing contractual toll arrangements.

Our preferred approach to implementing new tolls is for the government and concessionaires to arrange to replace the existing toll schedules in concession agreements with the new network tolling regime. Considering the expected revenue impacts on individual toll roads, it is likely that this approach would require substantial negotiation between government and all concessionaires to arrange payments for revenue adjustments that satisfy, as far as possible, the principles we outline below.

A negotiated approach may be possible and investors have shown a willingness to achieve network reform. However, to ensure the deliverability of toll reform outcomes, government should adopt legislation which enables the impact of network tolls on concessionaire revenue to be addressed by a Revenue Adjustment Mechanism where, as far as possible, toll road operators receive a similar amount of revenue as they would have received had motorists been charged under existing toll arrangements in the event that a negotiated outcome is not achieved.

#### Principles for a Revenue Adjustment Mechanism

A number of assumptions, criteria, models and processes can be adopted to achieve revenue adjustment. As a starting point, we have assumed, as a minimum, that revenue available from two-way tolling on existing toll roads that are currently only tolled one-way, is injected into the setting of new network tolls (Network Toll Restructure). Additional funding sources identified by government and concessionaires can also be applied to support lower tolls.

This will enable some trips to be cheaper for motorists than under Status Quo tolls and, without revenue adjustment, result in some toll road operators collecting less toll revenue relative to the Status Quo. It is proposed that any additional toll revenue earned by operators, together with the toll revenue raised from two-way tolling and other funding sources, be used to 'true-up' the revenue shortfall of those operators that receive less revenue under new network tolls.

Our approach in this Report to considering revenue adjustment is primarily focused on the system as a whole. At the level of each individual toll road operator, we expect a similar approach can be adopted.

We considered potential options for revenue adjustment that were aimed at achieving as far as possible the following principles:

- 1. Motorists pay, in aggregate, no more than they would under the current tolling regime.
- 2. There is no cost to the government, other than the implementation cost to establish network tolling and the contribution of revenue raised from two-way tolling.
- 3. Toll road operators should receive a similar amount of expected revenue as they would have received had motorists been charged under existing toll arrangements (the 'status quo').

We recommend that government legislates to establish a framework for revenue adjustment and enables the NSW Motorways entity – in close consultation with concessionaires – to determine revenue adjustments for toll road operators in accordance with these principles. In the event that agreement to amend the concession agreements cannot be reached, NSW Motorways should exercise its powers under these provisions and resolve the revenue adjustment outcome. A centralised independent issue resolution process would support the process.

It is expected that there will be close consultation with toll operators, and all interested parties, in establishing this framework. We believe that enabling the implementation of revenue adjustment via legislation will ensure a timely, effective and equitable outcome for all stakeholders, and transparency for the public who can see where their toll revenue is going.

To support the Revenue Adjustment Mechanism, it is proposed that a toll operators' fund is established to enable the distribution of network toll revenue (including two-way toll revenue and other funding sources) between toll road operators and ensure that each toll road operator is paid the amount due for vehicles travelling on its toll road.

Ultimately, network tolls will be set at a level so that the total tolls paid by motorists under network tolling (plus any subsidy from funding sources) is sufficient to fund the total status quo revenue of toll road operators. To prevent any mismatch of these levels, an adjustment mechanism will be applied.

#### Principles for revenue adjustment

Whilst several potential revenue adjustment options were considered, the following two options were developed for preliminary consultation with toll road operators and their investors:

**Option 1 (status quo traffic forecast)** – under this option, toll road operator revenue would be determined by the application of tolls under existing contracts (being the tolls that would have applied if network tolling were not introduced) to forecast traffic volumes expected to have occurred had there been no change to tolls for motorists. The toll road operator's status quo traffic is forecast by modelling the traffic expected under existing contract tolls. The toll road operator's revenue is determined as a calculation of contract toll multiplied by the modelled traffic volume. Conceptually, this keeps toll operators 'whole' from a revenue perspective. A significant side effect of this approach is that it allocates traffic risk and opportunity to the government.

**Option 2 (price elasticity of demand)** – this approach works off actual traffic volumes rather than by forecasts. At the aggregate level, the actual traffic volume would be discounted to the extent that the volume was boosted by the lower tolls brought about by support from funding sources (the elasticity adjustment). The elasticity coefficient would initially be determined by forecasting the elasticity coefficient discount. After a period of time under network tolling, the forecast elasticity coefficient could be updated to reflect actual traffic volumes observed from the change in tolls. Under this option, toll road operator revenue remains a function of actual traffic volume and therefore toll operators remain exposed to underlying traffic demand risk and opportunity. This option avoids the problem of traffic risk transfer of option 1.

#### **Consultation and feedback**

We prepared a discussion paper on revenue adjustment and hosted a workshop with concessionaires and their investors to discuss our two potential options for revenue adjustment. As well as inviting feedback on these options, we invited them to propose any alternative options they believed would best support the introduction of network tolling. <u>Figure 11.6</u> outlines the feedback from concessionaires and investors on the two proposed models:

Figure 11.6 Feedback from toll road operators on potential revenue adjustment options

Option 1 (status quo traffic forecast)	In terms of maintaining concessionaires' status quo position, investors raised the notion of updating status quo forecasts at regular periods over time to reflect actual changes in key traffic modelling assumptions – e.g. 5 yearly updates of ABS census data, network changes, land use data, etc. As a general observation it was acknowledged that over time, it becomes harder to determine the status quo revenue position of concessionaires.
	By preserving toll road operators' status quo revenue and reducing their risk exposure by allocating traffic demand risk to the State, Option 1 is likely to raise value for money concerns for government. There was concern that this could lead government to want to consider reducing toll road operators' status quo revenue forecasts to better align investors' returns to the new (reduced) risk profile of concessionaires. Feedback from most investors was that demand risk was a fundamental consideration in their decision to invest, and that changes to reduce risk/return of this nature would likely have a significant adverse impact on their ability to meet their investment criteria.

	In terms of implementation, investors had a strong preference to mutually agreeing with government a fair process for status quo traffic and revenue forecasts, rather than have it independently determined under a legislative framework. Investors felt they had a strong track record of partnering with governments to deliver sustainable long-term value for motorists and that a legislative pathway was arguably unprecedented and may introduce unforeseen risks (such as legislative delays).
	It was recognised that this option introduced a transfer of demand risk from concessionaires to the State and that while this may have a financial benefit from being funded at the State's lower cost of capital, it is likely to have other financial and budgetary impacts that would require a detailed value for money assessment by government.
Option 2 (price elasticity of demand)	It was generally acknowledged that this model better preserves traffic demand risk and opportunity for concessionaires and is more in line with existing contracts than Option 1. This was seen as a benefit of this model over Option 1.
	It was also observed that applying an elasticity coefficient moderated any windfall gains from induced demand caused by government's investment in lower network tolls and ensured this benefit was retained by government for the benefit of motorists.
	After the introduction of network tolling, it was acknowledged that this option offered the ability to calculate an actual elasticity coefficient based on observed changes in traffic volumes to the change in tolls. This was considered a beneficial feature relative to Option 1.
	Like Option 1, it was recognised that forecasting elasticity coefficients required sophisticated traffic modelling capability and expertise and was a complex and challenging undertaking.
	Some investors expressed a view that elasticity would only be measurable if there was a material change in tolls and traffic volume on toll roads.
	Some investors had a concern about the applicability of an elasticity coefficient, especially over long periods of time where the view was traffic demand is variable and reflects the performance of the whole road network and is not simply constant factor related exclusively to toll.
	It was generally acknowledged that like Option 1, the financial and budgetary impacts of Option 2 would also need to be carefully considered by the State.

Source: Independent Toll Review

In summary, the consensus was that both revenue adjustment models had shortcomings that could make their implementation challenging but we are prepared to consider them further.

There was a general concern regarding the proposed regulated approach to determining revenue adjustment, especially given the inherent complexity involved in traffic forecasting. This extended to concern that there may not be adequate assurance regarding the appropriateness of the financial outcome for concessionaires. In response, we acknowledge the challenges of implementing a Revenue Adjustment Mechanism and understand the seeming relative preference for Option 2 given that it maintains concessionaires' exposure to underlying traffic demand risk. As stated, the regulatory process would include an appropriate framework for consultation with key stakeholders and that the key principles for the Revenue Adjustment Mechanism would be respected in decision-making – including, without compromising the State's position, that toll road operators should receive a similar amount of expected revenue as they would have received had motorists been charged under existing toll arrangements and that motorists should in aggregate pay no more than otherwise. Through stakeholder consultation and our proposed framework principles for

Some investors expressed a view that legislating to override key terms of the existing concessions, and changing their associated risk profile, would create uncertainty for both private equity and debt providers that would likely result in reduced future appetite or increased risk premium for private sector's investment in future State infrastructure. While we understand the sentiment, we do not believe that to be a fair reading of our recommendations. We are proposing firstly that the government seek to implement the network tolls determined by the NSW Motorways entity through negotiating concession deed amendments. In the event negotiations fail, our suggested approach retains all existing concessions, with government taking the limited control it needs to achieve a coherent customer-facing toll across Sydney. The Revenue Adjustment Mechanism and network tolls do not change the underlying contracts. Our suggested Revenue Adjustment Mechanisms seek to preserve the revenue entitlements of the concessionaires (in the sense of 'status quo' revenue). To the extent there are further impacts arising from the changes, an independent issue resolution process will be available.

In conclusion, concessionaires and investors have a strong preference to retain their current contractual risk/return profile, including exposure to traffic demand risk. Their preference is to work in partnership with government on potential solutions that could be implemented as a one-off adjustment or reset to support implementation of network tolling. Investors believe they have the global track record and experience to work with government to deliver a network tolling solution prior to December 2025, and that this would avoid risks associated with an ongoing Revenue Adjustment Mechanism, reduce administration costs and eliminate the need for the complexity and cost of new regulation. We are supportive of this approach provided it can be implemented in this timeframe but would still want to see motorists being billed once for each trip, not separately for the components of the trip provided by different toll road operators. More generally, the key reform proposal of this Report is the ultimate establishment of unified network tolls. This requires new tolls and a revenue adjustment process. If voluntary agreement cannot be reached, legislative powers need to be available for timely introduction of the reforms.

#### **Recommendation:**

**Recommendation 23:** The NSW Government should seek to obtain in principle agreement with concessionaires to implement network tolling by the end of 2024. If agreement is unlikely to be reached to the satisfaction of the government within this timeframe, the legislative package referred to in Recommendation 27 should be activated.

# There are opportunities for IPART to contribute to reform

The involvement of independent regulators is common in industries where substantial investments and inelastic demand are present, including where there is private ownership. These include water, energy, rail and airports.

In NSW, the main independent pricing regulator is IPART. IPART is 'an independent, strategic agency of NSW Government, charged with regulating key markets and government services to ensure effective social, environmental and economic outcomes for the people of NSW'.<sup>84</sup> IPART is established through the IPART Act, which sets out its primary functions and governance.

IPART's involvement would enable transparent discussions about tolls, the structure and functioning of the toll road industry, and the impact on motorists.

Balancing the opportunities identified and views of stakeholders, we consider that the legislation should provide for three IPART roles in tolling to support the implementation and management of reform:

- 1. Price monitoring.
- 2. Investigation or analysis of specific tolling issues.
- 3. Recommendation on tolls.

Our view is that, shortly after the legislation relating to IPART comes into effect, the relevant Minister should request that IPART commence toll monitoring and undertake an investigation into the methodology IPART could adopt in future to make price or operator return recommendations or determinations.

More detail on each of these roles is provided in the following sections.

#### **IPART's roles**

#### Price monitoring to support and manage reform

IPART should commence a price monitoring role for NSW toll roads as soon as possible.

Regulators often monitor cost, price, and profit indicators to balance demand and supply. This approach does not involve altering prices but provides transparency over pricing and raises awareness of pricing issues with buyers and the general community. For example, the ACCC publicly monitors prices for capital city airports, and stevedores.

Annual price monitoring would support transparency and public confidence in tolling. This could be done ahead of reform, to better understand the current state and build the reform case or post reform to monitor impacts and support calibration of network tolls.

The scope of price monitoring could include:

- Concessionaire financial performance, including investor returns, cost efficiency, earnings (revenue and opex), capital investment by concessionaires and equity distributions.
- Service quality provided to motorists for the toll, for example time savings and average speeds by time of day by road.

<sup>&</sup>lt;sup>84</sup> Independent Pricing and Regulatory Tribunal, NSW. (n.d.). Our role. <u>https://www.ipart.nsw.gov.au/Home/About-IPART/Our-role</u>.

- The impact of tolls on road network performance and efficiency, for example congestion reduction, utilisation, and effectiveness of time-of-day tolls.
- Demand and use of toll roads, including actual traffic vs. forecast traffic.
- The outcomes of toll relief.

Monitoring could also involve benchmarking of operating and financial metrics across concessions, providing visibility on relative performance.

The French regulation of toll roads is a precedent for regulatory price monitoring.

#### Figure 11.7 Regulation of toll roads in France

Toll roads have been operating in France since the 1950s under concession arrangements established by government. Initially these roads were in the hands of public companies, but private operators entered the industry in the 1970s and significant consolidation occurred in following decades. Privatisation of motorway companies occurred between 2002–06. Concessions have commonly run for 70–80 years and many of these are due to expire in the early 2030s.

There has been significant controversy in France concerning the level of motorway tolls and the increases in recent years with high inflation. Concerns were expressed by the National Assembly that operators were in a stronger position than government when negotiating toll increases in exchange for investments to maintain and improve the roads. A report by the French Competition Authority in 2014<sup>85</sup> expressed the opinion that 'the exceptional profitability of the "historic" toll road concession-holders is comparable to a guaranteed income which needs to be better regulated in favour of the State and the users.' It also pointed to competition concerns with the awarding of contracts. The Authority recommended improvements to contracts and tolling provisions be negotiated in exchange for concession extensions.

One response to these concerns was new legislation which gave the Transport Regulatory Authority a new role to monitor aspects of motorway concessions. The Authority was charged with ensuring the proper functioning of the motorway toll rate system and for oversighting the awarding of contracts for works, supplies, services and ancillary facilities.

In relation to tolls the Authority can advise the Minister responsible for motorway concessions:

- on contract issues impacting on toll rates and duration of concessions
- report on the general operation of concessions every five years
- provide an annual summary of the financial statements of the concessionaires.

Further, the Authority annually monitors the internal rates of return of each concession. It has extensive powers to obtain information from relevant parties, not just concessionaires, to perform these functions.

Debate over how profitable or otherwise concessions were had highlighted the dangers of just looking at ratios at particular points of time during the concession period. It is preferable to consider the profitability of these contracts over their full lifetime because of time differences between expenditures and revenues, hence the use of the internal rate of return measure by the Authority.

Source: Independent Toll Review

<sup>&</sup>lt;sup>85</sup> French Competition Authority, Opinion 14-A-13 of 17 September 2014 concerning the motorway sector after privatisation of concession holders.

#### IPART investigation or analysis of specific tolling issues

IPART should commence an investigation as soon as possible into the appropriate methodology it could adopt in future to recommend or determine tolls. In referring this matter to IPART, the Roads Minister should request that IPART take the Proposed New Tolling Principles into consideration.

IPART could be tasked with providing analysis on specific issues of interest to government, for example the impact of toll relief on operator returns. This could be a stand alone or in conjunction with other functions.

This role could allow IPART to provide input and advice informed by the monitoring function to government. In the future for example, IPART could alongside other functions provide advice to government on measures to manage congestion including time-of-day tolls.

#### **Recommendation on tolls**

IPART could in due course support NSW Motorways in setting network tolls by developing price recommendations (for example, of the maximum toll).

In future, if a referral to recommend prices were to be made, IPART would put forward a recommendation to another decision maker (for example, the government or the NSW Motorways entity) for maximum prices or a revenue cap, including public rationale, which the decision maker then responds to. The public nature of the rationale sets the expectation for decision makers to explain any decision not to follow the regulator's recommendations.

#### Case study: IPART's role in public transport

Through their mandate to regulate public transport fares, IPART has developed expertise in areas such as working with transport models and understanding how demand responds to prices across different modes of transport. This expertise would also be useful for recommending network tolls and is further described in <u>Figure 11.8</u>.

#### Figure 11.8 IPART capability in public transport pricing

#### IPART's role in public transport fares in NSW

IPART has been the price regulator for public transport in Sydney since IPART's inception as the Government Pricing Tribunal in 1992.

IPART is recognised as a leader in public transport pricing in Australia: 'IPART, in particular, has a unique role in providing transparent rigorously based pricing advice to the NSW Government. Other jurisdictions, particularly larger ones, could benefit from a similar arrangement.' <sup>86</sup>

#### IPART's role

Under the *Passenger Transport Act 2014*, the Minister of Transport and Roads can ask IPART to determine or recommend maximum Opal fares that can be charged for all rail, bus, ferry and light rail fares used in Sydney and surrounds for a specified period (typically 4 years).

The NSW Government sets other terms and conditions of travel, such as discounts for off-peak travel, frequent travel, and concession users.

IPART's approach

<sup>&</sup>lt;sup>86</sup> Australian Government Productivity Commission. (2021). Public Transport Pricing. <u>https://www.pc.gov.au/research/completed/public-transport</u>.

IPART is required by law to consider a number of factors:

- The cost of providing the services.
- The need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers.
- The protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service.
- The social impact of the determination or recommendation.
- 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.
- Standards of quality, reliability and safety of the services (whether those standards are specified by legislation, agreement or otherwise).
- The effect of the determination or recommendation on the level of government funding.
- Any matter specified in the referral to IPART.
- Any other matter IPART considers relevant.

Source: IPART, Transport Fares<sup>87</sup>; Public Transport Pricing, Productivity Commission 2021<sup>88</sup>

# The Review has considered feedback from consultation on IPART's potential roles

The Review engaged with interested parties as well as the general public through the *Have your Say* process and engagement sessions to refine options for IPART's involvement.

#### Interested parties expressed concerns about IPART's potential role in overseeing tolls

Submissions by interested parties like toll road operators and their investors acknowledged the need to honour the contracts entered into by NSW Government and private partners in good faith. Interested parties stated that, if the NSW Government were to unilaterally impose changes to investment structures and returns during the term of existing toll road concessions, it would impact the State's reputation as a safe and stable region for investment, introducing 'sovereign risk' which would impact future private infrastructure investment in NSW.

Interested parties felt that the Interim Report lacked detail about the roles of NSW Motorways and IPART. Concerns also included that the NSW Motorways entity and price regulation through IPART would be 'additional bureaucracy' that would provide no meaningful benefit for the toll users.

Transurban in their submission suggested a more limited role for IPART 'could play an important role overseeing rebates administered by the NSW Government'.<sup>89</sup>

<sup>&</sup>lt;sup>87</sup> Independent Pricing and Regulatory Tribunal NSW. (n.d.). Transport Fares. <u>https://www.ipart.nsw.gov.au/Home/Industries/Transport/Transport-Fares</u>.

<sup>&</sup>lt;sup>88</sup> Australian Government Productivity Commission. (2021). Public Transport Pricing. <u>https://www.pc.gov.au/research/completed/public-transport</u>.

<sup>&</sup>lt;sup>89</sup> Transurban. (2024, May 14). Public Consultation on Interim Report 2024.

In further engagement with concessionaires and their investors, significant concerns were raised about the introduction of price determination or recommendations by IPART in relation to existing concession agreements. This was in line with views provided in the written submissions. There was more support to explore roles for IPART for any future new toll road concessions, with appropriate industry consultations.

Concessionaires and their investors showed less resistance to the concept of IPART taking a price monitoring role but would like to understand more detail.

Interested parties pointed out the complexity of determining regulatory approaches for toll roads, noting that IPART does not currently perform this function. Stakeholders commented that there is no current 'track record' for this kind of regulation in Australia, as there is in other industries where regulators are involved in pricing, for example energy.

Stakeholders emphasised the need for ongoing consultation.

#### Views of the public

Submissions from the general public were overall supportive of IPART's role in overseeing tolls, while also noting the complexities involved (Figure 11.9).

Figure 11.9 Public feedback on IPART's involvement

#### Advantages noted in Greg's public submissions on IPART Involvement - key themes

'1. Independent Oversight: IPART is an independent body that has a track record of regulating prices in various sectors, including utilities and transport. Its involvement in setting tolls can help ensure that toll rates are determined based on objective, fair, and transparent criteria, rather than being influenced by commercial or political interests.

2. Expertise and Experience: IPART brings a wealth of experience in economic regulation, including the assessment of fair pricing structures that balance the needs of infrastructure funding with consumer protection. This expertise can be invaluable in assessing complex factors involved in toll pricing, such as cost recovery, return on investment, and economic impact on users.

3. Public Confidence: Having an independent regulatory body like IPART set or oversee tolls could enhance public trust in the tolling system. Knowing that toll rates are reviewed and approved by an independent authority might alleviate public concerns about being overcharged.

4. Consistency and Predictability: IPART's involvement can also bring consistency and predictability to the toll-setting process, which can be beneficial for both users and investors. Clear guidelines and methodologies used by IPART for price setting can provide a stable environment for infrastructure investment and development.'

#### Example positions:

**Submission 259241:** Yes, the government should not allow the toll operators to control pricing the way they have. They are the people's roads and should not be for profit.

Forugh: IPART would make it more transparent and well informed decision-making process.

**Submission 254079:** Should always be the case. Independent and fair. Based on evidence rather than profit or bottom lines.

#### Potential challenges noted in Greg's public submissions on IPART Involvement - key themes

<sup>1</sup>. Balancing Stakeholder Interests: One of the challenges for IPART would be balancing the diverse interests of different stakeholders, including toll road operators, commuters, and the government. There is often a delicate balance between ensuring adequate returns on investments for infrastructure developers and keeping tolls affordable for users.

2. Complexity of Toll Road Economics: Toll roads involve complex economic considerations, including long-term capital expenditure, fluctuating traffic volumes, and economic externalities such as congestion and environmental impacts. IPART would need to effectively navigate these complexities to set appropriate tolls.

3. Frequency and Timing of Reviews: Determining the appropriate frequency and timing of toll reviews can be challenging. While regular reviews can ensure tolls remain fair and aligned with current conditions, they can also introduce uncertainty for both operators and users if not well-managed.

4. Potential for Regulatory Lag: In rapidly changing economic or traffic conditions, there might be a lag in regulatory response, especially if toll adjustments require extensive review and approval processes. This could prevent timely adjustments to toll rates that might be necessary to respond to unexpected changes in road usage or economic conditions.'

#### Example position:

**Submission 252103:** Provided IPART is not solely focused on cost recovery. There needs to be a broader remit to ensure all costs of private vehicle use and pricing mechanisms need to work to reduce social disadvantage and emissions.

Source: Public Consultation Submissions, 2024

# Stakeholders responding to our discussion paper were broadly positive on a role for IPART

IPART has indicated to the Review that it considers it would be well placed to provide additional oversight of tolls.

In response to our Discussion Paper, leading commentators have also supported an independent regulator as have other organisations representing motorists. The National Road Transport Association, the Grattan Institute, NRMA, the Central Coast Council (which is also price regulated by IPART), Road Freight NSW, and Business NSW expressed support for an independent pricing regulator in their submissions or statements at the public hearings held as part of the Review's public consultation process.

Figure 11.10 Stakeholder views on independent regulation, provided in response to our Discussion Paper

**IPART:** IPART would be well-placed to provide additional oversight of tolls. We would bring our extensive experience in regulating transport infrastructure and setting prices for public transport services to such a review. (Submission to Review)

**Professor Martin Locke (University of Sydney):** Having 'transparent discussions rather than mysteries about how these tolls are priced, set, changed and how it then impacts the people who are underlying concessionaires and the investors ... would certainly help ... it's important from a social legitimacy perspective for this to be clearly explained to the broader community. (Public hearing)

**Grattan Institute:** The state government should ask the Independent Pricing and Regulatory Tribunal (IPART) to advise on the initial levels of the charges, as well as if, when, and how much charges should be changed over time. IPART should use traffic statistics such as the number of vehicles travelling specific stretches of motorway network within the relevant time periods, and average travel times between indicative origins and destinations. With regular monitoring of these traffic statistics, IPART should discern any sustained and material deviation from benchmarks to trigger a more detailed review of the level of the charge. This approach retains some objectivity and some distance from government, although the government would still retain the capacity to manage its network. (Submission to Review)

Adrian Dwyer, Infrastructure Partnerships Australia: We regulate water systems with a regulated asset base. We regulate energy systems with a regulated asset base. There's conceptually no reason why we couldn't do the same over a tolled motorway network, where there are [sic] sufficient revenue to cover the costs of delivery and a reasonable risk-weighted return for owners of concessions. (Public hearings)

**NRMA:** Mechanisms to vary user charges should be independent calculated (e.g., by IPART) and relate to:

- Whole of life asset costs and maintenance.
- Incentives for behavioural change. (Submission to Review)

Source: Public Consultation Submissions, 2023

#### **Recommendation:**

**Recommendation 24:** The NSW Government should introduce a legislative framework for toll oversight by IPART. The framework should allow for IPART to monitor prices, undertake investigations and recommend tolls on referral by the relevant Minister.

**Recommendation 25:** The relevant Minister should make a referral to IPART to work with Transport for NSW and NSW Motorways to monitor tolls including:

- a. The financial and traffic impact of network tolls.
- b. The operation of toll relief schemes.
- c. The need for and operation of time-of-day tolling.
- d. Concessionaire performance in relation to their BCFM expectations.

**Recommendation 26:** The relevant Minister should make a referral to IPART to undertake an investigation into the methodology IPART could adopt in future to make recommendations on tolls.

# Legislation

This section outlines the recommended legislative package. We acknowledge the significant further review and consultation required to develop the draft legislation. An outline of the current legislative framework is included at <u>Appendix G</u>.

We anticipate the reforms would be implemented through a toll reform bill which would include changes to the *Transport Administration Act 1988* (TAA) (to establish the NSW Motorways entity and any statutory functions) and to the *Roads Act 1993* (Roads Act) and Roads Regulation 2018 (Roads Regulation). The Roads Act and Roads Regulation would be the vehicle for reform of tolls.

#### **Tolling reforms**

A new division would be introduced into the Roads Act, largely replacing the existing tolling provisions.

The proposed bill (together with revised Roads Regulation) would (see Figure 11.12):

- enable efficient, fair, simple and transparent tolls for motorists
- strengthen consumer rights through the establishment of the tolling customer advocate
- improve transparency of decision-making about tolling
- provide for any necessary revenue adjustment principles
- simplify compliance and enforcement
- protect the interests of road owners and lessees in a network tolling scheme.

Figure 11.11: Tolling reforms

Improving the transparency of decision-making about tolling	<ul> <li>Outline the purpose of tolls and criteria for toll determination.</li> <li>Establish a formal process to inform the relevant Minister in relation to any decision to declare a new tollway, toll an untolled road, extend tolling (including concession extensions) or construct a new road funded by tolls.</li> <li>Require reasons to be published for every toll change.</li> </ul>
Enabling efficient, fair, simple and transparent toll pricing	<ul> <li>Enable NSW Motorways to set a mandatory uniform retail toll (or toll methodology) based on trips across the network, rather than trips on each toll road.</li> <li>Require toll road operators to charge the uniform toll, regardless of the underlying cost of travel on their road (this would be broad enough to include trip tolls with declining distance and infrastructure components, as recommended by this Report).</li> <li>Enable tolls to be set to achieve network objectives or efficiencies such as time-of-day tolling.</li> <li>Make provision for trips to be defined, including where a trip starts and ends, and when the liability to pay and the amount is determined.</li> <li>Enable the relevant Minister to seek input from IPART either in the form of monitoring or making determinations or recommendations about a broad range of matters relevant to tolls and the setting of future tolls.</li> </ul>

Simplify compliance and enforcement	<ul> <li>Empower an independent statutory officer – the customer advocate (as detailed in <u>Chapter 13</u>) – to oversee the management of complaints, improve toll compliance through education and other initiatives and implement customer initiatives such as uniform terms of travel, customer codes, hardship policies, etc.</li> <li>Simplify the process for driver nomination.</li> <li>Limit the number of toll default offences that could occur during any trip to one (instead of an offence being committed at each toll point passed during the trip).</li> </ul>
Protect the interests of road owners and lessees in a network tolling scheme or a regulated asset approach	<ul> <li>Enable retail tolls and charges to be regulated (as above) while recognising the contractual rights of toll road operators (public and private).</li> <li>Enable tolls to be set for State operated toll roads in accordance with the published criteria to ensure State assets remain adequately funded on an ongoing basis in any network model.</li> <li>Make provision for a Revenue Adjustment Mechanism to support the effective operation of any network tolling regime (this mechanism would determine who pays what to whom and when, for each trip in a network model to maintain cashflows and ease of operation for toll road operators, road users and their toll account providers).</li> <li>Make provision for a statutory fund to support the effective operation of any network tolling regime. This fund would: (1) capture returns from travel on a toll road that exceed the amount applicable to the relevant toll road operator for travel on their road, and apply funds to ensure road owner/lessees receive the amount applicable for the travel, (2) provide a default central payment fund for late paid tolls; and (3) enable future subsidies, if government wishes to reduce tolls by that means.</li> <li>Make provision for the establishment of a centralised independent dispute resolution process to enable consistent and efficient resolution of issues as and between toll road owners/lessees under a network tolling scheme (detail to be developed in consultation with affected stakeholders).</li> </ul>
Respective roles and responsibilities of the NSW Motorways entity and TfNSW	<ul> <li>Depending on the final model for NSW Motorways, the Roads Act would also be amended to reflect the respective assets and responsibilities of NSW Motorways and TfNSW.</li> </ul>

Note: While provision would be made for the Revenue Adjustment Mechanism and the associated fund, the aim is to amend the concession deeds to reflect network tolls determined by the NSW Motorways entity. Contracts will be published.

