

Transurban submission

NSW Independent Toll Review

July 2023

About Transurban

Transurban, starting in Melbourne in 1996, has since expanded to Sydney, Brisbane and North America and grown to become a top–15 ASX company.

More than 70% of our investors are Australian, holding Transurban shares through industry superannuation funds, including UniSuper, AustralianSuper and Aware Super.

Most of our 3900+ direct workforce¹ are based in Australia and as one of the country's largest private employers of contractors, our day-to-day operations and major infrastructure projects rely on a much larger workforce.

Transurban's NSW story started with our partnership to deliver the Westlink M7, which opened to traffic in 2005. Since then, we have been planning, building and operating toll roads that have delivered real and lasting benefits for Sydney's motorists.

Working with our partners and the NSW Government, we have delivered projects including NorthConnex and WestConnex. We have also made significant investments in our assets including widening the M5 South-West and Hills M2 to help ease congestion as our city continues to grow. Supporting thousands of jobs throughout construction, these projects help strengthen the NSW economy, and support productivity by moving people more quickly and reliably.

Transurban is unique as an owner-operator: delivering technology, safety, customer experience and operations.

Our purpose is to strengthen communities through transport.

By working to be a partner of choice for governments, our customers, the community and our investors, we have helped to deliver a toll road network that has transformed the way people, goods and services move in Sydney.

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Direct workforce includes direct employees (which include casual, fixed term and permanent employees (excluding leave of absence and non-executive directors) and temporary workers and workers contracted through our partner organisations)

Introduction

The last two decades have seen Sydney grow at a rapid pace, with the population increasing by more than one million people. This growth is expected to continue with the population forecast to increase by another 25% by 2042¹. As a key part of Sydney's transport solution, the toll motorway network has played an important role in the effective movement of people, goods and services, providing travel time savings, journey reliability and safety to support Sydney's liveability and prosperity.

Major infrastructure development is vital to support the city's liveability and productivity. Transurban and our partners have played an integral part in delivering missing road transport links to make the city better connected than ever before

Through bipartisan achievement over more than 30 years, Sydney's toll road network has transformed the movement of people, goods and services across the city and beyond.

Every day, almost a million trips are taken on the 11 toll roads in which Transurban has an interest. Motorists are saving up to 41 minutes² (Figure 2) in travel time on various connections and, on an average work day, drivers save approximately 208,000 hours in travel time³. Safer and more reliable trips have supported Sydney's rapidly growing population and today more motorists are choosing to use toll roads than ever before.

Independent research has estimated that toll roads will create \$35.8 billion in economic benefits over 30 years,

with the benefits to the business and freight sector alone forecast to be estimated \$11.8 billion⁴.

Transurban recognises that the evolution of the network, through the progressive addition of toll roads and "missing links", has led to a variety of tolling regimes. These regimes have been determined predominantly by the funding requirement to develop each motorway.

We recognise that this Review considers there is now an opportunity to assess if the current tolling regime can be further enhanced in four main ways: efficiency, fairness, simplicity and transparency.

Transurban supports the NSW Government's suggestions for a more consistent approach across the network, which could include toll pricing based on distance travelled and geographic zones as well as a charge to access the tolled motorways.

We are also open to discussions on pricing based on time-of-day travel as a way of managing demand and

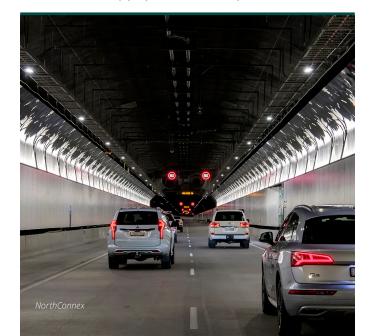
creating more efficient travel across the road network.

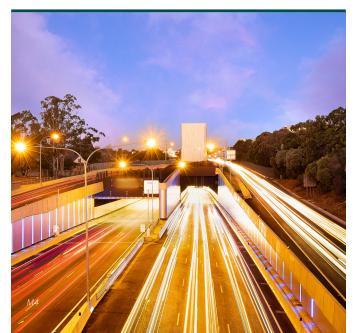
Sydney's toll road network involves many long-term investors committed to its success. Transurban's ownership interest represents 48% of Sydney's tolled motorways expressed by Average Daily Traffic (Refer Figure 1), and at least 90% of major Australian super funds hold shares in Transurban.

There are many different groups and stakeholders such as customers, community and investors, that will need to be considered in any changes to the tolling regimes. Any changes to our concessions will require approval from our stakeholders, partners and financiers.

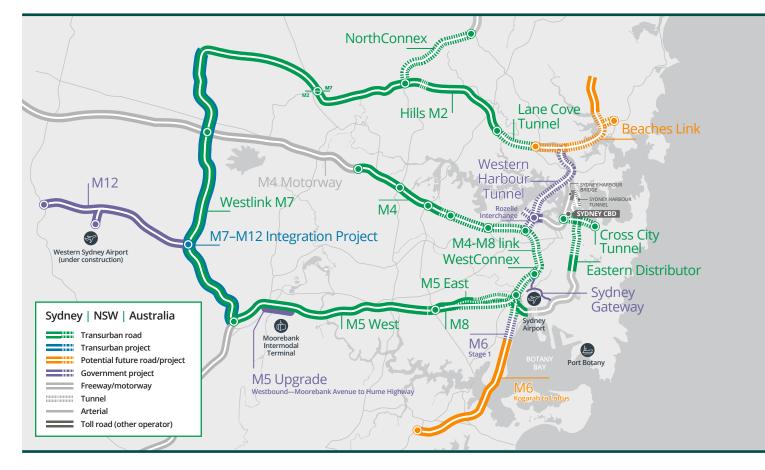
Transurban values the productive and collaborative partnerships we have had with successive governments and look forward to progressing our discussions on how Sydney's toll roads can continue to support the city's liveability and prosperity for years to come.

- 1. Deloitte Access Economics (DAE) Land Use Forecasts, Sep22 release
- 2. Source TomTom: for the highest hour between July 2022 December 2022 (Transurban FY23 Results have travel time savings of 224,048 from period July 2022 June 2023)
- 3. Source TomTom data: July 2022 June 2023
- 4. Economic Contribution of Sydney's Toll Roads. KPMG, May 2021





Supporting Sydney's growing transport needs



Creating value for Sydney

Transurban and our partners have invested more than \$36 billion² into Sydney's motorway network to support the city's increasing population and connect economic and residential growth areas.

>\$36B²

invested in building and upgrading Sydney's motorway network

\$35.8B

in economic benefits over 30 years³

More than

69.000

workers involved in stages of WestConnex and NorthConnex

429

community grants to NSW organisations since 2016

18ha

of open space created, 23km of new and improved cycleways and walkways, and one million trees planted through the WestConnex project

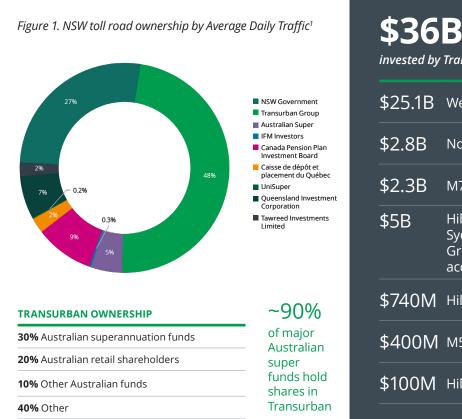
Transurban and our partners' investments have ranged from upgrades to existing assets such as the Hills M2 and M5 South West to delivering infrastructure that has created an entirely new road transportation map for Sydney and provided enormous liveability and productivity benefits in terms of traveltime savings, reliability and safety.

Transurban and our partners purchased WestConnex in two tranches, in 2018 and 2021, injecting more than \$20 billion into the NSW Government's finances, which freed up the public balance sheet for social infrastructure and other priorities. Tolling prices did not change as a result of these transactions.

As a result of our unsolicited proposal to build NorthConnex and create a vital missing link in the National Highway route, between the M1 Pacific Motorway and the Hills M2 Motorway, drivers can travel around 1,000 kilometres from Newcastle to Melbourne without encountering a traffic light.

The NorthConnex tunnels are an excellent example of the private and public sectors working together to fast-track a project to create huge benefits for the community and road users.

Australia's deepest road tunnels, NorthConnex are an excellent example of innovation and sustainability in design by catering for future growth. The tunnels, which significantly reduce congestion along Pennant Hills Road,



\$36B²
invested by Transurban and partners

\$25.1B WestConnex

\$2.8B NorthConnex

\$2.3B M7 construction

\$5B Hills M2, LCT, CCT, Sydney Motorway Group, M5 West acquisitions

\$740M Hills M2 Upgrade

\$400M M5 Widening

\$100M Hills M2 Integration

are built to expand from two-lane capacity to cater for three lanes, and feature lighting displays to keep drivers alert and focused as they travel through one of the longest road tunnels in the country.