Source: Independent Toll Review

#### Considerations behind the recommended tolling reforms

#### Improving transparency of decision-making

The Roads Act currently enables the establishment of tollways by Ministerial declaration, and tolls by TfNSW. There is no criteria set for any decision to toll a new or untolled road, what tolls can legitimately be charged, what happens at the end of a tolling concession or how decisions are made to reintroduce tolls. This works against the objectives of accountability and transparency, and undermines public confidence.

#### Enabling retail tolls to be set independently of contractual frameworks

Currently, TfNSW sets the tolls and charges for each private toll road by way of a contractual toll calculation schedule locked-in to a long-term lease and concession arrangement. This toll is both the retail and wholesale toll.

Setting retail tolls outside the contractual framework would allow for tolls to be set on a network basis rather than per toll road, in the event that agreement cannot be reached with the concessionaires to reflect network tolls in concession deeds. It would provide levers to use tolls to respond to issues such as network and traffic demands, congestion policy and cost-of-living concerns – the latter, without the need for expensive and inefficient toll relief programs.

The State has the power to set maximum tolls and charges by regulation under the Roads Act section 213. These would impose lawful limits on the tolls and charges which can be levied by any toll road operator, regardless of whether public or private.

However, as the existing regime does not contemplate network tolling (which requires some roads to be tolled at a higher rate in order to fund others that are tolled at a lower rate, in order to achieve a consistent basis of tolling), our recommendation is not to rely on a regulation, but instead to amend the principal Act.

Under the proposed new statutory framework, amendments to the Roads Act would include the following provisions to enable network tolling:

- Enable retail tolls and charges to be set and collected on the basis of a single trip across multiple toll roads.
- Include an explicit statement that the retail tolls and charges set by law are the tolls and charges that must be levied by toll road operators on the users of their roads.
- Enable a revenue adjustments mechanism and statutory fund, as outlined earlier. The fund would be safeguarded and subject to independent assurance.
- A centralised independent issue resolution process for resolving revenue issues or disputes between the various toll road operators or between the toll road operators and the NSW Motorways entity as the custodian of the toll operators' fund.
- Provision for oversight by IPART on Ministerial referral.

#### Establishing NSW Motorways by legislation

NSW Motorways would be established under a new part inserted into the *Transport Administration Act 1988* (TAA). NSW Motorways would have the functions conferred on it under the TAA, the Roads Act, and any other relevant Act. A list of suggested functions, powers and obligations is shown in <u>Figure 11.12</u>.

The legislation would set out the requirement for NSW Motorways to be overseen by a board of independent directors to be appointed by the relevant Minister.

Figure 11.12 NSW Motorways' legislative mandate – suggested functions, powers and obligations (Roads Act and TAA amendments)

#### Asset owner functions

- Commission infrastructure and systems to facilitate network tolling (including powers to acquire and enter land).
- Operate the network-wide tolling back office for trip processing to ensure the right amounts are charged to motorists and credited to the appropriate road owners.
- Service provider to toll road operators and motorists.
- Manage the toll operators' fund.
- Conduct a business using the assets and staff of the NSW Motorways entity.

#### **Retailer functions**

• Conduct the E-Toll business of the State on an inter-operable basis.

#### **Regulator functions**

- Set the network toll, subject to any IPART determinations, and in accordance with a transparent legislated process.
- Promote and drive reform of tolling to enhance transparency and improve the experience for motorists.
- Make revenue adjustment determinations.

#### Source: Independent Toll Review

#### Establishing IPART role by legislation

The IPART Act provides the framework for the role of IPART. The new legislation would empower IPART (by Ministerial referral) to oversee tolls by providing for three roles:

- 1. Price monitoring.
- 2. Investigation or analysis of specific tolling issues.
- 3. Recommendation on tolls.

The legislation would also allow IPART to give advice to the Roads Minister on the appropriate maximum roaming fee or mechanism for regulating roaming fees (<u>Chapter 12</u> contains our recommendation to regulate roaming fees).

Toll road operators and toll retailers will be required to provide information to IPART to enable it to oversee tolls and roaming fees. The legislation would provide IPART with effective information gathering powers to perform this task – potentially matching those the ACCC has for this type of work.

#### **Broader review**

The legislation governing tolling has not been reviewed for some time. There are opportunities to modernise the language and concepts, and increase transparency, which fall outside the scope of this Review.

#### **Recommendation:**

**Recommendation 27:** If in principle agreement is not reached with concessionaires to implement network tolling by the end of 2024, in addition to establishing the NSW Motorways entity and IPART roles, the legislative package should also:

- a. Enable network tolls to be set independently of contractual frameworks if necessary.
- b. Provide for a Revenue Adjustment Mechanism to enable appropriate sharing of network toll revenues between toll road operators if necessary.
- c. Provide for an independent toll issue resolution mechanism.
- d. Modernise the legislative framework for NSW toll roads.

## Phasing

We propose a significant three phase toll reform program to introduce a new network system of tolls and fairer and more efficient tolls. It could be two years before a network system of tolls can be initiated. We understand that many will be frustrated about the length of time required to achieve substantive reform to the processes for setting tolls, however, we are dealing with a legacy of several decades and without these changes this legacy will continue until at least 2060 when the last of the current concessions are due to expire.

#### Phase 1

Phase 1 involves legislation being passed by the government to:

- a. Provide clear authority, and set criteria, for tolls to be set on a more uniform basis across the network.
- b. Establish the NSW Motorways entity to assume responsibility for setting network tolls in the future. It would be expected that the NSW Motorways entity would initially move to implement the network structure recommended by the Review.
- c. Establish a role for IPART to assist network toll setting by the NSW Motorways entity, IPART should be given general monitoring powers to consider tolling industry issues in more detail outside any specific price reset.
- d. Provide a mechanism to resolve expeditiously and fairly, issues relating to the distribution of network revenues to individual toll road operators to maintain the current status quo in this regard in the event that this may be required to progress toll reform.

#### Phase 2

Phase 2 will see the implementation of toll reforms, including the introduction of new network tolls.

As detailed earlier in this chapter, we support negotiation as the first avenue for implementing network tolls. In the event the negotiations fail to deliver true reform, the legislation will be ready to invoke.

#### Phase 3

Phase 3 of tolling reform might involve consideration of other ways to reduce the toll burden on motorists by, for example:

- Removing tolls from some roads if the State had the financial capacity.
- Broadening the tolling base by incorporating motorways that are now part of the continuous network but remain untolled. Exemptions from the tolled network create distortions and complicate operation of the tolled network. Including them within the tolled network would be consistent with the efficiency, fairness, simplicity and transparency criteria used to evaluate existing tolls. This may be appropriate in the longer term particularly with the likelihood of broader road pricing reforms being introduced. However, as it would be contrary to existing government policy to impose tolls on currently untolled roads and also road pricing is not within our terms of reference, we make no recommendation on these particular matters.
- Amending the approach to PPP agreements to enhance competition (as detailed in <u>Chapter 12</u>). This may involve taking a stronger approach to designing contracts which are consistent with the promotion of competition and improving toll setting processes.

# 12. Competition reforms

Recommendations:			
Competition measures	<b>Recommendation 28:</b> The NSW Government should ensure future procurement processes have greater regard for the desirability of maintaining a competitive industry structure.		
	<b>Recommendation 29:</b> The NSW Government should review existing concession agreements with the aim of enhancing competition.		
	<b>Recommendation 30:</b> The NSW Government should place a greater focus on long-term implications for control and competition rather than short-term benefits in the approach to future procurement of toll roads.		
	<b>Recommendation 31:</b> As with other aspects of toll setting, there should be clear public transparency in relation to determining the length of concession agreements. The concession period should be based on clear public interest considerations, including maintaining competitive industry structures.		
	<b>Recommendation 32:</b> The NSW Government should favour competitive tender processes over unsolicited proposals for new toll road concessions.		
	<b>Recommendation 33:</b> The NSW Government should regulate roaming fees to promote competition for future toll road PPPs.		
	<b>Recommendation 34:</b> Full details regarding the setting of tolls should be disclosed to the public. The Review recommends that the NSW Government with concessionaires seek to remove impediments to the disclosure of relevant BCFM information in this regard.		

# Overview

<u>Chapter 6</u> highlighted Transurban's high market share in road tolling in Sydney.

High market share or industry concentration can have a range of impacts on an industry, its competitors, customers and the broader community. Our view is that Transurban's high market share in road tolling needs to be countered by more effective independent oversight by IPART. Independent oversight would also complement the major reforms to toll setting we have proposed.

This chapter outlines the concerns high concentration can give rise to and other measures we consider could be taken to reduce concentration coinciding with the introduction of network tolls.

# Problems created by high concentration

High concentration can arise from internal growth of a firm and/or from acquisitions and takeovers of existing firms, which may be close competitors. In Transurban's case, both internal and external growth drivers have been present. Transurban has acquired other operators, some of which have experienced financial difficulties, and most recently, a Transurban-led consortium has acquired the concessions covering the new WestConnex roads. Transurban has expanded its influence through the two successful unsolicited proposals it has put forward with its Westlink consortium partners to Government. It has also been able to obtain extensions to the length of existing concessions, thus further extending its long-term influence in the industry.

High concentration can be associated with good industry performance in terms of promoting efficiency and progressiveness or it could be detrimental to that performance.

In some industries, high concentration may be associated with the achievement of economies of scale or scope. Here a bigger or more diversified firm may be able to supply goods or services more cheaply than a smaller or less diversified firm. Individual toll roads are normally viewed as having natural monopoly characteristics meaning that economies of scale are best exploited by having a single supplier. Where there are a number of toll roads, however, there could also be a number of operators each able to achieve available economies of scale.

Some economies may also be realised by operating several toll roads at the same time. For example, this may enable better utilisation of skilled personnel and specialised equipment across an organisation responsible for several toll roads and facilitate economies in procurement.

Transurban's high market share is likely to facilitate the achievement of economies of scale and scope and in this respect could be seen as enhancing efficiency.

Similarly, high concentration has in some other industries been considered to help promote innovation and progressiveness. Firms with high market shares often have more resources to spend on these areas, although the lack of competitive pressure is often considered to work against this benefit. Transurban is generally seen as innovative in the toll road industry.

In competitive markets, efficiency improvements tend to be reflected over time in prices so that there is some sharing of these benefits with customers. This is not the case with Transurban. Under current tolling arrangements, tolls are fixed for long periods of time with no general requirement that gains in efficiency are passed back to motorists. Therefore, efficiency improvements enhance Transurban's profitability.

High market share can be self-perpetuating to the extent that it makes it even more difficult for competitors, including new entrants, to compete effectively on the same terms as the dominant firm. In road tolling, competition for the market is a more critical aspect than competition within the market (as discussed in <u>Chapter 6</u>). In Transurban's case, the competition authorities have highlighted Transurban's superior access to traffic data and modelling, which are important in determining bids for new roads.

Transurban's high market share extends beyond the day-to-day operation of toll roads to the operations of government. While it is not unreasonable that good consultation exists between parties to the PPP agreements which underlie the toll roads, it is an easy slide for this to become more influential than is desirable when dominance exists. It can, for example, have broader impacts in terms of influencing toll road integration with the road system and transport planning more generally.

An issue here is the connotation placed on the word 'partnership' in the term PPP. Partnership tends to suggest working together as equals to achieve mutual benefits. For bureaucrats, it can mean not doing things that might upset the partner, perhaps even where the public interest is the key motivation for doing so. In fact, the PPP agreements are tightly written documents which provide little flexibility for governments to do things which may be perceived as detrimental in some sense to the partner, and which would need to be negotiated if proceeded with.

Stanley and Hensher have in the context of discussing possible other price regulatory approaches to roads highlighted possible implications of Transurban's high market share for transport policy and planning under current tolling arrangements:

'In the context of roads, the RAB (Regulatory Asset Base) approach can help deal with the loss of network control that arises when a PPP contracted business such as Transurban controls, through a long-term concession (typically 30 years), the motorway network once the growing number of deals are signed. In Sydney and Melbourne this increasingly is a significant amount of the motorway network and, with tolls preferred by such entities over serious road pricing reform, can be a blockage to government delivering future road pricing reform. This loss of network control makes transport policy and planning a bit like one hand clapping. The availability payments model would have assured greater control by government over revisionary price setting (even with shadow tolls) as traffic levels change, which opportunity is effectively denied under the current PPP Australian toll road model. The RAB approach can also deal with the uncertainty of future changes in road pricing rather than locking in a fixed tolling regime for the long term.'<sup>90</sup>

## High concentration and new network system of tolling

Transurban has tentatively supported the notion of a network structure of tolling. Under existing arrangements where Transurban could be considered to control most or all the private concessions, it may not be difficult for it to come to a position as to what a network system of tolls could look like. This would likely be a network that did not fundamentally challenge the company's position or in the longer term, perhaps, its profitability. Rather, the opposite is likely to be the case.

Whether it would accept the roles of the NSW Motorways entity and IPART as proposed by this Review remains to be seen. We see these bodies as being essential to not only achieving a new system of network tolls, but also to the achievement of a more competitive tolling industry.

Would a more competitive industry structure enhance the benefits of a network system of tolling?' We think it would for two reasons. First, increased numbers of effective competitors would enhance inputs to the reform process and second measures to enhance competition are more likely to be accepted as part of the toll reform process.

https://ses.library.usyd.edu.au/bitstream/handle/2123/29326/ITLS-WP-22-13.pdf?sequence=1&isAllowed=y.

<sup>&</sup>lt;sup>90</sup> Stanley, J., Hensher, D. A. (2022). Oceanian perspectives on transport pricing and Financing of roads and public transport. *Institute of Transport and Logistics Studies*.

# How can a more competitive tolling industry structure be achieved?

The NSW Government needs to be more proactive in promoting competition in road tolling.

The most direct way to increase competition in the short-term would be for ownership of existing concessions to change.

Whilst public toll roads do not directly compete with concessions, their presence does, perhaps, give leverage to government to more competitive outcomes for toll roads.

For new concessions, the government could look to revamp tender processes to better reflect the importance of promoting effective competition for the market.

This may involve:

- ensuring that there are always a number of competing bids
- ensuring that the bidders are all well informed about the operation of the network, traffic flows and volumes and financial performance of roads that make up the network
- ensuring that bid evaluation criteria focus on the importance of minimising tolls (or adhering to network tolls where these apply) and costs subject to achieving other relevant quality and service outcomes
- ensuring that bid evaluation criteria include consideration of the impact on industry concentration.

A significant longer-term matter to consider is the basis on which the PPP contracts are specified. In particular, the Review considers competition would be significantly enhanced if concession agreements could be framed as availability PPPs rather than economic PPPs, as at present. The latter involves the recovery of costs through tolling, with the concessionaire taking the risk for traffic volumes, whereas the former involves recovery of costs by concessionaires through periodic payments from the government. This could obviously be more easily done with new agreements, but it may also be possible to re-negotiate existing agreements.

Other pro-competitive changes to concession arrangements should also be considered by government. These changes include:

- generally avoiding increasing the length of existing contracts unless there are clear trade-offs which enhance toll reforms
- adopting a more rigorous, pro-competitive approach to reviewing unsolicited proposals for new roads or road capacity
- regulating roaming fees.

Transurban's comments in response to the Interim Report highlight the important role for government in designing procurement processes and concession agreements (<u>Figure 12.1</u>).

Figure 12.1 Transurban comments relating to competition, risk allocation and concession length

'Competition for toll roads is generally on the merits on each occasion, whether through initial concession proposal or the acquisition of existing road interests. As the Review notes, Transurban's acquisitions have been subject to ACCC review.

Governments make decisions about the most appropriate way to develop toll roads, considering the interests of both consumers and the State. In doing so, the NSW Government takes into account the appropriate level of risk that the State should assume in any particular situation.

The State has significant control over how these procedures unfold, how bidders participate and the mechanisms that can and have been put in place to address any concerns about information asymmetry. Long term agreements are often necessary and appropriate in regard to the level and risk assumed by toll road operators over the life of the concession.'

#### Source: Public Consultation Submissions, 2024

The following sections of this chapter discuss a number of these matters in further detail.

#### **Recommendation:**

**Recommendation 28:** The NSW Government should ensure future procurement processes have greater regard for the desirability of maintaining a competitive industry structure.

### Not imposing demand risk on concessionaires

Currently, NSW Government has structured its arrangements in a way that it does not suffer financially if a project underperforms in terms of traffic demand and shares some of the benefit if the project performs better than expected.

Ultimately post construction in particular, the NSW Government is probably in a better position than the private sector operators to influence traffic on the motorways. The government can have a significant influence on traffic flows through its general management of the transport network, land use planning, toll relief and related strategies. This is noted by Professor John Quiggin (University of Queensland) and Dr Jiayu Wang (University of Queensland):

'The basic problem is that the government is in a better position to manage demand risk. The flow of traffic on any given road will depend on subsequent decisions about urban development and about the development of the transport network as whole. A private owner of a single road will demand either a high rate of return or a guarantee that future management decisions do not adversely affect traffic on the road in question. By contrast, for the government which owns the road network as whole, and can tax all road users, risk about traffic flows on any one road is unimportant. The government's concerns go beyond the road network – what matters is the performance of the transport system as a whole.'<sup>91</sup>

If concessionaires did not have traffic risk imposed on them, concerns about high concentration would be lessened. As it is, Transurban's in-depth knowledge and management of demand risk gives it a clear advantage over rivals, as discussed in <u>Finding 12</u>. Not having traffic risk would also likely attract new classes of investors who are looking to invest in more stable and certain income streams including superannuation funds.

<sup>&</sup>lt;sup>91</sup> Quiggin J., & Wang J. (2018). Unscrambling the toll road egg. *Economic Analysis and Policy*. <u>https://doi.org/10.1016/j.eap.2018.07.002</u>.

NSW Government procurement and PPP guidelines outline the need to undertake delivery model assessment during the upfront project development phase. If the government decided to retain demand risk, other procurement models, such as availability PPPs or design and construct without private finance, may be appropriate.

The NSW Government retains demand risk for the Sydney Harbour Crossings. It will also retain demand risk on the Western Harbour Tunnel project and M6 Stage 1 (both in delivery) when they open. Looking to other jurisdictions, North East Link and Peninsula Link in Victoria, and Toowoomba Bypass in Queensland are examples of state governments retaining demand risk through availability PPPs.

## Reducing concession length

Many of the current concession agreements have long contract terms, reflecting the increasingly complex and costly nature of projects, for example extensive tunnelling, as well as provisions about concession length, government contribution and starting tolls as determined by the government.

There is a trend toward longer contract terms: for example, the WestConnex concessions last for about 40 years out to 2060. There is an inherent trade-off in contracting for longer concession terms which weighs up greater private sector funding today against the requirement for longer term motorist contributions. By extending a concession from 30 to 40 years, government is effectively unlocking a greater funding pool to pay for a project or reinvest (as is the case in sale of WestConnex), yet motorists bear the cost of this far longer.

While governments may have had a strong rationale and received significant benefits from agreeing to longer concession terms, the approach has come at a cost, particularly in terms of lost government control over toll setting arrangements and flexibility for innovation. The heavy discounting applied to the outer years of the concession contract means that the upfront revenue benefit is low, but the loss of control is significant (as the longer you look into the future the greater the chance of technological/social disruption). Extensions to concession length should be considered in light of the adequacy of the existing toll regulatory framework.

Shorter contract durations, or more frequent contract resets, would allow for regular adaptation of terms and tolls in response to changing circumstances. They can also help distribute risks more evenly between government and concessionaires and allow for periodic adjustments to risk sharing mechanisms. As the length of concessions grows, the risk of unforeseen events or changes in demand can disproportionately burden one party.

The financial implications of shorter concession periods will require evaluation. Investors are typically seeking to extend concessions (rather than shorten them). If concession lengths are shorter, governments may need to provide additional funding to reduce the private capital required or share traffic demand risk or other risks with the private sector. Alternatively, tolls may need to be higher to ensure an adequate return to investors and debt repayment.

#### **Recommendations:**

**Recommendation 29:** The NSW Government should review existing concession agreements with the aim of enhancing competition.

**Recommendation 30:** The NSW Government should place a greater focus on long-term implications for control and competition rather than short-term benefits in the approach to future procurement of toll roads.

# Concession lengths should be based on clear public interest considerations

The problems associated with inflexible concession terms, high tolls and long concession periods have previously been discussed in <u>Chapter 5</u> and <u>Chapter 6</u>. Lengthening the term of concessions perpetuates these problems for longer. Flexible concession lengths could reflect the period required by concessionaires to obtain sufficient revenue to achieve the required rate of return underlying their contract. This is the NPVR approach to determining concession length mentioned elsewhere in the report, which also removes traffic risk from the concessionaires.

It is sometimes suggested that a trade-off could be negotiated with concessionaires involving lower tolls in the immediate period in return for allowing an increase in the length of concessions. While this would lower tolls in the short-term, it would not reduce the overall level of tolls users are required to pay over the long-term or address the concerns about government control over toll setting arrangements and lack of innovation referred to above.

If the trade-off proposal related to genuine reform of tolling arrangements for example, acceptance by concessionaires of government setting toll levels, or periodic resets of tolls, or reductions in tolls, there may be a stronger case for this type of action.

#### **Recommendation:**

**Recommendation 31:** As with other aspects of toll setting, there should be clear public transparency in relation to determining the length of concession agreements. The concession period should be based on clear public interest considerations, including maintaining competitive industry structures.

# Unsolicited Proposals (USP) for new toll roads advantage incumbents

An Unsolicited Proposal (USP) arises when a proponent independently approaches the government with a commercial proposition, without any prior request from the government. They are a separate pathway for procurement and involve negotiations with one party rather than competitive bidding. In 2012, the NSW Government introduced the USP Guide for Submission and Assessment to establish a transparent framework for assessing USPs, initially focusing on three main criteria: uniqueness, value for money, and alignment with whole-of-government strategic objectives before assessing all remaining criteria including affordability, return on investment, capability and capacity and risk allocation. The USP Guide for Submission and Assessment underwent enhancements and updates in 2014 and 2017 after extensive review and industry feedback. The latest 2022 update reflects changes in the machinery of government.

It is significant that two major motorway projects in Sydney in recent years have arisen from USPs from the M7 Westlink consortium (including Transurban). These are NorthConnex and the M7-M12 Integration Project. NorthConnex, was a wholly new toll road concession, while the M7-M12 Integration Project was an augmentation to widen and link the existing M7 motorway to the non-tolled M12 motorway.

USPs as related to toll roads can be controversial. The ACCC, for instance, has argued they advantage incumbent toll operators and that competitive processes offer better value for money.<sup>92</sup>

Governments will generally only consider USPs where both the proposal and the proponent (on the face of it, or after a market test has occurred) have unique attributes such that others could not deliver a similar proposal with the same value for money outcome. However, caution should be exercised when assessing toll road USPs, noting Transurban's market dominance and incumbency advantages.

Further, USPs typically seek to expand capacity (e.g. by widening). Ideally, the option of utilising tolling strategies for demand management on the existing road should be considered in the first instance before capacity increases.

The NSW Government's USP Guide to Submission and Assessment places significant emphasis on uniqueness and requires that 'for unsolicited proposals to progress through the assessment process, the uniqueness needs to apply to both the proposal and the proponent.' That is, the 'demonstration of unique benefits of the proposal and the unique ability of the proponent to deliver the proposal'.

The distinction between a USP for a new toll road and a USP to augment an existing toll road may be significant. The ACCC in its submission to the NSW Legislative Council inquiry into Road Tolling Regimes recommended that:

'State governments should run competitive tender processes for new toll road concessions and not accept unsolicited proposals for them.'

#### The ACCC additionally noted:

'Assuming that the guidelines remain as they are, and that the NSW Government continues to consider unsolicited proposals for new toll road concessions under the guidelines, our view is that such proposals should only be accepted if there is a clear case that it benefits the public, and that the uniqueness criterion should not be interpreted in a way that advantages incumbent toll road operators.'<sup>93</sup>

It may in practice be more difficult to have extensions to an existing concession operated by a new player so competitive bidding processes in these circumstances may be more difficult. However, governments could consider competitive tendering or building in pre-agreed network augmentation and term extension regimes in the original concession contracts. This would provide an alternative to conventional USP processes to ensure value for money. Pre-agreed concession extensions and options for future network augmentations haves been utilised on privately financed projects such as Sydney Metro – Western Sydney Airport.

<sup>&</sup>lt;sup>92</sup> Australian Competition and Consumer Commission. (2018, August 30). ACCC will not oppose Transurban consortium WestConnex bid following undertaking. <u>https://www.accc.gov.au/media-release/accc-will-not-oppose-transurban-consortium-westconnex-bid-following-</u>

undertaking#:~:text=%22The%20ACCC%20considers%20that%20state%20governments%20should%20only, to%20taxpayers%2C%20drivers%2C%20or%20both%2C%22%20Mr%20Sims%20said

<sup>&</sup>lt;sup>93</sup> Australian Competition and Consumer Commission. (2021, October 14). Inquiry into Road Tolling Regimes, Submission No 232. <u>https://www.parliament.nsw.gov.au/lcdocs/submissions/76469/0232%20ACCC.pdf</u>

**Recommendation:** 

**Recommendation 32:** The NSW Government should favour competitive tender processes over unsolicited proposals for new toll road concessions.

# The regulation of roaming fees will promote competition

This recommendation seeks to provide certainty to potential new investors and so improve opportunities for competition.

Under the Roads Regulation, the Roads Minister has the power to (i) set a maximum roaming fee that may be charged by toll retailers, or (ii) determine an appropriate mechanism to regulate roaming fees. The Roads Minister has not exercised this power and the threat of doing so may have been considered a sufficient response to date.

This recommendation echoes a recommendation made in the 2019 Independent Inquiry into the Regulation of Toll Road Roaming Fees, which identified that regulating roaming fees could promote competition (and therefore innovation and efficiency) in the market for toll road concessions in New South Wales. Even though in 2019, a finding revealed no evidence of toll retailers using market power to set roaming fees, stakeholders provided evidence that the risk of higher roaming fees served as a barrier to competition.

There is a possibility of conflict for the NSW Motorways entity if it was to be involved in regulating roaming fees. As a toll retailer, the NSW Motorways entity will be entitled to receive roaming fees. The NSW Motorways entity may, as a toll road operator, also be obliged to pay roaming fees. We therefore are of the view that IPART, rather than the NSW Motorways entity is best placed to support the Roads Minister in regulating roaming fees.

#### **Recommendation:**

**Recommendation 33:** The NSW Government should regulate roaming fees to promote competition for future toll road PPPs.

# Data and analysis used in determining tolls should be published

Information considered by IPART in monitoring tolls should be made public. In addition, the NSW Motorways entity should provide the public with detailed information explaining how it intends to go about the task of setting network tolls. Information to be disclosed under this recommendation includes publication in a timely matter of:

- a. surveys and analysis concerning willingness to pay, value of travel time savings, and toll saturation
- b. traffic forecasts in relation to proposed network tolls
- c. actual, forecast and benchmark concessionaire costs
- d. the expected rate of return for each concessionaire.

This recommendation aims to enhance public trust and confidence by providing additional information. It also creates further accountability for the NSW Motorways entity, by making public additional details of the implications of their decisions. Additionally, the improved transparency will increase the amount of information available to non-incumbent players, reducing the knowledge asymmetry between incumbent concessionaires and other parties. Finally, the recommendation seeks to foster market confidence, as increased transparency supports greater market understanding of decisions on tolls and therefore encourages their continued engagement.

In our view, an overly conservative approach for release of commercial information contained in concession agreements has applied to date. BCFMs have not been published on the basis that there is an overriding public interest against disclosure of detailed construction costs, traffic forecasts, operational and major maintenance cost forecasts, and the concessionaire's expected rate of return. It is our view that relevant details could be made public through IPART.

In 2006 and 2017 two separate parliamentary committees<sup>94</sup> recommended the publication of the BCFM for toll road PPPs. The 2017 Inquiry into road tolling report also recommended the publication of the expected internal rate of return for future individual privately operated toll roads, at suitable intervals. The government response to both reports did not accept these recommendations.

The Lane Cove Tunnel and the Westlink M7 BCFMs were tabled in the Legislative Assembly on 9 November 2005. Whilst available these documents would be difficult to track down for most people.

This Review has also been adversely impacted by its inability to publish key details of the BCFMs which have impacted on the determination of tolls. Both transparency and accountability for tolling decisions are weakened when this information is not made available to the public. Legal restrictions prevented the disclosure of relevant BCFM details in this report. The Reviewers consider the government and concessionaires should endeavour to remove the restrictions in the concession agreements and elsewhere which have led to this unfortunate outcome.

Any agreed changes to improve transparency may require changes to the *Government Information* (*Public Access*) *Act 2009* and the PPP Guidelines.

Figure 12.2 Stakeholder perspectives on information disclosure

Support for further transparency, specifically around the disclosure of the concession agreements at contractual close, was expressed by stakeholders including the Hills Shire Council and City of Sydney.

**The Hills Shire Council:** Council supports actions to publish the contracts that have been put in place historically between the NSW Government and the various private toll providers.

**City of Sydney:** To understand the impacts of any proposed changes the tolling system, the Government (and Transport for NSW) and Transurban would need to disclose the financial details of the various motorway deals and current motorway patronage.

Source: Public Consultation Submissions, 2023

<sup>&</sup>lt;sup>94</sup> Joint Select Committee on the Cross City Tunnel, 2nd Report, May 2006, recommendation 8a and NSW Legislative Council Health and Community Services Portfolio Committee Inquiry into road tolling in NSW report, October 2017, recommendation 3b. See <u>Appendix A</u>: Past reviews, for more detail.

**Recommendation:** 

**Recommendation 34:** Full details regarding the setting of tolls should be disclosed to the public. The Review recommends that the NSW Government with concessionaires seek to remove impediments to the disclosure of relevant BCFM information in this regard.



# A better system for motorists

# 13. Improving the motorist experience

Recommendations:		
Transparency for motorists	<b>Recommendation 35:</b> Improve the retail experience for motorists by providing personalised insights into past and projected toll spend.	
	<b>Recommendation 36:</b> The NSW Government should improve decision-making and trip planning information available to motorists online, on the road and through Service NSW.	
Tolling customer advocate	<b>Recommendation 37:</b> The NSW Government should establish a tolling customer advocate regulatory function within the NSW Motorways entity to:	
	<ul> <li>Consider systemic complaints affecting motorists and, where relevant, refer complaints to other relevant agencies.</li> </ul>	
	<ul> <li>Influence improvements to systems, processes and legislation to minimise future customer complaints and improve toll compliance.</li> </ul>	
	c. Manage customer education and awareness campaigns.	
	d. Resolve new 'pain points' which arise from the transition to network tolling.	
	e. Ensure customer complaints are escalated, and responded to within appropriate timeframes and that responses are thorough and fair.	
	f. Publish regular reports on the implementation of toll reform by government and industry.	
	<b>Recommendation 38:</b> The NSW Government should ensure that toll road operators are required to suspend debt recovery action while the NSW Motorways entity in its customer advocate role is assisting a motorist with a disputed debt.	
Industry ombudsman	<b>Recommendation 39:</b> The NSW Government should work with the Victoria and Queensland Governments to investigate co- operative legislation requiring toll road operators and retailers to be members of a statutorily approved independent dispute resolution scheme.	
Toll notices         Recommendation 40:         The NSW Government should simple and modernise toll notices.		

Recommendations:		
Debt recovery – criminal enforcement	<b>Recommendation 41:</b> The NSW Government should review legislation and policies relating to toll default offences, including;	
	<ul> <li>Prior to the introduction of network tolling, amending the offence to ensure there is only one offence for non-payment for a trip for those roads where aggregated trip tolls are used (currently WestConnex).</li> </ul>	
	<ul> <li>As part of the introduction of network tolling, amending the toll default offence so that only one offence can occur for each trip.</li> </ul>	
	<ul> <li>Ensuring the offence applies to either the driver or registered vehicle owner in the most optimal and fair way.</li> </ul>	
Debt recovery – civil	<b>Recommendation 42:</b> Through its customer advocate role, the NSW Motorways entity should pursue further opportunities to improve civil debt recovery practices including:	
	a. Each toll road operator developing and publishing a best practice customer charter.	
	<ul> <li>Reviewing any legislative constraints on civil debt recovery.</li> </ul>	
	<ul> <li>Developing strategies to improve the accuracy of contact information available for registered vehicle owners.</li> </ul>	

# Overview

<u>Chapter 13</u> focuses on fairness and transparency for the motorist as a retail customer of Sydney toll roads. Recommendations 34, 35, 36 and 41 in particular address <u>Finding 14</u> that current tolling information fails to adequately enable, inform, and educate motorists through improving communications, providing greater insights and targeted information.

Recommendations 34 and 35 are focussed on the 'front-end' of the retail customer experience. These improvements will provide motorists with greater ability to plan their routes and make realtime decisions to use a toll road or the alternative route.

Recommendations 36–41 are focussed on the frameworks which apply when something has gone wrong, e.g. a valid travel arrangement was not in place or a motorist feels they have been incorrectly charged. A fair, transparent and efficient toll compliance system is critical to ensuring that those who do the right thing by ensuring they have a valid travel arrangement and rectifying any mistakes immediately are not subsidising motorists deliberately taking advantage of the system. The Minns government already has some commitments in this area – specifically to consolidate toll notices and reduce administration fees – which we support. We note NSW currently lags behind Queensland and Victoria which already have consolidated toll notices. Our recommendations go significantly further to help motorists navigate tolls and bring the motorist experience more into line with other industries.

Motorists can face a cumbersome system when interacting with toll roads. In our view, this partly reflects a historical lack of focus on the motorist experience in negotiating and implementing the concession agreements. The priority has been on financial aspects of these deals to get the infrastructure built. The customer advocate role within the NSW Motorways entity will bring dedicated focus to motorist experience improvements. Cooperation across TfNSW, Service NSW and industry will be required to implement these initiatives. The NSW Motorways entity's involvement will help ensure that those key players appropriately prioritise the motorist experience.

In general, the recommendations in this <u>Chapter 13</u> can be implemented independently of the wider reforms set out in this report. Although we envisage the customer advocate role as being set out in the legislation establishing the NSW Motorways entity. The <u>Chapter 13</u> initiatives have a high customer benefit whether implemented in the context of status quo tolls or network tolling. As such, the NSW Government should proceed with these initiatives immediately and we expect a number could be introduced in advance of the introduction of network tolling.

Through a smoother process, higher compliance and improved motorist awareness, we expect that the introduction of these initiatives will lead to a reduction in the number of complaints and a reduction in the level of unpaid tolls being pursued through debt recovery. Given that the reform initiatives set out in this chapter will lead to a reduction in toll leakage, the NSW Government should work with concessionaires to investigate funding these initiatives through revenue increases. The opportunity is large. With annual toll revenues at about \$2.5 billion each year currently a 1% point decrease in the leakage figure is worth \$25 million per annum.

# Transparency for motorists

In <u>Chapter 7</u> we identified shortcomings in how current tolling information enables, informs and educates motorists. Public submissions following the release of the Interim Report strongly supported improvements to make the motorist experience more transparent, such as enhancing online resources, improved signage, and providing user-specific information through retail accounts. Many saw these recommendations as a genuine opportunity to improve the customer experience for drivers on Sydney's roads and deliver long-term benefits for the New South Wales community. Out of the 48 submissions that commented on the recommendations relating to improving the motorist experience, 38 were in support of moving forward with the outlined recommendations. The general emphasis from respondents was on the importance of better signage and better integration of tolling information into widely accessed platforms such as Google Maps.

#### **Retail accounts**

There are significant opportunities to improve the retail experience for motorists, including:

- Revamping statements to be more informative and user-friendly, including:
  - fee breakdowns and links to fee information
  - historical usage data so that motorists can understand how much they spend on tolls.
- Projecting usage for motorists based on factors such as historical usage, seasonality, and personal factors to predict their usage.
- Improving information on retailer websites to improve access to existing toll calculators and content which is currently hard to find.
- Improving information about cashback and rebates with more prominence to each.
- Providing personalised reminders and notifications to motorists about their eligibility to claim toll relief.
- Increased convenience by moving from physical tags to tagless technology.

9:00 AM 9:00 AM 9:00 AM × Monthly spend 63 < Monthly cash flo Monthly spending 1 Aus \$2,600 -\$4,703 -\$2.798 nost on Eating Out (\$375.78) Total spend -\$1.300 -\$1,368.00 \$1.300 -\$1,153 \$750 Eating Out -\$375.78 Mar Mar Apr Jun May Smart Access 1234 5678 1234 5678 Apr May 2 Gro 16 -\$291.05 \$1,500.00 Income \$2,600 > June spending -\$1,300.00 nding balance \$0.00 \$1,500.00 count balance Shop 21 th -\$64.65 Travel -\$500.00 -\$1,300 > Spending RPAY B -\$61.64 Groceries Savings \$750 > -\$300.00 0 2 tran 5 Eating Out -\$50.00 11 -\$290.00 Health -\$49.28 Today Shopping 1 transactio -\$150.00

#### Figure 13.1 CommBank App, Spend Tracker, Commonwealth Bank of Australia<sup>95</sup>

The spending tracker available through the Commonwealth Bank of Australia's app exemplifies a high standard of retail experience for its customers, empowering users with a transparent breakdown of their spending.

Data-driven insights enable informed financial decisions and allow users to maintain spending control.

Recommendation 35 proposes toll retailers provide similar information to motorists.

#### Source: Stakeholder submissions, 2023

The 2019 Independent Inquiry into Regulation of Toll Road Roaming Fees recommended that E-Toll should be restructured to operate commercially. The commercial restructuring of the government retailer is not a specific recommendation of this Review. However, transitioning E-Toll's customer base and capabilities to NSW Motorways (<u>Chapter 11</u>) would be consistent with the 2019 recommendation and would better position E-Toll to take advantage of the opportunities above.

A significant majority (76.92%) of Have Your Say respondents supported the mapping of historical and future toll usage.

Figure 13.2 Public submission: Have Your Say

'Allowing motorists to access information on their historical and projected future toll usage can play a critical role in budgeting and financial planning. This transparency helps individuals and businesses alike to better forecast their expenses and manage their finances with greater precision.'

Source: Have Your Say Submissions, 2024, Independent Toll Review

<sup>&</sup>lt;sup>95</sup> McLachlan, T. (2021, March 1). Bank apps that help you budget and reach your savings goals. Tilly Money. Bank apps that help you budget and reach your savings goals – tillymoney.

#### Real-time road signage<sup>96</sup>

Signage should be improved and incorporate electronic signage where practicable showing tolls, travel times and hazards at key decision points as well as along toll routes. Submissions to the Review during the 2023 and 2024 consultation periods were almost universal in their support for tolling information to be more readily available and targeted to ensure consumers had the relevant information to make informed choices on toll road conditions and associated costs in real time. Public submissions requested that information be displayed about both tolls and traffic conditions. Increased use of colours and pictures were suggested.

Figure 13.3 Public submissions – comments on road signage

'Early alerts of any major traffic incidents on toll ways should be displayed before entry.'

'Please ensure tolls are electronically signposted with the exact price so people know what they are paying as they pass through – currently it is almost impossible to know what the toll is when driving and calculate how much we are spending in a day/week/month/year on tolls.'

'Toll road costs aren't transparent while driving. I don't see signage of the price before entering (M4 tolls), the highways which make it hard to judge if I should take it over public roads.'

'My complaint is cost if tolls and no signage to the cost and any delays and for how long thereby being unable to make an informed decision.'



'Improved models of [Variable Message Signs] could be introduced to show 'rich' content such as different coloured text, images, or graphics, as opposed to the current situation, just orange text.'

Image A<sup>97</sup> is a typical variable message sign in NSW, with only orange text.

Image B<sup>98</sup> is an example variable message sign which includes two colours and icons.

<sup>97</sup> Roads and Maritime Services., & Transport for NSW. (n.d.). Warning Road Signs. NSW Government. <u>https://www.nsw.gov.au/driving-boating-and-transport/roads-safety-and-rules/warnings-and-hazards/warning-road-signs.</u>

<sup>&</sup>lt;sup>96</sup> The Independent Reviewers thank Jonathan Tang for a detailed and carefully considered Submission particularly in relation to improved road signage.

<sup>&</sup>lt;sup>98</sup> Dysten. (n.d.). Variable Message Signs - VMS. <u>https://smartcitydisplays.com/en/product/variable-message-</u> <u>signs-vms/.</u>



Source: Public Consultation Submissions, 2023

Comments in response to the Interim Report regarding toll road signage improvements were 80.44% supportive.

 <sup>&</sup>lt;sup>99</sup> Google Maps. (2023, September). Artarmon, New South Wales. <u>https://www.google.com/maps/@-</u>33.8127874,151.1928057,3a,75y,242.29h,96.44t/data=!3m6!1e1!3m4!1sY3bou7GC7uVSepbWIP1nGQ!2e0!7i163
 <u>84!8i8192?entry=ttu.</u>
 <sup>100</sup> Vic Roads. (2019. September 23). About Victoria's toll roads. https://www.vicroads.vic.gov.au/traffic-and-

<sup>&</sup>lt;sup>100</sup> Vic Roads. (2019, September 23). About Victoria's toll roads. <u>https://www.vicroads.vic.gov.au/traffic-and-road-use/road-network-and-performance/toll-roads-in-victoria/about-victorias-toll-roads.</u>
#### Figure 13.4 Public submissions: comments on toll road signage

'Better signage on toll roads and at key decision points can help ensure that motorists are wellinformed about upcoming tolls, toll booth locations, and price changes. Clear, visible, and timely signage can prevent last-minute lane changes and reduce accidents or traffic congestion caused by drivers reacting to unexpected toll notices.'

'I support improved signage and better indications of toll pricing on entry to the tollway. It's not good enough to force people to check the website to see the tolls. The toll information should be reinforced during driving, not simply left until the credit card statement arrives.'

Transurban: 'We are supportive of measures to improve customers' ability to make informed decisions about their journey and we agree that decision-point signage could provide customers with even more data to inform their travel choices when using the motorway network.'

#### Source: Public Submissions, 2024, Independent Toll Review

In 2006 the Joint Select Committee on the Cross City Tunnel also recommended signage improvements. The committee recommended in its second report that all toll roads, whether publicly or privately operated, advertise the cost of use at entry points.<sup>101</sup> The government response at the time accepted this recommendation. However, 18 years later, it has not been implemented well to date.

Improved signage will be critical for the full benefits of more sophisticated tolling strategies like peak/off-peak tolls and dynamic pricing to be achieved, should they be implemented in future. Peak/off-peak tolls and dynamic pricing will only prevent congestion from occurring, or encourage motorists to use an underutilised road, if motorists are informed of the higher or lower tolls in advance of the toll road access point. This advance warning must allow sufficient time for motorists to decide whether or not to use the toll road.

#### Online trip planning tools

TfNSW, NSW Motorways and Linkt should work together to develop a 'one stop shop' holistic transport application and corresponding website that provides a single 'source of truth' for motorists and facilitates trip planning. It should also offer features such as trip information and statements, historic spending breakdowns, predictive spend, cost comparisons, rebates, and notifications. This application should leverage and expand the capabilities of both TfNSW's official Opal Travel App and the Transport Connect hub (and integrate with Service NSW for identity management) (features and functionalities are outlined in <u>Figure 7.2</u>).

As an interim step to the 'one-stop shop', TfNSW and NSW Motorways could create a personalised trip planner leveraging the existing TfNSW trip planner and calculator showing personalised tolled routes and alternatives (for all transport options including public transport). The trip planner could include information on tolls, time, traffic, fuel consumption, and environmental impact of all potential routes (both tolled and untolled). A virtual assistant through the app would also further improve the motorist experience.

Third-party navigation applications should be further customised to be more personalised for the motorist (by allowing them to choose which toll roads they are comfortable travelling with, as well as showing emissions usage and fuel consumption data for their specific vehicle type) and further integrate tolls within these apps. Relevant apps include Google Maps, Apple Maps, and Waze.

76.7% of responses to the Interim Report were in favour of improving online trip planning tools.

<sup>&</sup>lt;sup>101</sup> Joint Select Committee on the Cross City Tunnel. (2006, May 18). Inquiry into the Cross City Tunnel (Report 2). Parliament NSW. <u>Microsoft Word - 060518 Second Report Media release.doc (nsw.gov.au)</u>.

Figure 13.5 Stakeholder and Public submissions: commentary on online trip planning tools

**NorthWestern Roads Group:** NorthWestern Roads Group supports the 'sharing of live information on traffic conditions, transit times and toll rates providing our customers with choice on every journey'.

'Providing an enhanced online trip planning tool that integrates toll costs can significantly help motorists in planning their routes more efficiently. Such tools can offer real-time data on traffic conditions, estimated toll costs, and alternative routes, allowing drivers to make informed decisions based on cost, time, and convenience.'

'Online trip planning can not only save time, but in some cases fuel and hence reduce emissions.'

Source: Stakeholder and Public Submissions, 2024, Independent Toll Review

#### Non-digital communication

Non-digital education options should be provided to motorists for tolling-related topics. This could include hardcopy pamphlets and brochures distributed at Service NSW Centres and via direct mail when a motorist receives their first toll notice, their first driver licence or an E-Toll tag. Seventy-eight per cent of responses to the Interim Report supported increased visibility of toll information.

Figure 13.6 Public submissions: commentary on online trip planning tools

'Enhancing the visibility of toll-related information, including pricing structures, toll location maps, and payment options through various platforms (such as mobile apps, websites, and physical information boards), ensures that all motorists, regardless of their tech-savviness, can access necessary toll information.'

Source: Public Submissions, 2024, Independent Toll Review

#### **Recommendations:**

**Recommendation 35:** Improve the retail experience for motorists by providing personalised insights into past and projected toll spend.

**Recommendation 36:** The NSW Government should improve decision-making and trip planning information available to motorists online, on the road and through Service NSW.

# Complaints

Our Interim Report contained a preliminary recommendation that the external dispute resolution function for the toll road industry should be established within the NSW Motorways entity. Our final recommendations in relation to toll complaints are to establish a customer advocate role within the NSW Motorways entity and commence discussions with other states to establish a nation-wide external dispute resolution function. As a customer advocate, the NSW Motorways entity will be able to have a higher impact in promoting positive reform than it could as an external dispute resolution body which would mostly handle disputed debts. We have adopted a suggestion by the Tolling Customer Ombudsman (TCO) in recommending a move towards a nation-wide external dispute body.

#### There is no single point of contact to assist customers with toll issues

Currently each toll road operator is required to resolve complaints relating to tolling on its roads. They are required by law to deal with objections to tolls and charges. The process they are required to follow includes internal review.

The TCO assists Transurban-affiliated toll road operators in NSW to discharge those obligations, as well as providing a broader range of services. CityLink (100% owned by Transurban) initiated the TCO in 2004. EastLink (in which Transurban has no equity interest) was until June 2019 part of the TCO scheme. However, the TCO is now funded by Transurban as its only customer. The dominance of Transurban raises questions about the independence of the TCO. Importantly, the TCO's remit includes complaints relating to toll notices issued under a concessionaire's letterhead and civil debt recovery pursued by concessionaires.

The TCO publishes details of the time taken to resolve NSW toll complaints for the participating roads. Concerningly, in February 2023, the average time taken for a NSW toll complaint to be resolved reached a high of 143.35 days (see <u>Figure 13.7</u>). The December 2023 figure of 55.57 days is still significantly higher than the benchmarks under the Roads Regulation for toll road operators to deal with objections within 14 days<sup>102</sup> and complete internal reviews within 21 days.<sup>103</sup>



#### Figure 13.7 Average time taken to resolve toll complaint in 2023

#### Source: TCO Review, 1 October to 31 December 2023, p. 6

The same obligations apply to TfNSW as apply to private toll road operators. Complaints about tolls on its roads or E-Toll are initially managed by TfNSW or Service NSW. The NSW Ombudsman is available as an avenue of recourse where issues of public administration are in question. TfNSW, through its E-Toll products, services an estimated 56% of toll account customers in NSW.

<sup>&</sup>lt;sup>102</sup> Clause 21

<sup>&</sup>lt;sup>103</sup> Clause 22

It appears that about 390 NSW toll complaints each year are not resolved internally by the relevant toll road operator and are escalated to the TCO or NSW Ombudsman. Sixty per cent of these are referred to the TCO and 40% were identified as actionable complaints by the NSW Ombudsman.

Anecdotally, we understand motorists are confused about where they should take their complaints. Complaints are variously directed to toll retailers instead of the relevant toll road operator (or vice versa where Linkt has authority to represent the toll road operator); to Service NSW instead of TfNSW (or vice versa); to the TCO when the issue should be resolved by TfNSW, etc. Where all else fails, complaints are directed to Ministers and local Members of Parliament, and not to those who can help to resolve the problem – or, more importantly, the underlying issues. Issues arising from 'foreign' trips (where the toll retailer and toll road operator are not related entities) can be more complicated to resolve and create more confusion for motorists.

#### Figure 13.8 Ombudsman NSW Submission, 2023

'Over the past 2 financial years, at least 20%<sup>104</sup> of contacts to the NSW Ombudsman about tolling issues were classified by us as 'misdirected' – meaning that they concerned matters outside of our jurisdiction. When the NSW Ombudsman receives a complaint about Transurban/Linkt, we will if appropriate refer that person to the TCO.'<sup>105</sup>

Source: Public Submissions, 2023, Independent Toll Review

# A customer advocate role should be established to provide a high-profile central point for NSW toll complaints and issues

The tolling customer advocate will be critical to successfully implementing the overhaul of the NSW toll system. In its role as the tolling customer advocate, the NSW Motorways entity would work respectfully with the TCO and toll road operators, and as a public body would potentially be subjected to NSW Ombudsman review for its handling of complaints. The customer advocate would be an advocate for toll road customers within government and would champion network-wide improvements based on customer feedback and education programs to improve outcomes for customers. The principal role of the customer advocate will be to identify the factors that cause disputes and alleviate them at cause. One potential systemic improvement which could avoid future complaints relates to the process to sell a vehicle in NSW (see Figure13.9). The customer advocate should also be involved in design of targeted toll relief and hardship schemes.

It may be appropriate for the tolling customer advocate to undertake internal reviews where motorists are not satisfied with the outcome of a complaint with the NSW Motorways entity. The EastLink customer advocate in Victoria performs such an internal review function. Alternatively, disputes could be managed through existing channels, with the customer advocate facilitating and monitoring outcomes as appropriate.

<sup>&</sup>lt;sup>104</sup> The NSW Ombudsman notes the following about data referred to in this submission: searches were made for complaints including the words 'toll' or 'tolling'; data for the 2022-23 financial year has not yet been finalised and is subject to change.

<sup>&</sup>lt;sup>105</sup> Ombudsman NSW. (2023). Have Your Say Submission. Independent Toll Review.

#### Figure 13.9 Selling a vehicle – illustrative example

John sells his vehicle linked to his toll account and lodges a notice of disposal with Service NSW. He does not realise that, under the terms and conditions of his toll retailer account, he is required to advise his toll retailer of the sale. The new owner of the vehicle accesses the toll road network without a working tag in the vehicle. A few months pass by before John logs in to his toll retailer account and views his statements. He sees he has been charged for hundreds of dollars in tolls with vehicle matching fees on top.

John contacts his toll retailer and requests his account be credited for tolls and fees relating to his old vehicle. John's retailer provides a full credit of the tolls and fees incurred by the new vehicle owner. The retailer wears the cost of the unpaid tolls and fees in this scenario.

This example highlights a potential reform opportunity whereby two steps could potentially be integrated into one. For example, the notice of disposal form could include an additional section for John to request the sold vehicle be removed from his toll retailer account. John could submit the form once and it could be actioned by Service NSW and his toll retailer.

Alternatively, toll retailers could receive a daily notification from Service NSW of all number plates for which a notice of disposal has been lodged. John's retailer would then be able to contact him to ask if the licence plate should be removed from his toll account.

The tolling customer advocate would work with retailers, TfNSW (as the owner of the DRIVES database) and the Privacy Commissioner to pursue this opportunity.

#### Source: Independent Toll Review

The customer advocate may, in the course of considering systemic complaints, identify an issue to refer to another relevant agency for investigation such as NSW Fair Trading or the ACCC.

The customer advocate could be established as an administrative position (or function) within the NSW Motorways entity. The customer advocate should have a legislative discretion to stop or suspend enforcement or debt recovery action relating to a NSW toll, pending dispute resolution (by TCO or otherwise). The interaction between this discretionary power and the limitation period to enforce debts should be carefully considered. For example, it may be appropriate that the suspension can only occur within the first six months from the date a debt was incurred. The customer advocate should also have the power to request customer information from toll road operators and retailers.

Recommendations 34 and 35 are focussed on specific actions to streamline and modernise the 'front end' of how motorists interact with toll roads and pay for tolls. Many of these proposed initiatives are not new ideas with some recommended by previous reviews into tolling (e.g. advertising toll costs at entry points), others based on practices in other jurisdictions (e.g. use of colours and icons to make signage clearer) or other industries. The establishment of a customer advocate will provide specific focus to seeing through the implementation of such improvements. The customer advocate will publicly report on implementation progress.

The transition to network tolling will necessitate an overhaul of the toll collection process. From the customer perspective, there will be a single network toll per trip which may involve multiple toll roads. In the background, via the Revenue Adjustment Mechanism, that toll will be paid to multiple toll road operators. Some aspects of this overhaul will be addressed prior to network tolling when consolidated toll notices are introduced.

New 'pain points' are anticipated to emerge with this change. The customer advocate will have a critical role in quickly identifying new issues that arise and working across organisations to resolve them.

#### **Recommendations:**

**Recommendation 37:** The NSW Government should establish a tolling customer advocate regulatory function within the NSW Motorways entity to:

- a. Consider systemic complaints affecting motorists and, where relevant, refer complaints to other relevant agencies.
- b. Influence improvements to systems, processes and legislation to minimise future customer complaints and improve toll compliance.
- c. Manage customer education and awareness campaigns.
- d. Resolve new 'pain points' which arise from the transition to network tolling.
- e. Ensure customer complaints are escalated, and responded to within appropriate timeframes and that responses are thorough and fair.
- f. Publish regular reports on the implementation of toll reform by government and industry.

**Recommendation 38:** The NSW Government should ensure that toll road operators are required to suspend debt recovery action while the NSW Motorways entity in its customer advocate role is assisting a motorist with a disputed debt.

#### A national, industry-wide ombudsman

Our view remains that there is currently no clear external dispute resolution body resolving complaints in relation to tolling in NSW. The TCO has objected to our description of them as an internal dispute resolution body (see Figure 13.10). We have carefully considered the TCO's position, however, we still regard the TCO as essentially an internal dispute resolution body. The TCO is not an industry-wide ombudsman. Their remit does not extend to the EastLink toll road, EastLink retail products, the public toll roads in NSW or E-Toll retail products. In addition, as described above, we consider that the TCO assists concessionaires in NSW with satisfying their obligations under the Roads Regulation. Clause 21 of the Roads Regulation requires toll road operators to deal with motorist objections to tolls or charges within 14 days. Clause 22 of the Roads Regulation requires toll road operators to respond to applications for internal review within 21 days.