The private sector—motivated to achieve the best outcomes for its government partners, communities, customers and investors—have proven to be a strong force in driving efficiency and innovation in design, construction and operations. Transurban is also recognised for its comprehensive community and stakeholder engagement programs.

NSW has been a leader in the use of Public Private Partnerships to deliver toll road projects with twelve motorways and tunnel projects opened to date³.

Private sector involvement transfers a considerable amount of the construction and patronage risk from governments. The risk is significant, with well–documented failures in the sector including the Cross City Tunnel and Lane

Cove Tunnel where the projects failed to meet their patronage forecasts. While private investors bore the risk—and the losses—taxpayers benefitted with delivery of and access to improved networks and new, world–class roads and tunnels.

\$35.8 billion in economic benefits

In research commissioned by Transurban, KPMG estimates the total economic benefits from the accelerated delivery of toll roads by the private sector to be \$35.8 billion over the 30 years to 2046⁴.

In that time, businesses and freight users can expect to realise an estimated \$11.8 billion in benefits through traveltime savings, reliability gains and reduced vehicle operating costs.

Personal users stand to gain \$9.4 billion in similar benefits. In our submission to the 2021 Inquiry into Road Tolling Regimes (Appendix 2), we featured

case studies that bring to life the value of toll roads to hypothetical individual motorists, who each rely on the network for different reasons. Further case studies are highlighted on pages 8 and 9.

KPMG's analysis estimated the toll road network will contribute an estimated \$14.5 billion in wider economic benefits by significantly improving access to economic centres and increasing participation in the labour market. An average of 5,300 full-time jobs are expected to be created annually over the 30-year period.

- Transport for NSW—Western Harbour Tunnel and Warringah Freeway upgrade—Environmental Impact Statement, January 2020 and internal Transurban analysis
- 2. Transurban and its partners', investments in Sydney
- Infrastructure Partnerships Australia, reports including the 2009 discussion paper "Urban Transport Challenge: Driving Reform on Sydney's roads". Along with the 11 roads listed in this submission, the Sydney Harbour Tunnel was the State's first public-private partnership project, according to Infrastructure Australia.
- 4. Economic Contribution of Sydney's Toll Roads. KPMG, May 2021

Creating value for customers

Every day almost a million trips are taken on the 11 toll roads in which Transurban has an interest¹.

Up to 41 minutes per trip

travel-time savings on individual roads7

208,000 hours

average workday travel-time savings

\$398+M

on operating and maintaining roads across FY22 and FY23, including incident response (actual and forecast)⁹

\$11

average customer spend per week²

Not only do individual toll roads offer travel-time savings of up to 41 minutes (Figure 2) and more reliable and safer trips, their connectivity creates a network with benefits far greater than the sum of its parts. For example, drivers can travel from Newcastle to Melbourne without facing a traffic light by using NorthConnex, the Hills M2 and Westlink M7.

Sydney's newest tunnel, the WestConnex M4–M8 link, which connects the M4 in Haberfield to the M8 in St Peters, is contributing to significantly reduced travel times and allows drivers to bypass up to 52 sets of traffic lights between Parramatta and Mascot. Travel–time savings result in fuel savings and fewer greenhouse gas emissions.

In independent research commissioned by Transurban in July 2023, 64% of the 1,008 respondents in Sydney rated travel–time savings as the main reason they used toll roads, followed by them being considered the most direct route (Figure 3). Case studies on pages 8 and 9 show the travel–time savings that our customers are achieving using various roads.

The projects we deliver have also improved the capacity, efficiency and safety of the broader Sydney road network, in particular along neighbouring roads. For example, after the WestConnex M4 Tunnels opened in

July 2019, the number of cars and trucks using Parramatta Road daily reduced by around 30%. As a result, air quality on Parramatta Road has improved by 10–15%³.

Since NorthConnex opened there has been a 57% reduction in crashes on the nearby Pennant Hills Road and 47% fewer fatal or serious injuries with heavy vehicles moved into the tunnel and away from local streets⁴.

Safer roads

The safety of our roads is our key priority and research from Monash University Accident Research Centre shows our Sydney roads are twice as safe as like roads with a 48.7% lower rate of fatal and serious injury crashes⁵.

State-of-the-art safety and traffic management technology and 24/7 road monitoring, aim to make motorists' journeys as safe as possible.

The International Road Assessment Program (iRAP) has rated 66% of our roads⁶ as four star and 17% as five star. This compares with the most recent publicly available iRAP ratings for the NSW public network (2013) where 51% of national highways in NSW had a rating of less than two stars, 46% were rated three stars and 2% had a four star rating.

Our commitment to road safety extends to research to improve safety outcomes for motorists across Australia.

We are now in the seventh year of a partnership with Neuroscience Research Australia, which has produced

Figure 2. Travel-time savings on Sydney toll roads⁷

MOTORWAY	DIRECTION	AM	PM
Cross City Tunnel	Eastbound	8min	11min
Cross City Tunnel	Westbound	9min	12min
M1 Eastern Distributor	Northbound	17min	21min
M1 Eastern Distributor	Southbound	23min	22min
Lane Cove Tunnel	Eastbound	9min	8min
Lane Cove Tunnel	Westbound	6min	7min
Hills M2	Eastbound	35min	33min
Hills M2	Westbound	37min	41min
M5 South West	Eastbound	24min	28min
M5 South West	Westbound	26min	22min
M5 East	Eastbound	18min	14min
M5 East	Westbound	16min	21min
Westlink M7	Northbound	34min	37min
Westlink M7	Southbound	39min	34min
WestConnex M8	Eastbound	21min	18min
WestConnex M8	Westbound	25min	28min
NorthConnex	Northbound	9min	8min
NorthConnex	Southbound	10min	10min
WestConnex M4-M8 Link	Northbound	13min	15min
WestConnex M4-M8 Link	Southbound	17min	13min
WestConnex M4	Eastbound	28min	31min
WestConnex M4	Westbound	28min	41min

^{1.} Transurban ADT data: includes the benefit of M8/M5 East which opened/commenced tolling on 5 July 2020 and NorthConnex which opened on 31 October 2020

^{2.} Average weekly Linkt Sydney customer spend on tolls – consumer FY21 (Covid reduced average weekly spend in FY22 compared to FY21)

^{3.} Transurban media release, October 7 2021, Air quality improves around WestConnex: www.westconnex.com.au/media-releases/air-quality-improves-around-westconnex/

^{4.} Transport for NSW Crashes on the Cumberland Highway (Pennant Hills Road) north of M2 and south of M1. 26-month comparison September 2012 to December 2022 (2022 crash data is preliminary and subject to change)

^{5.} Monash University Accident Research Centre, June 2022

^{6.} Excludes WestConnex, which will be assessed after the opening of Rozelle Interchange

^{7.} Travel-time savings are for the entire length of each road, compared to the alternative route, for the highest hour between July 2022 – June 2023; 'AM' means midnight to noon and 'PM' means noon to midnight. Source Tom

^{8.} Transurban commissioned research, conducted by Nature, 1,008 respondents across Sydney, July 2023

^{9.} Total operations and maintenance spend on all NSW toll roads in which Transurban has an interest, across FY22 and FY23 (actual and forecast)

Transurban submission

nation–leading research on child car seat safety as well as a world–first study into motorcycle safety.

We continue to partner with Kidsafe NSW to offer free car seat fittings and safety checks for families across Sydney, including a week–long car seat safety blitz during National Road Safety Week, which has seen more than 700 fitted over the past two years.

Customer experience

We continually find new ways to listen, understand our customers' needs, and reflect on what we can do to improve their travel experience.

Linkt, Transurban's retail brand, features a toll calculator, Trip Compare, which allows motorists to compare the costs and benefits of using a tolled route versus the alternate untolled route. The user enters their origin and destination and is provided with information on the cost of the toll along with estimated travel time and fuel savings. It's a simple tool that allows people to assess the value of using a toll road to make a more informed choice about how they travel.

Our Voice of Customer Program, which analyses around 250,000 pieces of feedback from our Australian customers each year, also provides comprehensive metrics to gauge customers' on–road experience.

We continue to invest in new systems and technology to ensure our customers can engage with us across a range of platforms and have an app, LinktGO, to give customers an option to pay by trip without an ongoing commitment.

Figure 3. Reasons for using toll roads8



We recognise that some people have difficulty managing their toll payments, so our Linkt Assist team is in place to provide tailored support for customers going through tough times. This confidential support can include more time to pay for toll road travel, ongoing payment plans and advising state enforcement groups and other toll road operators of a person's situation (with their consent).

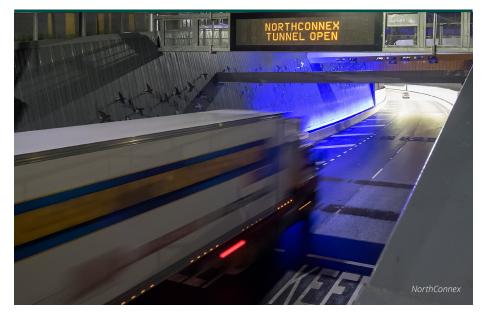
In FY20, we expanded our Linkt Assist program with new multi–lingual educational resources co–designed with The Salvation Army financial counsellors. Our Linkt Assist team also refers customers to our community sector partners for broader welfare support through our Linkt Assist 360 program, delivered in partnership with Good Shepherd.

"It's magical, I've been driving trucks since 1978 and reckon NorthConnex is the single best piece of infrastructure that we have seen in Sydney for years. We're saving around 15-20 minutes each way on a good run..."

Richie, truck driver for SRH Milk Haulage

"NorthConnex has helped our business enormously. Business has now picked up by 30 per cent and it's a lot quieter and cleaner without the trucks. Customers coming from nearby suburbs can now reach us in 10 minutes rather than half an hour"

Steve, Director at Thornleigh Golf Centre, located on Pennant Hills Road



WestConnex M4-M8 link improving safety and efficiency

Since opening in January 2023, Sydney's newest motorway, the M4-M8 link, has become a crucial part of the city's transport network, with more than 32,000 trips on average every day1.

Transurban traffic data shows motorists are already enjoying valuable travel-time savings during peak hours. For motorists travelling between St Peters and Haberfield, the link reduces time in traffic by up to 17 minutes. This compares to travelling on a non-tolled surface route, taking into account Parramatta Road and Stanmore Road. This latest section



of WestConnex has also made local surface roads significantly safer.

Transurban partners with Compass IoT, an international road technology and data analytics company, to use realtime data from vehicles to show how the car is being driven.

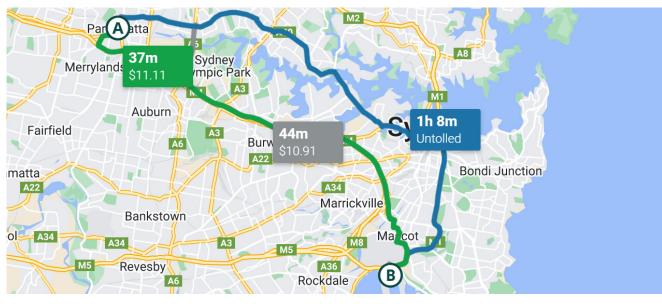
Data collected between March and June 2023 shows congestion along the Parramatta Road and Stanmore Road surface route has reduced significantly, with up to 43% less harsh braking, up to 33% less harsh swerving and up to 35% less harsh swerving and braking. This means fewer potential rear-end and merge collisions and near misses for drivers, and a safer environment for pedestrians, active transport users and the local community.

Transurban's Trip Compare

Plan your journey from start to finish and compare your tolled and untolled travel options

Case Study 1. Trip to airport using M4 and M4-M8 Link

A family leaves Paramatta to travel to Sydney Airport. Leaving Friday at 5pm, they could save 31 minutes in travel time by taking the tolled route over the untolled alternative. Sydney Gateway opens in 2024, further reducing the number of traffic lights to Sydney Airport.



A Parramatta **TOLLED ROUTE**

Traffic lights

Friday 5pm (

4.7kg CO² emitted

B Sydney Airport

31m saved \$11.11 cost

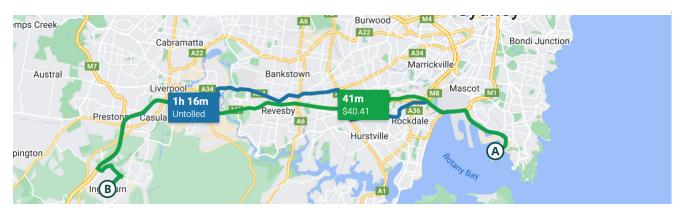
UNTOLLED ROUTE h 8m

3.31 Fuel used 7.6kg

Trip Compare: Travel times and trip information are predictions based on 3rd party data from the Google Maps Directions API. Individual travel times, alternative trips and travel savings may vary based on your specific origin, destination and traffic conditions at your time of travel.

Case Study 2. Value of travel-time savings to Sydney's freight operators

Trucking company picks up freight from Port Botany and takes it to Ingleburn for processing, packing and redistribution. Leaving the port on Tuesday at 8am, they could save 35 minutes in travel taking the tolled route over the untolled alternative.



Tuesday 8am

A Port Botany

B Ingleburn

35m saved

\$40.41 cost

TOLLED ROUTE

Traffic lights

10.1l Fuel used

27.6kg CO² emitted **UNTOLLED ROUTE**

1h 16m

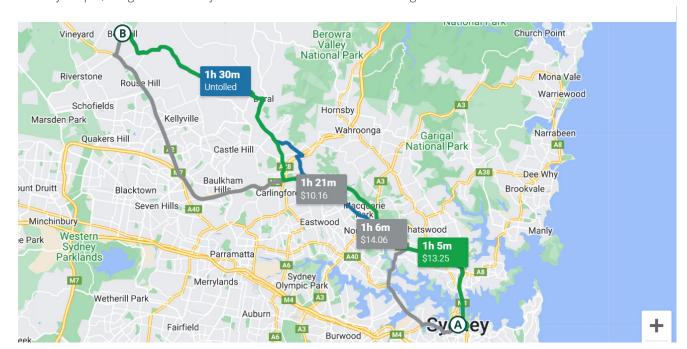
56 Traffic lights

15.2l Fuel used

CO² emitted

Case Study 3. Value of travel-time savings to working parents

A working parent who works in Sydney CBD travels home after work to have dinner with their family. Leaving work on Tuesday at 5pm, living in Box Hill they could save 25 minutes in travel taking the tolled route over the untolled alternative.



Tuesday 5pm

A Sydney CBD

B Box Hill

\$13.25 cost 25m saved

TOLLED ROUTE

Traffic lights

Fuel used

9.3kg CO² emitted **UNTOLLED ROUTE**

1h 30m

4.81 Fuel used

11.1kg CO² emitted

1. Toll Review Discussion Paper

The Toll Review Discussion Paper provided a list of questions relating to the terms of reference and criteria to apply in the assessment of tolls. The questions and our answers are outlined below.

1.1 General questions relating to the Toll Review

QUESTIONS

What issues do you see with the current tolling regimes across Sydney?

The NSW Government's Toll Review is considering ways to improve fairness, simplicity and transparency for motorists and efficiency across the network. We have responded to each of these questions with that framework in mind, while taking the opportunity to explain how toll roads work and have been developed.

Sydney's toll road network today is the result of significant achievements by multiple governments, both federal and state, that have been critical to the prosperity and liveability of Sydney, dating back to the Sydney Harbour Bridge almost a century ago.

The commissioning, delivery and long-term operations of these motorways have also given the private sector the opportunity to partner with governments for more than 30 years on projects such as WestConnex and NorthConnex.

The delivery of new and enhanced toll roads and their tolling regimes reflect the considerations taken by the government in office at the time, leading to variations in existing tolling methods and subsidies. Each toll price and escalation rate is set by the government, as it decides how to best meet the objectives of funding the project and providing a value-for-money proposition that will be attractive for motorists through travel-time savings and reliability.

Today's toll road pricing regimes reflect these decisions and have resulted in varying toll prices and methods including flat rates, caps, flag-falls and distance-based charges.

These differing toll regimes have led to a fragmented system that may be perceived as inconsistent by users, with varying prices and trip lengths (Figure 4). Government rebates and subsidies also only apply for some toll road users.

The NSW Independent Toll Review of the current pricing mechanisms provides an opportunity to optimise road utilisation, which could lead to less congestion at peak times and spare capacity at other times which, in turn, improves network performance, productivity and liveability.

Figure 4. Examples of price compared to trip length¹

ORIGIN/DESTINATION	DISTANCE	CURRENT PRICE
M5 entry to M2 Exit	39.5 km	\$9.51
M5 entry to M4 Exit	19.8 km	\$9.43
Westlink M7 to Lane Cove Tunnel	20.5 km	\$9.35
Beecroft Rd to Lane Cove Tunnel	8.4 km	\$9.35
Camden Valley Way to King Georges Rd	19.7 km	\$5.49
Belmore Rd to King Georges Rd	2.1 km	\$5.49
	M5 entry to M2 Exit M5 entry to M4 Exit Westlink M7 to Lane Cove Tunnel Beecroft Rd to Lane Cove Tunnel Camden Valley Way to King Georges Rd	M5 entry to M2 Exit M5 entry to M4 Exit 19.8 km Westlink M7 to Lane Cove Tunnel Beecroft Rd to Lane Cove Tunnel 8.4 km Camden Valley Way to King Georges Rd 19.7 km

¹ As at July 2023, Class A vehicle price

2 How do these issues affect you?

An efficient and integrated transport network is essential to maintaining a productive and liveable city. However, the current pricing mechanisms on Sydney's toll roads are not geared to broader network performance to optimise the use of roads. This leads to congestion at peak times on some corridors and spare capacity at other times. The individual setting of toll prices for each road has also resulted in arrangements that can impact demand management and our customers' experience.