#### Figure 13.10 TCO perspective

**Tolling Customer Ombudsman:** Most concerning is the Interim Report says at pages 19 and 174 that the TCO "acts as an internal dispute resolution body". The claim is untrue.

The TCO is a company limited by guarantee and as such has its own board of directors.

•••

TCOL is separate and distinct a corporate entity from Transurban. The TCOL directors are subject to directors' duties, and statutory obligations as set out in the Corporations Act 2001.

As you would appreciate, these duties require the board to act in the best interests of TCOL, not Transurban. The board is required to give effect to the company's objects, which are set out in clause 6 of the TCOL Constitution.

Source: TCO Submission, 2024, Independent Toll Review

As suggested by the TCO in its submission, there may be merit in a single, statutorily approved external dispute resolution body for tolling across NSW, Queensland and Victoria. Toll road operators and retailers would be required by law to be members of the new scheme. This model is similar to the model adopted for the Australian Financial Complaints Authority or the Telecommunications Industry Ombudsman.

Further work is required to assess the justification for such a legislative scheme. The number of complaints relating to toll roads is significantly lower than the telecommunications and financial services industries. Tolling is also largely a state regulated activity, and the laws in each state are different. The interactions between a driver (or registered operator) and a road are not as complex as the potential range of interactions between a customer and their telecommunications provider or between a customer and their bank.

Under this model, the new single ombudsman would not be a government agency. However, the statutory backing and involvement from toll road operators and retailers not affiliated with Transurban would provide motorists with greater assurance as to the independence and powers of the entity.

Figure 13.11 Mr Marabani's perspective

'Now, the Tolling Ombudsman, in my honest belief, should be a government agency that actually looks after it.'  $^{\rm 106}$ 

Source: Public Hearing Transcripts, 2023, Independent Toll Review

Figure 13.12 NorthWestern Roads Group comment on toll compliance

'NorthWestern Roads Group supports the simplification and modernisation of the toll compliance process. This recommendation will reduce cost to the customer, improve transparency, simplicity and makes payment easier.'

Source: Stakeholder Submissions, 2024, Independent Toll Review

#### **Recommendation:**

**Recommendation 39:** The NSW Government should work with the Victoria and Queensland Governments to investigate co-operative legislation requiring toll road operators and retailers to be members of a statutorily approved independent dispute resolution scheme.

## Unpaid tolls and debt recovery

#### **Toll notices**

Improvements to the toll collection process must start with simplifying and modernising toll notices. The Minns government's election commitments to consolidate toll notices and reduce administration fees<sup>107</sup> are an important first step. Consolidated toll notices will save motorists millions of dollars per year in administration fees. In addition, the government should look at:

• digitising toll notices and introducing immediate notifications

<sup>&</sup>lt;sup>106</sup> Independent Toll Review. (2023, July). Public Hearing Transcripts, pp. 117.

<sup>&</sup>lt;sup>107</sup> Legislative Council. (2022, August). Transport Portfolio Committee Inquiry into Road Tolling Regimes (Report 16). Parliament NSW.

- renaming 'toll notices' to 'invoices' to more clearly communicate their purpose
- removing toll notice administration fees and introducing late payment fees to improve fee transparency and provide better incentives for motorists to not delay payment.

Transurban noted its support and advocacy for improvements to the toll notice process in its submissions to the Review.

Figure 13.13 Transurban comments on toll notice improvements

**Transurban:** Around 95% of drivers who travel on our roads have an active account or pass in place or set one up during the grace period of around 10 days before a Toll Notice is issued.

For the approximately 5% of trips that do proceed to a Toll Notice, there is an opportunity to improve this experience across the entire NSW network, and Transurban supports and has advocated for reforms to the Toll Notice process.

This could include consolidation and digitisation of Toll Notices and reviewing Toll Notice administration processes and fees. These changes could provide benefits including a:

- better customer experience
- reduction in Toll Notices issued, and
- reduction in the amount of fees paid.

Transurban would need to work closely with Transport for NSW, E-Toll and the broader industry, both at a NSW and national level on any change.

This is an opportunity for a holistic solution that could significantly reduce the number of Toll Notices issued in NSW – the highest of any state – and deliver significant benefits to the people of NSW.

Source: Stakeholder Submissions, 2023, Independent Toll Review

Figure 13.14 Transurban comments on toll notice improvements

**Transurban:** Transurban has long advocated for toll notice reform in NSW and we welcome further discussion about opportunities to consolidate toll notices, so a customer only receives one toll notice for three days of travel across the Sydney network. This change would be fairer for users, reduce the confusion that comes with receiving multiple toll notices and bring NSW into line with Victoria and Queensland's toll notice processes.

#### Source: Stakeholder Submissions, 2024, Independent Toll Review

Toll notices should also be accompanied with motorist-centric information. For example, motorists should be provided with helpful advice about how the most common underlying causes for inadvertent toll non-payment (e.g. flat E-Tag battery and the licence plate number is not linked to a retail account, insufficient credit card balance) so motorists can act to resolve the problem from causing further unpaid tolls.

# Toll road operators can elect to pursue unpaid tolls through civil proceedings, or refer toll offences to the State for enforcement

Debt recovery can commence if the motorist had no valid arrangement in place (in most cases this will be a working e-tag) and the toll remains unpaid following the specified notice period (typically 14 days) for the second toll notice. We estimate that there is no valid arrangement in place for about \$125 million worth of trips in NSW each year. Toll road operators can elect to pursue debt through civil proceedings against the registered operator of the offending vehicle or refer toll offences to the State to enforce. Under the criminal enforcement process, issuing the penalty notice is at the discretion of authorised officers within TfNSW.

In the vast majority of cases toll road operators elect to pursue civil debt recovery.

Criminal enforcement is a regulatory action, not designed for achieving commercial outcomes for toll road operators. Government will ultimately remit the unpaid toll recovered through enforcement, but this is an unwieldy and uncommercial path to payment. Government requires an upfront contribution of \$22.95 penalty notice issue fee from the toll road operator and the unpaid tolls cannot be grouped. Each offence is a separate offence.

Civil debt recovery	Criminal enforcement
Toll road operators request that TfNSW provides the toll road operator with the contact details of the registered owner of the vehicle in order to contact them directly.	The toll road operator requests TfNSW Tolling Compliance Management section to issue a penalty notice to the registered owner of the vehicle. The penalty notice is a fine, currently \$211.
Toll road operators may opt to engage a debt collection agency where one vehicle has more than three unpaid tolls.	If the fine is not paid in the time and manner specified, an enforcement order may be issued by Revenue NSW and they may direct TfNSW to suspend or cancel the motorist's licence or registration.
In 2023, TfNSW processed over 15 million requests from toll road operators for contact details linked to vehicles.	
	The State recovers some of its cost of enforcement by requiring toll road operators to pre-pay an issuing fee, typically \$22.95, for each penalty notice issued.
	When a fine is paid, the State pays the toll road operator the toll, the toll notice administration fee and the \$22.95 penalty notice issue fee. The State retains the balance of the fine.
	In 2023, TfNSW issued 6,260 penalty notices for toll offences. In 37 cases the registered owner objected to the penalty notice by electing to contest it in court. To date, 16 of these 37 cases have proceeded to court.

Figure 13.15 Debt recovery pathways

Source: Independent Toll Review

When pursuing civil debt recovery, private toll road operators are bound by Australian and State consumer protection laws. Relevantly, the ACCC and the Australian Securities and Investments Commission have jointly published the *Debt collection guideline: for collectors and creditors.*<sup>108</sup>

The existence of these two pathways can be confusing for motorists. Whether the toll road operator elects one pathway or the other can create a very different experience for the motorist. These issues have been highlighted by the Aboriginal Legal Service (see Figure 13.16).

Figure 13.16 Aboriginal Legal Service comments on two debt recovery pathways

Aboriginal Legal Service: There is a need for clarity around the factors that determine whether overdue toll fees are treated as fines or referred to debt collection agencies. In our practice's experience, Revenue NSW often facilitates clearer communication and provides greater transparency for road users regarding unpaid tolls compared to the Linkt civil debt recovery process. We recommend the toll process is refined to ensure greater transparency for all clients with toll debts. Further, we recommend any proposed pricing restructures ensure hardship options are available to clients alongside any proposed pricing restructures, with clear information provided to motorists.

Source: Aboriginal Legal Service Submission, 2024, Independent Toll Review

In the extract at <u>Figure 13.16</u>, the Aboriginal Legal Service also emphasises the need to ensure hardship options are available to motorists. This supports the importance of the customer advocate's role in ensuring all toll road operators have a best practice customer charter (Recommendation 38.).

#### The criminal enforcement process

Failure or refusal to pay a toll when due is an offence.<sup>109</sup>

The offence is in the following terms:

'The driver of a vehicle that passes a toll point on a tollway must pay any toll or charge payable for the use of the tollway to the toll operator at or within the time and in the manner specified by the toll operator in respect of the tollway.'

Tollway, in this context, includes the Sydney Harbour Bridge.<sup>110</sup>

The registered operator of the vehicle can be held liable for the offence pursuant to section 244 of the Roads Act. Section 244 is complex and cumbersome. The maximum penalty for the offence is 5 penalty units. A penalty unit is currently \$110<sup>111</sup>, making the maximum penalty for the offence of not paying a toll \$550.

<sup>&</sup>lt;sup>108</sup>Australian Competition and Consumer Commission. (2021, April). Debt collection guideline: for collectors and creditors.

https://www.accc.gov.au/system/files/Debt%20collection%20guideline%20for%20collectors%20and%20cred itors%20-%20April%202021.pdf

<sup>&</sup>lt;sup>109</sup> Roads Regulation section 19(1) (Roads Act section 244 provides that a registered operator can also be liable for the offence).

<sup>&</sup>lt;sup>110</sup> Roads Regulation section 38.

<sup>&</sup>lt;sup>111</sup> Section 17 of the Crimes (Sentencing Procedure) Act 1999.

Five penalty units is the lowest level for any of the 66 offences created by the Roads Act or Roads Regulation. It is equivalent to the maximum penalties for failure to pay fares on road-ferries<sup>112</sup> and passenger transport services.<sup>113</sup> So, the level and amount seem to be in line with similar offences.

There are clear policy reasons for toll non-payment to be an offence, as the orderly functioning of the road system requires all drivers and registered operators to comply with the rules that apply to travel on all classes of roads.

However, there are also good policy reasons for encouraging the use of civil debt recovery wherever possible for toll collection. Civil debt recovery should be encouraged as it allows for more effective customer engagement (including compliance education to prevent further infringements), and removes commercial incentives from the exercise of regulatory discretions.

With the implementation of network tolling, the NSW Government should consider amending the offence so that:

- it can only occur once for each trip, and not for every toll point passed as part of the trip
- it is triggered by partial non-payment (for example, if the driver pays for travel on some roads as part of the trip, but not all of them).

Government should also review section 244 of the Roads Act to ensure the process for nomination of drivers, and the presumed offence by the registered operator, operates in the fairest and most optimal way.

#### There are significant opportunities to improve civil debt recovery practices

The Aboriginal Legal Service's comment that civil debt recovery can be less clear and transparent than the criminal enforcement process (see <u>Figure 13.16</u>) highlights the scope for improvement in this area. NSW Motorways, through its tolling customer advocate role, will encourage the use of best practice debt recovery practices by toll road operators and supported by appropriate government policies. Opportunities include:

- Each toll road operator developing and publishing a customer charter.
- Reviewing any legislative constraints on civil debt recovery. The legislation currently only recognises that the debt can be recovered against the owner of the vehicle. The legislation should potentially be expanded to recognise that the debt may be owed by the driver.
- Strategies to improve the accuracy of contact information available for registered vehicle owners.

As noted above, when pursuing civil debt recovery, private toll road operators are bound by Australian and state consumer protection laws. A published customer charter could set out the commitment of toll road operators to adhere to the legislative minimum standards and more generally best practice debt collection practices. For example, toll road operators could commit to engage all reasonable means to contact customers before referring the debt to a debt collection agency. This issue (as well as the accuracy of available contact information) has been identified by the TCO.

<sup>&</sup>lt;sup>112</sup> Roads Regulation 2018, section 58.

<sup>&</sup>lt;sup>113</sup> Transport for NSW. (n.d.). Fare compliance and fines. <u>https://transportnsw.info/tickets-opal/fare-compliance-fines</u>.

- 'However, outdated contact information continues to be raised as a problem and could explain the lack of success in reaching relevant consumers. However:
  - It appears that once debt collectors are engaged, the collection agency is quickly able to locate the consumer and make contact.
  - This implies that the consumer can be reached through the application of different approaches.
- Once a debt collection agency is involved in dealing with consumers, the anxiety level of the consumer rises considerably.<sup>'114</sup>

Toll road operators should ensure that any debt collection agency they engage complies with the ACCC and ASIC's *Debt collection guideline: for collectors and creditors* as well as any hardship policy of the toll road operator.

The customer advocate will be well-placed to work across organisations to develop these improvement opportunities further and drive their implementation.

#### **Recommendations:**

Recommendation 40: The NSW Government should simplify and modernise toll notices.

**Recommendation 41:** The NSW Government should review legislation and policies relating to toll default offences, including;

- a. Prior to the introduction of network tolling, amending the offence to ensure there is only one offence for non-payment for a trip for those roads where aggregated trip tolls are used (currently WestConnex).
- b. As part of the introduction of network tolling, amending the toll default offence so that only one offence can occur for each trip.
- c. Ensuring the offence applies to either the driver or registered vehicle owner in the most optimal and fair way.

**Recommendation 42:** Through its customer advocate role, NSW Motorways should pursue further opportunities to improve civil debt recovery practices including:

- a. Each toll road operator developing and publishing a best practice customer charter.
- b. Reviewing any legislative constraints on civil debt recovery.
- c. Developing strategies to improve the accuracy of contact information available for registered vehicle owners.

<sup>&</sup>lt;sup>114</sup> Davies, P. (2023, December 1). TCO Review, 1 October to 31 December 2023. Tolling Customer Ombudsman, p. 9.

# Appendices

# Appendix A: Past reviews

### Ministerial Inquiry into sustainable transport in New South Wales Final Report (Parry Report), December 2003

#### **Key Findings:**

- 1. A large amount of taxpayer money goes to fund passenger transport services of one sort or another across NSW every year. This funding is equivalent to one-fifth of the NSW Government annual health budget and about the same as the annual State police budget.
- 2. An even larger amount of money will be required to maintain and improve the current transport network over \$2 billion per annum. Still more would be required if this network was to be extended to any significant degree to service new areas.
- 3. The current arrangements are not delivering the most appropriate transport solutions to best meet the needs of the broad community. Taxpayers are not getting the best possible value from the large amounts of money being spent each year on public transport. This has been a problem for many years, facing governments from all sides of politics.

- 1. A twenty-first century solution to create a sustainable transport system for the benefit of the broad community, the cost of which will run into billions of dollars.
- 2. Better deployment of funds and greater efficiency to improve value from the nearly \$2 billion that taxpayers currently spend each year on passenger transport.
- 3. Improved cost recovery at the same time as extra funding for system improvements from taxpayers; from users via modest real fare increases; from the system via efficiency improvements; and from savings from refocusing existing subsidies for school students and seniors.
- 4. Any implementation of road use pricing must be accompanied by rationalisation of the current taxation of motorists.
- 5. Undertake a joint review with the Commonwealth Government of taxation, expenditure and other policies that are detrimental to public transport.
- 6. Consider implementing electronic road pricing (ERP) within the next 5–10 years to address external costs such as congestion, pollution, road wear and tear and accidents. In the interim, introduce two-way tolling and harmonising tolls across existing and new tolled arterials.

# Review of Future Provision of Motorways in NSW Report (Richmond Review), December 2005

#### **Key Findings:**

- 1. The use of tolls is an effective mechanism for funding roads where there are high levels of traffic and the toll can be levied fairly on users, considering the needs of different user groups and the toll's value for money to users.
- 2. In the application of the 'no cost to government' policy on projects, the capacity of government to negotiate more flexible outcomes is constrained.
- 3. Public domain improvements priced and delivered separately to the motorway allows flexibility in the funding source.
- 4. The RTA procurement approach results in a technically efficient process, providing a high degree of certainty, while minimising subjectivity and probity risks, although, the ability for Cabinet to this to review policy and financial trade-offs will be constrained by this approach.
- 5. It is inappropriate to finance future motorways as if they were stand-alone projects.
- 6. Based on the experience of other toll roads there is often a period of 2–3 years until traffic usage patterns are fully established and the benefits/community acceptance or otherwise can be properly understood.
- 7. Early indications do suggest that CCT toll levels and re-arranged road routes do not accord with user preferences.

- 1. The NSW Government, in appropriate circumstances, should continue to utilise PPPs, including where appropriate PFPs, to deliver motorway projects, subject to existing government policies and processes and those proposed in this Report.
- 2. The government should carefully consider options for the structure of future motorway projects, ranging from projects with exclusively government ownership, to full private equity, and combinations thereof.
- 3. The policy of motorway procurement at 'no cost to government' should be abandoned.
- 4. In tendering a PFP for a toll road, the government should be flexible about the toll and the term.
- 5. Where appropriate, the Budget Committee of Cabinet (BCC), at the initial stage of the business case and funding model approval, may determine that an upfront payment to recover costs is an appropriate mechanism for a specific project.
- 6. All project deeds and other agreements signed on behalf of the government with consortia should be released.
- 7. The government should continue to table in Parliament timely summaries of PPP contracts.
- 8. During the life of major PPP contracts, amendments and material variations to project deeds and other agreements signed by the government with consortia should also be publicly released and accompanied by a summary of impacts on the parties and on the public interest.

- 9. Where there is an existing arterial road available as an alternative route to a toll road, with the introduction of the toll road the existing arterial road will have at least the same number of general traffic lanes as it had prior to the toll road opening.
- 10. If planning objectives or conditions compromise the alternative route policy (as in the CCT), this issue should be the subject of very focused community and user consultation prior to any government decision.
- 11. Local road changes must remain at the total discretion of government.
- 12. Ensure the government maintains control of the road and transport network.
- 13. The RTA, in conjunction with the relevant parties to a PPP contract, should develop a seamless process of consultation and stakeholder management through all phases of a project.
- 14. The company created as the contracting party under a PPP must be required to co-ordinate their activities with the RTA in relation to the operations, marketing, public information, and stakeholder management processes associated with the project over the full concession period.
- 15. Specific requirements, including KPIs, should as a matter of policy ensure that adequate project implementation, public information and marketing strategies are developed by toll road operating companies, particularly addressing the commissioning and the ramp-up phases of projects.
- 16. Future toll road contracts should include a mandatory requirement for the toll road operator to provide an initial toll-free period to assist user familiarity and allow users to make informed choices.
- 17. During the project delivery phase, the Steering Committee and the Project Control Group (PCG) for a project should continue to involve representatives from government agencies, as well as appropriate external parties.
- 18. There must be greater alignment between explicit project objectives and the objectives that the planning process sets out to achieve.
- 19. The Minister for Planning in consultation with relevant Ministers should prepare for the Cabinet Standing Committee on Infrastructure and Planning (IPCC) agreement a consolidated set of environmental and amenity criteria and standards (e.g. noise, air, vibration, pollution etc) for the construction and operational phases of major infrastructure projects.
- 20. Unless there are very exceptional circumstances, a toll road project should be part of the major road projects within the State Infrastructure Strategy reviewed and endorsed by the IPCC and then approved by the BCC each year.
- 21. Toll roads should be considered under Part 3A of the EP&A Act.
- 22. At an early stage of a toll road project the IPCC should request the Minister for Planning to undertake an appraisal of the project identifying the potential key planning, environmental and community impact factors and matters which could have a significant bearing on a later full assessment.
- 23. Before formal community consultation for potential new motorway projects is announced, the IPCC and BCC should have confirmed to the relevant portfolio Minister that the proposed project has been assessed against clear project objectives and broader government strategies. When the project business case and the financing model is approved, the BCC should also identify milestone points at which further reviews are to be undertaken and reported back.

- 24. If during the environmental assessment process the proponent Minister, as a result of the legislative requirement to be consulted by the Minister for Planning, identifies that the proposed conditions of approval will adversely impact the business case, the BCC should consider whether to proceed with the project or how the proponent Minister might modify the project to meet the environmental and other imperatives while still achieving the project objectives.
- 25. Prior to the execution of the contract and the Treasurer signing under the Public Authorities (Financial Arrangements) Act 1987 (PAFA Act), Treasury should ensure that the RTA has met all the conditions of Cabinet approval, including value for money overall and for the user.
- 26. RTA project assessment should include value for money (i.e. the toll) for the user as a specific and appropriately weighted evaluation criterion.
- 27. The RTA's project assessment methodologies should provide for the inclusion in evaluation and review panels of appropriate high-level non-government people with specialist skills to provide independent viewpoints regarding the assessment and decision-making process, as well as the RTA's retained legal and technical advisors.
- 28. RTA project assessment methodologies should provide for planned and structured face-toface opportunities for proponents and the RTA to clarify and understand issues which may assist the parties to submit, and the RTA to receive, more informed proposals.
- 29. The RTA should ensure that its modelling methodologies for any new toll roads, from which project benefit/cost ratios are generated, are regularly independently reviewed, with the results of these reviews being provided to the Minister for Roads and the IPCC.

# Joint Select Committee on the Cross City Tunnel

# 1st Report, February 2006

#### **Key Findings:**

- 1. In determining the value for money for the CCT, the government focused on a policy of 'no cost to government'. The value for money to those paying for the project, that is, the tunnel users, was not adequately considered.
- 2. No formal public interest evaluation was undertaken for the CCT project.
- 3. There was an insufficient evaluation of the public interest before the decision was taken to open the project to the private sector.
- 4. The current public interest evaluation contained in the Working with Government Guidelines is not clear.
- 5. Some benefits that may have been lost as a result of providing the CCT project through a PFP include the flexibility to make changes to the road network without exposure to financial liability, or the capacity to reduce the level of the toll to encourage greater use of the tunnel.
- 6. While the project may have resulted in no net cost to government, it has resulted in significant cost to the community, through higher than anticipated tolls and added inconvenience for the users of local roads in the area between the East and West tunnel portals.
- 7. Insufficient detail in the Working with Government Guidelines and the general nature of the document, and its wide audience, limits its effectiveness for agencies.

- 8. Subsequent alterations to tolls, traffic levels and traffic management measures were made both during and following the supplementary environmental assessment process. These changes appear to have occurred without the depth of analysis or assessment that was undertaken for the initial EIS.
- 9. The 'no net cost to government' imperative has adversely impacted on the CCT project's primary objectives.
- 10. Not enough attention was given to strategic planning at an early stage of the project, despite agencies that gave evidence to the Inquiry indicating that they followed government policy in the consideration, planning and assessment of the CCT project.
- 11. A clearer understanding of how the toll level is calculated would be of public interest. The lack of transparency about the level of the toll and the way in which it is calculated only increases public suspicion of toll roads.
- 12. The community living in the area affected by the surface road changes associated with the tunnel felt that they had been ignored, misinformed, and treated with indifference or even contempt.
- 13. The Committee invited the former and current Premier, and former and current relevant Ministers to give evidence at public hearings. The failure of the current Premier and relevant ministers to attend made it difficult for the Committee to address the issue of ministerial accountability.

- 1. That the Working with Government: Guidelines for Privately Financed Projects be made more prescriptive in relation to the public interest evaluation of projects before the decision to consider them as a Privately Financed Project.
- 2. Toll levels for future toll roads should not be assessed only in terms of what the private sector offers during tender processes and contract negotiations. Mechanisms must be in place to ensure that appropriate environmental and planning consideration is given.
- 3. The review of the Working with Government: Guidelines for Privately Financed Projects consider specific issues raised in relation to the Cross City Tunnel project, including clearer guidance on the role of the environmental planning and assessment process, and the process to be followed where both conforming and non-conforming bids are to be considered by agencies contemplating the use of privately financed projects.
- 4. That a separate, more detailed, policy on privately financed projects be developed to guide government agencies. This will be further considered in the Committee's second report.
- 5. That both the Working with Government: Guidelines for Privately Financed Projects and the detailed policy on privately financed projects include review mechanisms to ensure that changes to relevant government policy, changes to key agencies and structures, and significant issues arising out of project reviews of privately financed projects can be incorporated in an efficient and timely manner.
- 6. That the Summary of Contracts for future infrastructure projects include a summary of the comparison of the Public Sector Comparator with private sector proposals.
- 7. That the NSW Roads and Traffic Authority request that CrossCity Motorway place daily and monthly Cross City Tunnel traffic use figures on their website.
- 8. That any policy of charging private consortia a fee for a 'right to operate' a piece of infrastructure be expressly discontinued.

- 9. That any information relevant to an increase in toll pricing resulting from contract variations should be transparent and publicly available.
- 10. That the government review existing community consultation practices, particularly in relation to major infrastructure projects, and develop standardised, plain English guidelines available to the community defining 'community consultation' in relation to such projects.
- 11. That the government refer the issue of community consultation to the Standing Committee on Social Issues to conduct a review of the experiences of New South Wales residents with consultation processes and perform a comparative study of best practice consultation methods.
- 12. That the NSW Roads and Traffic Authority ensure that the community consultation process in relation to Bourke Street's future status is inclusive and considers the wide variety of opinions and views in the community.
- 13. The trial closure of Bourke Street ends on 28 February 2006. The Committee recommends that the NSW Roads and Traffic Authority immediately reopen the street while the review is being conducted.
- 14. That the NSW Roads and Traffic Authority immediately reverse the traffic measures identified in <u>Appendix E</u> of this report and categorised as category B, C or D and further investigate reversing those referred to as category A as soon as possible.
- 15. That the government continue to encourage the operators of the Cross City Tunnel to lower the toll. A reduction of the toll to \$2.90, as suggested by the NSW Roads and Traffic Authority's traffic consultants, would be revenue neutral and improve patronage of the tunnel.
- 16. That the government finalise the revised guidelines for public release of documents, taking into consideration the recommendations of the Infrastructure Implementation Group's Review of Future Provision of Motorways in NSW and the Auditor General.
- 17. That the revised guidelines for the public release of documents clarify the status of amendments or variations to existing contracts.

# 2nd Report, May 2006

#### **Key Findings:**

- 1. If the toll is returned to its former level of \$3.56 for cars at the end of the reduced toll period, there may be a backlash by motorists against using the tunnel.
- 2. The increase in traffic using the tunnel following the halving of the toll was in the order of 18%, translating to a daily average of 33,500 vehicles. This is a long way from the estimate of 90,000.
- 3. Direct financial impact is being borne by the private operators of the tunnel as a result of the transfer of patronage risk from the public sector to the private operator that the Cross City Tunnel PPP established.
- 4. The community continued to pay the price of congested road surfaces during the construction of road changes and associated inconvenience, as well as the monetary price of the toll for tunnel users.
- 5. PPPs have averaged around 11% of the overall NSW capital works budget since 1993–1994, this percentage is expected to remain between 10% and 15% in future.

- 6. The widespread nature of PPPs provided by government agencies, and potentially by local governments, underscores the importance of an authoritative and effective framework to support agencies through the PPP process.
- 7. While it is appropriate that government make policy decisions about levels of expenditure and public debt, one of the consequences of not using public debt is the potential impact on the future flexibility of government in relation to the State's infrastructure.
- 8. Financial risk has been removed from the public sector and placed with the private sector.
- 9. The standardisation of approaches by Australian jurisdictions to PPPs is sensible and appropriate.
- 10. The nature of the funding of the projects is of secondary importance to their priority within the strategic framework.

- 1. That the government encourage the operators of the Cross City Tunnel to lower the level of the toll to \$2.90 at the conclusion of the current reduced toll period.
- 2. That the RTA ensure that all toll roads, whether publicly or privately operated, advertise the cost of use at entry points.
- 3. That the government ensure that motorists are advised to take appropriate precautions against possible adverse air quality in tunnels, with such advice displayed on entry to road tunnels or by any other means.
- 4. That the Roads and Traffic Authority investigate ways to improve the operation of bus lanes in the Central Business District.
- 5. That the Roads and Traffic Authority investigate methods of improving the dissemination of information regarding changes to metropolitan Sydney road infrastructure to potential country users.
- 6. That for future private toll road infrastructure projects, information on vehicle numbers be made publicly available on a regular basis.
- 7. That NSW Treasury, and relevant government agencies or parliamentary committees, conduct regular reviews of world best practice in the area of PPP policy, including examples of failed or problematic PPP projects, with the reviews to be made publicly available.
- 8. That the documents to be publicly released for any Public Private Partnership or Privately Financed Project include:
  - a. the full contract and any material variations
  - b. a contract summary (verified for accuracy by the Auditor General)
  - c. details of the public interest evaluation conducted prior to the decision to enter into the PPP or PFP
  - d. a summary of the Public Sector Comparator and the comparison between it and the successful project (verified for accuracy by the Auditor General)
  - e. the base case financial model
  - f. the Public Sector Comparator.
- 9. That the NSW Treasury continue to collaborate with other Australian jurisdictions and pursue a standardisation of approaches in relation to Public Private Partnerships.