Toll roads form part of the broader Sydney road network, so congestion in the wider network affects the efficiency of toll roads, which, in turn, impacts motorists and the road's value-for-money proposition.

Traffic congestion also has an economic impact. Infrastructure Australia (IA) has estimated that the annual cost of road congestion for Sydney will be \$13.1 billion by 2031, up from \$6.6 billion in 2016¹, with congestion increasing most significantly in the inter-peak period. IA also forecasts that the proportion of the trip that drivers will spend on the city's most congested roads, during peak periods, will increase from 60–80% in 2016, to 70–85% in 2031 and peak congestion in both directions will be more common.¹

Global navigation expert TomTom, in its 2022 Traffic Index, showed that Sydneysiders are already spending around 200 hours in peak-hour traffic each year, with average travel time of 22 minutes per 10 kilometres². The TomTom data showed that motorists took an extra 10 minutes to travel 10 kilometres in the morning and afternoon peaks compared to the optimal travel time.

Alongside this, Sydney also faces the demands of a growing and highly urbanised population, which is forecast to grow by more than 25% by 2042³.

3 What do you think can be done about them?

Looking at Sydney's motorways as a whole network presents a challenge to how toll roads have been delivered and operated.

Transurban has consistently supported government suggestions for a more consistent approach to tolling regimes to improve efficiency, fairness, simplicity and transparency across the network. This has been explored at our appearances at previous tolling-related inquiries in 2022, 2021 and 2017 in NSW, and in other forums across the country.

We are open to government suggestions for an approach that could include distance-based tolling, geographic zones, access charges and time-of-day pricing to manage demand. We acknowledge that access to alternative travel options and flexibility to change trip timing should be a consideration to maximise the benefits of time-of-day pricing. Any reductions in pricing during peak periods should be considered with regard for network efficiency and performance.

Practically, there would be a need to consider any changes required to the technology and roadside equipment and the cost to deliver any changes to tolling regimes.

Importantly, Sydney's toll road market includes stakeholders, partners and financiers beyond Transurban, such as Australian super funds. Any change to concessions would require approval of individual shareholders for each concession as well as consent from financiers.

4 For toll reform in New South Wales, what would success look like to you?

Transurban is open and willing to discuss opportunities to improve Sydney's toll road network. At the same time, it is important for the Review to consider the benefits that drivers already experience each day.

The ability for Governments and the private sector to partner and work together has played a transformative role in creating the Sydney of today. This road infrastructure has helped create connections that make moving around the city more efficient, predictable and safe, ensuring Sydney remains one of the most liveable cities in the world.

These travel-time savings, plus safer and more reliable trips, have supported a rapidly growing population, and today more motorists are choosing to use toll roads than ever before. There is an average of almost a million trips every day on our roads.

¹ Infrastructure Australia, Urban Transport Crowding and Congestion, The Australian Infrastructure Audit 2019

² TomTom Traffic insights city centre: https://www.tomtom.com/traffic-index/australia-country-traffic

³ Deloitte Access Economics (DAE) Land Use Forecasts an, Sep22 release

The Toll Review has provided an opportunity to explore "win-win opportunities" (as the Discussion Paper states) and how Sydney's toll roads can further benefit the city through more efficient travel and demand management as well as improving the efficiency, fairness, simplicity and transparency of the network.

We recognise the NSW Government is also looking at short-term opportunities, such as toll relief schemes, safely increasing the WestConnex speed limit, decision point signage and potentially some innovations in the way our sector services no-arrangement travel. Improving the Toll Notice process across the road network could include consolidation and digitisation of Toll Notices, and reviewing Toll Notice administration processes and fees.

We have a thorough understanding of Sydney's road transport needs and look forward to continuing to deliver solutions – whether related to technology, innovation or infrastructure – to make toll roads even better into the future.

1.2 Specific questions relating to the Toll Review Terms of Reference

DETERMINATION OF TOLLS

1 What factors are important in determining the level of tolls?

In determining the initial toll price, escalation schedule and concession length, government must first evaluate the cost to build and maintain the road or tunnel over its lifetime and decide whether or not it will contribute taxpayer funding to the project (and if so, what the size of the contribution will be).

Each toll road is governed by a concession deed, which is the contract between the NSW Government and the successful private sector participant. The deed dictates the commercial arrangements for the ownership and operation of each road and sets out the concession term and prescribes the tolling regime including toll prices and escalation.

The lower the government financial contribution is to a project, the higher the initial toll price, escalation rates and concession length will be for motorists and vice versa. Lower tolls and escalation and a shorter concession would require a greater government contribution, meaning less public funding for other essential services. By partnering with the private sector, the NSW Government has delivered critical road transport infrastructure with less upfront investment relative to the overall project cost.

Transurban and our partners have invested more than \$36 billion building and upgrading Sydney's motorway network, which has freed up government budgets to spend on other public priorities such as public transport, health and education.

As outlined in our answer to question A1, one of the most important factors to consider when determining toll prices is whether they provide value for money to motorists over the life of the concession. Because Sydney's toll road prices have been set in isolation from each other, pricing disparities have emerged across the network.

Sydney's toll roads were each built for a certain purpose. The individual setting of toll prices for each concession addressed the objectives for that specific corridor at that time, but have had an impact on demand management and network performance. Any reform to address congestion across the entire road network must also reflect the wider cost of each road's construction and ongoing investment in the asset.

2 How should the Government be influencing the setting of tolls?

As outlined in our answer to question B1, the NSW Government determines the concession length and tolling regime including toll prices and escalation through terms in a concession deed, which is the contract between the NSW Government and the successful private sector participant.

Any changes to the terms of a tolling concession deed would require renegotiation and approval, including from our stakeholders, partners and financiers (Refer to Appendix 1 for full list of assets and concessions).

3 What improvements would you like to see in the way road tolls are set?

As outlined in our answers to questions in Section A, we see an opportunity to work with the NSW Government to address pricing disparities across Sydney's toll road network to create a simpler and more transparent system for customers, and one that achieves a more efficient road network. This opportunity to make the current tolling regime more consistent, fair and efficient will ensure we can appropriately manage the current demand and congestion across the network.

However, any changes to the terms of a tolling concession deed would require renegotiation and approval, including from our stakeholders, partners and financiers.

Do you believe the tolls across the motorway network should pay for upgrades to the network (e.g. an increase of 5c/km distance charge for a widening to the M2)

Concession adjustments, such as changes to toll prices, escalation rates or concession extensions have been used by the NSW Government to help fund the development of new roads and tunnels, and to upgrade existing road transport infrastructure.

Since commencing operations in NSW, Transurban and its partners have funded network improvements through changes to tolling arrangements. This has enabled two major road enhancements, the M2 Upgrade and M5 South West Widening, which deliver significant value to customers.

The injection of private sector capital has eased pressure on public budgets and allowed government to direct their funds into other priority areas such as schools and hospitals, as well as public transport services that are so critical to complement the road network and give consumers a choice about their mode of travel.

It has also allowed much-needed road infrastructure to be built sooner than may have been possible if publicly funded. Through the NSW Government's Unsolicited Proposal Process, Transurban and partners are delivering the M7-M12 Integration Project. The Project will reduce travel times on an important freight route while helping to relieve existing congestion in Western Sydney, supporting the development of one of Australia's fastest growing regions.

The Project will be funded through additional revenue from the traffic uplift on the enhanced asset and a concession extension, as well as a direct contribution from the NSW Government towards the M7-M12 Interchange and connection to Elizabeth Drive.

Transurban also supports the principle that any reform implemented retains flexibility to amend tolling arrangements, such that the NSW Government can continue to draw on an appropriate mix of funding sources to fund future enhancements including variations to the tolling regime.

This follows the principle of a 'user pays' system, where those who benefit from the motorway pay for the asset.

COMPETITION AND REGULATION

How do you think competition could influence road tolls and the efficiency of service performance by providers?

Sydney's toll roads operate in a highly transparent and regulated industry (Refer to Figure 5).

Bidding for toll road concessions in NSW (and elsewhere) has been highly competitive for many years and shows no signs of abating, whether through direct tender for a greenfield concession or secondary sale of a brownfield asset. Historically, whenever there has been an opportunity to acquire a toll road concession in Australia (and elsewhere), a range of well-resourced, experienced multinational parties have been involved in the bidding process.

In this context, all toll prices and performance requirements agreed between the State Government and a successful bidder for a toll road concession are inherently influenced by competition.

Competition does not otherwise influence road tolls because the government sets the initial toll price and escalation rates in the concession deed for each road.

When sorted by average daily traffic, Transurban's ownership of Sydney's toll roads is just under half of the sector. The percentage of private sector ownership is expected to decrease in the coming years as the State-owned M6 Stage 1 and Western Harbour Tunnel open.

We see competition at multiple levels in our industry today, from infrastructure planning (private or public participation), tender processes (design and construction operations), right down to the competitive bids for contractor suppliers.

Through our operations, under each concession, we are required to measure, meet and report on Key Performance Indicators that define the service level. This includes lane availability during peak hours as well as incident response and clearance times.

The Independent Toll Review has identified transparency as a key aspect of this review – and to Transurban this includes empowering customers with the information they need to make informed and personalised decisions about whether to use toll roads or the free alternative routes.

The injection of private sector capital has eased pressure on public budgets and allowed government to direct their funds into other priority areas such as public transport services that are so critical to complement the roads network, and give consumers a choice about their mode of travel. Ride-hailing and ride-sharing services, multi-modal transport platforms and transport-on-demand apps are already giving people greater certainty, choice and convenience in how they travel, and we continue to see the number of proponents in this market increase.

Notwithstanding the above, it is important to note that toll roads in Sydney are geographically distinct and serve predominantly different traffic flows, and there is no meaningful road-on-road competition between them. Accordingly, the emergence of a new private sector toll road owner in Sydney would not have any influence on existing road tolls or service performance.

Figure 5. Regulatory environment across industry sectors

	CONCESSION DEEDS	INDEPENDENT REGULATION	LIGHT-HANDED MONITORING		
Example industries	Toll roads	Utilities including electricity, water, gas	Airports, railway and some ports		
Pricing freedoms	Australian tolls fixed from date of concession with defined escalation. Other charges are set out in concession deeds, legislation or agreed with client (cost recovery)	Prices reset periodically (around every five years) to allow agreed return hurdles to be met based upon a regulated asset base	Price monitoring by the ACCC. Commercial arrangements with users renegotiated periodically		
Customer choice	Road users have alternatives including non-tolled roads and other modes of transport	Choice at retailer level but monopolies around distribution infrastructure	Limited alternatives for consumers and users (airlines, shipping lines)		
Volume risk	Demand risk borne by toll road owner, including shortfalls in revenue or higher than anticipated costs	Prices can be adjusted annually to allow costs to be covered and margin earned even if volumes fall	Prices reset is a commercial negotiation which covers cost recovery, volumes and returns		

2 What scope is there to increase the influence of competition in the tolling industry?

The NSW Government has broad executive power to pursue a toll road ownership model or create a toll road sale process that increases the influence of competition in the bidding process. The NSW Government in its sole discretion, decides whether to construct the toll road itself, whether to jointly build the toll road in a public-private-partnership, or outsource the construction completely. It similarly decides, with discretion, who operates the toll road, whether it be itself or another third party.

The Independent Toll Review has been tasked with examining the scope for competition and regulation in the industry, which could play a role in delivering even greater transparency and efficiency.

Toll road concessions in NSW are highly sought after and there has always been significant competition to acquire these assets whether through direct tender for the greenfield concessions or as secondary sales of brownfield assets. The market interest in toll road concessions has been demonstrated by recent transactions both in Australia and internationally.

Each toll road operates as a separate, discrete and independent business that must be operated strictly in accordance with the terms of its concession deed. This is evidenced, in practical terms, by the relevant toll road concessionaire:

- · having no pricing power; and
- operating a toll road that constitutes the supply of a service within a distinct geographic area by reference to a particular origin and destination, with no capacity to influence alternative routes or modes of transport.

For a bidder in a toll road transaction, the long-term economic benefit is tied to the exclusive right granted by the State to the concessionaire to operate that toll road under the terms of the concession deed and related legislation. That exclusive right is not affected by the ownership or operation of other toll roads. Each bidder (regardless of whether it has an interest in another toll road concession or is a potential new entrant) will assess the bidding opportunity by reference to economic and financial factors and criteria relevant to that toll road concession.

3 Should tolls on existing motorways or on future motorways be subject to on-going independent prices oversight, say by IPART (Independent Pricing and Regulatory Tribunal)? If so, how?

Concessionaires have no pricing power in relation to toll road concessions. The government sets the initial toll price and escalation rates in the concession deed for each road.

Toll roads are clearly marked, with the prices widely available on government, Linkt and E-Toll websites and apps such as the Trip Compare tool. Motorists also have a choice to use alternative non-tolled routes.

For example, in independent research commissioned by Transurban, only 11% of 1,008 respondents said they used a toll road because they had no other transport option available¹. Like all major infrastructure, toll roads are subject to rigorous oversight including from Infrastructure NSW, Transport for NSW, the Auditor-General and Cabinet.

¹ Transurban commissioned research, conducted by Nature, 1,008 respondents across Sydney, July 2023

CRITERIA FOR ASSESSING TOLLS - EFFICIENCY

PRICING OPTIONS

1 Should tolls be set on a network basis? What are the pros and cons of doing this rather than setting tolls for individual parts of the motorway network as is now the case?

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.

Transurban supports government suggestions for a more consistent approach across the Sydney tolled network, which could include toll pricing based on distance travelled and geographic zones as well as a charge to access a toll road

We are also open to discussions on pricing based on time-of-day travel as a way of managing demand and creating more efficient travel across the Sydney road network.

However, any reforms must also reflect the wider cost of each road to ensure consistency and fairness. This is a complex discussion and Transurban is open to working with government and our partners on a long-term reform solution.

It is possible that some users will be worse off under a consistent network approach to tolling. A scenario where no user is worse off would likely lead to undesirable network outcomes and potentially reduced performance in already congested sections of the motorway, requiring costly upgrades.

2 Should tolls vary according to traffic flow e.g. higher in peak periods and lower in off peak periods?

Like most urban motorways, many toll roads have peaks in the morning and afternoon, which impact traffic flow, while at other times they have excess capacity.

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.

While the government has applied time-of-day tolling on the Sydney Harbour Bridge and Sydney Harbour Tunnel since 2009, no other motorway concessions since then have adopted this tolling regime. The success of this tolling method would be a question for the NSW Government.

Beyond pricing mechanisms, flexible working hours, urban planning and changes in retail and services availability can in future help manage demand on transport networks.

In our February 2021 Mobility Trends Report we explained how the adoption of flexible work and/or school hours in our Australian markets could help spread peak-hour traffic. Such changes could improve the efficiency of transport networks if implemented on a large scale¹.

Small shifts in usage in peak periods can equate to large gains in efficiency. For example, Transurban traffic analysis (based on observations during school holiday periods on CityLink in Melbourne), showed that a 6% reduction in peak period volumes could increase average speeds by over 10 km/h.

3 Should tolls be set on a per kilometre basis, with or without a fixed access charge?

As explained throughout this submission, Transurban supports governments suggestions for a more consistent approach across the network which could combine distance-based tolling (by zone), and access charges, in addition to time-of-day pricing to manage demand.

A fixed access charge across the Sydney toll road network could help capture the marginal cost of short trips, given the impact these shorter length trips can have on congestion, thereby impacting overall network efficiency.

¹ Transurban Mobility Trends Report from Covid-19 – February 2021

For example, a 1.35km trip on Westlink M7 between Old Wallgrove Rd and the exit to the M4 Motorway currently costs users \$0.64. This low toll does not discourage drivers to access the road, which, in turn, has created congestion issues in this area.

Westlink M7 has distance-based tolls and WestConnex roads and tunnels have distance-based tolling with a flagfall.

4 Should tolls be set having regard to levels of congestion on the wider road network (i.e. including non-motorway) roads?

Pricing to manage peak demand is a concept that is used in other industries. For example, to regulate demand in the energy sector, users may be incentivised with lower off-peak rates to incentivise more efficient use. Similarly, this concept has broadly been implemented in setting public transport fares.

Transurban supports reforms that aim to improve Sydney's road network performance, noting that toll roads don't exist in isolation, they're part of complex transport networks that include freeways, arterial roads and public transport systems. Congestion on any part of these networks can affect the efficiency of a single toll road, which in turn impacts motorists.

5 Cordon

A CBD zone could potentially improve the local road network in the CBD with less cars, faster travel times, greater use of public transport, and a more pedestrian friendly environment.

Do you think a CBD zone or other cordon zone pricing area would be desirable and/or feasible in Sydney? Are there other things that government could do to better achieve the desired outcomes of reducing congestion in particular areas?

Noting the NSW Government has ruled this out at this stage, Transurban has no comment on this issue.