# 3rd Report, Lane Cove Tunnel, August 2006

### Key Findings:

- 1. While the Cross City Tunnel project implemented a non-conforming proposal that required substantial changes to the project and a subsequent supplementary Environmental Impact Assessment process, the Lane Cove Tunnel project complied with the original parameters of the project proposal.
- 2. Many of the concerns that the Committee raised and addressed in the First and Second Reports remain applicable to the use of the Public Sector Comparator (PSC) in relation to the Lane Cove Tunnel project.
- 3. The recommendations of the First and Second Report relating to the PPPs, particularly the recommendation that there be greater explanation and information provided in the Summary of Contracts about the PSC and how the comparison with the private sector proposal is actually conducted.
- 4. It is likely that there will be confusion arising from the proposed changes to existing roads and associated roadworks once the Lane Cove Tunnel project moves into Stage Two, with the tunnel open.
- 5. The change to the Lane Cove Tunnel's ventilation system, given the obvious and demonstrated importance of air quality to the community, should have been widely advised by the RTA.
- 6. The changes made to the Falcon Street ramps demonstrate a lack of community engagement.
- 7. The difference between the traffic estimates by RTA and Connector Motorways, and highlights the concerns raised by a number of witnesses over the possibility of congestion when the Lane Cove Tunnel opens.
- 8. The Committee notes that the community frustration over the Cross City Tunnel project did not fully appear until the surface road works commenced.
- 9. In response to concerns over the effect of air pollution on the health of the community, NSW Health has commissioned a research study to measure the present pollution levels and health of local residents and compare with measurements once the Lane Cove Tunnel has opened.
- 10. Air quality and air pollution are complex areas, and the potential for misunderstood information to be disseminated to the community is great.

- 1. That Consistency Assessment and Environmental Reviews prepared for variations to major infrastructure projects be made publicly available by the proponent at the same time as they are provided to the Department of Planning.
- 2. That Connector Motorways Group Pty Ltd publish monthly reports on its website of the number of vehicles using the Lane Cove Tunnel, commencing the month after the date of its opening.
- 3. That community information strategies for projects of long duration be maintained through all phases of the project, with the relevant government agency taking a key role in the community information strategy.

- 4. That the Roads and Traffic Authority work with Connector Motorways to ensure that the monthly information sheets provided by Connector Motorways include clear and concise descriptions of the surface street changes that will follow once the Lane Cove Tunnel opens. This work should be done in conjunction with the Lane Cove Tunnel Transition Working Group.
- 5. That the NSW Government give consideration to reviewing the current proposal to have one general traffic lane and one 24-hour bus lane in each direction on Epping Road.
- 6. That the Roads and Traffic Authority retain the shared pedestrian path and cycleway associated with the project.
- 7. That the imposition of up-front fees for major infrastructure projects delivered by Public Private Projects be limited to reasonable development costs incurred by the public sector, and details should be made public with the contract.
- 8. That the Department of Planning have an increased role in assessing the Consistency Assessment and Environmental Review process, relating to any modifications submitted subsequent to the Preferred Activity Report and the project's Conditions of Approval, to ensure that the community is fully informed of substantial modifications.
- 9. That in order to ensure a broad range of community representation on Community Construction Liaison Groups, the Department of Planning increase the minimum number of community representatives on these groups from two.
- 10. That the RTA consider constructing a scale model of future projects for public display, in order to assist residents, visualise the project as a whole.
- 11. That NSW Health ensure that information about, and the results of, the Lane Cove Tunnel Air Quality study are made available on the Department's website, and that progress updates on the study are made to the Lane Cove Tunnel Air Quality Consultative Committee and promptly made available on the Department's website.
- 12. That the NSW Government continue to implement the requirements of the Action for Air plan and strive to constantly improve and update the air quality standards.
- 13. That future road tunnel projects include within the call for tenders a requirement for tenderers to design and cost in-tunnel filtration as a component of the ventilation systems.
- 14. That the decision on whether or not to install in-tunnel filtration in future road tunnel projects be made by the Budget Committee of Cabinet, on the basis of advice received from relevant government departments.
- 15. That the NSW Government continue to work with the Commonwealth Government to ensure that Australian standards for vehicle emissions meet international best-practice standards.
- 16. That the proposed in-tunnel filtration trial for the M5 East be monitored carefully by the RTA, and that the assessments be promptly made available on the RTA's website.
- 17. That the government ensure that a timetable for the installation of filtration technology in the M5 East Tunnel is publicly announced before the end of 2006.

# Post Implementation Review: M7 Motorway, Cross City Tunnel and Lane Cove Tunnel, March 2010

### **Key Findings:**

- Identification of project objectives recognising that project objectives drive the selection of a
  preferred option, the objectives adopted for future motorway projects will need to be
  developed from rigorous analysis of transport deficiencies and predicted changes in
  employment and land use.
- 2. Economic appraisal further research is required to develop a framework for assessing wider economic benefits and analyse the contribution of this assessment to project decision-making.
- 3. Programme alignment recent changes to the major project assessment and planning approval process have the potential to better align project development, environmental assessment and procurement processes and enable earlier involvement of the construction industry.
- 4. Public interest evaluation the development of a framework for public interest evaluation of motorway proposals will assist in selecting an appropriate procurement model for future motorway projects.
- 5. Traffic modelling methodologies utilised to assess future motorway projects should utilise the latest techniques, include sensitivity analysis and consider the implications of 'ramp up'.
- 6. Network performance integration with the surrounding road network and incident management planning should commence early in developing a motorway project.

- 1. Ensure project objectives are developed to take into consideration the relevant NSW Government plans and strategies and target users.
- 2. Ensure project objectives are specific and measurable.
- 3. Ensure project objectives are a focus of community consultation throughout the project development and delivery phases.
- 4. Development of a framework to assess wider economic benefits on a pilot project to analyse the contribution of this assessment to project decision-making as part of the economic appraisal completed at each of the WWG phases.
- 5. A procurement process which continues to require submission of proposals based on a concept design developed by the RTA, with the option to submit nonconforming design innovations.
- 6. The potential for earlier involvement of the construction industry in projects through Concept Plan Environmental Assessment under Part 3A, to be further investigated.
- 7. RTA tender assessment methodologies should provide opportunities for planned and structured face-to-face meetings for proponents and the RTA to clarify and understand issues which may assist the parties to submit, and the RTA to receive, more informed proposals.
- 8. Develop a framework for public interest evaluation of future motorway proposals as privately financed projects.

- 9. The traffic modelling undertaken in assessing future motorway projects should utilise latest and up to date modelling techniques and consider the implications of 'ramp up' in detail.
- 10. Undertake more rigorous sensitivity analysis on traffic modelling inputs such as forecast population and employment growth, land use changes and tolling strategies to assess the potential impacts of variations.
- 11. Consideration of the merits of undertaking discrete traffic modelling approaches for each of the following:
  - a. Environmental assessment (which needs to focus on worst case maximum growth scenarios).
  - b. Project design (which needs to focus on required morning peak hour capacity).
  - c. Revenue prediction (which needs to focus on total daily traffic).
- 12. Undertake more rigorous stress testing on financial model assumptions in assessing bids.
- 13. Reconsider funding options for the procurement of future motorway projects, ranging from projects with exclusively government funding, to full private funding, and combinations thereof.
- 14. In procuring privately financed partnerships to deliver future motorway projects, the NSW Government should consider the benefits of a range of tolling and concession scenarios.
- 15. If the imposition of a toll is proposed, the RTA tender assessment should also include value for money (i.e. the toll) for the user as a specific evaluation criterion.
- 16. Ensure traffic modelling undertaken to assist in forecasting revenue includes consideration of other tolls on the network and the likely impacts of traffic ramp up.
- 17. Consider the merits of research into willingness to pay for tolls.
- 18. Consider the use of distance-based tolling for future motorway projects and or time-of-day tolling, if appropriate.
- 19. Comprehensive incident management planning to be undertaken as early as possible in both the development and delivery phases of all tunnel projects in close consultation with relevant authorities.
- 20. A network integration plan to be developed prior to project opening including consideration of results from updated traffic modelling and development of education and monitoring strategies as required.

## NSW Legislative Council Health and Community Services Portfolio Committee Inquiry into road tolling in NSW report, October 2017

- 1. That the NSW Government publish a contract summary of the WestConnex M4 Widening Project Deeds on the WestConnex website.
- 2. That the NSW Government publish the expected internal rate of return for future individual privately operated toll roads, at suitable intervals.

- 3. That the NSW Government:
  - a. Mandate the disclosure of strategic business cases, appropriately redacted of commercial in confidence information, for major infrastructure projects such as toll roads,
  - b. Publish the base case financial models for the NorthConnex and WestConnex projects, and future projects, 18 months after either: (a) the commencement of construction on a project, or (b) after the opening of the first stage of a project, whichever comes first,
  - c. Mandate the disclosure of cost benefit analysis at the same time as the base case financial model is published, and
  - d. Mandate the disclosure of traffic forecast modelling and any reviews of this traffic forecast modelling, appropriately redacted of commercial in confidence information, for major infrastructure projects such as toll roads, at the same time as the base case financial model is published.
- 4. That the NSW Government ensure that the consumer price index be considered as the default position of the road toll escalation rate for future concession agreements.
- 5. That the NSW Government ensure that the same level of transparency and accountability as required by a public sector agency be applied to the Sydney Motorway Corporation and any future infrastructure delivery entity.
- 6. That the NSW Government:
  - a. Annually publish remuneration for the senior executives of Sydney Motorway Corporation
  - b. Issue directions to the Sydney Motorway Corporation so that it complies with the Government Information (Public Access) laws.
- 7. That the NSW Government, prior to signing any future road tolling concession agreement, establish an independent entity that can publish an informed statement on whether any proposed road tolling agreement safeguards the public interest.
- 8. That the NSW Government investigate the costs and benefits of implementing a capped toll across all of Sydney's road network and publish this information so that the community can have an informed debate.
- 9. That the NSW Government identify and publish the evidence supporting its decision to toll heavy vehicles three times that of light vehicles.
- 10. That the NSW Government ensure that new or renegotiated road tolling concession agreements enhance the ability of future governments to manage the wider road network.

# Independent Inquiry into Regulation of Toll Road Roaming Fees final report, December 2019

#### Key Findings:

1. Current NSW toll road roaming fees are consistent with global and national benchmarks and our assessment of the retail cost to provide toll retail functions – with no evidence presented to the contrary.

- 2. The NSW toll retail market has consolidated over time, seeing effectively two vertically integrated retailers serving around half the market each one owned by the NSW Government and the other by the private sector.
- 3. There was no evidence to demonstrate the exercise of any market power to date through increased roaming fees in New South Wales.
- 4. There was some evidence from stakeholders that a contingent risk of higher roaming fees could reduce competition for new toll road concessions in New South Wales.
- 5. It is worth noting that the ACCC has not previously found that vertically integrated toll retailers impact competition for toll road concessions. Nonetheless regulation could act as a 'safeguard', providing additional certainty and transparency regarding maximum roaming fees in New South Wales.

#### **Recommendations:**

- 1. The NSW Minister for Transport should regulate toll road roaming fees by specifying the maximum trip-based retail fee (price cap) that can be charged by toll retailers to motorway companies, for each trip on NSW toll roads.
- 2. From 1 July 2020 a roaming fee price cap of \$0.20 per motorway trip should be applied in New South Wales.
- 3. This maximum price cap should apply for five-year periods, before being reviewed.
- 4. In the intervening years, the roaming fee price cap should be escalated on an annual basis by the greater of (CPI 1%) or zero.
- 5. For the first five years, a 'side constraint' will limit any roaming fee increase beneath the price cap to less than CPI + 3% per annum to limit any transitionary risks.
- 6. The price cap and regulatory framework should be reviewed by the Minister after five years, or beforehand if significant unanticipated changes occur that either impact the cost of providing toll retail services, the number of tolled trips or the structure of the market, potentially based on independent advice and consultation.

#### **Complementary Recommendations:**

- 1. The NSW Government should consider modernising the toll road industry's current selfregulation of the entry of new toll retailers; via a simple regulation allowing access for new entrants, while protecting the legitimate commercial interests of motorway companies.
- 2. However, with few signals for 'in market' competition and no obvious entrants, this consideration should be balanced against any change costs, via a regulatory impact statement or similar.
- 3. The NSW Government's 'E-Toll' business should be restructured to operate commercially, including through transparent financial accounts, with clear cost and revenue allocation between publicly owned motorways and the toll retail business.
- 4. E-Toll should commence charging a 'roaming fee' for all trips undertaken by E-Toll customers on NSW roads, including those on the Sydney Harbour Bridge corridor, reflecting that 'roaming fees' now serve as a general toll retail service fee. This should not impact motorists.

# NSW Legislative Council Transport Portfolio Committee Inquiry into road tolling regimes report, August 2022

#### **Key Findings:**

- 1. That New South Wales drivers now undertake more than one million toll trips a day, raising more than \$2 billion in total revenue every year.
- 2. That the NSW Government has failed to provide information to this inquiry about the total toll burden that drivers will be forced to pay under existing toll contracts despite estimates that it is more than \$100 billion in today's dollars.
- 3. That the decision by NSW Treasury to withhold from public release contract details and traffic relating to WestConnex until 2060, and possibly longer, is an abuse of executive power.

- 1. That the NSW Government as part of its Toll Road Pricing and Relief Reform Review commit to:
  - a. genuine and meaningful reform of road tolling,
  - b. consulting with affected stakeholders in government, industry and the community,
  - c. no new tolls or new or revised toll road contracts being issued prior to consideration of such reform, in order to not further limit the government's flexibility and control over toll road pricing.
- 2. That the NSW Government move to realign toll pricing in corridors where trucks are on suburban streets to ensure trucks can feasibly use toll roads where possible, including the option of the extension of current toll relief schemes to the road freight industry.
- 3. That the NSW Government immediately release the traffic network performance review for the M8 and M5 toll roads, given its release was promised one year ago.
- 4. That the NSW Government implement a scheme to ensure that buses are not required to pay tolls when carrying passengers.
- 5. That the NSW Government implement Recommendation 3, relating to transparency for tolling contracts, of the 2017 Upper House inquiry into road tolling in New South Wales without further delay.
- 6. That, when a network approach to toll road pricing is considered by the review, the NSW Government should:
  - a. consider the introduction of toll caps and appropriate flag falls, rather than just distancebased tolling
  - b. review the application of toll escalation rates which often include both a minimum four% toll increase and inflation, whichever is higher, rather than take account of real wages growth
  - c. review toll relief and cashback schemes to ensure that toll relief is going to the people who most need it based on their ability to pay as well as the existence of public transport alternatives.

- 7. That the NSW Government considers concerns raised by the Australian Competition and Consumer Commission throughout this inquiry and adopts the Commission's recommendations:
  - a. to compel toll road operators to publicly release traffic data
  - b. for governments to allow sufficient time in their tendering processes for bidders other than Transurban to model traffic forecasts and other relevant commercial considerations.
- 8. That, as a priority, the NSW Government:
  - a. reduce administration fees for trips on toll roads without a payment arrangement in place to \$1.10 for the first notice and \$2.20 for a second notice
  - b. ensures Transurban implements the reduced administration fees
  - c. make it compulsory for all toll road operators to move to aggregated/consolidated toll notices, as has occurred in Queensland.
- 9. That the NSW Government mandate the adoption of an industry-wide Code of Practice for all toll road operators which includes a framework for managing debt for vulnerable customers, consistent with the codes and guidelines used in other sectors.
- 10. That the NSW Government establish an independent Tolling Customer Ombudsman with a legislative basis similar to, for example, the Energy and Water Ombudsman NSW, and that:
  - a. the ombudsman has the power to resolve disputes against all toll road operators
  - b. all private toll road operators be required to contribute funding to enable the delivery of a full-time, professional service
  - c. the ombudsman has the power to enforce the Codes of Practice foreshadowed at Recommendation 9, including a framework for responding to debt incurred by consumers struggling with financial hardship, mental illness, and domestic and family violence.

## Toll Road Pricing and Relief Reform Review, December 2022

This review identified that further phases of work were necessary to assess policy options before recommendations could be made to government. The Summary Report summarised the work completed for the Toll Road Pricing and Relief Reform Review was published in June 2023.

# Appendix B: Household Travel Survey

To better understand the context for reform, data from the Household Travel Survey (HTS) relating to toll road use over time has been extracted and analysed to inform the Independent Toll Review.

Two time periods were considered: 2007 to 2020 (pre-COVID) and 2020 to 2023 (COVID and post-COVID).

# Key Findings

- Toll roads are used in only a small share of all journeys, ~4%, between 2007–20 (pre-COVID) and 2020–23 (COVID and post-COVID).
- Focusing specifically on journeys involving car drivers, toll roads featured in 7.6% to 8.8% of trips during 2007–2020. Data from the COVID and post-COVID periods show greater volatility compared to the pre-COVID period.
- Examining the choice of transport modes for journeys intended for commuting or work-related travel, trips by 'car drivers' represent the largest share. The share of journeys involving toll roads was relatively consistent 2007–20, suggesting that toll roads have not significantly increased or decreased in attractiveness to these travellers in this period. Again, data from the COVID and post-COVID periods show greater volatility compared to the pre-COVID period.
- Additionally, car driver journeys that involve toll roads are significantly more likely to be for commuting or work-related purposes compared to those where tolls are not used.
- Travellers in higher income brackets are considerably more likely to use toll roads than those from lower income brackets.

# Methodology

### About the HTS

The HTS produced by Transport for NSW is the most comprehensive source of personal travel data for the Sydney Greater Metropolitan Area (GMA) and has been in operation continuously since 1997. The HTS is designed to provide insight on long run trends in travel behaviour and is used to inform the planning and delivery of Transport and other NSW government services.

Approximately 2000–3000 households participate in the survey annual. Data is collected on all trips made over a 24-hour period by all members of the participating household.

Publicly reported data for average weekday is available on Transport for NSW's data and insights website.  $^{\rm 115}$ 

HTS was suspended from late March 2020 to early October 2020 due to the impact and restrictions of COVID-19, and again from July 2021 to October 2021 following the Delta wave of COVID-19. Due to the impact of changed travel behaviours resulting from COVID-19 breaking previous trends, HTS releases since 2020/21 have been separated from pre-COVID-19 results.

<sup>&</sup>lt;sup>115</sup> Transport for NSW. (n.d.). Household Travel Survey (HTS). <u>Data by Region | Transport for NSW.</u>

Annual estimates from the HTS are usually produced on a rolling basis using multiple years of pooled data for each financial reporting year. All estimates are weighted to the Australian Bureau of Statistics' Estimated Resident Population, corresponding to the year of collection.

Trip data collected in the HTS is converted into journey or linked trips where a single purpose and a main mode of travel is allocated based on a pre-determined hierarchy.

Further information on pooled data, definitions, and the disruption in data collection during the COVID-19 period can be found on the Transport for NSW data and insights website.<sup>116</sup>

### About the Tolling analysis

To understand toll road usage, the main mode of travel was classified into car driver, public transport and other. Respondents are also asked to indicate which toll roads, if any, they have used to complete their journeys on that day. Where the main mode of travel was 'car driver' and a toll road was included in the journey this is categorised as 'car driver, toll used' in the analysis. Car drivers will be over the age of 16, whereas all ages can have a main mode of public transport or other.

Our analysis covers the period from 2007-08 to 2022-23, when consistent geographic definitions were available for the HTS. We divide this timeframe into two blocks: 2007–08 to 2019–20 (Pre-COVID) 2020–21 to 2022–23 (COVID and post-COVID) in accordance with the behavioural changes due to the pandemic. We use these time ranges for analysis of journeys by mode and by purpose. As appropriate, data has been excluded from the analysis due to low sample count.

Long-term trends were used to ensure that the impact of added toll road capacity on usage is captured. This is because Toll roads often don't reach full capacity immediately upon opening, as it takes time for drivers to adapt to and regularly incorporate these new routes into their routines.

Our analysis of the income distribution of travellers by mode covers the period 2008–09 to 2022–23 and is applied to respondents over the age of 15.

The data considered in this analysis is for an average day (including weekdays and weekend days).

The survey covers the Sydney Greater Sydney Capital City Statistical Area (GCCSA), Lower Hunter and Illawarra. This analysis presents results for Sydney GCCSA only.

# Findings

# The share of daily journeys by mode that are 'car driver, toll used' is low, and relatively stable

Our analysis compares journeys by the modes of car driver, no tolls; car driver, tolls used; public transport; and other (includes car passengers, walking and cycling among others). Results are illustrated in <u>Figure B.1</u>.

<sup>&</sup>lt;sup>116</sup> Transport for NSW. (n.d.). Household Travel Survey (HTS). <u>https://www.transport.nsw.gov.au/data-and-research/data-and-insights/surveys/household-travel-survey-hts</u>.



#### Figure B.1 Share of daily journeys by main mode, Sydney

Source: Transport for NSW, Household Travel Survey

Note: The modes of 'car driver, no toll' and 'car driver, toll used' include only journeys made by those 16 and over who have a driver licence. Travellers of all ages, including children, are included in the modes of public transport and other.

<u>Figure B.1</u> illustrates the trend in journeys by mode over time in Sydney. It shows that the share of journeys of 'car driver, toll used' is low, within a range of 3.7% to 4.2% of journeys between 2007–20.

<u>Figure B.1</u> also shows notable changes to travel patterns during and after COVID, with the share of 'car driver, no toll' and 'other' journeys increasing, 'public transport' journeys decreasing and a slight uptick in 'car driver, tolls used' during 2022–23.

#### The share of car driver journeys that involve toll roads is also stable

<u>Figure B.2</u> illustrates the share of 'car driver, toll used' journeys relative to the total car driver journeys (both using tolls and not using tolls) in Sydney over time.



#### Figure B.2 Share of car driver, toll used journeys of all car driver journeys, Sydney

#### Source: Transport for NSW, Household Travel Survey

Consistent with <u>Figure B.1</u>, <u>Figure B.2</u> shows that the share of car driver journeys that involve toll roads is in a generally stable range (7.6%–8.9%), with a declining trend from 2013–14 onwards.

Also consistent with <u>Figure B.1</u> is the instability of the trend during and post COVID, when travel behaviours were disrupted. Results from 2022-23 show a sharp increase in the share of 'car driver, toll used' journeys as a share of car driver journeys.

# A greater share of journeys made by the mode 'car driver, toll used' are for commuting or work related business, as compared to 'car driver, no tolls'

HTS respondents are asked about the purpose of each journey they take in a specified 24 hour period. In our analysis, we have focused on the purpose categories of commute, work related business, social/recreation and other. Other includes serve passenger<sup>117</sup>, shopping, education/childcare and personal business.

To focus on the behaviour of drivers, we compare the journey purpose where car drivers use toll roads (Figure B.3) to where they do not (Figure B.4).

<sup>&</sup>lt;sup>117</sup> Where the purpose is drop-off, pick-up or accompany another person. E.g., child accompanies parent to the bank or parent drops off child to school or person accompanies elderly parent to medical centre





Source: Transport for NSW, Household Travel Survey



#### Figure B.4 Share of journeys by journey purpose, where the mode of travel is 'car driver, no tolls', Sydney

#### Source: Transport for NSW, Household Travel Survey

As illustrated in <u>Figure B.3</u>. over half of the journeys by 'car drivers using tolls' from 2007 to 2020 were for commuting or work-based travel.

This contrasts with 'car driver, no tolls' journeys during the same period, as shown in <u>Figure B.4</u>, where generally only about a quarter were for commuting or work-based travel.

This contrasts to 'car driver, no tolls' journeys in the same period, illustrated in <u>Figure B.4</u>. In general, about a quarter of 'car driver, no tolls' journeys were for commuting or work based travel. Approximately 50% were for 'other' purposes, including serving passengers, shopping, education/childcare, and personal business.

There has been a clear decrease in the proportion of journeys for commuting and work-based travel between 2021 and 2023 across both modes. This is consistent with the discussion in relation to of COVID related changes to travel behaviour. The decrease is most pronounced for the mode 'car driver, tolls used', illustrated in Figure B.3, and is also evident in Figure B.4. For 'car driver, no tolls' journeys.

# Work related journeys are more likely to be made by car than other modes, with the share of 'car driver, toll used' and 'car driver, no toll' for work related journeys relatively consistent over time (excluding the COVID period)

The modes that travellers choose for specific journeys provides insight into how well different transport modes are serving specific journey purpose needs. Looking at this data over time allows identification of any changes in relative attractiveness, which would then be an area for further investigation (e.g., is one mode improving in experience quality, resulting in higher share, or is another mode less favourable, resulting in travellers using this mode less).



Figure B.5 Share of journeys by mode, where the journey purpose is commuting, Sydney

Trends in modes used for the purpose of commuting are illustrated in Figure B.5.

#### Source: Transport for NSW, Household Travel Survey

Note: People travelling for the purpose of commuting will be above 15 years old for all modes, whereas the modes of 'car driver, no toll' and 'car driver, toll used' include only journeys made by those 16 and over who have driver's licences.

A visual analysis of <u>Figure B.5</u> shows that commuters consistently chose similar modes between 2007 and 2020, suggesting that no single mode has become significantly more attractive than others during this period.

Between 2007 and 2020, the proportion of commuting journeys involving toll roads ranged from 8.8% to 9.9%. Within this range, there has been a downward trend in the share of commuting journeys involving toll roads since the 2013-14 period. This aligns with broader trends in toll road usage (see <u>Figure B.2</u>). During the same period from 2007 to 2020, most commuting journeys were made by 'car drivers not using tolls,' accounting for 51.7% to 54.4% of trips.

As <u>Figure B.5</u> illustrates, there is a clear shift in behaviour 2021-23 in the COVID and post-COVID period. The share of 'car driver, no toll' and 'car driver, toll used' for commute journeys both increase outside of the range seen 2007-20, whilst the share of public transport decreased. This decrease in public transport share is supported by patronage levels which have decreased compared to pre-2020 levels, in particular on weekdays which are traditionally commuter days.

There are several broad economic and social factors that could be contributing to the observed changes, relating to the COVID 19 pandemic and aftermath, including:

- Labour market volatility<sup>118</sup>, especially weakness in the initial years of the pandemic, potentially reducing commuting journeys. This may have contributed to increased capacity on roads, enhancing the attractiveness of road travel for the commute journeys that were made.
- Traveller avoidance of public transport due to concerns about exposure to infection<sup>119</sup>, potentially contributing to a preference for private vehicles.
- Higher rates of work from home<sup>120</sup>, which is associated with fewer overall journeys. This may also have contributed to increased capacity on roads, enhancing the attractiveness of road travel for the commute journeys that were made.
- Higher rates of work from home, potentially resulting in commuters having larger 'travel budgets' to allocate to the days when they do commute, potentially resulting in them choosing higher cost modes (driving, using toll roads).
- Increased volatility in household composition and average household size in this period, which could impact where people are commuting to and from, and therefore their choice of mode.<sup>121</sup>

Furthermore, the introduction of toll relief in 2018 and the subsequent rise in motorist awareness and adoption might have contributed to the increased use of toll roads. Due to the extent of other factors, further market research would be required to add strength to this hypothesis. Notable toll relief schemes include:

- Registration Relief, also known as TR1 commenced July 2018, ended June 2023
- Toll Relief Rebate Scheme known as the 40% discount or TR2 *current, commenced July 2022*
- \$60 Toll Cap, also known as TR3 *current, commenced January 2024.*

As these overlapping factors occurred simultaneously, affecting different cohorts differently, and since the trend data spans only three years, it is challenging to draw definitive conclusions about causation of trends in the data. The extent of the shift in observed behaviour highlights opportunity for toll reform to improve government's ability to adapt tolling to changes in circumstances.