6 What tolling arrangements should apply to trucks on motorways?

Tolling arrangements for heavy vehicles are set to ensure fairness and to efficiently utilise the motorway network capacity. The higher tolls reflect the greater value these vehicles such as trucks receive from the travel time savings, and also reflect the additional costs involved in safely accommodating them on the road.

As with all toll prices, large vehicle multipliers are set out in the terms of a concession deed and reflect the greater value these vehicles derive and the extra costs involved in safely accommodating them on the road and the additional road space they require.

Toll multipliers apply to large vehicles on toll roads in Sydney, except the harbour crossings. The multipliers are generally between two and three times the car tolls and are applied to Class B vehicles, such as trucks and heavy vehicles and can include larger items being towed depending on the overall dimensions.

Benefits to businesses include increased productivity and lower operating costs such as fuel consumption and vehicle wear-and-tear (Refer to page 9, Case Study 2).

Toll road design incorporates special features, such as suitable pavement depth and grades, tunnel heights, tunnel ventilation and breakdown bays, to accommodate large vehicles, which increases the overall project cost. For example, the Westlink M7 was constructed at significant cost using continuously reinforced concrete pavement.

Modern tunnels are also being built with a taller clearance than they once were to reduce the risk of overheight vehicles colliding with tunnel infrastructure. For example, the Eastern Distributor and Cooks River Tunnel are 4.4 metres high but all new tunnels – including the M4, M8 and NorthConnex – are built to 5.1 metres.

OTHER PRICING CONSIDERATIONS

7 Should vehicle emissions be considered in setting road tolls?

Free-flowing roads are essential to reducing vehicle greenhouse gas (GHG) emissions, and Transurban supports reforms that aim to improve network efficiency.

On average, our customers save an average of 27% in GHG emissions by using our toll roads compared to taking a congested, stop-start alternate route.

By using our Linkt Trip Compare online tool, motorists have the opportunity to compare the CO2 emitted on a toll road trip versus an alternate route (refer to pages 8 and 9 for the Trip Compare case studies).

While our roads are designed and operated to keep traffic flowing with flatter gradients, smoother road surfaces and enhanced congestion management, we recognise the serious impact that fossil-fuel powered vehicles have on the environment. We are supporting our customers through a number of initiatives to increase the uptake of electric vehicles (EV) and promote fuel-efficient driving techniques.

For example, we ran a promotion where customers had the chance to drive an EV for up to 10 days and report their findings, which we published on social media channels.

Recognising fleet managers' significant buying power and impact on the second-hand vehicle market each year, we also held our first EV Drive Day in February 2023. We partnered with Origin Energy, where around 50 fleet managers learnt about the benefits of EVs and had the chance to test drive 16 models.

We endorse the NSW Government's Electric Vehicle Strategy, which aims to increase sales of EVs to more than 50% of new car sales by 2030-31 as a move towards decarbonising road transport.

8 Road user pricing

There is an emerging view that road user pricing will need to be introduced across Australia, to replace the reducing revenue from a reducing fuel excise tax, due to the increasing uptake of hybrids and fully electric vehicles.

What implications, if any, do you see this having on for motorway tolls and how should this Review respond to the issue?

Fuel-efficient cars and the increasing take-up of electric vehicles have added pressure to the current road funding system.

The Federal Government's revenue from fuel excise is rapidly diminishing in real terms, while those driving less fuel-efficient vehicles are paying more for their use.

Industry and government bodies including the Productivity Commission, Infrastructure Partnerships Australia and the Australian Automobile Association have long recognised that the need to replace the current system is inevitable.

Recognising the need for a fair and sustainable road usage charge, the NSW Government will introduce a distance-based road user charge for eligible EVs of 2.5c/km (indexed to CPI) from 1 July 2027 or when EVs reach 30% of new vehicle sales, whichever comes first.

Transurban has also advocated for the introduction of a more sustainable and fairer road usage system and in 2016 completed Australia's first practical study to examine drivers' preferences for how they pay for their road use.

We believe this is an issue for consideration at a national level.

The review of Sydney's toll roads – and any proposed reforms – are separate to the broader reforms needed to replace the current road usage funding model.

HEAVY VEHICLES

Heavy vehicles create more wear and tear on the roads and contribute to congestion with light vehicles. Do current toll multipliers for trucks accurately reflect vehicle capacity in relation to wear and tear per tonne of freight moved?

As outlined in our answer to Question C6, large vehicle multipliers are in place to reflect the extra construction costs and the impact heavy vehicles have on the road infrastructure, which is over five times greater than light vehicles¹, and the additional space they take up on the road.

Large vehicles occupy significantly more space, and their impact on traffic congestion causes much slower speeds, often resulting in stop-start traffic.

One truck travelling on a standard motorway lane takes up the space of around 3.5 to 4.5 times a passenger car. Trucks, as well as being physically bigger, also require additional space to accelerate and decelerate into, meaning trucks occupy an even larger pocket of road than their size alone suggests. This has a flow-on effect to other traffic, with heavy vehicles having a larger impact on congestion than passenger cars.

¹ Transport for NSW, Economic Parameter Values Version 2.0, June 2020

Transurban's 2021 submission to the Inquiry (Refer Appendix 2) references analysis articulated by the MidNorth Weight of Loads Group - a group of several northern NSW councils whose purpose it was to liaise with operators and Transport for NSW (then Roads & Traffic Authority) to ensure compliance with heavy vehicle mass limits. This analysis indicated that the wear-and-tear to road infrastructure caused by one articulated truck was estimated to equal that of 6,000 cars (Appendix 2).

2 Do current toll multipliers provide sufficient incentive for the use of more productive vehicles?

As noted in Question D1, the Class B large vehicle multiplier were predominantly set to reflect additional cost and impacts and space requirements of heavy vehicles. Although they weren't set with the objective of incentivising more productive vehicle use, the pricing structure does provide an incentive for the use of more productive vehicles as operators pay the same heavy vehicle multiplier if they utilise larger more productive vehicles.

As noted elsewhere in this submission including Section C6 above, there are significant productivity benefits for heavy vehicles using Sydney toll roads. Any changes to concession agreements in relation to large vehicle multipliers come under long-term reform that would require the approval of relevant partners.

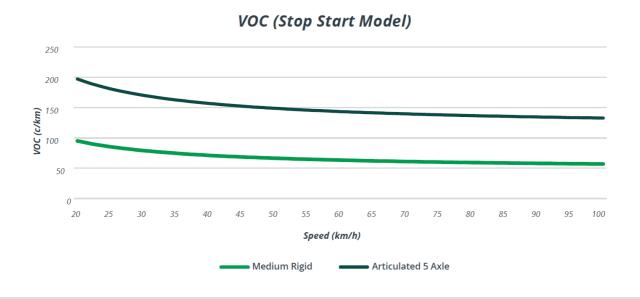
Are there sufficient incentives/requirements for heavy vehicles to use the motorways rather than the non-motorway network, e.g. for safer, more sustainable and productive outcomes?

As highlighted in Case Study 2 (page 9) there are significant incentives for heavy vehicles to use tolled motorways over non-tolled motorways including travel-time savings and reliability, reduced fuel consumption, smoother travel and less wear-and-tear on the vehicle, which all contribute to increased productivity and operational cost savings.

The design and operation of our roads have also led to measurable safety and sustainability outcomes. The Monash University Accident Research Centre has found Transurban's roads to be up to twice as safe as like roads, and on average customers generate 27% less greenhouse gas emissions by using our roads instead of the alternate route¹.

The design of our roads allows vehicles – in particular freight – to maintain steady speeds for longer. For example, the NorthConnex tunnels have been designed with a smoother and flatter road gradient, resulting in better fuel efficiency and reduced emissions. With all vehicles travelling in uninterrupted conditions, lane changing and vehicle braking is reduced, leading to better safety outcomes and significant operational cost savings. For example, Figure 6 shows that as travel speeds increase, operating costs such as fuel consumption, vehicle wear-and-tear, and vehicle capital costs decline significantly.





¹ Monash University Accident Research Centre, June 2022

² March Quarter 2023 CPI taken as a proxy against March Quarter 2022

4 Is there scope to improve road use efficiency by modifying non-toll restrictions on the use of trucks?

Where appropriate, government-led regulation redirecting trucks away from local roads and onto motorways (including tolled motorways) can improve the safety and performance of the broader road network.

For example, the NSW Government made the decision to require trucks to use the tolled NorthConnex tunnels, instead of Pennant Hills Road, a local surface road that runs parallel to NorthConnex. Removing these trucks from local streets has transformed local communities, improving safety and easing congestion, as well as providing better local air quality and reduced traffic noise for the local community.

After NorthConnex opened in 2020, a one-way trip on Pennant Hills Road was 33% faster – with more than 6,000 heavy vehicles a day moved into the tunnel. There has also been a 57% reduction in crashes on Pennant Hills Road and 47% fewer fatal or serious injuries with heavy vehicles moved away from local streets¹.

Ultimately, decisions regarding heavy vehicle regulation and non-toll restrictions are a matter for the NSW Government.

PUBLIC TRANSPORT

1 What interrelationships can be identified between tolls and public transport?

An efficient transport network offers users choice based on their individual needs, integrating public transport options with roads.

Different modes of transport can suit different trip types. For example, in independent research commissioned by Transurban of 1,008 Sydney residents it was found that most people use public transport to commute (54%), whereas most people use toll roads when going on holiday (40%) or travelling to the airport (25%) or for social use (24%)². Refer to Figure 7.

No mode of transport exists in isolation. Motorways, arterial roads and public transport networks are interdependent and congestion on one mode of transport can affect the efficiency of another. A large proportion of the public transport task is undertaken by bus which cater for approximately 37% of all public transport trips, many of which travel on toll roads for quicker, more reliable journeys.

Transurban sees the value of integrated public transport, and it fully supports investments by all sides of government in more public transport.

We believe that cities work best when public transport—be it road, buses, rail, light rail or active transport—all work together effectively.

MODE	SOCIAL	RECREATIONAL	COMMUTING	CARING	DURING THE DAY	AIRPORT	HOLIDAY, GETAWAY	ERRANDS	OTHER	DON'T USE
Public transport	39%	30%		12%	26%	20%	17%	27%	3%	1%
Local, arterial roads	43%	35%	42%	18%	25%	14%	26%	63%	3%	4%
Un-tolled motorways	41%	32%	27%	14%	17%	20%	43%	44%	2%	9%
Tolled roads	24%	15%	17%	10%	11%	25%	40%	17%	3%	23%
Ride share		24%	28%	13%	15%	37%	21%	16%	196	2%
Active transport	9%	12%	12%	5%	9%	3%	7%	17%	4%	58%
Carpool	45%	30%	28%	13%	18%	27%	32%	24%	0%	3%

Source: Transurban

¹ Transport for NSW. Crashes on the Cumberland Highway (Pennant Hills Road) north of M2 and south of M1, 26-month comparison September 2018 to December 2022 (2022 crash data is preliminary and subject to change)

² Transurban commissioned research, conducted by Nature, 1,008 respondents across Sydney, July 2023

2 Should buses be treated the same as trucks when determining what they are tolled?

Much like heavy vehicles, safely accommodating buses on the road network requires extra construction and maintenance costs, which are factored into the toll price (Refer to question C6).

Transurban believes that cities work best when public transport—road, buses, rail, light rail or active transport—all work together effectively.

Many of the concession deeds currently include provisions for toll exemptions for passenger services. Any changes to these exemptions for consistency amongst the concessions would be something Transurban would be open to discussing with the NSW Government. For example, STA bus services or similar that run scheduled bus routes through the Lane Cove Tunnel, Eastern Distributor and Cross City Tunnel are exempt from paying a toll, with terms as agreed in the concession.

NSW Economic Parameters published by Transport for NSW indicate that the value of time savings for a bus (based on average occupancy of 20 passengers) is worth \$418 per hour, more than 12 times a private car¹.

CRITERIA FOR ASSESSING TOLLS - SIMPLICITY

1 Currently tolls are expressed in a number of different ways e.g. fixed amounts, distance (per kilometre) based, distance based with a fixed (access) component. Does it matter that this variation exists?

Refer to Section A where this is addressed.

Transurban supports the NSW Government's suggestions for a more consistent approach across the network which could combine distance-based tolling (by zone), access charges, in addition to time-of-day pricing to manage demand.

CRITERIA FOR ASSESSING TOLLS – FAIRNESS

1 Is it appropriate that users pay road tolls?

Toll roads operate on a user-pays system. In selecting the route in their road travel, drivers have a choice to use a toll road, or a free alternative. A user-pays system means taxpayers across NSW aren't paying for roads they don't use. Users are paying for time savings and safer and more reliable travel.

The private sector, contributing to toll road infrastructure projects, is injecting vital funds that would have otherwise come from government budgets, leaving less for other government priorities such as health, education and public transport.

Building motorways and other road projects require difficult decisions to be made and the long-term nature of these investments often mean it is challenging to know all the factors that will shape how these investments would pan out over the years, if not decades.

If road investments are needed, Governments decide whether to:

- Use taxpayer funds;
- Adopt a user-pays model such as a toll road; or
- Not carry out the project at all.

In addition, the tolled motorway network has transformed previously congested corridors nearby, improving travel times and connectivity for local motorists that are not paid for by the recipients.

We recognise that it is important for people to have a choice about how they travel and have options to use alternate routes as well as public transport services that are critical to complement the road network.

¹ Transport for NSW, Economic Parameter Values Version 2.0, June 2020

Are road tolls value for money? Why, or why not?

Yes, toll roads are value for money when measured against key indicators like travel time savings, economic impact and safety benefits.

For example, Sydneysiders are already spending around 200 hours in peak-hour traffic each year, with average travel time of 22 minutes per 10 kilometres¹. Reducing the time people and goods spend in traffic gets people home sooner and enables businesses to make more deliveries and keep the economy moving.

Sydney's toll road network is critical to the movement of freight and passengers and underpins the city's economic growth and social connectivity. Not only do the individual toll roads offer travel-times savings, delivering more reliable and safer journeys, their connectivity creates a broader road network with far-reaching benefits.

Safer and more reliable trips have supported Sydney's rapidly growing population and today more motorists are choosing to use toll roads than ever before. Every day, almost a million trips are taken on the 11 toll roads in which Transurban has an interest. Motorists are saving up to 41 minutes² in travel time on some connections and, on an average work day, drivers save approximately 208,000 hours in travel time³.

In independent research, commissioned by Transurban in July 2023, 64% of the almost 1,008 respondents rated travel-time savings as the main reason they used toll roads, with the next most popular response being because toll roads are the most direct route¹.

These travel-time savings, in turn, result in fuel savings and reduced greenhouse gas emissions.

In addition, the tolled motorway network, alongside public transport and all other mobility options, offer greater convenience and personalised choices for travel.

Safety benefits

The safety of our roads is our top priority and independent research⁴ shows our Sydney roads are twice as safe as comparable roads with a 48.7% lower rate of fatal and serious injury crashes.

The International Road Assessment Program (iRAP) has rated 66% of our roads⁵ as four star and 17% as five star. This compares with the most recent publicly available iRAP ratings for the NSW public network (2013) where 51% of national highways in NSW had a rating of less than 2 stars, 46% was rated 3 stars and 2% had a 4-star rating.

State-of-the-art safety and traffic management technology and 24/7 road monitoring, ensures motorists' journeys are as safe as possible, controlling conditions such as speed limits and lane closures. We also have rapid incident response crews ready to deploy to the scene to ensure safe management of incidents and to minimise traffic disruptions which can affect the broader network.

Transurban also works with a range of external agencies including first responders and emergency services organisations to keep motorists safe. Activities include regular familiarisation tours, emergency testing and staged exercises.

3 Are road tolls fair for all motorists? Could they be made fairer? If so, how?

Drivers choose to use toll roads for a number of reasons, including benefits such as the value they receive through travel-time savings and safer, more reliable travel.

User pays, as a model itself, delivers fairness in terms of those that use it and receive the benefits pay for it. This Review should consider how fairness comes into play with the role that the tolling regime can play in delivering on these objectives. For more details on the tolling regime and Transurban's view see Section A.

4 Should the Government provide a subsidy to enable cheaper tolls?

This is a matter for government.

However, any subsidy should consider the potential impacts on network performance.

¹ TomTom Traffic insights city centre: https://www.tomtom.com/traffic-index/australia-country-traffic

² Source TomTom: for the highest hour between July 2022 –June 2023

³ Source TomTom data: July 2022 - December 2022 (Transurban FY23 Results have travel time savings of 224,048 from period July 2022 - June 2023)

⁴ Monash University Accident Research Centre, June 2022

⁵ Excludes WestConnex, which will be assessed after the opening of Rozelle Interchange

5 Toll relief

Temporary toll relief measures are expected to be in place for the next two years. If toll relief is to continue to be made available directly to motorists, should it be means tested?

This is a matter for government.

6 Could toll relief measures be removed if tolls were set differently to now?

This is a matter for government.

How can it be ensured that the benefit toll operators receive from increased traffic as a result of toll relief paid by Government is passed back to the community?

Our view is that the existing revenue-sharing regimes are appropriate. Revenue-sharing provisions in place with the government on all concessions provide the government with adequate protection to ensure it and the community receive upside from revenue that is above expectations, and investors don't retain all of this additional revenue

Should traffic revenue outperform over time, our assets' contracts currently include provisions to share revenue with the government. For example, because of the Westlink M7 motorway's performance, \$174 million was raised in 2015 for the Government, which used it to build new infrastructure.