<sup>&</sup>lt;sup>118</sup> Agarwal, N., Bishop, J., & Day, I. (2023, March 16). A New Measure of Average Household Size. Reserve Bank of Australia: Australian Economy. <u>https://www.rba.gov.au/publications/bulletin/2023/mar/a-new-measure-of-average-household-size.html</u>

 <sup>&</sup>lt;sup>119</sup> iMOVE Australia Limited., Transport and Mian Roads Qld., Transport for NSW., Western Australia
 Department of Transport., Institute of Transport and Logistics Studies., & The University of Sydney. (2022, December 22). Working from Home and Implications for Revision of Metropolitan Strategic Transport Models.
 <sup>120</sup> iMOVE Australia Limited., Transport and Mian Roads Qld., Transport for NSW., Western Australia
 Department of Transport., Institute of Transport and Logistics Studies., & The University of Sydney. (2022, December 22). Working from Home and Implications for Revision of Metropolitan Strategic Transport (2022, December 22). Working from Home and Implications for Revision of Metropolitan Strategic Transport Models.
 <sup>121</sup> See footnote 118
Considering the case of journeys for the purpose of work related travel, illustrated in Figure B.6, a similar shift in pre and post COVID behaviour is evident. Interestingly, the 2021-23 data illustrates different trends in mode choice, with a growth in the mode share of 'other', and broad stability in the use of 'car driver, toll used' and 'public transport', but a decrease in the share of 'car driver, no toll'. As with the analysis of Figure B.5, it is difficult to draw definitive conclusions on causes.



Figure B.6 Share of journeys by mode, where the journey purpose is work related travel, Sydney

### Source: Transport for NSW, Household Travel Survey

As <u>Figure B.6</u> illustrates, for the pre-COVID period, 2007–20, there is broad stability in the modes that travellers travelling for the purpose of work related travel choose. 'car driver, no toll' is the dominant mode, with a share of 63.3%–67.6%. The share of 'car driver, toll used' is in a range of 13.6%–15.9%.

## Travellers in higher income brackets are considerably more likely to use toll roads compared to those in lower income brackets.

The HTS survey includes questions about respondents' income, categorising it into groups consistent with the Australian Bureau of Statistics' approach for the Census. HTS participants reporting income are over the age of 15 and include retirees and concessionaires who are more likely to have a zero or low income. Analysis has shown the income distribution of HTS respondents largely mirrors that in the Census, i.e., that of the underlying Sydney population.

A traveller's choice of mode may vary due to income. For example, in the case of higher income earners, the cost of the toll is a relatively lower share of their weekly budget, meaning they have a higher ability to afford the toll. Additionally, higher income earners may value their time more highly, and thus have a greater preparedness to pay for the time savings and convenience of toll roads. Finally, higher income earners are more likely to be able to afford to own and maintain a vehicle. In contrast, these factors can discourage lower-income travellers from using toll roads.

These kinds of factors are evidenced in <u>Figure B.7</u>, which shows that individuals in the two highest income brackets in the survey are more likely to use toll roads than individuals in the lower two brackets.



Figure B.7 Mode choice distribution by income level; mode choice distribution for all travellers, Sydney 2023

■ car driver, toll used ■ car driver, no toll ■ public transport ■ other (includes car passengers and walking/cycling)

#### Source: Transport for NSW, Household Travel Survey

Note: Negative income results from individuals who own their own businesses reporting negative income due to losses or negative gearing of rentals.<sup>122</sup> The group earning negative income is not likely to be large. Based on the 2021 census, in NSW 0.8% of respondents reported negative income, 9.1% of respondents reported nil income, and 16.3% of respondents reported between \$0 and \$20,799 per year.<sup>123</sup>

<sup>&</sup>lt;sup>122</sup> Australian Bureau of Statistics. (2021, October 15). Total personal income (weekly) (INCP). <u>https://www.abs.gov.au/census/guide-census-data/census-dictionary/2021/variables-topic/income-and-work/total-personal-income-weekly-incp</u>.

<sup>&</sup>lt;sup>123</sup> Australian Bureau of Statistics. (2022, June 28). Income and work: Census. <u>https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/income-and-work-census/latest-</u><u>release</u>.

<u>Figure B.7</u> also illustrates that although the share of journeys made by tolls varies by income groups, the share of journeys made by car drivers (with and without toll road use), is comparable in the top three income brackets (\$20,800-\$51,99, \$51,999-\$103,999, > \$104,000). That is, access to car travel does not appear to be a significant factor in whether a toll road is used except for individuals in the lowest income group.

The trends illustrated in <u>Figure B.7</u> are consistent over time, with travellers in the higher income brackets being consistently more likely to use toll roads. This is shown by <u>Figure B.8</u>, which presents a ten year trend in mode choice distribution by income. This is shown by <u>Figure B.8</u>, which presents a ten year trend in mode choice distribution by income.



Figure B.8 Mode choice distribution by income level, 2008-2018, Sydney

Source: Transport for NSW, Household Travel Survey

Note: The data range 2008–18 has been selected as a) data for 2018–19 and 2019–20 had low sample counts due to the granularity of the data, with information by mode further disaggregated into four different income groupings and b) data from 2020–21 and 2021–22 the post-covid period shows similar trends, as illustrated in Figure B.7.

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## Appendix C: Transport Modelling

## Transport modelling and forecasting overview

Transport models serve as tools for stakeholders in the evaluation of proposed infrastructure projects and the assessment of policies that influence overall mobility.

Transport models are computational representations of transport systems and aim to capture the dynamic interactions among various elements such as road and public transport networks, land use systems, employment distribution, demographics, and the derived travel demand. Utilising mathematical algorithms and data analytics, these models simulate real-world scenarios, enabling decision-makers to understand, predict, and optimise transport outcomes through a systematic analysis.

A widely adopted framework in transport modelling is 'the classical' or 'four-step' modelling approach, which breaks down the forecasting of travel behaviour into four distinct elements as illustrated in <u>Figure C.1</u>.

Model step	Question it aims to resolve	Step purpose
Trip generation	How many trips?	Estimates the total number of trips originating and attracted to different zones.
Trip distribution	Where will these trips go?	Determines the distribution of trips between origin- destination zones.
Mode choice	What modes will they use?	Evaluates the transport modes chosen by travellers.
Travel assignment	What routes will they take?	Allocates trips to specific routes within the transport system.

Figure C.1 4 Step Modelling Approach

Source: Transport for NSW

When modelling following this approach, various performance metrics can be extracted from the transport models to enable measuring the effectiveness of the assessed options. These metrics include travel time, congestion levels, mode share, and revenue generation.

A significant application of transport models is in the assessment of toll road schemes. For these kinds of projects, transport models measure the impact of tolls on travel behaviour, congestion levels, revenue, and the overall system performance.

Specifically, in the assessment of various toll road scenarios, transport models facilitate the analysis of effects across the entire network and within specific segments of the transport system. <u>Figure</u> <u>C.2</u> provides examples of metrics commonly used in these assessments.

### Figure C.2 Network statistics and metrics

Network-wide statistics	Detailed network metrics	
<ul> <li>Average tolls.</li> <li>Forecasts of toll revenue.</li> <li>Vehicle Kilometres Travelled (VKT).</li> <li>Vehicle Hours Travelled (VHT).</li> <li>Average speed.</li> </ul>	<ul> <li>Volume to Capacity (V/C) ratio for the full road network and motorway network, categorised by motorway, vehicle type, and time period.</li> <li>Traffic volumes.</li> <li>Tolls for every origin-destination pair (at the motorway interchange level).</li> </ul>	

Source: Transport for NSW

For the Toll Review, the traffic forecasting methodology adopted is based on the traditional fourstep modelling approach. The overall architecture is schematically described in <u>Figure C.3</u>, and each component is outlined below.

#### Figure C.3 Transport Modelling Methodology



#### Source: Independent Toll Review

The transport models utilised in this process are maintained by Transport for NSW. These models form the basis for forecasting various toll scenarios, including a scenario that maintains the current toll scheme arrangement or status quo.

## Model inputs and assumptions

The key model inputs and assumptions used in this process are summarised in Figure C.4.

Figure C.4 Model and input assumptions

Category	Overview of input items			
Sociodemographics	<ul> <li>Land use and demographics. Sydney's land use and demographics sets the size of the travel market and, collectively, influence the overall transport demand.</li> </ul>			
	• Employment. The spatial distribution of jobs, when considered alongside population data, significantly shapes the travel patterns across the city for both commercial and non-commercial trips.			
Network	• Network, PT services and costs. The physical transport network infrastructure and services, as well as monetary costs (e.g. tolls, parking and PT fares) influence travellers' options to travel.			
	• For future years, road and PT infrastructure changes are considered to reflect the configuration and timing planned.			
Toll Cost	• Toll escalations. Many of the city's toll roads currently have a toll escalation regime linked to CPI as a measure of inflation. These toll rises are included in the toll levels.			
Economic and Behavioural	• Value of Travel Time Savings (VTTS). When choosing to use a tolled route, motorists are trading-off between time and costs. This trade reflects the value users place on saving travel time. In the Toll Choice Model, this behaviour is considered by incorporating assumed VTTS per road user type based on survey data.			
	• Affordability. Household wealth levels change over time and, when considered alongside toll escalation, influence the relative affordability of using toll roads. Average Weekly Earnings (AWE) is a proxy used for estimating Household wealth levels.			
Post model calculation factors	<ul> <li>Annualisation factors. The Toll Choice Model represents steady- state traffic conditions for an average school-term weekday; therefore, calculations are required to produce annualised traffic and revenue forecasts for analysis.</li> </ul>			
	• Ramp-up profiles. As the transport network expands with the opening of large transport projects, it is typical for travel demand to experience a gradual increase, rather than an immediate or sudden surge. Ramp-up profiles are employed to account for this incremental growth phenomenon.			

Source: Transport for NSW

## Upstream demand models

The Toll Road Review modelling framework splits the four-step modelling approach between Upstream Demand Models and a Toll Choice Model. The Upstream Demand Models undertake the first three steps: trip generation, distribution, and mode choice.

### Figure C.5 Upstream Demand Models

Demand model	Function in the project
Sydney Strategic Travel Model (STM)	Informs travel patterns in the Sydney GMA, including mode choice between car and PT, related to congestion and network investments. The STM serves as the primary source of the car demand.
Sydney Freight Movement Model (FMM)	Forecasts Heavy Vehicle Class (HV) trips based on land use, demographics, macroeconomics and supply chain elements (construction, motor vehicles, food, non-food, fuel, waste, horticulture, among others).
Sydney Airports Land Transport Model (SALTM)	Forecasts car trips (including taxis) and public transport trips to and from Sydney's airports – the existing Kingsford Smith Airport and the future Western Sydney Airport.
Sydney Light Commercial Vehicle Movement Model (LCVM)	Forecasts Light Commercial Vehicle (LCV) trips. Commercial trips are a key driver of Sydney's toll road revenue with the emergence of key growth centres in Western Sydney.

Source: Transport for NSW

The outcome of the Upstream Demand Models is the forecast growth in demand for cars, LCVs and HVs for the adopted land use and transport network assumptions. These models are also an essential component to conduct multi-modal network analysis.

## Toll Choice Model

As the fourth modelling step in the four-step modelling approach, the Toll Choice Model undertakes the network assignment of demand to the road network. The multiple demand segments are informed by the Upstream Demand Models.

The Toll Choice Model base year is calibrated to observed travel patterns based on observed data sets. For future year forecasts, the Toll Choice Model operates as a pivot model, with the future demands being pivoted from the calibrated base year demands.

The Toll Choice Model also uses four time periods on an average school day to capture the differing amounts of traffic and congestion in different parts of the day.

Outputs from the Toll Choice Model are then interpreted and processed to produce various traffic forecasts required for the project analysis.

## Calibration and validation

Calibration and validation are critical in traffic modelling to instil confidence in its usability. During the calibration process, model parameters are adjusted to align prediction with real-world data, ensuring accuracy. On the other hand, validation verifies the model's ability to reproduce various aspects of travel behaviour accurately. Together, these processes determine the transport model's degree of 'fit-for-purpose'.<sup>124</sup>

The calibration of the Toll Choice Model involved traffic counts collected in around 1,000 locations (by direction) during each modelled time-period and for each vehicle type. The model was validated against multiple corridor travel times and reported travel patterns in the Household Travel Survey (HTS) and other traffic surveys. The model has been calibrated and validated to reflect 2016 traffic conditions.

## Post model calculations

The model ecosystem allows for the extraction of network-wide statistics and detailed link-level outputs. This includes data such as traffic volume and speed categorised by time period and vehicle class, covering both Sydney's motorway and non-motorway road network. The extensive output data is then processed and summarised to meet the analytical and evaluation requirements. Post-processing calculations are carried out to generate annualised forecast for each year. This involves interpolation, extrapolation, and consideration of ramp-up profiles.

<sup>&</sup>lt;sup>124</sup> ATAP. (2016)., Australian Transport Assessment and Planning Guidelines, T1 Travel Demand Modelling, Transport and Infrastructure Council. <u>T1\_Travel\_Demand\_Modelling.pdf (atap.gov.au)</u>.

# Appendix D: Upside sharing arrangements under current concessions

Private toll road	Mechanisms		
Hills M2	<ul> <li>Base rent</li> <li>The Hills Motorway Company Ltd (THML) is to pay Transport for NSW (Transport for NSW) an annual Base Rent of \$7 million per year adjusted annually in line with CPI starting from 1997. Until such time THML has received an amount sufficient to give the investors in THML a real, after-tax, of at least 12.25% per annum (the Equity Return Date), THML may pay the annual Base Rent in the form of a non-interest-bearing promissory note. Post the Equity Return Date, Base Rent is paid in the form of cash.</li> <li>Post the Equity Return Date, THMP must make cash payments to Transport for NSW amounting to 30% of their Surplus Cash net their Base Rent payments. These payments allow THMP to start meeting their obligations under previously issued promissory notes.</li> <li>Incentive rent</li> <li>After all promissory notes have been paid in full to Transport for NSW amounting to 20% of their surplus cash net their Base Rent payments.</li> </ul>		
Westlink M7	Revenue upside sharing		
	The Revenue to be paid to Transport for NSW is the aggregate of:		
	a. 0% of that amount of Actual Revenue that is greater than 100% and less than or equal to 110% of Incremental Base Revenue,		
	<ul> <li>b. 30% of that amount of Actual Revenue that is greater than 110% and less than or equal to 115% of Incremental Base Revenue,</li> </ul>		
	c. 50% of that amount of Actual Revenue that is greater than 115% of Incremental Base Revenue.		
	However, this amount is reduced if NorthConnex Revenue is less than the NorthConnex Base Revenue.		
NorthConnex	Revenue upside sharing		
	If the Actual Toll Revenue is greater than an agreed percentage of the Base Toll Revenue in the Base Case Financial Model, Transport for NSW will be paid an agreed percentage difference between the Actual Toll Revenue and Base Toll Revenue.		
	NorthConnex revenue impacts the clauses in Westlink M7.		

Private toll road	Mechanisms		
Lane Cove Tunnel, Cross	Revenue Upside Sharing		
City lunnel	Revenue share is the aggregate of:		
	1. 0% of that amount of Actual Revenue that is greater than 100% and less than or equal to 110% of Base Revenue.		
	2. 10% of that amount of Actual Revenue that is greater than 110% and less than or equal to 120% of Base Revenue.		
	3. 20% of that amount of Actual Revenue that is greater than 120% and less than or equal to 130% of Base Revenue.		
	4. 30% of that amount of Actual Revenue that is greater than 130% and less than or equal to 140% of Base Revenue.		
	5. 40% of that amount of Actual Revenue that is greater than 140% and less than or equal to 150% of Base Revenue.		
	6. 50% of that amount of Actual Revenue that is greater than 150% of Base Revenue.		
WestConnex (three	Revenue upside sharing		
(further details of	The Motorway leases contain arrangements for WestConnex to		
revenue upside sharing are not publicly available)	Transport for NSW.		
M5 South-West	Profit share		
	Once the M5 South-West debt is fully repaid and Interlink Roads Pty Ltd has reached a specified after tax financial return, Interlink Roads must pay Transport for NSW a portion of the after tax accounting profit. This arrangement is only in place if Transport for NSW has not duplicated the M5E or connected a new arterial road or tunnel to the eastern end of the M5W motorway.		
	Call option		
	Once the M5 South-West debt is fully repaid and Interlink Roads Pty Ltd has reached an expected financial return, Transport for NSW has the right to purchase shares in Interlink or purchase Interlink.		
	M5 East duplication		
	In the event a duplication of the M5 East or new connection of arterial road or tunnel to the eastern end of the M5W motorway, Transport for NSW is entitled to a share of Interlink Road Pty Ltd's revenue if revenue during a financial year exceeds a specified percentage of modelled revenue.		
Eastern Distributor	Concession fees		
	Airport Motorway Limited (AML) pays Transport for NSW Concession Fees of at least \$415.2 million over the concession period.		

Private toll road	Mechanisms
	Most of the concession fees may be in the form of promissory notes with a future payment date. At least \$10.2 million of the Concession Fees must be paid in cash.
	When AML has received an amount sufficient to give the investors in AML a real after-tax internal rate of return of at least 10% per annum; this is deemed to be the equity return date. AML must make payment to Transport for NSW of 35% of surplus cash. This payment would be used to satisfy the payment obligations of the promissory notes.
	Additional Concession Fee
	There is an additional Concession Fee due to Transport for NSW of which 10% of surplus cash for each financial year after all the promissory notes have been paid in full. This additional Concession Fee must be paid in cash.

## Appendix E: Independent Toll Review Survey

## Introduction

The level and setting of tolls emerged as the most prominent theme in the Review's public consultation process that ran in July 2023 (Independent Toll Review 2023b). Of particular concern was the high cost of tolls, the regularity of toll increases, the negative impact of high costs on user behaviour, and inequitable social outcomes arising from the overall tolling regime.

As the public hearings suggest, the rising costs are felt by many drivers, but this is particularly acute for those who have few practical alternatives, such as public transport or untolled roads. For these drivers, toll roads are a necessity to get to work, places of study, or to visit family and friends. In an environment where many household finances have become increasingly strained, household incomes for these drivers are further eroded through excessive toll charges, with limited viable options but to pay high tolls.

The Review wanted to hear from a large and fully representative sample of drivers in Sydney about their experiences and perceptions of using toll roads to further inform our recommendations. The user perspective often seems to be downplayed by discussions of the operation of toll roads, but to us it is paramount. NSW Treasury undertook the Independent Toll Review Survey for the Review in October 2023 with the aim to:

- understand the financial burden of toll expenses on households
- assess how households respond to the financial burden of tolls
- analyse how the responses to the elements above vary across different geographic areas in Sydney.

## Methodology

NSW Treasury commissioned Australian Online Research (AOR) to design and conduct the Survey. To take part in the survey, respondents had to live in Sydney, be over the age of 18, and hold a valid driver licence.

To understand the financial burden of tolls on Sydney drivers, it is important to know the usage patterns and perceptions of those who use toll roads. However, it is possible that high tolls and other concerns may cause some to avoid toll roads altogether. As such, it is also necessary to get the perspectives of drivers who do not use toll roads to get a holistic viewpoint of the current landscape. For this reason, the survey collected over 1,500 responses from drivers across Greater Sydney, including both users and non-users of toll roads. We gathered insights on households' use of toll roads (if at all), including how often they drive on toll roads, weekly toll expenditure, perceptions of tolls, and their impact on transport choices. The responses were collected across a representative sample of households across Greater Sydney, to account for any geographical differences.

Prior to launching the survey, we conducted a pilot survey with 111 households across Greater Sydney in early October 2023 to gauge participants' ability to interpret and respond to the survey questions. The use of a pilot survey is standard practice in robust survey projects as it allows researchers the ability to adapt and refine the main survey based on preliminary findings.

The survey ran in mid-October 2023 and was conducted online. AOR gave respondents a small points-based incentive for the time they took to participate in the survey.

Our final survey asked five different categories of questions:

- demographic questions, including where they lived, their gender, their household type, their work status, their household income, and their occupation
- toll road usage questions, including how often they drive on toll roads, how much they spend on toll costs, which toll roads they use, and why they do/do not use toll roads
- perception questions, including how they feel about the cost and financial burden of toll roads
- rebate questions, including whether they are aware of toll-related rebates and whether they have taken them up
- sensitivity questions, including how sensitive they are to increases or decreases in tolls for toll roads they use frequently, occasionally, and one-off.

### Who we surveyed

The final survey captured responses of 1,544 drivers in the Greater Sydney area. Our sample comprised of drivers from a wide variety of sociodemographic backgrounds (see <u>Figure E.1</u> and <u>Figure E.2</u>) and achieved a representative spread of responses across Statistical Areas Level 3 (SA3)<sup>125</sup> in Greater Sydney.

By hearing from the experiences and perceptions of drivers, we are better able to understand toll road usage patterns and gain insights into the impact of toll road costs on Greater Sydney households.

Figure E.1 We surveyed a representative sample of drivers in Sydney

<ul><li>Gender</li><li>54% female</li><li>46% male</li></ul>	<ul> <li>Household type</li> <li>35% couple family without children</li> <li>32% couple family with children</li> <li>20% single person household</li> </ul>	Age • Average age = 49 years
<ul> <li>Work status</li> <li>52% employed full time</li> <li>23% not working (students, home duties, retired)</li> <li>10% employed part time</li> <li>3% unemployed</li> </ul>	Income • Median income = \$150,000-\$199,999	<ul> <li>Occupation</li> <li>42% professionals</li> <li>20% managers</li> <li>15% clerical and administrative workers</li> </ul>

Source: Independent Toll Review Survey 2023

<sup>&</sup>lt;sup>125</sup> SA3s are geographical areas defined by the Australian Bureau of Statistics (ABS 2016).

#### Figure E.2 We surveyed respondents with a range of household incomes



### Proportion of respondents by household income

Note: Question was asked to all participants (N = 1,544) Source: Independent Toll Review Survey 2023

### What we found

Our survey found that the vast majority of Sydney drivers perceive tolls to be too high and unfair. Many also believe that the financial burden of toll costs has grown over time.

Drivers are also responsive to changes in tolls, adjusting their travel choices to avoid tolls where possible. While most drivers do use toll roads at least occasionally, we found that for some drivers the rising tolls has led them to avoid using toll roads altogether.

We also found that some toll road users only drive on toll roads because they have no other feasible transport options. High toll fees are particularly concerning for these drivers as they are unable to mitigate the growing financial burden toll roads impose.

From mapping the survey responses, we see that the bulk of the burden falls most heavily on those in Sydney's West, where drivers report higher usage of toll roads as well as higher weekly toll expenses.

## Most drivers think toll costs are too high and unfair

We asked survey participants to what extent they agreed that toll costs are too high, that toll costs are unfair, and that the financial burden of toll costs have grown over time.

The vast majority of drivers (87%) strongly or somewhat agreed that toll roads are too expensive. compared to 5% that strongly or somewhat disagreed (see Figure E.3). Similar results were found for drivers' perception of the growing financial burden of toll roads, with 86% agreeing that it has increased over time. Respondents also overwhelmingly think that toll costs are unfair, with 73% strongly or somewhat agreeing.

Figure E.3 Most drivers think toll costs are too high and unfair



How strongly do you agree or disagree with the following statements?

Note: Question was asked to all participants (N = 1,544)

### Source: Independent Toll Review Survey 2023

These results indicate that Sydney drivers are experiencing an increasing burden of toll costs, suggesting that toll rises may be excessive and that current toll relief measures are not effective in addressing these concerns.

### High toll costs are distorting transportation decisions

### Most toll road users take alternative non-toll routes to reduce toll usage

Most toll road users adjust their behaviour in response to rising tolls. The main way users adapt is by using alternative non-toll routes, with around half selecting this option (see Figure E.4).

### Figure E.4 Most toll road users take alternative non-toll routes to reduce toll usage



## How do toll costs impact your transportation choices? (select all that apply)

### Note: Question was asked to all participants (N = 1,544)

### Source: Independent Toll Review Survey 2023

Just over one-third of toll road users in Sydney are not responsive to toll changes. That is, changes in tolls do not affect their transportation choices. This may be the case for higher income earners, for whom toll expenses comprise a smaller fraction of their household income, and who ultimately value the convenience and time savings of toll roads.

However, this could also capture those toll road users who do not have any other feasible transport options. Additionally, some of the responses by households to tolls could present a structural challenge for the economy. Though in the minority, we see some drivers shift their location of residence, work, and other essential destinations as result of rising tolls. Rising toll costs may exacerbate labour market challenges if they act as a barrier for workers to accept jobs in particular locations.

### High toll costs cause some drivers to avoid toll roads altogether

We asked respondents to tell us who pays for their tolls to understand what influence this has on toll road usage. Respondents were also given the option to nominate that they don't incur any toll expenses, that is, that they do not use toll roads at all. We found that 9% of drivers do not use toll roads.

We wanted to understand what factors influenced the decision of non-users to avoid toll roads and found that tolls are the primary reason (see <u>Figure E.5</u>). Over 50% of non-users said they do not use toll roads because they are too expensive. This suggests that high tolls are leading some drivers to avoid toll roads altogether.

#### Figure E.5 High toll costs cause some drivers to avoid toll roads altogether



### Why don't you use toll roads

Note: Question was only asked to participants who do not incur any toll expenses (N = 140)

### Source: Independent Toll Review Survey 2023

While we expect people to respond to tolls by changing their driving behaviour, this is not always desirable from an economic productivity perspective, for example, if it is creating transport bottlenecks elsewhere in the road network and impacting wellbeing through greater travel times.

Nearly 40% of non-users indicated that they avoid toll roads because they do not need to use them or see no benefit in using them. These respondents may rarely commute, live and work in areas with no toll roads, or instead choose to use public transport or free alternative routes. Further, the increase in remote working arrangements has likely reduced the necessity to use toll roads for some commuters. It may also be that these drivers do not see toll roads as providing enough value. For instance, the time saving is insufficient to persuade them to use toll roads or they do not live close enough to a toll road to make it worthwhile.

## Some drivers do not have any other feasible transport alternatives to toll roads

As outlined in the Terms of Reference for the Independent Toll Review, there is particular interest in the cost-of-living impacts, fairness, and equity for NSW toll roads users with no viable public transport alternatives (NSW Treasury 2023c).

Among toll road users, 14% reported that they use toll roads because they have no other feasible transport alternatives (see Figure E.6). This is particularly problematic as these users report that they have no choice but to pay toll charges, even as tolls rise, bringing into focus issues of fairness and equity.

### Figure E.6 Some drivers do not have any other feasible transport alternatives to toll roads



### Why do you use toll roads?

Note: Question was only asked to participants who incur toll expenses (N = 1,404)

### Source: Independent Toll Review Survey 2023

As to be expected, we see that most drivers travel on toll roads due to the time savings, while others like the consistency and reliability of travel time, as well as saving on fuel.

These toll road users are most concentrated in Sydney's Northern Beaches, with pockets also visible in the City and Inner South (see <u>Figure E.7</u>). Of particular concern, however, is the Rouse Hill-McGraths Hill region in Sydney's North-West as this also overlaps with relatively high usage and relatively high weekly costs. The combination of these factors implies that a sizeable proportion of road toll users in North-Western Sydney spend more on tolls due to a lack of options, rather than convenience or personal preference.

Figure E.7 Drivers with no feasible transport alternatives are most concentrated in the Northern Beaches

No feasible alternatives main reason for using tolls, % toll road users by SA3



Note: Heatmap only includes respondents who incur toll expenses and report having no other feasible transport alternatives (N = 193)

### Source: Independent Toll Review Survey 2023

Further, those who use toll roads because they have no feasible alternatives hold stronger beliefs that costs are too high. These drivers are more likely to strongly agree that toll costs are too high compared to the overall sample (73% and 60%, respectively) (see <u>Figure E.8</u>). This suggests that drivers who face no alternative transport options would prefer toll roads to be cheaper or would use other feasible public transport options if they were made available.

### Figure E.8 Drivers with no feasible transport alternatives are more likely to agree that the cost of toll roads is too high



The cost of toll roads is too high

Note: Question was asked to all participants (N = 1,544)

Source: Independent Toll Review Survey 2023

### Toll road usage and costs vary by region

### Drivers in Western Sydney use toll roads the most

We asked respondents how often they drive on toll roads, ranging from never to multiple times a day. We found that most drivers use toll roads monthly. The heaviest users live in Sydney's West, where the 'median' driver in these SA3s - including Blacktown-North and Bringelly-Green Valley uses toll roads on a weekly basis (see Figure E.9).

#### Figure E.9 Drivers in Western Sydney use toll roads the most



Median toll road usage by SA3

Note: Heatmap includes respondents who cover their own personal toll costs or cover both their personal toll costs and those of their household (N = 1,222)

### Source: Independent Toll Review Survey 2023

These usage patterns may reflect that drivers in Western Sydney save more time by using toll roads compared to drivers in other areas. This could be because they commute longer distances to get to urban centres and value both saving time and having predictable travel times.

We also observe pockets of high toll road usage around the CBD, with many drivers reporting using the inner-city toll network, such as Sydney Harbour Crossings, and Cross City Tunnel.

### Drivers in Western Sydney spend the most on toll roads

In accordance with toll usage patterns, we also see that those in Sydney's West spend the most on tolls each week. The Bringelly-Green Valley region spends the largest amount on tolls, with a median weekly expenditure between \$20 - \$50 (see <u>Figure E.10</u>). The South-West and inner regions of Sydney also emerge as hotspots for high toll expenses, with many SA3s reporting upwards of \$10 per week, in contrast to the Northern and Southern regions which tend to spend relatively less.

#### Figure E.10 Drivers in Western Sydney spend the most on toll roads



Median weekly toll road cost by SA3

Note: Heatmap includes respondents who cover their own personal toll costs or cover both their personal toll costs and those of their household (N = 1,222)

### Source: Independent Toll Review Survey 2023

We examine the responses of drivers spending \$20 or more a week to understand the relationship between toll expenditure and drivers' perceptions of toll roads. 314 respondents (20% of total sample, and 22% of toll users) reported typical weekly toll expenditure of \$20 or more. These relatively high-cost toll road users have a median household income of \$150,000 to \$199,999, which is the same as the broader sample. Among toll road users, those with higher weekly costs are more concentrated in Sydney's North-West and South-West regions. Nearly half of all toll road users in areas such as Baulkham Hills, Rouse Hill-McGraths Hill, Liverpool, and Hurstville spend \$20 or more a week (see <u>Figure E.11</u>). In contrast, most other regions have fewer than one-third of toll users paying \$20 or more each week. Figure E.11 Drivers in North- and South-West Sydney are more likely to spend \$20 or more per week on toll costs



% toll road users that spend \$20 or more per week by SA3

Note: Heatmap only includes respondents who spend \$20 or more per week on tolls, and who cover their own personal toll costs or who cover both personal toll costs and those of their household (N = 314)

### Source: Independent Toll Review Survey 2023

One might expect that drivers who pay more each week for toll roads may have stronger preferences for using toll roads compared to other alternatives. However, we see that the main reasons for using toll roads among high paying users broadly align with those for the wider sample (see <u>Figure E.12</u>). That is, despite incurring higher toll costs, we do not observe evidence that these drivers differ significantly in terms of their preferences for using toll roads.



Figure E.12 High paying drivers have similar main reasons for using toll roads as the wider sample

Note: Question was only asked to participants who incur toll expenses (N = 1,404)

### Source: Independent Toll Review Survey 2023

Further, we also found that high paying drivers are slightly more likely to strongly agree that toll costs are too expensive (see <u>Figure E.13</u>). That is, rather than being desensitised to the higher weekly costs or perceiving it as simply part and parcel of driving on toll roads, these drivers are more adamant in their views that costs are excessive.

Figure E.13 High paying drivers are slightly more likely to strongly agree that toll costs are too expensive



The cost of toll roads is too high

Note: Question was asked to all participants (N = 1,404)

Source: Independent Toll Review Survey 2023

## Drivers from middle- and high-income households are benefiting most from current toll relief schemes

We asked respondents if they were aware of toll-related rebates and, if so, what their update of these had been over the last 12 months. We found that 75% of respondents were aware of toll-related rebates. Of these, 42% were eligible and had either already obtained or planned to obtain the rebates, and 42% were not eligible. Only 3% were eligible but did not plan to obtain.

We then looked at drivers who had already obtained or planned to obtain toll relief as a proportion of each income bracket (see <u>Figure E.14</u>). More than 40% of drivers with household incomes between \$80,000 and \$249,000 had obtained or planned to obtain toll relief. This increased to over 50% of drivers from households earning \$250,000 or more per year. In comparison, less than 40% of drivers from households earning under \$80,000 a year had obtained or planned to obtain toll relief.

This suggests that drivers from middle- and high-income households are benefiting the most from current toll relief schemes.

Figure E.14 Drivers from middle and high-income households are benefiting the most from current toll relief schemes



Proportion of drivers who have obtained or plan to obtain toll relief in each income bracket

Note: Question was asked to all participants who were aware of toll relief schemes (N = 1,143) Source: Independent Toll Review Survey 2023

## Conclusion

Most Sydney drivers told us they think toll costs are too high and unfair. In the face of cost-of-living pressures, many also believe the financial burden of toll costs to have grown over time. This aligns directly with the Review's public consultation, with the level of toll costs emerging as the most prominent theme among the community.

Drivers are not impervious to rising tolls, rather they adjust their transport decisions to offset cost increases. Approximately half of all drivers surveyed reported using alternative untolled roads due to toll costs. High tolls even led some drivers to forego toll roads entirely. This can have negative spillover effects if it creates travel bottlenecks in other parts of the road or public transport network. While travel choices are made based on a range of factors, such as travel preferences and timing considerations, toll costs are certainly a key factor. Given peoples' tendency to adjust their behaviour in response to changes in tolls, an optimal tolling arrangement is one that caters for the impacts on the broader transport network across Greater Sydney.

From an equity perspective, special consideration must be given to the subset of drivers who are unable to avoid toll roads through alternative means. While three in four survey participants think that the cost of toll roads is unfair, this is especially true for those who lack viable substitutes and so cannot mitigate against the additional costs. The financial burden of tolls is most heavily felt in Sydney's West, as these regions report the highest frequency of toll road travel and correspondingly pay the highest amount in toll fees.

The Independent Toll Review Survey gathered responses from a wide variety of toll road users across Greater Sydney. The recommendations set forth by the Independent Toll Review will only be enhanced for having listened to the experiences and perspectives of drivers.

### References

NSW Treasury & Transport for NSW. (2023). Discussion Paper. Independent Toll Review. <u>https://www.treasury.nsw.gov.au/sites/default/files/2023-06/202306-toll\_review-discussion-paper.pdf.</u>

NSW Treasury & Transport for NSW. (2023). Public Consultation Summary Report. Independent Toll Review. <u>https://www.treasury.nsw.gov.au/sites/default/files/2023-08/202308\_toll-review-public-consultation-summary-report.pdf</u>.

NSW Treasury & Transport for NSW. (2023). Toll Review Terms of Reference. Independent Toll Review. <u>https://www.treasury.nsw.gov.au/sites/default/files/2023-05/20230508\_01-toll-review-terms-of-reference.pdf.</u>

## Appendix F: Toll Relief Schemes

This Appendix provides an overview of the toll relief schemes to date. For select schemes, we analyse trends in the amount of benefits paid to motorists, the number of beneficiaries and claimants and the distribution of toll relief schemes across Sydney.

## Overview of schemes

There are six key toll relief schemes that are currently available, or in the case of TR1, have recently concluded.

Scheme title	Description of scheme			
M5 South-West Cashback (current, commenced January 1997)	The M5 South-West Cashback Scheme allows NSW residents to claim back the cost of tolls paid (except for the GST) while using a vehicle registered in NSW for private, pensioner or charitable use on the M5 South-West motorway. To date, the Scheme is estimated to have cost over \$2 billion (adjusting for inflation and including administration costs). <sup>126</sup>			
	The M4 and M5 Cashback Scheme was introduced after a pre-election pledge by former premier Bob Carr to remove tolls proved unworkable. <sup>127</sup> The scheme applied to the M4 until tolls were removed in 2010.			
	At the time the scheme was introduced, tolls on the M5 South-West were expected to end in June 2022. Subsequent governments have continued to fund the scheme. Tolling on the M5 South-West motorway is now expected to continue until December 2060.			
	A compensation regime applies if the government removes the M5 South-West Cashback scheme prior to 10 December 2026.			
TR1: Registration Relief (not current, commenced July 2018, ended June 2023)	Introduced in July 2018, <sup>128</sup> Registration Relief (TR1) provided either free or a 50% discount to vehicle registration to owners of privately registered light vehicles who spent over the yearly thresholds on tolls. In the claim period of 2022-23, customers would receive free vehicle registration if they spent a minimum of \$1,462 on tolls or a 50% discount on vehicle registration if they spent a minimum of \$877 on tolls in the previous financial year.			

<sup>&</sup>lt;sup>126</sup> O'Sullivan, M. & Snow, S. (2021, April 6). 'Indefensible': Toll refunds for M5 Southwest dwarf all other motorway relief. The Sydney Morning Herald. <u>https://www.smh.com.au/national/nsw/indefensible-toll-refunds-for-single-sydney-motorway-dwarf-relief-for-13-others-20210324-p57dod.html</u>.

<sup>&</sup>lt;sup>127</sup> Besser, L. (2008, December 31). Billions blown in toll fiasco. The Sydney Morning Herald. <u>https://www.smh.com.au/national/billions-blown-in-tolls-fiasco-20081231-gdt868.html.</u>

<sup>&</sup>lt;sup>128</sup> Transport for NSW. (2021). Inquiry into Road Tolling Regimes: Submission No 146.

Scheme title	Description of scheme
TR2: Toll Relief Rebate Scheme (current, commenced July 2022)	The Toll Relief Rebate Scheme (TR2) is a broad-based toll rebate scheme where, every quarter, eligible non-business and small business customers will receive a 40% rebate for every dollar spent on tolls once they have reached a minimum spend of \$375 in FY23 (or \$402 in FY24). The maximum annual benefit available for each eligible customer is \$750 in FY23 (or \$802 in FY24). <sup>129</sup> TR2 will conclude on 30 June 2024. \$520 million has been budgeted for TR2 across the two financial years it will be in place. For claim period of FY23, there have been 216.186 unique toll accounts that
	have claimed approximately of \$103M in toll relief from TR2 (noting FY23 claims will remain open until 30 June 2024).
TR3: \$60 Toll Cap (current, commenced January 2024)	The \$60 Toll Cap (TR3) provides a full refund to all private motorists who spend more than \$60 a week on tolls up to \$400 a week. The maximum benefit for a motorist under the program would be \$340 a week.
	TR3 is funded until 31 December 2025, with \$561 million committed over the two years it is expected to be in place. More than 720,000 motorists are expected to benefit from TR3.
	TR3 was introduced in response to toll costs increasing as a proportion of household budgets, in particular given wages growth has fallen behind inflation over the last two years.
Large Towed Recreational Vehicle Toll Rebate (current,	The Large Towed Recreational Vehicle Toll Rebate (LTRVTR) is available if a customer's Class A vehicle is towing a vehicle such as a caravan, causing the electronic toll point reader to determine the vehicle's class size as Class B.
commenced June 2020)	The rebate will reimburse the difference between the heavy vehicle and light vehicle toll, with the rebate capped at 8 toll trips per monthly billing period. There is no end date for the LTRVTR.
Truck Multiplier Rebate (current, commenced January 2024)	The Truck Multiplier Rebate reduces the truck multiplier from 3x to 2x for up to ten trips a week on the M5 East and the M8. The Truck Multiplier Rebate is funded until 31 December 2025 with \$54 million committed for the two years it is expected to be in place.
	This policy encourages trucks to use toll roads over local roads, reducing traffic on local roads. It also supports the truck industry by reducing cost of transporting goods for customers.

<sup>&</sup>lt;sup>129</sup> Service NSW. (2022, August 18). Claim the toll relief rebate. NSW Government. <u>https://www.service.nsw.gov.au/transaction/claim-the-toll-relief-rebate.</u>

## Summary of toll relief analysis

To better understand toll relief, the Review has considered data on the M5 Cashback, and TR1, TR2 and TR3. Key Findings of this analysis include:

• The last six years have seen growth in the number of toll relief schemes, and the cost of schemes to government. The M5 Cashback, TR1, TR2 and TR3 have distributed \$1.174bn to motorists between July 2018 and May 13 2024.

Figure F.1 Toll Relief Amount Claimed 2018-19 to 2023-24 (\$millions) by toll relief scheme



### Source: Independent Toll Review survey

- In 2022-23, ~753,000 toll accounts claimed toll relief across the 4 schemes, to a total of \$379.56m. As each toll account may have multiple vehicles registered to it, the impact of the schemes on motorists is large.
- Toll relief schemes may be more (or less) attractive to toll account holders in different postcodes, depending on the underlying travel behaviour. For the different schemes we considered the ten postcodes with the highest number/value of claims.

Figure F.2 All Toll Relief Scheme, share of spending of the top 10 postcodes on total spending. Top 10 Postcode Concentration

Toll Relief scheme	Top 10 postcodes % of total claims	
M5 Cashback	39.40%	
TR1 (Aggregate)	15.90%	
TR2	16.90%	
TR3	23.98%	

### Source: Independent Toll Review

<u>Figure F.2</u> shows the concentration of all toll relief schemes across the top 10 postcodes. TR1, TR2 and TR3 show relatively low concentration as the relief schemes are broad-based and have eligibility based on toll spend. Unsurprisingly, the M5 Cashback has the highest concentration as it exhibits the lowest restrictions to scheme eligibility and a relief only to a singular road.

In terms of the M5 Cashback:

- The M5 Cashback is the longest running toll relief scheme in NSW and is growing. Between 2010-23 the total amount claimed was \$1.24 billion.
- Drivers of growth in the amount claimed on the M5 are increase in the number of toll accounts claiming, and increase in the cost of the M5 toll.
- Since 2010-11, the number of accounts claiming the M5 Cashback has increased from 182,355 to 346,902 per annum, and the benefits paid to motorists per annum have increased from \$60.90m to \$126.58m.
- The beneficiaries of the M5 Cashback are the most geographically concentrated of any toll relief scheme. The top 10 postcodes of claimants account for ~40% of benefits paid, and the postcode with the highest number of claimants, 2170 in the Liverpool Local Government Area (LGA), accounts for ~10% of all claimants.

Considering TR1, TR2 and TR3:

- The three schemes all seek to reduce the burden of tolls on motorists who use toll roads frequently.
- The three schemes vary in terms the amount on tolls an account holder would need to pay to be eligible for benefits, whether this is on a weekly or an annual basis. They also vary on the design of the benefit, for example if there is a cap on benefits paid (TR1 and TR2)
- Key points of comparison are total amount claimed to date, average benefit paid and share of scheme beneficiaries in the top ten postcodes. This information is provided in Table 1 alongside summary information for the three schemes, including the dates they were operable and the toll spend required to be eligible for benefits.

### Figure F.3 1TR1, TR2 & TR3 Summary Information

	TR1 50% Disc.	TR1 100% Disc.	TR2	TR3
Life of the scheme	4.5 Years: Jan 2020 to Jun 2023	5 Years: Jul 2019 to Jun 2023	2 Years: Jul 2023 to Jun 2025 <sup>130</sup>	2 Years: Jan 2024 to Dec 2025
Toll spend required to claim (eligibility threshold)	Eligibility threshold of \$780-\$877 p.a. for 2018-19 and 2021-22 respectively equivalent to a weekly spend of \$15-\$17	Eligibility threshold of \$1,300-\$1,462 p.a. for 2018-19 and 2021-22 respectively equivalent to a weekly spend of \$25-\$28	Eligibility threshold of \$375-\$402 p.a. for 2022-23 and 2023-24 respectively equivalent to a weekly spend of \$7.0-\$7.7	\$60 per week; no annual spend requirement to access toll relief
Total amount claimed over life of the scheme	\$86,170,740	\$257,136,080	\$240,849,917	\$13,709,673
Average benefit paid over the life of the scheme	\$224.1	\$449.1	\$509.4	\$259.7
# of claimants in most recent period	98,636 claimants, 2022-23	109,608 claimants, 2022-23	472,842 claimants, July 23 – May 24	53,445 claimants, Jan 24– May 24
Share of scheme beneficiaries in top 10 postcodes	14.1%	17.3%	16.7%	24.0%

### Source: Independent Toll Review

It is hard to draw comparisons as the schemes have been running for different amounts of time. In the case of TR3, it is likely that many motorists who intend to claim have not claimed yet, as the scheme has been in operation less than 12 months.

Acknowledging these limitations, <u>Figure F.3</u> does show variation in the average benefit paid and the share of scheme beneficiaries in the top ten postcodes.

TR1 scheme takeup insights:

- Because TR1 provides registration relief, we can understand take up rates of the scheme (the ratio of beneficiaries to eligible motorists).
- This analysis shows that that many drivers who could benefit from the toll relief scheme are not applying. For example, only 82% (average over five financial years) of eligible vehicles in the 1155-1504kg weight and 64% (average over five financial years) of eligible vehicles in the 1505-2504kg weight class applied for the scheme.

<sup>&</sup>lt;sup>130</sup> Registrations and claims for TR2 commenced only in January 2023 despite the scheme commencing in July 2022. The minimum spend and claims include the period from June 2022 to December 2022.

### Data limitations

A key limitation on analysis is how recently toll relief schemes have been designed and introduced, with many launched in the past five years. It is challenging to understand the performance of schemes like TR3, which has only recently been introduced. Anecdotally, awareness of toll relief schemes may build over time. It is also challenging to compare say TR3 to schemes like TR2 which is still live, but more established.

In addition, toll relief has targeted toll account holders. There are pragmatic and conceptual reasons for this. However, it does limit our ability to understand how well toll relief schemes align to policy objectives. Each account may have multiple vehicles registered to it, and only limited demographic information (age, sex, postcode) is captured of the motorist registering the account. Accordingly, our analysis focuses on trends in claims, and analysis of claims by postcode. We take postcode as a proxy for location, as claimants may supply postal addresses rather than residential addresses and may not update their address over time.<sup>131</sup>

As the unit of record keeping is account, it is challenging to answer questions like 'what share of motorists benefited from toll relief'. Indeed depending on the scheme it is not possible to understand what share of accounts are benefiting, as there are gaps in data sharing between toll retailers and toll relief scheme administrators.

The data used in the analysis was accessed 13 May 2024. The analysis of TR1, TR2 and TR3 is based on E-Toll account data.

<sup>&</sup>lt;sup>131</sup> There is no prompt in the toll account processes to encourage account holders to keep their addresses up to date. This contrasts with say drivers licences.

## M5 Cashback

### Trend in M5 Cashback claims

Figure F.4 The amount claimed each year from 2010-23, illustrating how government's commitment to the scheme has changed over time.



### Source: Independent Toll Review

<u>Figure F.4</u> shows that the amount claimed has increased significantly over time, from \$60.90m in 2010–11 to ~\$126.50m in 2022-23. This represents at compounded annual growth rate ('CAGR') of 6.3%, notably, higher than the toll escalation on the M5. The total amount claimed from 2010–11 to 2022–23 was \$1.24bn.

Drivers of the amount claimed are a) increases in tolls through toll escalation, b) growth in the number of trips, and c) growth in the number of claims. All three drivers moved in a positive direction over the period, as Table 2 sets out.

Variable	M5 toll	No. of claimants	Trips claimed	Avg. trips claimed	M5 traffic
Unit	\$AUD	# (000s)	# (m's)	#	# (000s)
2010-11	\$4.40	182.36	17.60	96.50	1,353
2011-12	\$4.40	169.43	17.62	104.01	1,483
2012-13	\$4.40	165.08	17.19	104.11	1,470
2013-14	\$4.40	191.42	19.00	99.25	1,450
2014-15	\$4.42	210.27	20.14	95.80	1,561

Figure F.5 Cashback Summary Statistics and CAGRs
Variable	M5 toll	No. of claimants	Trips claimed	Avg. trips claimed	M5 traffic
Unit	\$AUD	# (000s)	# (m's)	#	# (000s)
2015-16	\$4.50	245.82	23.54	95.76	1,731
2016-17	\$4.59	281.03	25.45	90.55	1,807
2017-18	\$4.69	314.15	26.42	84.11	1,859
2018-19	\$4.76	343.25	26.68	77.71	1,904
2019-20	\$4.84	338.03	27.30	80.76	1,824
2020-21	\$4.88	341.86	26.50	77.51	1,610
2021-22	\$5.03	311.98	21.85	70.02	1,683
2022-23	\$5.41	346.80	26.84	77.41	2,025
CAGR	1.7%	5.5%	3.6%	-1.8%	3.4%

As <u>Figure F.5</u> details, per the concession deed for the M5, the toll increases from \$4.40 in 2010-11 to \$5.41 in 2022-23. This represents a CAGR of 1.7% over the period.

<u>Figure F.5</u> also shows that both the number of accounts claiming trips and the number of trips claimed over the period increase by a CAGR of 5.5% and 6.6% respectively. These figures include a break in the trend in 2021-22 which is attributable to COVID related disruption. Of the two variables, the number of claimants has grown faster, and is likely to have made a bigger contribution to the total cost of the scheme. Due to how the number of claimants and the trips claimed have evolved, in 2023 we observe that a greater number of account holders are benefiting from the scheme, but less intensively, claiming fewer trips on average.

A factor in the growth of the number of claimants, and trips claimed over the period growing ahead of traffic volumes may be the launch of the M5 Cashback online claim portal in 2013-14. Improving the access and process of making claims with the online portal may have supported this growth.

#### **Geographic distribution of M5 Cashback claimants**

Concentration of claimants on the M5 Cashback are expected to be those who live within close proximity to the M5. <u>Figure F.5</u> highlights the geographic concentration of claimants, detailing the 10 highest postcodes by the total amount claimed from 2010-11 to 2022-23, their corresponding Local Government Area (LGA) and their percentage share across all claims.

#	Postcode	LGA	Total Claim	% of all claims
1	2170	Liverpool	\$128,412,250	10.4%
2	2560	Campbelltown	\$70,334,139	5.7%
3	2570	Camden	\$47,228,012	3.8%

#### Figure F.6 M5 Cashback Postcode Analysis

#	Postcode	LGA	Total Claim	% of all claims
4	2567	Narellan	\$43,132,522	3.5%
5	2213	East Hills	\$39,843,327	3.2%
6	2565	Campbelltown	\$36,614,656	3.0%
7	2173	Liverpool	\$34,049,293	2.7%
8	2171	Liverpool	\$33,112,993	2.7%
9	2234	Sutherland	\$31,973,846	2.6%
10	2210	Hurstville	\$23,140,728	1.9%
#	Total	N/A	\$487,841,766	39.4%

As <u>Figure F.6</u> shows, the postcodes in the LGAs of Liverpool, Campbelltown, Caden, East Hills, Narellan, Sutherland and Hurstville dominate the top highest claiming postcodes. These postcodes accounted for 39.40% of the total amount of claims from 2010–11 to 2022–23. Year on year analysis shows that this pattern is consistent over time.

The highest postcode, Mt Pritchard in the Liverpool LGA, accounted for over 10% of claims, and is bisected by the M5, as Figure F.7 illustrates.

Figure F.7 Mount Prichard Postcode 2170 boundary and M5



Source: Google Maps

# TR1

### **Eligibility thresholds**

<u>Figure F.8</u> shows the claim criteria for TR1 for each financial year that the scheme was active. Figure F.8 TR1 Claim Criteria

Financial year	Minimum spend for free rego	Minimum spend for half-price rego
2018–19	\$1,300 (\$25/week average)	\$780 (\$15/week average)
2019–20	\$1,352 (\$26/week average)	\$811 (\$16/week average)
2020–21	\$1,406 (\$27/week average)	\$843 (\$16/week average)
2021-22	\$1,462 (\$28/week average)	\$877 (\$17/week average)

Source: Independent Toll Review

### Scheme spend

<u>Figure F.9</u> shows the amount claimed each year from 2018–19 to 2022–23 to determine the trend in government spend on TR1 over time.



Figure F.9 TR1 Amount Claimed

#### Source: Independent Toll Review

<u>Figure F.9</u> shows high levels of growth in the early stages of the scheme. The amount claimed experienced a sharp take up rate from \$36.98m in 2018–19 to \$92.96m in 2021–22, representing an increase of 151.38% before tapering off to \$74.59m in 2022–23. It should be noted that in 2018–19, the 50% discount to vehicle registration had not commenced. The total amount claimed over 2018–19 to 2022–23 was \$343.31m.

### Beneficiaries by vehicle type

Because the scheme provided registration relief, detailed data is available on which kinds of vehicles were associated with claims. <u>Figure F.10</u> shows the claim amount different types of cars got from the toll relief scheme. TR1 divided cars into four groups based on their weight: less than 975kg, 976–1154kg, 1155–1504kg (e.g. Toyota Corolla and Hyundai i30) and 1505–2504kg (e.g. Ford Ranger and Mitsubishi Outlander). Then we calculated what percentage of the total claim amount each group received in each year.

Distribution of Beneficiaries	2018-19	2019–20	2020-21	2021-22	2022-23
975kg	1%	1%	1%	1%	1%
976–1154kg	7%	7%	6%	6%	5%
1155-1504kg	37%	36%	35%	34%	33%
1505-2504kg	54%	55%	56%	57%	59%
2505-2794kg	1%	1%	1%	1%	2%
Motorcycles	1%	1%	1%	1%	0%

Figure F.10 TR1 Distribution of Beneficiaries

Source: Independent Toll Review

Our analysis in <u>Figure F.10</u> shows that owners of vehicles in the 1155–1504kg and 1505–2504kg category comprise of most beneficiaries of TR1, ~91% over 2018–19 to 2022–23.

#### Take up rate

A feature of interest in toll relief programs is the take up rate, that is, what share of people who are eligible for the program take the program up and receive a benefit. To calculate this, we compared beneficiaries (those receiving claims) to entitlements (the number of motorists eligible for the scheme).

Figure F.11 Take up rate TR1

Average Take Up Rate	2018–19	2019–20	2020–21	2021–22	2022–23
975kg	89%	88%	88%	87%	86%
976-1154kg	87%	86%	86%	85%	84%
1155-1504kg	82%	81%	82%	82%	81%
1505-2504kg	59%	62%	66%	68%	67%
2505-2794kg	25%	35%	41%	47%	47%
Motorcycles	96%	95%	95%	93%	93%

Source: Independent Toll Review

Figure F.11 shows that many motorists who could benefit from the toll relief scheme are not applying for it. This could indicate a lack of awareness or accessibility of the scheme for these vehicle categories.

<u>Figure F.11</u> shows that motorists with vehicles in the weight ranges of 1155–1504kg and 1505–2504kg have the lowest take up rates for TR1. Despite this, perhaps due to their high share of vehicles overall, they remain the most common beneficiaries.

### Geographic distribution of TR1 claimants

<u>Figure F.12</u> shows the 10 highest postcodes by total beneficiaries from 2010–23, their corresponding LGAs and their percentage share across all claims. This analysis assists in highlighting the geographic concentration of the claimants. Beneficiaries was used as this analysis point due to the nature of the relief provided – it is a lump sum as opposed to the other toll relief schemes in this Appendix where relief is calculated based on toll road usage.

#	Postcode	LGA	Total beneficiaries	Share of all claims
1	2155	Cherrybrook	23,371	2.4%
2	2153	Parramatta	21,197	2.2%
3	2145	Holroyd	18,012	1.9%
4	2148	Blacktown	15,156	1.6%
5	2170	Liverpool	14,320	1.5%
6	2765	Richmond Windsor	14,038	1.5%
7	2761	St Marys	12,037	1.3%
8	2154	Parramatta	11,957	1.2%
9	2088	Mosman	11,525	1.2%
10	2560	Campbelltown	10,675	1.1%
	Total	N/A	152,288	15.9%

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#### Source: Independent Toll Review

This shows that distribution of TR1 is fairly spread across the NSW LGAs: Cherrybrook, Parramatta, Holroyd, Blacktown, Liverpool, Richmond Windsor, St Marys, Mosman and Campbelltown were the LGAs with the highest number of beneficiaries over 2018-19 to 2022-23. However, these 10 postcodes comprise 15.9% of the total number of beneficiaries suggesting that TR1 has benefitted motorists across a range of areas in NSW.

<u>Figures F.13</u> and <u>F.14</u> show the 10 highest postcodes by total beneficiaries after isolating the 50% discount and 100% discount respectively. This analysis was conducted to determine whether the toll spend and consequently, toll relief claim, differed across LGAs in Sydney.