The risks in large-scale infrastructure are significant and have resulted in some highly publicised failures including the Cross City Tunnel and Lane Cove Tunnel where the projects failed to meet their patronage forecasts. While private investors bore the risk – and the losses – taxpayers benefitted with delivery of and access to improved networks and new, world-class roads and tunnels.

More recently, during the COVID-19 pandemic, traffic fell by around 60% due to the government-imposed lockdowns, significantly affecting private operators.

Private operators have a vested interest in an asset's ongoing success and providing value for customers, clients and investors.

8 Can the collection of tolls be improved by consolidating notices and other measures?

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.

1

CRITERIA FOR ASSESSING TOLLS - TRANSPARENCY

To what extent does the level of the tolls influence the use of a motorway?

As noted in the introduction, more Sydney motorists are choosing to use toll roads than ever before.

As outlined in our answer to question G2, motorists are choosing toll roads compared to using alternative routes as they provide value for money relative to the toll price. Customers consider the motorway system to provide value despite scope for improvement to address disparities discussed in previous responses.

Data on motorway use by Linkt customers

Most of our Sydney Linkt customers use toll roads infrequently. Analysis of Linkt Sydney customer data shows the average motorist travelling in a private vehicle spent approximately \$11 per week, with 69% spending less than \$10 and 83% spending less than \$20 per week (FY21)¹. Refer to Figure 8.

Figure 8: Average weekly Linkt customer spend on tolls – consumer and commercial accounts FY21 (Covid reduced average weekly spend post this period).





Independent research commissioned by Transurban also found that only 4% of 1,008 respondents used toll roads daily, while a further 27% use them once a week or more² (Refer to Figure 9).

Figure 9: Toll use frequency for general public

Toll use frequency NSW



The research found that travel-time savings were by far (64%) the main reason that people chose to take a toll road, followed by the roads being the most direct route (50%).

¹ Average weekly Linkt customer spend on tolls – consumer accounts FY21 (Covid reduced average weekly spend in FY22 compared to FY21)

² Transurban commissioned research, conducted by Nature, 1,008 respondents across Sydney, July 2023

What information would assist you make better decisions as to whether to use a toll road?

To help motorists make an informed decision about their travel, Transurban launched the Linkt Trip Compare tool, a toll calculator provided on the Linkt website, which compares the costs and benefits of using a tolled route versus the alternate untolled route.

The user enters their origin and destination and is provided with information on the cost of the toll along with estimated travel-time and fuel savings.

In addition to Linkt Trip Compare, navigation tools like Google Maps, TomTom and Waze provide information to customers about their route options, but up until recently these third-party apps did not include information on toll prices, which made it hard for customers to weigh up their options. Waze now includes toll pricing in its app.

We are also exploring the feasibility of on-road signage that would provide motorists with additional information to help inform their route choice.

Appendix 1—Transurban asset portfolio at December 2022

OVERVIEW		SYDNEY									
	M5 WEST ¹	M2	M4 ²	M8 ^{2,3,4,5}	M4-M8 LINK	M5 EAST ^{2,5}	LCT	ССТ	ED	M7	NORTHCONNEX
Opening date	Aug 1992	May 1997	Jul 2019	Jul 2020	Jan 2023	Dec 2001	Mar 2007	Aug 2005	Dec 1999	Dec 2005	Oct 2020
Concession end date	Dec 2026	Jun 2048	Dec 2060	Dec 2060	Dec 2060	Dec 2060	Jun 2048	Dec 2035	Jul 2048	Jun 2048 ⁶	Jun 2048
PHYSICAL DETAILS											
Length—total	22 km	21 km	14 km	11 km	7.5 km	10 km	3.8 km	2.1 km	6 km	40 km	9 km
Length—surface	22 km	20.5 km	8.5 km	2 km	-	5.5 km	0.2 km	-	4.3 km	40 km	-
Length—tunnel	-	0.5 km	5.5 km	9 km	7.5 km	4.5 km	3.6 km	2.1 km	1.7 km	-	9 km
Lanes	2X3	2x3	2x4—West 2x3—East	2x2	2x4	2x2	2x2 2x3 some sections	2x2 2x3 some ramp sections	2x3 2x2 some sections	2x2	2x2 ⁷
OWNERSHIP	100%²	100%	50% - Transurban 20.5% - AustralianSuper 10.5% - CPP Investments 10.0% - CDPQ 9.0% - Tawreed Investments Limited (Tawreed)	50% – Transurban 20.5% – AustralianSuper 10.5% – CPP Investment 10.0% – CDPQ 9.0% – Tawreed		50% – Transurban 20.5% – AustralianSupe 10.5% – CPP Investment 10.0% – CDPQ 9.0% – Tawreed	er	100%	75.1% – Transurban 14.4% – IFM Investors 10.5% – UniSuper	50% – Transurban 25% – CPP Investments 25% – QIC Limited	50% – Transurban 25% – CPP Investments 25% – QIC Limited
TOLLING											
Large vehicle multiplier	3x	3x	3x	3x	3x	3x	3.37x	2x	2x	3x	3x

^{1.}M5 West will form part of the WestConnex M5 concession once the current concession expires in December 2026, through to December 2060. During that period Transurban's proportional ownership will be 50% based on its current ownership proportion in WestConnex

^{2.}Transurban's proportional ownership in WestConnex through its equity investment in STP JV increased from 25.5% to 50% on 29 October 2021

^{3.} Opened on 5 July 2020. Formerly referred to as the New M5

^{4.}The M8 is currently line marked for two lanes with the capacity for three lanes in each direction to accommodate future traffic growth

^{5.} Tolling commenced on 5 July 2020, coinciding with the opening of the M8

^{6.} Does not include the concession extension in connection with the M7-M12 Integration Project

^{7.} Marked for two lanes in each direction but built to accommodate three lanes in each direction

3. Appendix 2—NSW 2021 Inquiry into road tolling regimes – Transurban Submission

Please refer to our website for the report.

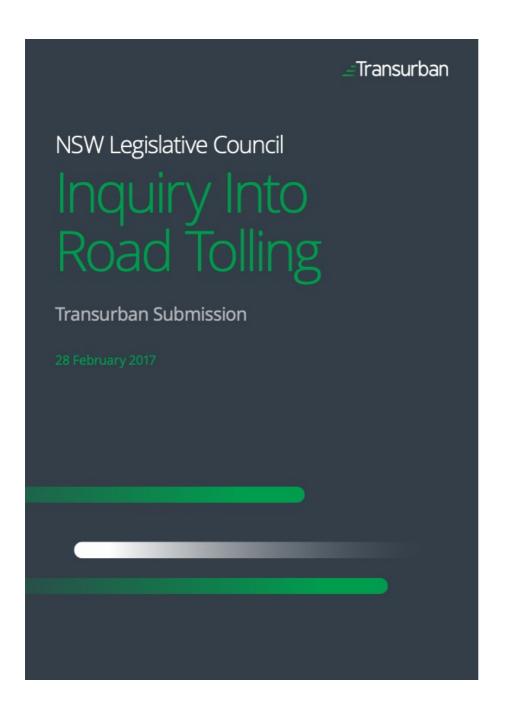
transurban.com



4. Appendix 3—NSW Tolling Inquiry 2017 - Transurban Submission

Please refer to our website for the report.

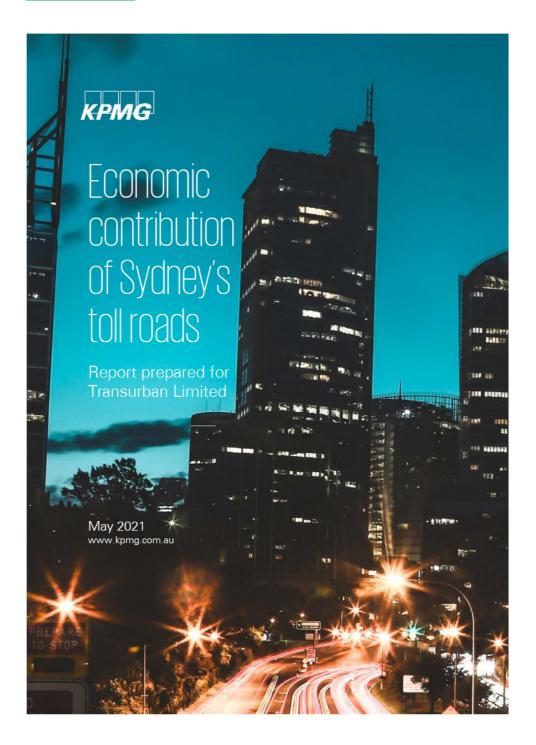
transurban.com



5. Appendix 4—KPMG report – commissioned by Transurban in 2021

Please refer to our website for the report.

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