Figure F.13	TR1 50%	Discount	Postcode	Analysis
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#	Postcode	LGA	Total beneficiaries	Share of 50% discount claims
1	2155	Cherrybrook	7,964	2.1%
2	2153	Parramatta	6,949	1.8%
3	2145	Holroyd	6,338	1.6%
4	2148	Blacktown	5,756	1.5%
5	2170	Liverpool	5,113	1.3%
6	2765	Richmond Windsor	4,927	1.3%
7	2066	Lane Cove	4,755	1.2%
8	2065	Sydney Lower North Shore	4,221	1.1%
9	2770	St Marys	4,149	1.1%
10	2763	Blacktown	4,067	1.1%
	Total	N/A	54,239	14.1%

Figure F.14 TR1 100% Discount Postcode Analysis

#	Postcode	LGA	Total beneficiaries	Share of 100% discount claims
1	2155	Cherrybrook	15,407	2.7%
2	2153	Parramatta	14,248	2.5%
3	2145	Holroyd	11,674	2.0%
4	2170	Liverpool	10,043	1.8%
5	2765	Richmond Windsor	9,111	1.6%
6	2148	Blacktown	8,564	1.5%
7	2088	Mosman	8,274	1.4%
8	2560	Parramatta	7,992	1.4%
9	2154	Mosman	6,893	1.2%
10	2066	Campbelltown	6,770	1.2%

#	Postcode	LGA	Total beneficiaries	Share of 100% discount claims
	Total	N/A	98,976	17.3%

This analysis showed that toll relief can at times target unintended recipients. Lane Cove and the Sydney Lower North Shore were among the top 10 LGAs for the 50% discount and Mosman was among the top 10 LGAs for the 100% discount. Nonetheless, the top 10 postcodes for the 100% discount reveal a greater concentration than the aggregate of 17.3% compared to the 15.9%.

### TR2

### Eligibility thresholds

Figure F.15 shows the claim criteria for TR2.

Figure F.15 TR2 Claim Criteria

Toll account	2023–23 rebate	2023–24 rebate
Business toll account	Up to \$750	Up to \$802
Mixed account (personal and business)	Up to \$1,500	Up to \$1,605
Separate personal and business toll accounts	Up to \$750 each	Up to \$802 each

Source: Independent Toll Review

#### Scheme spend

<u>Figure F.16</u> shows the monthly claim amounts for TR2 to determine the trend in government spend on TR2 over time.

#### Figure F.16 TR2 Monthly Claim Amount



#### Source: Independent Toll Review

<u>Figure F.16</u> shows that the claimed amount has increased significantly over time. This has increased from \$76.17m in 2022–23 to \$164.68m in 2023–24, representing growth of greater than two times. This growth rate follows a similar trend to TR1 suggesting that awareness and take up of toll relief schemes increase substantially after inception. The total amount claimed to date is \$240.85m.

#### Geographic distribution of TR2 claims

<u>Figure F.17</u> shows the 10 highest postcodes by amount claimed throughout 2021–22 to 2022–23, their corresponding LGAs and their percentage share across all claims. This analysis assists in highlighting the geographic concentration of the claimants.

#	Postcode	LGA	Total claim	% of total claim
1	2170	Liverpool	\$5,107,570	2.1%
2	2155	The Hills Shire	\$4,925,089	2.0%
3	2145	Cumberland	\$4,802,517	2.0%
4	2153	The Hills Shire	\$4,509,860	1.9%
5	2148	Blacktown	\$4,503,091	1.9%
6	2761	Blacktown	\$3,626,284	1.5%
7	2765	Blacktown	\$3,556,250	1.5%
8	2171	Liverpool	\$3,218,769	1.3%
9	2560	Campbelltown	\$2,988,674	1.2%

Figure F.17 TR2 Postcode Analysis

10	2770	Blacktown	\$2,961,303	1.2%
	Total	N/A	\$40,199,407	16.9%

The distribution of TR2 is slightly more concentrated than TR1 with the LGAs of Liverpool, the Hills Shire, Cumberland, Blacktown, and Campbelltown being referenced multiple times. This finding is consistent when analysing the total claim made from the 10 highest claiming postcodes comprising 16.69% of the total claim amount in comparison with TR1s 15.91%.

## TR3

#### Background

Given this scheme has only recently come into effect, only April and May 2024 data is available as of current. Take up can also be affected by claimants signing/not signing up to claim TR3 specifically (i.e., they may have signed up to TR2 and have not become aware of the separate sign up process for TR3).

<u>Figure F.18</u> shows some overarching claimant figures relating to TR3. These figures, especially the average claim, is expected to change materially as more claim data is recorded.

Figure F.18 TR3 Summary

	2023–24
Amount claimed	\$13,709,673.00
No. trips claimed	53,445
Average claim	\$256.52

Source: Independent Toll Review

Figure F.19 TR3 Postcode Analysis

#	Postcode	LGA	Total claim	% of total claims	No. trips claimed
1	2765	Blacktown	\$454,328	3.3%	1,433
2	2145	Parramatta	\$448,843	3.3%	1,456
3	2153	Parramatta	\$401,714	2.9%	1,357
4	2155	Blacktown	\$367,982	2.7%	1,365
5	2148	Blacktown	\$342,130	2.5%	1,040
6	2170	Liverpool	\$288,890	2.1%	1,359
7	2761	Blacktown	\$284,103	2.1%	871
8	2160	Parramatta	\$253,629	1.9%	609

9	2195	Bankstown	\$229,467	1.7%	463
10	2763	Blacktown	\$216,351	1.6%	689
		Total	\$3,287,437	23.98%	10,642

The distribution of TR3 shows significantly greater concentration than TR1 and TR2. Postcodes in the Blacktown and Parramatta LGA account for 20.20% of the total claims, and the 10 highest claiming postcodes account for 23.98% of total claims. This is materially greater than the top 10 postcode concentration of 15.91% in TR1 and 16.69% in TR2.

# Appendix G: Current legislative framework

# Road tolls and charges

Tolls and charges associated with travel on roads, bridges and tunnels are regulated by the Roads Act and Roads Regulation.<sup>132</sup>

Which roads,	• Tollways.
bridges or tunnels can be tolled?	• Subject to Ministerial approval (or separate legislation), bridges and tunnels forming part of a public road that is controlled by Transport for NSW and classified as a metropolitan main road or highway (but not a freeway).
	Sydney Harbour Bridge is tolled as a bridge on a metropolitan main road. All other toll roads are tollways.
Who can impose a toll?	Transport for NSW, or concessionaires whose power to impose tolls derives from Transport for NSW.
Who is Transport for NSW?	Transport for NSW is a statutory corporation representing the Crown and subject to Ministerial control. Its road functions include paramount responsibility for decision-making about classified roads, and the construction and management of roads on behalf of the State.
What is a tollway?	• A tollway is a class of road declared by Ministerial order published in the Government Gazette.
	<ul> <li>Tollway declarations can only be made over roads owned by Transport for NSW or proposed to be constructed on land owned (or proposed to be owned) by Transport for NSW.</li> </ul>
	Once a road is declared as a tollway, it ceases to be a public road. This means there is no longer an automatic right of access to, and passage along, the road (i.e. conditions, such as the toll, may be imposed).
Who sets the	• Transport for NSW currently sets the amount of tolls and charges.
amount of tolls or charges payable?	<ul> <li>It does this through contractual arrangements with private road operators and by an order published in the Government Gazette for Sydney Harbour Crossings.</li> </ul>
	The Roads Act allows for the setting of maximum tolls and charges by regulation. This has not been used since 1994 when the tolls were set for the Bulli-Waterfall tollway.
Who is required to pay tolls?	<ul> <li>The driver of the vehicle using a toll road is principally liable.</li> <li>The liability to pay the toll arises when the vehicle passes the designated toll point. Toll points are marked by signs.</li> </ul>

<sup>&</sup>lt;sup>132</sup> Copies of the Roads Act and Roads Regulation can be found at Home - NSW legislation under the 'in force' tab.

	• The registered vehicle owner can be liable too. See discussion below.
	Police, emergency and some other vehicles are exempt from paying tolls. Some exemptions are mandated by law, others are set through contractual terms.
Enforcement of toll and charge offences	<ul> <li>Failure or refusal to pay a toll or charge when due is an offence.</li> <li>The registered vehicle owner is guilty of the offence even if they were not the actual offender, unless they satisfy the relevant authorities that either (1) the vehicle was stolen or illegally taken or used, or (2) another person was in charge of the vehicle at the time.</li> <li>There are time bars around objecting to a penalty on these grounds, and complex rules which straddle the Roads Act, the <i>Fines Act 1996</i> and the <i>Road Transport Act 2013</i>.</li> <li>If the penalty for an offence is met by the vehicle owner, the actual offender remains liable for the offence. However, the penalty can only be recovered once.</li> <li>Evidentiary provisions and rules apply to tollways, tolls and toll cameras to ensure enforcement is based on sound technology and can be conducted efficiently using certificate evidence.</li> <li>Proceedings for failing or refusing to pay a toll may be commenced within 12 months after the time when the offence is alleged to have</li> </ul>
	Unpaid tolls can also be recovered as debts from the registered vehicle owner. <sup>133</sup>

# Tolling concession agreements

What is a tolling concession?	An agreement entered into by Transport for NSW with a toll road operator to levy and collect tolls and charges for traffic on a tollway. Its purpose is to fund the provision of the tollway and related infrastructure.
What is their statutory basis?	<ul> <li>Roads Act section 213 and Part 6 of the Government Sector Finance Act 2018 (GSF Act), operating together.</li> <li>All current tolling concessions are both 'leases' under section 213 of the Roads Act and 'joint financing arrangements' under the GSF Act.</li> </ul>
Roads Act: leasing the operation of a tollway	<ul> <li>The Roads Act permits Transport for NSW to:         <ul> <li>lease the operation of a tollway, or</li> <li>lease the collection of tolls and charges on a tollway, or tolled bridge or tunnel.</li> </ul> </li> </ul>

<sup>&</sup>lt;sup>133</sup> Roads Regulation 2018 (clause 80).

	• The lease terms are determined by Transport for NSW, with the only constraint being that the amount of the toll and charge must not exceed the maximum prescribed by or calculated in accordance with the regulations.
	<ul> <li>In the absence of any regulations being made, Transport for NSW sets the amount of the tolls or charges for each toll road.</li> </ul>
	<ul> <li>Tenders must be called for any lease to collect tolls and charges in connection with a bridge or tunnel on a public road.</li> </ul>
	• The phrase 'lease the operation of a tollway' was considered in the case of CCM Holdings Trust Pty Ltd v Chief Commissioner of State Revenue; CCT Motorway Company Nominees Pty Ltd v Chief Commissioner of State Revenue [2013] NSWSC 1072. In that case, Bergin J described what is encompassed in the phrase 'lease the operation of a tollway' as follows:
	'If [Transport for NSW] leases the operation of a tollway, it is leasing not only the right to levy and collect tolls but is also imposing the obligations to do those things necessary to 'operate' the tollway, including maintaining it and keeping it in such repair as to enable its continuous use for the period of the lease (unless of course such lease expressly provides otherwise).'
Roads Act: granting real	<ul> <li>Transport for NSW has historically agreed to grant a limited real property lease with each tolling concession.</li> </ul>
property leases	• The power to grant a lease over a public road is very limited.
over tottways	The same limits do not apply to tollways and section 158(2) of the Roads Act permits Transport for NSW to 'exercise in relation to any land in which it holds an interest any function that a private individual could so exercise if the private individual were the holder of the interest.'
GSF Act: regulation of	<ul> <li>Financial arrangements of State entities are regulated by Part 6 of the GSF Act.</li> </ul>
financial arrangements	<ul> <li>Part 6 of the GSF Act is a 'paramount provision'. This means it prevails over the Roads Act to the extent of any inconsistency.<sup>134</sup></li> </ul>
	<ul> <li>The regulated financial arrangements include 'joint financing agreements.'</li> </ul>
	A 'joint financing arrangement' is:
	<ul> <li>- 'any one of the following arrangements entered into by one entity (the principal entity) with another entity (the secondary entity), for the purpose of the exercise of the principal entity's functions and in respect of infrastructure or other capital assets:</li> </ul>

<sup>&</sup>lt;sup>134</sup> Prior to the commencement of Part 6 of the GSF Act on 30 November 2018, the law was even stricter. From commencement of the *Public Authorities (Financial Arrangements) Amendment Act 2000* until the repeal of the PAFA Act by virtue of the GSF Act, the PAFA Act provided 'a comprehensive system of arrangements for the control of authorities of the State in entering into and maintaining [financial arrangements].' The PAFA Act prevented the exercise of any function under any other Act which might permit entry into or maintenance of financial arrangements without an authorisation or approval under PAFA. The PAFA Act was in place for most of the current tollway concessions.

	<ul> <li>an arrangement under which the secondary entity acquires assets (including by lease or purchase) from the principal entity, a third party or a combination of the two, and uses them for the exercise of a function of the principal entity,</li> </ul>
	<ul> <li>an arrangement under which the secondary entity constructs assets and uses them for the exercise of a function of the principal entity,</li> </ul>
	<ul> <li>an arrangement described in paragraph (a) or (b), coupled with a transfer or reversion of the assets to the principal entity'</li> </ul>
	• A tolling concession is typically a joint financing arrangement because:
	<ul> <li>it is entered into by one entity (Transport for NSW) with another entity (concessionaire) for the purpose of the exercise of Transport for NSW's functions and in respect of infrastructure or other capital assets,</li> </ul>
	<ul> <li>it is an arrangement under which the secondary entity (concessionaire) constructs assets and uses them for the exercise of a function of Transport for NSW (operating roads),</li> </ul>
	<ul> <li>it is coupled with a transfer or reversion of the assets to Transport for NSW at the end of the term.</li> </ul>
	<ul> <li>Transport for NSW is only permitted to enter into a joint financing arrangement if the arrangement is permitted under a financial arrangement approval.</li> </ul>
	<ul> <li>A financial arrangement approval is a written approval from the Treasurer to enter into the relevant financial arrangement.</li> </ul>
	• The Treasurer can only give a financial arrangement approval for a tolling concession on the recommendation of the responsible Minister.
	<ul> <li>A financial arrangement approval for a tolling concession may be subject to terms and conditions, and Transport for NSW is required to comply with those terms and conditions.</li> </ul>
	• The Treasurer may revoke or vary a financial arrangement approval by written notice.
	• The revocation or variation of a financial arrangement approval applies only from the time it takes effect and does not affect the validity of any arrangement entered into before the revocation or variation takes effect.
	• A written notice revoking or varying a financial arrangement approval may contain provisions of a savings or transitional nature consequent on the revocation or variation of the approval.
	• A financial arrangement approval for a tolling concession is conclusive evidence that anything done by Transport for NSW in accordance with the approval is authorised by the GSF Act. <sup>135</sup>

<sup>&</sup>lt;sup>135</sup> Government Sector Finance Act 2018, s6.23(10).

	Once a financial arrangement approval for a tolling concession is in place, Transport for NSW may do 'all things that are necessary or convenient to be done in connection with entering into' the concession'. This may include delegating functions to the private toll operator or allowing the private toll operator to exercise its functions.
GSF Act: State guarantees	• Under GSF Act section 6.27, the State has a discretion to 'guarantee the due performance by [Transport for NSW] of any obligations incurred by [Transport for NSW] as a result of or in connection with [Transport for NSW] entering into any financial arrangement (whenever entered) as authorised by the GSF Act'.
	• The Treasurer is authorised to act on behalf of the State in giving a guarantee.
	• Although there is no obligation to do so, State guarantees are typically provided for tolling concessions. Each guarantee is subject to its own terms.
	Liabilities of the State or Treasurer under guarantees of financial arrangements do not require separate appropriation by Parliament. <sup>136</sup>

# Powers and obligations of toll operators

Who is a toll operator?	<ul> <li>Toll operator is a term defined by the Roads Act. It is largely synonymous with the term 'toll road operator' used in this report.</li> <li>Transport for NSW is a toll operator for all purposes.</li> <li>Private concessionaires are declared by Ministerial order to be toll operators with respect to specific tollways only.<sup>137</sup></li> </ul>
Statutory regulation of toll operators	<ul> <li>Toll operators have the following statutory functions (powers, duties or discretions):<sup>138</sup> <ul> <li>designate toll points (by signs or otherwise) - toll points are the points on a tollway at which the liability to pay the toll is incurred</li> <li>set terms and conditions in relation to the manner of payment of tolls and charges for travel on their tollway (including terms regarding administrative charges)</li> <li>publish information on their website in relation to their tolls and charges (see Roads Regulation clause 19(3) for full list)</li> <li>publish the above information on signs approved by Transport for NSW</li> <li>waive a toll or charge in respect of a particular vehicle or class of vehicles</li> </ul> </li> </ul>

<sup>&</sup>lt;sup>136</sup> Government Sector Finance Act 2018, s 6.33.

<sup>&</sup>lt;sup>137</sup> Roads Act 1993, Definitions.

<sup>&</sup>lt;sup>138</sup> Roads Act 1993, Dictionary (toll point) and Roads Regulation clauses 19, 21, 22, 36 and 80 (all other).

	<ul> <li>deal with objections to tolls or charges (including internal review process)</li> </ul>
	<ul> <li>display lawfully enforceable notices containing directions with respect to (1) the regulation of pedestrian and vehicular traffic on a tollway, or (2) the safety of a tollway and of persons and property on the tollway</li> </ul>
	<ul> <li>recover unpaid tolls and charges as a debt from the registered operator of a vehicle.</li> </ul>
	In practice, there are contractual and planning constraints that further regulate the freedom of private toll operators in the exercise of the above functions.
Authorised officers of toll operators	<ul> <li>Transport for NSW may appoint toll operator employees or agents as authorised officers in respect of the toll operator's tollway:<sup>139</sup></li> </ul>
	• Those authorised officers must wear a uniform issued by the toll operator or a clearly visible identity card issued by the toll operator.
	• The exercise of power by an authorised officer is invalid if the above requirement is not satisfied in circumstances where they are physically in the presence of the person in respect of whom the function is exercised.
	<ul> <li>Functions a toll operator's employee or agent may be authorised to do include:</li> </ul>
	<ul> <li>give directions in relation to the loading or unloading of motor vehicles on or from any part of a tollway [Roads Regulation cl 30],</li> </ul>
	<ul> <li>give directions with respect to the regulation of pedestrian and vehicular traffic on a tollway [Roads Regulation cl 35(1)(a)],</li> </ul>
	<ul> <li>give directions with respect to the safety of a tollway and of persons and property on the tollway [Roads Regulation cl 35(1)(b)],</li> </ul>
	<ul> <li>exercise enforcement functions specifically in relation to tollways such as (1) require production of driver and vehicle information under Roads Act section 229 where the officer has a reasonably based suspicion that the driver has committed an offence, or (2) issue penalty notices under Roads Act section 243 (and in accordance with the <i>Fines Act 1996</i>).</li> </ul>
	Authorised officers of toll operators, and persons acting under their direction, are exempt from personal liability when acting in good faith for the legitimate purposes of the Roads Act. <sup>140</sup>
Private tolls and charges	• The Roads Act includes a definition 'private toll or charge' to refer to a road toll or charge levied or imposed by a person other than Transport for NSW (or a roads authority in relation to a road-ferry).
	All current private tolls and charges relate to tollways.

<sup>&</sup>lt;sup>139</sup> Roads Regulation clause 76 and Roads Act Dictionary.

<sup>&</sup>lt;sup>140</sup> Roads Act 1993, s256.

	The rules and enforcement procedures applicable to tolls and charges imposed directly by Transport for NSW also apply to private tolls and charges.
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# Regulation of toll service providers

What is a toll service provider?	• A 'toll service provider' is a person who provides 'toll services.' Toll services are 'accounts, products or related services that enable the payment of tolls for the use of tollways, bridges, tunnels or road-ferries by persons who are required to pay such tolls.'	
Is toll service provision regulated?	• Toll service providers are not subject to specific statutory regulation, except in relation to sharing information with government for the purposes of toll relief, and the fees they charge to toll road operators. <sup>141</sup>	
	• Where they provide services on behalf of toll road operators, those services are regulated by the terms of the concession contracts, where applicable.	
	Toll service providers are also committed to inter-operability arrangements that apply across NSW, Victoria and Queensland.	

# Operation of tollways

Who is the roads authority?	• Toll operators are not roads authorities for their roads, and do not hat the immunities of roads authorities.			
	• When a tolling concession is granted, the Minister will usually issue direction under section 63 of the Roads Act making Transport for NSW responsible for the functions of a road's authority with respect to the tollway.			
	The principal purpose of a section 63 direction is to ensure it is exclusively the function of Transport for NSW to make decisions as to what road work is to be carried on the tollway. <sup>142</sup>			
What statutory protections apply?	Sections 101 and Division 3 Part 9 of the Roads Act provide safeguards around use of a road by third parties. These provisions apply to tollways operated by Transport for NSW, but expressly not to privately operated tollways. <sup>143</sup>			

<sup>&</sup>lt;sup>141</sup> See clauses 33, 78 and 78A of the Roads Regulation.

<sup>&</sup>lt;sup>142</sup> Roads Act 1993, s61.

<sup>&</sup>lt;sup>143</sup> Roads Regulation cl 34.

# Appendix H: Toll Collection System

All toll roads in Australia are electronically tolled. The toll road industry has been self-regulated since the early 2000s to allow full interoperability Australia-wide; allowing motorists with any account or 'tag' to access any toll road.

Toll collection on NSW toll roads is conducted by varying parties. TfNSW's model divides the toll collection process into four distinct functions:

- Component 1: Roadside Infrastructure (including data collection).
- Component 2: Trip processing (processing data collected).
- Component 3: Account management.
- Component 4: Compliance.

Figure H.1 Tolling functions

C1 Roadside infrastructure	C2 Trip processing	C3 Accounts management	C4 Compliance
Physical equipment to collect data including gantries, number plate recognition and tag identification systems	Back-end systems for processing trip data to convert vehicle pass to toll charge	Retail and corporate account management services, including issue of electronic tags, sale of toll products to pay for travel on Sydney toll roads, customer contact channels and account billing	Compliance and enforcement functions
Toll road operator	Toll road operator or outsourced to service provider	E - Toll Linkt	Image: Source of the second
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Car drives through gantry, tag/licence plate number data recorded	Trip is constructed from tag/licence plate number data and rated	Tags and passes issued/customers billed	Issue of toll notices on behalf of toll roads

Source: Independent Toll Review

# Payment of tolls

Motorists using a toll road must pay the toll in the time and manner specified by the toll road owner. Currently, motorists have up to 72 hours after travel to make arrangements to pay. In New South Wales, there are two ways that 'valid' trips on a toll road are paid for by the motorist:

- toll account, or
- pass.

No arrangement travel (or an 'invalid trip'), where a motorist travels on a toll road without a valid toll payment arranged by way of toll account or pass, is paid for by the motorist following subsequent compliance processes.

## Toll accounts

Toll accounts are issued by toll retailers. Toll account holders are typically provided with a tag, a small physical electronic unit (transponder) that is affixed to the windscreen of a vehicle. As a vehicle passes under a tolling gantry (the physical infrastructure that houses vehicle detection, tag reader and video systems) the tag is detected and associated with the vehicle that is simultaneously detected. The tag data recorded by the vehicle detection system enables the trip to be reconstructed and a toll charge for the trip to be calculated.

Toll account holders may also have the option to travel on toll roads without a tag, utilising a registered vehicle licence plate number (LPN). When the vehicle passes under a tolling gantry, a photograph is taken of the vehicle's licence plate, and the details are matched to the linked toll account. Under this option, in addition to the toll charge, a licence plate matching fee (between 50c and 75c) also applies.

When a toll account is set up, the holder typically pays a pre-paid toll balance from which toll charges are deducted. The toll amount balance can be automatically topped up by the motorist's nominated payment method (credit card or bank account debit) once the account balance falls below a threshold amount. Other account types allow the motorist to post-pay tolls. Post-pay accounts are typically offered to corporate customers. Toll accounts can hold multiple tags and vehicle licence plate numbers.

Toll retailers remit the tolls paid to toll road operators. For 'foreign' trips (i.e. where the toll retailer is not owned by the toll road operator), the toll retailer deducts a roaming fee. Roaming fees are agreed in bilateral roaming agreements between each toll road operator and each 'foreign' toll retailer.

All Australian tags can be used on all Australian toll roads.

The two NSW-based toll retailers are E-Toll (TfNSW owned) and Linkt (Transurban owned).

### Passes

Passes are temporary arrangements utilising a registered vehicle LPN. When the vehicle passes under a toll gantry, a photograph of the vehicle licence plate is taken, and the details are matched to the pass. The cost of a pass includes a matching fee for each trip.

Passes for use in NSW must be purchased from E-Toll or Linkt. The E-Toll pass product can only be used in NSW. The Linkt pass product can be used on all Australian toll roads.

# Interoperability

To ensure interoperability between Australian toll roads, all tags and passes must comply with a technical specification that allows for use across different toll roads. Each toll road operator has access to an electronic toll collection system which enables payment of tolls by means of toll accounts and passes. The technical specification for interoperability of electronic toll collection systems in Australian is Standard AS4962:2005.

All Australian toll road operators are party to the Memorandum of Understanding (MOU) - Electronic Toll Collection. The parties to the MOU have agreed that they will work together and in consultation with each other to achieve the parties' objectives (listed below). The MOU was first executed in May 2001 and has subsequently been amended and restated to reflect changes in tolling operations over time. A new party to the MOU does so by executing a Deed of Accession.

The objectives of the MOU parties are to:

- ensure that the ETC systems operated by all parties are interoperable
- ensure that passes may be issued by anyone and are interoperable
- ensure the delivery of a quality service to motorists using an ETC system to pay a toll
- minimise the cost of operating ETC systems
- make the use of ETC systems on the toll roads as seamless as possible to motorists
- promote a public perception that the ETC systems and access to, and use of the tags and passes by motorists are managed and operated in an efficient manner.

The MOU requires each toll retailer to have a roaming agreement with each Australian toll road operator, for that retailer's toll products to be recognised on any toll road.

# Compliance and Leakage

In the event of an invalid trip (i.e. the motorist has not arranged payment within 72 hours), the toll road operator provides TfNSW Tolling Compliance Management with the vehicle licence plate number and trip data and requests that a toll notice be issued to the registered owner of the vehicle.

TfNSW Tolling Compliance Management issues a toll notice to the registered owner of the vehicle on behalf of the toll road operator under the letterhead of the relevant toll road. The toll notice requests payment of the toll plus a \$10 administration fee. If the toll notice is paid by debiting a toll account, the \$10 administration fee is waived and replaced with a \$1.10 toll notice transfer fee. On payment, the toll road operator receives both the toll and the \$10 administration fee.

If the payment is not recovered within the specified notice period (typically 14 days), the toll road operator may request TfNSW Tolling Compliance Management to issue a second toll notice to the registered owner of the vehicle. This second toll notice requests payment of the toll plus a \$20 administration fee. If the toll notice is paid by debiting an account, then the \$20 administration fee is waived, and a \$2.20 toll notice transfer fee is applied. On payment, the toll road operator receives both the toll and the \$20 administration fee.

If payment is not recovered within the specified notice period (typically 14 days), the toll road operator may request TfNSW Tolling Compliance Management section to issue a penalty notice to the registered owner of the vehicle. The penalty notice is a fine, typically \$211. If the penalty notice is not settled in the time and manner specified, an enforcement order may be issued by Revenue NSW and they may direct TfNSW to suspend or cancel the motorist's licence or registration. The toll road operator must pre-pay an issuing fee, typically \$22.95, for each penalty notice issued.

On payment, Revenue NSW pays the toll road operator the toll, the toll notice administration fee and the \$22.95 penalty notice issue fee. The State retains the balance of this fine.

As an alternative to requesting TfNSW issue a penalty notice, toll road operators may request that TfNSW provide the toll road operator with the personal contact details of the registered owner of the vehicle in order to contact them directly. Toll road operators can then pursue civil debt recovery.<sup>144</sup> It has been indicated that approximately 5% of trips proceed to a toll notice.<sup>145 146</sup>

<sup>&</sup>lt;sup>144</sup> Clause 80, Roads Regulation 2018.

<sup>&</sup>lt;sup>145</sup> Independent Toll Review. (July 2023). Public Hearing Transcripts.

<sup>&</sup>lt;sup>146</sup> Transurban. (2023). NSW Independent Toll Review Public Consultation Submission. Independent Toll Review.

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